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Revision of *Platycheirus* Lepeletier and Serville (Diptera: Syrphidae) in the Nearctic north of Mexico

This paper is dedicated to the memory of Dr. J. Richard Vockeroth.

ANDREW D. YOUNG^{1,2,3}, STEPHEN A. MARSHALL¹, JEFFREY H. SKEVINGTON²

¹University of Guelph, Guelph, ON, N1G 2W1, Canada. E-mail: a.d.young@gmail.com, samarsha@uoguelph.ca

²Canadian National Collection of Insects, Arachnids and Nematodes, Agriculture and Agri-Food Canada, 960 Carling Avenue, K.W. Neatby Building, Ottawa, ON, K1A 0C6, Canada. E-mail: jhskevington@gmail.com

³Corresponding author



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Abstract

The 75 Nearctic species of *Platycheirus* Lepeletier and Serville found north of Mexico are revised, including five species new to North America: *Platycheirus alpigenus* Barkalov and Nielsen, *Platycheirus brunnifrons* Nielsen, *Platycheirus claussemi* Nielsen, *Platycheirus speighti* Doczkal, Stuke & Goeldlin, and *Platycheirus splendidus* Rotheray. *Platycheirus rufimaculatus* Vockeroth, *Melanostoma willistoni* Goot, and *Melanostoma concinnus* Snow are recognized as junior synonyms of *Platycheirus pictipes* (Bigot). *Melanostoma carinata* Curran is recognized as a junior synonym of *Platycheirus chilosia* (Curran). *Melanostoma atra* Curran is recognized as a junior synonym of *Platycheirus luteipennis* (Curran). *Platycheirus holarcticus* Vockeroth is recognized as a junior synonym of *Syrphus naso* Walker. *Platycheirus trichopus* (Thomson) is resurrected and represents what was previously considered the western population of *Platycheirus obscurus* (Say). One new species, *Platycheirus neoperpallidus* Young **sp. nov.**, is described. Females of 26 species are described for the first time, and an illustrated key to Nearctic *Platycheirus* is presented. DNA barcode data are presented for 60 Nearctic species and a COI gene tree of all available world *Platycheirus* species, as well as morphological and combined morphological/COI phylogenetic analyses of the *Platycheirus albimanus* species group are presented and discussed.

Key words: taxonomy, key, morphology, mtDNA, DNA Barcoding, COI, new species, phylogeny, pollinator

Introduction

Platycheirus Lepeletier and Serville is a large, widely distributed genus of about 220 species, most of which occur in the Holarctic region. The Nearctic fauna (north of Mexico) comprises 75 species, at least 28 of which are Holarctic in distribution. The genus has a relatively northern distribution, and almost all of the Nearctic species (all but seven) found north of Mexico occur in Canada or Alaska (Vockeroth 1990). Fifteen further species occur in Neotropical Mexico, Central America, and South America. Several high altitude species are known from Taiwan, Nepal, and the Philippines and 13 species are known from New Zealand, but the genus is absent from Indonesia, New Guinea, and Australia (Vockeroth 1990).

The adults of many species are abundant in marshes, fens, lakeshores, and other moist areas with low vegetation. Several other species, including the abundant and widely distributed *P. obscurus* (Say), are common in

mesophytic woodlands. Adults of *P. angustatus* (Zetterstedt), *P. clypeatus* (Meigen), *P. fulviventris* Maquart, *P. immarginatus* (Zetterstedt), *P. scambus* (Staeger), and some individuals of *P. granditarsis* (Forster) feed largely on pollen of Gramineae, Cyperaceae, and *Plantago*, species of plants generally considered to be wind-pollinated (Leereveld 1982). All of the above mentioned species are part of the *albimanus* species group except for *P. granditarsis*, which is part of the *granditarsis* group. Other species of *Platycheirus* have been collected on flowers of plants from many families.

Some *Platycheirus* species, especially those of the *P. peltatus* and *P. manicatus* species groups, are commonly found on barren hilltops and ridges. This is best explained by a behaviour known as “hilltopping”. Hilltopping, a phenomenon apparently restricted to insects, is a mate-seeking behaviour where males and virgin or multiple-mating females instinctively search for and ascend topographically raised areas such as emergent trees, isolated hills, or mountaintops (Downes 1969). These hilltops are typically devoid of larval foodplants, hosts, or other oviposition sites for the female, and function only as an arena for males (Alcock 1987; Skevington 2008). Among syrphids, this behaviour is generally observed in species that are rare or predaceous on ephemeral prey (Skevington 2008). Because many boreal and arctic *Platycheirus* are both rare and presumably feed on host plant-restricted soft-bodied insects like many other syrphines, it is not surprising that they appear to rely on hilltopping to find a mate.

Oviposition occurs on the leaves of low-growing plants. Heiss (1938) reported that eggs of several common species have been collected from *Brassica napus*. Davidson (1922) described *P. obscurus* females as each depositing several regular rows of 2–10 eggs, and Goeldlin de Tiefenau (1974) reported similar oviposition behaviour, where eggs are laid in several rows, for seven species. Goeldlin de Tiefenau (1974) also reported that several species are poly- or oligovoltine and that two of them, the Holarctic species *P. parmatius* Rondani and the Palearctic species *P. ambiguus* Fallén, are univoltine and undergo obligatory larval diapause of eight to ten months.

Known larvae, of which there are at least ten in the Nearctic (Davidson 1922; Heiss 1938; Rotheray 1993), are nocturnal and moisture-loving; feeding at night and hiding in dark places during the day. Rotheray (1993) suggests that many species of *Platycheirus* may be generalist predators in leaf litter, but larvae of ten Nearctic species have been reported to be aphidophagous (Vockeroth 1990). Heiss (1938) reared larval *P. obscurus* on a diet of *Myzus rosarum* Walker, *Rhopalosiphum nervatum* Gillette, *Macrosiphum rosae* Linnaeus, and *M. granarium* Kirby. Imagos reared from this experiment were smaller than normal adults, suggesting that aphids are not the normal larval diet of *P. obscurus*. Larvae of *P. obscurus* and *P. immarginatus* have been shown experimentally to feed on decomposing chickweed and bean cotyledons respectively and, although larvae of *P. immarginatus* failed to produce adults on a bean diet, it was suggested by Goeldlin de Tiefenau that the genus is likely facultatively phytophagous (Davidson 1922; Goeldlin de Tiefenau 1974).

Platycheirus was originally assigned to the tribe Melanostomatini, of the subfamily Syrphinae. Melanostomatini was defined as a group of species in which the face and scutellum are entirely black and included the Nearctic genera *Platycheirus*, *Melanostoma* Schiner, and *Xanthandrus* Harris (Fluke 1957). Interpretation of male genitalic characters has resulted in the inclusion of *Platycheirus* and related genera in the tribe Bacchini, now broadly defined to include all syrphines with an unsegmented aedeagus, with the basal part of the aedeagus bearing a strong swelling or posterior process, and the apical part of the aedeagus tube-like in shape (Vockeroth 1990). At present, the tribe Bacchini includes the genera *Argentinomyia* Lynch Arribalzaga, *Baccha* Fabricius, *Leucopodella* Hull, *Melanostoma*, *Platycheirus*, *Tuberculanostoma* Fluke, and *Xanthandrus* (Láska *et al.* 2013; Thompson & Rotheray 1998). However, Mengual *et al.* (2008) and Speight (2014) consider *Rohdendorfia* Smirnov, *Spazigaster* Rondani, and *Syrphocheilosia* Stackelberg to be separate genera, as opposed to subgenera of *Platycheirus*. Bacchini appears to be paraphyletic (Mengual *et al.* 2008) and more work is needed to test the monophyly of this group of genera.

Generic definitions within the tribe, particularly for the genera *Platycheirus* and *Melanostoma*, have been unclear in the past. Most species with unmodified front legs were historically treated as *Melanostoma* (Davidson 1922), those with modified front legs were placed within *Platycheirus* (Curran 1927), and a few species with a characteristic colour pattern and abdominal shape were placed within *Pyrophaena* Schiner. Enderlein (1938) erected the genera *Pachysphyria* and *Carposcalis* for some species that were included in *Melanostoma* at the time, but based his descriptions on rather indistinct characters (i.e., thickness of male basotarsomere, extent of holopticity of male, extent of face protrusion). As a result, most authors consider Enderlein's genera to be synonyms of *Platycheirus* (Vockeroth 1990). Fluke (1957) examined the male terminalia of *Platycheirus* and

Melanostoma and found the structures of the gonostylus and surstylus to be noticeably different; however, he opted to retain most species of *Platycheirus* with unmodified legs within *Melanostoma*.

It was not until 1970 that the genus *Melanostoma* was redefined to include only those species with an excavated metasternum (Andersson 1970). This metasternal character is still used today to separate *Melanostoma* and *Platycheirus*. Matters were clarified for the Nearctic taxa by Vockeroth (1990) when he published the most recent revision of *Platycheirus*, formally reassigning all Nearctic species of *Melanostoma*, except for *Melanostoma mellinum* Linnaeus, and all of *Pyrophaena* and *Carposcalis* to *Platycheirus*. Mengual *et al.*'s recent molecular phylogenies of the Syrphinae (Mengual 2010; Mengual *et al.* 2008) support Vockeroth's opinions, and suggest that *Platycheirus* is polyphyletic. In their analyses, *Pyrophaena* is sister to *Syrphocheilosia* + *Spazigaster* + *Rohdendorfia* (Mengual *et al.* 2008), and *Tuberculanostoma* appears nested within the rest of *Platycheirus* (Mengual 2010).

In his 1990 revision of Nearctic *Platycheirus*, Vockeroth did not erect formal subgenera, but instead divided the genus into five species groups: *albimanus* group, *ambiguus* group, *granditarsis* group, *stegnus* group, and *concinus* group. He divided two of these groups, *albimanus* and *stegnus*, into subgroups. Each species group is named for the first described species in the group, although some of these species are Palaearctic in distribution (Vockeroth 1990). The *Platycheirus albimanus* species group is of particular interest, as it contains 42 of the 75 Nearctic species of *Platycheirus*. The *albimanus* species group contains all *Platycheirus* with broadened and flattened fore tibiae and/or tarsi, excluding *Platycheirus granditarsis* (Forster), and was divided by (Vockeroth 1990) into six subgroups: the *manicatus*, *peltatus*, *clypeatus*, *albimanus*, *nodosus*, and *scambus* subgroups. These groups were all considered to be "likely monophyletic", but were never tested through a detailed phylogenetic analysis.

Unlike generic concepts within the Bacchini, species concepts within *Platycheirus* are generally well-supported. Previous authors have defined and separated species largely on the basis of morphological characters of the male legs, as genitalia usually show only insignificant differences between closely related species, and most Nearctic females have been considered morphologically indistinguishable (Vockeroth 1990). As a result, the most recent published key to Nearctic *Platycheirus* (Vockeroth 1990) includes 68 of the 75 currently recognized species, but incorporate females of only 12 species. More recent European publications (Bartsch *et al.* 2009; Haarto & Kerppola 2007; Steenis & Goeldlin de Tiefenau 1998; Veen 2004) fill part of this void with regard to female descriptions as many species found in the Nearctic are also native to Europe.

A potential solution to the problem of morphologically intractable females is the use of molecular data. DNA sequence data has been previously used for association of males and females in insects with highly dimorphic sexes, including Mutillidae (Pilgrim & Pitts 2006), Strepsiptera (Kathirithamby *et al.* 2010), and Reduviidae (Zhang & Weirauch 2011). Once females are identified using molecular methods, they can be sorted to species and reexamined for distinguishing morphological characters that may have been overlooked.

The primary goals of this study were to review the Nearctic species of the genus *Platycheirus*, add new records, update species ranges with new collection records, identify and describe the females of the genus, and create a photographic key to males and females of the genus. An additional objective was to refine Vockeroth's species group concepts through morphological and combined morphological/molecular phylogenetic analyses of the *albimanus* group, and a molecular phylogenetic analysis of all available *Platycheirus* sequences.

Materials and Methods

Specimen Examination

Adult specimens were either pinned directly after collecting, stored in ethanol and examined wet, or stored in alcohol and later critical-point dried. Removal and clearing of genitalia was necessary in order to view internal characters. This was accomplished by cutting the abdomen between tergites 5 and 6 to remove the genitalia. Genitalia were cleared by heating in lactic acid for three to four hours. A summary of countries, states and provinces from which specimens were examined is given with the descriptions; full lists of specimens examined are provided as appendices. Specimens were borrowed from, or are deposited with, the following institutions and individuals (collection codes based on Evenhuis (2015)):

CBU	Cape Breton University, Sydney, Nova Scotia, Canada
CNC	Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, Ontario, Canada
CSCA	California State Collection of Arthropods, Sacramento, California, USA
CSUC	Colorado State University, Fort Collins, Colorado, USA
DEBU	University of Guelph Insect Collection, Guelph, Ontario, Canada
EMEC	University of California, Essig Museum of Entomology, Berkeley, California, USA
EMUS	Utah State University, Logan, Utah, USA
OUMNH	Oxford University Museum of Natural History, Oxford, United Kingdom
PMAE	Royal Alberta Museum, Edmonton, Alberta, Canada
RBCM	Royal British Columbia Museum, Victoria, British Columbia, Canada
ROME	Royal Ontario Museum, Toronto, Ontario, Canada
UAM	University of Alaska, Fairbanks, Alaska, USA
UBCZ	Spencer Entomological Museum, Vancouver, British Columbia, Canada
UCGC	University of Colorado, Boulder, Colorado, USA
UCR	University of California Riverside, Riverside, California, USA
USNM	National Museum of Natural History, Washington D.C., USA
JKPC	John Klymko Personal Collection
MHPC	Martin Hauser Personal Collection
TNPC	Tore Nielsen Personal Collection
YEUX	Peter Hallett Personal Collection

Specimen Photography

Habitus photographs of pinned specimens of all species were taken using a Nikon D90 camera with an AF-S VR Micro-Nikkor 105mm f/2.8G IF-ED lens and SB-900 i-TTL Speedlight. High-resolution character photographs were taken using a Microptics Digital Lab XLT imaging system using a Canon EOS-1Ds camera and a Microptics ML-1000 flash fibre optic illumination system. Final images produced using the Microptics system were photomontages created from a series of photographs taken at different focal depths and then combined using the freeware program CombineZ (Hadley 2006).

DNA Sequencing

The right hind leg was removed from all available recently collected (post 1995) specimens, regardless if they were pinned directly or stored in alcohol and later critical-point dried, and sent to the University of Guelph Biodiversity Institute for sequencing and alignment of the “Barcoding”, or Folmer region (Folmer *et al.* 1994; Hebert *et al.* 2003) of the Cytochrome *c* Oxidase I (COI) mitochondrial gene, a 658 base-pair region of the gene taken from the 5' end. Technicians from the Biodiversity Institute also visited the Canadian National Collection of Insects, Arachnids, and Nematodes (CNC) in 2011 to sequence available material that had been previously identified by J. R. Vockeroth, including older specimens (1972 to present). In general, fresh specimens were sequenced reliably while any material older than approximately 5 years was inconsistent (but some specimens collected as far back as 1972 produced full barcodes). These data were made available for the current project, and are also available in GenBank (Table 1). In total, 946 useable sequences were obtained. Sequences were later downloaded from the Barcode of Life Data Systems (BOLD) website (Ratnasingham & Hebert 2007) and alignments were checked and in several cases corrected manually using the computer program Mesquite 2.74 (Maddison & Maddison 2010). All sequences used in this revision are available through the public dataset “DS-PLNWADY – dx.doi.org/10.5883/DS-PLNWADY” on the BOLD website (www.boldsystems.org, Ratnasingham & Hebert 2007).

Initial sequence analysis was performed by constructing a neighbour-joining tree with all available sequences using the BOLD website. Clusters within this tree were then examined for indications of problem species or cryptic species complexes (see below—criteria for species recognition). Once species concepts were finalized, an exemplar sequence from each species was chosen for use in phylogenetic analyses (see below).

Phylogenetic Analysis

Phylogenetic analyses were performed on three datasets: a morphological character matrix of the *Platycheirus albimanus* group, a molecular character matrix of all available *Platycheirus* with complete Folmer region

sequences, and a combined analysis using all taxa for which both morphological and molecular data was available (most members of the *Platycheirus albimanus* species group plus outgroups).

The morphological analysis (Appendix 2) was based on 42 characters (Appendix 1) scored for all Nearctic species of the *albimanus* species group *sensu* (Vockeroth 1990), two representatives from each of the other putative *Platycheirus* species groups, and *Melanostoma mellinum*. The representatives of the other species groups chosen were: *P. coerulescens* and *P. lundbecki* of the *P. ambiguus* group, *P. granditarsis* and *P. rosarum* of the *P. granditarsis* group, *P. pictipes* and *P. luteipennis* of the *P. pictipes* group, *P. yukonensis* and *P. pullatus* of the *P. chilosia* subgroup (*P. stegnus* species group), and *P. confusus* and *P. obscurus* of the *P. stegnus* subgroup (*P. stegnus* species group). *Melanostoma mellinum* was chosen to root the tree as it is closely related to *Platycheirus* (Mengual *et al.* 2008), and representatives of each other species group were chosen in order to test the monophyly of the *albimanus* species group as a whole.

The combined analysis included all species from the morphological analysis except for those species (*P. groenlandicus*, *P. latitarsis*, *P. urakawensis*, and *P. tenebrosus*) for which COI sequence data were not available.

The molecular analysis included all species of *Platycheirus* for which a complete sequence of the Folmer region was available, as well as the following taxa as outgroups: *Eristalis tenax* (Linnaeus), *Pipiza femoralis* (Loew), *Leucopodella* sp., *Argentinomyia neotropicus* (Curran), *Xanthandrus tricinctus* Thompson, *Melanostoma mellinum* (Linnaeus), *Rohdendorfia alpina* Sack, *Spazigaster ambulans* (Fabricius), and *Syrphocheilosia* sp. *Eristalis tenax* and *Pipiza femoralis* are in the eristaline tribes Eristalini and Pipizini respectively, all other members of the outgroup are members of the syrphine tribe Bacchini.

Parsimony and Bayesian analyses were performed on all datasets. Parsimony analyses were performed in TNT 1.1 (Goloboff *et al.* 2008) using the traditional search function, 1000 replications, tree bisection reconnection, 10 trees saved per replication, with all characters coded as unordered. Bremer supports for all analyses were calculated using the BREMER.RUN macro, with 1000 replications, and trees suboptimal by 50 steps retained. Bayesian analyses were performed remotely using MrBayes 3.2.1 (Ronquist *et al.* 2012) on the CIPRES Science Gateway V3.1 (Miller *et al.* 2010). The best-fit model of molecular evolution used was determined to be GTR+I+ Γ using MrModeltest v2.3 (Nylander 2004). The analysis itself used a Markov Chain Monte Carlo (MCMC) method with the following settings: two independent runs, with nucmodel = 4by4, $N_{st} = 6$, rates = invgamma, samplefreq = 1000, four chains = one cold and three hot, run for 5,000,000 generations with a burn-in of 1000 generations. A majority rule consensus tree was generated for each analysis using Mesquite 2.74 (Maddison & Maddison 2010).

Criteria for Species Recognition

Male diagnoses focus heavily on characters of the fore- and mid legs. Supplementary characters include the length and shape of the oral margin, pollinosity of the face, colour of the thoracic pile, extent of wing microtrichosity, colour of the halter, and abdominal pattern. Female descriptions rely heavily on the same characters treated as supplementary in male diagnoses.

Internal genitalic characters are rarely used for diagnoses and infrequently used in descriptions of *Platycheirus*. While the fore and mid legs of males provide many species-specific characters useful for identification, genitalia are relatively uniform throughout the genus. Only a few species possess a distinctive surstylus, gonostylus, or phallus, and for those a description is given. Similarly, female genitalia appear to be uniform across the entire genus, with characters such as size, shape, chaetotaxy, and colouration of sclerites 6–8, size, shape, and chaetotaxy of the cerci, shape of the spermatheca, length of the spermathecal duct, and shape of the copulatory pocket all showing little to no consistent variation between species.

DNA data obtained for the project served two purposes during the formulation of species concepts. The first, sex association, allowed many sequenced females that were unidentifiable using existing literature to be associated with previously identified and sequenced males. Females were then re-examined for characters useful for identification and description. The second use for sequence data was the recognition of possible cryptic species complexes. The data were first examined using a neighbor-joining tree (Fig. 8), and later by comparing intraspecific genetic differences, (Table 2), genetic distances to nearest neighbors (Table 2) and putative molecular synapomorphies. Neighbor-joining trees, intraspecific distances, and distances to nearest neighbors were produced using BOLD Systems (Ratnasingham & Hebert 2007). Intraspecific distances were calculated using the Kimura 2 Parameter (K2P) model. Putative species that were resolved into multiple separate clusters in the neighbour joining tree, showed a high degree of intraspecific genetic difference, or had a low genetic distance (<1%) to their nearest neighbour were re-examined morphologically.

Although we have considered some species valid on the basis of morphology alone, such as *P. naso*, *P. amplus*, and *P. nielsenii*, all of which show 0% sequence divergence from each other using COI, there are no species that have been named on the basis of molecular data alone. However, any population that is genetically distinct from other *Platycheirus* and has at least one consistent morphological character to separate it from others has been named as a species.

Definitions

In the following descriptions, terminology for vestiture follows Thompson (1999). The term “sub-appressed” refers to pile that runs more or less parallel to the leg but does not lie flat against it, appressed refers to pile which lies flat against the leg but is easily distinguished as separate from the leg, and strongly appressed refers to pile that lies flat against the leg and is pressed against it to the point where it is difficult to distinguish from the cuticle of the leg itself. All other morphological terminology follows Cumming and Wood (2009).

Dichotomous key

The male half of the key to Nearctic *Platycheirus*, as well as the couplets for the females of the *stegnus* group, is based off the work of Vockeroth (1990). Many of these couplets have been reorganized, rewritten, and/or expanded upon.

Results

Phylogenetics

Parsimony analysis of the *Platycheirus albimanus* group morphological character matrix yielded 149 most parsimonious trees with a length of 144 steps. The strict consensus tree of the most parsimonious trees (Fig. 1) contained 18 resolved nodes and several major clades whose relationship to each other was unresolved, with the exception of the *Platycheirus granditarsis* group as sister to the rest of *Platycheirus*. Exemplar species from the *P. ambiguus*, *P. pictipes*, and *P. stegnus* subgroups all clustered into clades consistent with the subgroup concepts, but members of the *P. chilosia* subgroup appeared inside a clade otherwise including only species from the *P. manicatus* subgroup (a species subgroup within the ingroup taxon, the *P. albimanus* group). The *P. albimanus* group itself formed three major clades. The first clade had a Bremer support of 4, was recognized by the unique synapomorphy of the face distinctly wider than the eye (character 9, state 2), and contained all members of the *P. manicatus* subgroup plus *P. pullatus* and *P. yukonensis*, the two members of the *P. chilosia* subgroup intended as an outgroup. The clade itself is largely an unresolved polytomy, leaving the monophyletic nature of each species group uncertain. The second clade had a Bremer support of 4, was recognized by the unique synapomorphy of the fore tibia broadened on the apical fifth only (character 24, state 2), and contained all members of the *P. peltatus* subgroup plus *P. parmatius* (a member of the *P. scambus* subgroup). Within this clade, *P. parmatius* was resolved as sister to the *P. peltatus* species group. The remaining major clade within the *albimanus* species group represents the *clypeatus*, *albimanus*, and *nodosus* subgroups plus the *scambus* subgroup excluding *P. parmatius* and was recognized by the synapomorphy of the fore-tibia broadened over the entire length (character 24, state 1). Within this large clade only the *nodosus* subgroup was recovered as monophyletic, while the majority of the remaining taxa form an unresolved polytomy. The monophyly of the *nodosus* subgroup is recognized by the unique synapomorphy of the expanded tips of the hairs of the sub-basal tuft on the male fore-femur (character 16, state 2). Bayesian analysis of the *P. albimanus* group morphological dataset produced a majority-rule consensus tree (Fig. 2) similar in topology to the tree produced through parsimony analysis, with 24 resolved nodes. The *P. chilosia* subgroup was resolved in a clade with the members of the *P. manicatus* subgroup, but unlike in the parsimony analysis, the *P. chilosia* subgroup was sister to the *P. manicatus* subgroup instead of within it. The *P. albimanus* species group formed the same three major clades as in the parsimony analysis, with several differences in their topology. The first clade, containing the *P. manicatus* subgroup plus the *P. chilosia* subgroup was resolved in slightly more detail than in the parsimony analysis, with the *P. chilosia* subgroup sister to the *P. manicatus* group. This clade was supported with a posterior probability of 90.51%. The second clade, containing the *P. peltatus* subgroup plus *P. parmatius*, was supported with a posterior probability of 99.66%. However, the clade forms a large polytomy and the position of *P. parmatius* was unresolved with respect to the *P. peltatus* group. The third clade,

containing the *clypeatus*, *albimanus*, and *nodosus* subgroups plus the *scambus* subgroup excluding *P. parmatius*, was supported by a posterior probability of 74.55% and was better resolved than the corresponding clade in the parsimony analysis. As in the parsimony analysis, the *P. nodosus* subgroup was resolved as a clade. Additionally, the *P. albimanus* subgroup was resolved as a clade, and *P. varipes* was resolved as sister to the rest of the *P. clypeatus*+*albimanus*+*nodosus*+*scambus* (excluding *P. parmatius*) subgroup clade.

The parsimony analysis of the *P. albimanus* group combined dataset produced 128 most parsimonious trees with a step length of 809. The strict consensus tree (Fig. 3) had a very similar topology to that of the morphology-only analysis, with all the same major clades present and 40 resolved nodes. The *P. manicatus* group + *P. chilosia* subgroup had a Bremer support of 1, and the position of *P. chilosia* was unresolved with respect to *P. manicatus*. The *P. peltatus* group + *P. parmatius* had a Bremer support of 1, and *P. parmatius* was again sister to the *P. peltatus* group. The clade formed by the *P. clypeatus*+*albimanus*+*nodosus*+*scambus* (excluding *P. parmatius*) subgroups had a Bremer support of 1, and was more fully resolved than in the morphology-only parsimony analysis. None of the species subgroups that form this clade were found to be monophyletic, with the clade composed of the *P. nodosus* subgroup also containing *P. podagratus* (a member of the *P. clypeatus* subgroup), the *P. albimanus* subgroup split into two clades, and the remaining species from the *P. clypeatus* and *P. scambus* subgroups forming a large clade together.

Bayesian analysis of the *P. albimanus* group combined dataset yielded results similar to the parsimony analysis, with 43 resolved nodes (Fig. 4). The *P. granditarsis* group again formed a clade, however instead of appearing as the sister group to the remainder of *Platycheirus*, it was resolved as part of a polytomy with the other outgroup species groups (excluding the *P. chilosia* species subgroup), all of which together formed the sister to the remainder of *Platycheirus*. The *P. manicatus* subgroup + *P. chilosia* subgroup again formed a clade, as did the *P. peltatus* group plus *P. parmatius*, but these two clades were resolved together as part of a larger clade supported by a posterior probability of 96.83%. Within the clade formed by the *P. manicatus* subgroup + *P. chilosia* subgroup, the *P. chilosia* subgroup was resolved within the *P. manicatus* subgroup, rendering the *P. manicatus* subgroup paraphyletic. The clade formed by the *P. peltatus* group plus *P. parmatius* remained unchanged, with *P. parmatius* sister to the rest of the clade. Relationships within the clade formed by the *P. clypeatus*+*albimanus*+*nodosus*+*scambus* (excluding *P. parmatius*) subgroups were largely unchanged compared to the parsimony analysis.

Unlike the previous two datasets, which focussed on Nearctic *Platycheirus* within the *P. albimanus* group, the final analysis included the mtDNA COI molecular data from all available *Platycheirus* species. Parsimony analysis produced 2730 most parsimonious trees with a step length of 1196, and 70 resolved nodes in the strict consensus tree. In this tree (Fig. 5), *Platycheirus* (*Eocheilosia*) *notatus* (Bigot), a member of the subgenus of *Platycheirus* found only in New Zealand, was resolved in a clade sister to the remainder of *Platycheirus* that also included *Rohdendorfia*, *Syrphocheilosia*, and *Spazigaster*. This clade had a Bremer support of 10. Within *Platycheirus* (excluding this *P. notatus* group), the *P. granditarsis* group formed a clade sister to the remainder of *Platycheirus*, much like in previous analyses. The *P. clypeatus*, *albimanus*, *nodosus*, and *scambus* subgroups, with the exception of *P. parmatius*, *P. scutatus*, *P. speighti*, *P. atlasi*, and *P. splendidus*, formed a large clade with a Bremer support of 1, within which none of the subgroups were found to be monophyletic. Sister to this was a large polytomy composed of the aforementioned *P. parmatius*, *P. scutatus*, *P. speighti*, *P. atlasi*, and *P. splendidus*, the *P. manicatus* and *P. peltatus* subgroups, the *P. chilosia*, *P. pictipes*, *P. ambiguus*, and *P. stegnus* species groups, and the genus *Tuberculanostoma*. Within this polytomy, the species *P. scutatus*, *P. speighti*, *P. atlasi*, and *P. splendidus*, all members of the *Platycheirus scutatus* complex, form a clade with a Bremer support of 4, as do the members of the *P. pictipes* and *P. peltatus* groups. The position of *P. parmatius* was unresolved. The majority of the species of the *P. chilosia* subgroup formed a clade with a Bremer support of 1, with the exception of *P. setitarsis*, whose position was unresolved. The *P. manicatus* subgroup was largely unresolved, with the species forming multiple small clades in the large polytomy. The *P. ambiguus* species group, *P. stegnus* species subgroup, and *Tuberculanostoma* together form a clade with a Bremer support of 2. Within this, all three taxa were monophyletic. The *P. ambiguus* group had a Bremer support of 1, while the *P. stegnus* subgroup and *Tuberculanostoma*, which were sister to each other, had Bremer supports of 3 and 4 respectively.

Bayesian analysis of the molecular dataset yielded similar results, with 67 resolved nodes (Fig. 6). In this analysis, the *P. granditarsis* group was included with *P. notatus* plus several of the outgroup genera in a clade with a posterior probability of 91.27%. The majority of the *P. albimanus* group formed a large clade with a posterior probability of 60.16%, again with the *P. scutatus* complex plus *P. parmatius* excluded. The large clade formed by

the remainder of *Platycheirus* was marginally better resolved than in the parsimony analysis, and had a posterior probability of 83.08%. The *P. scutatus* complex and *P. pictipes* group, both of which were resolved as monophyletic with posterior probabilities of 100% and 99.85% respectively, together formed the sister to the rest of this clade. The position of *P. parvatus* was unresolved. Neither the *P. manicatus* subgroup nor the *P. chilosia* subgroup were resolved as monophyletic, and both formed multiple small clades whose relationship to one another was unresolved. The *P. peltatus* subgroup plus *P. setitarsis* (a member of the *P. chilosia* subgroup) formed a clade with a posterior probability of 85.48%, with *P. setitarsis* sister to *P. peltatus*. The *P. ambiguus* species group, *P. stegnus* species subgroup, and *Tuberculanostoma* again formed a clade, with a posterior probability of 94.68%. Within this clade, the *P. ambiguus* group was supported with a posterior probability of 71.01%, while the *P. stegnus* subgroup and *Tuberculanostoma*, which were again sister to each other (posterior probability: 95.52%), had posterior probabilities of 100% and 99.85% respectively.

Taxonomy

While analysing DNA sequence data, it was noted that specimens of several species were resolved into multiple clusters in the neighbour joining tree, and/or had a high level of intraspecific variability. This was indicative of possible species complexes, and all available specimens of these species were re-examined morphologically for further evidence of previously overlooked cryptic species. In total, there were ten species that warranted re-examination: *P. albimanus*, *P. perpallidus*, *P. obscurus*, *P. confusus*, *P. scutatus*, *P. angustatus*, *P. immarginatus*, *P. hyperboreus*, *P. coerulescens*, and *P. lundbecki*.

In the case of *P. albimanus*, genetic data would suggest that at least two species are present, referred to as *P. sp. albimanus1* and *P. sp. albimanus2* on the neighbour-joining tree of all available *Platycheirus* sequences (Fig. 8). These two genetic clusters are 2.5% divergent on COI. However, as no consistent morphological characters could be found to distinguish between the discrete genetic clusters formed by sequences of this species, it continues to be treated as a single species in this manuscript. The nearest neighbour of *P. sp. albimanus1* was *P. setipes*, and the nearest neighbour of *P. sp. albimanus2* was *P. marokkana*.

The specific name *P. perpallidus* was found to represent two genetically and morphologically distinct species, with the colouration of the pile on the mid tibia being a diagnostic character. After examination of the type series, this species has been split into *P. perpallidus* and *P. neoperpallidus* **sp. nov.** (description below).

The specific names *P. obscurus* and *P. confusus* each represent what have been previously treated as wide-ranging Nearctic species with separate eastern and western populations. However, DNA sequence data indicated that *P. obscurus* should be split into two while *P. confusus* is a single species. This molecular evidence, combined with Vockeroth's (1990) observation of consistent differences in the extent of wing microtrichosity between eastern and western forms of *P. obscurus*, leaves little doubt that the species should be split. Additionally, western specimens of "*P. obscurus*" have a face that is much more densely pollinose and is produced ventrally farther beyond the level of the tubercle than eastern *P. obscurus*. *Syrphus trichopus*, a species described from a California specimen, had been previously synonymised with *Platycheirus obscurus*. Morphological examination of the type specimen of *S. trichopus* was consistent with characters of the western "*obscurus*" listed above; meaning the valid name for the western population is *Platycheirus trichopus* **stat. nov.**

The DNA sequence data for *P. scutatus* sorted into four distinct clusters, one of which included only a single female (labelled *P. scutatus* complex on Fig. 8). This was unsurprising, as *Platycheirus scutatus* is known to be a species complex composed of at least five species (*P. scutatus*, *P. speighti*, *P. splendidus*, *P. aurolateralis*, and *P. atlas*) in the Palaearctic region (Doczkal *et al.* 2002). When barcoded males from each genetic cluster were compared to descriptions of these species, it became apparent that *P. scutatus*, *P. speighti*, and *P. splendidus* are Holarctic. The unknown female specimen labelled "*P. scutatus* complex" is likely a specimen of either *P. aurolateralis* or *P. atlas* but, without associated males, female specimens of these species are indistinguishable. The single female was 2.31% genetically divergent from its nearest neighbour, *P. scutatus*; *P. scutatus* and *P. speighti* where both 0.31% genetically divergent from their nearest neighbor, *P. splendidus*; and *P. splendidus* was 0.31% divergent from its nearest neighbour, *P. scutatus*. Specimens of *P. scutatus* and *P. speighti* from both the Nearctic and Palaearctic were successfully DNA barcoded and examined morphologically, leaving little doubt that the Nearctic and Palaearctic population of each species is conspecific. No Palaearctic specimens of *P. splendidus* have yet been sequenced or examined, so it is possible that the Nearctic population is in fact the sister species to the Palaearctic *P. splendidus*.

Sequence data suggests that there may be three species involved with what is currently referred to as *P. angustatus* in the Nearctic; these are referred to as *P. angustatus*, *P. angustatus3*, and *P. angustatus4* on the neighbour joining tree of all available *Platycheirus* sequences (Fig. 8). Three specimens from Russia were also sequenced, and are referred to as *P. angustatus2*. Two of these clusters, *P. angustatus* and *P. angustatus3* include specimens collected at the same locality, indicating that these genetic differences are not based on geographic separation. *Platycheirus angustatus* and *P. angustatus2* are 1.24% divergent, *P. angustatus1* and *P. angustatus3* are 1.24% divergent, *P. angustatus1* and *P. angustatus4* are 2.5% divergent, *P. angustatus2* and *P. angustatus3* are 1.55% divergent, *P. angustatus2* and *P. angustatus4* are 2.19% divergent, and *P. angustatus3* and *P. angustatus4* are 1.87% divergent. Morphological examination of putative species and comparison with Palearctic material confirm that the group labeled “*P. angustatus*” is in fact *Platycheirus angustatus* (Zetterstedt, 1843) and is identifiable by a completely shining anepisternum. Conversely, *P. angustatus2*, *P. angustatus3*, and *P. angustatus4* did not display any consistent morphological characters that would identify them as described species within the Palearctic *P. angustatus* complex, nor did they display any characters useful for separating them from each other. Due to the lack of useful morphological characters and limited sampling, we have chosen to identify *P. angustatus2*, *P. angustatus3*, and *P. angustatus4* as “*Platycheirus angustatus* species complex” and treat them as a single “group” in the dichotomous key.

Platycheirus immarginatus, a Holarctic species, is a somewhat unusual case. DNA sequence data for this species indicates that there are likely two species present, as the available sequences form two distinct clusters named *P. immarginatus1* and *P. immarginatus2* on the neighbour joining tree (2.02% genetic difference, nearest neighbour of *P. immarginatus1* is *P. quadratus*, nearest neighbour of *P. immarginatus2* is *P. fulviventrus*). Both clusters contained specimens from both the Nearctic and Palearctic. A single morphological character (posterior anepisternum with a row of dark setae present in *P. immarginatus1* and absent in *P. immarginatus2*) was found to separate the males in each cluster from each other, but unfortunately the only *P. immarginatus2* males sequenced were Palearctic specimens. We thus feel that elevating each barcode cluster to species level based on this character would be inadvisable until more Nearctic male specimens can be sequenced to confirm or refute the validity of the morphological character. *Platycheirus immarginatus1* is also somewhat unusual in that it is indistinguishable from both *P. quadratus* and *P. neoperpallidus* using DNA barcoding, both of which also lack setae on the male posterior anepisternum.

Platycheirus coerulescens, *P. lundbecki*, and *P. kelloggi* together form a large cluster in the neighbour joining tree. Of the three species, *P. kelloggi* is the only one that is clearly a single species based on sequence data (nearest neighbour is *P. dexter* with a genetic distance of 0.84%). Both *P. coerulescens* and *P. lundbecki* form multiple small clusters within this large *P. coerulescens/kelloggi/lundbecki* cluster. *Platycheirus coerulescens* forms two clusters named *P. coerulescens1* and *P. coerulescens2* on the neighbour joining tree. The nearest neighbour of *P. coerulescens1* is *P. lundbecki3* (genetic distance 0.15%), and the nearest neighbour of *P. coerulescens2* is *P. lundbecki2* (genetic distance 1.55%). *Platycheirus lundbecki* forms three clusters with only five specimens successfully barcoded, named *P. lundbecki1*, *P. lundbecki2*, and *P. lundbecki3* on the neighbour joining tree. The nearest neighbour of *Platycheirus lundbecki1* is *P. coerulescens1* (genetic distance 2.18%), the nearest neighbour of *P. lundbecki2* is *P. coerulescens2* (genetic distance 1.55%), and the nearest neighbour of *P. lundbecki3* is *P. coerulescens1* (genetic distance 0.15%). All of these putative species of both *P. coerulescens* and *P. lundbecki* were examined morphologically for characters to separate them, but no consistent differences were found. As such, each is treated as a single species at this time. It remains a possibility that multiple species exist under each name, suggesting that further collecting and molecular sampling of these species would be of interest.

Discussion

Species group concepts

All analyses except for the Bayesian analysis of the combined dataset support the *P. granditarsis* group as sister to *Platycheirus*. The Bayesian analysis of the molecular dataset provides the strongest support for the latter hypothesis, with the *P. granditarsis* group resolved as part of a clade sister to the rest of *Platycheirus* including the genera *Rohdendorfia*, *Spazigaster*, and *Syrphocheilosia*. This is further supported in literature, mainly through other molecular analyses (Mengual *et al.* 2008). Shatalkin (1975) proposes a genitalic character to separate

Pyrophaena and *Platycheirus*, but it is based only on the size of the lateral lobe of the surstyli; we consider this character to be part of a morphological grade. The *P. granditarsis* species group has previously been treated as a separate genus, *Pyrophaena* Schiner, which was synonymized by Vockeroth due to the expanded fore and mid tarsomeres in the male of *P. granditarsis*, while at the same time cautioning “The male legs show so many diverse modifications that clear definition of “genera” on this basis is impossible”. Although molecular evidence indicates that the *P. granditarsis* group might warrant recognition as a separate genus, no consistent morphological characters could be found to distinguish the two groups. Analysis using multiple genes is needed to explore this further.

The single species of *Platycheirus* (*Eocheilosia*) included in the molecular analysis was also resolved outside of the remainder of *Platycheirus*. However, as only one taxon was included, and because these results are in direct conflict with a more robust molecular analysis of the Syrphinae as a whole (Mengual *et al.* 2008), we have chosen to leave *Eocheilosia* as a valid subgenus of *Platycheirus* pending further study.

Both the parsimony and Bayesian analyses of the morphological and combined datasets supported a clade formed by the subgroups *clypeatus*, *albimanus*, *nodosus*, and *scambus* (excluding *P. parmatus*), while both analyses of the molecular-only dataset supported this clade excluding the members of the *P. scutatus* complex. All members of this clade have a fore-tibia that is broadened over its entire length, and most species possess a sub-basal tuft of white, appressed hairs on the fore-femur. Within this large clade, the *nodosus* subgroup was supported as monophyletic by the morphological data only (both analyses), while the *P. albimanus* subgroup was supported as monophyletic only by the Bayesian analysis of the morphological data.

No analysis supported Vockeroth’s *clypeatus* or *scambus* subgroups as monophyletic. This was expected, as the main putative synapomorphy defining the *clypeatus* subgroup (character 14 state 1—sub-basal tuft of long, white hairs on fore-femur) also occurs in the *albimanus* subgroup. Furthermore, one of the characters defining the *nodosus* subgroup, (character 14 state 2—fore-femur with a sub-basal tuft of hairs with lanceolate apices), may represent a modification of the sub-basal tuft of long, white hairs seen in both the *clypeatus* and *albimanus* subgroups. Therefore, unless this tuft arose independently several times, the *albimanus* and *nodosus* subgroups probably represent small, derived clades that arose from within the *clypeatus* subgroup, rendering it paraphyletic. It was also unsurprising that the *scambus* subgroup was not recovered as monophyletic, as Vockeroth (1990) recognized it on the basis of the plesiomorphic lack of a sub-basal tuft of long, white hairs on the fore-femur. One member of the *scambus* subgroup, *P. parmatus*, appears not to belong to the *clypeatus* + *albimanus* + *nodosus* + *scambus* subgroup clade at all, and in almost all analyses was placed either as sister to the *peltatus* subgroup (morphological parsimony, both combined analyses) or in an unresolved polytomy which included the *P. peltatus* group (morphological Bayesian, molecular parsimony). The only analysis that placed *P. parmatus* separate from the *P. peltatus* subgroup was the molecular Bayesian analysis, where it was placed in an unresolved polytomy including a clade composed of *P. peltatus* group + *P. setitarsis*. The remaining members of the *scambus* subgroup appeared throughout the clade formed by the *clypeatus*, *albimanus*, *nodosus*, and *scambus* (excluding *P. parmatus*) subgroups in all analyses, and may represent several independent losses of the sub-basal tuft of white hairs on the fore-femur shared by most members of this clade.

In the molecular analysis, the exclusion of the *P. scutatus* complex (*P. scutatus*, *P. speighti*, *P. splendidus*, and *P. atlasi*) from the *P. clypeatus*+*albimanus*+*nodosus*+*scambus* (excluding *P. parmatus*) clade was unexpected, but separating them from other members of the *P. albimanus* subgroup based on analyses of only a single gene region would be premature. All members of the *P. albimanus* subgroup, including species within the *P. scutatus* complex, are morphologically extremely similar, with several distinct synapomorphies (character 14, state 1—sub-basal tuft of long, white setae on fore-femur, and character 16, state 1—two posterior tufts of flattened black hairs on forefemur). Because of this, members of the *P. scutatus* complex have been retained within the *P. albimanus* group.

All analyses supported the *P. peltatus* subgroup as a clade. All members of this clade have a fore-tibia broadened only on the apical fifth, a broadly oval male abdomen, and a row of strong, posterior black hairs on the fore-femur. All analyses except the molecular Bayesian analysis placed *P. parmatus* either as sister to the *peltatus* subgroup or within it as part of a polytomy, which is appropriate, as *P. parmatus* shares more characters with the *peltatus* subgroup (character 5—face with median keel, character 21 state 2—fore-tibia broadened only apically, character 20 state 1—row of strong, posterior, unflattened black hairs on the fore-femur, character 23 state 4—first fore-tarsomere strongly broadened with a dorsal keel) than it does with the *scambus* subgroup. *Platycheirus parmatus* was originally placed within the *scambus* subgroup only because it lacks two of the synapomorphies that

diagnose the *peltatus* subgroup (character 20 state 2—row of strong, posterior, flattened black hairs on the fore-femur, character 25—mid femur with shallow concavity present) despite the fact that *P. jaerensis*, another member of the *peltatus* subgroup, also lacks the row of strong, posterior, flattened black hairs on the fore-femur.

The *P. manicatus* subgroup was supported as monophyletic by the morphological Bayesian analysis, whereas the combined Bayesian analysis indicated that it was paraphyletic with regard to *P. chilosia* subgroup. Both the morphological and combined parsimony analyses placed the *P. manicatus* and *P. chilosia* groups together in an unresolved polytomy, while both Bayesian and Parsimony analyses of the molecular dataset resolved both the *P. manicatus* and *P. chilosia* subgroups as possibly polyphyletic, with each species subgroup forming multiple unresolved clades in a larger polytomy. None of the analyses recovered a monophyletic *P. stegnus* group; the two subgroups, the *P. chilosia* subgroup and the *P. stegnus* subgroup, were always recovered separately. All members of both the *P. manicatus* subgroup and the *P. chilosia* subgroup possess a cylindrical, unbroadened fore-tibia, and a face broader than the eye, and most species also possess an arista that is swollen on the basal half.

Based on the results of these analyses, the *Platycheirus albimanus* group is redefined to include only those species *Platycheirus* with a fore-tibia that is broadened over its entire length, and includes the former *clypeatus*, *albimanus*, *nodosus*, and *scambus* (excluding *P. parmatius*) subgroups.

The former *Platycheirus manicatus* subgroup is elevated to species group level without changes to its definition and species composition. Similarly, the *P. chilosia* subgroup is elevated to species group level, as no analyses placed any of the species of the group within a clade with the *P. stegnus* subgroup. However, as the morphological Bayesian analysis resolved the two groups as monophyletic, the Bayesian combined analysis resolved the *P. chilosia* group within the *P. manicatus* group, and the other analyses recovered the two groups either together in an unresolved polytomy or both as polyphyletic, it should be emphasized that the *P. manicatus* and *P. chilosia* species groups are both potentially non-monophyletic. Further analysis may support the splitting of one or both of these groups, but at present, it is more practical to retain each as an easy recognizable and morphologically diagnosable group.

Accordingly, the *P. stegnus* subgroup has been elevated to species group level, as the only other subgroup (*P. chilosia*) within the species group has been removed. The species composition of this group remains unchanged.

The inclusion of *Tuberculanostoma* within *Platycheirus* in the molecular analyses was not surprising. *Tuberculanostoma* species are morphologically similar to *Platycheirus*, a similarity recognized by Vockeroth (1990) who cautioned that “*Tuberculanostoma* Fluke, should perhaps also be included in *Platycheirus*”. However, as detailed morphological examination of *Tuberculanostoma* was beyond the scope of this project, it was not formally synonymised with *Platycheirus*.

As defined here, the *P. manicatus*, *P. peltatus*, and *P. albimanus* groups are easily recognizable based on their foreleg morphology, and are no longer subdivided into species sub-groups. Although the analysis of these groups was mostly based on a 658bp section of a single gene region, and only included morphological data for the *P. albimanus* group *sensu* Vockeroth, it was the first attempt at a combined phylogeny of any part of the genus *Platycheirus* and provides a working hypothesis for the species-group level relationships within the genus (Fig.7).

Based on the present Bayesian molecular phylogeny (Fig.6), the expanded tibia and tarsomeres are a synapomorphy of genus *Platycheirus* as a whole. All members of the *P. albimanus* group, which form one of the two major clades in the analysis, have expanded fore tibiae as well as expanded tarsomeres. The second major clade in the analysis, which contains all remaining species groups plus the *P. scutatus* complex of the *P. albimanus* group, displays various levels of development of the fore tibiae and tarsomeres, with the *P. scutatus* complex displaying identical morphology to the remainder of the *P. albimanus* group, indicating that both the expanded fore tibia and the expanded tarsomeres likely evolved prior to the split between these two clades. This suggests that the various other species groups have undergone secondary reductions of the fore tibia, with the fore tibial expansion in the *P. peltatus* group reduced to only the apical fifth, and the fore tibial expansions in all other species groups lost or replaced with ornamental setae. It is possible that ornamental setae of the fore femur and tibia serve the same purpose in mate-signalling as the expanded fore-tibia in the *albimanus* group, as they effectively enlarge the surface area of the forelegs but are probably less energetically costly for the animal to develop and maintain.

The fore tarsomeres have also undergone secondary reductions, with the *P. peltatus* and *P. manicatus* group retaining the expanded tarsomeres, and other groups reverting to unexpanded fore tarsomeres. *Platycheirus chilosia* and *P. yukonensis* both have unexpanded fore tarsomeres with long posterior setae on the first tarsus, effectively expanding the size of the tarsus.

If the Bayesian molecular analysis is inaccurate and the *P. scutatus* complex instead forms a clade with the rest of the *P. albimanus* group as the morphological and combined morphological/molecular phylogenies of the *P. albimanus* group suggest, a hypothesized evolutionary history of the expanded fore-tibia and tarsomeres within *Platycheirus* would differ slightly. In this case, the expanded fore tarsomeres would still represent synapomorphy of the genus as a whole, as both major clades (*P. albimanus* and a clade including all other groups) display this character in some species, but the greatly enlarged fore tibiae would be a synapomorphy of the *P. albimanus* group only. This is because the major clade containing all species groups other than the *P. albimanus* group possess no species with the fore tibia expanded along the entire length if the *P. scutatus* complex were to be removed from it. The character state displayed in the *P. peltatus* group (apical fifth of the tibia expanded) would then be considered homoplastic.

Utility of DNA barcoding

A primary objective of this project was the identification of female *Platycheirus*. As taxonomists have traditionally focused on characters of the male fore and mid legs for species descriptions and keys, the females have been considered largely unidentifiable, even to species-group level (Vockeroth 1990). In order to find characters to separate these cryptic females, DNA sequence data were utilized to associate morphologically intractable females with identified males. Females associated with identified males were then re-examined morphologically for characters that could be used in species descriptions and a dichotomous key to females.

The mean intraspecific genetic difference (K2P) within taxa was 0.54%, while the mean genetic distance to the nearest neighbour was 1.52%. Several species of *Platycheirus* do not barcode uniquely, with up to four species sharing identical Folmer regions of COI (distance to nearest taxon = 0%). This result is not surprising as COI is likely not driving speciation, and therefore may be lacking in phylogenetic signal in evolutionarily young species (Meier *et al.* 2006). However, COI was still useful in narrowing down the possible identity of many female specimens. Once as many female specimens as possible were matched to conspecific males using DNA barcoding in this manner, they were re-examined for characters useful for identification and descriptions. This method proved to be successful, as there are now 51 species of Nearctic *Platycheirus* that can be identified morphologically from both sexes.

Although the *Platycheirus* DNA barcode library was constructed primarily as a tool to help associate males and females of the same species and identify cryptic species in order to write a new key to the genus, it also has utility as an identification tool. A total of 60 species of Nearctic *Platycheirus* were successfully barcoded over the course of the project, over three-quarters of the Nearctic fauna. These barcodes are now accessible to the public through BOLD and GenBank as mentioned above. Unfortunately, several groups of 2–4 species have identical barcodes, despite displaying widely varying male morphology. Because of this, these species cannot be identified reliably using barcoding exclusively, although their identity can at least be narrowed down to one of several possibilities. In total, 45 of the 60 species successfully barcoded have unique barcodes that can confidently be used for species-level identification within the Nearctic Region (59% of the fauna). As more species are added to this barcode library it is possible that some of them will share barcodes with one or more of the 45 species currently thought to have a unique sequence, but this will only be determined through further research.

While neither the dichotomous key nor the barcode library produced during this project will allow both sexes of every species of *Platycheirus* known to occur in the Nearctic Region to be identified, the key has several significant advantages over the barcode library. Using the key, males of every species of Nearctic *Platycheirus* can be identified, as well as the females of 51 species, whereas barcoding only allows for the positive identification of 45 species, male or female.

Generic concept of Platycheirus

***Platycheirus* Lepeletier and Serville**

Cheilosia of Panzer, 1809: 14. Type species, *Syrphus rosarum* Fabricius, 1787 (monotypy). Suppressed by ICZN.

Platycheirus Lepeletier and Serville, 1828: 513. Type species, *Syrphus scutatus* Meigen, 1822 (subsequent designation, Westwood, 1840: 137).

Platychirus (emendation): Agassiz, 1846: 295.

Pyrophaena Schiner, 1860: 213. Type species, *Syrphus rosarum* Fabricius, 1787 (original designation)

Pachysphyria Enderlein, 1938: 196. Type species, *Scaeva ambigua* Fallén, 1817 (original designation).
Carposcalis Enderlein, 1938: 199. Type species, *Syrphus stegnus* Say, 1829 (original designation).

Body length: 4.7–10.5 mm. **Diagnosis:** **Head:** Eye bare. Face black, varying from slightly receding ventrally with a very low tubercle to strongly produced ventrally with a strong tubercle. Pollinosity of face either uniform with only the tubercle bare, with oblique ripples or punctures, or mostly absent. Anterobasal corner of oral margin either smoothly rounded or produced forward into a point. Female with pollinosity on frons above antennal insertions forming two distinct lateral triangles in most species. **Thorax:** Scutum and scutellum black, usually shining or subshining, uniformly pollinose in some species. Pleura usually lightly pollinose, some species with katepisternum and anterior half of the posterior anepisternum entirely bare and shining. Anterior anepisternum, meron, metapleuron, and metasternum usually with no outstanding pile or setae. Foreleg usually extensively modified, with the trochanter often bearing weak ventral setulae, the femur often with distinctive tufts of pile and modified setae, the tibia usually either flattened and broadened towards apex or with distinct posterior setae, and the first two tarsomeres often either flattened and broadened or with long posterior setae. Mid leg often extensively modified, with coxa bearing a long ventral process in *P. scutatus*, femur often with distinctive rows of setae or setulae and sometimes with a shallow anterior excavation, tibia often with distinctive rows of pile or setae and slightly swollen or broadened in a few species, tarsomeres flattened and broadened in *P. granditarsis*. Hind leg rarely modified except for first tarsomere, which is usually swollen. Metasternum well developed, never deeply excavated posteriorly. Wing colourless or brown-tinted, either entirely microtrichose, with small bare areas near base, or extensively bare on basal half. Halter ranging from very pale yellow to almost black. **Abdomen:** Parallel-sided to distinctly oval in male, nearly parallel-sided to broadly oval in female. Markings on tergites variable, usually black with paired yellow, orange, or silvery spots, tergites sometimes almost entirely yellow or orange, or entirely black. **Male terminalia:** Surstylus with a long, slightly curved lateral lobe (“longer lobe”, “dorsobasal lobe”, or “main arm” of Vockeroth), and short, stout medial lobe (“thumb like lobe”, “shorter lobe”, basomedial or basal lobe of Vockeroth). Gonostylus usually slender with a hook-like process, rarely thickened with 1 or 2 spine-like processes. Phallus unsegmented, usually swollen basally, then strongly constricted at three-quarters its length, slightly expanded at apex.

Species groups in Platycheirus

The Nearctic species of *Platycheirus* are divided into eight groups (Fig. 7). Groups are based largely on characters of the male legs; however, female characters have been given wherever possible. These groups are all likely monophyletic based on the phylogenetic analyses presented above, except for the *P. manicatus* and *P. chilosia* groups. Both of these two groups may be paraphyletic, but are easily recognizable based on male morphology. Because of this, they have been retained as species groups to facilitate the identification and recognition of species within *Platycheirus*. Each group is named for the earliest-described species included, even if that species is Palearctic. All characters listed without specifying a sex are present only in males except for abdominal colouration, which is present in both sexes.

1. **manicatus group (possibly paraphyletic):** Fore femur unmodified, often with many posterior black pilis. Fore tibia unmodified. First fore-tarsus flattened and narrowly to greatly expanded, second fore tarsomere slightly flattened and expanded. Mid femur unmodified. Mid tibia usually with either tufts of dense, wavy pile or several long, stiff setae. First two tarsomeres of mid leg laterally compressed in *discimanus*. Both sexes with face slightly to strongly protruding ventrally, wider than eye in all species except *flabella*, and with anterobasal corner of oral margin produced into a point. Female with pollinosity of frons very sparse, not forming two lateral triangles. Abdomen with either dull yellow or silver pollinose spots, sometimes confluent medially. Females of this group are not distinguishable from those of the *chilosia* group at the group level, and must be keyed out directly to species level. Species: *discimanus* Loew, *flabella* Hull, *groenlandicus* Curran, *manicatus* (Meigen), *oreadis* Vockeroth, *subordinatus* (Becker), *thylax* Hull.

2. **peltatus group (monophyletic):** Fore femur with dense, posterior black setae which are flattened in all species except *jaerensis* and *parmatus*. Fore tibia broadened on apical fifth. First fore tarsomere greatly flattened and broadened, with a dorsal keel in most species. Second fore tarsomere slightly flattened and broadened except in *latitarsis*, where the second fore tarsomere is as broad as the first. Mid femur with a shallow excavation bordered with setulae in all species except *parmatus*. Mid tibia with a ventral swelling at mid-length in all species except *parmatus*, this swelling with a tuft of either long, wavy, black pile or short, straight, pale pile. Both sexes with face

strongly protruding ventrally, narrower than eye, with medial keels or ridges below antennal bases, and with anterobasal corner of oral margin produced into a point. Female with pollinosity of frons forming two lateral triangles above antennal bases. Both sexes with abdomen oval, with distinct subquadrate orange spots on tergites 2–4, these spots touching or nearly touching the anterior and lateral margins of at least tergites 3–4. Species: *amplus* Curran, *naso* Vockeroth, *inversus* Ide, *jaerensis* Niesen, *latitarsis* Vockeroth, *nearcticus* Vockeroth, *nielsen* Vockeroth, *octavus* Vockeroth, *parmatius* Rondani, *peltatoides* Curran.

3. ***albimanus* group (monophyletic):** Fore femur usually with a posterior subbasal tuft of 3–4 long, pale setae with wavy or broadened apices. This posterior tuft is also present in females, but the setae are shorter and straight, never wavy or with broadened apices. Fore femur sometimes also with two tufts of flattened black setae and/or 3–10 long, evenly spaced black setae on posterior surface. Fore tibia broadened over entire length. Fore-tarsus broadened and flattened in most species. Mid coxa with a long ventral process in *scutatus* only. Mid femur usually with rows or patches of distinctive setulae, setae, or pile. Mid tibia sometimes with tufts or patches of pile. Both sexes with face slightly receding to slightly protruding, narrower than eye, and with anterobasal corner of oral margin rounded ventrally in most species. Female with pollinosity of frons forming two lateral triangles above antennal bases in all species except *orarius* and *normae*. Abdomen parallel-sided in males, narrowly oval in females except *angustatus*, where the female abdomen is also parallel-sided. Tergites 2–4 with paired yellow or silver pollinose spots, *perpallidus*, *modestus*, and *normae* sometimes with yellow spots confluent medially so the abdomen is almost entirely yellow. Species: *aeratus* Coquillett, *albimanus* (Fabricius), *angustatus* (Zetterstedt), *ciliatus* Bigot, *clypeatus* (Meigen), *hispidipes* Vockeroth, *hyperboreus* (Staeger), *immarginatus* (Zetterstedt), *modestus* Ide, *nigrofemoratus* Karnervo, *nodosus* Curran, *normae* Fluke, *orarius* Vockeroth, *perpallidus* Verrall, *pilatus* Vockeroth, *podagratus* (Zetterstedt), *quadratus* (Say), *scamboides* Curran, *scambus* (Staeger), *scutatus* (Meigen), *setipes* Vockeroth, *splendidus* Rotheray, *speighti* Doczkal, Stuke, and Goeldlin, *tenebrosus* Coquillett, *thompsoni* Vockeroth, *urakawensis* (Matsumura), *varipes* Curran.

4. ***ambiguus* group (monophyletic):** Fore femur apically with 1–3 long, posterior, strongly curled setae, usually also with a ventral row of 3–6 long, stiff, setae on basal half. Both sexes with apical half of fore femur with a posterior row of stiff setae in *coerulescens* and *lundbecki*. Fore tibia and tarsus unmodified. Mid femur with an anteroventral row of long, stiff, setae on basal half. Mid and hind tibia usually with a few long, straight, posterior setae. Legs otherwise unmodified. Both sexes with face nearly vertical, narrower than eye in all species except *kelloggi*, and with corner of oral margin produced into a point. Female with pollinosity of frons forming two lateral triangles above antennal bases. Abdomen parallel-sided in males of all species except *kelloggi*, narrowly oval in females. Abdomen usually with silvery pollinose or dull orange spots, spots bright orange only in *kelloggi*. Species: *brunnifrons* Nielsen, *clauseni* Nielsen, *coerulescens* (Williston), *kelloggi* (Snow), *lundbecki* (Collin).

5. ***pictipes* group (monophyletic):** Legs entirely unmodified except in *woodi*, which has short, dense, wavy white pile on the posterior surface of the fore tibia and first tarsomere. Both sexes with face slightly produced ventrally, narrower than eye, sometimes with medial keels or ridges below antennal bases, and with anterobasal corner of oral margin produced into a point. Female with pollinosity of frons forming two lateral triangles above antennal bases. Ground colour of thorax and abdomen often metallic bluish, especially in females. Females usually with thoracic pile very short, no longer than the width of the fore femur. Abdomen parallel-sided or oval in males, oval in females. Spots of tergites usually silvery or coppery pollinose, occasionally dull grey or orange, often medially confluent. Species: *pictipes* (Snow), *coracinus* Vockeroth, *luteipennis* (Curran), *latus* (Curran), *russatus* Vockeroth, *striatus* (Curran), *woodi* Vockeroth.

6. ***stegnus* group (monophyletic):** Fore and mid tibia with a row of posterior black setae. Both sexes with face slightly to distinctly produced ventrally, variable in width, with pollinosity either with oblique ripples or punctures, and with anterobasal corner of oral margin produced into a point. Pollinosity of female frons forming two lateral triangles above antennal bases. Abdomen parallel-sided or oval in males, oval in females. Spots of tergites usually silvery pollinose, occasionally dull orange. Species: *confusus* (Curran), *hesperius* Vockeroth, *obscurus* (Say), *sabulicola* Vockeroth, *squamulae* (Curran), *spinipes* Vockeroth, *stegnoides* Vockeroth, *stegnus* (Say), *trichopus* (Thomson).

7. ***chilosia* group (possibly paraphyletic):** Fore femur near base with 2–4 ventral black setae in some species. First fore tarsomere with long, posterior, curled setae in *chilosia* and *yukonensis*. Fore and mid tibia with a row of posterior black setae in all species (subappressed and difficult to see in *pullatus*). Both sexes with face slightly to distinctly produced ventrally, greater than one-third the width of the head, with pollinosity uniform (except *pullatus*

females), and with anterobasal corner of oral margin produced into a point. Pollinosity of female frons uniform above antennal bases. Abdomen parallel-sided or oval in males, oval in females. Spots of tergites silvery pollinose or absent. Species: *alpigenus* Nielsen, *chilosia* (Curran), *protrusus* Vockeroth, *pullatus* Vockeroth, *setitarsis* Vockeroth, *yukonensis* Vockeroth.

8. ***granditarsis* group (monophyletic; possibly should be given generic status as *Pyrophæna*):** Fore and mid femur and tibia unmodified. Fore and mid tarsi broadened in male *granditarsis* only. Face vertical, narrower than one-third the width of the head, with very thin but uniform pollinosity, and with anterobasal corner of oral margin produced into a point. Abdomen narrowly to widely oval in both sexes. Tergites with variable orange markings. No morphological characters have been found that are present in all members of this group but molecular data suggests that it is a monophyletic group and may not be part of *Platycheirus*. Species: *granditarsis* (Forster), *rosarum* (Fabricius), *rufigaster* Vockeroth.

Key to Nearctic species of *Platycheirus*

1. Females 79
- Males 2
2. Fore tibia and tarsus slender throughout and fore tarsus with cylindrical first tarsomere (Figs 118–120). 49
- Fore tibia slightly to distinctly broadened toward apex and/or first fore tarsomere slightly to distinctly broadened and fore tarsus with flattened first tarsomere (Figs 114–117). 3
3. Fore tibia strongly broadened at least at apex, and usually on the apical half or more. Fore tibia usually at least as wide as first tarsomere, slightly narrower than first tarsomere in some species where only the tibial apex is broadened strongly (Figs 116–117) 11
- Fore tibia at most slightly broadened near apex and distinctly narrower than first tarsomere of fore leg (Figs 114–115). 4
4. Fore tarsus entirely black, first tarsomere with a long, triangular, anterior process. Mid tarsus with first three tarsomeres much wider than apex of mid tibia. Posterior half of tergite 2, tergite 3, and anterior half of tergite 4 mostly or entirely orange (Fig. 46). ***granditarsis* (Forster)**
- Fore tarsus with first tarsomere whitish, without anterior process, nearly symmetrical in outline. Mid tarsus slender, with all tarsomeres narrower than apex of mid tibia. Tergites 2–4 black with silvery or yellowish sublateral spots; spots of tergites 2–5 occasionally confluent medially on anterior half of tergite (Fig. 115). 5
5. Oral margin produced well beyond level of tubercle; tergites 2–4 with pale spots longer than wide and at least two-thirds the length of the tergite; scutum densely grey or yellowish pollinose (Fig. 61). ***manicatus* (Meigen)**
- Oral margin produced at most to level of tubercle; tergites 2–4 entirely dark or with pale spots. If spots present, subequal in length and width and never more than half the length of the tergite. Scutum usually sparsely pollinose 6
6. Hind tibia with pile on basal third of anterodorsal surface dense, wavy, black, and up to three times as long as tibial diameter. First tarsomere of fore leg about 3 times as wide as apex of fore tibia; apex of tarsomere very oblique (Fig. 74) ***oreadis* Vockeroth**
- Hind tibia with only short pile, or (rarely) with some longer anterodorsal pile at or beyond mid-length. First tarsomere of fore tarsus at most 2.5 times as wide as apex of fore tibia; apex of tarsomere oblique or transverse 7
7. Mid leg with first two tarsomeres whitish-yellow; the first strongly compressed and the second slightly compressed; last 3 tarsomeres contrastingly black (Fig. 44). ***discimanus* (Loew)**
- Mid leg with tarsomeres entirely black or brownish with no contrasting colouration between first two and last three tarsomeres; first tarsomere at most slightly compressed (Fig. 47). 8
8. Mid tibia with anteroventral pile short, at most slightly longer than tibial diameter (Fig. 45, 107). 9
- Mid tibia with tuft of long wavy pile on about basal third of anteroventral surface; the pile at least 2.5 times as long as tibial diameter and much longer than pile on rest of anteroventral surface (Figs 47) 10
9. Ventral surface of fore trochanter with many stiff black setulae. Ventral surface of fore femur with only fine pile. Mid tibia usually with basal third of posterior to posteroventral surface with dense, fine, wavy pile at least 1.5 times as long as tibial diameter. ***thylax* Hull**
- Ventral surface of fore trochanter with a few fine pale setae. Basal half of ventral surface of fore femur with row of 3 or 4 stiff black or yellow setae about two-thirds as long as femoral diameter. Mid tibia with pile on basal third of posterior surface short and nearly straight, subequal in length to tibial diameter and less than half as long as the pile on apical half of posterior surface ***flabella* Hull**
- Boreal and western Nearctic
10. First fore tarsomere from 1.25 to 1.5 times as long as wide (Fig. 47) ***groenlandicus* Curran**
- First fore tarsomere at least twice as long as wide (Fig. 104). ***subordinatus* (Becker)**

Northwestern

- 11(3). Posterior surface of fore femur without flattened black setae, either with uniformly weak pile, or with black or white tufts of setae near base or with longer outstanding strong pile or setae along its length. Anterior surface of mid femur either without concavity or with at most shallow concavity (Fig. 117). 19
- Posterior surface of fore femur densely covered with strong, nearly uniform, slightly flattened black setae, without outstanding tufts of setae near base, and without outstanding longer pile or setae along femoral length. Anterior surface of mid femur just beyond mid length with distinct concavity bordered below by very short curved black setulae (Fig. 116) 12
12. First tarsomere of fore leg without dorsal keel; second tarsomere as wide as widest part of fore tibia and about nine-tenths as wide as first tarsomere (Fig. 56) *latitarsis* **Vockeroth**
Western
- First tarsomere of fore leg with weak dorsal keel on apical half or with strong dorsal keel on most of its length; second tarsomere at most four-fifths as wide as fore tibia and first tarsomere (Figs 63–64, 77) 13
13. First tarsomere of fore leg with distinct dorsal keel over its entire length although keel in some species becoming less pronounced toward base of tarsomere. Anepimeron with pile only on upper half (Figs 63, 77). 17
- First tarsomere of fore leg with weak dorsal keel on apical half but without distinct keel on basal half. Anepimeron sometimes with sparse pile on lower half (Figs 31, 64, 66) 14
14. Mid tibia with apex strongly swollen. Apical half of ventral surface of mid tibia with suberect, tangled, dark pile, which is approximately equal in length to tibial diameter. Anepimeron with pile only on upper half, pile forming compact tuft. Wing membrane entirely trichose (Fig. 66) *nielsenii* **Vockeroth**
Boreal and western Nearctic
- Apical half of ventral surface of mid tibia with very short, scarcely discernible pile; apical tibial swelling weak. Anepimeron in some species with sparse pile on lower half; pile on upper half not forming compact tuft. Wing entirely trichose or with bare areas near base. Widespread 15
15. Basal half of anteroventral surface of mid tibia with tuft of short nearly straight subappressed pile, the longest pile at most 1.5 times as long as tibial diameter. Anepimeron with pile on upper half only. Scutellar pile mostly or entirely yellow (Fig. 64) *nearcticus* **Vockeroth**
Widespread
- Basal half of anteroventral surface of mid tibia with tuft of long, erect, wavy black pile, the longest pile more than twice as long as tibial diameter. Anepimeron in some species with sparse pile on lower half. Scutellum with pile entirely yellow, or with mixed black and yellow pile (Fig. 31) 16
16. First tarsomere of hind leg strongly and abruptly constricted at mid length. Scutellum with pile entirely yellow. Anepimeron usually with pile only on upper half, rarely with pile on lower half. Bare area of cell bm usually at least half as long as cell and reaching or nearly reaching its anterior margin, rarely less extensive (Fig. 53) *inversus* **Ide**
Eastern
- First tarsomere of hind leg gradually narrowed over apical three-quarters of its length. Scutellum with mixed black and yellow pile. Anepimeron with at least some pile on lower half. Bare area of cell bm at most one-third as long as cell and well separated from anterior margin (Fig. 31) *amplus* (**Curran**)
Boreal and western
- 17(13). Lower katapisternal pile long, at least two-thirds as long as arista. Hind tibia with setae of anterior surface sparse, those of basal one-third much shorter than those of apical two-thirds. First tarsomere of fore leg with keel becoming less pronounced towards base of tarsomere. Wing membrane entirely trichose or with tiny and indistinct bare areas at base of cells c and bm (Fig. 77). *peltatoides* **Curran**
Western
- Lower katapisternal pile short, at most half as long as arista. Hind tibia with setae of anterior surface very dense; setae of basal one-third almost as long as those of apical two-thirds. First tarsomere of fore leg with keel of nearly uniform height throughout. Wing membrane entirely trichose or with moderate bare areas at base of cells c and bm. Widespread (Fig. 63) 18
18. Wing membrane entirely trichose. Basal half of anteroventral surface of mid tibia with tuft of long wavy erect black or yellow pile; longest pile about three times as long as tibial diameter. Anepimeron with very dense tuft of pile, pilum bases visible only at lower edge of tuft (Fig. 63) *naso* (**Walker**)
Boreal and western
- Wing with approximately the basal sixth of cell c and basal one-quarter of cell bm bare. Basal half of anteroventral surface of mid tibia with tuft of shorter straighter usually pale subappressed pile; longest pile at most 1.5 times as long as tibial diameter. Anepimeron with moderately dense tuft of pile, with pilum bases visible throughout (Fig. 72) *octavus* **Vockeroth**
Western
- 19(11). Posterior surface of fore femur without two large subbasal tufts of black setae, either with uniform fine pile (Figs 76, 111), or with one or two tufts of long setae with flattened and broadened apices (Fig. 106), or with subbasal tuft of several long white setae followed in some species by single weak tuft of several black setae (Fig. 84), or with uniform row of widely spaced strong setae over most of its length (Fig. 52) 26
- Posterior surface of fore femur with two large tufts of long, wavy, coarse, black setae preceded by similar tuft of 2–3 wavy white setae (Figs 29, 67, 93) 20
20. Mid coxa without ventral process. Fore femur beyond subbasal tufts with three well-spaced long black setae among shorter pile; second tarsomere of fore leg about two-fifths as long as first tarsomere (Figs 29, 67, 110) 23
- Mid coxa with slender finger-like ventral process. Fore femur beyond subbasal tufts with many long strong black setae; sec-

- ond tarsomere of fore leg about one-sixth as long as first tarsomere (Fig. 92). *scutatus complex* **21**
21. Frons with pollinosity light grey or yellowish, not contrasting with facial pollinosity. Facial pile usually pale. Fore tarsomere 3 less than twice as wide as long. Posterior margins of spots on tergites 3 and 4 almost parallel to the front margin of the tergites (Fig. 92) *Platycheirus scutatus* (Meigen)
Widespread
- Frons with pollinosity dark brown, contrasting with facial pollinosity. Facial pile usually dark. Fore tarsomere 3 at least twice as wide as long. Posterior margins of spots on tergites 3 and 4 at an oblique angle to the front margin of the tergites **22**
22. Mid tibia strongly swollen at midpoint; apically bent downwards at approximately a 30° angle (Fig. 95). *speighti* Doczkal, Stuke & Goeldlin
Western
- Mid tibia not swollen; apical section not bent downwards sharply (Fig. 97). *splendidus* Rotheray
Widespread
23. Fore tibia strongly broadened on apical third and with posteroapical angle broadly rounded; first tarsomere of fore leg strongly broadened posteriorly on basal two-thirds, clearly angulate at this point, then with posterior margin parallel to anterior margin to apex. First four tarsomeres of mid leg yellow; fifth tarsomere brown on dorsal surface. Wing with cell bm entirely trichose (Fig. 110) *urakawensis* (Matsumura)
Alaska, British Columbia, Quebec
- Fore tibia less strongly broadened and with posteroapical angle subacute or narrowly rounded; first tarsomere only gradually broadened posteriorly, without distinct angle. At least last four tarsomeres of mid leg brown to dark brown above. Cell bm with at least small bare area near base, narrowly bare anteriorly over most of its length in some species (Figs 29, 36, 67). **24**
24. Fore tibia uniformly broadened from base to apex; first tarsomere of fore leg gradually broadened from base to apex, its margins slightly divergent throughout and its apical margin slightly curved inwards; second tarsomere with basal margin slightly convex and apical margin slightly concave. Cell bm with only tiny bare area near base (Fig. 67). *nigrofemoratus* (Kanervo)
High boreal regions
- Fore tibia uniformly broadened on basal three-quarters and then slightly more strongly broadened posteriorly; first tarsomere gradually broadened on basal half, parallel-sided on apical half and with apical margin straight; second tarsomere subrectangular, with basal margin very slightly convex and apical margin straight. Cell bm with small to large bare area. Boreal and western (Figs 29, 36) **25**
25. Posteroapical angle of fore tibia distinctly rounded and extending slightly beyond level of posterior margin of first tarsomere. Mid leg with first tarsomere dark, at most slightly paler than fifth tarsomere (Fig. 36) *ciliatus* Bigot
Pacific coastal region
- Posteroapical angle of fore tibia subacute, not extending beyond level of first tarsomere. Mid leg with first tarsomere yellow to brown, usually much paler than fifth tarsomere. (Fig. 29) *albimanus* (Fabricius)
Boreal and western
- 26(19). Mid femur near base of posteroventral surface with dense brush of stiff orange and black setae. Mid tibia distinctly and nearly uniformly broadened on apical three-quarters, with dense anteroventral yellow setae; first tarsomere of mid leg distinctly broadened and depressed. Tergites extensively yellow (Fig. 84). *quadratus* (Say)
Widespread
- Mid femur without posteroventral brush of setae, with at most seven well-spaced yellow or black posteroventral setae on basal half; sometimes with a row of regular setulae (Fig. 52). Mid tibia slender or slightly and irregularly broadened on at most apical half with or without dense ventral setae (Fig. 64); first tarsomere of mid leg neither broadened nor depressed. Tergites variable in colour mostly yellow to mostly black **27**
27. Fore tibia with distinct longitudinal dorsal keel becoming higher toward apex of tibia; first tarsomere of fore leg rather slender, slightly to strongly constricted at mid length. Tergites 3 and 4 yellow-orange with black posterior margin, without black median line (Fig. 69). *normae* Fluke
Widespread
- Fore tibia without dorsal keel; first tarsomere of fore leg usually gradually widened beyond base, not constricted. Tergites 3 and 4 with or without black median line, mostly black in some species (Figs 52, 68, 93). **28**
28. Posterior surface of fore femur with or without sub-basal tuft of setae; if tuft present than individual setae not broadened apically (Figs 76, 84) **31**
- Posterior surface of fore with a sub-basal tuft of long setae, each bearing spearhead-like broadening at apex (Figs 68, 80, 106) **29**
29. Fore femur with one subbasal tuft of long setae with slightly broadened apices; this tuft in some specimens preceded by single long slender pale seta. Mid tibia without long appressed or erect anteroventral setae. Fore and mid tarsi entirely yellow. Tergite 5 with large anterolateral yellow spots (Fig. 106). *thompsoni* Vockeroth
Eastern
- Fore femur with two subbasal tufts of long setae with slightly to strongly broadened apices. Basal half of mid tibia with long appressed or erect anteroventral setae. Fore and mid leg usually with one or more tarsomeres distinctly darker above than yellow first tarsomere. Tergite 5 with anterolateral yellow spots or entirely black (Fig. 68, 80). **30**
30. Tergite 5 black. Setae of first (basalmost) sub-basal tuft of fore femur pale throughout; Mid femur with many posteroventral setae longer than femoral diameter; mid tibia with long erect black anteroventral setae on basal one-third. Mid leg usually with third and fourth tarsomeres darker than first tarsomere on dorsal surface (Fig. 80). *pilatus* Vockeroth

- Boreal
- Tergite 5 with pair of large anterolateral yellow spots. Setae of both sub-basal tufts of fore femur with apices brown to black; Mid femur with posteroventral setae much shorter than femoral diameter; mid tibia with long, appressed, black or yellow anteroventral setae on basal half. Mid leg with first four tarsomeres yellow; fifth tarsomere usually brown to black on dorsal surface (Fig. 68) ***nodosus* Curran**
- Boreal and western
31. Posterior surface of fore femur without subbasal tuft of white setae, either with nearly uniform fine pile or with regularly-spaced long setae over most of its length (Fig. 76) **43**
 - Posterior surface of fore femur with subbasal tuft of two or three closely appressed long white or yellowish setae with wavy apices (Fig. 84) **32**
 32. Anteroventral surface of mid femur without row of strong setae, in some species either with cluster of weak setae at about mid length or with fine preapical pile. Posterior surface of fore femur with uniform fine setae or with at most one row of four or five long, weak, black setae **34**
 - Apical half of anteroventral surface of mid femur with a nearly regularly spaced row of 7–16 short stout black setae, with one or two strong curved setae near or beyond end of row in some species. Posterior surface of fore femur with three to five long, moderately strong, slightly wavy, black or white evenly spaced setae on apical three-quarters (Fig. 52) **33**
 33. Tergites 3 and 4 each with pair of large yellow spots. Mid femur and tibia entirely yellow. Hind femur and tibia entirely yellow or each with dark ring. Fore tibia nearly uniformly broadened from base to apex (Fig. 52) ***immarginatus* (Zetterstedt)**
- Widespread
- Tergites 2–4 each with pair of silvery spots on entirely dark background. Mid and hind femora and tibiae mostly black, sometimes with narrow bases and apices yellow. Fore tibia abruptly broadened on apical quarter (Fig. 93) ***setipes* Vockeroth**
- Western
34. Fore tibia narrower, uniformly broadened from base to apex (Figs 38, 51) **36**
 - Fore tibia strongly and abruptly broadened on apical two-fifths, slightly narrowed at apex (Figs 81, 105) **35**
 35. Second and third tarsomeres of fore leg each at most three-quarters as long as wide. Basal half of anteroventral surface of mid tibia with erect or slanted black setae at least three times as long as tibial diameter. Pile of anepisternum and anepimeron mostly yellow-brown (Fig. 81) ***podagratus* (Zetterstedt)**
- Boreal and western
- Second and third tarsomeres of fore leg each at least as long as wide. Anteroventral surface of mid tibia with only very short inconspicuous pile. Pile of anepisternum and anepimeron usually entirely black (Fig. 105). ***tenebrosus* Coquillett**
- Western
36. Tergite 5 entirely black or with at most small anterolateral obscure yellow spots; tergites 3 and 4 with lateral spots either silvery or submetallic, or, if with distinct yellow spots, these are at most four-fifths as long as tergite and not medially confluent. Apical third of anteroventral surface of mid femur bare or with some pile much shorter than femoral diameter (Figs 28, 51) **38**
 - Tergite 5 mostly or entirely yellow, with at most median stripe and narrow posterior margin black; tergites 3 and 4 with large lateral yellow spots at least nine-tenths as long as tergites and often medially confluent. Apical third of anteroventral surface of mid femur with weak wavy pile at least as long as femoral diameter (Figs 65, 78). **37**
 37. Mid tibia on basal two-thirds of anteroventral surface with subappressed, wavy yellow pile, the longest of which are approximately twice the length of the tibial diameter (Fig. 65) ***neoperpallidus* sp. nov.**
- Widespread
- Mid tibia on basal two-thirds of anteroventral surface with erect, dense, wavy black pile, the longest of which are approximately 4 times the length of the tibial diameter (Fig. 78) ***perpallidus* (Verrall)**
- Widespread
38. Fore and mid femora entirely or mostly yellow, at most with dark stripes on part or all of their lengths; first tarsomere of fore leg parallel-sided only on apical half or very slightly narrowed toward apex (Figs 33, 38, 51). **40**
 - Fore and mid femora black with apices narrowly yellow. First tarsomere of fore leg parallel-sided except at extreme base (Figs 28, 50) **39**
 39. Face slightly but distinctly produced forward below. Cells *bm* and *cup* bare anteriorly on most of basal half. Posterior surface of fore femur with regular row of 5–6 long, strong, black setae on most of its length; fore tibia broad, with posterior margin irregular. Mid tibia with anteroventral pile straight, rather sparse and of uniform length throughout and with three long strong black setae on apical half of posteroventral surface (Fig. 50d). Tergites 3 and 4 with spots yellowish with overlay of silvery pollinosity ***hispidipes* Vockeroth**
- British Columbia
- Face nearly vertical. Wing membrane entirely trichose. Posterior surface of fore femur with uniform fine pile decreasing in length toward apex; fore tibia slightly broadened, with regular margins. Mid tibia with short, dense, wavy, anteroventral pile on middle three-quarters and without long posteroventral setae. Tergites 3 and 4 with spots entirely silvery or with yellow background ***aeratus* (Coquillett)**
- Boreal and western Canada
40. Apex of fore tibia with posterior angle at most very slightly produced so that tibial apex is nearly right-angled; first tarsomere of fore leg with posterior margin slightly curved on apical three-quarters, slightly narrower at apex than at mid length. Spots of tergites 3 and 4 spots entirely silvery or spots silvery pollinose with yellow background (Figs 51) **40**

- *hyperboreus* (Staeger)
- Widespread
- Apex of fore tibia with posterior angle distinctly produced so that tibial apex is pointed; first tarsomere of fore leg with apical half parallel-sided. Spots of tergites 3 and 4 entirely yellow or slightly metallic, with at most very sparse silvery pollinosity (Figs 33, 38) **41**
- 41.** Underside of fore basotarsomere with a V-shaped incision on apical half. Wing membrane with at least a small bare area at base of cell c and at base of cell bm. Fore femur beyond subbasal white tuft of setae with fine mostly pale pile at most little longer than femoral diameter. Tergite 2 slightly longer than wide; tergites 3 and 4 subquadrate (Fig. 33) *Platycheirus angustatus complex* **42**
- Widespread
- Underside of fore basotarsomere with a shallow groove, starting at the basal edge of the tarsomere and ending in a small rounded pit on the apical half. Wing membrane entirely trichose. Posterior surface of fore femur beyond subbasal white tuft of setae with longer stronger usually black pile some at least 1–1.5 times as long as tibial diameter. Tergite 2 at least slightly wider than long; tergites 3 and 4 about 1.3 times as wide as long (Fig. 38) *clypeatus* (Meigen)
- Widespread
- 42.** Anepisternum completely bare, shining *angustatus* (Zetterstedt)
- Western
- Anepisternum dusted with whiteish-grey pollinosity *angustatus complex*
- Widespread
- 43(31).** Tergites black with silvery pollinose spots, without trace of yellow markings. First tarsomere of fore leg as wide as long and strongly narrowed on basal half; following four tarsomeres each progressively slightly narrower. Mid and hind tibiae black, with bases and apices narrowly yellow in most specimens (Fig. 111) *varipes* Curran
- Boreal and western, Greenland
- Tergites 3 and 4 with large yellow spots or almost entirely yellow (Figs 64, 76). First tarsomere of fore leg at least 1.5 times as long as wide and strongly narrowed at base, following four tarsomeres each progressively narrower, or second or third tarsomere much narrower than preceding tarsomere. Mid and hind tibiae black with bases narrowly yellow, or mostly or entirely yellow (Figs 54, 62, 76) **44**
- 44.** Face vertical or slightly receding below. Yellow spots of tergites 3 and 4 distinctly longer than wide, confluent medially in some species. Second to fifth tarsomeres of fore leg each slightly narrower than preceding tarsomere. Hind femur entirely yellow or with at most black ring on apical half; hind leg with second and third tarsomeres partly or entirely dull to bright yellow on dorsal surface. **46**
- Face distinctly produced below. Yellow spots of tergites 3 and 4 slightly wider than long. Second tarsomere or third tarsomere (*P. parmatum*) of fore leg much narrower than preceding tarsomere. Hind femur black with apex narrowly yellow; hind tarsus entirely dark brown to black on dorsal surface (Figs 54, 76) **45**
- 45.** Fore tibia with many posterior setae longer than tibial width; fore leg with second tarsomere much wider than long and only slightly narrower than first tarsomere. Mid femur anteriorly without concavity, anteroventrally with only long fine pile; mid tibia with dense, long, fine, anteroventral, pile which is much longer than tibial diameter. Hind tibia on apical half with several anterodorsal setae about twice as long as tibial diameter (Fig. 76) *parmatum* Rondani
- Boreal regions
- Fore tibia with posterior setae much shorter than tibial width; fore leg with second tarsomere slightly longer than wide and much narrower than first tarsomere. Mid femur anteriorly beyond mid length with shallow concavity bordered below by short dense slightly curved black setulae, otherwise with only short anteroventral pile; mid tibia with anteroventral pile of basal half slightly longer than tibial diameter, otherwise with very short pile. Hind tibia with only very short pile (Fig. 54) *jaerensis* (Nielsen)
- Eastern
- 46.** Tergites 3–5 usually entirely yellow, with only a faint brown median line. Lower katapisternal pile less than half as long as first flagellomere. Mid tibia anteroventrally on basal two-thirds with dense, wavy, black pile about three times as long as tibial diameter, otherwise with short appressed pile (Fig. 62). *modestus* Ide
- Widespread
- Tergites 3–5 with distinct black median line (Fig. 91). Lower katapisternal pile about as long as first flagellomere. Mid tibia ventrally with only very short appressed pile or with dense, fine, wavy, mostly pale, erect pile subequal in length to tibial diameter on apical three-quarters (Figs 73, 91). **47**
- 47.** Mid tibia on apical three-quarters of ventral surface with dense, wavy, erect, mostly pale pile at least as long as tibial diameter; mid femur anteroventrally with at most a few scattered black setae (Fig. 73). *orarius* Vockeroth
- Eastern coastal regions
- Mid tibia ventrally with short, pale, or partly dark appressed pile, without erect pile; mid femur usually with nearly regularly spaced row of 3–15 short stiff black or yellow setae anteroventrally (Figs 90–91). **48**
- 48.** Mid tibia with appressed ventral pile mostly black; mid femur usually with row of 3–15 short stiff black setae (rarely with only yellow setae) anteroventrally, and with four to six strong black posteroventral setae on basal half (Fig. 91) *scambus* (Staeger)
- Widespread
- Mid tibia with appressed ventral pile entirely yellow; mid femur with short stiff yellow setae or also with one black seta anteroventrally, and with three or four very weak black posteroventral setae (Fig. 90). *scamboides* Curran
- Eastern

- 49(2). Posterior surface of fore femur with uniform or nearly uniform fine pile or setae, with at most some near apex slightly longer and with curved apices (Figs 41, 119, 120). **53**
- Apical half or more of posterior surface of fore femur with regular row of five or more long black setae, row ending with longer seta with strongly curved apex (Fig. 118) **50**
50. Posterior setae of fore femur very long, thin, and tapering gradually, with slightly wavy apices. Oral margin reaching or almost reaching tubercle (Fig. 37). **clausseni Nielsen**
Colorado
- Posterior setae of fore femur very thick, slightly flattened, and tapering abruptly to chisel-like points at apices. Oral margin not reaching tubercle (Figs 34, 118) **51**
51. Fore femur blackish brown with only narrow apex yellow-orange, subbasally usually with black setae but with some pale setae in some specimens. Mid femur with subbasal anterior setae black. Wing with cell bm usually entirely trichose, bare on at most anterobasal one-third. Haltere dark. (Fig. 60) **lundbecki (Collin)**
Subarctic, including Greenland
- Fore femur entirely orange or with blackish brown posterior stripe, subbasally with anterior row of three to five rather long strong yellow setae. Mid femur subbasally with similar row of slightly longer yellow setae. Wing with cell bm entirely bare on at least basal half usually with some microtrichia near apex. Haltere usually pale. (Figs 34, 39). **52**
52. Fore femur with regular row of setae on apical half only. Frons brown pollinose, contrasting with greyish-white pollinosity of face. Spots of tergites orangeish, overlaid with faint silvery pollinosity (Fig. 34). **brunnifrons Nielsen**
Alaska, Colorado
- Fore femur with regular row of setae on apical five-sixths. Frons grey or white pilose. Spots of tergites orangeish, yellowish, or entirely dark, overlaid with strong silvery pollinosity (Fig. 39). **coerulescens (Williston)**
Widespread
53. Fore and mid tibia posteriorly with only short weak setae at most twice as long as tibial diameter. Face with pollinosity uniform, neither rippled nor punctuate (Fig. 79) **67**
- Fore and mid tibia posteriorly with nearly regular row of weak to strong black setae; longest setae at least one-fifth as long as tibia. Face with pollinosity uniform or with weak ripples or weak to strong punctures (Figs 119–120). **54**
54. First tarsomere of fore leg with only very short posterior pile (Fig. 119). **56**
- First tarsomere of fore leg with 5–7 long weak posterior setae, last one or two setae with curved apices and about two-thirds as long as tarsomere (Fig. 35) **55**
55. Mid femur, at about one-third its length, with compact cluster of 2–4 moderately strong black setae 1.50–1.75 times as long as femoral diameter and without distinct anteroventral setae near base. Fore femur, at about one-third its length, with loose to compact cluster of 3–5 strong ventral setae some or all about twice as long as much weaker posteroventral setae on basal third of femur. Silver-gray spots on tergite 2 as wide as long, on tergites 3 and 4 about 1.6 times as wide as long. Surstylus with shorter lobe at its mid length from 1.25–2.0 times as wide as longer lobe at its mid length. Length 7.9–8.9 mm (Fig. 113) **yukonensis Vockeroth**
Northwestern, high boreal and alpine regions
- Mid femur in some specimens without distinct ventral setae, in some with up to 9 very weak anteroventral setae near base; at one-third its length with 1 slender seta about 1.5 times as long as femoral diameter or 2 moderately strong well-separated setae at most 1.25 times as long as femoral diameter. Fore femur with 2–9 irregularly spaced ventral setae only slightly longer and stronger than posteroventral setae on basal one-third of femur. Silver-gray spots on tergite 2 about four-fifths as wide as long, on tergites 3 and 4 subquadrate. Surstylus with shorter lobe, at its mid length, from 0.80–1.7 times as wide as longer lobe at its mid length. Length 4.8–7.6 mm (Fig. 35). **chilosia (Curran)**
High boreal and arctic regions, including Greenland
56. Fore and mid tibia posteriorly with regular row of strong black setae on apical two-thirds, the longest reaching the middle of basitarsus. Arista distinctly thickened on basal half. Pollinosity of face uniform. Wing with basal half of cells c, bm, and cup bare (Fig. 30). **alpigenus Barkalov & Nielsen**
Colorado
- Fore and mid tibia with row of posterior black setae shorter, never reaching the middle of basitarsus. Arista never thickened on basal half. Pollinosity of face uniform or with oblique rows of punctures or with faint lateral ripples. If pollinosity of face uniform, than wing completely microtrichose (Figs 79, 119). **57**
57. Pollinosity of face uniformly distributed with only tubercle or median stripe bare. Wing membrane entirely trichose (Figs 82, 94) **66**
- Pollinosity of face with oblique rows of punctures or with faint lateral ripples. Wing membrane in some species slightly or extensively bare basally (Fig. 119) **58**
58. Face with faint oblique lateral ripples. Fore tibia with a row of very long, distinctly thickened posterior setae, almost as thick as arista, on apical four-fifths. The longest of these thickened setae approximately two-fifths the length of the fore tibia. Wing membrane brownish, entirely microtrichose. Lateral pile of tergites almost all black, strong, and long. (Fig. 98) **squamulae (Curran)**
Western
- Face with faint oblique lateral ripples or oblique rows of rounded punctures over most of its surface. Fore tibia with a regular row of long, posterior, thickened, setae on at most apical two-thirds, often with very short, unmodified setae on basal third, no longer than width of fore-tibia. The longest of these thickened setae approximately one quarter the length of the fore tibia. Posterior setae may be distinctly thickened, almost as thick as arista to thin, to barely thicker than surrounding setae. Wing membrane hyaline, entirely microtrichose to extensively bare. Lateral pile of tergites usually white (Figs 101, 108). .

59.	Face with faint oblique lateral ripples. Fore tibia with a regular row of weakly thickened posterior setae, barely thicker than surrounding setae. Abdominal markings with orange background in some species (Figs 70, 108)	59
-	Face with oblique rows of rounded punctures over most of its surface. Fore tibia with a regular row of long, distinctly thickened setae, almost as thick as arista. Abdominal markings metallic bluish or bronze, never with orange background (Fig. 101)	63
60.	Wing with cells c and bm mostly densely trichose, bare only basally or anterobasally	62
-	Wing with cells c and bm bare or with some scattered microtrichia near apex	61
61.	Face with only tubercle shining black; face slightly broader, with coarser punctures. Scutellum usually with only white pile. Surstylus with lateral lobe stout and strongly curved (Figs 101, 123)	<i>stegnus</i> (Say)
-	Face with shining median black stripe more extensive, usually reaching lower margin of face and extending above upper limit of tubercle; face slightly narrower, with finer punctures. Scutellum with black pile at least posteriorly. Surstylus with lateral lobe stout and nearly straight (Figs 96, 123)	<i>spinipes</i> Vockeroth
62.	Wing with cells c and bm entirely trichose. Upper pleural pile black. Face with only tubercle shining black; area between tubercle and lower facial margin pollinose. Fore tibia posteriorly with rather slender setae on entire length; setae decreasing in length toward base and very short on about basal one-third. Surstylus with lateral lobe stout and strongly curved (Figs 99, 123)	<i>stegnoides</i> Vockeroth
-	Wing with cell c bare on about basal one-sixth and cell bm bare on about anterobasal one-third. Upper pleural pile usually entirely pale. Face with shining median black stripe extending from lower facial margin to well above tubercle; fore tibia posteriorly with five to seven strong setae of nearly equal length, without setae on about basal one-quarter. Surstylus with lateral lobe stout and somewhat curved (Figs 48, 123).	<i>hesperius</i> Vockeroth
63.	Face only slightly produced below, with anterior oral margin not extending as far forward as facial tubercle. Fore and mid femur usually orange on apical quarter or less. Surstylus with dorsobasal lobe smaller, almost straight (Figs 41, 88, 98, 123)	65
-	Face moderately produced below, with anterior oral margin produced at least as far forward as facial tubercle. Fore and mid femur often orange on apical half, rarely only orange on apical quarter or less. Surstylus with dorsobasal lobe large, strongly curved (Figs 70, 108, 123)	64
64.	Face produced below to the level of the facial tubercle; with shining median stripe extending upwards almost to antennal bases. Vertex forming an approximately 100° angle. Hind tibia with a posterior row of irregular setae, the longest of which are approximately 2.5–3 times as long as the width of the tibia (Figs 70, 121d)	<i>obscurus</i> (Say)
-	Face produced below slightly beyond the level of the facial tubercle; only the tubercle sub-shining. Vertex forming an approximately 120° angle. Hind tibia with a posterior row of irregular setae, the longest of which are approximately 3.5–4 times as long as the width of the tibia (Figs 108, 121e)	<i>trichopus</i> (Thomson)
65.	Wing membrane extensively bare; cell c trichose on at most apical one-fifth; cell bm with only slender patch of microtrichia near apex; cell cu ₁ bare on entire width at base. Anepisternum usually entirely white pilose, rarely with some black pile. Surstylus with dorsobasal lobe very small; process beyond lobe curved and nearly as broad as base of surstylus (Fig. 88)	<i>sabulicola</i> Vockeroth
-	Wing membrane more trichose; wing of eastern specimens with membrane mostly trichose; wing of western specimens with cell c with at least small bare area at base and cell bm with at least bare median stripe near base and usually with much of anterior margin bare. Anepisternum with at least some black pile near upper margin. Surstylus with dorsobasal lobe larger; process beyond lobe nearly straight and more slender than base of surstylus before lobe (Figs 41)	<i>confusus</i> (Curran)
66(57).	Face with weak but distinct keel between tubercle and upper end of face, with rather small tubercle. First tarsomere of mid leg with three strong black anteroventral setae on apical two-thirds of its length; all setae at least as long as diameter of tarsomere (Fig. 94)	<i>setitarsis</i> Vockeroth
-	Face without keel above antenna, with large tubercle. First tarsomere of mid leg without distinct anteroventral setae (Fig. 82)	<i>protrusus</i> Vockeroth
67(53).	Abdomen without orange markings, entirely dark or with shining blueish spots (Figs 44, 84)	72
-	Abdomen with extensive orange markings (Figs 55, 86)	68
68.	Legs almost entirely black, at most extreme apices of femora and bases of tibiae yellowish. Tergite 5 mostly or entirely orange (Fig. 86)	<i>rufigaster</i> Vockeroth
-	Fore and mid femora yellow on at least apical half of anterior surface; fore and mid tibiae mostly or entirely yellow. Tergite 5 usually black or with pair of obscure orange basal spots, sometimes entirely orange (Figs 85, 87)	69
69.	Fore femur posteriorly near apex with two or three long black setae with curled apices; these setae contrasting with preced-	

- ing shorter dense pale pile; fore tibia posteriorly with dense fine pale pile some longer than tibial diameter. Face about five-eighths as wide as head. Wing with cell c bare at least at base; cell bm bare except at apex. Tergite 2 with pair of orange spots; tergites 3 and 4 with orange spots widely separated from lateral margins (Fig. 55) **kelloggi** (Snow) Western
- Fore femur with sparser and shorter pile decreasing in length toward apex; pile without curled apices; fore tibia with only very short pile. Face not more than half as wide as head. Wing membrane entirely trichose or extensively bare. Tergite 2 black or mostly red-orange; tergites 3 and 4 either with orange spots reaching lateral margins in some species or entirely red-orange (Fig. 79) **70**
 - 70.** Wing membrane entirely trichose. Spots of tergites 3 and 4 yellow-orange, distinct, narrowed laterally. Pile of scutum and scutellum longer; longest scutellar pile about two-thirds as long as arista; lower part of katapisternum, between upper and lower patches of pile, weakly but distinctly pollinose (Fig. 85) **rosarum** (Fabricius) Widespread
 - Wing with base of cell c and most of cell bm bare. Tergites 3 and 4 either with spots red-orange, usually obscure, not narrowed laterally, or entirely red-orange. Pile of scutum and scutellum very short; longest scutellar pile less than half as long as arista. Lower part of katapisternum, between upper and lower patches of pile, strongly shining or weakly pollinose (Figs 79, 87) **71**
 - 71.** Tergite 2 black with submetallic bluish spots; tergites 3 and 4 with basal red-orange spots; tergite 5 black or with obscure basal orange spots. Lower part of katapisternum, between upper and lower patches of pile, strongly shining with only narrow posterior margin pollinose (Fig. 79) **pictipes** (Bigot) (in part) Widespread
 - Tergite 2 red-orange with anterior margin and lateral margins narrowly black; tergites 3–5 entirely red-orange. Lower part of katapisternum, between upper and lower patches of pile, entirely or almost entirely moderately pollinose (Fig. 87) **russatus** (Vockeroth) Southern California
 - 72.** Pile of notopleural area white to yellow brown; scutellar pile partly to entirely pale (Fig. 79) **75**
 - Pile of notopleural area partly or entirely black; scutellar pile black (Fig. 43) **73**
 - 73.** Face above tubercle with two or three weak vertical ridges bordering weak median keel or shallow groove. Lower part of katapisternum, between upper and lower patches of pile, weakly but distinctly pollinose **pullatus** Vockeroth (in part) Western Canada, arctic and alpine regions
 - Face above tubercle smoothly rounded, without trace of ridges or median keel. Lower part of katapisternum, between upper and lower patches of pile mostly or entirely shining black. **74**
 - 74.** Wing membrane entirely trichose. Shining area of katapisternum, above lower patch of pile, extending to posterior margin of sclerite. Surstylus elongate-oval, broadest at mid length. Gonostyle with two spines (Fig. 43) **coracinus** Vockeroth Yukon Territory
 - Wing with extreme base of cell c and posterobasal part of cell bm bare. Shining area of katapisternum, above lower patch of pile, bordered posteriorly by narrow but distinct band of minute pile. Surstylus straplike, narrowest at mid length. Gonostyle with one spine (Fig. 57) **latus** (Curran) Western
 - 75.** Legs with at least broad apices of fore and mid femora and most of fore and mid tibiae orange to red-orange. Antenna with first flagellomere broadly orange below. Wing membrane entirely trichose or with cells c and bm slightly or extensively bare (Figs 60, 79, 103) **77**
 - Legs almost entirely black; only extreme apices of femora and extreme bases of tibiae obscurely yellowish. Antenna black. Wing membrane entirely trichose (Figs 83, 112) **76**
 - 76.** Fore tibia posteriorly with dense, fine, mostly pale, erect pile almost twice as long as tibial diameter; first tarsomere of fore leg with similar but shorter pile. Mid femur anteroventrally without black setae, with long fine white pile on basal half (Fig. 112) **woodi** Vockeroth Yukon Territory
 - Fore tibia posteriorly with short black appressed pile; first tarsomere of fore leg with only very short pile. Mid femur anteroventrally with irregular row of short weak stiff black setae on most of its length, without pale pile (Fig. 83) **pullatus** Vockeroth (in part) Western, arctic and alpine regions
 - 77.** Upper part of face evenly rounded medially, without ridges, grooves, or median keel. Gonostyle stout, with short curved spine closely appressed to base (Figs 79, 124b) **pictipes** (Bigot) (in part) Widespread
 - Upper part of face either with weak but distinct median keel or with weak submedian ridges and shallow median groove. Gonostyle slender, with long spine well-separated from base (Fig. 60, 103, 124a, 124c) **78**
 - 78.** Face sparsely pollinose, laterally with minute oblique striations in integument. Upper part of face with moderately strong median keel. Wing with cell bm at least one-third bare. Gonostyle with spine moderately separated from base (Fig. 60, 124a) **luteipennis** (Curran) Widespread Central Nearctic
 - Face more densely pollinose, without striations in integument. Upper part of face either with very weak median keel or with very shallow median groove. Wing with cell bm entirely trichose or with at most narrow bare median stripe near base. Gonostyle with spine more widely separated from base (Fig. 103, 124c) **striatus** Vockeroth

	Boreal and western	
79(1).	Anterior oral margin smoothly rounded when viewed laterally (Fig. 117).	105
-	Anterior oral margin with distinct corners when viewed laterally (Fig. 42).	80
80.	Face with oblique rows of rounded punctures or with faint oblique lateral ripples in the pollinosity (Figs 42, 49, 71)	120
-	Face with pollinosity uniformly distributed except on tubercle, with neither punctures nor ripples (Figs 35, 79, 63)	81
81.	Abdomen mostly dark, with or without orange markings on tergites (Figs 35, 64)	83
-	Abdomen almost entirely orange, either with tergites 2–4 almost entirely orange, with only tergite 1 and the anterior edge of tergite 2 black (Figs 86–87).	82
82.	Abdomen very broad. Basoflagellomere subquadrate (Fig. 86)	<i>rufigaster</i> Vockeroth
	Northwestern	
-	Abdomen narrow. Basoflagellomere approximately 1.5 times as long as wide (Fig. 87)	<i>russatus</i> Vockeroth
	Southern California	
83.	Abdomen dark, with or without orange markings on tergites. If markings present, then always as paired, separated spots, never medially confluent. Sternites either entirely dark or entirely orange, never dark with orange anterior bands or spots. Thoracic hairs of scutum short to extremely long, as long as arista. (Figs 35, 64).	85
-	Abdomen dark, with variable orange markings on tergites. Orange markings on tergites 3–4 meeting anterior and lateral edges of sclerite, usually present as medially confluent paired spots, sometimes spots either narrowly separated or completely merged into a solid orange band. If spots on tergites 3–4 narrowly separated, then sternites always dark with anterior orange bands or paired spots on at least sternites 3–4. Tergites 2 and 5 either with paired spots or entirely dark. Thoracic hairs short, hairs of scutum never approaching length of arista. (Figs 46, 85)	84
84.	All femora pale at base, often with entire femur pale. Large orange spots on tergites 2–4. (Fig. 46)	<i>granditarsis</i> (Forster)
	Widespread	
-	All femora dark at base, often with basal half to two-thirds entirely dark. Large orange spots always present on tergite 3, present or absent on tergites 2 and 4. (Fig. 85)	<i>rosarum</i> (Fabricius)
	Widespread	
85.	Scutum with large, central patch of short, black pile no longer than scape. Large, robust species; abdomen broadly oval with no trace of pale spots, only silver markings. Bottom half of katepisternum shining (Fig. 57)	<i>latus</i> (Curran)
	Western	
-	Scutum usually with only pale pile centrally, if pile black then much longer than scape. Large or small species. Abdomen broad or narrow, with or without pale spots. Bottom half of katepisternum pollinose or shining (Figs 55, 59, 60, 79, 103)	86
86.	Pile of scutum and scutellum and pleura short, no longer than the length of scape. Bottom half of katepisternum completely bare, shining. Rest of pleuron pilose or bare, shining metallic beneath sparse pile (Figs 60, 79, 122a)	128
-	Some thoracic pile longer than scape, at least at hind rim of scutellum. Katepisternum entirely pollinose, rest of pleuron usually entirely pollinose. Pollinosity on katepisternum sometimes thin but still present, with shining tergites showing through (Figs 35, 64, 122b)	87
87.	Forefemur with a regular row of long, black, slender setae. Apical seta elongated and slightly curled at tip. Legs dark, with only apices/bases of femora and tibiae pale. Abdomen dark, with silver pollinose spots (Fig. 59)	<i>lundbecki</i> (Collin)
	Subarctic, including Greenland	
-	Forefemur without regular row of long, black, slender setae. Legs dark or pale. Abdomen with or without spots (Figs 47, 61, 75)	88
88.	Scutum densely grey pollinose. Face strongly projected, with oral margin projecting beyond tubercle. Abdomen with large yellow spots on tergites (Fig. 61)	<i>manicatus</i> (Meigen)
	Northwestern	
-	Scutum usually shining, never densely grey pollinose. Some species with scutum lightly dusted with grey pollinosity, if so, never with a strongly projected face. Face projected or receding. Abdomen with or without spots (Figs 30, 55)	89
89.	Pollinosity of frons concentrated into 2 triangles above antennal bases, often with distinctly less dense pollinosity in between. Basal half of arista never thickened (Figs 116, 118)	97
-	Pollinosity of frons uniform: either extremely sparse or somewhat dense, never concentrated into 2 triangles above antennal bases. Basal half of arista sometimes noticeably thickened (Figs 30, 115)	90
90.	First fore tarsomere weakly flattened with lateral margins divergent, apex oblique and approximately 1.2 times as wide as apex of tibia. Thoracic pile dense, wavy, and yellow. Abdomen broadly oval, with obscurely orange spots on tergites 2–5 reaching anterior edge of tergites, and overlaid with dense silvery pollinosity (Fig. 75).	<i>oreadis</i> Vockeroth
	Colorado	
-	First fore tarsomere cylindrical, never flattened or broadened. Thoracic pile variable, but never yellow. Abdomen with or without orange spots and/or silvery pollinose markings (Fig. 44, 107)	91
91.	Fore and mid legs mainly pale. Abdomen with or without pollinose markings, sometimes with an orange background (Fig. 107)	<i>thylax</i> Hull
	Widespread	
-	Fore and mid legs dark, with yellow only at narrow apices of femora and narrow bases and apices of tibiae. Abdomen dark, with or without pollinose markings, never with an orange background (Fig. 44)	92
92.	Legs with no outstanding setae (Fig. 30, 44, 47, 105)	94
-	Fore and mid tibia with a row of short, irregularly spaced setae. Fore femur sometimes with a posteroventral row of 3–4 closely spaced soft white setae on basal third. Mid femur sometimes with 1–2 long white or black setae, up to 1.5 times as	

	long as femoral diameter (Fig. 35)	93
93.	Tubercle produced to level of anterior oral margin. Face with ridges between antennal bases <i>chilosia</i> (Curran) and probably <i>yukonensis</i> Vockeroth (<i>yukonensis</i> unknown) High boreal and arctic regions, including Greenland	
-	Tubercle produced beyond level of anterior oral margin. Face smooth between antennal bases	<i>protrusus</i> Vockeroth
94.	Frons and vertex thinly but uniformly pollinose all the way from antennal bases posterior to ocellar triangle. Vertex bare and shining behind anterior margin of ocellar triangle (Fig. 49).	<i>groenlandicus</i> Curran
	Boreal and Arctic	
-	Frons either uniformly pollinose or bare and shining. Vertex always bare, shining. (Fig. 30, 44, 104)	95
95.	Frons densely and uniformly pollinose. Abdominal tergites with distinct grey pollinose spots (Fig. 30). <i>alpigenus</i> Barkalov & Nielsen	
	Colorado	
-	Frons either very thinly pollinose on anterior half or entirely bare. Abdominal tergites either with obscure grey pollinose spots or entirely bare. Never with both pollinose frons and pollinose spots on tergites. (Fig. 44, 104)	96
96.	Frons thinly pollinose on anterior half. Abdominal tergites entirely bare, shining. Oral margin projecting approximately as far as tubercle. (Fig. 104).	<i>subordinatus</i> (Becker)
	Colorado	
-	Frons entirely bare. Abdominal tergites with obscure grey pollinose spots. Tubercle projecting farther than oral margin (Fig. 44)	<i>discimanus</i> (Loew)
	Widespread	
97.	Tergites 2, 3, and 4 with large orange spots with no trace of a pollinose overlay. Tergite 2 with spots triangular, not reaching anterior or lateral edge. Tergites 3 and 4 with spots rectangular, meeting anterior edge but separated from lateral edge. Tergite 5 entirely dark. Cells c and bm entirely bare. Abdomen very wide, with tergite 3 approximately 3 times as wide as long. Fore and mid femora entirely orange, fore and mid tibiae almost entirely orange, with at most apical quarter obscurely darkened. Fore and mid tarsi dark. (Fig. 55)	<i>kelloggi</i> (Snow)
	Western	
-	Tergites 2, 3, and 4 with or without orange spots and/or pollinose overlay. If tergite 3 and 4 with spots, then tergite 5 at least partly orange or cells c and bm extensively trichose. Abdomen narrower, tergite 3 rarely more than 2.5 times as wide as long. Fore and mid legs entirely orange to entirely black, but never with femora and tibiae orange and tarsomeres dark	98
98.	Fore-femur with an evenly spaced row of very weak, white setae posteriorly. Tergites 2, 3, and 4 with rectangular or parallelogram shaped orange markings, often overlaid with strong silvery pollinosity. Wing extensively bare, with cells c and bm bare on at least basal 5/6ths, often with only scattered microtrichia at apex. Cells r2+3, r4+5, dm, cup, and anal lobe all often with bare areas basally (Fig. 40)	<i>coerulescens</i> (Williston)
	Widespread	
-	Fore-femur never with an evenly spaced row of weak, white setae. Tergites 2, 3, and 4 variable. Wings less extensively bare, with at most basal three-quarters of cells c and bm bare (Figs 29, 64).	99
99.	Keel or grooves always present between antennal bases. Abdomen broadly oval, with large pale spots on tergites 2, 3, 4 and usually 5. Spots of tergites 3 and 4 1.5–2 times as wide as long and either quadrangular or broadening slightly towards the centre of the tergite (Figs 64, 66)	129
-	Keel/grooves present or absent between antennae. Abdomen narrower, with or without pale spots on tergites. If spots present, than spots of tergites 3 and 4 never broadening towards centre of tergite (Figs 29, 45, 111)	100
100.	First tarsomere of hind leg swollen, approximately 50% thicker medially than at either end. Arista microtrichose, with microtrichia length on basal half at least a third the thickness of arista at base (Fig. 92).	<i>scutatus complex</i>
-	First tarsomere of hind leg of equal thickness throughout. If arista microtrichose, then microtrichia length less than a third the thickness of arista at base	101
101.	All femora dark on basal two-thirds. Tergites 2–4 with pale spots. Keel present between antennal bases (Fig. 45). <i>flabella</i> Hull (in part)	
	Boreal and western Nearctic	
-	Never with both dark femora and pale spots on tergites. With or without keel between antennal bases (Figs 67, 111)	102
102.	Fore femur never with a posterior tuft of 2–3 thin, closely appressed, white setae (Fig. 111).	<i>varipes</i> Curran
	Boreal and western, Greenland	
-	Fore femur posteriorly near base with tuft of 2–3 thin, closely appressed, white setae which are slightly longer than the surrounding pile (Fig. 117f).	103
103.	Fore and mid femur orange with a posterior brown stripe, fore and mid tibiae orange on basal third. Hind femora and tibiae narrowly orange only at bases and apices, otherwise dark brown. Spots of abdomen either obscurely orange-brown overlaid with silvery pollinosity or dark with only silvery pollinosity. Spots rarely meeting anterior edge of abdomen (Fig. 29). <i>albimanus</i> (Fabricius)	
	Boreal and western	
-	Fore and mid femur more extensively brown. Fore femur at most with yellow at base and apex and a broad brown ring covering three-quarters of the femur, often almost entirely brown with yellow only at extreme base and apex. Mid femur almost entirely brown, narrowly yellow at base and apex. Spots of abdomen never orange, always dark with only silvery pollinosity. Spots often reaching anterior edge of tergite (Figs 67, 110).	104
104.	Wing almost entirely microtrichose, with only small bare areas at the bases of cells c and bm (Fig. 67) <i>nigrofemoratus</i> (Kanervo)	

-	High boreal regions	
-	Wing with large bare areas on basal half (Fig. 110)	<i>Platycheirus urakawensis</i> , probably also <i>ciliatus</i> , <i>setipes</i> , <i>hispidipes</i> (females unknown)
	Alaska, British Columbia, Quebec	
105(79).	At least some tergites with pale spots (Figs 68, 81)	108
-	All tergites entirely dark, sometimes with silver pollinose markings (Fig. 28)	106
106.	Tergites without silver pollinose markings, entirely dark	melanistic specimens of various species
-	Tergites with silver pollinose markings (Figs 28, 51)	107
107.	All femora black basally (Fig. 28)	<i>aeratus</i> (Coquillett), in part
	Boreal and western Canada	
-	Fore and mid femora pale, usually with a posterior black stripe (Fig. 51)	<i>hyperboreus</i> (Staeger)
	Boreal and western Nearctic	
108.	All femora yellow at base (Figs 68–69)	110
-	Some or all femora broadly black basally, and over most of length (Figs 28, 81)	109
109.	Hind femur black, apex narrowly yellow. Fore and usually mid femora yellow at base. Abdominal tergites with yellow spots small, triangular or rounded, and separated from anterior and lateral tergite edges (Fig. 81)	<i>podagratus</i> (Zetterstedt), maybe <i>tenebrosus</i> ? (female unknown)
	Boreal and western	
-	All femora black basally (Fig. 28)	<i>aeratus</i> (Coquillett) (in part)
	Boreal and western Canada	
110.	Yellow spots of tergites 3 and 4 rectangular, reaching lateral margins (Figs 33, 38)	112
-	Yellow spots of tergites 3 and 4 trapezoidal, not reaching lateral margins (Figs 68, 106)	111
111.	Fore-femur with two sub-basal tufts of thin, posterior, closely-appressed, white setae (Fig. 68)	<i>nodosus</i> Curran, probably also <i>pilatus</i> , whose female is unknown
	Boreal and western	
-	Fore-femur with one sub-basal tuft of thin, posterior, closely-appressed, white setae (as seen in Fig. 117f)	<i>thompsoni</i> Vockeroth
	Eastern	
112.	Tergite 5 usually entirely dark. Abdomen almost parallel sided, spots of tergites 2–4 usually longer than broad. Wing with at least a small bare area at the base of cells c and bm (Fig. 33)	<i>angustatus complex</i> 113
	Widespread	
-	Tergite 5 with pale spots. Abdomen robust, oval shaped. Spots of tergites 2–4 usually broader than long. Wing with bare patches or entirely trichose (Figs 51, 69)	114
113.	Anepisternum completely bare, shining	<i>angustatus</i> (Zetterstedt)
	Western	
-	Anepisternum dusted with whiteish-grey pollinosity	<i>angustatus complex</i>
	Widespread	
114.	Pale spots of tergite 2 usually not reduced—almost always at least two-thirds the total length of tergite, usually reaching lateral margins of tergites, and subquadrate in shape. Tergite 6 usually entirely pale or with lateral pale spots, rarely entirely dark. Pale spots of tergites never overlaid with silver pollinosity. Pale spots of tergites 3–5 variable in length/width ratio, and usually at least three-quarters the length of tergite. Hind femora and tibia rarely with complete dark rings, often with obscure dark markings or entirely pale (Fig. 91)	116
-	Pale spots of tergite 2 reduced—no more than a quarter total length of tergite, rarely reaching the lateral tergite margin, usually broader than long, and triangular/circular in shape. Tergite 6 dark, with at most obscurely orange lateral margins. Pale spots of tergites usually overlaid with faint to strong silver pruniosity. Pale spots on tergites 3–5 usually broader than long and no more than four-sevenths the total length of tergite. Hind femora and tibia usually with a strong dark ring at mid-length, sometimes leaving only base and apex of femora and tibia pale. Hind femora and tibia rarely entirely pale (Figs 38, 51)	115
115.	Tergites 3–5 always with strong silvery pruniosity overlaying pale spots. Base of cell c, bm usually bare.	<i>hyperboreus</i> (Staeger)
	Widespread	
-	Tergites 3–5 usually with faint silvery pollinosity overlaying pale spots, sometimes without trace of pollinosity. Base of cell c, bm completely microtrichose	<i>clypeatus</i> (Meigen)
	Widespread	
116.	Pollinose markings on frons forming 2 triangles, often with less dense pollinosity in between (Fig. 117c)	118
-	Pollinose markings on frons not forming 2 triangles, frons uniformly pollinose (Fig. 73)	117
117.	Fore-trochanter with a blunt, ventral, triangular process. Tergites 3–5 often with black median line broadly broken or absent or represented by a faint brownish line. Legs entirely yellow (Fig. 69)	<i>normae</i> Fluke
	Widespread	
-	Fore-trochanter without a ventral process, rounded below. Tergites 3–5 with black median line complete. At least hind legs with dark markings on tibia and tarsi (Fig. 73)	<i>Platycheirus orarius</i> Vockeroth
	Eastern coastal regions	
118.	Sub-basal tuft of 2–3 thin, closely appressed, white setae present on fore femur. Pollinosity of face, and pilosity of thorax usually white. Yellow markings of tergites 3 and 4 with a straight posterior margin (Fig. 117f)	

- *immarginatus* (Zetterstedt), *quadratus* (Say), *neoperpallidus* n. sp., *perpallidus* Verrall
- Sub-basal tuft 2–3 thin, closely appressed, white setae not present on fore femur. Pollinosity of face, and pilosity of thorax usually golden-yellow. Yellow markings of tergites 3 and 4 usually with a sinuous or straight posterior margin (Fig. 117g) **119**
 - 119.** Arista pubescent, with many microtrichia at least two-thirds the width of arista at base. Yellow markings of tergites 3 and 4 usually with a sinuous posterior margin. Face below tubercle usually pollinose. Antero-dorsal side of first tarsomere of hind leg, and dorsal side of hind tarsomeres 2–5 with only black setae (Fig. 91) *scambus* (Staeger), probably *scamboides*, whose female is unknown
Widespread
 - Arista bare or pubescent. If pubescent, microtrichia sparse, not more than ½ the width of arista at base. Yellow markings of tergites 3 and 4 with a straight posterior margin. Face below tubercle usually bare, shining. Antero-dorsal side of first tarsomere of hind leg, and dorsal side of hind tarsomeres 2–5 with pale setae (Fig. 62) *Platycheirus modestus*
Widespread
 - 120(80).** Face with faint lateral ripples in the pollinosity (Fig. 42, 109). **124**
 - Face with distinct oblique rows of punctures over most of its surface (Figs 100, 102) **121**
 - 121.** Wing with cells c and bm bare or with at most a few microtrichia near apex **123**
 - Wing with cells c and bm extensively trichose, the latter with microtrichia on most or all of the posteroapical half **122**
 - 122.** Wing with cells c and bm entirely trichose. Face with only tubercle shining, the area between tubercle and lower facial margin pollinose (Fig. 100). *stegnoides* Vockeroth
Western Canada
 - Wing with cell c bare on about basal third to two-thirds and cell bm bare on about anterobasal half. Face with shining median stripe extending from lower facial margin to well above tubercle (Fig. 49) *hesperius* Vockeroth
Oregon, California
 - 123.** Face with only tubercle shining black; face slightly broader and with coarser punctures (Figs 102) *stegnus* (Say)
Western
 - Face with shining median black stripe more extensive, usually reaching lower margin of face and extending above upper limit of tubercle; face slightly narrower and with finer punctures (Figs 96) *spinipes* Vockeroth
Southwestern
 - 124.** Vertex thinly but uniformly whitish-grey pollinose. Abdomen entirely black, uniformly whitish-grey pollinose. Antenna entirely dark. Legs entirely dark except for extreme apices of femora and bases of tibiae. *pullatus* Vockeroth
 - Vertex often with pollinosity forming two triangles above antennal bases, sometimes entirely bare or thinly pollinose. Abdomen never entirely dark and uniformly pollinose, with either orange or silver spots on tergites. Antenna usually with some orange, at least on ventral side of basoflagellomere. Legs with at least fore and mid tibiae orange on most of their length. **125**
 - 125.** Face only slightly produced below, with anterior oral margin not extending as far forward as facial tubercle (Figs 42, 89). **127**
 - Face moderately produced below, with anterior oral margin produced at least as far forward as facial tubercle (Figs 71, 109) **126**
 - 126.** Face produced below to the level of the facial tubercle; with shining median stripe extending upwards almost to antennal bases (Fig. 71). *obscurus* (Say)
Eastern
 - Face produced below slightly beyond the level of the facial tubercle; only the tubercle shining (Fig. 109) *trichopus* (Thomson)
Western
 - 127.** Wing with membrane entirely trichose or with at most a minute bare area at base of cell c *squamulae* (Curran)
Western
 - Wing of eastern specimens with at least a small bare area near base of cell bm, of western specimens with base of cells c and bm both extensively bare (Figs 42, 89). *confusus* (Curran) or *sabulicola* Vockeroth
Widespread
 - 128(86).** Face smooth between antennal bases, without keels or ridges. Tergites with silvery pollinose spots (Fig. 79) *pictipes* (Bigot)
Widespread
 - Face with median keels or ridges between antennal bases. Tergites almost entirely bare, metallic greenish or brownish (Fig. 60) *luteipennis* (Curran)
 - 129(99).** Pale spots of tergites 3 and 4 touching or very close to anterior edge of tergite. Fore and mid femora and tibia usually pale with a dark ring at midlength (Figs 63, 54, 64). **131**
 - Pale spots of tergites 2–4 separated from anterior edge of tergite. Legs usually almost entirely dark, with only bases and apices of femora and tibia pale (Figs 47, 76). **130**
 - 130.** Pale spots of tergites 2–4 well separated from anterior edge of tergite, with spots narrowing towards centre of tergite. Legs usually almost entirely dark, with only apices of femora and tibia pale. Wing entirely trichose. Tergite 5 entirely dark or with tiny obscure spots (Fig. 45). *flabella* Hull (in part)
Boreal and western Nearctic
 - Tergites with spots narrowly separated from lateral edges. All femora brown on basal two-thirds, with bases very narrowly yellow. Wing with small, indistinct bare areas as the bases of cells c and bm. Tergite 5 with distinct, oval spots (Fig. 76). *parvatus* Rondani

- Boreal regions
131. Face sparsely pollinose, with shining black ground colour clearly visible over most of face. Face often completely bare in area surrounding tubercle. Tergite 3 at least twice as wide as long. Scape and pedicel orange (Fig. 54). . . *jaerensis* (Nielsen)
Eastern
- Face more densely pollinose (Fig. 116a), with shining black ground colour clearly visible only on tubercle. Tergite 3 at most 1.8 times as wide as long. Scape and pedicel brown or orange 132
132. Anepimeron with pile forming a distinct tuft on dorsal half. Yellow spots on tergite 2 lunulate and well separated from anterior margin (Fig. 63) *naso* (Walker)
Boreal and western
- Anepimeron with pile never forming a distinct tuft on dorsal half. Spots on tergite 2 variable, but often subquadrate and reaching anterior margin of tergite 133
133. Bottom half of anepimeron bare or almost entirely bare, with at most a few outstanding pili 135
- Bottom half of anepimeron sparsely but evenly pilose (pile sparser than on top half of anepimeron) 134
134. Frons lightly pollinose in area surrounding “triangles” of pollinosity above antennal bases. Spots of tergite 2 lunular to triangular, separated from anterior margin of tergite, and overlaid with dense pollinosity. Spots of tergites 3–4 rectangular, usually overlaid with dense silver pollinosity (Fig. 32) *amplus* (Curran)
Boreal and western
- Frons bare between pollinose triangles above antennal bases. Spots of tergite 2 either lunulate and narrowly separated from anterior edge of tergite or rhomboid and meeting anterior edge. Spots of tergites 3–4 subrectangular, sometimes noticeably broadened towards centre of tergite, overlaid with faint silvery pollinosity (Figs 53, 116c) *inversus* Ide
Eastern
135. Knob of halter brown, shaft yellow. Spots on tergites 3–4 rectangular, not broadening towards centre of tergite (Fig. 77) *peltatoides* Curran
Western
- Halter unicolourous, yellow. Spots on tergites 3–4 often noticeably broadened towards centre of tergite 136
136. Antennal segment 1 yellow. Spots of tergite 2 usually rhomboid, meeting or almost meeting anterior edge of tergite, sometimes triangular and slightly separated from anterior edge. Spots of tergites 2–5 without pollinosity or pollinosity very sparse. Bottom half of anepimeron usually bare, sometimes with a few outstanding pili. Apex of mid tibia never swollen (Fig. 64). *nearcticus* Vockeroth
Widespread
- Antennal segment 1 brown. Spots of tergite 2 usually triangular, slightly separated from anterior edge of tergite, sometimes rhomboid and meeting anterior edge. Spots of tergites 2–5 overlaid with dense silver pollinosity. Spots widened towards centre of tergite. Bottom half of anepimeron always bare. Apex of mid tibia usually slightly swollen (Fig. 66) *nielsenii* Vockeroth
Boreal and Western

Species Descriptions

Platycheirus aeratus Coquillett

(Species plate: Fig. 28, Map: Fig. 9a)

Platycheirus aeratus Coquillett, 1900: 430. Type locality: USA, Alaska, Muir Inlet.

Platycheirus occidentalis Curran, 1927: 9. Type locality: USA, Wyoming, Yellowstone Park.

Platycheirus angustitarsis Kanervo, 1934: 120–122. Type locality: Fennia, Petsamo, Pitkajärvi.

Platycheirus pauper Hull, 1944: 77. Type locality: USA, Colorado, Trail Ridge Road.

Body length: 5.3–7.3 mm.

Diagnosis of MALE: Face vertical, with bottom of oral margin rounded, not produced forward; thinly grey pollinose, with tubercle shining. Legs mostly dark, with narrow apices of femora, fore tibia except for posterior stripe, broad bases and narrow apices of mid and hind tibia, and fore and mid tarsomeres pale. Fore femur with a posterior subbasal tuft of 2–3 long, thin, wavy, closely appressed white setae, otherwise with only long, fine, wavy black pile. Fore tibia slightly broadened from base to apex, with fine wavy, black pile on posterior surface. First fore tarsomere broadened very slightly beyond base, almost parallel-sided, slightly narrower than fore tibia at its apex. Remaining tarsomeres unmodified. Mid tibia with dense, fine, subappressed black pile on the apical three-quarters of the anteroventral surface. First hind tarsomere slightly swollen, approximately 4.5 times as long as its greatest depth. Legs otherwise unmodified. Thorax sparsely grey pollinose. Scutellar pile about as long as arista, other thoracic pile about two-thirds as long. Thoracic pile yellow and wavy. Wing usually brown-tinted, completely microtrichose. Halter yellow. Abdomen narrow, parallel-sided, with small spots usually entirely pollinose, rarely with a dull orange background. Tergite 2 usually entirely dark, without spots. Tergites 3 and 4 with small, circular

spots near anterior margin of tergite. Tergite 5 usually entirely dark, without spots.

Description of FEMALE: Head: Face vertical, with bottom of oral margin rounded, not produced forward; densely grey pollinose with only tubercle shining. Antenna entirely dark. Vertex approximately 2.2 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** All femora dark on basal two-thirds to three-quarters. Fore and mid tibiae and tarsomeres pale. Hind tibia pale with a broad dark ring at about two-thirds its length, hind tarsus entirely dark. Fore femur with a posterior subbasal tuft of 2–3 thin, white, closely appressed setae which are at least as long as the tibial diameter. Fore femur with posterior and posteroventral white pile along entire length, none closely appressed into a tuft. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose, with a bare shining area on the ventral half of the katepisternum. Thoracic pile no more than a quarter the length of the arista, all pile pale yellow. Wing colourless, completely microtrichose. Halter pale. **Abdomen:** Very narrowly oval, nearly parallel-sided. Spots of tergites variable in colour, either yellow or entirely silver pollinose on a dark background. Spots of tergite 2 small, circular, at about mid-length of tergite. Spots of tergites 3–4 square, meeting anterior and lateral edges of tergite, and about half its length.

Discussion: *Platycheirus aeratus* occurs throughout arctic Canada but ranges as far south as Colorado and California in the west, where it is found in mountainous regions at high altitudes (3050–4100m) (Fig. 9a).

Specimens examined: 50♂ and 24♀ from Canada (British Columbia, Manitoba, Newfoundland and Labrador, Northwest Territories, Nunavut, Quebec, Yukon Territory), USA (Alaska, California, Colorado).

Platycheirus albimanus (Fabricius)

(Species plate: Fig. 29, Map: Fig. 9b)

Syrphus albimanus Fabricius, 1781: 434. Type locality: England.

Body length: 6.2–9.6 mm.

Diagnosis of MALE: Face slightly produced below, with anterior oral margin produced forward. Legs mostly dark, with the following areas yellow: apices of femora, most of fore and mid tibia, base of hind tibia, fore-tarsus, and sometimes first tarsomere of mid leg. Fore femur with a tuft of 2–3 long, subbasal, posterior white setae with wavy apices, immediately followed by 2 large, somewhat dense tufts of wavy black setae, also with 3–4 widely spaced long, slender black setae. Fore tibia uniformly broadened on basal three-quarters, slightly more strongly broadened posteriorly on apical quarter. Posteroapical angle of fore tibia subacute, not extending posteriorly beyond the level of the first tarsomere. First tarsomere gradually widening posteriorly from base to about two-thirds its length then parallel-sided and equal in width to the tibia to apex, about 1.5 times as long as wide. Remaining tarsomeres progressively narrower. Mid femur with a regular row of 6–12 short, anteroventral, black setulae, this row ending in a single longer, recurved black seta. Wing with small to large bare areas at the bases of cells c and bm. Cell c bare on up to basal half, cell bm bare anteriorly on up to basal five-sixths. Abdomen narrow, with spots of tergites 2 and 5 obscure, entirely silver pollinose, spots of tergites 3 and 4 either obscurely orange/brown and overlaid with silver pollinosity or entirely pollinose.

Description of FEMALE: Head: Face slightly produced ventrally; with large shining tubercle, otherwise with somewhat diffuse white pollinosity. Anterior oral margin produced forward slightly. Antenna black, with basoflagellomere broadly orange ventrally. Vertex approximately 2.2 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Scutum and scutellum shining, lightly pollinose only on lateral margins. Other sclerites of thorax lightly dusted with white pollinosity. All thoracic pile white. Pile of disc of scutum short, the longest approximately two-thirds the width of the fore femur. Other thoracic pile, including lateral pile of the scutum, up to 1.5 times as long as the width of the fore femur. Wing colourless, extensively bare on basal half, cell c mostly bare on basal three-quarters, cell r almost entirely bare or sometimes sparsely trichose posterior to spurious vein, cell bm mostly bare on basal three-quarters, and cell cup bare on anterior quarter to third. Halter yellow to dark brown. Fore and mid femur obscurely orange with a dark posterior stripe or entirely orange. Hind femur brown with base and apex narrowly orange. Fore and mid tibia brown with orange on basal quarter or entirely orange. Hind tibia dark, with orange only on base and apex. Fore and mid tarsus orange or dark. Fore femur with a tuft of 2–3 long, subbasal, posterior white setae, only slightly longer than surrounding pile. Legs otherwise unmodified. **Abdomen:** Narrowly oval. Spots of tergites variable,

either obscurely orange with a strong pollinose overlay or represented only by pollinosity. Spots of tergite 2 obscure, just beyond mid length of tergite, sometimes with pollinosity reaching the lateral and anterior edges of tergite, never with orange reaching tergite edges. Spots of tergites 3 and 4 either quadrate or oblique, separate from anterior and lateral tergite margins. Tergites 5 and 6 black, unmarked.

Discussion: DNA barcoding suggests that there may be two species under the name *P. albimanus*, labelled *P. albimanus1* and *P. albimanus2* on Fig. 8. These putative species are morphologically indistinguishable.

Specimens examined: 96♂ and 26♀ from Canada (Alberta, British Columbia, Newfoundland and Labrador, Northwest Territories, Ontario, Quebec, Yukon Territory), Georgia, Germany, Scotland, USA (Alaska, California, Colorado, Idaho, New Mexico, Washington).

***Platycheirus alpigenus* Barkalov & Nielsen**

(Species plate: Fig. 30, Map: Fig. 9c)

Platycheirus alpigenus Barkalov and Nielsen, 2008: 92. Type locality: Russia, Siberia, Altai, 45 km E of Ust'Ulagaan, 2050–2200.

Body length: 6.8–9.3 mm.

Diagnosis of MALE: Face slightly produced ventrally, with anterior oral margin produced forward; dorsally with a weak median keel between antennal bases; densely grey pollinose, tubercle shining. Tubercle somewhat prominent. Antennae dark, basal half of arista distinctly swollen. Legs mostly dark, fore femur pale on apical third, mid and hind femur pale at apex. Fore and mid tibia pale on basal third and extreme apex. Fore tibia with a row of strong, black, posterolateral setae, setae on basal third of tibia approximately equal in length to tibial width, setae on apical two-thirds 2 to 3 times as long as tibial width with apical setae reaching the middle of the first tarsomere. Mid tibia with a row of similar setae, setae absent on basal third and reaching just past the tip of the tibia on apical two-thirds. Thorax with pleural pile yellowish, Mesonotal pile about half yellowish and half black. Katepisternum sparsely grey pollinose. Halter dark brown. Wing with basal two-thirds of cells c and bm bare, apical quarter of cup bare. Abdomen parallel-sided, with spots silver pollinose on a grey background. Tergite 5 dark, unmarked.

Description of FEMALE: Head: Face slightly produced ventrally, with anterior oral margin produced forward; dorsally with a median keel between antennal bases; densely grey pollinose, tubercle shining. Tubercle somewhat prominent. Antennae dark, basal half of arista distinctly swollen. Pollinosity of frons uniform, not forming lateral triangles. Vertex approximately 2.8 times as wide as ocellar triangle. **Thorax:** Legs mostly dark, fore femur pale on apical quarter, mid and hind femur pale at apex. Fore and mid tibia pale on basal quarter. Hind tibia pale only at extreme base. Basal third of fore femur with a few weak, white, ventral setae, the longest of which are approximately two-thirds the length of femoral diameter. Fore and mid tibiae with a posterolateral row of short, weak, white setae of variable length, the longest of which are approximately half the length of tibial diameter. Thoracic pile white. Scutum with faint, grey, pollinose stripes. Remainder of thorax somewhat densely grey pollinose. Halter brown. Wing with basal three-quarters of cell c, basal two thirds of cell bm, and apical quarter of cell cup bare. **Abdomen:** Abdomen narrowly oval, with spots of tergite 2 entirely silver pollinose, not reaching anterior margin of tergite. Spots of tergites 3 and 4 silver pollinose on a dark orange background, narrowly separated from anterior margin of tergite. Tergite 5 with obscure silver pollinose spots reaching anterior margin of tergite.

Discussion: *P. alpigenus* is currently interpreted as a Holarctic species known from two widely disjunct localities: a high-altitude (2200m) meadow in the Altai Mountains, Russia, (Barkalov and Nielsen 2008), and High Creek Fen (3000m), in South Park County, Colorado, USA (Fig. 9c). It is possible that the Nearctic and Palaearctic specimens represent separate, extremely morphologically similar species.

Specimens examined: 1♂ and 1♀ from USA (Colorado).

***Platycheirus amplus* Curran**

(Species plates: Figs 31, 32, Map: Fig. 9d)

Platycheirus amplus Curran, 1927: 4. Type locality: Canada, Ontario, Lake Abitibi, Low Bush.

Body length: 7.2–8.7 mm.

Diagnosis of MALE: Face moderately produced ventrally with anterior oral margin produced forward, not reaching level of tubercle; dorsally with distinct median ridges between antennal bases; densely yellow pollinose with tubercle shining. Antenna usually dark brown above with some orange ventrally on pedicel and/or basoflagellomere, sometimes entirely dark. Gena approximately as wide as basoflagellomere when viewed ventrolaterally. Legs variable in colour, with fore and mid femur, and fore and mid tibia ranging from dark on basal half to mostly dark with only narrow apices of femora and narrow bases of tibiae pale. First mid tarsomere, and all of hind leg except for narrow apex of femur and narrow base of tibia always dark. Fore trochanter with many short, weak, posterior black setula. Fore femur with a posterior row of slightly flattened black setae along entire length. Fore tibia uniformly broadened from base to four-fifths its length, then strongly broadened on apical fifth. First fore tarsomere strongly flattened, about twice as long as wide, slightly wider than apex of fore tibia, with a weak dorsal keel on apical half. Second fore tarsomere flattened, about as long as wide, and half the width of the first fore tarsomere. Remaining tarsomeres unmodified. Mid femur with a shallow anterior excavation on at about three-quarters its length, the excavation bordered with short, strong, black setulae. Mid tibia slightly swollen subbasally and apically, with an anteroventral tuft of dense, wavy black pile up to 3 times as long as tibial diameter on subbasal swelling. Mid tibia also with a posterior row of short, dense, wavy black pile. Hind tibia with a sparse anterior row of short black setulae, those of apical two-thirds slightly longer than those of basal third. First hind tarsomere swollen basally, tapering uniformly to narrow apex. Legs otherwise unmodified. Thorax sparsely yellow or grey pollinose. Scutellar pile approximately as long as arista, other thoracic pile no more than half as long. Scutal pile mostly white, with some black pile near margins. Scutellum with mixed black and white pile. Upper half of anepimeron with pile dense but not forming a distinct tuft, lower half of anepimeron pilose. Pleura with pile ranging from white to brown. Wing usually slightly brown-tinted, with very small bare areas at the bases of cells c and bm. Halter brown. Abdomen broad, parallel-sided, with yellow spots on tergites 2–5. Spots of tergite 2 small, variable in shape, at about mid length of tergite. Spots of tergites 3 and 4 large, rectangular, and touching the anterior margin of tergite. Spots of tergite 5 small, triangular, and touching the anterior margin of tergite.

Description of FEMALE (based on two European specimens): **Head:** Face moderately produced with anterior oral margin produced forward, not reaching level of tubercle; dorsally with a distinct median keel between antennal bases; densely yellow pollinose with only tubercle shining. Antenna brown above with some orange ventrally on pedicel and/or basoflagellomere. Arista with dorsal and ventral microtrichosity appressed and no more than a quarter as long as the width of the arista. Vertex approximately twice the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles with diffuse edges, surrounding area of frons lightly pollinose. Gena slightly narrower than basoflagellomere when viewed ventrolaterally. **Thorax:** Fore and mid leg entirely yellow, hind leg mostly dark except for broad base and narrow apex of femur, and narrow base of tibia. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Longest pile of posterior anepisternum half as long as arista, other Thoracic pile no more than a quarter as long. All thoracic pile pale. Entire anepimeron pilose. Wing slightly brown-tinted, with basal quarter of cell c and basal half of cell bm bare. Halter pale. **Abdomen:** Broadly oval. Spots of tergites yellow. Spots of tergite 2 lunulate to triangular, overlaid with dense silvery pollinosity. Spots of tergites 3–4 rectangular and meeting anterior margins of tergites, narrowly separated from lateral margins, strongly overlaid with silver pollinosity. Spots of tergite 3 approximately 1.5 times as wide as long. Spots of tergite 5 oval and meeting anterior margin of tergite.

Discussion: *Platycheirus amplus* occurs throughout boreal Ontario and Quebec in the east, and Alberta, British Columbia, Yukon and Northwest Territories, Alaska in the west. It also ranges south to Colorado in the west, where it has been collected at high altitudes in the Rocky Mountains (Fig. 9d). In the Palaearctic *P. amplus* is known from Iceland, Norway, Sweden, Finland, Ireland, Scotland, Belgium, Germany, Austria, and Siberia.

Specimens examined: 15♂ and 1♀ from Canada (Manitoba, Newfoundland and Labrador, Northwest Territories, Ontario, Quebec, Yukon Territory), Norway, USA (Alaska).

Platycheirus angustatus (Zetterstedt)

(Species plate: Fig. 33, Map: Fig. 10a, 10b)

Scaeva angustata Zetterstedt, 1843: 762. Type locality: Sweden

Body length: 5.7–7.9 mm.

Diagnosis of MALE: Face vertical, with bottom of oral margin rounded, not produced forward; densely grey pollinose, with tubercle subshining. Legs mostly pale, with coxae, trochanters, usually a posterior stripe on fore and mid-femora, a broad ring on the hind femur and tibia, and the hind tarsus dark. Fore femur with a posterior subbasal tuft of 2–3 long, wavy, closely appressed white setae, otherwise with only short, fine, white pile. Fore tibia slightly broadened from base to apex, with posteroapical angle distinctly produced into a point. First fore tarsomere a little narrower than apex of tibia, about 1.5 times as long as wide, narrowed posteriorly on basal third, parallel-sided on apical two-thirds, and with a v-shaped incision on the underside. Remaining fore tarsomeres slightly narrower than first, unmodified. Mid femur usually with a cluster of up to 13 short, anteroventral, black setae on basal half, these setae sometimes yellow or brown and less conspicuous. Mid femur sometimes also with a group of 3–5 long, ventral, black setae on basal half. Mid tibia usually with fine, ventral, wavy black pile on basal half, these pile occasionally pale, the longest pile approximately twice as long as diameter of tibia. First hind tarsomere swollen, approximately 3 times as long as its greatest depth. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura shining. Scutellar pile about two-thirds as long as arista, other thoracic pile about half as long. Thoracic pile white or pale yellow, except for those of the lower half of the katepisternum which are black in some specimens. Wing usually brown-tinted, with small bare areas at the bases of cells c and bm, most of cell bc bare. Halter yellow. Abdomen narrow, parallel-sided, with tergites slightly longer than wide. Spots of tergites yellow or orange, usually free of pollinosity, and at least slightly longer than wide. Spots of tergite 2 well separated from anterior margin of tergite, sometimes meeting lateral margin. Spots of tergites 3 and 4 meeting anterior and lateral margins of tergites. Tergite 5 entirely dark.

Description of FEMALE: Head: Face vertical, with bottom of oral margin rounded, not produced forward; densely grey or yellow pollinose with only low tubercle shining. Antenna entirely dark. Vertex approximately 2.2 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Legs mostly pale, with coxae, trochanters, a narrow ring on the hind femur and tibia, and hind tarsomeres 1, 4, and 5 dark. Fore femur with a posterior subbasal tuft of 2–3 thin, white, closely appressed setae, which are at least as long as the tibial diameter. Fore femur with posterior and posteroventral white pile along entire length, none closely appressed into a tuft. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Thoracic pile no more than a quarter the length of the arista, all pile white or pale yellow. Wing colourless, with cell bc, basal sixth of cell c, and basal quarter of cell bm bare. Halter pale. **Abdomen:** Parallel-sided and narrow, tergite 2 distinctly longer than wide. Spots of tergites orange or yellow, sometimes weakly silver pollinose. Spots of tergite 2 oval, slightly longer than wide, and well separated from anterior margin of tergite. Spots of tergites 3 and 4 meeting anterior and lateral margins of tergites, those of tergite 3 longer than wide, those of tergite 4 square. Tergite 5 and 6 entirely dark.

Discussion: DNA Barcode data suggests that there may be three species involved with the name *P. angustatus* in the Nearctic, *P. angustatus* itself (Fig. 10a), as well as two undescribed putative species labelled *P. angustatus*3, and *P. angustatus*4 on Fig. 8. These two species key out together as “*P. angustatus* complex” and are discussed in more detail above, under Results: Taxonomy. These putative species are morphologically indistinguishable.

Specimens examined: 186♂ and 22♀ from Canada (Alberta, British Columbia, Manitoba, New Brunswick, Northwest Territories, Nova Scotia, Ontario, Quebec, Saskatchewan, Yukon Territory), Germany, USA (Alaska, Colorado, Maine, New Hampshire, New York, Wisconsin, Wyoming).

***Platycheirus brunnifrons* Nielsen**

(Species plate: Fig. 34, Map: Fig. 10c)

Platycheirus brunnifrons Nielsen, 2004: 9. Type locality: Spain. Leon: Hayedo Pandatrave.

Diagnosis of MALE: Very similar in appearance to *Platycheirus coerulescens*, differing as follows: Frons with brown pollinosity contrasting with the grey-white pollinosity of the rest of the head. Thoracic pile yellowish. Dark posterior stripe on fore femur indistinct. Apical half of fore femur with regular row of 6–10 strong, straight, black posterior setae approximately twice as long as femoral diameter, this row ending in a single longer seta with a strongly curved apex at apex of row. Spots of tergites orangeish, overlaid with faint silvery pollinosity.

Female: No North American specimens.

Discussion: This recently described species is known from two Nearctic localities, one in Alaska and one in

Colorado (Fig. 10c). In the Palaearctic it is known from high-altitude localities in Finland, Austria, France, Switzerland, Spain, Macedonia, and Northeastern Russia.

Specimens examined: 2♂ from USA (Alaska, Colorado).

Platycheirus chilosia (Curran)

(Species plate: Fig. 35, Map: Fig. 10d)

Melanostoma carinata Curran, 1927: 11. Type locality: Greenland, Umanak. **syn. nov.**

Melanostoma chilosia Curran, 1922: 275. Type locality: Banff, Alberta

Body length: 4.8–7.6 mm.

Diagnosis of MALE: Face slightly produced ventrally, with anterior oral margin produced forward; dorsally with a weak median keel between antennal bases; thinly grey pollinose, tubercle shining. Tubercle somewhat variable, but usually strong and abrupt. Basal two-thirds of arista distinctly swollen. Legs dark, sometimes with extreme apices of femora and bases of tibiae pale. Fore femur posteroventrally with a row of 6–10 irregularly spaced stiff black setae on basal third, the longest of which are approximately half the length of femoral diameter. Fore femur posteriorly with a row of 2–9 longer black setae on basal third, the longest of which are approximately equal in length to femoral diameter. Fore tibia with a row of weak black posterior setae, setae on basal third of tibia approximately equal in length to tibial width, setae on apical two-thirds 2 to 3 times as long as tibial width. Fore first tarsomere with 5–6 long black setae which are curled apically, setae approximately five-sixths as long as tarsomere. Mid femur sometimes with an anteroventral row of irregularly spaced black setae on basal third, the longest of which are approximately half the length of femoral diameter. Mid femur sometimes also with 1–2 longer black setae, up to 1.5 times as long as femoral diameter. Mid tibiae with a row of setae similar to fore tibia, setae slightly weaker and subappressed on basal half. Thorax with pile mostly white to mostly black, longest thoracic pile slightly longer than arista. Katepisternum sparsely grey pollinose. Halter pale brown. Wing completely microtrichose. Abdomen parallel-sided, with spots silver pollinose and sometimes with a dark orange background. Tergite 5 dark, unmarked.

Description of FEMALE: (probably indistinguishable from *P. yukonensis*): **Head:** Face somewhat strongly produced, with anterior oral margin produced forward to level of tubercle; dorsally with a weak median keel or ridges between antennal bases; very thinly white pollinose, with large, pointed tubercle shining. Antenna usually dark, basoflagellomere sometimes obscurely orange. Arista distinctly thickened on basal two-thirds. Vertex wide, approximately 3.5 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions uniform and very thin. Gena very wide, approximately 2.5 times as wide as basoflagellomere. **Thorax:** Thorax either black or with a metallic blue sheen. Thorax with pile mostly white to mostly black, longest thoracic pile slightly longer than arista. Wing brown, entirely microtrichose. Knob of halter brown or yellow. Legs dark, sometimes with extreme apices of femora and bases of tibiae pale. Fore and mid tibiae with a posterior row of short, weak, irregularly spaced setae, the longest of which are approximately equal in length to tibial diameter. Fore femur usually with a posteroventral row of 3–5 closely spaced soft white or black setae on basal third. Mid femur sometimes with 1–2 long white or black setae, up to 1.5 times as long as femoral diameter. **Abdomen:** Somewhat broadly oval. Tergites either black or metallic blue, without spots.

Discussion: *Platycheirus chilosia* occurs throughout Arctic and high boreal Canada, Alaska, and Greenland. The southernmost records of this species (Summit Lake, British Columbia, Dickson Lake, Mt. Mye, Yukon Territory) are from relatively high altitudes (around 1600m) (Fig. 10d). *Platycheirus chilosia* has been collected on high, barren mountain slopes in northern Yukon Territory (D.M. Wood, pers. comm., in Vockeroth 1990).

Specimens examined: 145♂ and 367♀ from Canada (British Columbia, Manitoba, Northwest Territories, Nunavut, Quebec, Yukon), Greenland.

Platycheirus ciliatus Bigot

(Species plate: Fig. 36, Map: Fig. 11a)

Platycheirus ciliatus Bigot, 1884: 74. Type locality: USA, California.

Platycheirus frontosus Lovett in Cole & Lovett, 1919: 247. Type locality: USA, Oregon, Corvallis.

Body length: 7.7–10.0 mm.

Diagnosis of MALE: Similar to *albimanus*, differing as follows: Last tarsomere of foreleg and first tarsomere of mid leg both sometimes darkened. Fore tibia with posteroapical angle rounded, projecting posteriorly slightly beyond level of first tarsomere.

FEMALE: unknown.

Discussion: As *P. ciliatus* can only be distinguished from *P. albimanus* by small differences in the shape of the fore tibia, it is possible that the two forms are conspecific. However, as the difference in tibial shape is extremely constant and the two *P. ciliatus* specimens that were successfully DNA barcoded did not match the DNA Barcode of *P. albimanus*, we have chosen to leave *P. ciliatus* as a distinct species.

Platycheirus ciliatus appears to be a costal species, and ranges from central British Columbia south to California (Fig. 11a).

Specimens examined: 37♂ from Canada (British Columbia), USA (Alaska, California, Oregon, Washington).

***Platycheirus claussemi* Nielsen**

(Species plate: Fig. 37, Map: Fig. 11b)

Platycheirus claussemi Nielsen, 2004: 13. Type locality: Austria, West Tirol Bezirk Paznaun, S Galtur oberes Jamtal, 1800–2100m.

Body length: 8.2–9.6 mm.

Diagnosis of MALE: Face produced forward on ventral half. Thoracic pile entirely yellow-brown. Fore femur orange, mid and hind femur brown or black with orange only at base and apex. Apical three-quarters of fore femur with a regular row of 8–10 soft, slightly curved black posterior setae which are approximately twice as long as femoral diameter, this row ending in a single longer seta with a strongly curved apex. Mid femur with an irregular row of 4 strong black anteroventral setae on basal third, the longest of these setae approximately equal to the femoral diameter. All tibiae posteriorly with a row of black subappressed setae on basal three-quarters, setae increasing in length towards apex of tibiae with the longest approximately 2.5 times the diameter of the tibia. Wing brown-tinted, extensively bare on basal half. Spots of tergites dull orange or grey, overlaid with silvery pollinosity, and separated from anterior margins of tergites.

FEMALE: No North American specimens.

Discussion: This recently described species is known from only one Nearctic locality, in Colorado. In the Palearctic it is known from high-altitude localities in Austria, Switzerland and Italy.

Specimens examined: 1♂ from USA (Colorado).

***Platycheirus clypeatus* (Meigen)**

(Species plate: Fig. 38, Map: Fig. 11c)

Syrphus clypeatus Meigen, 1822: 335. Type locality: Germany.

Body length: 6.0–8.8 mm.

Diagnosis of MALE: Face vertical, with bottom of oral margin rounded, not produced forward; somewhat densely yellow or grey pollinose, with tubercle subshining. Legs partly pale, with coxae, trochanters, a posterior stripe on fore femur, basal two-thirds of mid femur, mid tarsomere 4 and 5, basal three-quarters of hind femur, apical three-quarters of hind tibia, and the hind tarsus dark. Fore femur with a posterior subbasal tuft of 2–3 long, wavy, closely appressed white setae, otherwise with long black pile. Fore tibia slightly broadened from base to apex, with posteroapical angle distinctly produced into a point. First fore tarsomere a little narrower than apex of tibia, about 1.5 times as long as wide, narrowed posteriorly on basal third, parallel-sided on apical two-thirds, and with a shallow, pale groove on underside, starting at the basal edge of the tarsomere and ending in a small rounded pit on the apical half. Remaining fore tarsomeres slightly narrower than first, unmodified. Mid femur with a cluster of up to 13 short, anteroventral, black setae on basal half, sometimes also with a few similar setae on apical half. Mid femur also with a group of 4–6 long, ventral, black setae on basal half. Mid tibia with strong, ventral black pile on basal half, the longest pile approximately three times as long as diameter of tibia. First hind tarsomere swollen, approximately 3 times as long as its greatest depth. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white or yellow pollinose. Thoracic pile about half to two-

thirds as long as arista, yellow to brown in colour. Wing brown-tinted, completely microtrichose. Knob of halter brown or yellow. Abdomen parallel-sided, with tergites slightly wider than long. Spots of tergites yellow or orange, sometimes with faint silvery pollinose overlay. Spots of tergite 2 small, circular, well separated from anterior margin of tergite. Spots of tergites 3 and 4 meeting anterior margins of tergites. Tergite 5 entirely dark.

Description of FEMALE: Head: Face vertical, with bottom of oral margin rounded, not produced forward; densely grey or yellow pollinose with only low tubercle shining. Antenna entirely dark. Vertex approximately 2.2 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Legs mostly pale, with coxae, trochanters, a faint posterior stripe on fore and mid tibiae, a narrow ring on the hind femur and tibia, and hind tarsomeres 1, 3, 4, and 5 dark. Fore femur with a posterior subbasal tuft of 2–3 thin, white, closely appressed setae which are at least as long as the tibial diameter. Fore femur with posterior and posteroventral white pile along entire length, none closely appressed into a tuft. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Thoracic pile no more than a quarter the length of the arista, all pile yellow. Wing slightly brown-tinted, completely microtrichose. Halter pale. **Abdomen:** Narrowly oval. Spots of tergites yellow, sometimes with faint to strong silvery pollinose overlay. Spots of tergite 2 circular or triangular, slightly wider than long, no longer than a third the total length of the tergite, and well separated from anterior margin of tergite. Spots of tergites 3 and 4 meeting anterior and lateral margins of tergites, usually slightly wider than long, and no more than four-sevenths as long as tergite. Tergite 5 with triangular spots meeting anterior and lateral margins of tergite, about half as long as tergite. Tergite 6 entirely dark or very obscurely orange at lateral margins.

Discussion: *Platycheirus clypeatus* occurs throughout Canada and Alaska, south to Oregon Colorado, and New York (Fig. 11c). It also occurs in Europe, Siberia, and Japan. Specimens in Nova Scotia were collected in sphagnum fens and a *Carex* marsh. This species appears to be common in Churchill, Manitoba, and has been collected in many Malaise traps from around the research station located there.

Specimens examined: 126♂ and 12♀ from Canada (Alberta, British Columbia, Manitoba, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island Quebec, Yukon Territory), USA (Colorado).

***Platycheirus coerulescens* (Williston)**

(Species plates: Figs 39, 40, Map: Fig. 11d)

Melanostoma coerulescens Williston, 1887: 49. Type locality: USA, Colorado.

Body length: 5.7–9.1 mm.

Diagnosis of MALE: Thoracic pile entirely white. Fore femur with a dark posterior stripe, mid femur with basal half dark. Apical two thirds of fore femur with regular row of 9–12 strong, straight, black posterior setae approximately twice as long as femoral diameter, this row ending in a single longer seta with a strongly curved apex at apex of row. Fore femur with a row of 3–5 strong yellow ventral setae on basal third, these setae slightly shorter than femoral diameter. Mid femur with a row of 2–5 long strong, yellow or black anteroventral setae on basal third, the longest of these setae approximately twice femoral diameter. Wing extensively bare on basal half. Spots of tergites orange, dull yellow, or entirely grey, always overlaid with strong silvery pollinosity.

Description of FEMALE: Head: Face slightly produced ventrally, with large shining tubercle, otherwise with somewhat dense white pollinosity. Anterior oral margin produced forward. Antenna black, with basoflagellomere broadly orange ventrally. Vertex approximately 2.8 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two distinct lateral triangles. **Thorax:** Scutum and scutellum shining, lightly pollinose only on lateral margins. Other sclerites of thorax lightly dusted with white pollinosity. All thoracic pile white. Pile of disc of scutum somewhat short, the longest equal in length to the width of the fore femur. Other thoracic pile up to 1.5 times as long as the width of the fore femur. Wing colourless, extensively bare on basal half, cell c mostly bare on basal two-thirds, cell r almost entirely bare, cell bm bare on at least basal four-fifths, and cell cup bare on anterior half. Halter yellow. Fore and mid femur entirely orange, or black on basal half and orange apically. Hind femur black with base and apex narrowly orange. Fore and mid tibia orange on basal three-quarters, black at apex. Hind tibia orange on basal quarter, black on apical three-quarters. Fifth fore and mid tarsomere obscurely orange, other tarsomeres black. Apical three-quarters of fore femur with regular row of 9–12 weak,

straight white posterior setae which are approximately two-thirds as long as femoral diameter. Legs otherwise unmodified. **Abdomen:** Parallel-sided to narrowly oval. Spots of tergites variable, either orange, dull yellow, or entirely grey, always with a strong silvery pollinose overlay. Spots of tergite 2 obscure, just beyond mid length of tergite, sometimes with pollinosity reaching the lateral and anterior edges of tergite, never with orange/yellow reaching tergite edges. Orange/yellow spots of tergites 3 and 4, if present, either quadrate and reaching anterior and lateral edge of tergite or oblique and separate from tergite edges. Pollinose overlay of spots on tergites 3 and 4 quadrate, reaching anterior and lateral edges of tergites. Tergites 5 and 6 black and unmarked, tergite 5 sometimes with faint pollinosity at anterior margin.

Discussion: *Platycheirus coerulescens* occurs throughout northern and western Canada and Alaska, south to California and Mexico at high altitudes (Fig. 11d).

Specimens examined: (80♂ and 36♀): Canada: Alberta, British Columbia, Manitoba, Northwest Territories, Ontario, Saskatchewan, Yukon Territory. USA: California, Colorado, Idaho, Montana, New Hampshire, New Mexico, Oregon, Utah, Wyoming.

***Platycheirus confusus* (Curran)**

(Species plates: Figs 41, 42, Map: Fig. 12a)

Melanostoma confusus Curran, 1925: 112. Type locality: Canada, Ontario, Orillia.

Body length: 6.0–8.2 mm.

Diagnosis of MALE: Face slightly produced ventrally, with anterior oral margin produced forward, not reaching level of tubercle; broad shining median stripe extending from lower facial margin almost to antennal insertions, laterally with faint oblique ripples present in the greyish pollinosity. Legs mostly dark, narrow apices of femora and basal three-quarters of fore and mid tibiae orange. Fore-tibia a row of weak posterior setae on apical two-thirds, longest setae approximately 3 times the tibial diameter. Mid tibia with a similar row of setae on approximately apical two-thirds. Legs otherwise unmodified. Thorax very thinly grey pollinose, almost bare. Longest scutellar pile as long as arista, other thoracic pile no more than half as long. Mesonotal pile dark, pile of upper half of pleura usually dark, pile of lower half of pleura white. Halter brown. Wing usually brown-tinted, wing almost entirely microtrichose, with only small bare areas at bases of cells c and bm. Abdomen parallel-sided, with spots of tergites brown and overlaid with strong silver pollinosity, sometimes almost medially confluent on tergites 3 and 4. Lateral pile of abdomen mostly pale. Surstylus with lateral lobe stout and nearly straight.

Diagnosis of FEMALE (Description in Vockeroth 1990): Similar to male, differing as follows: Frons with pollinosity forming two small lateral triangles above antennal insertions. Legs often with most of fore and mid-leg orange. Fore and mid tibiae with several weak posterior black or white pile with approximately as long as tibial diameter, legs otherwise unmodified. Thoracic pile no more than a quarter as long as arista, entirely white except for a few black pile on scutum and scutellum in some specimens. Wing sometimes slightly more bare than males. Abdomen oval, with spots of tergites often with an orange background.

Discussion: Vockeroth (Vockeroth 1990) noted almost-consistent differences in wing microtrichosity between eastern and western specimens of these species, indicating that there may be two separate species included under this name. However, molecular evidence indicates that *P. confusus* is a single, wide-ranging species with disjunct eastern and western populations. *Platycheirus confusus* is usually collected in marshes, sphagnum bogs, and adjacent forests (Vockeroth 1990). Specimens have been successfully reared on a diet of *Adelges piceae*.

Specimens examined: 238♂ and 123♀ from Canada (Alberta, British Columbia, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Quebec, Yukon Territory), USA (California, Colorado, North Carolina, Oregon, Washington).

***Platycheirus coracinus* Vockeroth**

(Species plate: Fig. 43, Map: Fig. 12b)

Platycheirus coracinus Vockeroth, 1990: 691. Type locality: Canada, Yukon, 10 km S of Carcross.

Body length: 7.3 mm.

Diagnosis of MALE: Face vertical; dorsally with no ridges or keels between antennal bases; sparsely grey

pollinose, with tubercle shining. Legs entirely dark; without outstanding pile or setae. First tarsomere of hind leg swollen, approximately 4 times as long as greatest depth. Thorax black, with blueish metallic tint. Thoracic pile mostly black, longest thoracic pile approximately equal in length to arista. Katepisternum strongly shining between upper and lower pile patches. Wing entirely microtrichose. Abdomen oval, Tergites 3 and 4 each with a pair of faint, silvery spots. Tergite 2 and 5 dark, unmarked. Surstylus elongate-oval, widest at mid-length, without basal lobe. Gonostylus with 2 strong spines. Aedeagus with long, slender, subbasal lobe.

FEMALE: Unknown.

Discussion: This species is known only from the holotype, which was collected 10 km south of Carcross, Yukon Territory, at an altitude of 1830m.

Specimens examined: 1♂ from Canada (Yukon Territory).

***Platycheirus discimanus* (Loew)**

(Species plate: Fig. 44, Map: Fig. 12c)

Platycheirus discimanus Loew, 1871: 227. Type locality: Czech Republic.

Body length: 6.2–6.8 mm.

Diagnosis of MALE: Face moderately produced ventrally; dorsally with weak median keel or ridges; weakly grey pollinose with tubercle and gena bare. Posterior oral margin produced forward. Legs dark, with first 2 tarsomeres of fore and mid leg pale. Fore trochanter with many short, black, ventral setulae. Fore tibia with fine, wavy pile on posterior surface, at longest 3 times tibial width. First fore tarsomere subtriangular, truncate apically, approximately twice as wide as apex of tibia, and as long as wide. Second fore tarsomere subrectangular, three-quarters as wide as first tarsomere and one-quarter as long. Remaining fore tarsomeres unmodified. Mid tibia with dense, wavy, anteroventral pile on basal third, at longest approximately 4 times the tibial diameter; tibia also with similar, sparser posterior pile on middle third. First mid tarsomere strongly laterally compressed, more than twice as deep as wide. Second tarsomere similarly but less strongly compressed. Remaining mid tarsomeres unmodified. First tarsomere of hind leg strongly swollen, approximately 3 times as long as its greatest depth. Legs otherwise unmodified. Thorax with dense pile as long as arista, pile colour varying from white and dark brown; very thinly grey pollinose, with bare shining areas between upper and lower pile patches on katepisternum and on the anterior half of the posterior anepisternum. Halter yellow. Wing completely microtrichose. Abdomen narrow, with spots of tergites grey and overlaid with strong silver pollinosity.

Description of FEMALE: Head: Face slightly produced ventrally; dorsally with weak median keel; very sparsely grey pollinose with tubercle and gena shining. Anterior oral margin produced forward. Tubercle prominent. Antennae dark, basal half of arista distinctly swollen. Frons with uniform pollinosity. Vertex approximately 3 times as wide as ocellar triangle. Gena wide, approximately 1.5 times as wide as basoflagellomere. **Thorax:** Legs mostly dark, with apices of femora and bases of tibiae pale. Fore femur on basal third with a few weak, white, ventral setae, the longest of which are approximately two-thirds the length of femoral diameter. First tarsomere of hind leg somewhat swollen, approximately 3.5 times as long as its greatest depth. Legs otherwise unmodified. Thorax with pile white, longest scutellar pile equal in length to arista, most other thoracic pile no more than half as long; sparsely grey pollinose. Halter yellow. Wing completely microtrichose. **Abdomen:** Abdomen oval, with large grey spots on tergites 2–4 reaching anterior and lateral edges of tergites, and overlaid with dense silvery pollinosity. Tergite 5 with obscure silver pollinose spots reaching anterior margin of tergite.

Discussion: *Platycheirus discimanus* is known in North America from southern Manitoba, the eastern temperate forest region of Ontario and Quebec, and Pennsylvania (Fig. 12c). It also occurs in Europe and Siberia.

Specimens examined: 8♂ and 2♀ from Canada (Manitoba, Ontario), Norway.

***Platycheirus flabella* Hull**

(Species plate: Fig. 45, Map: Fig. 12d)

Platycheirus flabella Hull, 1944: 75. Type locality: USA, Washington, Mt. Ranier.

Body length: 6.8–9.1 mm.

Diagnosis of MALE: Face moderately produced ventrally; dorsally with weak median keel or ridges between

antennal bases; somewhat densely grey pollinose, with tubercle and gena shining. Anterior oral margin produced forward to the level of tubercle. Legs dark, with narrow apex of fore and mid femur, basal quarter of fore tibia, narrow base of mid tibia, and first 2 tarsomeres of foreleg pale. Fore femur with a ventral row of 4–6 stiff black setae on basal half. Fore tibia with a row of weak black posterior setae, setae on basal third of tibia approximately equal in length to tibial width, setae on apical two-thirds 2 to 3 times as long as tibial width. First fore tarsomere broadened evenly from base to apex, 1.5 to 2 times as long as broad. second fore tarsomere variable, rectangular, up to 1.5 times as wide as long, approximately one-quarter as long as first tarsomere. Remaining fore tarsomeres unmodified. Mid femur with a ventral row of 5–7 weak black or white setae on basal half, setae approximately as long as femoral diameter. Mid tibia with a posteroventral row of 5–6 weak black setae on apical half, setae approximately 3 times as long as tibial diameter. Hind tibia with an anterodorsal row of 5–6 weak black setae on apical half, setae approximately twice as long as tibial diameter. First tarsomere of hind leg slightly swollen, approximately 5 times as long as greatest depth. Legs otherwise unmodified. Wing completely microtrichose. Abdomen narrow, with spots of tergites dull orange and overlaid with strong silver pollinosity.

Description of FEMALE: Head: Face strongly produced ventrally; dorsally with a strong keel between antennal bases; densely yellowish grey pollinose, with tubercle shining. Tubercle somewhat raised. Anterior oral margin produced forward to or slightly beyond level of tubercle. Antennae dark, basal third of arista swollen. Frons with uniform pollinosity. Vertex approximately 2.5 as wide as ocellar triangle. **Thorax:** Legs mostly dark, with narrow bases of femora, apices of femora, and bases of tibiae pale. Pale area on apices of femora and bases of tibia somewhat variable, but never more than apical/basal quarter. Legs unmodified. Thoracic pile white or yellow, longest scutellar pile subequal in length to arista, most other thoracic pile no more than one-third as long. Pleura sparsely grey pollinose. Scutum completely free of pollinosity. Halter yellow, sometimes very pale brown on knob. Wing completely microtrichose.

Abdomen: Abdomen oval, with small yellow spots on tergites 2–4 separated from anterior and lateral edges of tergites. Spots of tergite 2 semicircular, with posterior edge of spot straight and running parallel to posterior edge of tergite. Spots of tergites 3 and 4 approximately twice as wide as long, with anterior and posterior edges of spots converging towards center of tergite. Tergite 5 entire entirely dark or with very obscure yellow spots at anterior edge of tergite.

Discussion: Most records are from mountainous regions of Alaska, Yukon Territory, British Columbia, Idaho, and Washington. The few eastern records are from boreal Ontario and Quebec, as well as Maine (Fig. 12d).

Specimens examined: (23♂ and 8♀): Canada: Alberta, British Columbia, Newfoundland and Labrador, Quebec, Yukon Territory. USA: Alaska.

Platycheirus granditarsis (Forster)

(Species plate: Fig. 46, Map: Fig. 13a)

Musca granditarsa Forster, 1771: 99. Type locality: England.

Syrphus ocyMi Fabricius, 1794: 309. Type locality: Germany.

Pyrophaena granditarsis var. *apicauda* Curran, 1925: 115. Type locality: USA, California, San Jose.

Pyrophaena digitalis Fluke, 1939: 367. Type locality: USA, Colorado, Roggen.

Body length: 7.7–10.5 mm.

Diagnosis of MALE: Face nearly vertical, anterior oral margin produced forward; thinly silver pollinose, with tubercle shining. Tubercle somewhat large, abruptly pointed. Legs mostly dark, with broad apices of femora and bases of tibiae pale. Fore femur with short, stiff black setae spaced irregularly on anteroventral and posteroventral surface. First fore tarsomere with large, anterior triangular process on apical half. First 4 tarsomeres of mid leg strongly flattened, each with a broad, apically rounded process which are progressively shorter from first to third tarsomere. Thorax shining to subshining black, pile white or pale yellow, longest scutellar pile approximately equal in length to arista, other thoracic pile half as long. Wing darkened, entirely microtrichose. Abdomen oval, with extensive orange areas. Tergite 2 usually with only anterior and lateral edges black, sometimes with a median black line. Tergite 3 with only posterolateral edges black. Tergite 4 usually with basal half black, occasionally with a median black line which divides the orange anterior half of tergite into 2 large spots. Tergite 5 dark, unmarked. Surstylus with poorly developed basal process.

Diagnosis of FEMALE: (description in Vockeroth 1990): Face nearly vertical, anterior oral margin produced forward; shining, with silver pollinosity present only at lateral edges. Tubercle somewhat large, abruptly pointed. Vertex narrow, approximately 2 times as wide as ocellar triangle. Legs mostly orange, with only coxae, trochanters, tarsomeres, an anterior line on the hind femur, and a broad ring around the hind tibia darkened. First fore tarsomere somewhat flattened and broadened towards apex. Abdomen broadly oval, with orange areas similar to male. Tergite 2 usually with all edges black, sometimes with a median black line. Tergite 3 with a complete posterior black band, sometimes also a median black band dividing orange area into 2 spots. Tergite 4 usually with basal half black, often with a median black line which divides the orange anterior half of tergite into 2 large spots. Tergite 5 with anterior orange spots.

Discussion: *Platycheirus granditarsis* shows a high degree of pupal-temperature dependant colouration, with adults collected in midsummer or at southern latitudes often showing more extensive orange markings than other specimens. *Platycheirus granditarsis* occurs throughout Canada and Alaska, south to California, New Mexico, and West Virginia (Fig. 13a). It is also known from Europe, Siberia, and Japan.

Specimens examined: 197♂ and 173♀ from Canada (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Ontario, Prince Edward Island, Quebec, Saskatchewan, Yukon Territory), USA (Alaska, California, Colorado, Massachusetts, Montana, New York, Oregon, Pennsylvania, Utah, Washington, Wisconsin).

***Platycheirus groenlandicus* Curran**

(Species plate: Fig. 47, Map: Fig. 13b)

Platycheirus groenlandicus Curran, 1927: 10. Type locality: Greenland, Umanak.

Platycheirus monticolus Nielsen, 1972: 91 (Preoccupied Jones, 1917). Type locality: Norway, Ustetind.

Platycheirus boreomontanus Nielsen, 1981: 101 (new name for *P. monticolus* Nielsen, 1972).

Body length: 5.7–8.2 mm.

Diagnosis of MALE: Similar to *discimanus*, differing as follows: Face somewhat densely grey pollinose, only tubercle shining. Fore and mid tibiae usually yellow on basal third, mid tarsus dark. Fore trochanter with many short ventral black setulae. First fore tarsomere from 1.25 to 1.5 times as long as wide. Mid tibia with anteroventral pile on basal third less dense; posterior pile of mid tibia also less dense, sometimes also shorter. Mid tarsus unmodified. Thorax entirely thinly grey pollinose. Halter dark brown. Wing completely microtrichose. Abdominal spots sometimes with pollinosity yellowish brown instead of silver.

Description of FEMALE: Head: Face somewhat strongly produced ventrally; dorsally with a weak median keel between antennal bases; sparsely white pollinose, with tubercle shining. Tubercle prominent. Anterior oral margin produced forward almost to level of tubercle. Antenna dark. Arista distinctly thickened on basal half. Vertex wide, approximately 3 times the width of the ocellar triangle. Frons with uniform pollinosity. Gena very wide, approximately twice as wide as basoflagellomere. **Thorax:** Thorax with pile dense and approximately as long as arista; pile colour varying from mostly white to mostly black. Wing entirely microtrichose. Knob of halter brown. Legs dark, sometimes with extreme apices of femora and bases of tibiae pale. Legs unmodified. **Abdomen:** Somewhat broadly oval. Tergites entirely shiny or with very obscure grey pollinose spots reaching anterior margins of tergites 2–4.

Discussion: This Arctic and Boreal species occurs throughout the Holarctic region. In the Nearctic, *P. groenlandicus* has been collected in arctic Canada and Greenland, with a few specimens found in southern Alberta at high altitudes (Fig. 13b). In the Palearctic this species is found in northern Europe and Siberia. *Platycheirus groenlandicus* was synonymized with *P. boreomontanus* Nielsen by Vockeroth (1990). DNA barcoding of *P. groenlandicus* and paratypes of *P. boreomontanus* support this hypothesis (mean intraspecific genetic distance = 0.42%).

Specimens examined: 89♂ and 36♀ Canada (Alberta, Manitoba, Northwest Territories, Nunavut, Quebec, Yukon Territory), Norway, USA (Alaska).

***Platycheirus hesperius* Vockeroth**

(Species plates: Figs 48, 49, Map: Fig. 13c)

Melanostoma chaetopoda Davidson, 1922: 35 (Preoccupied Williston, 1887). Type Locality: USA, California, vicinity of Alhambra.

Platycheirus hesperius Vockeroth, 1990: 696 (New name for *M. chaetopoda* Davidson, 1922)

Body length: 5.7–7.9 mm.

Diagnosis of MALE: Face slightly produced ventrally and distinctly broader than eye, with anterior oral margin produced forward, not reaching level of tubercle; narrow shining median stripe extending from lower facial margin to just above tubercle, laterally with small punctures arranged in oblique rows present in the greyish pollinosity. Legs mostly dark, narrow apices of femora, and all of fore and mid tibiae orange. Fore and mid-tarsomeres brown above and orange ventrally. Fore-tibia with a row of 5–7 strong posterior setae on apical three-quarters, longest setae approximately 3 times the tibial diameter. Mid tibia with a similar row of weaker setae on approximately apical two-thirds. Legs otherwise unmodified. Thorax very thinly grey pollinose, almost bare. Longest Scutellar pile as long as arista, other thoracic pile no more than half as long. Mesonotal pile mixed black and white, pleural pile mostly white with a few black pile near upper margin. Halter brown. Wing usually brown-tinted, basal sixth of cell c and anterobasal half to two-thirds of cell bm bare. Abdomen oval, with spots of tergites brown or grey and overlaid with strong silver pollinosity, sometimes almost medially confluent on tergites 3 and 4. Lateral pile of abdomen mostly pale. Surstylus with lateral lobe stout and somewhat curved.

Diagnosis of FEMALE (Description in Vockeroth 1990): Similar to male, differing as follows: Frons with pollinosity forming two small lateral triangles above antennal insertions. Fore and mid tibiae with several weak posterior black or white pile with approximately as long as tibial diameter, legs otherwise unmodified. Thoracic pile no more than a quarter as long as arista, entirely white except for a few black pile on scutum and scutellum. Wing with cell c bare on at least basal third, sometimes almost entirely bare, cell bm bare on anterobasal half to two-thirds. Halter yellow.

Discussion: *Platycheirus hesperius* occurs from Washington south to Mexico (Fig. 13c). Larvae have been reared in laboratory settings on three species of aphids and developed without diapause (Davidson 1922)

Specimens examined: 5♂ and 4♀ from USA (California).

***Platycheirus hispidipes* Vockeroth**

(Species plate: Fig. 50, Map: Fig. 13d)

Platycheirus hispidipes Vockeroth, 1990: 697. Type locality: Canada, British Columbia, 32 mi. SW of Terrace.

Body length: 8.7 mm.

Diagnosis of MALE: Face moderately produced, with bottom of oral margin produced forward, not reaching level of tubercle; densely grey pollinose, with tubercle shining. Legs mostly dark, with broad apices of fore and mid-femora, broad bases and apices of fore and mid tibiae, fore tarsomere 1, 2, and 5, and mid tarsomere 1 dull yellow. Fore femur with a posterior subbasal tuft of 2–3 long, thin, wavy, closely appressed white setae. Fore femur also with a row of 5 posterior black setae which are at least twice as long as the femoral diameter. Fore tibia slightly broadened on basal two-thirds, more strongly broadened posteriorly on apical third, with posteroapical angle distinctly produced into a point. First fore tarsomere uniformly broadened from base to apex, about twice as long as wide. Remaining fore tarsomeres slightly narrower than first, unmodified. Mid tibia with 3 or 4 strong, anteroventral black setae just beyond the midpoint of the tibia, setae approximately 4 times as long as tibial diameter. Hind tibia with subappressed, anterodorsal, white pile over most of length, most pile approximately equal in length to tibial diameter, the pile at the apex of the tibia up to 3 times the length of the tibial diameter. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Longest scutellar pile equal in length to arista, other pile approximately two-thirds as long. Pile of scutum and scutellum with mixed black and white pile, pile of pleura mostly white, with a few black pile near upper margin of posterior anepisternum. Wing brown-tinted, with cell bm bare on basal half. Knob of halter brown. Abdomen parallel-sided, with spots dull orange, always with strong silvery pollinose overlay. Tergite 2 without spots. Spots of tergites 3 and 4 with small, subtriangular spots on anterior half. Tergite 5 entirely dark.

FEMALE: Unknown.

Discussion: *Platycheirus hispidipes* is currently known from only two male specimens collected southwest of Terrace, British Columbia (Fig. 13d).

Specimens examined: 1♂ from Canada (British Columbia).

***Platycheirus hyperboreus* (Staeger)**

(Species plate: Fig. 51, Map: Fig. 14a)

Syrphus hyperboreus Staeger, 1845: 362. Type locality: Greenland.

Platycheirus erraticus Curran, 1927: 7. Type locality: Canada, Ontario, Orillia.

Platycheirus chirosphena Hull, 1944: 76. Type locality: Canada, British Columbia.

Body length: 5.3–8.7 mm.

Diagnosis of MALE: Very similar to *angustatus*, differing as follows:

Fore femur sometimes with long posterior pile in addition to subbasal tuft, these pile up to 1.5 times as long as the femoral diameter. Fore tibia with apical edge straight, not produced into a posteroapical point. First fore tarsomere with anterior margin straight and posterior margin rounded, so margins are not parallel on apical two-thirds. V-shaped incision on underside of first fore tarsomere absent, instead with a shallow, ovoid depression near centre of tarsomere. Wing either entirely microtrichose or with small bare areas at the bases of cells c and bm. Pleura weakly white pollinose. Abdomen slightly more robust, parallel-sided, spots ranging from yellow to dark brown/absent, always with a strong to weak silvery pollinose overlay. In cases where the spot itself is absent, the silvery pollinosity remains. Spots of tergite 2 well separated from anterior margin of tergite, sometimes meeting lateral margin, entirely absent in some specimens. Spots of tergites 3 and 4 meeting anterior usually lateral margins of tergites.

Description of FEMALE: Very similar to *clypeatus*, differing as follows: **Thorax:** Wing usually with small bare areas at the bases of cells c and bm, sometimes entirely microtrichose. **Abdomen:** Spots of tergites ranging from yellow to dark brown/absent, always with a strong silvery pollinose overlay. In cases where the spot itself is absent, the silvery pollinosity remains.

Discussion: Three female specimens collected in Churchill, Manitoba and Nome, Alaska were 1.04% divergent on COI (distances corrected using K2P model) from other *P. hyperboreus*. All three specimens were extremely dark, with relatively faint pollinose markings on tergites. These may represent a new species but males are needed to test this hypothesis.

Specimens examined: 302♂ and 69♀ from Canada (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Quebec, Saskatchewan, Yukon Territory), USA (Alaska, California, Colorado, Illinois, Maryland, Massachusetts, Nevada, New Hampshire, New York, North Carolina, Tennessee, Utah, Virginia, Washington, Wyoming), Greenland.

***Platycheirus immarginatus* (Zetterstedt)**

(Species plate: Fig. 52, Map: Fig. 14b)

Scaeva immarginatus Zetterstedt, 1849: 3149. Type locality: Denmark, Copenhagen.

Platycheirus palmulosus Snow, 1895: 231. Type locality: USA, Colorado, Colorado Springs.

Platycheirus felix Curran, 1931: 251. Type locality: Canada, Quebec, Bonne Esperance.

Body length: 6.5–9.6 mm.

Diagnosis of MALE: Face vertical, bottom of oral margin rounded, not produced forward; densely grey pollinose, with tubercle shining. Legs mostly pale, with coxae, trochanters, and hind tarsomeres 1, 4, and 5 dark. Some specimens with a posterior stripe on fore and mid-femora, and most of hind femur and tibia dark. Fore femur with a posterior subbasal tuft of 2–3 long, thin, wavy, closely appressed white setae, this tuft followed by a regularly spaced row of 4–5 posterior, long, black setae with wavy apices, the longest of which is approximately twice as long as femoral diameter. Fore tibia somewhat strongly broadened from base to apex, with posteroapical angle produced and bluntly rounded. First fore tarsomere widened posteriorly, slightly narrower than apex of tibia, and about twice as long as wide. Remaining fore tarsomeres slightly narrower than first, unmodified. Mid femur on apical two-thirds with an anteroventral row of 10–22 short, stiff, black setulae, this row usually ending in 1 or 2 longer setae which are strongly curved towards base of femur. The setulae of this row no more than half the diameter of the femur, the curved setae approximately equal in length to the diameter of the femur. Mid femur also

with 3–6 ventral, black or yellow setae on basal half, these setae approximately twice as long as the femoral diameter. First hind tarsomere swollen, approximately 3 times as long as its greatest depth. Legs otherwise unmodified. Scutum and scutellum shining, with yellow pollinosity present only laterally. Pleura yellow pollinose above and white pollinose ventrally. Scutellar pile about two-thirds as long as arista, other thoracic pile about half as long. Thoracic pile mostly white or pale yellow, sometimes with a few black pile on the scutum, the posterior margin of the posterior anepisternum, and the lower half of the katepisternum. Wing brown-tinted, entirely microtrichose. Halter yellow. Abdomen parallel-sided. Tergite 2 with large, well-defined yellow spots which are at least three-quarters as long as tergite. Tergites 3 and 4 almost entire yellow with only a thin median black stripe and narrow posterior black margin present, median black stripe sometimes faded to dull brown on apical half of tergite and extremely narrow. Tergite 5 almost entirely yellow with only a small posteromedian black triangle, which may or may not reach anterior edge of tergite. Specimens from Northern latitudes rarely with large yellow areas reduced to smaller yellow spots, those of tergite 2 may be circular and situated towards centre of tergite, those of tergites 3 and 4 separate from anterior and lateral margins of tergites, tergite 5 sometimes entirely black.

Description of FEMALE: Indistinguishable from *perpallidus*, *neoperpallidus* and *quadratus*): **Head:** Face vertical, with bottom of oral margin rounded, not produced forward; densely grey pollinose, with only low tubercle shining. Antenna entirely dark. Vertex approximately twice the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Legs mostly pale, with coxae, trochanters, sometimes a narrow ring on the hind femur and tibia, and hind tarsomeres 1, 4, and 5 dark. Fore femur with a posterior subbasal tuft of 2–3 thin, white, closely appressed setae which are at least as long as the tibial diameter. Fore femur with posterior and posteroventral white pile along entire length, none closely appressed into a tuft. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Posterior anepisternum usually with several long, backwards-facing black setae with wavy apices. Thoracic pile no more than a quarter the length of the arista, all pile yellow. Wing slightly brown-tinted, completely microtrichose. Halter pale. **Abdomen:** Oval. Spots of tergites yellow. Spots of tergite 2 approximately three-quarters the length of the tergite, separated from the anterior margin, and meeting the lateral margin of the tergite. Spots of tergites 3 and 4 meeting anterior and lateral margins of tergites, from three-quarters to seven-eighths the length of the tergite. Tergite 5 almost entirely yellow with only a small posteromedian black triangle, which may or may not reach anterior edge of tergite. Tergite 6 entirely yellow.

Discussion: DNA barcoding of available specimens of *Platycheirus immarginatus* indicates that there are likely two species currently treated under this name. Most specimens are molecularly indistinguishable from *P. quadratus* and *P. neoperpallidus*, while several Nearctic specimens as well as four specimens from Norway barcode distinctly from the *P. immarginatus/quadratus/neoperpallidus* cluster. Males from this cluster lack the backwards-facing, black setae of the posterior anepisternum, but no other morphological features to distinguish the two groups could be found. The only two male specimens that fell within this unique cluster were collected in Norway. Because of this, we feel it would be inadvisable to describe a new species with a Holarctic range until more material can be examined.

Platycheirus immarginatus is often collected in low, wet areas such as sphagnum marshes or stands of *Caltha* sp. Adults feed on pollen of anemophilous plants such as grasses or *Plantago* species. Larvae have been successfully reared on a diet of *Aphis fabae* (Goeldlin 1974). This wide-ranging species occurs throughout most of the temperate and Arctic regions of the Holarctic (Fig. 14b).

Specimens examined: 361♂ and 39♀ from Canada (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Ontario, Quebec, Saskatchewan, Yukon Territory), USA (Alaska, California, Colorado, Idaho, Massachusetts, Minnesota, Oregon, Pennsylvania, Utah, Vermont, Washington, Wisconsin, Wyoming).

Platycheirus inversus Ide

(Species plate: Fig. 53, Map: Fig. 14c)

Platycheirus inversus Ide, 1926: 156. Type locality: Canada, Quebec.

Body length: 8.7–9.6 mm.

Diagnosis of MALE: Very similar to *amplus*, differing as follows:

First hind tarsomere strongly swollen basally, narrowing abruptly at mid-length. Lower third of anepimeron sometimes bare. Wing with basal third of cell bm, and anterior sixth of cell cup bare.

Description of FEMALE (Very similar to *amplus*, differing as follows): **Head:** Lateral pollinose triangles above antennal insertions with more defined edges, surrounding area of frons bare and shining. **Thorax:** Wing colourless, with basal half of cell c and basal two-thirds of cell bm bare. **Abdomen:** Broadly oval. Spots of tergites yellow. Spots of tergite 2 subquadrate to triangular, either meeting or narrowly separated from anterior edge of tergite. Spots of tergites 3–4 broadening noticeably towards centre of tergite, and meeting or almost meeting anterior margins of tergites, narrowly separated from lateral margins, weakly overlaid with silver pollinosity.

Discussion: *Platycheirus inversus* is known only from eastern North America (Fig. 14c). Vockeroth (1990) was unsure if *P. inversus* is conspecific with *P. amplus* due to overall similarity in morphology. However, due to the distinct hind tarsal morphology and restricted eastern range, *P. inversus* is very likely a distinct species. DNA sequence data also indicates that *P. inversus* is a distinct lineage from *P. amplus* (1.24% sequence divergence in the Folmer region of COI).

Specimens examined: 51♂ and 1♀ from Canada (New Brunswick, Nova Scotia, Ontario, Quebec), USA (New Hampshire, Maine, New York, Pennsylvania, West Virginia).

Platycheirus jaerensis Nielsen

(Species plate: Fig. 54, Map: Fig. 14d)

Platycheirus jaerensis Nielsen, 1971: 57. Norway, Brattebo, Ry: Hoyland.

Body length: 9.2–10.1 mm.

Diagnosis of MALE: Face moderately produced, with anterior oral margin produced forward, not reaching level of tubercle; dorsally with a distinct median keel between antennal bases; sparsely yellow pollinose, with tubercle and surrounding area of face shining. Antenna almost entirely orange, with only the dorsal half of the basoflagellomere brown. Gena slightly wider than basoflagellomere when viewed ventrolaterally. Legs mostly orange, with basal quarter of fore and mid femur, and most of hind leg except for narrow apex of femur and base of tibia dark. Fore trochanter with many short, weak, posterior black setulae. Fore femur with a posterior row of weak, black setae along entire length, similar to those of *amplus* but not at all flattened. Fore tibia uniformly broadened from base to four-fifths its length, then slightly more strongly broadened on apical fifth. First fore tarsomere strongly flattened, about twice as long as wide, very slightly wider than apex of fore tibia, with a weak dorsal keel on apical half. Remaining tarsomeres unmodified. Mid femur with a shallow anterior excavation on at about three-quarters its length, the excavation bordered with short, strong, black setulae. Mid tibia slightly swollen subbasally and apically, with an anteroventral tuft of short, dark or pale, slightly wavy pile up to 1.5 times as long as tibial diameter on subbasal swelling. Legs otherwise unmodified. Thorax very sparsely grey pollinose. Scutellar pile approximately two-thirds as long as arista, other thoracic pile no more than half as long. Thoracic pile entirely white or pale yellow. Wing colourless, with basal third of cell bm bare. Halter brown or yellow. Abdomen broad, parallel-sided, with yellow spots on tergites 2–5. Spots of tergite 2 small, lunulate, and at about mid length of tergite. Spots of tergites 3 and 4 large, rectangular, and touching the anterior margin of tergite. Spots of tergite 5 small, triangular, and touching the anterior margin of tergite.

Description of FEMALE (Based on several European specimens): **Head:** Face moderately produced, with anterior oral margin produced forward to level of the tubercle; dorsally with distinct median ridges between antennal bases; very sparsely yellow pollinose, with face almost entirely shining except at lateral edges and above antennal base. Antenna orange, sometimes with dorsal quarter of basoflagellomere light brown. Arista with dorsal and lateral microtrichosity appressed and no more than a quarter as long as the width of the arista. Vertex approximately twice the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. Gena approximately as wide as basoflagellomere when viewed ventrolaterally. **Thorax:** Fore and mid leg entirely orange, hind leg mostly dark except for broad base and narrow apex of femur, and narrow base of tibia. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Longest pile of posterior anepisternum half as long as arista, other Thoracic pile no more than a quarter as long. Thoracic pile entirely pale. Entire anepimeron pilose. Wing slightly brown-tinted, with basal sixth of cell c and basal quarter of cell bm bare. Knob of halter slightly darkened. **Abdomen:** Broadly oval, with tergite 3 at least twice as wide as

long. Spots of tergites orange-yellow. Spots of tergites 2–4 rectangular and meeting anterior margins of tergites, narrowly separated from lateral margins. Spots of tergite 5 oval and meeting anterior margin of tergite.

Discussion: This species is currently known from northeastern Canada and northern Europe (Fig. 14d). One specimen collected in Nova Scotia was found in “damp mixed woodland” (Vockeroth 1990).

Specimens examined: 10♂ and 5♀ from Canada (Manitoba, Newfoundland and Labrador, Nova Scotia, Quebec), Norway, Russia.

***Platycheirus kelloggi* (Snow)**

(Species plate: Fig. 55, Map: Fig. 15a)

Melanostoma kelloggi Snow, 1895: 230. Type locality: USA, Colorado, Front Range, Windy Gulch.

Melanostoma johnsoni Jones, 1917: 220. Type locality: USA, Colorado, Denver.

Body length: 7.7–10.1 mm.

Diagnosis of MALE: Large, broad bodied *Platycheirus* species. Face wider than eye, covered with moderately dense white pollinosity. Thorax with long, dense, white pile. Legs mostly dark, with apices of femora and bases of tibiae orange-yellow. Fore femur with long, dense, crinkly white posterior pile, a cluster of 2–3 long, thin, strongly curved, black apico-posterior setae, and 3 to 4 moderately strong straight yellow or black ventrobasal setae slightly longer than femoral diameter. Mid femur with strong yellow or black anteroventral setae in two irregular rows, which near base of femur are almost as long as femoral diameter, becoming shorter near apex of femur where they appear as short, fine setulae. Mid femur with a row of 3–5 long strong, black posteroventral setae near base. Wing extensively bare on basal half. Abdomen oval. Spots of tergites dull orange overlaid with strong pollinosity. Spots of tergite 2 near middle of tergite, spots of tergites 3 and 4 reaching anterior edge of tergite.

Description of FEMALE: Head: Face moderately produced ventrally, with large shining tubercle, otherwise with somewhat sparse white pollinosity. Anterior oral margin produced forward. Antenna black, with pedicel and basoflagellomere obscurely orange ventrally. Vertex approximately 3 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two distinct narrow lateral triangles. **Thorax:** Scutum and scutellum shining, with dense yellow or white pile, longest pile approximately equal in length to the width of the fore femur. Pleura weakly white pollinose and entirely white pilose, pile approximately the same length as pile of scutum and scutellum. Katepisternum lightly white pollinose, pile of katepisternum white and at least as long as pile of scutum and scutellum. Wing colourless, extensively bare on basal half, cell c entirely bare or trichose on at most apical third, cell bm with at most a few scattered microtrichia near apex. Halter yellow. Legs mostly orange, the following areas brown/black: tarsomeres 2–5 of fore and mid leg, basal three quarters of hind femur, apical three quarters of hind tibia, all tarsomeres of hind leg. Mid femur with an irregular row of 3–5 weak, white, anteroventral setae near base, which are almost as long as femoral diameter. Legs otherwise unmodified. **Abdomen:** Broadly oval. Well defined dark orange spots on tergites 2–4. Background colour of tergites shining metallic black. Spots of tergite 2 lunulate/triangular, not reaching anterior or lateral margin of tergite. Spots of tergites 3 and 4 subquadrate, reaching anterior but not lateral tergite margins. Tergites 5 and 6 black, unmarked.

Discussion: *Platycheirus kelloggi* occurs throughout western Canada, south to Colorado at high altitudes (2900–3900m) (Fig. 15a).

Specimens examined: 6♂ and 58♀ from Canada (British Columbia, Yukon Territory), USA (Colorado, Wyoming).

***Platycheirus latitarsis* Vockeroth**

(Species plate: Fig. 56, Map: Fig. 15b)

Platycheirus latitarsis Vockeroth, 1990: 705. Type locality: Canada, British Columbia, Kitsequetia R., 76 mi. E of Terrace.

Body length: 7.7–8.8 mm.

Diagnosis of MALE: Very similar to *amplus*, differing as follows:

First fore tarsomere strongly flattened, slightly less than twice as long as wide, without a dorsal keel. Mid tibia slightly swollen subbasally and apically, with an anteroventral tuft of short, dark or pale, slightly wavy pile up to 1.5 times as long as tibial diameter on subbasal swelling. Hind tibia with anterior setae somewhat denser. First hind

tarsomere barely swollen basally, tapering uniformly to narrow apex. Legs otherwise unmodified. Thorax sparsely yellow or grey pollinose. Scutellar pile approximately as long as arista, other thoracic pile no more than half as long. Pile of scutum and scutellum mixed dark-yellow and black.

FEMALE: Unknown, probably indistinguishable from *amplus*.

Discussion: This species is known only from western North America, British Columbia, south to Washington, Colorado, and New Mexico at high altitudes (Fig. 15b).

Specimens examined: 7♂ from Canada (British Columbia, Yukon Territory).

***Platycheirus latus* (Curran)**

(Species plate: Fig. 57, Map: Fig. 15c)

Melanostoma lata Curran, 1922: 276. Type locality: Canada, Yukon, White Horse.

Body length: 8.7–10.0 mm.

Diagnosis of MALE: Very similar to *pictipes*, differing as follows:

Legs dark, with apices of femora and tibiae narrowly orange. Thorax without blueish metallic tint. Mesonotal pile mainly black or brown, pale only at lateral edges. Wing with tiny bare area at base of cell c and cell bm narrowly bare posteriorly over most of its length. Abdomen narrowly oval, with spots grey, and entirely silver pollinose. Spots of tergite 2 sometimes absent. Surstylus with small basal lobe, main arm narrowed at mid length than at base and apex.

Description of FEMALE (Very similar to *pictipes*, differing as follows): **Head:** Pollinosity of face white or greyish. Antenna dark, with basoflagellomere narrowly orange ventrally. Vertex approximately 3 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two small lateral triangles. **Thorax:** Thorax black, not blueish or silvery. Mesonotal pile mainly black or brown, pale only at lateral edges. Wing with cell c bare on basal sixth, cell r bare only anterior to spurious vein, cell bm narrowly bare at base and along most of anterior and posterior margins, cell cup very narrowly bare along anterior margin. Legs mostly dark. Apices of femora narrowly orange. Tibiae orange, with a posterior dark stripe. **Abdomen:** Broadly oval. Spots of tergites 3 and 4 medially confluent. Tergite 5 obscurely silver pollinose.

Discussion: *Platycheirus latus* is known from Yukon Territory, Alberta, Washington, and Colorado (Fig. 15c). It likely occurs throughout western North America based on this distribution but is rarely collected.

Specimens examined: 4♂ and 11♀ from Canada (Alberta, Yukon Territory).

***Platycheirus lundbecki* (Collin)**

(Species plates: Figs 58, 59, Map: Fig. 15d)

Melanostoma lundbecki Collin, 1931: 68. Type locality: Greenland, Sermiliarsuk.

Platycheirus fjellbergi Nielsen, 1974: 167. Type locality: Norway, Spiterstulen.

Body length: 5.3–6.5 mm.

Diagnosis of MALE: Similar in appearance to *Platycheirus coerulescens*, differing as follows:

Thorax often with some brown or black pile. Legs mostly black or brown, orange only on apex of femur and base of tibia. Posterior setae of fore femur slightly less regular and weaker, ventral setae on basal half of femur black. Subbasal setae of mid femur black, weaker, and irregularly arranged. Wing almost completely microtrichose, with at most small bare areas at the bases of cell c and bm. Spots of tergites entirely grey, always overlaid with strong pollinosity.

Description of FEMALE: Very similar in appearance to *Platycheirus coerulescens*, differing as follows: **Head:** Antennae entirely black, with basoflagellomere broadly orange ventrally. Vertex approximately 3 times the width of the ocellar triangle. Pollinosity of frons above antennal insertions forming two very small lateral triangles or frons only pollinose along lateral margins of eye. **Thorax:** Pile of disc of scutum somewhat longer, the longest approximately 1.5 times as long as the width of the fore femur. Other thoracic pile equal in length to those of the scutum. Wing colourless, cell c and r mostly bare on basal half, cell bm bare on at least basal half, and cell cup bare on basal quarter. Halter brown to yellow. Legs mostly black or brown, orange only on apices of femora, base of fore femur, and bases of tibiae. Apical three-quarters of fore femur with a regular row of 9–12 strong, straight white

or black posterior setae which are approximately 1.5 times as long as femoral diameter, this row ending in a single longer seta with a moderately curved apex. Fore and mid tibia with a row of 3–6 weak, subappressed posterior setae on apical half, the longest of which are approximately twice the diameter of the tibia. **Abdomen:** Parallel-sided to narrowly oval. Tergites entirely dark, with pollinose spots. Spots of tergite 2 obscure or entirely absent, if present then located just beyond mid length of tergite, sometimes reaching the lateral and anterior edges of tergite. Spots of tergites 3 and 4 reaching anterior and lateral edge of tergite and sometimes medially confluent. Tergites 5 and 6 black, unmarked.

Discussion: *Platycheirus lundbecki* occurs throughout northern Canada and Alaska, Greenland, northern Europe, and Siberia (Fig. 15d).

Specimens examined: 32♂ and 21♀ from Canada (Manitoba, Northwest Territory, Ontario, Quebec, Yukon Territory), Greenland, USA (Alaska).

***Platycheirus luteipennis* (Curran)**

(Species plate: Fig. 60, Map: Fig. 16a)

Melanostoma atra Curran, 1925: 114. Type locality: USA, Colorado. **syn. nov.**

Melanostoma luteipennis Curran, 1925: 114. Type locality: USA, Washington, Pullman.

Melanostoma agens Curran, 1931: 253. Type locality: Canada, Manitoba, Melita.

Body length: 8.7–10.1 mm.

Diagnosis of MALE: Similar to *striatus*, differing as following:

Face produced strongly ventrally, with oral margin projecting as far as tubercle; sparsely pollinose, laterally with minute oblique striations in integument, with median shining stripe extending from top of tubercle to lower facial margin. Fore and mid tarsomeres orange, hind tarsus dark above. Thorax black, thoracic pile golden, longest thoracic pile approximately half as long as arista. Wing with cell c bare on basal sixth, cell bm posteriorly bare on basal half, and cell cup bare on basal third. Abdomen somewhat narrow. Spots of tergites well defined. Spots of tergite 2 near centre of tergite and well separated, spots of tergites 3 and 4 reaching anterior edge of tergite and narrowly separated. Surstylus with slender subtriangular basal lobe.

Description of FEMALE: Head: Face strongly produced ventrally, with oral margin projecting as far as tubercle; sparsely pollinose, laterally with minute oblique striations in integument. Upper part of face below antennal bases with median keels or ridges. Antenna dark, with basoflagellomere narrowly to broadly orange ventrally. Vertex approximately 3 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two very small lateral triangles. **Thorax:** Thorax not pollinose, strongly brassy metallic. Thoracic pile white or golden. All thoracic pile short, the longest approximately two-thirds the width of the fore femur. Anterior third of posterior anepisternum and katepisternum between anterior and posterior pile patches entirely bare and strongly shining. Wing brown on anterior half, mostly microtrichose. Cell c bare on basal sixth, cell bm with narrow bare strip on basal two-thirds. Halter pale, sometimes slightly darkened on knob. Coxae and trochanters dark. All femora dark on basal two-thirds, orange on apical third. Tibiae orange, either with posterior surface darkened or with dark ring at mid length. All tarsomeres dark above. Legs unmodified, without outstanding pile or setae. **Abdomen:** Narrowly oval. Entire abdomen brassy metallic, without pollinose spots.

Discussion: *Platycheirus luteipennis* is known from Alberta, Saskatchewan, Manitoba, Quebec, Montana, North Dakota, and Colorado (Fig. 16a). There is a large disjunction between the Quebec locality and all other known collecting sites of this species, but it is most likely that this species occurs throughout eastern Canada, as *P. luteipennis* has never been observed to inhabit any specialized habitat not found in the apparent range gap.

Specimens examined: 12♂ and 4♀ from Canada (Alberta, Manitoba, Saskatchewan).

***Platycheirus manicatus* (Meigen)**

(Species plate: Fig. 61, Map: Fig. 16b)

Syrphus manicatus Meigen, 1822: 336. Type locality: Germany.

Body length: 7.9–10.1 mm.

Diagnosis of MALE: Face very strongly produced ventrally with anterior oral margin extending well beyond tubercle; dorsally with a strong median keel between antennal bases; yellow pollinose, with only tubercle shining.

Legs dark, with narrow apices of femora, narrow bases of tibiae, and first 2 tarsomeres of foreleg pale. Fore trochanter with many short ventral black setulae. Fore tibia with several fine, wavy setae on apical half of posterior surface, the longest of which are approximately 3 times tibial width. First fore tarsomere subtriangular, strongly oblique apically, approximately 2.5 times as wide as apex of tibia, and slightly longer than wide. Second fore tarsomere subrectangular, three-quarters as wide as first tarsomere and one-quarter as long. Remaining fore tarsomeres unmodified. Mid tibia with sparse, wavy, posterodorsal and posterior pile on apical half, longest pile about 4 times as long as tibial diameter. First tarsomere of hind leg strongly swollen, approximately 3 times as long as its greatest depth. Legs otherwise unmodified. Entire thorax strongly yellow or grey pollinose. Thoracic pile dense, and as long as arista, about half pale and half dark. Halter yellow. Wing completely microtrichose. Abdomen narrowly oval, with spots of tergites 2–4 yellow, longer than wide, and separated from anterior and lateral margins of tergites.

Description of FEMALE: Head: Face very strongly produced ventrally with anterior oral margin extending well beyond tubercle; dorsally with a strong median keel between antennal bases; yellow pollinose, with only tubercle shining. Antennae dark, basal half of arista distinctly swollen. Vertex approximately 2.2 times as wide as ocellar triangle. **Thorax:** Legs mostly dark, with apices of femora and bases of tibiae pale. Legs unmodified. Thoracic pile yellow, longest scutellar pile equal in length to arista, most other thoracic pile no more than half as long. Entire thorax strongly yellow or grey pollinose. Halter yellow. Wing completely microtrichose. **Abdomen:** Abdomen oval, with large yellow spots on tergites 2–4 wider than long and separate from anterior and lateral edges of tergite. Tergite 5 with small yellow spots reaching anterior margin of tergite.

Discussion: This species is currently known in the Nearctic only from Alaska (Fig. 16b). Since it is known mostly from northern Europe and Siberia, it is likely that *P. manicatus* has a Beringian distribution, and may also be expected to occur in the Yukon and northern British Columbia.

Specimens examined: 3♂ and 5♀ from Finland, Germany, Sweden, USA (Alaska).

Platycheirus modestus Ide

(Species plate: Fig. 62, Map: Fig. 16c)

Platycheirus modestus Ide, 1926: 155. Type locality: Canada, Quebec, Megantic.

Body length: 6.2–7.3 mm.

Diagnosis of MALE: Face vertical, bottom of oral margin rounded, not produced forward; densely grey pollinose, with tubercle shining. Legs mostly pale, with coxae, trochanters, and hind tarsomeres 1, 4, and 5 dark. Fore tibia somewhat strongly broadened from base to apex, with posteroapical angle produced into a distinct point. First fore tarsomere widened posteriorly, slightly narrower than apex of tibia, and about twice as long as wide. Remaining fore tarsomeres slightly narrower than first, unmodified. Mid femur on apical quarter with an anteroventral row of 6–8 long, weak, black setae which are strongly curved towards base of femur, the longest of these setae approximately twice as long as the diameter of the femur. Mid tibia on basal three-quarters with an anteroventral and a ventral row of dense, wavy, black pile which are approximately 3 times as long as the diameter of the tibia. First hind tarsomere swollen, approximately 3 times as long as its greatest depth. Legs otherwise unmodified. Scutum and scutellum shining, with yellow pollinosity present only laterally. Pleura yellow or white pollinose. Scutellar pile about two-thirds as long as arista, other thoracic pile about half as long. Thoracic pile mostly yellow, sometimes with a few black pile on the posterior margin of the posterior anepisternum. Wing brown-tinted, entirely microtrichose. Halter yellow. Abdomen parallel-sided. Tergites 2–5 almost entirely yellow. Tergite 2 with a narrow anterior and posterior dark margin, and a median dark triangular marking projecting from anterior margin. Tergites 3–5 with narrow posterior dark margins, and median dark triangular markings projecting from posterior margins. Rarely darker specimens with triangular markings of tergites extending into weak, broken, median dark stripes on tergites.

Description of FEMALE: Head: Face vertical, with bottom of oral margin rounded, not produced forward; somewhat densely grey pollinose except around low, shining tubercle, and between the bottom of the tubercle and the tope of the anterior oral margin. Antenna entirely dark. Arista with very short microtrichia on basal half, pile no more than half the diameter of the arista at base. Vertex approximately twice the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Legs mostly pale, with coxae,

trochanters, sometimes a narrow ring on the hind femur and tibia, and hind tarsomeres 1, 4, and 5 dark. Legs unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Thoracic pile no more than a quarter the length of the arista, all pile pale yellow. Wing slightly brown-tinted, completely microtrichose. Halter pale. **Abdomen:** Parallel-sided. Spots of tergites yellow. Spots of tergite 2 approximately four-fifths the length of the tergite, separated from the anterior margin, and meeting the lateral margin of the tergite. Spots of tergites 3 and 4 meeting anterior and lateral margins of tergites, from four-fifths to seven-eighths the length of the tergite. Tergite 5 almost entirely yellow with only posterior margin dark. Tergite 6 entirely yellow.

Discussion: *Platycheirus modestus* shares an identical DNA barcode with *P. perpallidus*, to which it is very similar morphologically. However, as male *P. modestus* lack a tuft of pale setae at the base of the fore femur, a character found in *P. perpallidus* and many other species within the *P. albimanus* group, it is unlikely that the two species are actually conspecific. Specimens are occasionally collected in marshes, fens, and other low, wet areas.

Specimens examined: 194♂ and 12♀ from Canada (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Quebec, Saskatchewan, Yukon Territory), USA (Alaska, Maine, New Hampshire).

Platycheirus naso (Walker)

(Species plate: Fig. 63, Map: Fig. 16d)

Scaeva rostrata Zetterstedt, 1838: 607 (Preoccupied Wiedemann, 1830). Type locality: Sweden, Vasterbotten, Lappland, Lycksele.

Syrphus naso Walker, 1849: 587. Type locality: Canada, Ontario, Hudson's Bay, Albany River.

Platycheirus holarcticus Vockeroth, 1990: 698 (new name for *S. rostrata* Zetterstedt, 1838) **syn. nov.**

Body length: 7.1–10.1 mm.

Diagnosis of MALE: Very similar to *amplus*, differing as follows:

Face produced somewhat farther forward, with anterior oral margin usually reaching level of tubercle. Gena slightly wider than basoflagellomere when viewed ventrolaterally. First fore tarsomere with a strong dorsal keel on entire length. Second fore tarsomere with a dorsal keel on entire length. Remaining tarsomeres unmodified. Anteroventral tuft of mid tibia with pile slightly shorter, and sometimes with a sparse to dense pale pile. Hind tibia with anterior setae much denser. First hind tarsomere slightly swollen, about 4.5 times as long as its greatest depth, less obviously swollen basally. Pile of scutum and scutellum approximately as long as arista, other thoracic pile no more than two-thirds as long. Upper half of anepimeron with dark pile forming a distinct tuft, lower half of anepimeron bare. Pile of scutum and scutellum mostly black, with some yellow pile interspersed. Pleura with pile ranging from yellow to brown. Wing brown-tinted, completely microtrichose. Halter yellow to brown. Spots of tergites 3 and 4 sometimes separated from anterior edge of tergite. Spots of tergite 5 sometimes absent.

Description of FEMALE (Very similar to *amplus*, differing as follows): **Head:** Face produced somewhat farther forward, with anterior oral margin usually reaching level of tubercle. Lateral pollinose triangles above antennal insertions with more defined edges, surrounding area of frons bare and shining. Gena slightly wider than basoflagellomere when viewed ventrolaterally. **Thorax:** Upper half of anepimeron with a tuft of pale, dense pile. Lower half of anepimeron bare. Wing slightly brown-tinted, with basal sixth of cell c and basal half of cell bm bare. **Abdomen:** Broadly oval. Spots of tergites yellow, without pollinosity. Spots of tergite 2 usually lunulate and well separated from the anterior and lateral edges of tergite, occasionally rectangular and touching or almost touching tergite edges. Spots of tergites 3–4 rectangular or widening slightly towards centre of tergite, and meeting or almost meeting anterior margins of tergites, narrowly separated from lateral margins. Spots of tergite 3 approximately 1.5 times as wide as long. Spots of tergite 5 oval and meeting anterior margin of tergite.

Discussion: The holotype of *P. naso* is a female specimen that was not examined by Vockeroth (1990). However, it is recognizable by the tuft of pale pile on the upper half of the anepimeron and therefore *P. holarcticus* is a junior synonym of *P. naso*.

Platycheirus naso occurs throughout northern Canada, and also ranges south to New Mexico, where it is found at high altitudes (Fig. 16d). In the Palaearctic it is found throughout northern Europe. Specimens from Nova Scotia were collected in an open sphagnum fen at 300m. Male specimens from British Columbia were collected on a nearly bare rocky peak near Queen Charlotte City, where they were presumably hilltopping (Vockeroth 1990).

Specimens examined: 153♂ and 30♀ from Canada (Alberta, British Columbia, Manitoba, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Ontario, Quebec, Yukon Territory), USA (Alaska, Colorado, New Hampshire, New Mexico, Vermont).

***Platycheirus nearcticus* Vockeroth**
(Species plate: Fig. 64, Map: Fig. 17a)

Platycheirus nearcticus Vockeroth, 1990: 711. Type locality: Canada, Quebec, Gatineau Co., Masham Twp.

Body length: 8.4–10.5 mm.

Diagnosis of MALE: Very similar to *amplus*, differing as follows:

Face dorsally with a distinct median keel between antennal bases. Antenna usually dark brown above with some orange ventrally on pedicel and/or basoflagellomere, never entirely dark. Legs sometimes slightly paler, first mid tarsomere yellow in some specimens. Mid tibia with anteroventral tuft of pile pale, short, longest pile no more than 1.5 times the diameter of the tibia. Pile of scutum and scutellum often entirely pale, sometimes with a few black pile near margin. Upper half of anepimeron with pile dense but not forming a distinct tuft, lower half of anepimeron bare. Pile of pleuron white. Wing usually slightly brown-tinted, with cell bm medially bare on basal half.

Description of FEMALE (Very similar to *amplus*, differing as follows): **Head:** Arista with dorsal and lateral microtrichosity erect and at least half as long as the width of the arista at base. Vertex approximately 1.8 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles with diffuse edges, surrounding area of frons bare. **Thorax:** Bottom half of anepimeron usually bare, sometimes with a few outstanding pile. Wing slightly brown-tinted, with microtrichosity variable: basal quarter of cell c and between basal half and basal three-quarters of cell bm bare. **Abdomen:** Broadly oval. Spots of tergites yellow. Spots of tergites 2 usually rectangular and reaching the anterior and lateral edges of tergite, occasionally triangular with the anterior points almost reaching the anterior corners of the tergite. Spots of tergites 3–4 subrectangular, strongly widened towards the centre of the tergites. Spots of tergite 3 approximately 1.2 times as wide as long.

Discussion: *Platycheirus nearcticus* occurs throughout western and southern Canada, south to Oregon, New Mexico, and North Carolina (Fig. 17a). Specimens were collected in Ontario near blooming *Caltha* sp. in a low, wet area of a mixed deciduous forest. Many Ontario specimens were also collected with Malaise traps in Algonquin Provincial Park during a project designed to survey pollinator abundance in and around areas of forest disturbed due to logging (E. Proctor, pers. comm.)

Specimens examined: 151♂ and 35♀ from Canada (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Quebec, Saskatchewan, Yukon Territory), USA (Colorado, Maryland, Massachusetts, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Pennsylvania, Tennessee, Virginia).

***Platycheirus neoperpallidus* Young sp. nov.**
(Species plate: Fig. 65, Map: Fig. 17b)

Body length: 5.7–9.1 mm.

Description: MALE: Head: Face vertical, with a large tubercle, bottom of oral margin rounded, not produced forward; densely yellow or grey pollinose, with tubercle shining. **Thorax:** Legs partly pale, with coxae, trochanters, and hind tarsomeres 1, 4, and 5 dark. Fore and mid-femora with a dark posterior stripe, and most of hind femur and tibia dark. Fore femur with a posterior subbasal tuft of 2–3 long, thin, wavy, closely appressed white setae. Fore tibia somewhat strongly broadened from base to apex, with posteroapical angle produced and bluntly rounded. First fore tarsomere widened posteriorly, slightly narrower than apex of tibia, and about twice as long as wide. Remaining fore tarsomeres slightly narrower than first, unmodified. Mid femur on apical quarter with anteroventral and posteroventral rows of long, thin, black setae which curve strongly towards base of femur, the longest setae up to 2.5 times as long as femoral diameter. Mid tibia slightly swollen, on basal two-thirds of anteroventral surface with subappressed, wavy yellow pile, the longest of which are approximately twice the length of the tibial diameter. First hind tarsomere swollen, approximately 3 times as long as its greatest depth. Legs

otherwise unmodified. Scutum and scutellum shining, with yellow pollinosity present only laterally. Pleura yellow pollinose above and white pollinose ventrally. Scutellar pile about two-thirds as long as arista, other thoracic pile about half as long. Thoracic pile mostly white or pale yellow, sometimes with a few black pile on the scutum, the posterior margin of the posterior anepisternum, and the lower half of the katepisternum. Wing brown-tinted, entirely microtrichose. Halter yellow. **Abdomen:** Abdomen parallel-sided. Tergite 2 with large, well defined yellow spots which are at least three-quarters as long as tergite. Tergites 3 and 4 almost entire yellow with only a thin median black stripe and narrow posterior black margin present, median black stripe sometimes faded to dull brown on apical half of tergite and extremely narrow. Tergite 5 almost entirely yellow with only a narrow dark median stripe.

Description of FEMALE (Indistinguishable from *immarginatus*, *quadratus* and *perpallidus*): **Head:** Face vertical, with bottom of oral margin rounded, not produced forward; densely grey pollinose, with only low tubercle shining. Antenna entirely dark. Vertex approximately twice the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Legs mostly pale, with coxae, trochanters, sometimes a narrow ring on the hind femur and tibia, and hind tarsomeres 1, 4, and 5 dark. Fore femur with a posterior subbasal tuft of 2–3 thin, white, closely appressed setae which are at least as long as the tibial diameter. Fore femur with posterior and posteroventral white pile along entire length, none closely appressed into a tuft. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Thoracic pile no more than a quarter the length of the arista, all pile yellow. Wing slightly brown-tinted, completely microtrichose. Halter pale. **Abdomen:** Oval. Spots of tergites yellow. Spots of tergite 2 approximately three-quarters the length of the tergite, separated from the anterior margin, and meeting the lateral margin of the tergite. Spots of tergites 3 and 4 meeting anterior and lateral margins of tergites, from three-quarters to seven-eighths the length of the tergite. Tergite 5 almost entirely yellow with only a small posteromedian black triangle, which may or may not reach anterior edge of tergite. Tergite 6 entirely yellow.

Discussion: This species was formerly included as part of *P. perpallidus* but DNA barcodes for available specimens, in addition to consistent differences in the mid tibial morphology, indicate that there are two putative species involved under the name *P. perpallidus*. The *P. perpallidus* syntype series (split between the BMNH and OUMNH) was examined and found to contain both species. Although males from both clusters are extremely similar morphologically, *P. neoperpallidus* has consistently darker leg pigmentation, yellow setae that are shorter and more closely appressed on the underside of the mid tibia, and a more swollen hind first tarsomere. Unfortunately, females of both species are indistinguishable from *P. immarginatus* and *P. quadratus*.

Type material: the ♂ **HOLOTYPE** is housed in the University of Guelph Insect Collection (DEBU), Ontario, Canada, and is labeled: [United States of America] Co[lorado]: Clear Creek Co., Echo Lake Park, 39°39'35"N, 105°36'17"W, 3176m, 29 Jun 2010, A.D. Young, debu00330267 / Holotype *Platycheirus neoperpallidus* A. D. Young 2015.

Etymology: The specific name refers to *Platycheirus perpallidus* Verrall, a similar species that has been confused with *P. neoperpallidus*.

Specimens examined: 15 ♂ **PARATYPES**, 35 other ♂ and 1 ♀ from Canada (Alberta, British Columbia, Northwest Territories, Ontario, Quebec, Saskatchewan, Yukon Territory), UK (England), USA (Alaska, Colorado, Utah).

***Platycheirus nielseni* Vockeroth**

(Species plate: Fig. 66, Map: Fig. 17c)

Platycheirus nielseni Vockeroth, 1990: 712. Type locality: Canada, Yukon: Richardson Hwy.

Body length: 8.4–9.6 mm.

Diagnosis of MALE: Very similar to *amplus*, differing as follows:

Face densely grey pollinose, with tubercle shining. Legs usually falling within the darker range of the described colouration for *amplus*. Mid tibia slightly swollen subbasally and strongly swollen apically. Mid tibia with anteroventral tuft of pile mostly pale, short, longest pile no more than 1.5 times the diameter of the tibia. Posterior pile of mid tibia extremely dense, extending onto apical tibial swelling. Hind tibia with a denser anterior row of short black setulae. First hind tarsomere barely swollen basally. Scutum and scutellum with mixed black and

yellow pile. Upper half of anepimeron with pile dense and forming a diffuse tuft, lower half of anepimeron bare. Pleura with pile ranging from yellow to brown. Wing usually entirely microtrichose, sometimes with very small bare areas at bases of cells c and bm.

Description of FEMALE: (Similar to *amplus*, differing as follows): **Head:** Face densely yellow or grey pollinose. Vertex approximately 1.8 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles with diffuse edges, surrounding area of frons bare. **Thorax:** Mid tibia usually slightly swollen at apex. Bottom half of anepimeron bare. **Abdomen:** Broadly oval. Spots of tergites yellow, strongly overlaid with silver pollinosity. Spots of tergites 2 triangular. Spots of tergites 3 and 4, strongly broadened towards centre of tergite. Spots of tergite 3 approximately 1.4 times as wide as long.

Discussion: *Platycheirus nielsenii* occurs throughout northern Canada, and also ranges south to Colorado in the west, where it is found at high altitudes (Fig. 17c). This species is indistinguishable from *P. amplus*, *P. naso* and *P. octavus* using DNA barcoding (0% sequence divergence in the Folmer region of COI). However, the distinct differences in male first fore-tarsomere morphology, and mid tibial morphology and pilosity leaves little doubt that *P. nielsenii* is a distinct species.

Specimens examined: 22♂ and 3♀ from Canada (Manitoba, Newfoundland and Labrador, Northwest Territories, Nunavut, Yukon Territory).

***Platycheirus nigrofemoratus* Kanervo**

(Species plate: Fig. 67, Map: Fig. 17d)

Platycheirus albimanus var. *nigrofemoratus* Kanervo, 1934: 122. Type locality: Russia, Petsamo, Parkkino.

Body length: 6.2–7.3 mm.

Diagnosis of MALE: Similar to *albimanus*, differing as follows: tufts of wavy black pile on fore femur diffuse, fore tibia uniformly broadened to apex, first tarsomere gradually widening posteriorly from base to apex, wing entirely microtrichose or at most with tiny bare areas at the bases of cells c and bm.

Description of FEMALE (Similar in appearance to *albimanus*, differing as following):

Head: Pollinose triangles on frons above antennal base very small. **Thorax:** Pile of scutum yellowish-brown and slightly longer than in *albimanus*, the longest approximately equal in length to the width of the fore femur. Wing almost entirely trichose, with only tiny bare areas at the bases of cell c and bm. Halter yellow. All legs brown, with only bases and apices of femora and bases of tibiae yellow. **Abdomen:** Narrowly oval. Spots of tergites represented only by silvery pollinosity. Spots of tergite 2 obscure, just beyond mid length of tergite, sometimes reaching the lateral and anterior edges of tergite. Spots of tergites 3 and 4 quadrate, and with very diffuse pollinosity reaching anterior and lateral tergite margins. Tergites 5 and 6 black, unmarked.

Discussion: DNA barcoding indicates that there are likely two species treated under the name *P. nigrofemoratus*. A group of female specimens from Alaska appear to be morphologically identical to other *P. nigrofemoratus* but barcode uniquely. However, until a male specimen is associated with this unique group of specimens, we have chosen to treat *P. nigrofemoratus* as a single species.

Specimens examined: 12♂ and 10♀ from Canada (Newfoundland and Labrador, Northwest Territories, Quebec, Yukon Territory), Norway, Sweden, USA (Alaska).

***Platycheirus nodosus* Curran**

(Species plate: Fig. 68, Map: Fig. 18a)

Platycheirus nodosus Curran, 1923a: 272. Type locality: Canada, Alberta, Banff.

Body length: 5.3–8.7 mm.

Diagnosis of MALE: Face slightly receding ventrally, with bottom of oral margin rounded, not produced forward; entirely densely grey pollinose. Fore and mid leg almost entirely yellow, with only coxae, trochanters, a posterior brown stripe on the femora, and the apical tarsomeres dark. Hind leg almost entirely dark, with only narrow apices of femur and tibia, and narrow base of tibia yellow. Fore femur with 2 posterior subbasal tufts of 3 closely appressed dark setae, each seta with a flattened, lanceolate black tip. Fore tibia uniformly broadened from

base to three-quarters its length, then narrowed to apex, with posteroapical angle produced into a point. First fore tarsomere approximately two-thirds as wide as tibia at its broadest point, tarsomere broadened posteriorly on basal half, parallel-sided on apical half. Remaining tarsomeres unmodified. First hind tarsomere slightly swollen, approximately 4 times as long as its greatest depth. Legs otherwise unmodified. Thorax sparsely grey pollinose. Thoracic pile mostly yellow, those of posterior margin of anepisternum and lower half of katepisternum sometimes dark. Wing usually brown-tinted, completely microtrichose. Halter yellow. Abdomen parallel-sided, with large yellow spots on tergites 2–5. Spots of tergite 2 separated from anterior margin of tergite and about six-sevenths as long as tergite, spots of tergites 3 and 4 touching anterior margin of tergite and approximately as long. Tergite 5 with only median stripe darkened, rest of tergite yellow.

Description of FEMALE: Head: Face slightly receding ventrally, with bottom of oral margin rounded, not produced forward; somewhat densely yellow pollinose, with only low tubercle shining. Antenna entirely dark. Vertex approximately twice the width of the ocellar triangle. Pollinosity on frons above antennal insertions uniform, not forming two lateral triangles. **Thorax:** Fore and mid leg almost entirely yellow, with only coxae, trochanters, a posterior brown stripe on the femora, and the apical tarsomeres dark. Hind leg almost entirely dark, with only narrow apices of femur and tibia, and narrow base of tibia yellow. Fore femur with 2 posterior subbasal tufts of 2–3 thin, white, closely appressed setae. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly yellowish pollinose, with a bare shining area on the ventral half of the katepisternum. Thoracic pile no more than a quarter the length of the arista. Wing brown-tinted, completely microtrichose. Halter pale. **Abdomen:** Somewhat broadly oval, tergites 2 to 4 slightly wider than long. Spots of tergites yellow. Spots of tergite 2 subrectangular, separated from anterior and lateral margins of tergite. Spots of tergites 3 and 4 with their posterior margin distinctly slanted, with the inner lateral margin of the spot longer than the outer lateral margin, giving the spots a subtriangular appearance, touching anterior margin of tergite, separate from lateral margin. Spots of tergite 5 subrectangular and meeting anterior and lateral margins.

Discussion: *Platycheirus nodosus* occurs throughout Canada, south to Wyoming and New Hampshire (Fig. 18a). Several specimens were collected by sweeping emergent vegetation at the edges of reedy lakes in Banff National Park, Alberta, Canada.

Specimens examined: 63♂ and 5♀ from Canada (Alberta, British Columbia, Manitoba, Newfoundland and Labrador, Northwest Territories, Ontario, Quebec, Saskatchewan, Yukon Territory).

Platycheirus normae Fluke

(Species plate: Fig. 69, Map: Fig. 18b)

Platycheirus normae Fluke, 1939: 366. Type locality: USA, Wisconsin, Door County.

Body length: 7.1–8.4 mm.

Diagnosis of MALE: Very similar to *immarginatus*, differing as follows:

Facial tubercle less protruding. Legs with only coxae and hind trochanter dark. Fore trochanter with a small, triangular, ventral process. Fore femur with subbasal tuft of setae yellow, this tuft followed by a row of 4–6 posterior, long, yellow setae on basal half of femur, the longest of which is approximately 1.5 times as long as femoral diameter. Fore tibia very strongly broadened, curved on posterior margin, and with a strong dorsal keel on apical three-eighths. First fore tarsomere slightly broadened basally, constricted medially, slightly broadened at apex, approximately 3 times as long as wide. Remaining fore tarsomeres broader than first, unmodified. First mid tarsomere strongly laterally compressed, wider at base and apex than middle. Legs otherwise unmodified. Pleura sparsely white pollinose. Thoracic pile entirely yellow. Wing colourless, entirely microtrichose. Abdomen with colouration similar to *immarginatus* but more extensively yellow, black median line on tergites 2–4 usually absent on anterior half.

Description of FEMALE (Very similar to *immarginatus*, differing as follows): **Head:** Face with low shining tubercle, otherwise with dense grey or yellow pollinosity. Pollinosity on frons above antennal insertions uniform, not forming two lateral triangles. **Thorax:** Fore trochanter yellow, with a small, triangular, ventral process. Fore femur with subbasal tuft of setae yellow, this tuft followed by a regularly spaced row of 5–6 longer, stronger yellow setae, the longest of which is approximately equal in length to the femoral diameter. Legs otherwise unmodified. Pleura weakly yellow pollinose. **Abdomen:** Oval. Abdomen almost entirely yellow. Tergite 1 dark. Tergites 2–4

yellow with a dark posterior margin which is approximately a sixth the total length of the tergite, and a median dark stripe which narrows sharply on anterior half of tergite, usually absent on anterior third of tergite. Tergite 5 almost entirely yellow, with at most an obscure dark streak on posterior margin. Tergite 6 yellow.

Discussion: *Platycheirus normae* occurs throughout Canada, south to Pennsylvania (Fig. 18b). Adults were successfully reared from larvae feeding on *Sipha glyceriae* aphids collected from *Glyceria* sp. in Centre Co., PA (Fee, pers comm. with Vockeroth (1990)). One male was collected in Quebec in a *Carex-Salix* marsh along with *P. immarginatus*, *P. scambus*, and *P. thompsoni* (Vockeroth 1990).

Specimens examined: 8♂ and 5♀ from Canada (Ontario, Prince Edward Island, Quebec. USA: Pennsylvania).

***Platycheirus obscurus* (Say)**

(Species plates: Figs 70, 71, Map: Fig. 18c)

Syrphus obscurus Say, 1824, pl. 11. Type locality: USA, Pennsylvania, Nr. Philadelphia, V.A.

Melanostoma rostrata Bigot, 1884: 80. Type locality: USA, California.

Melanostoma ontario Davidson, 1922: 37. Type locality: Canada, Ontario.

Melanostoma nitiventris Curran, 1931: 252 Type locality: Canada, Ontario

Body length: 6.8–9.4 mm.

Diagnosis of MALE: Face distinctly produced ventrally, with anterior oral margin produced forward at least to level of tubercle and usually slightly beyond; broad shining median stripe extending from lower facial margin almost to antennal insertions, laterally with distinct oblique ripples present in the greyish pollinosity. Vertex forming an approximately 100° angle. Legs partly dark with following areas orange: Apical half of fore and mid-femora, apex of hind-femur, all of fore and mid tibia, sometimes all of hind-tibia, and first and second fore and mid-tarsomere. Fore-tibia a row of weak posterior setae on apical half to two-thirds, longest setae approximately 3 times the tibial diameter. Mid tibia with a similar row of setae. Hind tibia with a posterior row of irregular setae, the longest of which are approximately 3 times as long as the width of the tibia. Legs otherwise unmodified. Thorax very thinly grey pollinose, almost bare. Longest scutellar pile as long as arista, other thoracic pile no more than half as long. Mesonotal pile mostly pale with a few black pile at margins, pleural pile usually entirely white, sometimes with a few black pile on upper margin. Halter brown. Wing colourless, wing microtrichosity variable: most specimens with basal tenth of cell c and anterobasal third of cell bm bare, some specimens with up to basal two-thirds of cell c and up to basal three-quarters of cell bm bare. Abdomen oval, with spots of tergites brown or orange and overlaid with strong silver pollinosity, sometimes almost medially confluent on tergites 3 and 4. Lateral pile of abdomen mostly pale. Surstylus with lateral lobe somewhat thin and curved.

Diagnosis of FEMALE (Description in Vockeroth 1990): Similar to male, differing as follows: Frons with pollinosity forming two small lateral triangles above antennal insertions. Fore and mid tibiae with several weak posterior black or white pile with approximately as long as tibial diameter, legs otherwise unmodified. Thoracic pile no more than a quarter as long as arista, entirely white except for a few black pile on scutum and scutellum in some specimens. Wing often less microtrichose than males, with up to basal three-quarters of cell c and up to bases seven-eighths of cell bm bare. Abdomen oval, with spots of tergites usually with an orange background, spots often confluent medially.

Discussion: This species was treated by Vockeroth as a widespread species with a disjunct east-west distribution. However, consistent differences in the amount of facial pollinosity surrounding the tubercle, extent of wing microtrichosity, and DNA Barcode data indicate that there are likely two species, one eastern and one western, currently encompassed by the name *Platycheirus obscurus* (Say). *Platycheirus obscurus* as it is considered here occurs from the Appalachian Mountains north into the Boreal zone, and west to Manitoba (Fig. 18c). The western taxon is *Platycheirus trichopus*, treated below.

Platycheirus obscurus is one of the most commonly encountered species of Nearctic *Platycheirus*, and can often be collected in dry, mixed woodlands. Larvae have been reared in laboratory on a diet of *Myzus persicae* (Vockeroth 1990), *Myzus rosarum*, *Rhopalosiphum nervatum*, *Myzocallis bellus*, and *Myzocallis Alhambra* (Davidson 1922) and developed without diapause. Davidson refers to a letter written by C. H. Curran saying *M. obscurum* will feed on rotting chickweed, but this has not been confirmed by other authors.

Specimens examined: 520♂ and 452♀ from Canada (New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Quebec), USA (District of Columbia, Georgia, Maine, Maryland, Massachusetts, Mississippi, New

Hampshire, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Vermont, Virginia, Wisconsin).

***Platycheirus octavus* Vockeroth**

(Species plate: Fig. 72, Map: Fig. 18d)

Platycheirus octavus Vockeroth, 1990: 719. Type locality: Canada, British Columbia, Robson.

Body length: 7.7–9.6 mm.

Diagnosis of MALE: Very similar to *amplus*, differing as follows:

Face dorsally with a very faint median keel between antennal bases; sparsely yellow pollinose, with tubercle shining. Gena slightly wider than basoflagellomere when viewed ventrolaterally. First fore tarsomere with a distinct dorsal keel on entire length. Mid tibia with anteroventral tuft of pile pale, short, longest pile no more than 1.5 times the diameter of the tibia. Hind tibia with a denser anterior row of short black setulae. First hind tarsomere barely swollen basally. Pile of scutum and scutellum mostly white, sometimes with a few black pile. Upper half of anepimeron with pile dense and forming a diffuse tuft, lower half of anepimeron bare. Wing usually slightly brown-tinted, with basal fifth of cell c and up to basal third of cell bm bare.

FEMALE: Unknown, possibly indistinguishable from *amplus*.

Discussion: *Platycheirus octavus* is currently known from mountainous and forested regions of British Columbia, Washington, Oregon, and Montana (Fig. 18d). This species is indistinguishable from *P. amplus*, *P. naso* and *P. octavus* using DNA barcoding (0% sequence divergence in the Folmer region of COI). However, the distinct differences in male mid tibial morphology and pilosity suggests that *P. octavus* is a distinct species.

Specimens examined: 8♂ from Canada (British Columbia), USA (Oregon, Washington).

***Platycheirus orarius* Vockeroth**

(Species plate: Fig. 73, Map: Fig. 19a)

Platycheirus orarius Vockeroth, 1990: 720. Type locality: USA, New Hampshire, Rye, Odiorne Beach.

Body length: 7.9–9.6 mm.

Diagnosis of MALE: Face vertical, bottom of oral margin rounded, not produced forward; densely grey pollinose, with tubercle shining. Legs mostly pale, with coxae, trochanters, a posterior stripe on the hind tibia, and hind tarsomeres 1, 4, and 5 dark. Fore femur with a regularly spaced row of 4–5 posterior, long, black or yellow setae with wavy apices, the longest of which is approximately 1.5 times as long as femoral diameter, fore femur on basal quarter with a ventral row of 5–7 black setae which are approximately as long as the femoral diameter. Fore tibia somewhat strongly broadened from base to apex, with posteroapical angle produced into a distinct point. First fore tarsomere widened posteriorly, slightly narrower than apex of tibia, and about twice as long as wide. Remaining fore tarsomeres slightly narrower than first, unmodified. Mid femur on apical quarter with an anteroventral row of 5–6 weak, black setae which are curved towards base of femur, the longest of these setae approximately equal in length to the diameter of the femur. Mid tibia on ventral surface with thin, dense, strongly curled yellow pile which is approximately equal in length to the diameter of the tibia, sometimes also with a few curled black pile. First hind tarsomere swollen, approximately 3 times as long as its greatest depth. Legs otherwise unmodified. Scutum and scutellum shining, with yellow pollinosity present only laterally. Pleura yellow or white pollinose. Scutellar pile about two-thirds as long as arista, other thoracic pile about half as long. Thoracic pile mostly yellow, sometimes with a few black pile on the posterior margin of the posterior anepisternum and the lower half of the katepisternum. Wing brown-tinted, entirely microtrichose. Halter yellow. Tergite 2 with large, well defined yellow spots which are at least three-quarters as long as tergite. Tergites 3 and 4 mostly yellow with only a wide median black stripe and narrow posterior black margin present. Tergite 5 almost entirely yellow with only a small posteromedian black triangle, which may or may not reach anterior edge of tergite. Lateral lobe very large, curved.

Description of FEMALE: Head: Face vertical, with bottom of oral margin rounded, not produced forward; densely grey pollinose with tubercle subshining. Antenna entirely dark. Arista with very short microtrichia on basal half, no more than half the diameter of the arista at base. Vertex approximately 2.2 times the width of the ocellar

triangle. Pollinosity on frons above antennal insertions uniform, not forming two lateral triangles. **Thorax:** Legs mostly pale, with coxae, trochanters, sometimes a broad ring on the hind femur and tibia, and hind tarsus. Legs unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Thoracic pile no more than a quarter the length of the arista, either pale yellow or white. Wing slightly brown-tinted, completely microtrichose. Halter pale. **Abdomen:** parallel-sided. Spots of tergites yellow. Tergite 2 with bright to dull yellow spots, which do not touch any tergite margins and range in size from half to three-quarters the length of the tergite. Tergites 3 and 4 with bright yellow spots, which reach or almost reach the anterior and lateral margins of the tergites, and range in size from half to three-quarters as long as the tergite. Tergite 5 almost entirely dull yellow with only posterior margin dark. Tergite 6 entirely dull yellow.

Discussion: This species occurs in salt marshes on the east coast of North America, where it is usually the only *Platycheirus* species present (Fig. 19a). No other Nearctic Syrphinae species is known to be restricted to salt marshes (Vockeroth 1990).

Specimens examined: 29♂ and 17♀ from Canada (New Brunswick, Newfoundland and Labrador, Nova Scotia, Quebec), USA (Maine, Massachusetts, New Hampshire, New Jersey).

Platycheirus oreadis Vockeroth

(Species plates: Figs 74, 75, Map: Fig. 19b)

Platycheirus oreadis Vockeroth, 1990: 720. Type locality: USA, Colorado, Mt. Evans.

Body length: 6.2–7.9 mm.

Diagnosis of MALE: Face moderately produced ventrally; dorsally with a very weak median keel between antennal bases; densely grey pollinose, only tubercle shining. Legs mostly dark, with narrow apices of femora, fore and mid tibia, and first 2 tarsomeres of fore and mid leg pale. Fore trochanter with many short ventral black setulae. Fore tibia with fine, wavy pile on posterior surface, at longest approximately 3 times tibial width. First fore tarsomere subtriangular, strongly oblique apically, approximately 2.5 times as wide as apex of tibia, and slightly longer than wide. Second fore tarsomere subrectangular, three-quarters as wide as first tarsomere and one-quarter as long. Remaining fore tarsomeres unmodified. Mid tibia with many wavy, posterior pile approximately 2–3 times as long as tibial diameter. Hind tibia with most of basal half of anterodorsal surface with dense, fine, black pile, at longest approximately 2.5 times the tibial diameter. First tarsomere of hind leg strongly swollen, approximately 3 times as long as its greatest depth. Legs otherwise unmodified. Thorax very thinly grey pollinose. Thoracic pile dense, and as long as arista, pile colour mostly white-yellow with a few dark pile on scutum and scutellum. Halter brown. Wing with a bare area at the base of cell bm. Abdomen broadly oval, with spots of tergites 2–4 separate from anterior and lateral margins of tergites, yellow, and overlaid with strong silver pollinosity.

Description of FEMALE: Head: Face moderately produced ventrally; dorsally with a very weak median keel between antennal bases; densely grey pollinose, with only tubercle shining. Anterior oral margin produced forward to level of tubercle. Antennae dark. Frons with uniform pollinosity. Vertex approximately 3 times as wide as ocellar triangle. Gena very wide, approximately 3 times as wide as basoflagellomere. **Thorax:** Legs mostly dark, with apices of femora and bases of tibiae pale. First fore tarsomere weakly flattened with lateral margins divergent, apex oblique and approximately 1.2 times as wide as apex of tibia. First hind tarsomere somewhat swollen, approximately 3.5 times as long as its greatest depth. Legs otherwise unmodified. Thoracic pile dense, wavy, yellow, and as long as arista. Thorax sparsely grey pollinose. Halter yellow. Basal quarter of cell c and basal three-quarters of cell bm bare. **Abdomen:** Abdomen broadly oval, with obscurely orange spots on tergites 2–5 reaching anterior edge of tergites, and overlaid with dense silvery pollinosity.

Discussion: This species has only been collected from the type locality, near the summit of Mt. Evans, Colorado (elevation 4500m) (Fig. 19b). In 2010, two specimens were collected as they hovered low over a gravel walking path within an hour of arriving at the site. This species might be a relatively common high-altitude species in the area, but as most of the mountaintops in the area are either completely inaccessible or are unsafe to drive up, this hypothesis is difficult to test.

Specimens examined: 2♂ and 1♀ from USA (Colorado).

***Platycheirus parmatum* Rondani**
(Species plate: Fig. 76, Map: Fig. 19c)

Platycheirus parmatum Rondani, 1857: 121. Type locality: Italy, Piedmont, and Switzerland.

Platycheirus ovalis Becker, 1921: 27. Type locality: Russia. Ural, Goro-blagodat

Platycheirus bigelowi Curran, 1927: 5. Type locality: Canada, Ontario, Lake Abitibi, Low Bush.

Body length: 9.1–10.1 mm.

Diagnosis of MALE: Face moderately produced, with anterior oral margin produced forward, not reaching level of tubercle; dorsally with distinct median ridges between antennal bases; sparsely yellow pollinose, with tubercle and surrounding area of face shining. Antenna mostly dark, with the bottom half of the basoflagellomere orange. Gena wider than basoflagellomere when viewed ventrolaterally. Legs mostly dark, with only narrow apices of femora, anterior half of the fore tibia, basal third of mid tibia, narrow base of hind tibiae, and all tarsomeres pale. Fore trochanter with many short, weak, posterior black setula. Fore femur with a posterior row of weak, black setae along entire length, similar to those of *amplus* but not at all flattened. Fore tibia uniformly broadened from base to four-fifths its length, then more strongly broadened on apical fifth. First fore tarsomere strongly flattened, about 1.5 times as long as wide, about twice as wide as apex of fore tibia, with a weak dorsal keel on apical half. Second tarsomere about seven-eighths as wide as first, about half as long as wide, subtriangular. Remaining tarsomeres unmodified. Mid femur and tibia with long, dense, wavy black pile on posterior surfaces, the longest of which are about 3 times the tibial diameter. Legs otherwise unmodified. Thorax very sparsely grey pollinose. Scutellar pile approximately as long as arista, other thoracic pile no more than two-thirds as long. Pile of scutum, scutellum, and upper half of pleura about half black and half yellow, pile of lower half of pleura yellow. Wing colourless, with basal quarter of cell bm bare medially. Halter brown. Abdomen broad, parallel-sided, with yellow spots on tergites 2–4. Spots of tergite 2 small and at about mid length of tergite. Spots of tergites 3 and 4 large, rectangular, and separated from the anterior margin of tergite. Tergite 5 with spots extremely obscure or absent.

Description of FEMALE: Head: Face moderately produced, with anterior oral margin not reaching the level of the tubercle; dorsally with weak median ridges between antennal bases; thinly yellow pollinose, with tubercle shining. Antenna mostly dark, with the bottom half of the basoflagellomere orange. Arista with dorsal and lateral microtrichosity appressed and no more than a quarter as long as the width of the arista. Vertex approximately 2.2 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions usually forming two lateral triangles. Gena distinctly wider than basoflagellomere when viewed ventrolaterally. **Thorax:** All femora dark, with the base narrowly pale and apex broadly pale. Fore and mid tibiae pale with a broad posterior dark stripe, hind tibia entirely dark. Fore and mid tarsomeres mostly pale, sometimes obscurely darkened dorsally, hind tarsomeres completely dark. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Longest pile of posterior anepisternum half as long as arista, other Thoracic pile no more than a quarter as long. Thoracic pile mostly pale, disc of scutum sometimes with many dark pile. Entire anepimeron pilose. Wing slightly brown-tinted, with small indistinct bare areas at the bases of cells c and bm. Knob of halter yellow. **Abdomen:** Broadly oval. Spots of tergites orange-yellow, sometimes with a faint silver pollinose overlay. Spots of tergite 2 rectangular or lunulate, separated from the anterior and lateral tergite edges. Spots of tergites 3–4 rectangular, separated from the anterior and lateral tergite edges. Spots of tergite 5 oval and meeting anterior margin of tergite.

Discussion: *Platycheirus parmatum* occurs throughout northern Canada and Alaska, south to New Mexico at high altitudes (3000m) (Fig. 19c). It also occurs throughout Europe, Siberia, and Japan.

Platycheirus parmatum was originally included in the *P. albimanus* species group (Vockeroth 1990) due to the unmodified black setae of the fore femur and lack of an anterior excavation on the mid femur, in contrast to most species in the *P. parmatum* species group. However, the distinctly produced face, male fore tarsus morphology, and broad abdomen all suggest that *P. parmatum* belongs in the *P. peltatus* species group. This hypothesis is supported by the phylogenies generated from the morphological and combined parsimony analyses, but not the molecular Bayesian analysis (Fig. 1.6). Both parsimony analyses place *P. parmatum* as sister to the rest of the *P. peltatus* species group, while the Bayesian analysis placed *P. parmatum* in a large polytomy that included the rest of the *P. peltatus* group.

Specimens examined: 9♂ and 4♀ from Canada (Newfoundland and Labrador, Ontario), Norway, USA (Alaska, Colorado).

***Platycheirus peltatoides* Curran**

(Species plate: Fig. 77, Map: 19d)

Platycheirus peltatoides Curran, 1923a: 274. Canada, British Columbia, Penticton.

Body length: 8.2–10.5 mm.

Diagnosis of MALE: Very similar to *amplus*, differing as follows:

Face moderately produced, with anterior oral margin produced forward to the level of the tubercle; dorsally with a distinct median keel between antennal bases. Gena slightly wider than basoflagellomere when viewed ventrolaterally. First fore tarsomere with a moderately strong dorsal keel on entire length. Second fore tarsomere with a low dorsal keel. Mid tibia with pile of anteroventral tuft most pale, diffuse, and no longer than the width of the tibia. Anterior surface of hind tibia with short appressed setulae on basal third, and with irregularly spaced setulae that are approximately 1.5 times the length of the tibial width on apical two-thirds. Pile of scutum, scutellum, and upper half of pleura about half black and half yellow, pile of lower half of pleura yellow. Upper half of anepimeron with pile forming a diffuse tuft, lower half of anepimeron bare. Wing usually slightly brown-tinted, either entirely microtrichose or with very small bare areas at the bases of cells c and bm. Halter brown. Abdomen with yellow spots on tergites 2–4. Spots of tergite 2 small, variable in shape, at about mid length of tergite. Spots of tergites 3 and 4 large, rectangular, and touching or almost touching the anterior margin of tergite. Spots of tergite 5 either very obscure or absent.

Description of FEMALE (Very similar to *amplus*, differing as follows): **Head:** Face moderately produced, with anterior oral margin produced forward to or almost to the level of the tubercle. Gena approximately equal in width to basoflagellomere. **Thorax:** Bottom half of anepimeron bare. Wing slightly brown-tinted, with basal sixth of cell c and basal half of cell bm medially bare. Halter with shaft pale, knob slightly darkened. **Abdomen:** Spots of tergites yellow, sometimes overlaid with weak silvery pollinosity. Spots of tergite 2 either lunulate or rectangular. Spots of tergites 3–4 rectangular or slightly broadened towards centre of tergite and meeting anterior margins of tergites, narrowly separated from lateral margins.

Discussion: *Platycheirus peltatoides* is restricted to western North American, and ranges from northern Alaska and Yukon Territory south to Oregon and Colorado (Fig. 19d).

Specimens examined: 83♂ and 12♀ from Canada (Alberta, British Columbia, Saskatchewan, Yukon Territory), USA (Alaska, Washington).

***Platycheirus perpallidus* Verrall**

(Species plate: Fig. 78, Map: Fig. 20a)

Platycheirus perpallidus Verrall, 1901: 290. Type locality: England, Warwickshire.

Body length: 5.7–9.1 mm.

Diagnosis of MALE: Face vertical, with a large tubercle, bottom of oral margin rounded, not produced forward; densely yellow or grey pollinose, with tubercle shining. Legs mostly pale, with coxae, trochanters, and hind tarsomeres 1, 4, and 5 dark. Mid femur with a faint dark posterior stripe, hind femur and tibia with a dark ring at mid-length. Fore femur with a posterior subbasal tuft of 2–3 long, thin, wavy, closely appressed white setae. Fore tibia somewhat strongly broadened from base to apex, with posteroapical angle produced and bluntly rounded. First fore tarsomere widened posteriorly, slightly narrower than apex of tibia, and about twice as long as wide. Remaining fore tarsomeres slightly narrower than first, unmodified. Mid femur on apical quarter with anteroventral and posteroventral rows of long, thin, black setae which curve strongly towards base of femur, the longest setae up to 2.5 times as long as femoral diameter. Mid tibia slightly swollen, on basal two-thirds of anteroventral surface with erect, dense, wavy black pile, the longest of which are approximately 4 times the length of the tibial diameter. First hind tarsomere slightly swollen, approximately 4 times as long as its greatest depth. Legs otherwise unmodified. Scutum and scutellum shining, with yellow pollinosity present only laterally. Pleura yellow pollinose above and white pollinose ventrally. Scutellar pile about two-thirds as long as arista, other thoracic pile about half as long. Thoracic pile mostly white or pale yellow, sometimes with a few black pile on the scutum, the posterior margin of the posterior anepisternum, and the lower half of the katepisternum. Wing brown-tinted, entirely microtrichose. Halter yellow. Abdomen parallel-sided. Tergite 2 with large, well defined yellow spots which are at

least three-quarters as long as tergite. Tergites 3 and 4 almost entire yellow with only a thin median black stripe and narrow posterior black margin present, median black stripe sometimes faded to dull brown on apical half of tergite and extremely narrow. Tergite 5 almost entirely yellow with only a narrow dark median stripe.

Description of FEMALE (Indistinguishable from *immarginatus*, *quadratus* and *neoperpallidus*): **Head:** Face vertical, with bottom of oral margin rounded, not produced forward; densely grey pollinose, with only low tubercle shining. Antenna entirely dark. Vertex approximately twice the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Legs mostly pale, with coxae, trochanters, sometimes a narrow ring on the hind femur and tibia, and hind tarsomeres 1, 4, and 5 dark. Fore femur with a posterior subbasal tuft of 2–3 thin, white, closely appressed setae which are at least as long as the tibial diameter. Fore femur with posterior and posteroventral white pile along entire length, none closely appressed into a tuft. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Thoracic pile no more than a quarter the length of the arista, all pile yellow. Wing slightly brown-tinted, completely microtrichose. Halter pale. **Abdomen:** Oval. Spots of tergites yellow. Spots of tergite 2 approximately three-quarters the length of the tergite, separated from the anterior margin, and meeting the lateral margin of the tergite. Spots of tergites 3 and 4 meeting anterior and lateral margins of tergites, from three-quarters to seven-eighths the length of the tergite. Tergite 5 almost entirely yellow with only a small posteromedian black triangle, which may or may not reach anterior edge of tergite. Tergite 6 entirely yellow.

Discussion: DNA barcodes for available specimens, in addition to consistent differences in the mid tibial morphology, indicate that there are likely two species involved under the name *P. perpallidus*. The *P. perpallidus* syntype series (split between the BMNH and OUMNH) was examined and found to contain both species—one specimen at the OUMNH was labeled “to be design. as the L.T. by J.R. Vockeroth” but was never officially designated as the lectotype (see also discussion under *P. neoperpallidus*). The flagged Vockeroth specimen, now labeled with the unique identifier ‘Jeff Skevington Specimen# 45735’, is hereby designated as the lectotype of *Platycheirus perpallidus* Verall to fix and ensure the universal and consistent interpretation of the name.

Specimens examined: 20♂ and 1♀ from Canada (Alberta, British Columbia, Manitoba, Newfoundland and Labrador, Quebec), UK (England), USA (Alaska, Colorado, Utah, Wyoming).

***Platycheirus pictipes* (Bigot)**

(Species plate: Fig. 79, Map: Fig. 20b)

Cheilosia rufipes Williston, 1882: 306 (Preoccupied Macquart, 1828)

Melanostoma pictipes Bigot 1884: 78. Type locality: USA, California.

Melanostoma concinnus Snow, 1895: 229. Type locality: USA, Colorado, Manitou Park. **syn. nov.**

Melanostoma willistoni Goot, 1964: 219. (New name for *C. rufipes* Williston, 1882). **syn. nov.**

Platycheirus rufimaculatus Vockeroth 1990: 730. Type locality: USA, California, Mono County, Tioga Pass, Hall Area site. **syn. nov.**

Body length: 7.7–10.5 mm.

Diagnosis of MALE: Face slightly produced ventrally, with anterior oral margin produced forward; dorsally with no ridges or keels between antennal bases; densely white pollinose, with only tubercle subshining. Legs variable in colour. Coxae and trochanters dark. Fore and mid-femora usually dark on basal two-thirds or orange with thick dark posterior stripe, rarely entirely orange or entirely dark with apex narrowly orange. Hind femur usually entirely dark with apex narrowly orange, rarely narrowly orange at base. Tibiae orange with posterior surface darkened, hind tibia often mostly dark with only base and apex orange. Fore- and mid tarsomeres darkened or orange, hind tarsus dark. Legs unmodified, without outstanding pile or setae. First tarsomere of hind leg swollen, approximately 3.5 times as long as greatest depth. Thorax with blueish metallic tint, pile white or pale yellow, longest thoracic pile approximately equal in length to arista. Katepisternum strongly shining between upper and lower pile patches. Wing with small to large bare areas at the bases of cells c and bm. Cell c bare on up to basal third, cell bm varying from almost entirely microtrichose to almost entirely bare. Abdomen very narrowly oval, with spots entirely silver pollinose. Spots of tergite 2 separated from anterior margin of tergite, spots of tergites 3 and 4 touching anterior margin of tergite and sometimes medially confluent. Tergite 5 dark, unmarked. Surstylus with slender basal lobe, main arm slightly curved, nearly parallel-sided.

Description of FEMALE: Head: Face slightly produced ventrally; somewhat densely white or slightly coppery pollinose, with low tubercle shining. Anterior oral margin produced forward slightly. Upper part of face below antennal bases smooth, without median keels or ridges. Antenna dark, with basoflagellomere narrowly to broadly orange ventrally. Vertex approximately 2.8 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Thorax not pollinose, strongly metallic, either blueish or silvery. All thoracic pile white. All thoracic pile short, the longest approximately two-thirds the width of the fore femur. Anterior third of posterior anepisternum, and katepisternum between anterior and posterior pile patches entirely bare and strongly shining. Wing colourless, cell c mostly bare on up to basal four-fifths, cell r almost entirely bare or sometimes sparsely trichose posterior to spurious vein, cell bm bare on at least basal half, and cell cup bare on up to anterior quarter. Halter pale. Legs variable in colour. Coxae and trochanters dark. Fore and mid-femora usually dark on basal two-thirds or orange with thick dark posterior stripe, rarely entirely orange or entirely dark with apex narrowly orange. Hind femur usually entirely dark with apex narrowly orange, rarely narrowly orange at base. Tibiae orange with posterior surface darkened, hind tibia often mostly dark with only base and apex orange. Fore- and mid tarsomeres darkened or orange, hind tarsus dark. First tarsomere of foreleg usually slightly flattened and expanded towards apex, with anterior and posterior margin diverging smoothly along length of tarsomere. First tarsomere of hind leg swollen, approximately 3.5 times as long as greatest depth. Legs otherwise unmodified. **Abdomen:** Somewhat broadly oval. Spots of tergites entirely silver pollinose, sometimes very faint. Spots of tergite 2 either separated or touching anterior margin of tergite, spots of tergites 3 and 4 touching anterior margin of tergite. All spots of tergites often medially confluent. Tergite 5 dark, unmarked.

Discussion: *P. pictipes* occurs throughout western Canada, south to California, New Mexico, and Iowa (Fig. 20b).

Vockeroth noted that this species varies considerably in the length of the thoracic and femoral pile, extent of wing microtrichia, and leg colouration, suggesting that there may be multiple species involved. Approximately 20 specimens of *P. pictipes* were DNA barcoded, and while some variation was present in the COI sequences returned (mean intraspecific distance: 0.52%), the variation did not correspond to any variation in the aforementioned morphological characters. For these reasons, we believe that this is more likely a single, variable species.

Based on examination of the lectotype and paralectotype, which was apparently overlooked by Vockeroth (1990), *P. concinnus* is synonymized with *P. pictipes*. Additionally, we have synonymised both *P. rufimaculatus* and *P. willistoni* with *P. pictipes*. *Platycheirus willistoni* was previously distinguished from *P. concinnus* mainly by its entirely orange legs, and *P. rufimaculatus* was distinguished on the basis of obscure orange spots on the abdominal tergites. We treat *P. pictipes* as a single species because it shows a range of variation in colour characters. This decision is supported by DNA Barcode data, as all specimens of *P. rufimaculatus* and *P. willistoni* shared an identical barcode with at least one specimen of *P. pictipes*.

Specimens examined: 81♂ and 3♀ from Canada (Alberta, British Columbia, Newfoundland and Labrador, Northwest Territories, Quebec, Saskatchewan, Yukon Territory), USA (California, Colorado, Idaho, Iowa, Maine, Nevada, Oregon, Utah, Washington, Wyoming).

***Platycheirus pilatus* Vockeroth**

(Species plate: Fig. 80, Map: Fig. 20c)

Platycheirus pilatus Vockeroth, 1990: 724. USA, Colorado, Mt. Evans, Echo Lake.

Body length: 5.3–7.9 mm.

Diagnosis of MALE: Very similar to *nodosus*, differing as follows:

Face with tubercle usually shining. Fore and mid with apical 4 tarsomeres dark. Fore femur with setae of basalmost tuft pale throughout, with flattened apices only slightly broadened. Fore tibia less strongly broadened, with posteroapical angle less produced. First fore tarsomere slightly less broadened, with sides almost parallel throughout. Mid tibia with erect, black, anteroventral pile on basal third, longest pile approximately 3 times the diameter of the tibia. Thoracic pile more extensively darkened, most pile of anepisternum and anepimeron dark, lower katepisternal pile dark and thickened. Abdomen with yellow spots smaller and more variable in size, those of tergite 2 at most half as long as tergite, those of tergites 3 and 4 at most five-sevenths as long as tergite, those of tergite 5 obscure or absent.

FEMALE: Unknown, probably indistinguishable from *nodosus*.

Discussion: *Platycheirus pilatus* occurs throughout Alaska and western Canada, south to Colorado, where it was collected at high altitudes (3400m) (Fig. 20c). One specimen was collected by sweeping emergent vegetation at the edges of a reedy lake in Banff National Park, Alberta, Canada.

Specimens examined: 23♂ from Canada (Alberta, Manitoba, Northwest Territories, Yukon Territory), USA (Alaska, Colorado).

***Platycheirus podagratus* (Zetterstedt)**

(Species plate: Fig. 81, Map: Fig. 20d)

Scaeva podagrata Zetterstedt, 1838: 606. Type locality: Sweden, Vasterbotten, Lappland, Lycksele.

Body length: 5.7–7.7 mm.

Diagnosis of MALE: Face vertical, with a very weak tubercle, bottom of oral margin rounded, not produced forward; densely grey pollinose, with tubercle subshining. Legs mostly dark, with fore femur except for posterior stripe, fore tibia except for posterior stripe, fore-tarsus, narrow apex of mid femur, base and apex of mid tibia, mid tarsus, narrow apex of hind femur, and narrow base of hind tibia yellow. Fore femur with a posterior subbasal tuft of 2–3 long, thin, wavy, closely appressed white setae, this tuft closely followed by 3–4 similar dark pile which form a loose tuft in some specimens. Fore tibia somewhat strongly broadened on basal three-fifths, then more strongly broadened on apical two-fifths, narrowing slightly apically, with posteroapical angle not produced and bluntly rounded. First fore tarsomere widened posteriorly, slightly narrower than apex of tibia, and about 1.5 times as long as wide. Second and third tarsomeres about two-thirds as long as wide. Mid tibia on basal half of anteroventral surface with dense, fine, wavy black pile, the longest of which are approximately 3.5 times the length of the tibial diameter. First hind tarsomere slightly swollen, approximately 4 times as long as its greatest depth. Legs otherwise unmodified. Entire thorax thinly grey pollinose. Scutellar pile about two-thirds as long as arista, other thoracic pile about half as long. Thoracic pile mostly yellow to yellow-brown, sometimes with mostly black pile on the posterior margin of the posterior anepisternum and the lower half of the katepisternum. Wing brown-tinted, entirely microtrichose. Halter yellow. Abdomen parallel-sided, markings variable. Tergite 2 with bright to dull yellow spots, which do not touch any tergite margins and range in size from three-quarters the length of the tergite to almost absent. Tergites 3 and 4 with bright yellow spots, which reach or almost reach the anterior and lateral margins of the tergites, and range in size from half to three-quarters as long as the tergite. Tergite 5 dark, with at most extremely obscure orange-brown spots at the anterior margin of tergite.

Description of FEMALE: Head: Face vertical, with bottom of oral margin rounded, not produced forward; sparsely grey pollinose, with low tubercle shining. Antenna entirely dark. Vertex approximately twice the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Fore and mid legs mostly pale, with coxae, trochanters, and sometimes a posterior stripe on the femora and tibiae dark. Hind leg mostly dark, with apex of femur and base of tibia pale. Fore femur with a posterior subbasal tuft of 2–3 thin, white, closely appressed setae which are at least as long as the tibial diameter. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Thoracic pile no more than a quarter the length of the arista, all pile white or yellowish white. Wing slightly brown-tinted, completely microtrichose. Halter pale. **Abdomen:** Oval. Spots of tergites yellow. Spots of tergites 2–4 circular or subtriangular, separated for tergite margins, and situated on anterior halves of the tergites. Spots of tergite 2 usually half the length of the tergite, spots of tergites 3 and 4 no more than a third the length of the tergites. Tergite 5 with spots oval, reaching the anterior margin of the tergite, and about half the length of the tergite. Tergite 6 entirely dark.

Discussion: *Platycheirus podagratus* occurs throughout western and northern Canada, south to Maine and Colorado (3400m) (Fig. 20d).

Specimens examined: 71♂ and 28♀ from Canada (Alberta, British Columbia, Manitoba, Newfoundland and Labrador, Northwest Territories, Ontario, Quebec, Yukon Territory), USA (Alaska, Colorado, Utah).

***Platycheirus protrusus* Vockeroth**

(Species plate: Fig. 82, Map: Fig. 21a)

Platycheirus protrusus Vockeroth, 1990: 726. Type locality: USA, Colorado, Mt. Evans.

Body length: 6.1–6.6 mm.

Diagnosis of MALE: Similar to *chilosia*, differing as follows:

Face with tubercle larger; tip of tubercle produced beyond the anterior oral margin; smooth between antennal bases, no ridges or keel present. Thoracic pile mostly dark, pale only on katapisternum and lower half of anepimeron. Fore and mid tibia with slightly weaker black setae. Legs otherwise unmodified, with no outstanding setae. Halter yellow. Abdomen with spots of tergites very faint.

Description of FEMALE (probably indistinguishable from *P. yukonensis*): **Head:** Face somewhat strongly produced; tip of tubercle produced beyond the anterior oral margin; smooth between antennal bases, no ridges or keel present; very thinly white pollinose, with large, pointed tubercle shining. Antenna dark. Arista distinctly thickened on basal two-thirds. Vertex wide, approximately 3.5 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions very thin, almost completely bare and shining. Gena very wide, approximately 2.5 times as wide as basoflagellomere. **Thorax:** Thorax black. Thorax with pile mostly black, longest thoracic pile slightly longer than arista. Wing hyaline, entirely microtrichose. Knob of halter yellow. Legs dark, sometimes with extreme apices of femora and bases of tibiae pale. Fore and mid tibiae with a posterior row of short, weak, irregularly spaced white setae, the longest of which are approximately equal in length to tibial diameter. Fore femur with a posteroventral row of 3–5 closely spaced soft black setae on basal third. **Abdomen:** Somewhat broadly oval. Tergites black, without spots.

Discussion: *Platycheirus protrusus* is known only from Mt. Evans, Colorado, where it was collected at 4500m.

Specimens examined: 1♂ and 2♀ from USA (Colorado).

***Platycheirus pullatus* Vockeroth**

(Species plate: Fig. 83, Map: Fig. 21b)

Platycheirus pullatus Vockeroth, 1990: 726. Canada, Northwest Territories, Victoria Island.

Body length: 7.4–9.1 mm.

Diagnosis of MALE: Face slightly produced ventrally, with anterior oral margin produced forward; dorsally with a weak median keel between antennal bases; very thinly grey pollinose, tubercle shining. Basal half of arista distinctly swollen. Legs dark, with extreme apices of femora and bases of tibiae pale. Fore tibia with a row of weak black posterior subappressed setae, setae approximately equal in length to tibial width. Mid femur with an anteroventral row of irregularly spaced short black setae. Mid tibia with a row of weak black posterior subappressed setae similar to those of the fore tibia, Mid tibiae sometimes with an anteroventral row of appressed or suberect black or white setae, those near apex approximately twice as long as tibial diameter. First tarsomere of mid leg with 3 or more anteroventral black or white setae subequal in length to tibial diameter. Thorax with pile mostly white to mostly black, longest thoracic pile approximately equal in length to arista. Katapisternum sparsely grey pollinose. Halter dark brown. Wing completely microtrichose. Abdomen narrowly oval, with spots entirely silver pollinose. Spots of tergite 2 to 4 touching anterior margin of tergite. Tergite 5 dark, unmarked. Surstylus with broad, blunt subbasal process.

Description of FEMALE: **Head:** Face somewhat strongly produced, with anterior oral margin produced forward to level of tubercle; dorsally with a weak median ridges between antennal bases, laterally with faint oblique ripples present in the greyish-white pollinosity; tubercle large, rounded, subshining. Antenna dark. Arista distinctly thickened on basal two-thirds. Vertex wide, approximately 2.8 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions uniform and somewhat dense. Gena approximately twice as wide as basoflagellomere. **Thorax:** Thorax dark, somewhat densely white-grey pollinose, with pleural pile mostly white and scutal/scutellar pile almost entirely black, longest thoracic pile slightly longer than arista. Wing hyaline, entirely microtrichose. Knob of halter brown. Legs dark, with extreme apices of femora and bases of tibiae pale. Mid femur with an anteroventral row of short, weak, regularly spaced setae, the longest of which are approximately half as long as the tibial diameter. **Abdomen:** Narrowly oval. Tergites dark, with somewhat dense, uniform, whiteish-grey pollinosity.

Discussion: *P. pullatus* is known from Yukon, Northwest Territories, and Alberta (Fig. 21b).

Specimens examined: 13♂ and 1♀ from Canada (Alberta, Northwest Territories, Yukon Territory).

***Platycheirus quadratus* (Say)**
(Species plate: Fig. 84, Map: Fig. 21c)

Scaeva quadrata Say, 1823: 90. Type locality: USA.
Syrphus fuscipennis Macquart, 1855: 115. Type locality: Brazil.

Body length: 7.1–9.1 mm.

Diagnosis of MALE: Face vertical, with a large tubercle, bottom of oral margin rounded, not produced forward; densely grey pollinose, with tubercle shining. Legs mostly pale, with coxae, trochanters, and hind tarsomeres 1, 4, and 5 dark. Some specimens with a posterior stripe on fore and mid-femora, and a narrow ring on the hind femur and tibia dark. Fore femur with a posterior subbasal tuft of 2–3 long, thin, wavy, closely appressed white setae. Fore tibia somewhat strongly broadened from base to apex, with anterior margin wavy, and posteroapical angle produced and bluntly rounded. First fore tarsomere widened posteriorly, slightly narrower than apex of tibia, and slightly longer than wide. Remaining fore tarsomeres very slightly narrower than first, about twice as wide as long, otherwise unmodified. Mid femur with a dense ventral brush of many mixed black and yellow setae, with setae on the basal and apical quarters of the femur longest, approximately 1.5 times as long as the femoral diameter. First hind tarsomere swollen, approximately 3 times as long as its greatest depth. Mid tibia strongly broadened on apical three-quarters, with posterior margin straight and anterior margin curved, tibia slightly wider than femur at its widest point. First mid tarsomere also broadened, almost as wide as tibia, and about 3 times as long as wide. Legs otherwise unmodified. Scutum and scutellum shining, with yellow pollinosity present only laterally. Pleura yellow pollinose above and white pollinose ventrally. Scutellar pile about two-thirds as long as arista, other thoracic pile about half as long. Thoracic pile mostly yellow, sometimes with black pile on the lower half of the katepisternum. Wing brown-tinted, entirely microtrichose. Halter yellow. Abdomen parallel-sided. Tergite 2 with large, well defined yellow spots which are at least three-quarters as long as tergite. Tergites 3 and 4 almost entirely yellow with only a thin median black stripe and narrow posterior black margin present. Tergite 5 almost entirely yellow with only a small posteromedian black triangle, which may or may not reach anterior edge of tergite.

Description of FEMALE (Indistinguishable from *immarginatus*, *neoperpallidus* and *perpallidus*): **Head:** Face vertical, with bottom of oral margin rounded, not produced forward; densely grey pollinose, with only low tubercle shining. Antenna entirely dark. Vertex approximately twice the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Legs mostly pale, with coxae, trochanters, sometimes a narrow ring on the hind femur and tibia, and hind tarsomeres 1, 4, and 5 dark. Fore femur with a posterior subbasal tuft of 2–3 thin, white, closely appressed setae which are at least as long as the tibial diameter. Fore femur with posterior and posteroventral white pile along entire length, none closely appressed into a tuft. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Thoracic pile no more than a quarter the length of the arista, all pile yellow. Wing slightly brown-tinted, completely microtrichose. Halter pale. **Abdomen:** Oval. Spots of tergites yellow. Spots of tergite 2 approximately three-quarters the length of the tergite, separated from the anterior margin, and meeting the lateral margin of the tergite. Spots of tergites 3 and 4 meeting anterior and lateral margins of tergites, from three-quarters to seven-eighths the length of the tergite. Tergite 5 almost entirely yellow with only a small posteromedian black triangle, which may or may not reach anterior edge of tergite. Tergite 6 entirely yellow.

Discussion: See *P. immarginatus* for discussion.

Platycheirus quadratus occurs throughout southern Canada, south to California, New Mexico, and Florida (Fig. 21c). This species occurs in low, wet areas such as marshes, bogs, fens, and stands of *Caltha* sp.; adults are known to feed on pollen of anemophilous plants such as grasses or *Plantago*. Larvae have been successfully reared on a diet of *Myzus persicae* (Heiss 1939).

Specimens examined: 341♂ and 72♀ from Canada (Alberta, British Columbia, Manitoba, New Brunswick, Nova Scotia, Ontario, Quebec, Saskatchewan), USA (California, Colorado, Connecticut, Georgia, Idaho, Illinois, Indiana, Iowa, Maryland, Michigan, Mississippi, Missouri, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, Tennessee, Virginia, Wisconsin).

***Platycheirus rosarum* (Fabricius)**

(Species plate: Fig. 85, Map: Fig. 21d)

Syrphus rosarum Fabricius, 1787: 341. Type locality: Denmark, Copenhagen.

Pyrophaena rosarum var. *duplicata* Fluke, 1922: 228. Type locality: USA, Wisconsin.

Body length: 7.3–9.1 mm.

Diagnosis of MALE: Face slightly receding ventrally, anterior oral margin produced forward; very narrow; thinly silver pollinose, tubercle shining. Apical half to third of fore and mid-femora pale. Fore and mid tibiae and tarsomeres yellow, tibiae sometimes with darkened ring at mid-length. Hind leg mostly darkened, with only apex of femur, and narrow base and apex of tibia yellow. Legs unmodified, without outstanding pile or setae. Thorax shining to subshining black, pile white or pale yellow, longest pile approximately half as long as arista. Wing darkened, entirely microtrichose. Abdomen parallel-sided, mostly black. Tergites 3 and 4 each with a pair of pale yellow spots reaching the anterior and lateral margins of tergites, spots of tergite 3 somewhat longer than spots of tergite 4. Surstylus lacking basal lobe.

Diagnosis of FEMALE (description in Vockeroth 1990): Face slightly receding ventrally, anterior oral margin produced forward; very narrow; thinly silver pollinose, tubercle shining. Pollinosity of frons forming two lateral triangles. Vertex very narrow, approximately 1.5 times as wide as ocellar triangle. Apical third of fore and mid-femora pale. Fore and mid tibiae and tarsomeres yellow, tibiae sometimes with darkened ring at mid-length. Hind leg mostly darkened, with only apex of femur, and narrow base and apex of tibia yellow. Legs unmodified, without outstanding pile or setae. Thorax shining to subshining black, pile white or pale yellow, longest pile approximately half as long as arista. Wing darkened, entirely microtrichose. Abdomen teardrop-shaped, tergites 2–4 with lateral margins divergent towards apex. Tergite 2 sometimes with a pair of obscure yellow-orange spots at mid length, spots sometimes confluent medially. Tergites 3 and 4 each with a pair of pale yellow spots reaching the anterior and lateral margins of tergites, spots of tergite 3 somewhat longer than spots of tergite 4, spots sometimes confluent medially.

Discussion: *Platycheirus rosarum* occurs throughout Canada and Alaska, south to California and West Virginia (Fig. 21d). It also occurs throughout Europe and Siberia. *P. rosarum* is abundant in sphagnum bogs.

Specimens examined: 164♂ and 343♀ from Canada (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Nova Scotia, Ontario, Quebec, Saskatchewan, Yukon Territory), USA (Alaska, Maine, Massachusetts, Vermont, Wisconsin).

***Platycheirus rufigaster* Vockeroth**

(Species plate: Fig. 86, Map: Fig. 22a)

Platycheirus rufigaster Vockeroth, 1990: 729. Type locality: Canada, Northwest Territories, 21 mi. E of Tuktoyaktuk.

Body length: 7.4–9.1 mm.

Diagnosis of MALE: Face nearly vertical, anterior oral margin produced forward; somewhat densely silver pollinose, with only tubercle shining. Legs almost entirely dark, with only very narrow apices of femora and bases of tibiae pale. Legs unmodified, without outstanding pile or setae. Thorax shining black, pile mostly black, longest scutellar pile approximately two-thirds the length of the arista, most thoracic pile half as long as arista. Wing darkened, entirely microtrichose. Abdomen broadly oval, with extensive orange areas. Tergite 2 dark. Tergite 3 to 5 orange, with only faint lateral edges and median line darkened. Surstylus broadly oval, lacking basal lobe.

Description of FEMALE: Head: Face nearly vertical, anterior oral margin produced forward. Face somewhat sparsely silver pollinose, with only tubercle shining. Pollinosity of frons forming 2 lateral triangles. Vertex approximately 2 times as wide as ocellar triangle. **Thorax:** Legs almost entirely dark, with only very narrow apices of femora and bases of tibiae pale. Legs unmodified, without outstanding pile or setae. Thorax shining black, pile mostly black and very short, approximately a quarter the length of the arista. Wing darkened, entirely microtrichose. **Abdomen:** Abdomen broadly oval, with extensive orange areas. Tergite 2 dark. Tergite 3 to 5 orange, with only faint lateral edges and median line darkened.

Discussion: *Platycheirus rufigaster* is known from the Yukon and Northwest Territories (Fig. 22a).

Specimens examined: 6♂ and 2♀ from Canada (Northwest Territories).

***Platycheirus russatus* Vockeroth**
(Species plate: Fig. 87, Map: Fig. 22b)

Platycheirus russatus Vockeroth, 1990: 731. Type locality: USA, California, Riverside.

Body length: 7.8–8.8 mm.

Diagnosis of MALE: Very similar to *pictipes*, differing as follows:

Face more densely pollinose. Fore and mid-femora mostly darkened, with anterior orange stripe. Hind femur mostly dark, orange only at apex. Tibiae and tarsomeres usually entirely orange, tarsomeres sometimes brown above. Thorax silvery, pile white, longest thoracic pile approximately one-quarter the length of arista. Katepisternum very weakly pollinose between upper and lower pile patches. Wing with small to large bare areas at the bases of cells c and bm, cell c bare on basal eighth to basal half, cell bm bare on basal quarter to two-thirds. Abdomen very narrow, almost entirely orange: only tergite 1 and anterior/lateral edges of tergite 2 darkened.

Description of FEMALE: Head: Face not produced; densely white pollinose, with low tubercle shining. Anterior oral margin produced forward slightly. Upper part of face below antennal bases smooth, without median keels or ridges. Antenna dark, with basoflagellomere narrowly orange ventrally. Vertex approximately 2.8 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Thorax not pollinose, strongly metallic silvery. All thoracic pile white. All thoracic pile short, the longest approximately two-thirds the width of the fore femur. Katepisternum between anterior and posterior pile patches entirely bare and strongly shining. Wing colourless, cell c mostly bare on up to basal four-fifths, cell r almost entirely bare with only a few scattered microtrichia, cell bm bare on basal five-sixths, and cell cup bare on up to anterior quarter. Halter pale. Coxae and trochanters dark. Forefemur orange with thick dark posterior stripe. Mid and hind femur dark on basal two-thirds, orange on apical third. Fore- and mid tibiae orange, hind tibia orange with an obscure brown ring at mid-length. Fore- and mid tarsomeres orange on basotarsomere, darkened from tarsomeres 2–5, hind tarsus obscurely orange on tarsomeres 1–2, darkened from tarsomeres 3–5. First tarsomere of foreleg slightly flattened and expanded towards apex, with anterior and posterior margin diverging smoothly along length of tarsomere. First tarsomere of hind leg swollen, approximately 3.5 times as long as greatest depth. Legs otherwise unmodified. **Abdomen:** Somewhat broadly oval. Tergite 1 and the anterior/lateral margins of tergite 2 metallic silvery, remainder of abdomen entirely orange.

Discussion: *Platycheirus russatus* is known from four specimens collected in Riverside, California and one collected in Fallon, Nevada (Fig. 22b). Each of the five specimens was collected on widely separated dates, over a 56 year period (1909–1965). Unfortunately, the specimen labels do not give an exact locality, so it is impossible to determine whether or not the original collecting localities still support these flies.

Specimens examined: 2♂, 1♀ from USA (California, Nevada).

***Platycheirus sabulicola* Vockeroth**
(Species plates: Figs 88, 89, Map: Fig. 22c)

Platycheirus sabulicola Vockeroth, 1990: 731. Type locality: Canada, Yukon, Carcross sand dunes.

Body length: 5.2–6.8 mm.

Diagnosis of MALE: Very similar to *confusus*, differing as follows:

Face with shining median stripe smaller, not reaching oral margin and barely extending above tubercle. Fore and mid tibiae with posterior setae slightly weaker, present only on apical half of tibiae. Longest scutellar pile as long as arista, other thoracic pile no more than half as long. Mesonotal pile mostly pale sometimes with a few black pile at margins, pleural pile usually entirely white, sometimes with a few black pile, one specimen with mostly black pile. Wing colourless, extensively bare: cell c bare on at least basal four-fifths, cell bm entirely bare except for a narrow strip at apex, cell cu₁ bare at base. Abdominal spots never with orange background. Surstylus with lateral lobe nearly as broad as base of surstylus and somewhat curved.

Diagnosis of FEMALE (Description in Vockeroth 1990): Similar to male, differing as follows: Frons with pollinosity forming two small lateral triangles above antennal insertions. Legs often with most of fore and mid-leg orange. Fore and mid tibiae with several weak posterior black or white pile with approximately as long as tibial

diameter, legs otherwise unmodified. Not reliably distinguishable from specimens of *confusus* with extensively bare wings.

Discussion: *Platycheirus sabulicola* is known from the Carcross sand dunes (Yukon Territory), Athabasca Sand Dunes Provincial Park (Saskatchewan), and Wrigley (British Columbia) (Fig. 22c). Based on this distribution, it is likely a boreal dune specialist.

Specimens examined: 16♂ and 5♀ from Canada (Northwest Territories, Saskatchewan, Yukon Territory).

***Platycheirus scamboides* Curran**

(Species plate: Fig. 90, Map: Fig. 22d)

Platycheirus scamboides Curran, 1927: 6. Type locality: USA, Michigan, Agricultural College.

Body length: 8.2–9.1 mm.

Diagnosis of MALE: Face vertical, bottom of oral margin rounded, not produced forward; densely yellow pollinose, with tubercle subshining. Arista with distinct dorsal and ventral microtrichia, those at base at least two-thirds as long as the width of the arista. Legs mostly pale, with coxae, trochanters, a broad ring on the hind femur and tibia, and hind tarsomeres 1, 4, and 5 dark. Fore femur with a regularly spaced posterior row of 4–5, long, black setae, the longest of which is approximately 1.5 times the diameter of the femur. Fore tibia somewhat strongly broadened from base to apex, with posteroapical angle produced into a distinct point. First fore tarsomere widened posteriorly, slightly narrower than apex of tibia, and about twice as long as wide. Remaining fore tarsomeres slightly narrower than first, unmodified. Mid femur on apical half with an anteroventral row of 10–15 short, stiff, yellow setulae and on basal half with a posteroventral row of 3–7 long, black or yellow setae, the longest of these setae approximately equal to the diameter of the femur. Mid tibia on entire length with an anteroventral and a ventral row of short, appressed yellow pile. First hind tarsomere swollen, approximately 4.5 times as long as its greatest depth. Legs otherwise unmodified. Scutum and scutellum shining, with yellow pollinosity present only laterally. Pleura yellow pollinose. Scutellar pile about two-thirds as long as arista, other thoracic pile about half as long. Thoracic pile usually entirely yellow, sometimes with a few black pile on the posterior margin of the posterior anepisternum. Wing brown-tinted, entirely microtrichose. Halter yellow. Abdomen parallel-sided. Tergites 2–5 with large yellow spots. Tergite 2 with spots not meeting anterior or lateral margins of tergite, about three-quarters as long as tergite. Tergites 3–4 with spots meeting anterior and lateral margins of tergites, about two-thirds as long as tergite.

FEMALE: Unknown, probably indistinguishable from *P. scambus*.

Discussion: *Platycheirus scamboides* occurs throughout southern Ontario, Wisconsin to Maine, and south to North Carolina (Fig. 22d). One specimen was collected by the lead author in dry mixed forest adjacent to a small pond in Virginia. *Platycheirus scamboides* and *P. scambus* are very similar morphologically and are indistinguishable using DNA barcoding. However, consistent differences in the vestiture of the mid leg indicate that they are distinct species.

Specimens examined: 16♂ from Canada (Ontario. USA: Connecticut, Massachusetts, New Hampshire, New Jersey, New York, Virginia).

***Platycheirus scambus* (Staeger)**

(Species plate: Fig. 91, Map: Fig. 23a)

Syrphus scambus Staeger, 1843: 325. Type locality: Denmark.

Platycheirus chaetopodus Williston, 1887: 59. Type locality: USA, Washington Territory.

Body length: 6.5–9.6 mm.

Diagnosis of MALE: Face vertical, bottom of oral margin rounded, not produced forward; densely yellow pollinose, with tubercle subshining. Arista with distinct dorsal and ventral microtrichia, those at base at least two-thirds as long as the width of the arista. Legs mostly pale, with coxae, trochanters, a broad ring on the hind femur and tibia, and hind tarsomeres 1, 4, and 5 dark. Fore femur with a regularly spaced posterior row of 4–5, long, black setae, the longest of which is approximately 1.5 times the diameter of the femur. Fore tibia somewhat strongly broadened from base to apex, with posteroapical angle produced into a distinct point. First fore tarsomere widened

posteriorly, slightly narrower than apex of tibia, and about twice as long as wide. Remaining fore tarsomeres slightly narrower than first, unmodified. Mid femur on apical half with an anteroventral row of 10–15 short, stiff, black or yellow setulae on basal half, this row usually ending in 1 or 2 longer setae which are strongly curved towards base of femur, and with a posteroventral row of 2–4 long, black setae, the longest of these setae approximately equal to the diameter of the femur. Mid tibia on entire length with an anteroventral and a ventral row of short, appressed yellow pile. First hind tarsomere swollen, approximately 4.5 times as long as its greatest depth. Legs otherwise unmodified. Scutum and scutellum shining, with yellow pollinosity present only laterally. Pleura yellow pollinose. Scutellar pile about two-thirds as long as arista, other thoracic pile about half as long. Thoracic pile usually entirely yellow, sometimes with a few black pile on the posterior margin of the posterior anepisternum. Wing brown-tinted, entirely microtrichose. Halter yellow. Abdomen parallel-sided. Tergites 2–5 with large yellow spots. Tergite 2 with spots not meeting anterior or lateral margins of tergite, about three-quarters as long as tergite. Tergites 3–4 with spots meeting anterior and lateral margins of tergites, about two-thirds as long as tergite.

Description of FEMALE: Head: Face vertical, with bottom of oral margin rounded, not produced forward; densely yellow pollinose, with only low tubercle shining. Antenna entirely dark. Vertex approximately twice the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Legs mostly pale, with coxae, trochanters, sometimes a narrow ring on the hind femur and tibia, and sometimes hind tarsomeres 1, 4, and 5 dark. Legs unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose, sometimes with shining bare areas on the posterior anepisternum and katepisternum. Thoracic pile no more than a quarter the length of the arista, pile either white or yellow. Wing slightly brown-tinted, completely microtrichose. Halter pale. **Abdomen:** Oval. Spots of tergites yellow. Spots of tergite 2 approximately three-quarters the length of the tergite, usually separated from the anterior margin, and meeting the lateral margin of the tergite. Spots of tergites 3 and 4 meeting anterior and lateral margins of tergites, from three-quarters to seven-eighths the length of the tergite. Tergite 5 mostly yellow, with only a dark median stripe, which widens into a triangle posteriorly. Tergite 6 entirely yellow.

Discussion: *Platycheirus scambus* occurs throughout most of the Holarctic Region. North American records are from throughout Canada and Alaska, south to California, New Mexico and South Carolina (Fig. 23a). This species occurs in low, wet areas such as marshes, bogs, fens, and stands of *Caltha* sp.; adults are known to feed on pollen of anemophilous plants such as grasses or *Plantago*.

Specimens examined: 445♂ and 59♀ from Canada (Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Ontario, Quebec, Saskatchewan, Yukon Territory), USA (Alaska, California, Colorado, Maine, Massachusetts, Minnesota, New Hampshire, New York, North Carolina, Oregon, Utah, Vermont, Washington, Wyoming).

***Platycheirus scutatus* (Meigen)**

(Species plate: Fig. 92, Map: Fig. 23b)

Syrphus scutatus Meigen, 1822: 333. Type locality: Germany.

Body length: 6.8–8.7 mm.

Diagnosis of MALE: Face slightly produced ventrally, with anterior oral margin produced forward; rather narrow, approximately two-fifths the width of the head; usually entirely white-pilose. Legs mostly dark, with the following areas yellow: fore and mid femora except for a posterior dark stripe, most of fore tibia, base and apex of mid tibia, base of hind tibia, fore-tarsus, and sometimes first tarsomere of mid leg. Fore femur with a tuft of 2–3 long, subbasal, posterior white setae with wavy apices, immediately followed by 2 large, dense tufts of wavy black setae that are sharply bent preapically, also many long, strong, evenly spaced black setae decreasing in length towards apex. Fore tibia uniformly broadened on basal five sevenths, strongly broadened posteriorly on apical two-sevenths with posteroapical angle rounded, fore tibia also with a tuft of soft, slightly wavy, forward pointing posterior black pile at mid-length. First tarsomere sharply widening posteriorly on basal one-sixths, then widening gradually to apex, about twice as long as wide and equal in width to the tibia at apex. Second tarsomere as wide as first and one-sixths its length. Remaining tarsomeres progressively narrower and longer with tarsomere 4 approximately 1.75 times as wide as long. Mid coxa with slender, anteroapical, ventrally projecting spur. Mid femur with an irregular row of 6–12 short, anteroventral, black setulae, this row ending in 3–4 longer, slightly

curved black setae. Mid femur also with a row of 7–9 long, black, posteroventral setae on apical two-thirds. Wing with small bare areas at the bases of cells c and bm. Cell c bare on up to basal half, cell bm bare anteriorly on up to basal five-sixths. Abdomen with orange spots, usually overlaid with silver pollinosity, always with the hind edge of the spot parallel to the hind edge of the abdominal tergite.

Description of FEMALE (Indistinguishable from *P. speighti* and *P. splendidus*): **Head:** Face slightly produced ventrally, with large to very large shining tubercle, otherwise with somewhat dense white or yellow-white pollinosity. Vertex approximately 2 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two large, distinct lateral triangles. **Thorax:** Scutum and scutellum shining, lightly pollinose only on lateral margins. Other sclerites of thorax lightly dusted with white pollinosity. Thoracic pile white to yellow-white. Pile of disc of scutum short, the longest approximately half the width of the fore femur. Other thoracic pile, including lateral pile of the scutum, up to 1.5 times as long as the width of the fore femur. Wing colourless, extensively bare on basal half, cell c mostly bare on basal one third to two-thirds, cell r almost mostly bare anterior to spurious vein, cell bm mostly bare on basal three-quarters, and cell cup bare on anterior quarter. Halter yellow. Fore and mid femur orange with a dark ventral stripe. Hind femur black with basal quarter and apical eighth orange. Fore and mid tibia orange with a dark ring at mid-length or entirely orange. Fore and mid tarsus orange or brown. Fore femur with a tuft of 2–3 long, subbasal, posterior white setae, only slightly longer than surrounding pile. First tarsomere of hind leg swollen, approximately 4 times as long as greatest depth. Legs otherwise unmodified. **Abdomen:** Narrowly oval. Spots of tergites orange, usually with a faint pollinose overlay. Spots of tergite 2 lunulate or subtriangular, just beyond mid length of tergite, sometimes reaching the lateral edges of tergite, and either very lightly pollinose or without pollinosity. Spots of tergites 3 and 4 subquadrate, at least narrowly separate from anterior and lateral tergite margins, and with pollinose overlay only on anteromedial corner of spot. Tergites 5 and 6 black, unmarked.

Discussion: *P. scutatus* is known to be a species complex in the Palaearctic Region. Based on the results of the DNA barcode data obtained during this project, as well as careful examination of available specimens identified as *P. scutatus*, it appears that at least two species in this complex, *P. speighti* and *P. splendidus*, are also found in the Nearctic Region. *Platycheirus scutatus* occurs in the Nearctic Region throughout Canada and Alaska, south to Colorado and Pennsylvania (Fig. 23b).

Specimens examined: 29♂ and 5♀ from Austria, Canada (Alberta, Newfoundland and Labrador, Nova Scotia, Ontario, Quebec, Yukon Territory), Czech Republic, Italy, Norway, Sweden, Switzerland, USA (Pennsylvania, Washington), Yugoslavia.

Platycheirus setipes (Vockeroth)

(Species plate: Fig. 93, Map: Fig. 23c)

Platycheirus setipes Vockeroth, 1990: 735. Type locality: Canada, British Columbia.

Body length: 8.7 mm.

Diagnosis of MALE: Face moderately produced, with bottom of oral margin produced forward, not reaching level of tubercle; somewhat sparsely grey pollinose, with tubercle shining. Legs mostly dark, with apices of femora, fore tibia except for anterior and posterior stripes, base and apex of mid tibia, base of hind tibia, and fore and mid tarsomeres pale. Fore femur with a posterior subbasal tuft of 2–3 long, thin, wavy, closely appressed white setae. Fore femur on middle third also with a row of 3–4 posterior black setae which are at least 1.5 times as long as the femoral diameter. Fore tibia slightly broadened on basal three-quarters, more strongly broadened posteriorly on apical quarter, with posteroapical angle distinctly produced into a point. First fore tarsomere slightly narrower than tibia, broadened on basal third, then parallel-sided to apex. Second fore tarsomere slightly wider than long, remaining fore tarsomeres unmodified. Mid femur on apical two-thirds with an anteroventral row of 7–9 short black setulae, this row usually ending in a longer black seta which is strongly curved towards base of femur. Mid tibia with 1 or 2 posterior black setae just beyond the midpoint of the tibia, setae approximately 4 times as long as tibial diameter. Legs otherwise unmodified. Scutum and scutellum shining, with pollinosity present only laterally. Pleura weakly white pollinose. Longest scutellar pile equal in length to arista, other pile approximately two-thirds as long. Mesonotal pile variable in colour, from mostly black to mostly white with only a few black pile on posterior of scutellum, pleural pile all white. Wing brown-tinted, with cell bm medially bare on basal fifth. Knob of

halter brown. Abdomen parallel-sided, with spots dull orange, always with strong silvery pollinose overlay. Tergite 2–4 each with a pair of large, silvery, somewhat diffuse pollinose spots which meet the anterior and lateral margins of tergites.

FEMALE: Unknown.

Discussion: *Platycheirus setipes* is currently known from three specimens, two from British Columbia, and one from Colorado (Fig. 23c). The holotype and paratype were collected in Manning Park, British Columbia at 1830m, while the Colorado specimen was collected by sweeping emergent lake vegetation in Echo Lake Park at 3176m. The Colorado specimen was successfully DNA barcoded, with a sequence that was closest, but not identical to, *P. sp. "albimanus1"* (pairwise difference of 1.32%).

Specimens examined: 3♂ from Canada (British Columbia), USA (Colorado).

***Platycheirus setitarsis* Vockeroth**

(Species plate: Fig. 94, Map: Fig. 23d)

Platycheirus setitarsis Vockeroth 1990: 736. Type locality: Canada, Northwest Territories, Reindeer Depot, Mackenzie Delta.

Body length: 7.1–8.2 mm.

Diagnosis of MALE: Similar to *chilosia*, differing as follows:

Arista thickened only on basal half. Thoracic pile almost entirely black, pale only on katepimeron and lower half of katepisternum. Fore femur ventrally with a row of 4–8 stiff black setae on basal third, approximately two-thirds the length of femoral diameter. First tarsomere with only short pile. Mid femur with ventral setae no longer than femoral diameter. Mid tibia with posterior setae less strongly appressed. First tarsomere of mid leg with 3 stiff, black, anteroventral setae on apical two-thirds of tarsomere, setae approximately as long as width of tarsomere. Halter very dark brown. Spots of tergites somewhat more distinct, never with orange background.

FEMALE: Unknown, probably indistinguishable from *protrusus*.

Discussion: *Platycheirus setitarsis* is known from Alaska, Yukon, Northwest Territories, and northern British Columbia (Fig. 23d).

Specimens examined: 16♂ from Canada (British Columbia, Manitoba, Northwest Territories, Yukon Territory), USA (Alaska).

***Platycheirus speighti* Doczkal, Stuke, and Goeldlin**

(Species plate: Fig. 95, Map: Fig. 24a)

Platycheirus speighti Doczkal, Stuke, and Goeldlin, 2003: 27. Type locality: Italy. Vinschgau, Stilfser Joch-s, 2000 m.

Body length: 8.1–9.4 mm.

Diagnosis of MALE: Very similar to *scutatus*, differing as follows:

Face less narrow, approximately one-third the width of the head, and usually entirely dark-pilose; densely yellow pollinose with tubercle shining. Frons with pollinosity dark brown. Tarsomere 4 approximately twice as wide as long. Mid tibia strongly swollen medially, with the apical third bent ventrally at approximately a 30° angle. Wing entirely microtrichose or with extremely small bare areas at the bases of cells c and bm. Pale spots of abdomen with hind edge at an oblique angle to the hind margins of abdominal tergites.

FEMALE: Apparently indistinguishable from *P. scutatus*, *P. splendidus*. No known Nearctic specimens.

Discussion: *Platycheirus speighti* is one of the members of the *P. scutatus* complex, previously only known from the Palaearctic Region. In the Nearctic, it is known from Alberta, British Columbia, and Alaska. However, there are likely more specimens of *P. speighti* in existing collections misidentified as *P. scutatus*.

Specimens examined: 7♂ from Canada (Alberta, British Columbia), Russia, USA (Alaska).

***Platycheirus spinipes* Vockeroth**

(Species plate: Fig. 96, Map: Fig. 24b)

Platycheirus spinipes Vockeroth, 1990: 737. Type locality: USA, New Mexico, Cloudcroft.

Body length: 5.7–7.1 mm.

Diagnosis of MALE: Very similar to *hesperius*, differing as follows:

Face only as wide as eye, with narrow shining median stripe extending from lower facial margin to just above tubercle, laterally with moderately large punctures arranged in oblique rows present in the greyish pollinosity. Mid tibia with row of setae restricted to apical half (or approximately so). Scutellar pile mixed black and white, other thoracic pile white. Wing usually brown-tinted, extensively bare on basal half: cell c bare, cell bm bare or with scattered microtrichia near apex. Surstylus with lateral lobe stout and nearly straight.

Diagnosis of FEMALE (Description in Vockeroth 1990): Similar to male, differing as follows: Frons with pollinosity forming two small lateral triangles above antennal insertions. Fore and mid femur orange on apical quarter. Hind-tibia sometimes entirely orange-brown. Fore and mid tibiae with several weak posterior black or white pile with approximately as long as tibial diameter, legs otherwise unmodified. Thoracic pile no more than a quarter as long as arista, entirely white. Halter yellow. Abdominal markings usually medially confluent.

Discussion: *P. spinipes* occurs from California to Wyoming, south to southern Mexico (Fig. 24b).

Platycheirus spinipes is externally very similar to *P. stegnus*, which shares similar facial punctuation, but the different shape of the surstyli leaves little doubt that *P. spinipes* is a distinct species.

Specimens examined: 25♂ and 15♀ from Mexico, USA (Arizona, California, Colorado, New Mexico, Oregon, Texas, Utah, Wyoming).

***Platycheirus splendidus* Rotheray**

(Species plate: Fig. 97, Map: Fig. 24c)

Platycheirus splendidus Rotheray 1998: 271. Type locality: Scotland. Midlothian. Edinburgh, Corstorphine Hill.

Body length: 6.8–8.3 mm.

Diagnosis of MALE: Very similar to *scutatus*, differing as follows:

Face less narrow, approximately one-third to three-sevenths the width of the head, and usually entirely dark-pilose; densely yellow pollinose with tubercle shining. Frons with pollinosity dark brown. Tarsomere 4 approximately twice as wide as long. Wing entirely microtrichose or with extremely small bare areas at the bases of cells c and bm. Pale spots of abdomen with hind edge at an oblique angle to the hind margins of abdominal tergites.

FEMALE: Apparently indistinguishable from *P. scutatus* and *P. splendidus*. No known Nearctic specimens.

Discussion: *Platycheirus splendidus* is one of the members of the *P. scutatus* complex, previously only known from the Palaearctic Region. In the Nearctic, it is known from Alberta, British Columbia, Manitoba, Ontario, Saskatchewan, Yukon Territory, Alaska, and Mississippi. However, there are likely more specimens of *P. splendidus* in existing collections misidentified as *P. scutatus*.

Specimens examined: 23♂ and 1♀ from Canada (Alberta, British Columbia, Manitoba, Ontario, Saskatchewan, Yukon Territory), USA (Alaska, Mississippi).

***Platycheirus squamulae* (Curran)**

(Species plate: Fig. 98, Map: Fig. 24d)

Melanostoma squamulae Curran, 1922: 275. Type locality: Canada, British Columbia, Victoria.

Body length: 7.3–7.9 mm.

Diagnosis of MALE: Very similar to *confusus*, differing as follows:

Fore-tibia a row of strong posterior setae on apical four-fifths, longest setae approximately 3.5 times the tibial diameter. Mid tibia with a similar row of slightly weaker setae. Thoracic pile almost entirely dark, only those of katepimeron pale. Wing brown-tinted, entirely microtrichose. Lateral pile of abdomen mostly pale.

Diagnosis of FEMALE (Description in Vockeroth 1990): Similar to male, differing as follows: Fore and mid tibiae with several weak posterior black or white pile with approximately as long as tibial diameter, legs otherwise unmodified. Thoracic pile no more than a quarter as long as arista, entirely white except for several lateral dark pile on scutum and scutellum. Wing sometimes with a small bare area at base of cell c.

Discussion: *P. squamulae* is known from British Columbia and Oregon (Fig. 24d).

Specimens examined: 2♂ and 4♀ from Canada (British Columbia).

***Platycheirus stegnoides* Vockeroth**

(Species plates: Figs 99, 100, Map: Fig. 25a)

Platycheirus stegnoides Vockeroth, 1990: 738. Type locality: Canada, British Columbia, Lakelse Lake bog, near Terrace.

Body length: 7.7–8.2 mm.

Diagnosis of MALE: Very similar to *hesperius*, differing as follows:

Face with only tubercle shining, laterally with moderately large punctures arranged in oblique rows present in the greyish pollinosity. Fore and mid-tarsomeres brown. Fore-tibia with a row of 9–11 strong posterior setae spanning entire length of tibia, increasing in length towards apex; basal setae no longer than length of tibia, apical setae approximately 3.5 times the tibial diameter. Mid tibia with a row of weaker setae on approximately apical half. Legs otherwise unmodified. Mesonotal pile mixed black and white, pleura with many dark pile on upper half. Wing usually brown-tinted, entirely microtrichose. Surstylus with lateral lobe stout and strongly curved.

Diagnosis of FEMALE (Description in Vockeroth 1990): Similar to male, differing as follows: Fore and mid tibiae with several weak posterior black or white pile with approximately as long as tibial diameter, legs otherwise unmodified. Thoracic pile entirely white except for a few black pile on scutum and scutellum. Halter yellow.

Discussion: *Platycheirus stegnoides* is known from British Columbia south to northern California (Fig. 25a).

Specimens examined: 20♂ and 12♀ from Canada (British Columbia).

***Platycheirus stegnus* (Say)**

(Species plates: Figs 101, 102, Map: Fig. 25b)

Syrphus stegnus Say, 1829: 163. Type locality: Mexico.

Melanostoma tigrina Osten Sacken, 1877: 323. Type locality: USA, California, Marin County.

Body length: 6.8–9.1 mm.

Diagnosis of MALE: Very similar to *hesperius*, differing as follows:

Face with only tubercle shining, laterally with very large punctures arranged in oblique rows present in the greyish pollinosity. Fore and mid-tarsomeres brown. Fore-tibia with a row of 9–11 strong posterior setae spanning entire length of tibia, increasing in length towards apex; basal setae no longer than length of tibia, apical setae approximately 3 times the tibial diameter. Mid tibia with a row of weaker setae on approximately apical half. Legs otherwise unmodified. Mesonotal pile almost entirely white, sometimes with a few black pile on scutum and margin of scutellum, pleura with only white pile. Wing usually colourless, extensively bare on basal half: cell c bare, cell bm bare or with scattered microtrichia near apex. Surstylus with lateral lobe stout and strongly curved.

Diagnosis of FEMALE (Description in Vockeroth 1990): Similar to male, differing as follows: Hind-tibia sometimes orange. Fore and mid tibiae with several weak posterior black or white pile with approximately as long as tibial diameter, legs otherwise unmodified. Thoracic pile entirely white. Halter yellow.

Discussion: *Platycheirus stegnus* is known from southern British Columbia and Alberta, south to Nebraska, California, and Mexico (Fig. 25b).

Platycheirus stegnus was reared by Davidson on four species of aphids and developed without diapause, although adults were smaller than usual (Davidson 1922). Vockeroth raised larvae from eggs on *Myzus persicae*, and the adults were again smaller than normal. It is unknown exactly what conditions in laboratory caused adults to emerge smaller than normal, although it is likely that the aphids used as food did not properly replicate *P. stegnus*'s usual food source. Adults of *P. stegnus* were collected by Vockeroth at the edge of a moderately dry mixed forest in British Columbia.

Specimens examined: 180♂ and 163♀ from Canada (Alberta, British Columbia), Mexico, USA (Arizona, California, Colorado, Idaho, New Mexico, Oregon, Texas, Utah, Washington).

***Platycheirus striatus* Vockeroth**

(Species plate: Fig. 103, Map: Fig. 25c)

Platycheirus striatus Vockeroth, 1990: 740. Type locality: USA, Colorado, Nederland Science Lodge.

Body length: 7.3–11 mm.

Diagnosis of MALE: Face slightly produced ventrally, with anterior oral margin produced forward; dorsally with keels or ridges between antennal bases; densely pollinose, with only tubercle shining. Coxae and trochanters dark. All femora dark on basal half to two-thirds, orange on apical third. Tibiae orange, either with posterior surface darkened or with dark ring at mid length. All tarsomeres dark above. Legs unmodified, without outstanding pile or setae. First tarsomere of hind leg swollen, approximately 4 times as long as greatest depth. Thorax black, strongly metallic shining, pile white or pale yellow, longest thoracic pile approximately equal in length to arista. Katepisternum strongly shining between upper and lower pile patches. Wing entirely trichose or with tiny bare at the bases of cells c and bm. Abdomen narrowly oval, with spots entirely silvery or coppery pollinose. Spots of tergite 2 either separated from or touching anterior margin of tergite, spots of tergites 3 and 4 touching anterior margin of tergite and somewhat indistinct. Tergite 5 dark, unmarked. Surstylus with broad basal lobe, main arm curved outwards apically, nearly parallel-sided.

FEMALE: Unknown.

Discussion: *Platycheirus striatus* occurs throughout Canada, south to California, Colorado, and New Hampshire (Fig. 25c).

Specimens examined: 50♂ from Canada (Alberta, British Columbia, Manitoba, Newfoundland and Labrador Ontario, Quebec, Yukon Territory), USA (Alaska, California, Colorado, Wyoming).

***Platycheirus subordinatus* (Becker)**

(Species plate: Fig. 104, Map: Fig. 25d)

Platycheirus subordinatus Becker, 1915: 60. Type locality: Russia, Northern Urals, Tundra River Kara, N. Ural.

Body length: 5.7–7.8 mm.

Diagnosis of MALE: Face moderately produced ventrally; dorsally with a moderately strong medial keel between antennal bases; weakly grey pollinose, with only tubercle shining. Anterior oral margin produced forward. Legs mostly dark, with fore tibia, first 3 tarsomeres of foreleg, narrow apices of femora, and bases of mid and hind tibiae pale. Fore tibia with an irregularly spaced row of weak black setae increasing in length towards apex, the longest of which are approximately 3 times the tibial width. First fore tarsomere subtriangular, transverse apically, approximately 1.5 times as wide as apex of tibia, and from 1.5 to 2.5 times as long as wide. Second fore tarsomere slightly flattened and expanded. Remaining fore tarsomeres unmodified. Mid tibia with dense, wavy, anteroventral pile on basal half, the longest of which are approximately 3 times the tibial diameter; tibia also with similar, sparser, posterior pile on middle third. First tarsomere of hind leg somewhat swollen, approximately 4 times as long as its greatest depth. Legs otherwise unmodified. Thorax very thinly grey pollinose. Thoracic pile dense, and as long as arista, colour variable between white and pale brown. Halter yellow to brown. Wing completely microtrichose. Abdomen narrow, with spots of tergites grey or orange and overlaid with faint silver pollinosity, spots of tergite 2 sometimes absent.

Description of FEMALE (Very similar to *discimanus*, differing as follows):

Head: Face slightly more produced ventrally; somewhat more densely pollinose, tubercle and gena still shining. Anterior oral margin produced forward to level of tubercle. Tubercle prominent and rounded. **Thorax:** Thoracic pile white, longest scutellar pile equal in length to arista, most other thoracic pile no more than one-third as long. Halter brown. **Abdomen:** Abdomen oval, black, without spots.

Discussion: This species is currently known in the Nearctic only from Alaska and the Yukon Territory (Fig. 25d). Vockeroth suspected that the name *P. subordinatus* represented multiple species based on the large variability in fore tarsus shape and abdominal markings in the few specimens available to him. Unfortunately, we were unable to obtain fresh specimens to examine morphologically or molecularly to properly test his hypothesis.

Specimens examined: 10♂ and 3♀ from Canada (Yukon Territory), Norway, USA (Alaska).

***Platycheirus tenebrosus* Coquillett**

(Species plate: Fig. 105, Map: Fig. 26a)

Platycheirus tenebrosus Coquillett, 1900: 428. Type locality: USA, Alaska, Popof Island.

Body length: 5.7–7.8 mm.

Diagnosis of MALE: Face vertical, with a very weak tubercle, bottom of oral margin rounded, not produced forward; somewhat densely grey pollinose, with tubercle subshining. Legs mostly dark, with fore femur except for posterior stripe, fore tibia except for posterior stripe, fore-tarsus, narrow apex of mid femur, base and apex of mid tibia, mid tarsus, narrow apex of hind femur, and narrow base of hind tibia yellow. Fore femur with a posterior subbasal tuft of 2–3 long, thin, wavy, closely appressed white setae. Fore tibia somewhat strongly broadened on basal three-fifths, then more strongly broadened on apical two-fifths, narrowing slightly apically, with posteroapical angle not produced and bluntly rounded. First fore tarsomere widened posteriorly on basal three-quarters, then narrowing slightly at apex, slightly narrower than apex of tibia, and about 1.5 times as long as wide. Remaining tarsomeres progressively narrower than first, as long as wide, otherwise unmodified. First hind tarsomere variably swollen, from 3.5 to 5 times as long as its greatest depth. Legs otherwise unmodified. Entire thorax very thinly grey pollinose. Scutellar pile about as long as arista, other thoracic pile about two-thirds as long. Thoracic pile mostly dark, with mixed black and white pile on scutum and scutellum, entirely dark pile on pleura. Wing colourless, entirely microtrichose. Halter yellow. Abdomen parallel-sided, markings variable. Tergite 2 with bright to dull yellow spots, which do not touch any tergite margins and range in size from three-quarters the length of the tergite to almost absent. Tergites 3 and 4 with bright yellow spots, which reach or almost reach the anterior and lateral margins of the tergites, and range in size from half to three-quarters as long as the tergite. Tergite 5 dark, with at most extremely obscure orange-brown spots at the anterior margin of tergite.

FEMALE: Unknown.

Discussion: *Platycheirus tenebrosus* is known from Alaska, British Columbia, and Oregon (Fig. 26a). The female is unknown, and likely very similar in appearance to *P. podagratus*.

Specimens examined: 37♂ from Canada (British Columbia), USA (Alaska).

***Platycheirus thompsoni* Vockeroth**

(Species plate: Fig. 106, Map: Fig. 26b)

Platycheirus thompsoni Vockeroth, 1990: 743. Type locality: Canada, Quebec, Beechgrove.

Body length: 7.8–9.0 mm.

Diagnosis of MALE: Very similar to *nodosus*, differing as follows:

Fore and mid tarsomeres entirely yellow. Fore femur with only one tuft of closely appressed dark setae, each seta with a flattened, lanceolate brown or black tip. This tuft sometimes preceded by a single long, outstanding seta. Fore tibia slightly narrower. First fore tarsomere slightly less broadened, with sides almost parallel throughout. Spots of tergite 2 touching anterior margin of tergite.

Description of FEMALE (Very similar to *nodosus*, differing as follows): **Thorax:** Fore femur with 1 subbasal tuft of 2–3 thin white setae. **Abdomen:** Slightly narrower, with tergites 2–4 approximately as wide as long.

Discussion: *Platycheirus thompsoni* is known from Ontario and Quebec south to Minnesota and Maine, and has been collected in *Carex-Salix* marshes alongside specimens of *P. immarginatus* and *P. scambus* (Fig. 26b).

Specimens examined: 16♂ and 1♀ from Canada (New Brunswick, Ontario, Quebec), USA (Pennsylvania).

***Platycheirus thylax* Hull**

(Species plate: Fig. 107, Map: Fig. 26c)

Platycheirus thylax Hull, 1944: 78. Type locality: Canada, Quebec, Alymer.

Body length: 5.6–6.8 mm.

Diagnosis of MALE: Similar to *discimanus*, differing as follows:

Face dorsally with weak medial keel sometimes absent; weakly grey pollinose, only tubercle shining. Legs dark, with narrow apex of fore and mid-femora, dorsal surface of fore tibia, basal quarter of mid tibia, and first 2 tarsomeres of foreleg pale. Mid tibia with anteroventral pile on basal third short, the longest of which are approximately equal in length to the tibial diameter. First mid tarsomere slightly laterally compressed, slightly deeper than wide, second tarsomere similarly compressed. Remaining mid tarsomeres unmodified. Katepisternum

without bare shining patch. Thoracic pile almost entirely dark. Halter brown. Abdomen with spots pollinose, spots sometimes also with an obscure orange background.

Description of FEMALE (Similar to *discimanus*, differing as follows): **Thorax:** Fore and mid legs mainly pale, with only basal quarter of femora darkened. **Abdomen:** Spots of abdomen variable: may be completely absent, or obscurely orange with or without silvery pollinosity overlaid.

Discussion: *Platycheirus thylax*'s range is widely disjunct between its eastern and western populations (Fig. 26c). While it is possible that two species are represented under the name *P. thylax*, no consistent differences in morphology were observed between specimens from the two populations. In Nova Scotia, *P. thylax* has been collected in open sphagnum fens.

Specimens examined: 35♂ and 16♀ from Canada (Alberta, British Columbia, Newfoundland and Labrador, Nova Scotia, Ontario, Quebec).

***Platycheirus trichopus* (Thomson)**

(Species plates: Figs 108, 109, Map: Fig. 26d)

Syrphus trichopus Thomson, 1869: 502. Type locality: USA, California

Body length: 6.8–9.4 mm.

Diagnosis of MALE: Very similar to *obscurus*, differing as follows:

Face always produced ventrally well beyond the level of the tubercle; without median bare shining stripe, almost entirely pollinose, with only the tubercle subshining. Vertex forming an approximately 120° angle. Hind tibia with a posterior row of irregular setae, the longest of which are approximately 4 times as long as the width of the tibia. Wing microtrichosity variable: most specimens with basal two-thirds to three-quarters of cell c and basal two-thirds to seven-eighths of cell bm bare.

Description of FEMALE (Similar to male, differing as follows): Frons with pollinosity forming two small lateral triangles above antennal insertions. Fore and mid tibiae with several weak posterior black or white pile with approximately as long as tibial diameter, legs otherwise unmodified. Thoracic pile no more than a quarter as long as arista, entirely white except for a few black pile on scutum and scutellum in some specimens. Wing sometimes slightly more bare than males. Abdomen oval, with spots of tergites usually with an orange background, spots often confluent medially.

Discussion: This species represents what have been previously considered western specimens of *Platycheirus obscurus* (see discussion under *Platycheirus obscurus*). *Platycheirus trichopus* as it is treated here ranges from the Rocky Mountains to the western coast of North America, north into Alaska, and south to Mexico (Fig. 26d).

Specimens examined: 101♂ and 86♀ from Canada (British Columbia, Nunavut), USA (Alaska, Arizona, California, Colorado, Idaho, Oregon, Washington).

***Platycheirus urakawensis* (Matsumura)**

(Species plate: Fig. 110, Map: Fig. 27a)

Melanostoma urakawensis Matsumura in Matsumura & Adachi, 1919: 132. Type locality: Japan, Hokkaido, Sapporo, Hidaka.

Body length: 7.8–9.7 mm.

Diagnosis of MALE: Similar to *albimanus*, differing as following: fore tibia strongly broadened posteriorly on apical third with anteroapical angle broadly rounded, first fore tarsomere strongly broadened posteriorly on basal two-thirds and parallel-sided on apical third, mid tarsus with first 4 tarsomeres yellow and only fifth tarsomere dark, wing with cell bm entirely trichose, spots of abdomen entirely pollinose, never orange.

Description of FEMALE: **Head:** Face slightly produced ventrally, with very large shining tubercle, otherwise with very diffuse white pollinosity, only becoming denser towards eye margins. Pollinosity on frons above antennal insertions forming two small lateral triangles. **Thorax:** Wing with cell c bare on basal quarter, cell r almost entirely bare anterior to spurious vein, and cell bm bare along apical edge and at base. Halter yellow. Fore femur with a broad brown ring at mid length, mid and hind femur brown, narrowly yellow at base and apex. Fore tibia yellow with a posterior brown stripe, mid tibia yellow with a brown ring on middle third, hind tibia mostly brown with only narrow base yellow. Fore and mid tarsus yellow or light brown, hind tarsus brown. **Abdomen:** Spots of

tergites represented only by diffuse silvery pollinosity. Spots of tergite 2–4 reaching anterior and lateral margins of tergites, approximately half as long as each tergite, and with ventral margin of spot oblique. Tergite 5 with faint pollinose spots or entirely black. Tergites 6 black, unmarked.

Discussion: *Platycheirus urakawensis* is known from British Columbia, Alaska, and Greenland in the Nearctic (Fig. 27a). It is also known from Sweden, Finland, Siberia, and Japan.

Specimens examined: 3♂ and 4♀ from Canada (British Columbia), Japan, USA (Alaska).

***Platycheirus varipes* Curran**

(Species plate: Fig. 111, Map: Fig. 27b)

Platycheirus varipes Curran, 1923b: 65. Type locality: USA, Maine, Fort Kent.

Body length: 6.2–9.6 mm.

Diagnosis of MALE: Face slightly produced below, with anterior oral margin produced forward. Legs mostly dark, with the following areas yellow: apices of femora, most of fore and mid tibia, base of hind tibia, fore-tarsus, and sometimes first tarsomere of mid leg. Fore femur without outstanding setae or pile tufts. Fore tibia slightly and uniformly broadened on basal two-thirds, slightly more strongly broadened posteriorly on apical third. Posteroapical angle of fore tibia subacute. First tarsomere strongly broadened posteriorly from base to about two-fifths its length then parallel-sided and equal in width to apex, as long as wide. Remaining tarsomeres progressively narrower. Mid femur with a regular row of 6–12 short, anteroventral, black setulae, this row ending in a single longer, recurved black seta. Wing with small to large bare areas at the bases of cells c and bm. Cell c bare on up to basal half, cell bm bare anteriorly on up to basal five-sixths. Abdomen narrow, with spots of tergites entirely pollinose.

Description of FEMALE: Head: Face slightly produced ventrally; with large shining tubercle, otherwise with somewhat diffuse white pollinosity. Anterior oral margin produced forward slightly. Antenna black, with basoflagellomere broadly orange ventrally. Vertex approximately 2.2 times the width of the ocellar triangle. Pollinosity on frons above antennal insertions forming two lateral triangles. **Thorax:** Scutum and scutellum shining, lightly pollinose only on lateral margins. Other sclerites of thorax lightly dusted with white pollinosity. All thoracic pile white. Pile of disc of scutum short, the longest approximately two-thirds the width of the fore femur. Other thoracic pile, including lateral pile of the scutum, up to 1.5 times as long as the width of the fore femur. Wing colourless, extensively bare on basal half, cell c mostly bare on basal three-quarters, cell r almost entirely bare or sometimes sparsely trichose posterior to spurious vein, cell bm mostly bare on basal three-quarters, and cell cup bare on anterior quarter to third. Halter yellow to dark brown. Fore and mid femur obscurely orange with a dark posterior stripe or entirely orange. Hind femur brown with base and apex narrowly orange. Fore and mid tibia brown with orange on basal quarter or entirely orange. Hind tibia dark, with orange only on base and apex. Fore and mid tarsus orange or dark. Fore femur without outstanding pile tufts. **Abdomen:** Narrowly oval. Spots of tergites variable, either obscurely orange with a strong pollinose overlay or represented only by pollinosity. Spots of tergite 2 obscure, just beyond mid length of tergite, sometimes with pollinosity reaching the lateral and anterior edges of tergite, never with orange reaching tergite edges. Spots of tergites 3 and 4 either quadrate or oblique, separate from anterior and lateral tergite margins. Tergites 5 and 6 black, unmarked.

Discussion: *Platycheirus varipes* occurs throughout Alaska, western and northern Canada, Greenland, south to Colorado and Maine (Fig. 27b).

Specimens examined: 46♂ and 6♀ from Canada (British Columbia, Manitoba, Newfoundland and Labrador, Northwest Territories, Ontario, Quebec, Yukon Territory), USA (Alaska, Maine, New Hampshire, Wyoming).

***Platycheirus woodi* Vockeroth**

(Species plate: Fig. 112, Map: Fig. 27c)

Platycheirus woodi Vockeroth, 1990: 747. Type locality: Canada, Yukon, Richardson Mts.

Body length: 7.9 mm.

Diagnosis of MALE: Face slightly produced ventrally, with anterior oral margin produced forward; dorsally with weak medial keel between antennal bases; very thinly grey pollinose, tubercle shining. Tubercle somewhat

large, abruptly pointed. Legs dark, with extreme apices of femora and bases of tibiae pale. Entire length of fore tibia with long, dense, pale, posterior and posteroventral pile about twice as long as tibial diameter. first tarsomere of foreleg with similar, slightly shorter pile. Mid femur with long white anteroventral pile on basal half. Thorax subshining, thoracic pile mostly white, longest thoracic pile approximately equal in length to arista. Halter pale. Abdomen oval, with spots entirely silver pollinose, very obscure.

FEMALE: Unknown.

Discussion: Known only from holotype, which was collected “along the top of a very dry, nearly flat, barren dolomite ridge” In the Richardson Mts., Yukon Territory (taken from Vockeroth 1990 as pers. comm. with D. M. Wood).

Specimens examined: 1♂ from Canada (Yukon Territory).

***Platycheirus yukonensis* Vockeroth**

(Species plate: Fig. 113, Map: Fig. 27d)

Platycheirus yukonensis Vockeroth, 1990: 747. Type locality: Canada, Tukon, mile 51 Dempster Highway.

Body length: 7.9–8.9 mm.

Diagnosis of MALE: Similar to *chilosia*, differing as follows: Fore femur, at about one-third its length, with a loose cluster of 3–5 strong, ventral, black setae which are approximately equal in length to femoral diameter. Mid femur, at about one-third its length, with a compact cluster of 2–4 strong, black, ventral setae which are slightly greater in length than femoral diameter. Mid femur without distinct posteroventral setae. Mid tibia with posterior setae appressed over entire length.

FEMALE: Unknown, probably indistinguishable from *chilosia*.

Discussion: *Platycheirus yukonensis* is known only from the Yukon Territory. It is likely also native to other parts of Arctic Canada and Alaska.

Specimens examined: 35♂ from Canada (Yukon Territory).

Unrecognized/untreated species of Platycheirus

***Platycheirus femineum* Curran**

Platycheirus femineum Curran, 1931: 251. Type locality: Tabatière, Quebec.

Discussion: The holotype female in the CNC is a species of *Platycheirus* in the *albimanus* species group. Since there are several species within this group for which the female is unknown, it is impossible to synonymize *femineum* with any certainty.

***Platycheirus monticola* (Jones)**

Melanostoma monticola Jones, 1917: 220. Type localities: Cherokee Park, Estes Park, and Carbondale, Colorado.

Discussion: Six female syntypes in the USNM were examined by Vockeroth (1990). They appear to be one or more species of *Platycheirus* within the *peltatus* group.

***Platycheirus pacilus* (Walker)**

Syrphus pacilus Walker, 1849: 240. Type locality: North America.

Discussion: The holotype female in the BMNH was examined by Vockeroth (1990) and by one of the coauthors (A.D.Y.). It appears to be a species of *Platycheirus* within the *peltatus* group, either *P. nearcticus* or *P. amplus*. However, the specimen is too badly damaged (pile on the pleuron matted with grease) to determine which of these two species it should be associated with.

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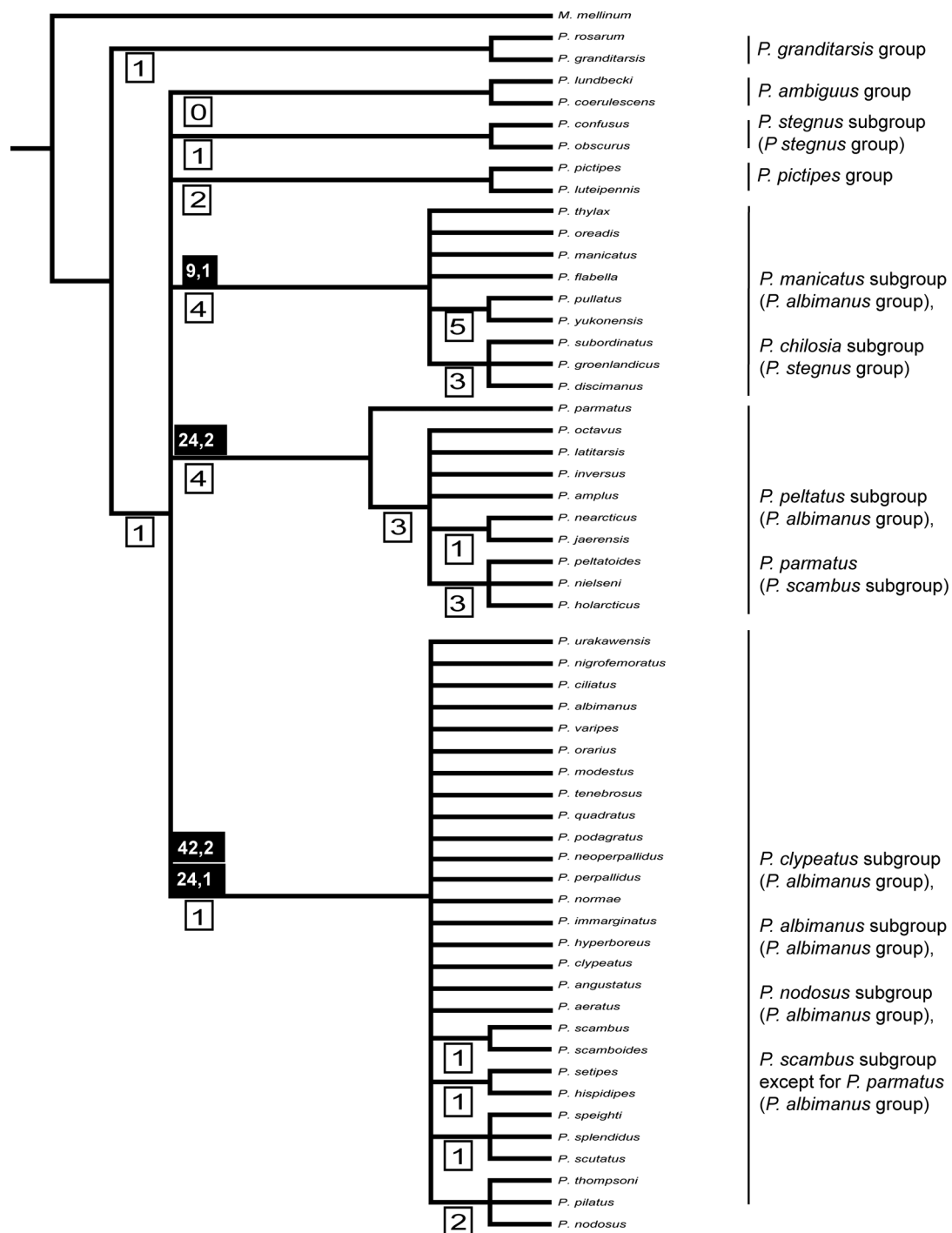


FIGURE 1. Strict consensus of 149 most parsimonious trees generated from the morphological parsimony analysis. Bremer supports are in white boxes above supported branches, unique synapomorphies are in black boxes in the form of <character, character state> below supported branches. Groups and subgroups listed on the right side of the figure represent Vockeroth's species groups.

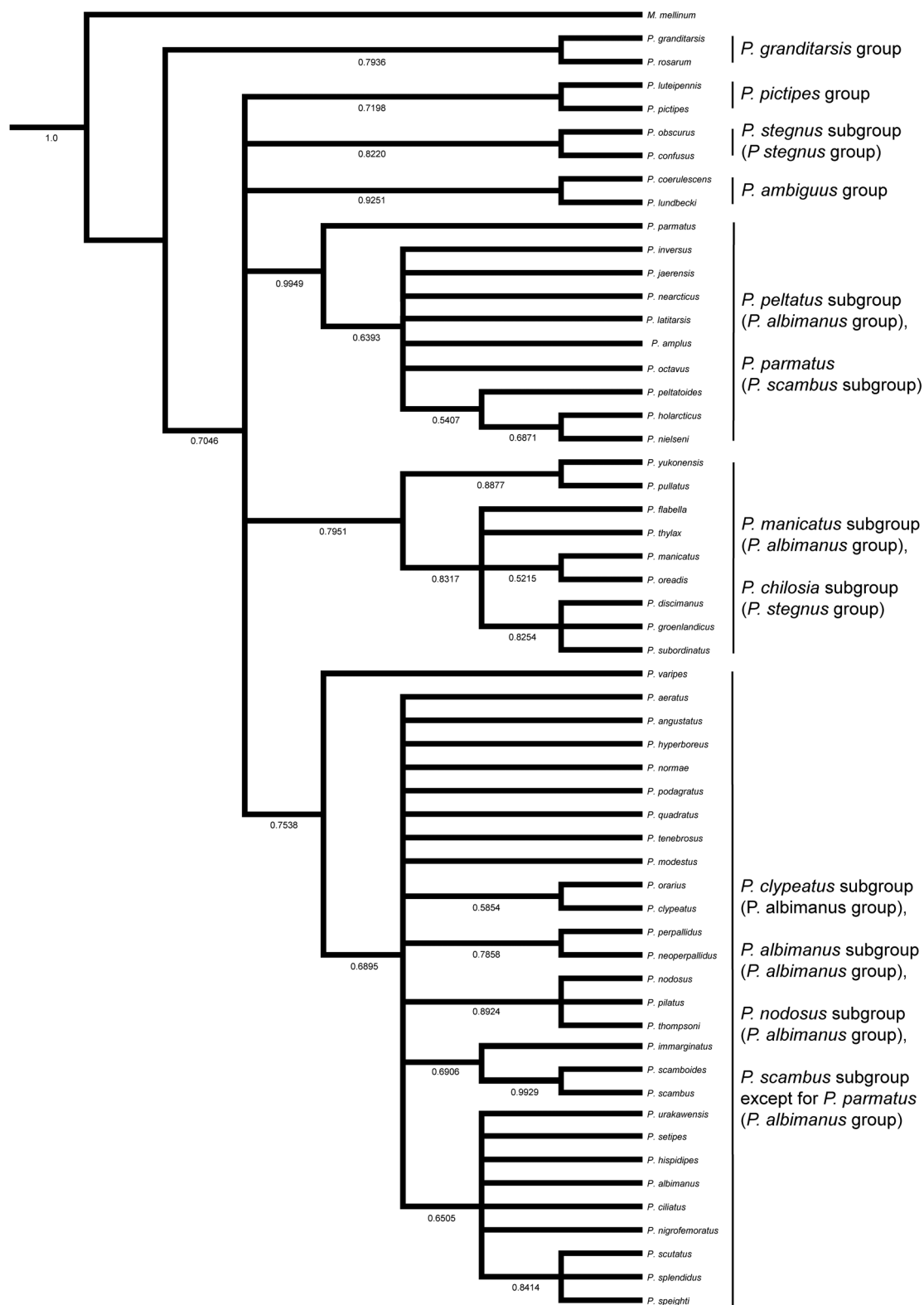


FIGURE 2. Majority-rule consensus of 8002 most parsimonious trees generated from the morphological Bayesian analysis. Posterior probabilities are listed below each branch. Groups and subgroups listed on the right side of the figure represent Vockeroth's species groups.

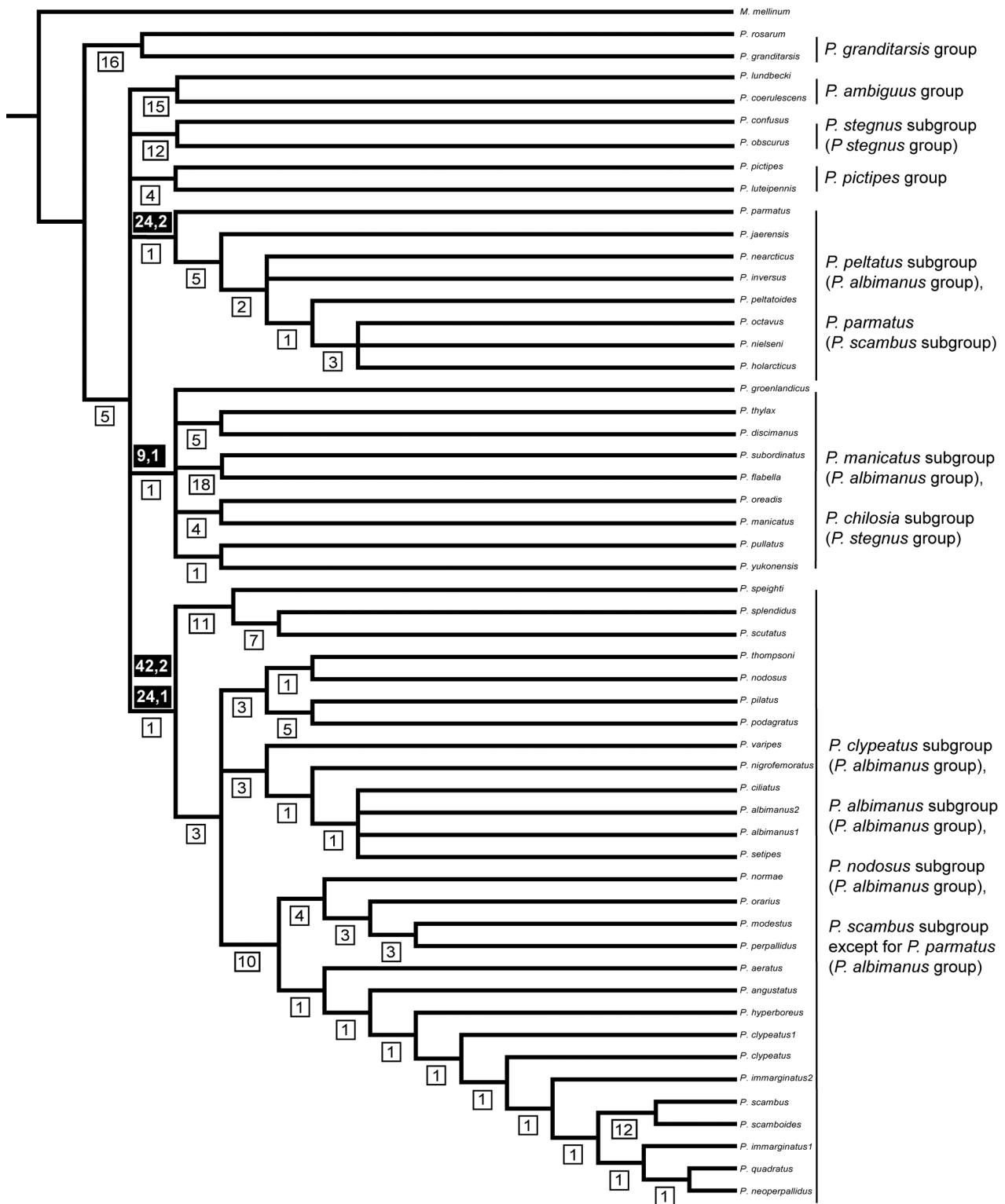


FIGURE 3. Strict consensus of 128 most parsimonious trees generated from the combined parsimony analysis. Bremer supports are in white boxes above supported branches, unique synapomorphies are in black boxes in the form of <character, character state> below supported branches. Groups and subgroups listed on the right side of the figure represent Vockeroth's species groups.

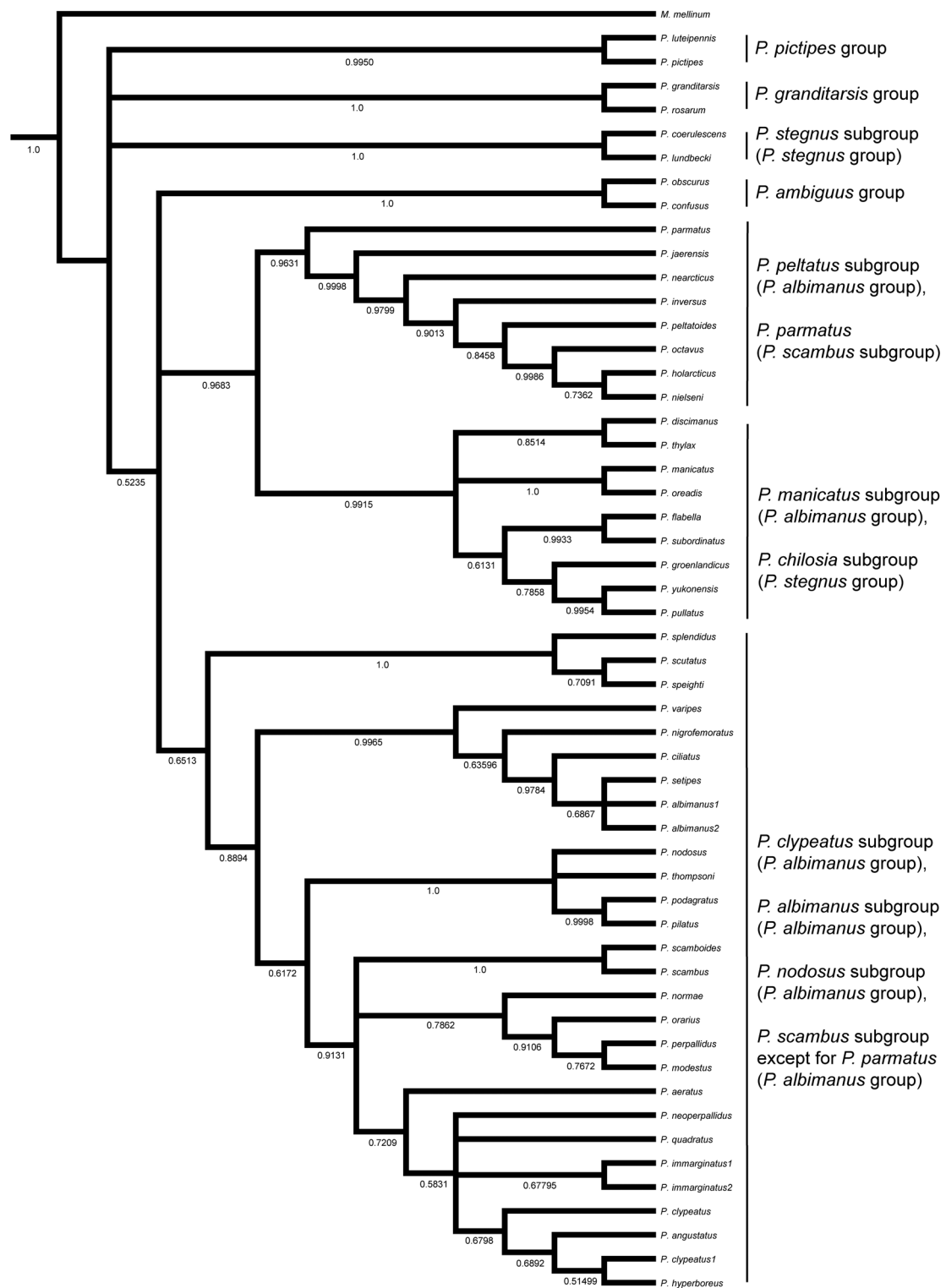


FIGURE 4. Majority-rule consensus of 8002 most parsimonious trees generated from the combined Bayesian analysis. Posterior probabilities are listed below each branch. Groups and subgroups listed on the right side of the figure represent Vockeroth's species groups.

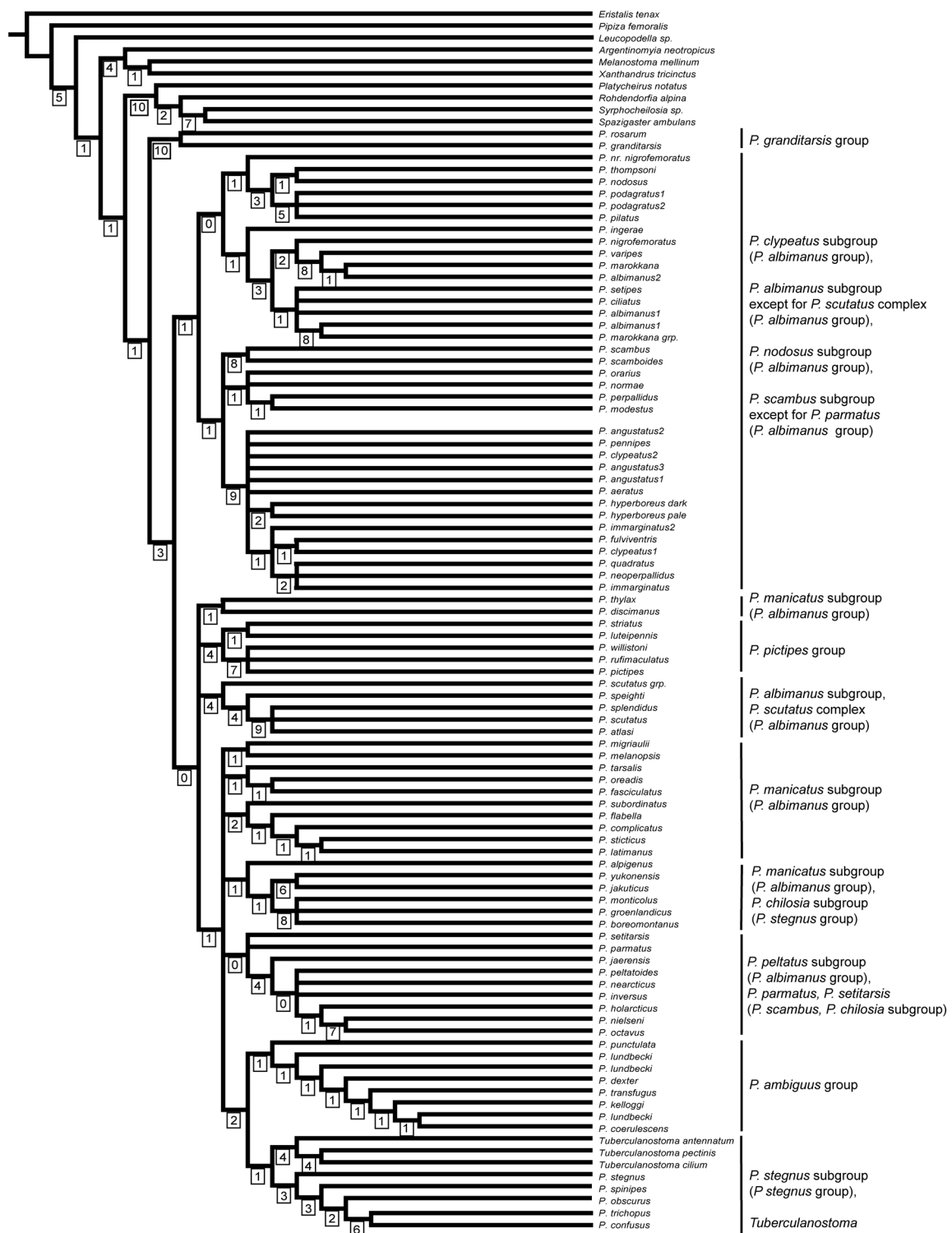


FIGURE 5. Strict consensus of 2730 most parsimonious trees generated from the molecular parsimony analysis. Bremer supports are in white boxes above supported branches. Groups and subgroups listed on the right side of the figure represent Vockeroth's species groups.

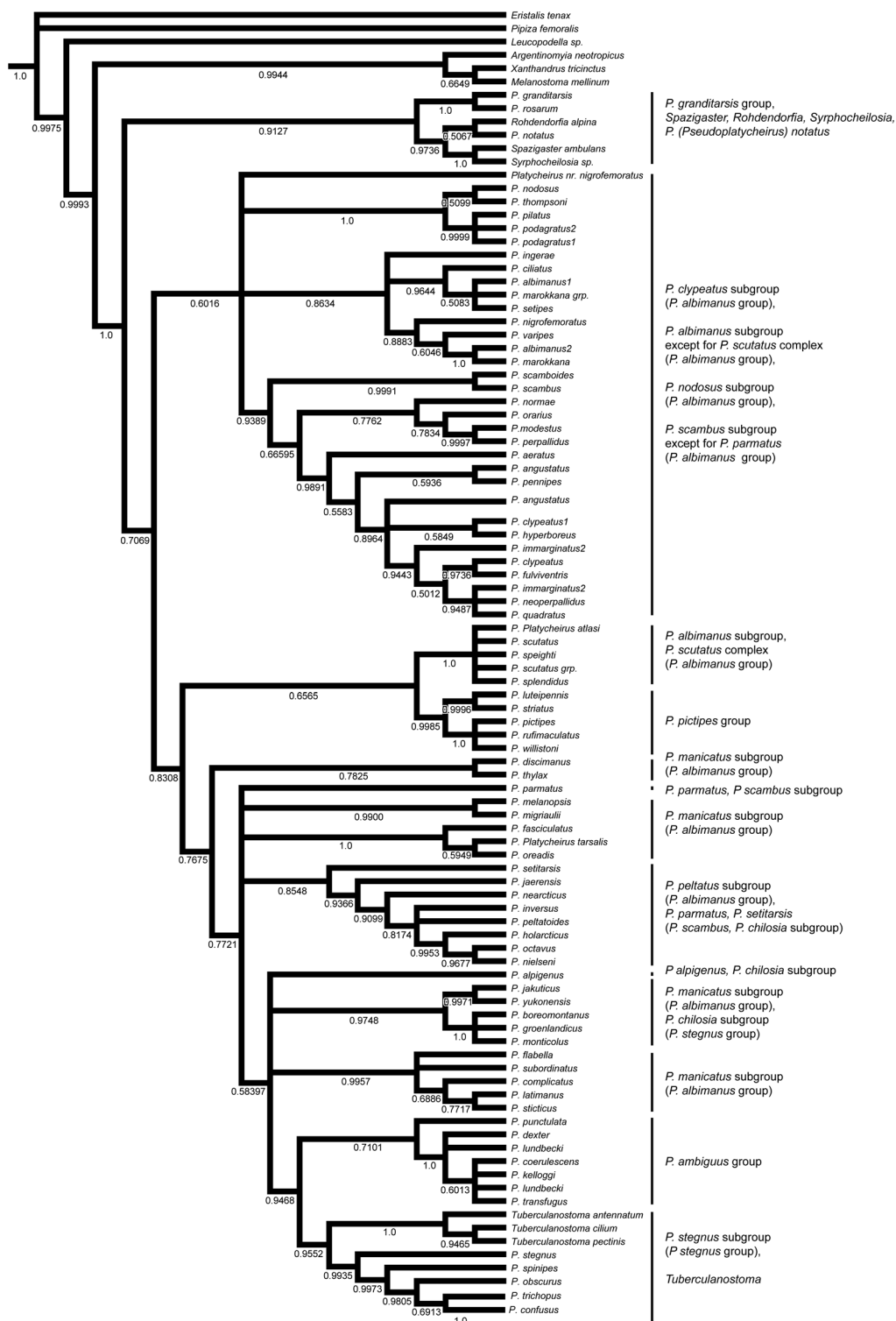


FIGURE 6. Majority-rule consensus of 8002 most parsimonious trees generated from the molecular Bayesian analysis. Posterior probabilities are listed below each branch. Groups and subgroups listed on the right side of the figure represent Vockeroth's species groups.

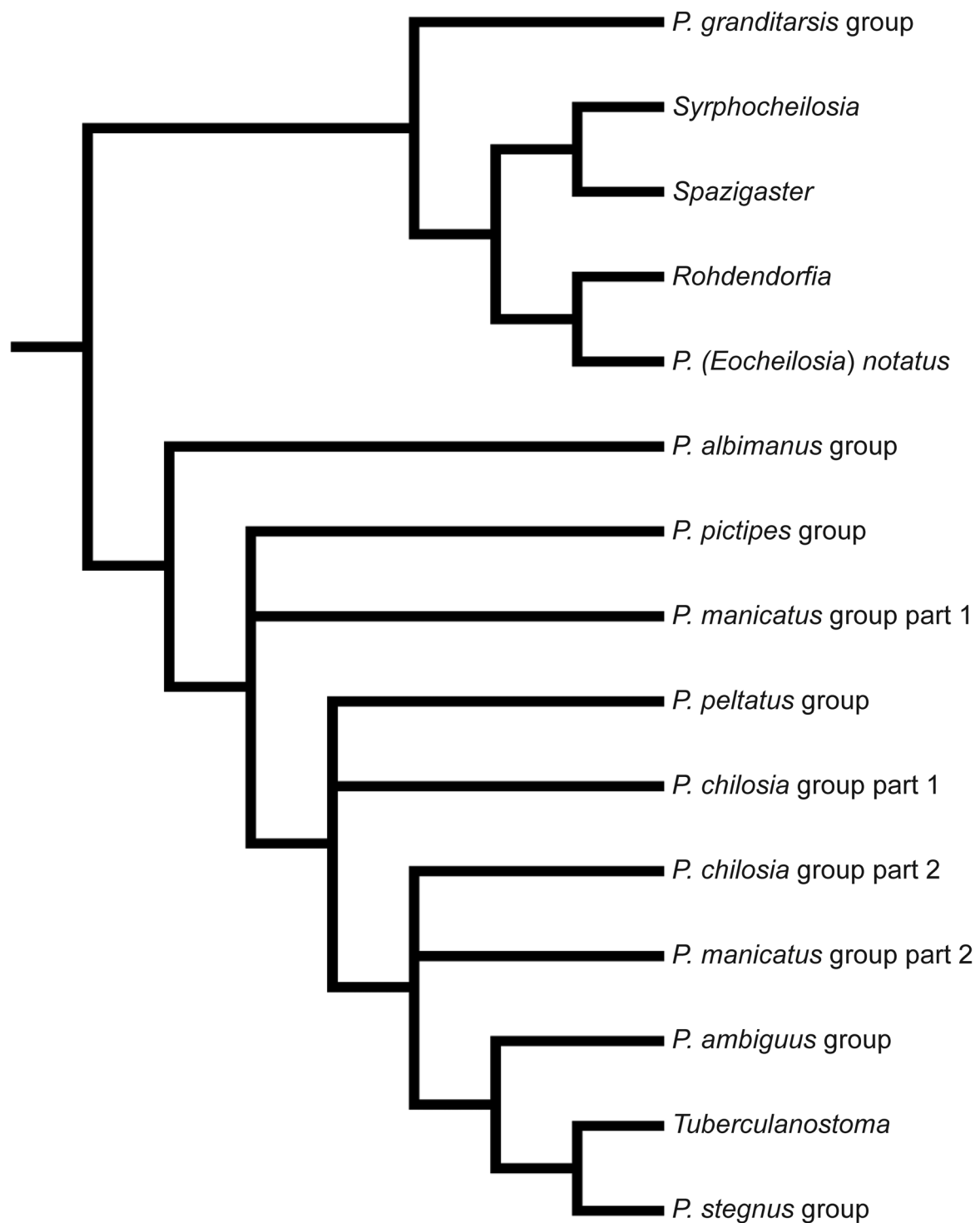


FIGURE 7. Species group hypothesis for *Platycheirus* for visualization purposes. Based largely on the majority-rule consensus tree from the molecular Bayesian analysis.



FIGURE 8. Neighbour joining tree of all available *Platycheirus* COI sequences. (continued on the next 9 pages)

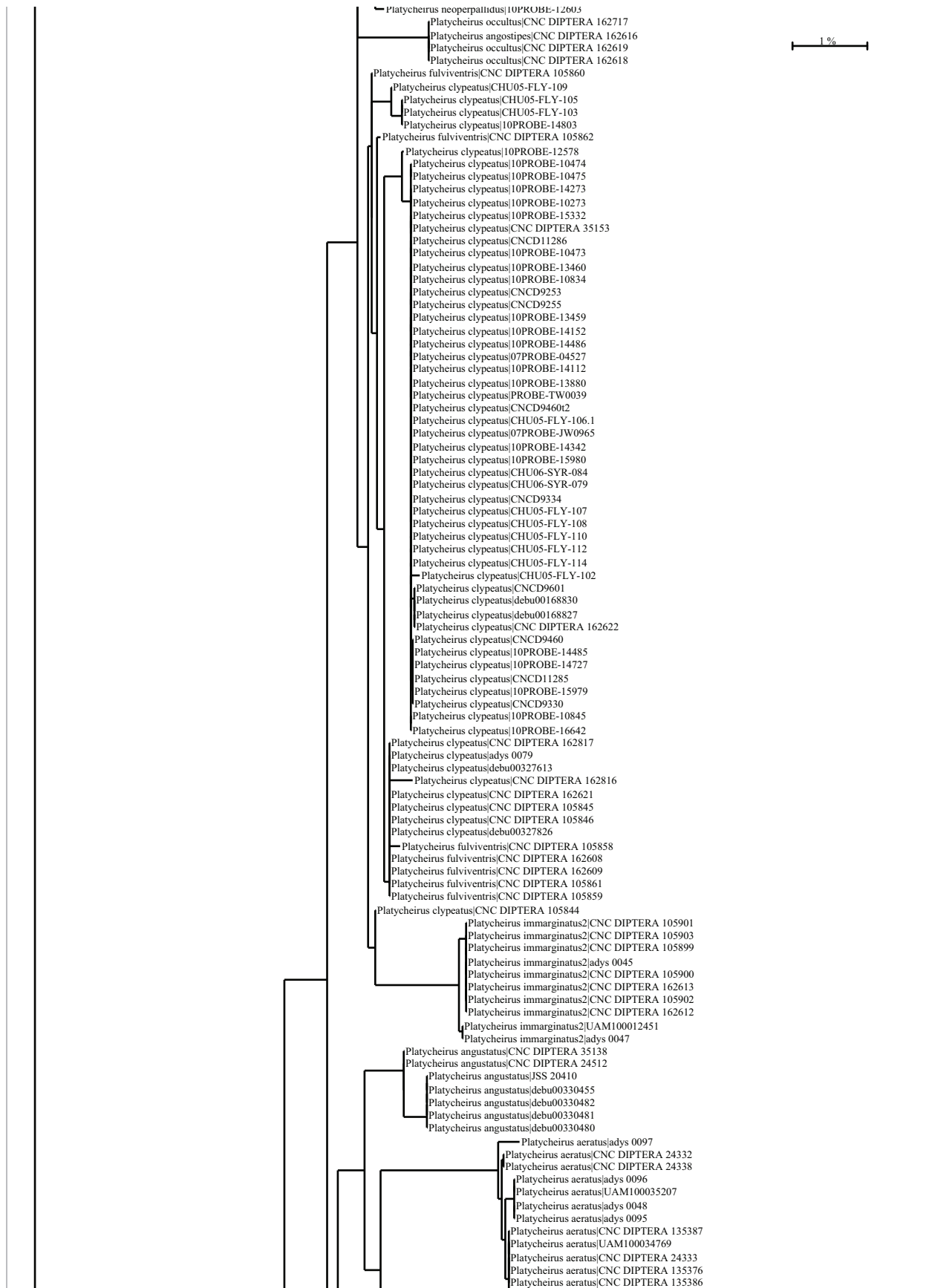


FIGURE 8. (Continued)



FIGURE 8. (Continued)

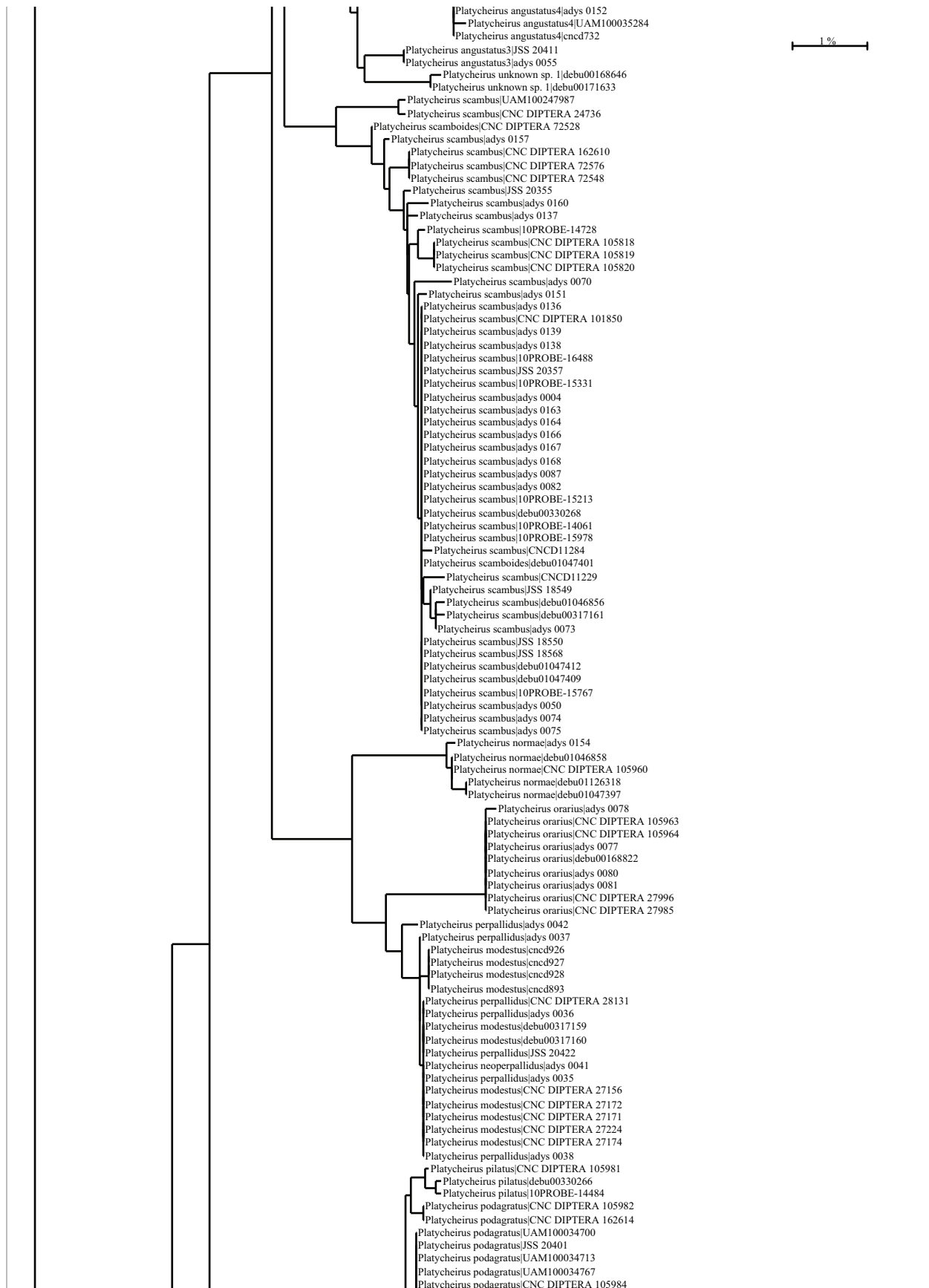


FIGURE 8. (Continued)



FIGURE 8. (Continued)



FIGURE 8. (Continued)



FIGURE 8. (Continued)

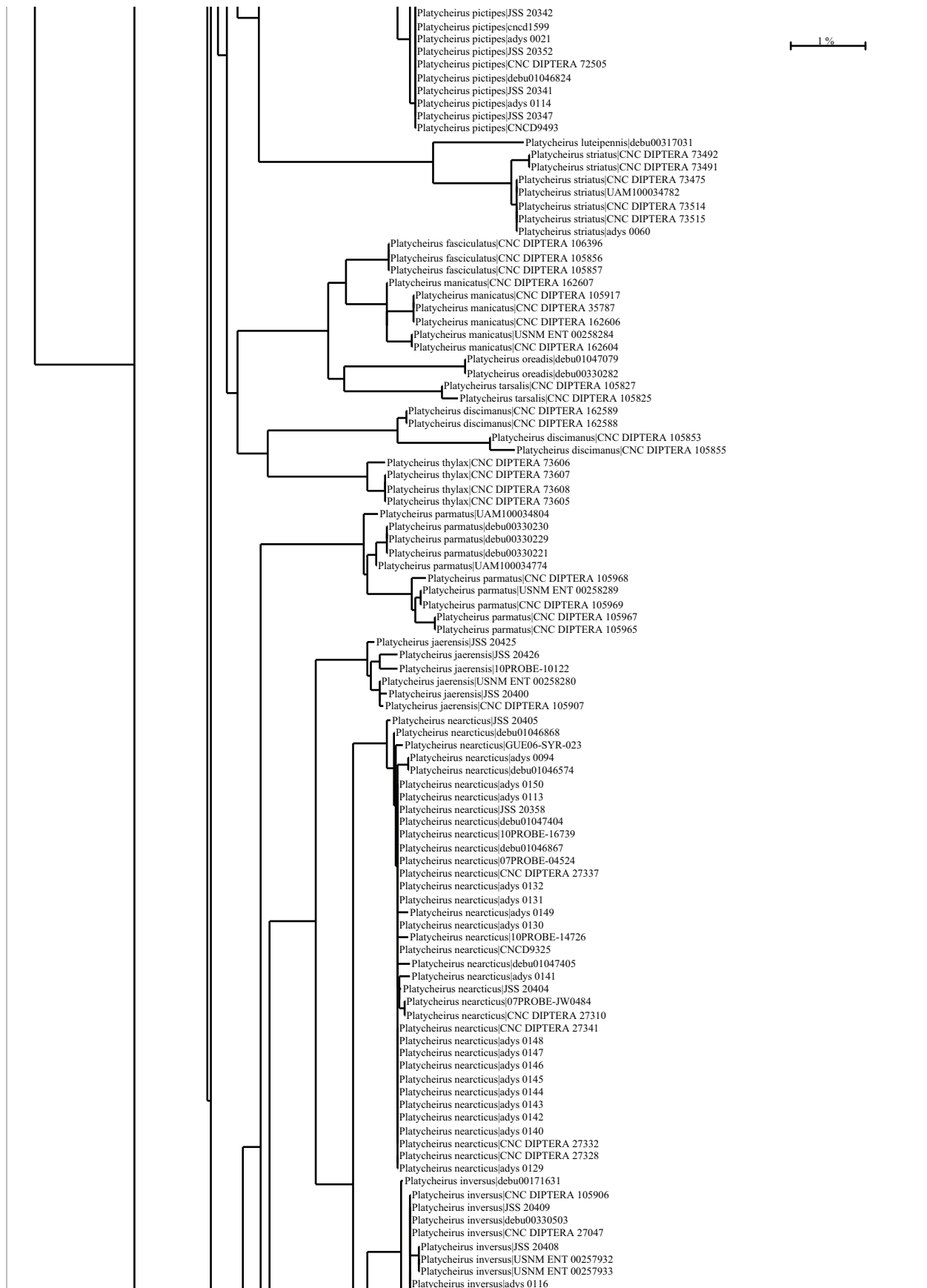


FIGURE 8. (Continued)

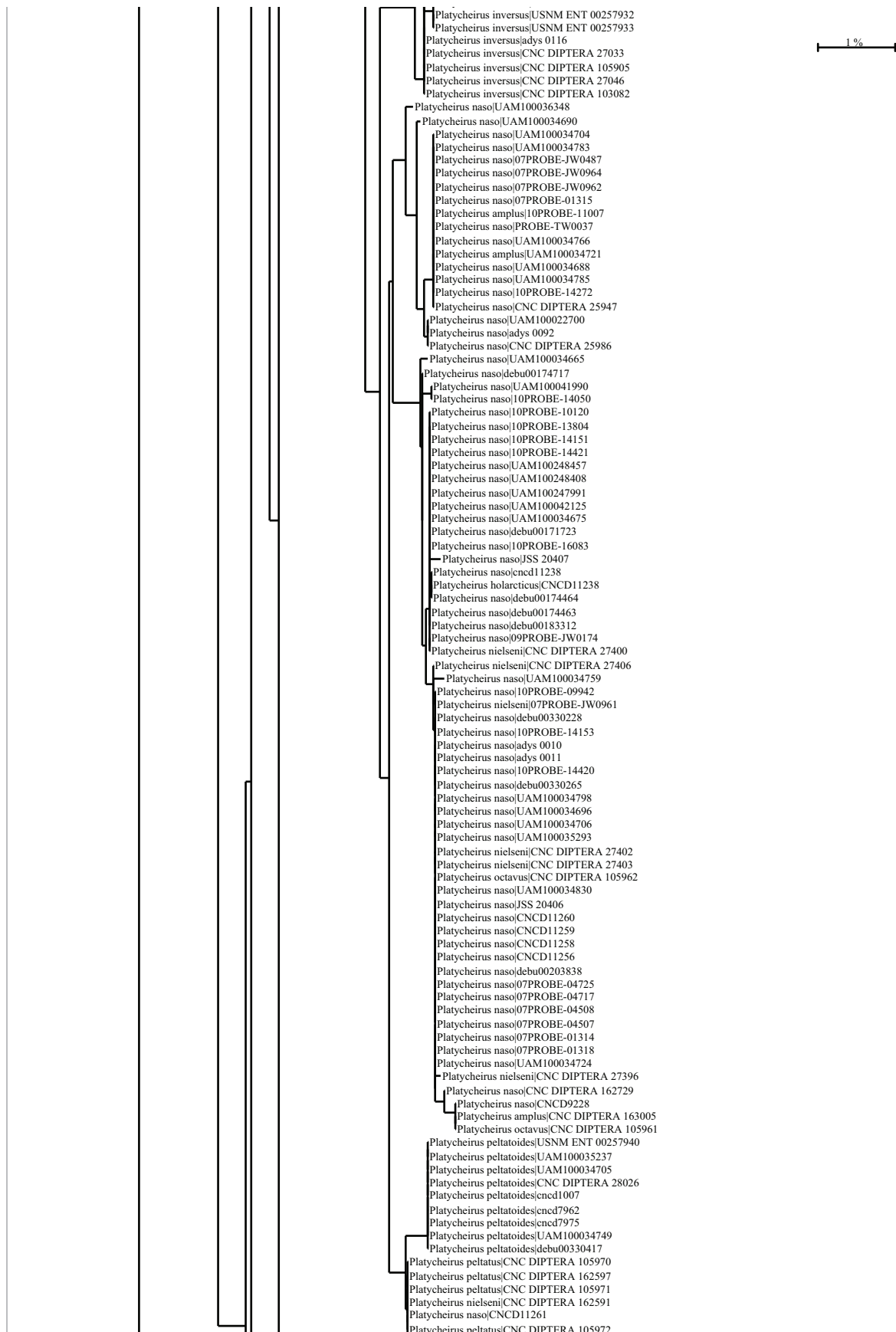


FIGURE 8. (Continued)



FIGURE 8. (Continued)

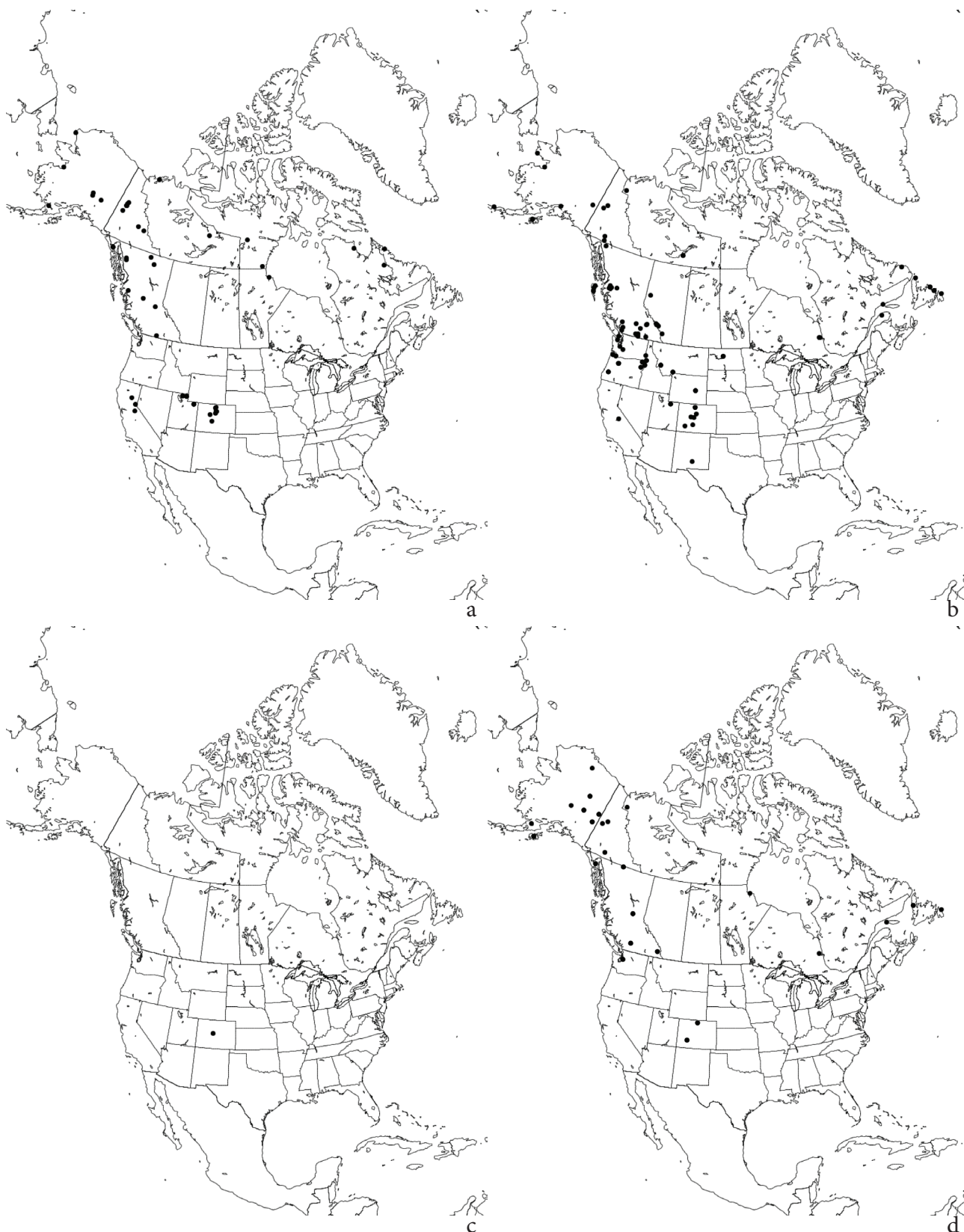


FIGURE 9. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. aeratus*, **b:** *P. albimanus*, **c:** *P. alpigenus*, **d:** *P. amplus*.

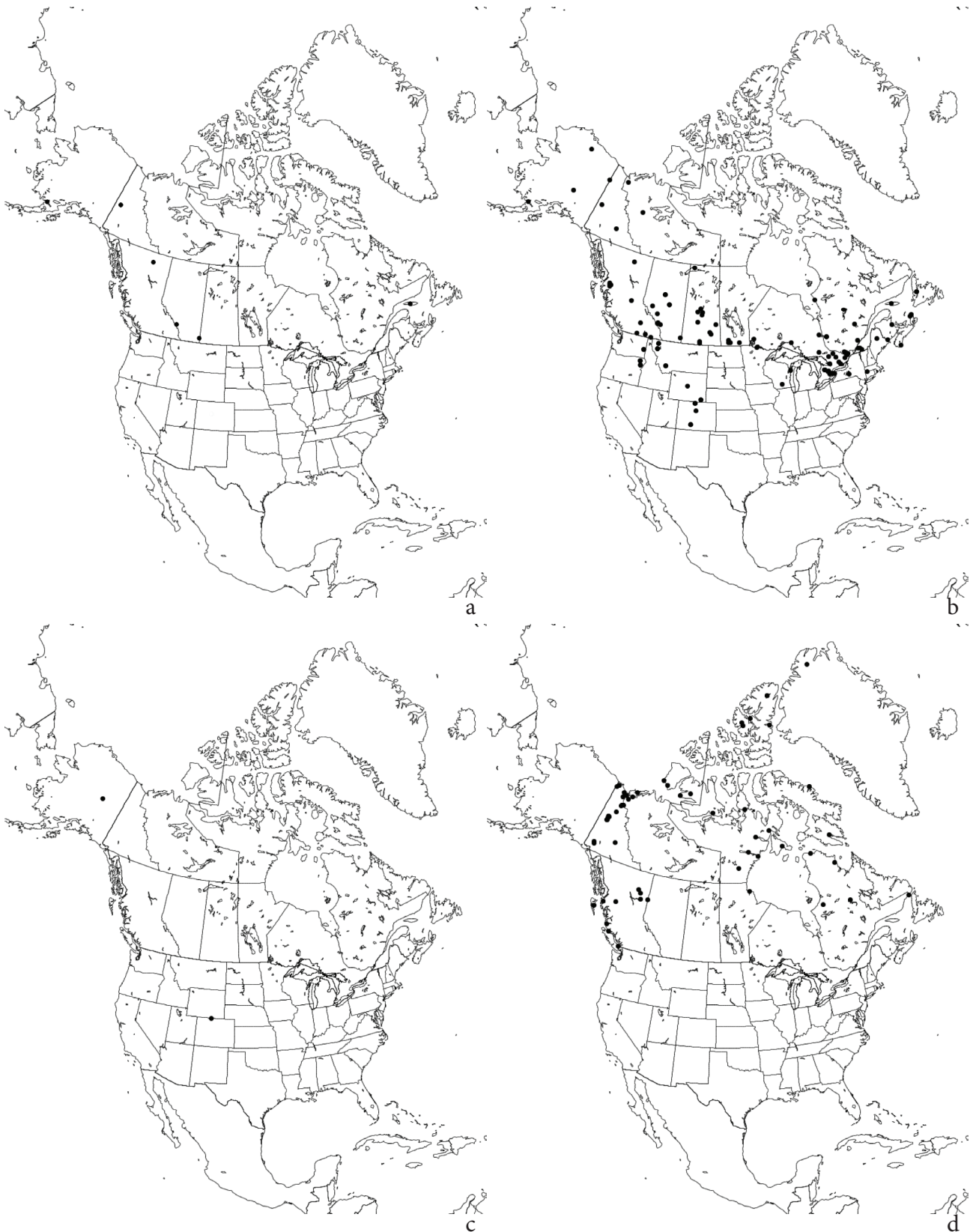


FIGURE 10. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. angustatus*, **b:** *P. angustatus* complex, **c:** *P. brunnifrons*, **d:** *P. chilosia*.

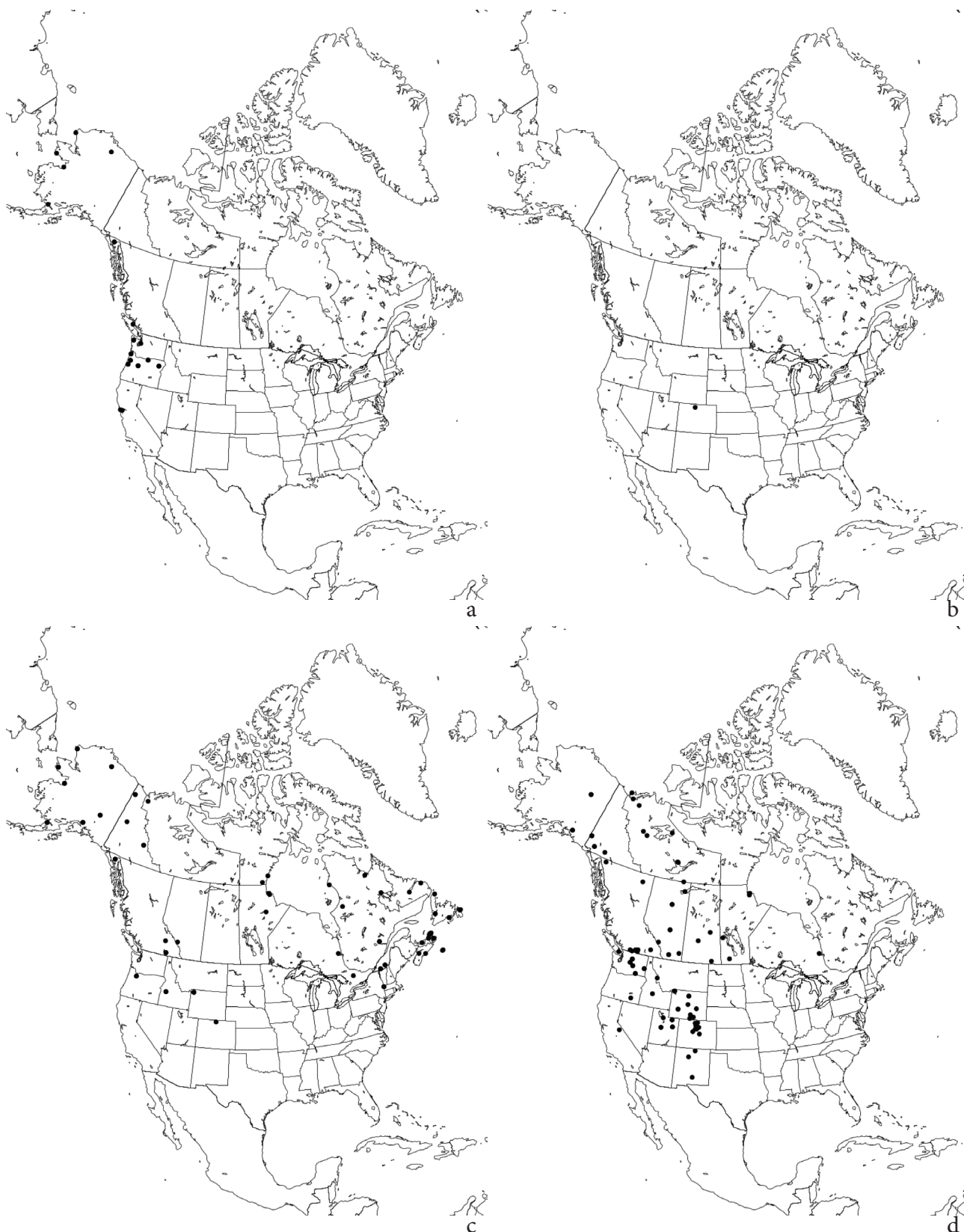


FIGURE 11. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. ciliatus*, **b:** *P. clauseni*, **c:** *P. clypeatus*, **d:** *P. coerulescens*.

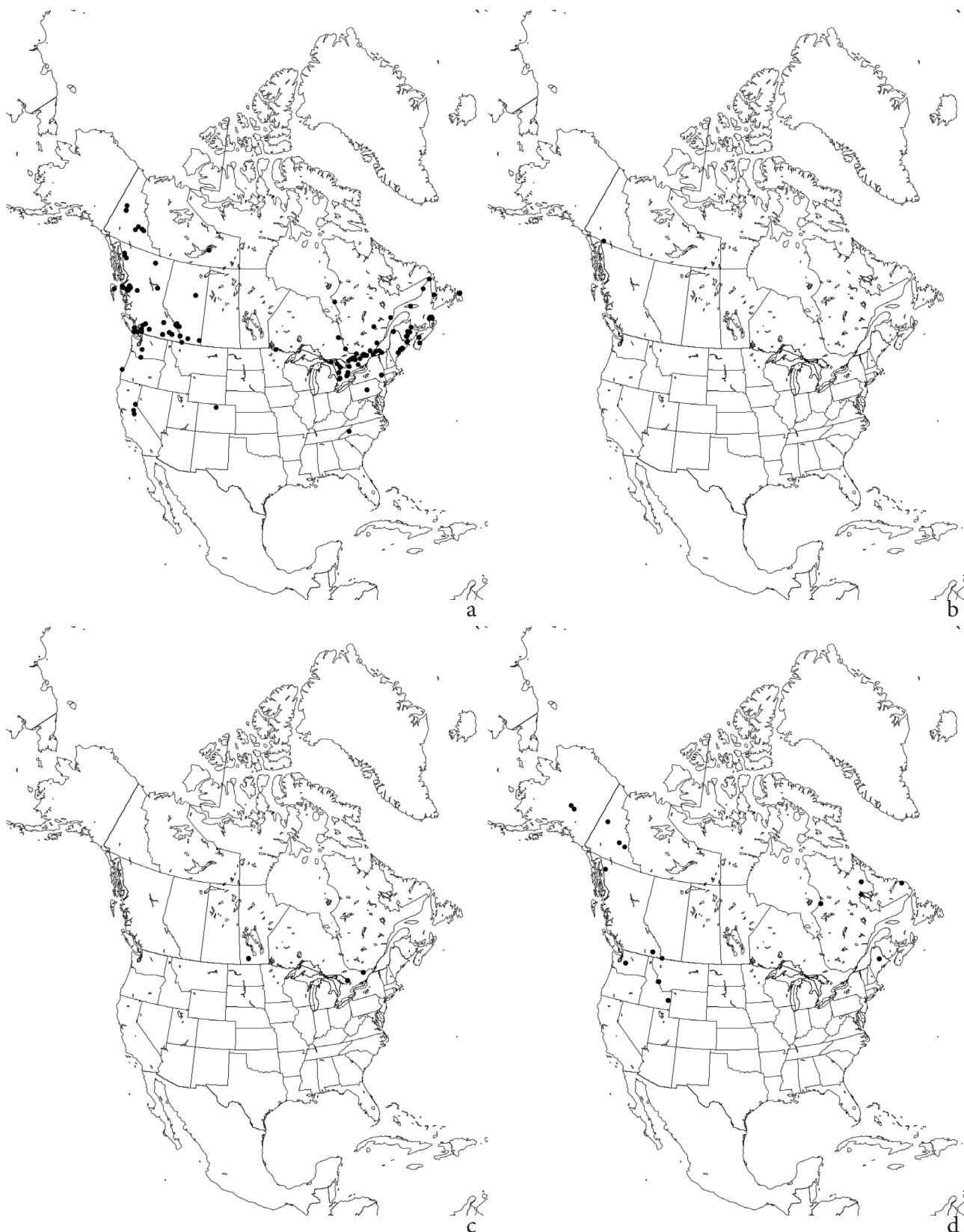


FIGURE 12. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. confusus*, **b:** *P. coracinus*, **c:** *P. discimanus*, **d:** *P. flabella*.

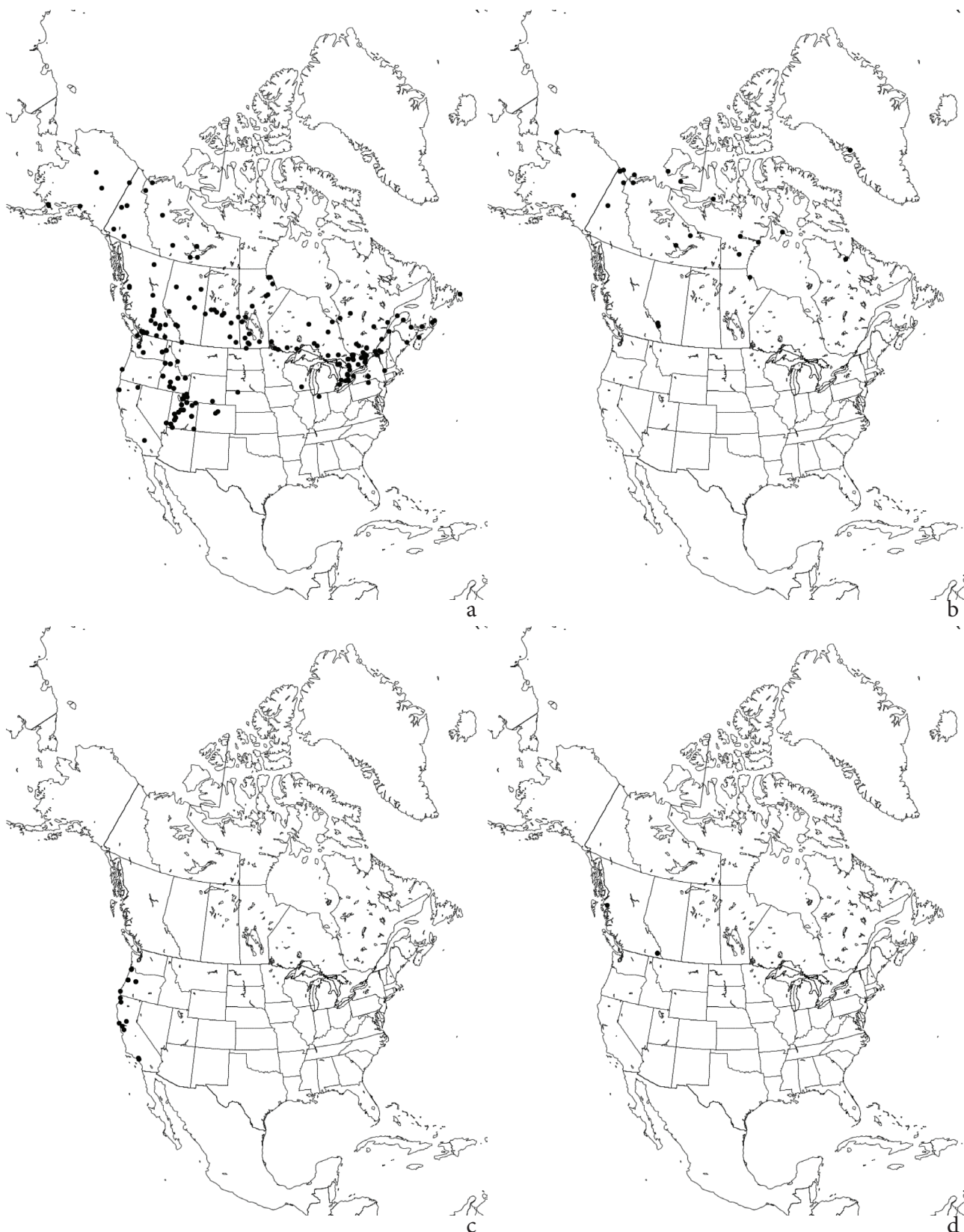


FIGURE 13. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. granditarsis*, **b:** *P. groenlandicus*, **c:** *P. hesperius*, **d:** *P. hispidipes*.

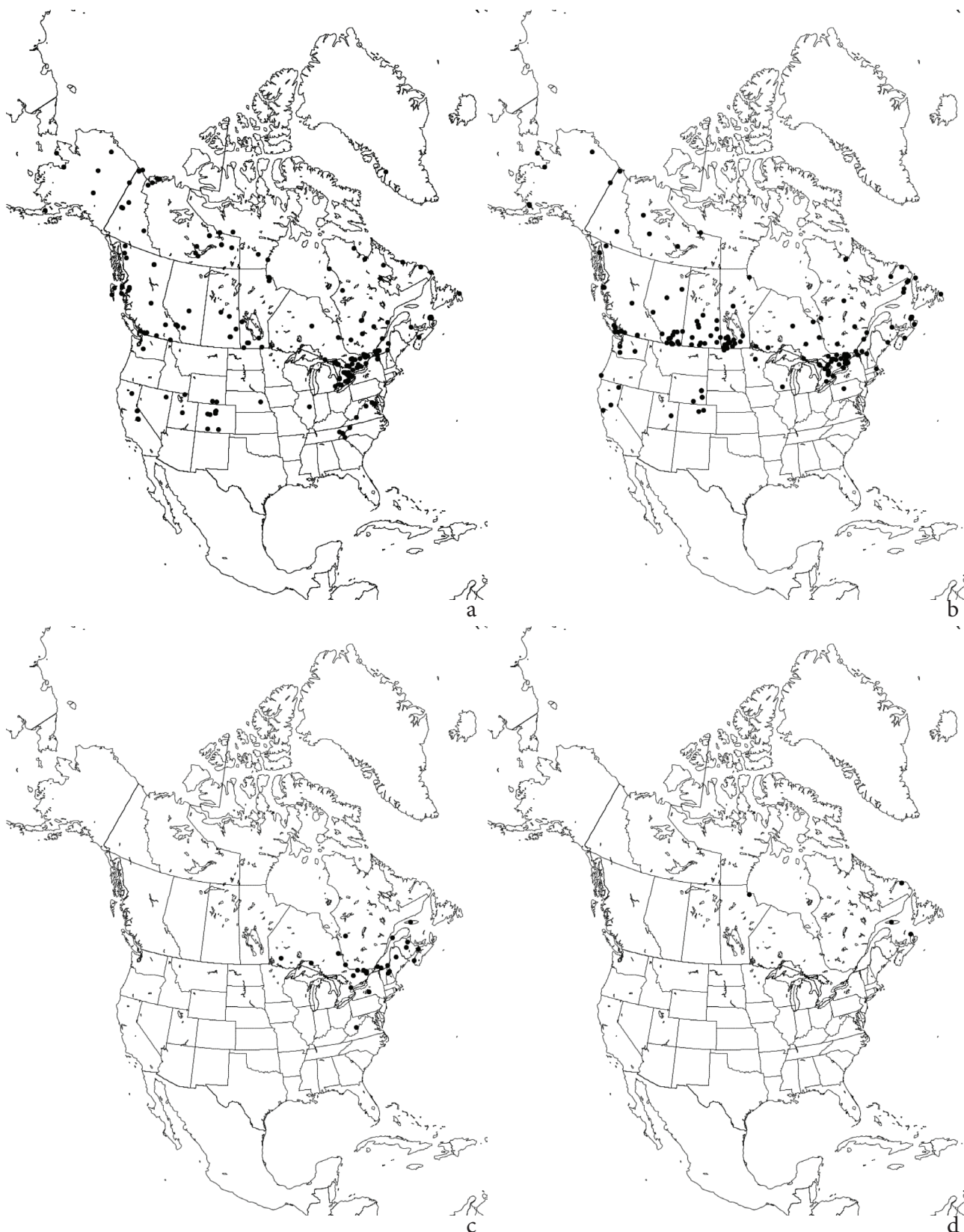


FIGURE 14. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. hyperboreus*, **b:** *P. immarginatus*, **c:** *P. inversus*, **d:** *P. jaerensis*.



FIGURE 15. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. kelloggi*, **b:** *P. latitarsis*, **c:** *P. latus*, **d:** *P. hundbecki*.



FIGURE 16. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. luteipennis*, **b:** *P. manicatus*, **c:** *P. modestus*, **d:** *P. naso*.

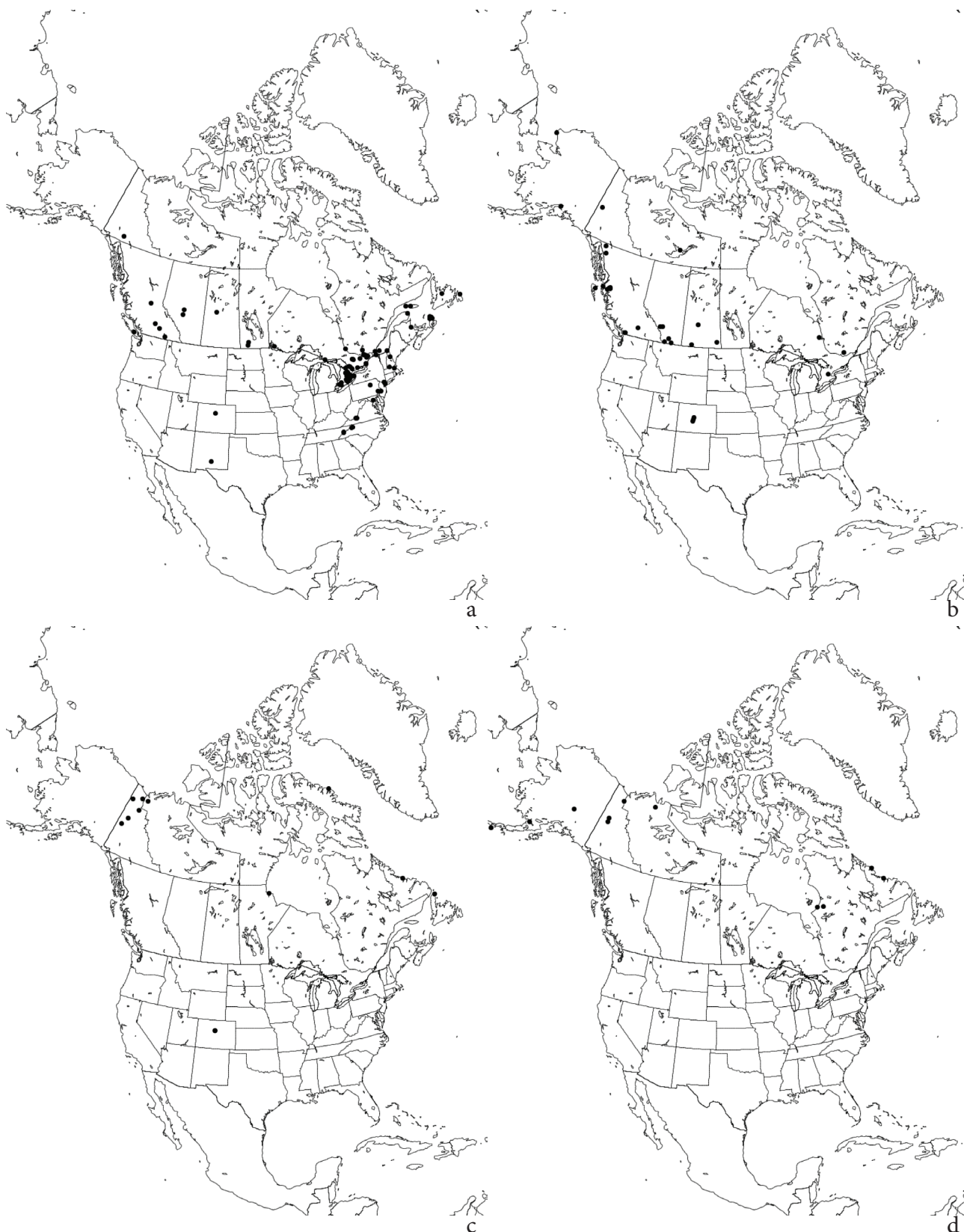


FIGURE 17. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. nearcticus*, **b:** *P. neoperpallidus*, **c:** *P. nielsenii*, **d:** *P. nigrofemoratus*.

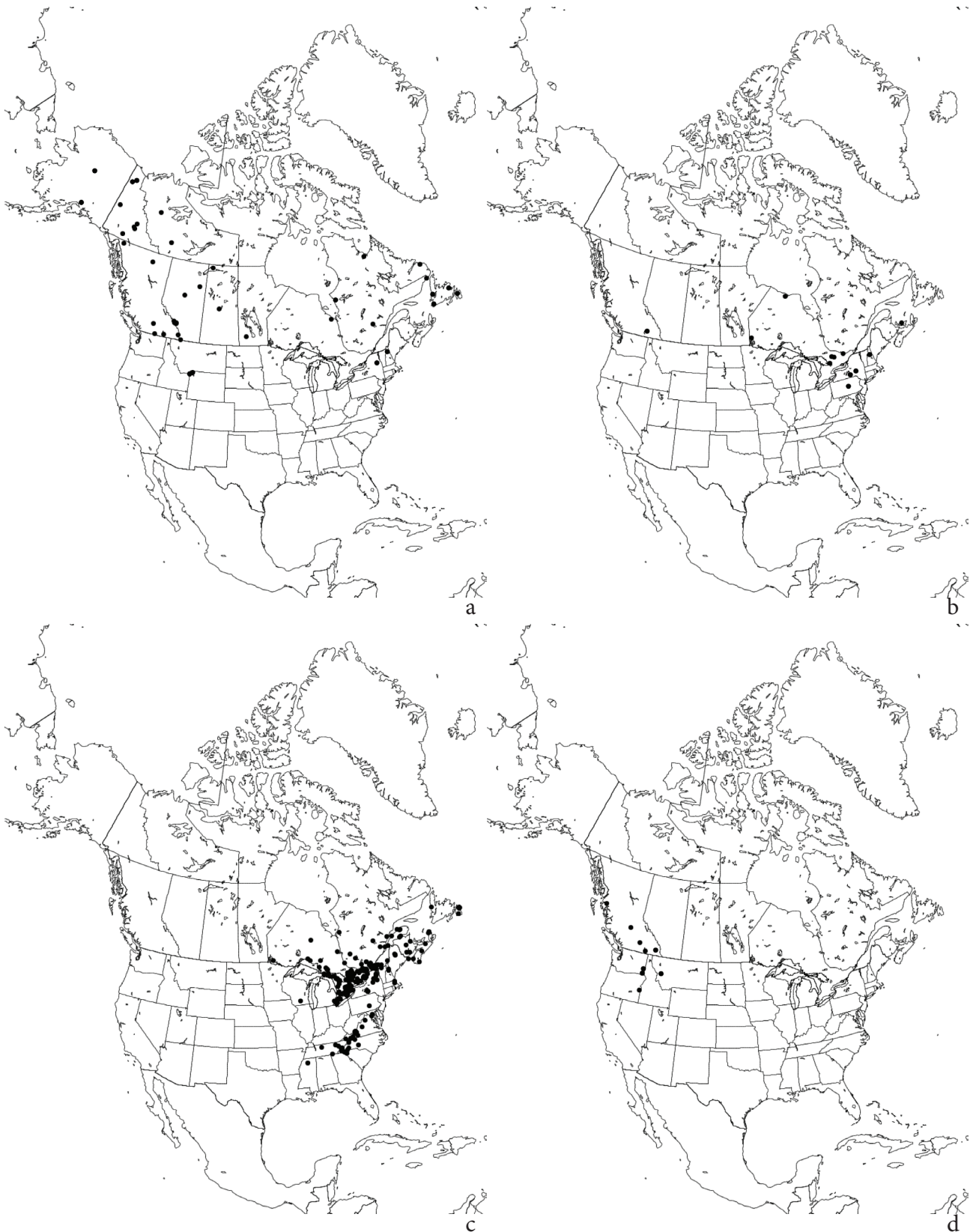


FIGURE 18. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. nodosus*, **b:** *P. normae*, **c:** *P. obscurus*, **d:** *P. octavus*.

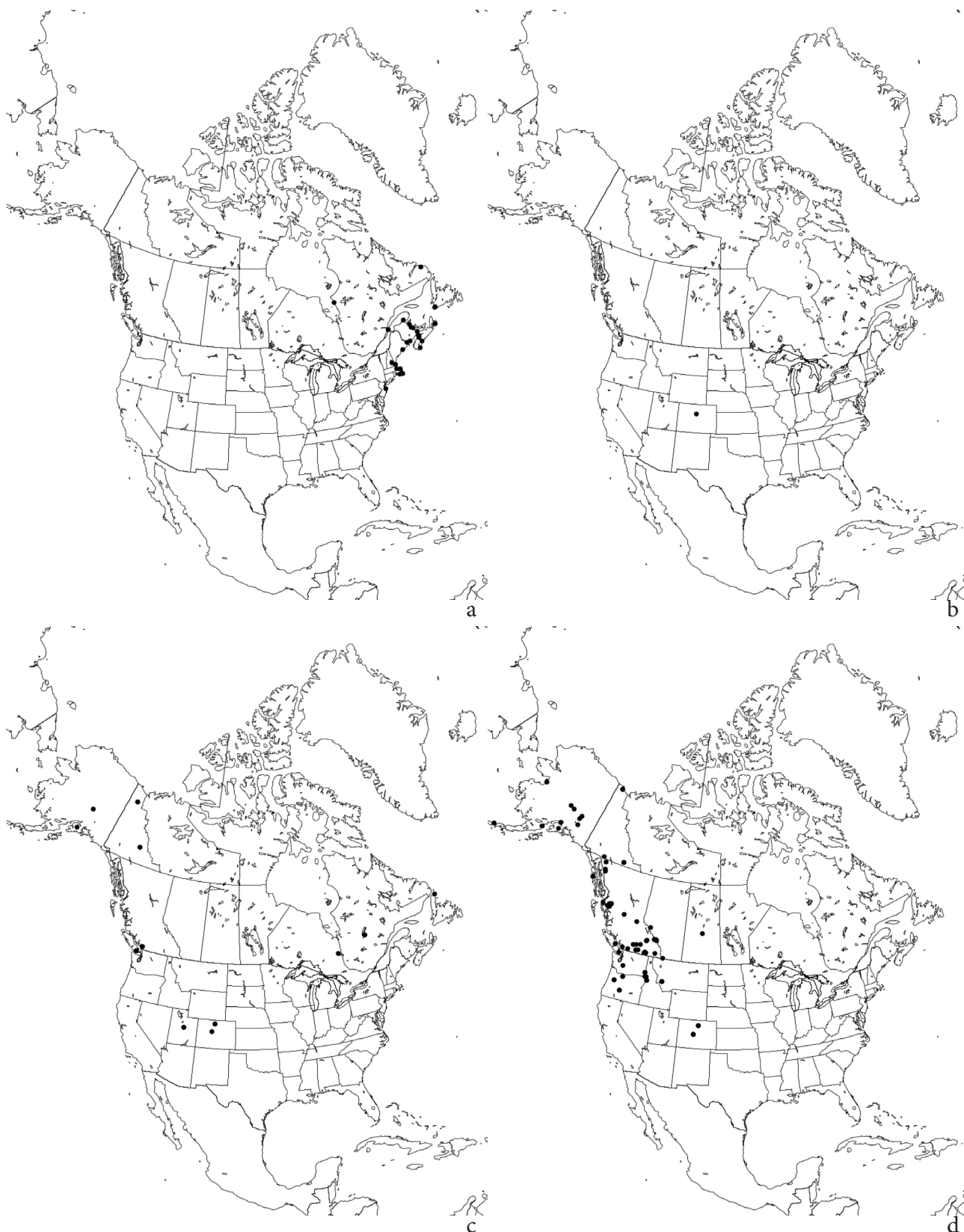


FIGURE 19. *Platycheirus* species range maps (circles indicated specimen point data). a: *P. orarius*, b: *P. oreadis*, c: *P. parmatus*, d: *P. peltatoides*.

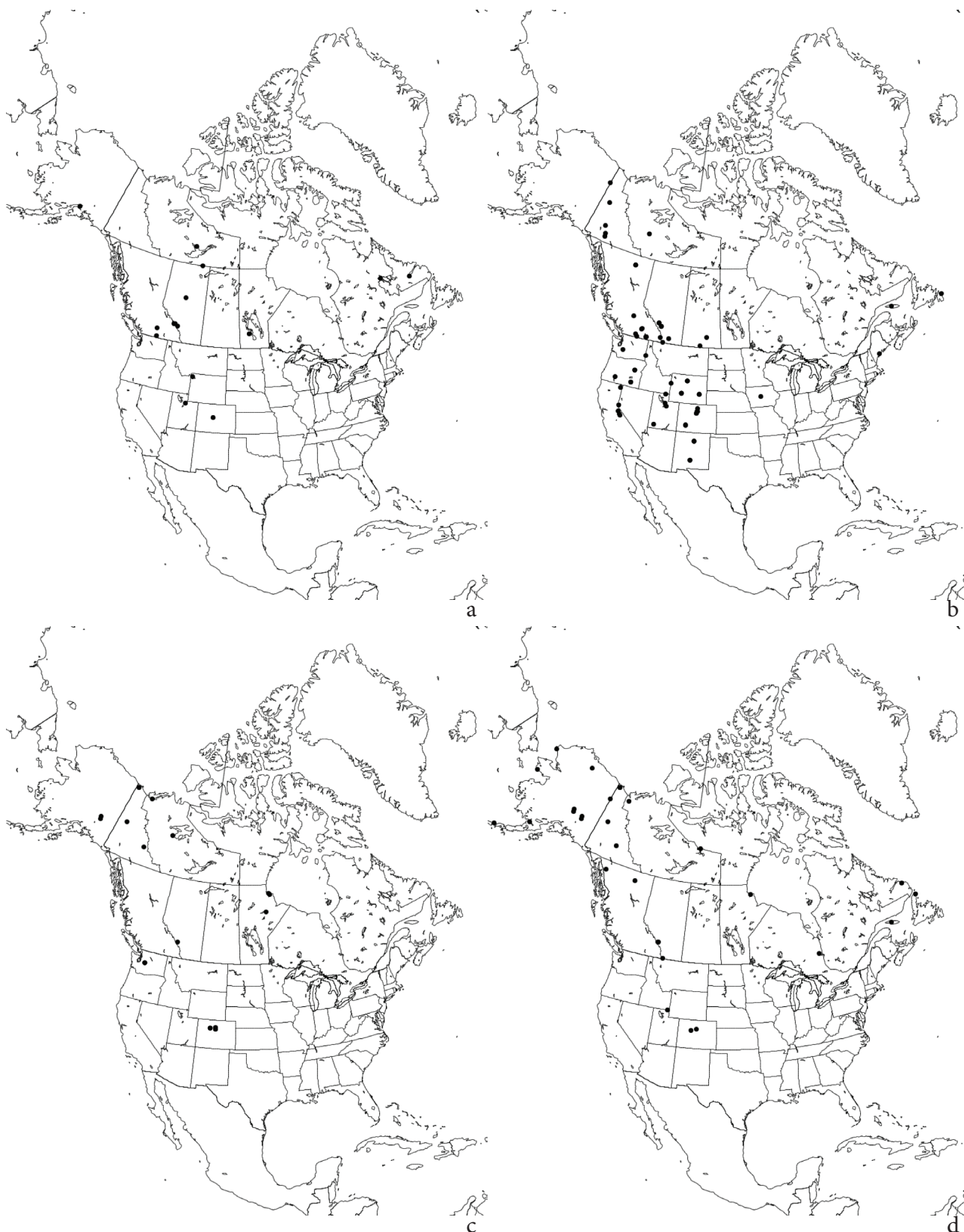


FIGURE 20. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. perpallidus*, **b:** *P. pictipes*, **c:** *P. pilatus*, **d:** *P. podagratus*.

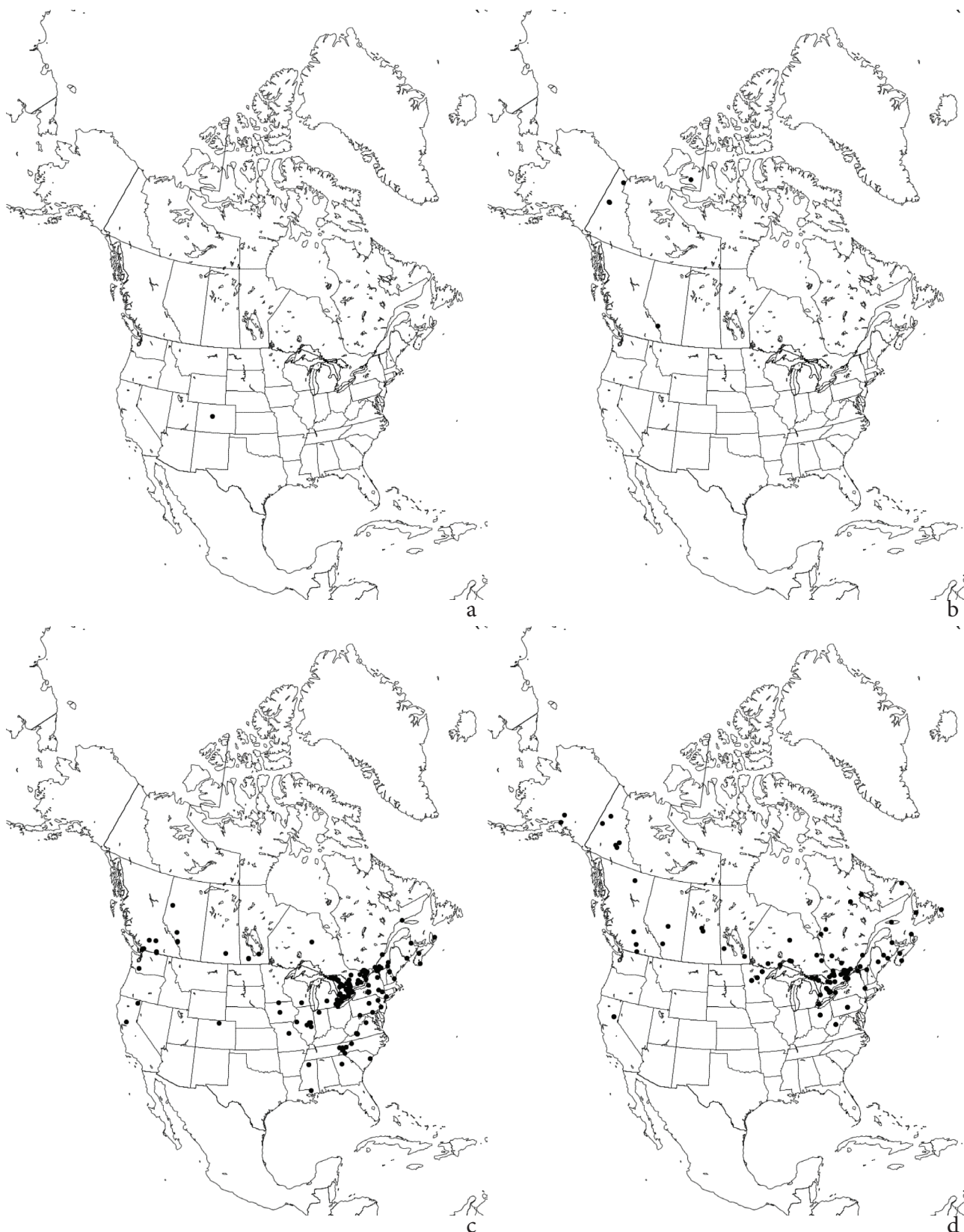


FIGURE 21. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. protrusus*, **b:** *P. pullatus*, **c:** *P. quadratus*, **d:** *P. rosarum*.

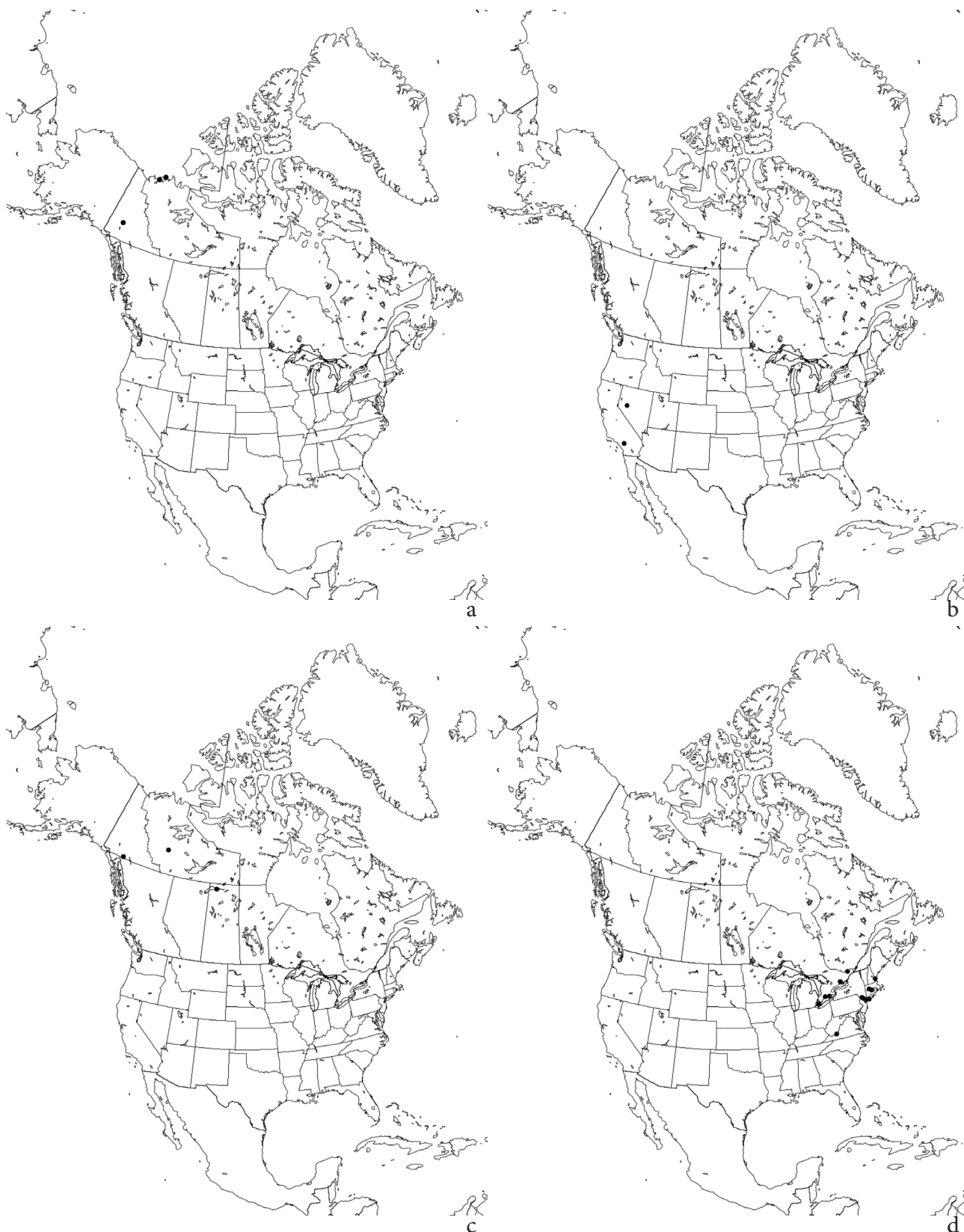


FIGURE 22. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. rufigaster*, **b:** *P. russatus*, **c:** *P. sabulicola*, **d:** *P. scambooides*.

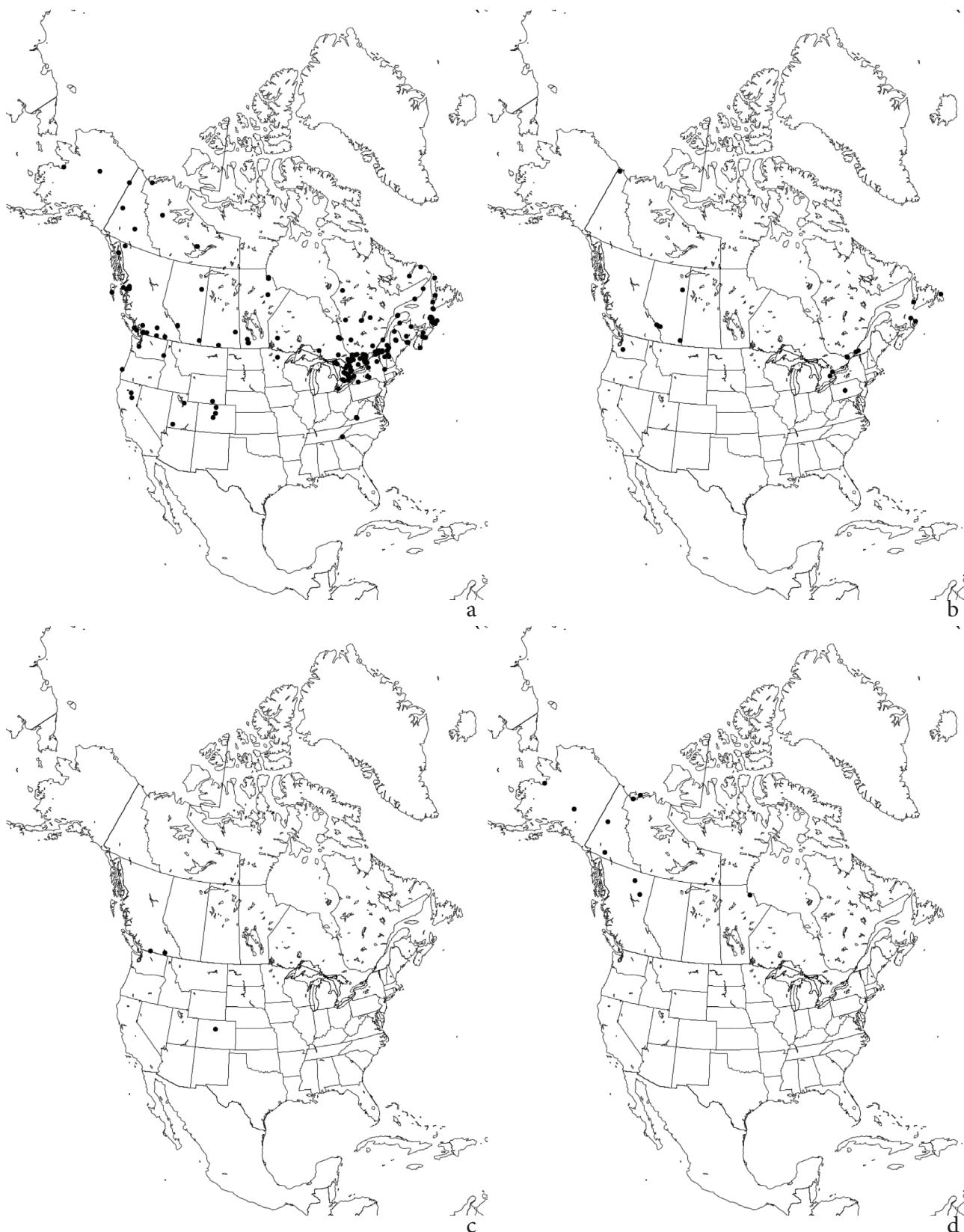


FIGURE 23. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. scambus*, **b:** *P. scutatus*, **c:** *P. setipes*, **d:** *P. setitarsis*.

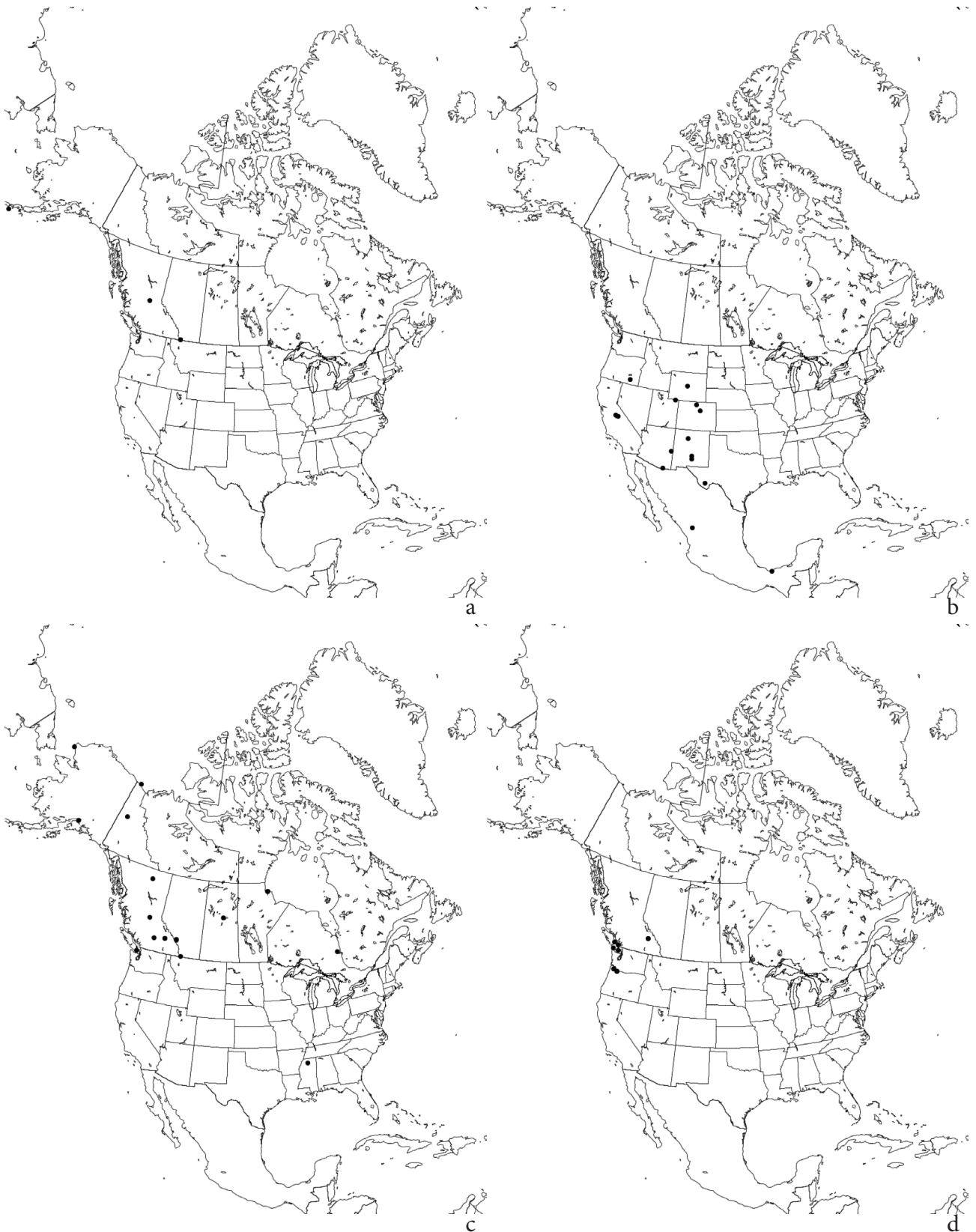


FIGURE 24. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. speighti*, **b:** *P. spinipes*, **c:** *P. splendidus*, **d:** *P. squamulae*.

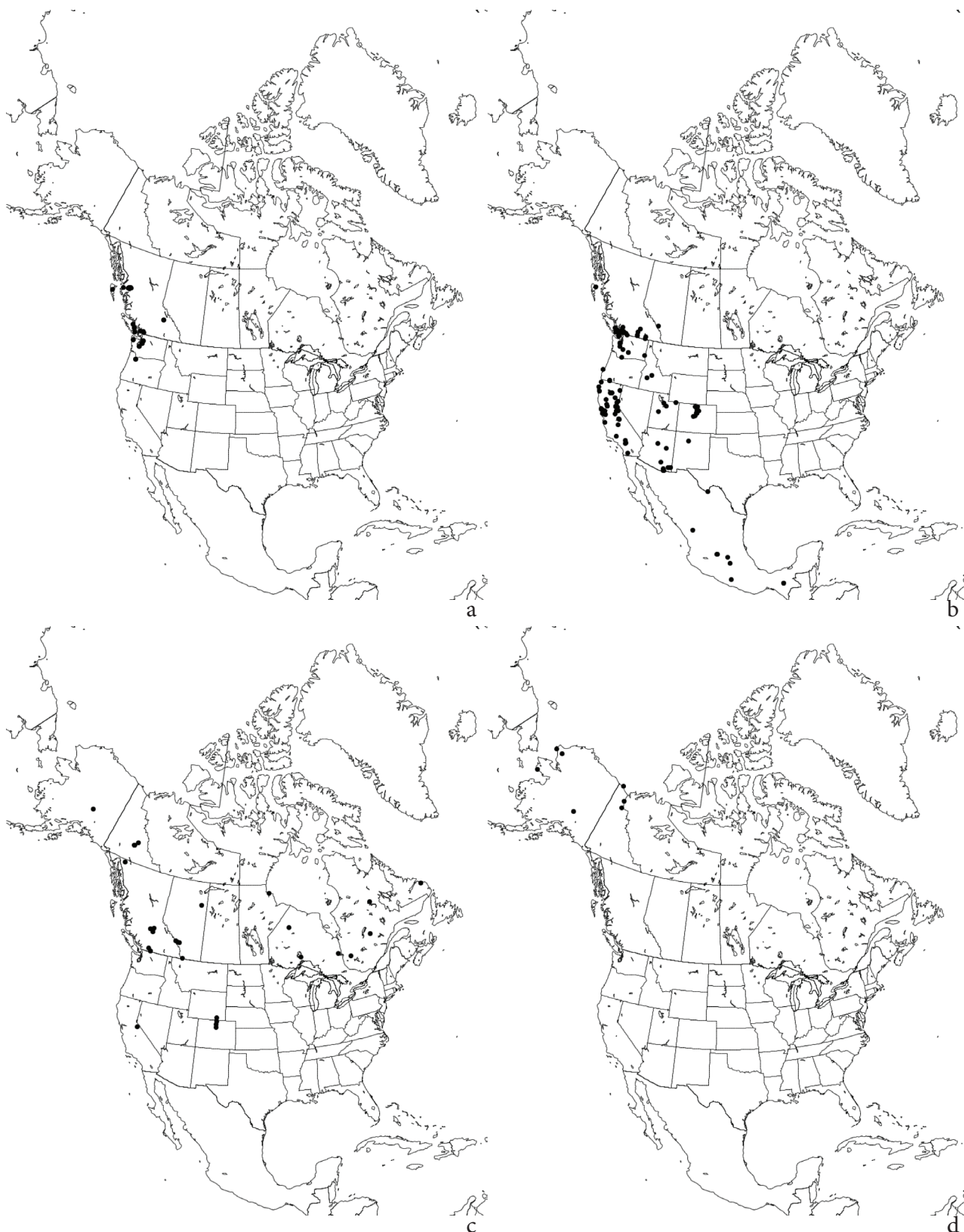


FIGURE 25. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. stegnoides*, **b:** *P. stegnus*, **c:** *P. striatus*, **d:** *P. subordinatus*.

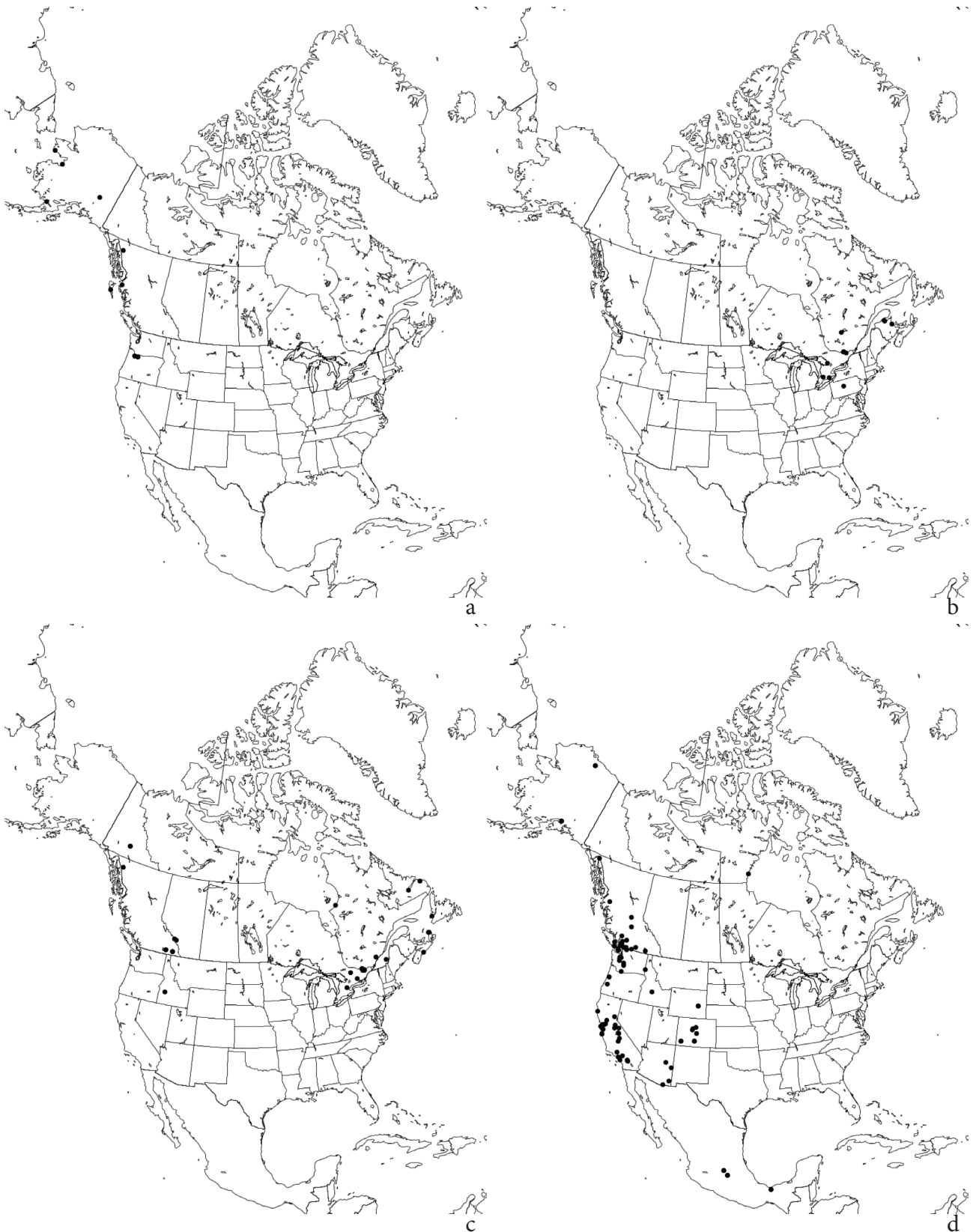


FIGURE 26. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. tenebrosus*, **b:** *P. thompsoni*, **c:** *P. thylax*, **d:** *P. trichopus*.

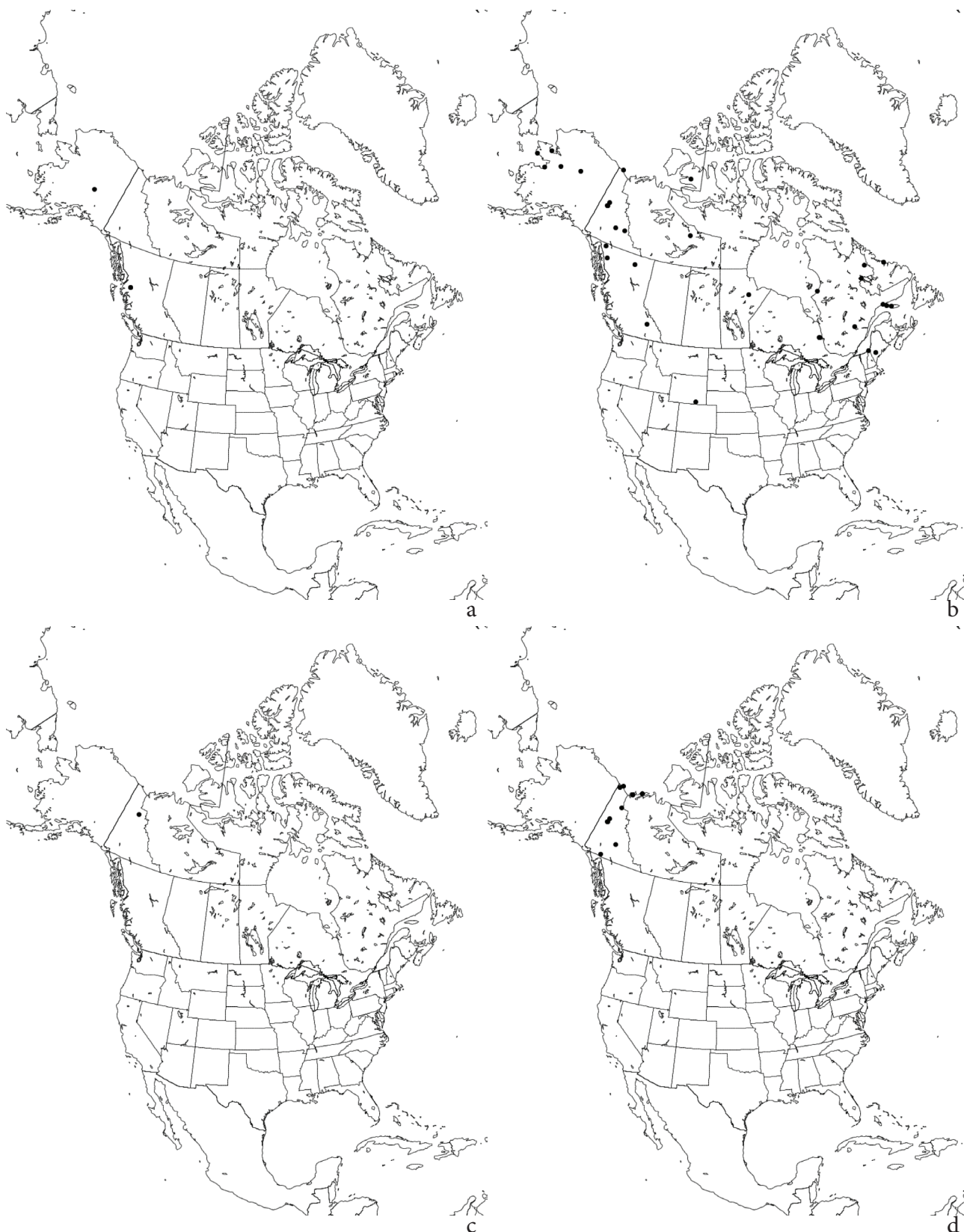


FIGURE 27. *Platycheirus* species range maps (circles indicated specimen point data). **a:** *P. urakawensis*, **b:** *P. varipes*, **c:** *P. woodi*, **d:** *P. yukonensis*.



FIGURE 28. *P. aeratus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg lateral



FIGURE 29. *P. albimanus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg dorsal

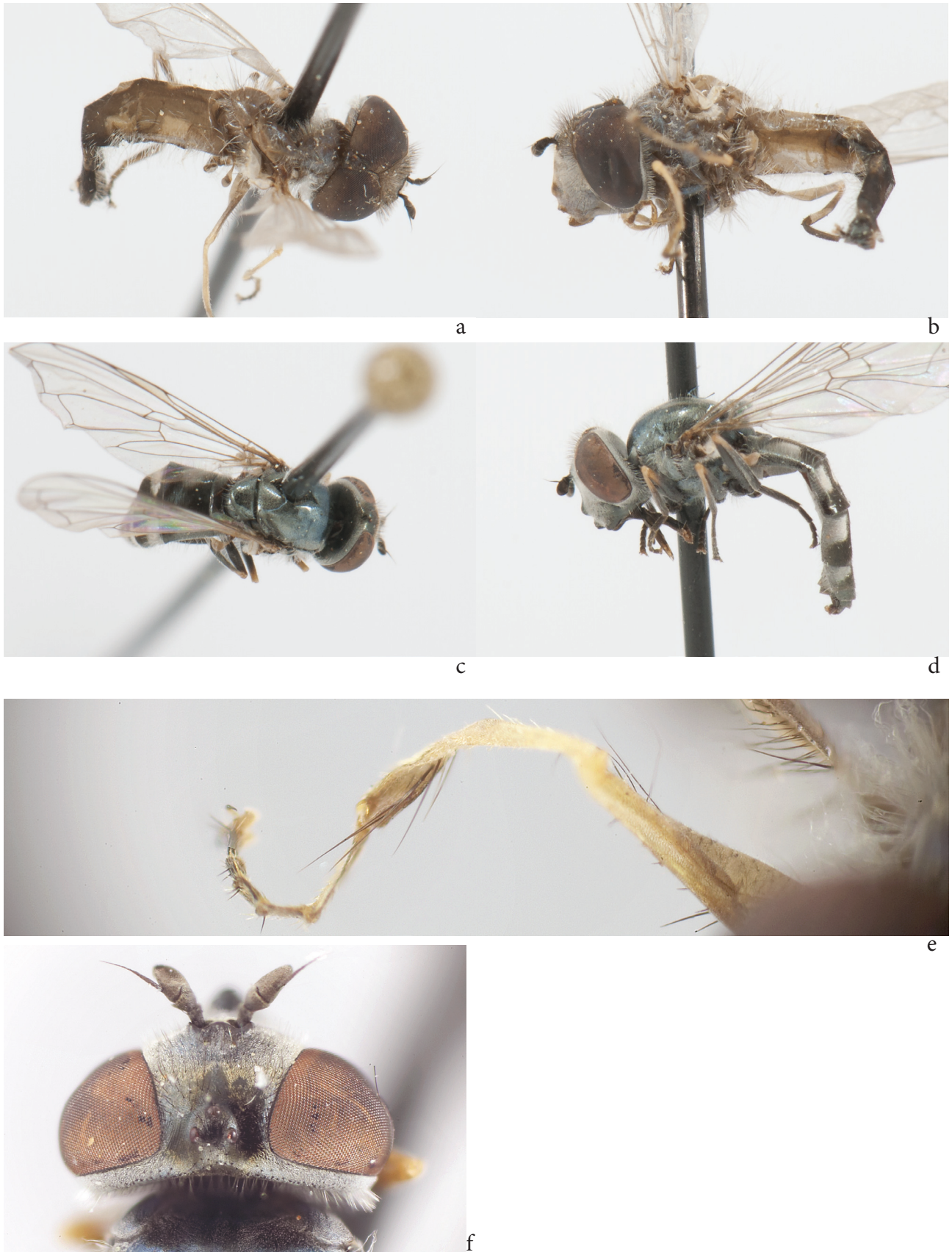


FIGURE 30. *P. alpigenus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** female frons dorsal



FIGURE 31. *P. amplus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg dorsal, **d:** mid leg lateral, **e:** hind tarsus lateral

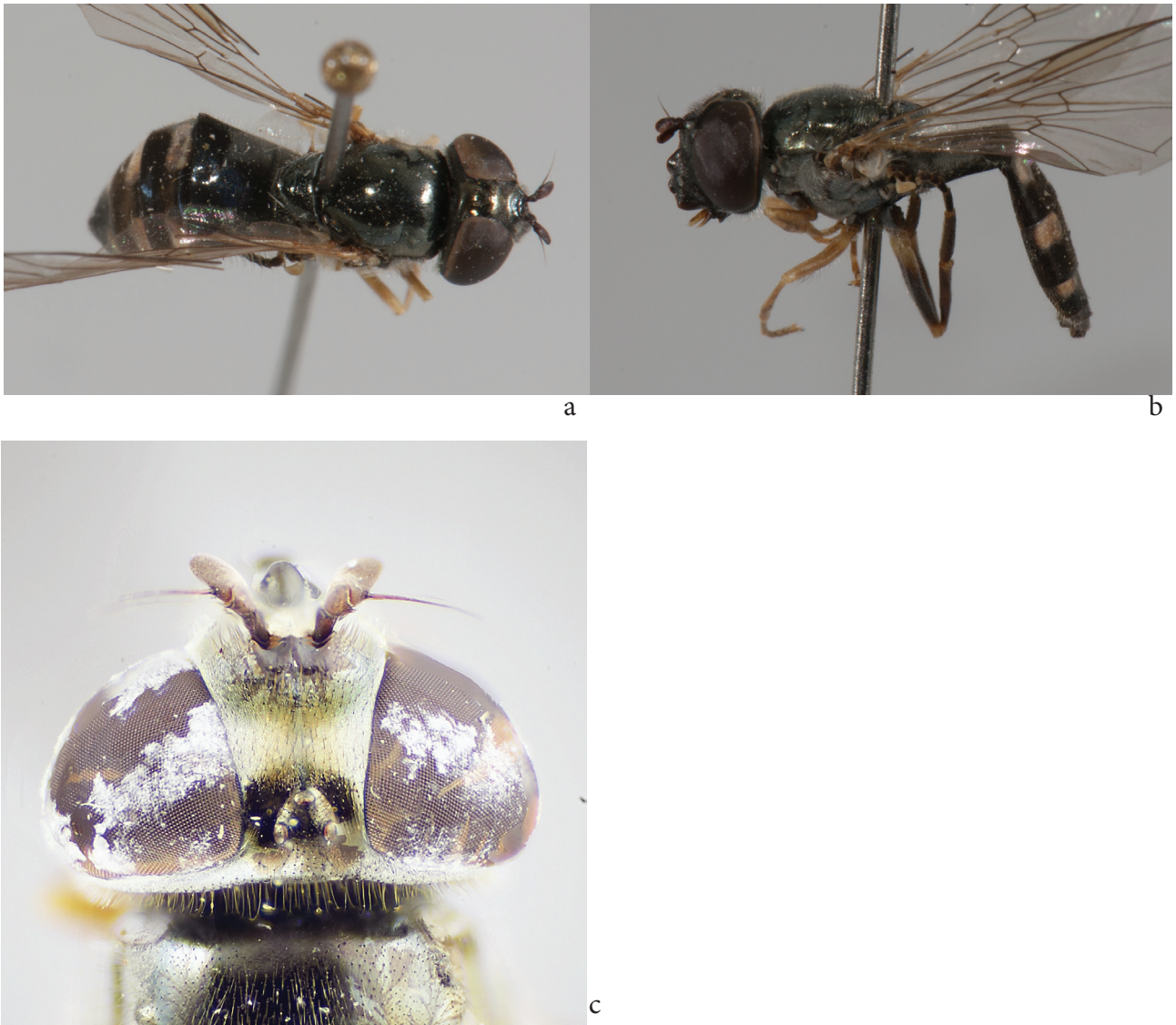


FIGURE 32. *P. amplus* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** frons dorsal



FIGURE 33. *P. angustatus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male first fore tarsomere ventral



FIGURE 34. *P. brunnifrons* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** male foreleg dorsal, **d:** male mid leg lateral



FIGURE 35. *P. chilosia* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg dorsal



FIGURE 36. *P. ciliatus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** male foreleg dorsal, **d:** male mid leg dorsal



FIGURE 37. *P. clauseni* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** male foreleg dorsal, **d:** mid leg lateral



FIGURE 38. *P. clypeatus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male first foretarsomere ventral



FIGURE 39. *P. coerulescens* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg dorsal, **d:** mid leg dorsal



FIGURE 40. *P. coerulescens* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg dorsal

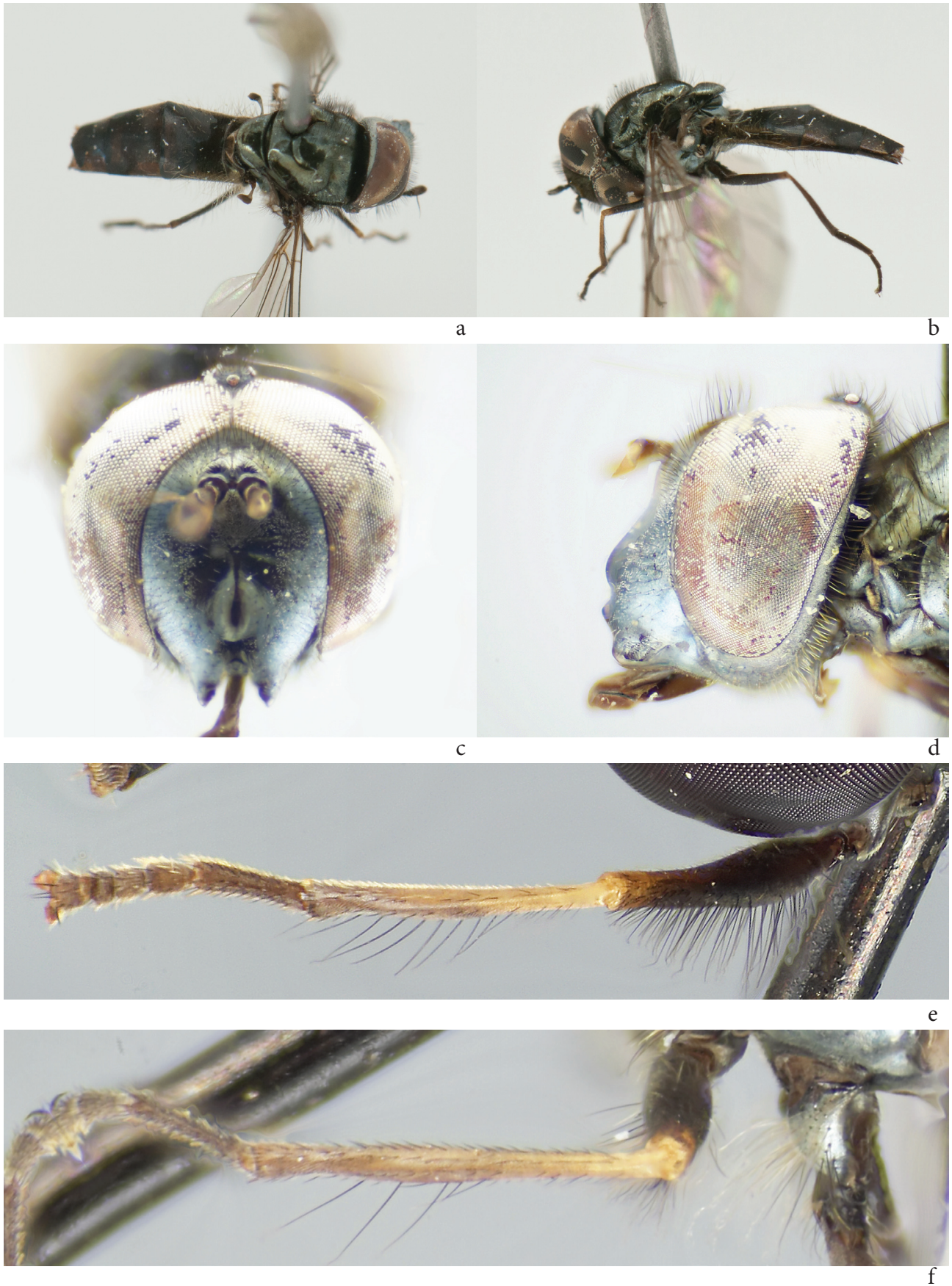


FIGURE 41. *P. confusus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral, **e:** foreleg dorsal, **f:** midleg dorsal

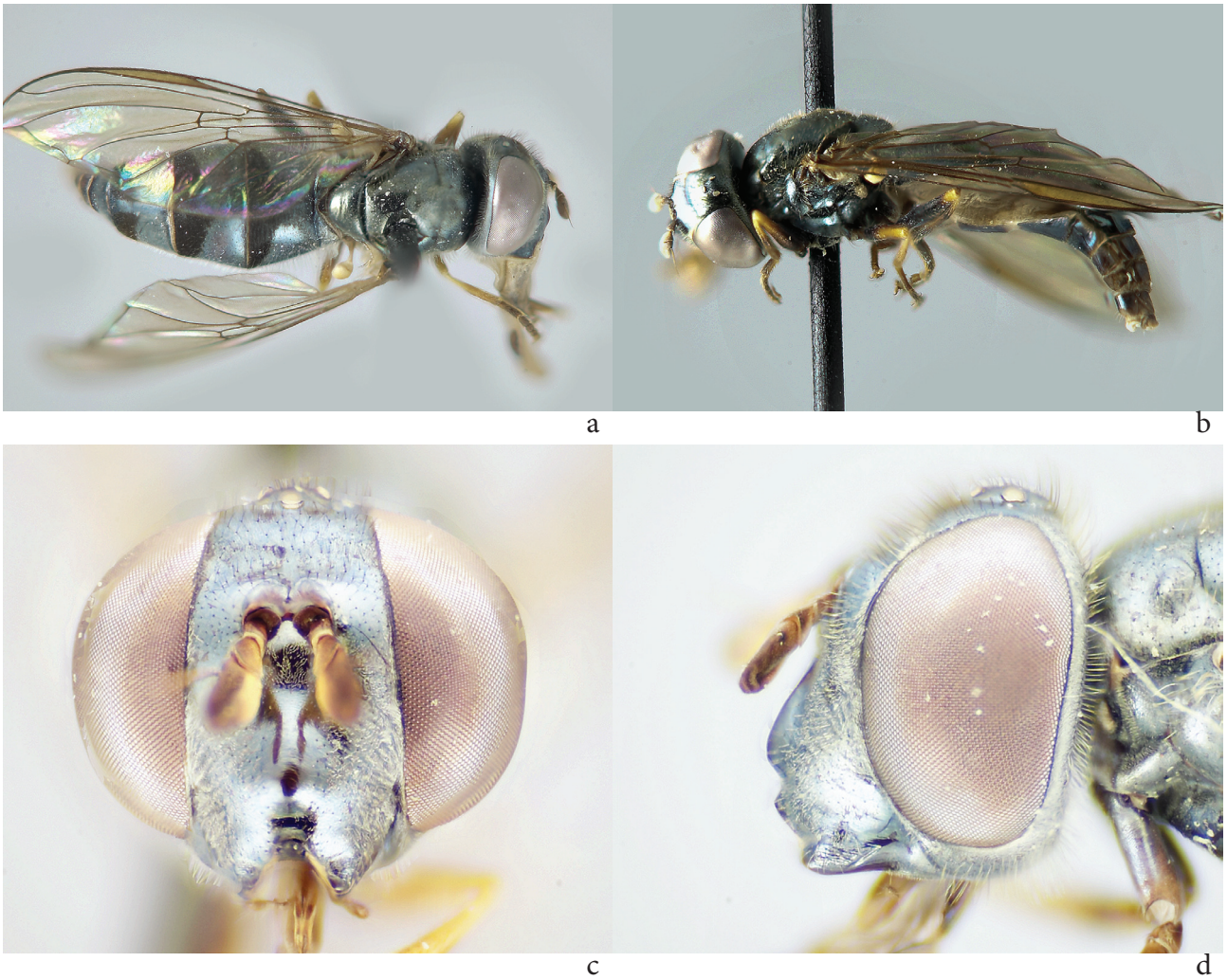


FIGURE 42. *P. confusus* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral



a



b

FIGURE 43. *P. coracinus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus



FIGURE 44. *P. discimanus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male midleg lateral



FIGURE 45. *P. flabella* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male fore-leg dorsal, **f:** male mid leg dorsal



FIGURE 46. *P. granditarsis* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg dorsal



FIGURE 47. *P. groenlandicus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg dorsal



FIGURE 48. *P. hesperius* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral, **e:** foreleg dorsal



FIGURE 49. *P. hesperius* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral



FIGURE 50. *P. hispidipes* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** male foreleg dorsal, **d:** male mid leg dorsal



FIGURE 51. *P. hyperboreus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal



FIGURE 52. *P. immarginatus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** male foreleg dorsal, **d:** male mid leg dorsal



FIGURE 53. *P. inversus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male hind tarsus lateral



FIGURE 54. *P. jaerensis* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal



FIGURE 55. *P. kelloggi* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg dorsal



FIGURE 56. *P. latitarsis* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** fore-leg dorsal

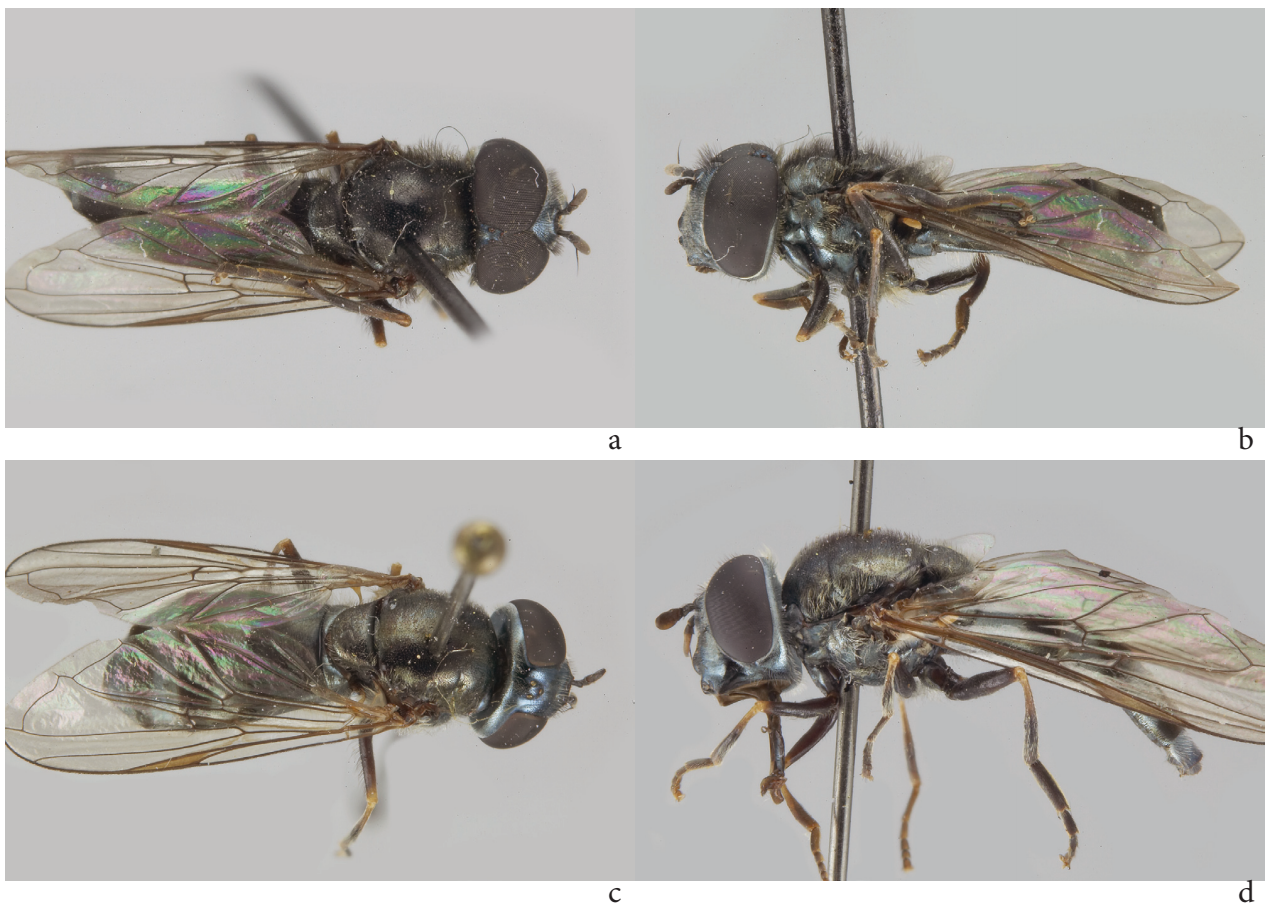


FIGURE 57. *P. latus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus

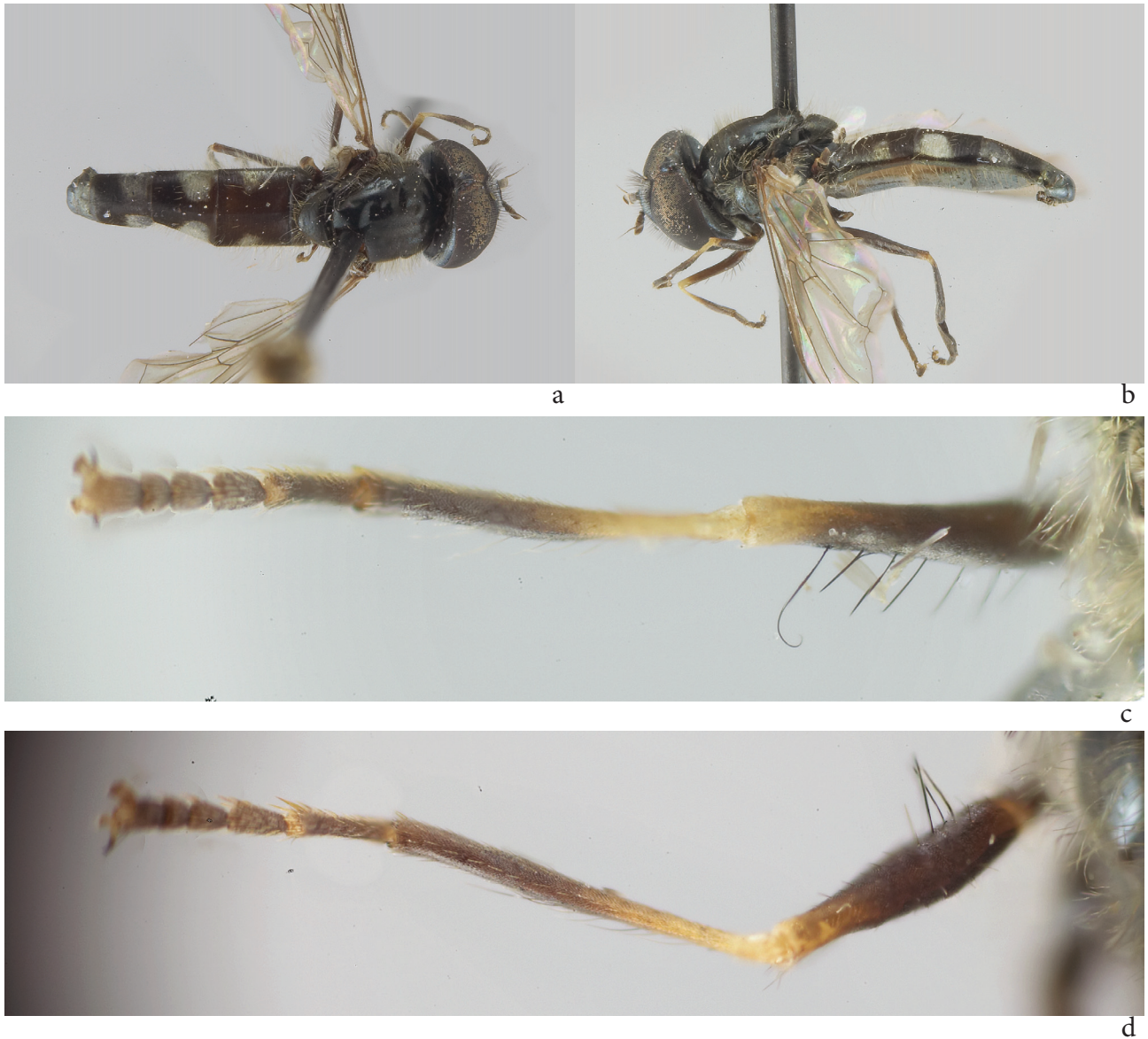


FIGURE 58. *P. lundbecki* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg dorsal, **d:** mid leg dorsal

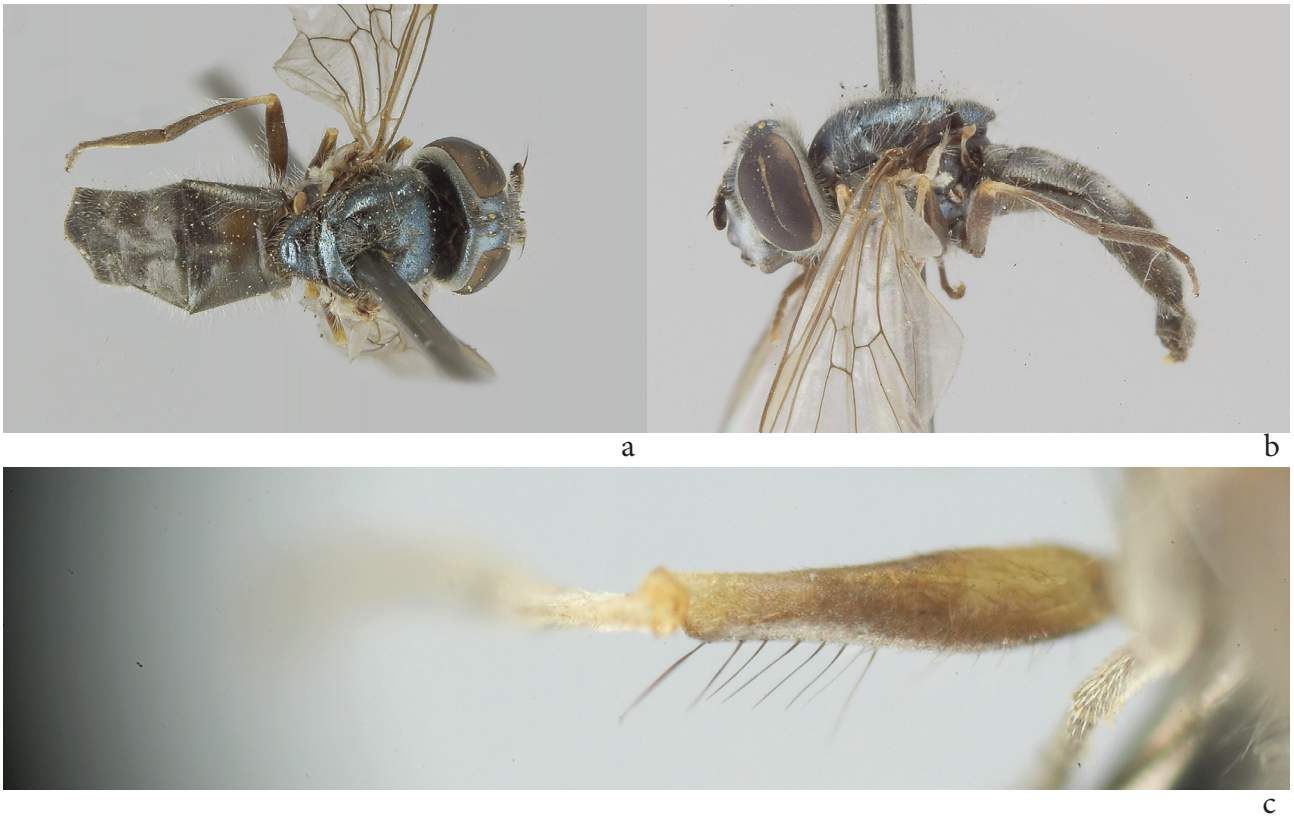


FIGURE 59. *P. lundbecki* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg dorsal

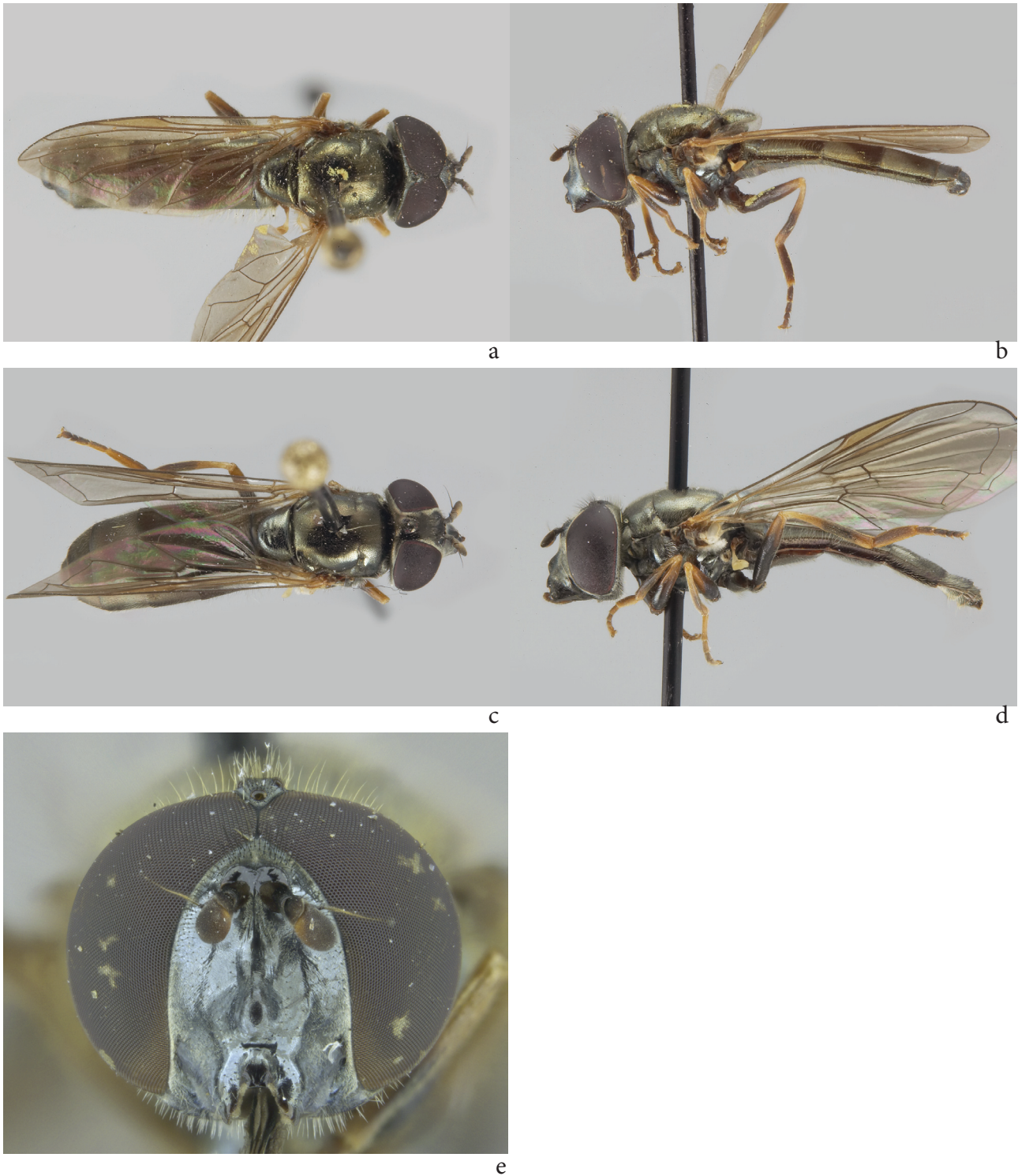


FIGURE 60. *P. luteipennis* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male face frontal



FIGURE 61. *P. manicatus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male fore-leg dorsal



FIGURE 62. *P. modestus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg lateral



FIGURE 63. *P. naso* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male fore leg lateral, **f:** male mid leg dorsal



FIGURE 64. *P. nearcticus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg anteroventral



FIGURE 65. *P. neoperpallidus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** male mid leg lateral



FIGURE 66. *P. nielsenii* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male mid leg lateral

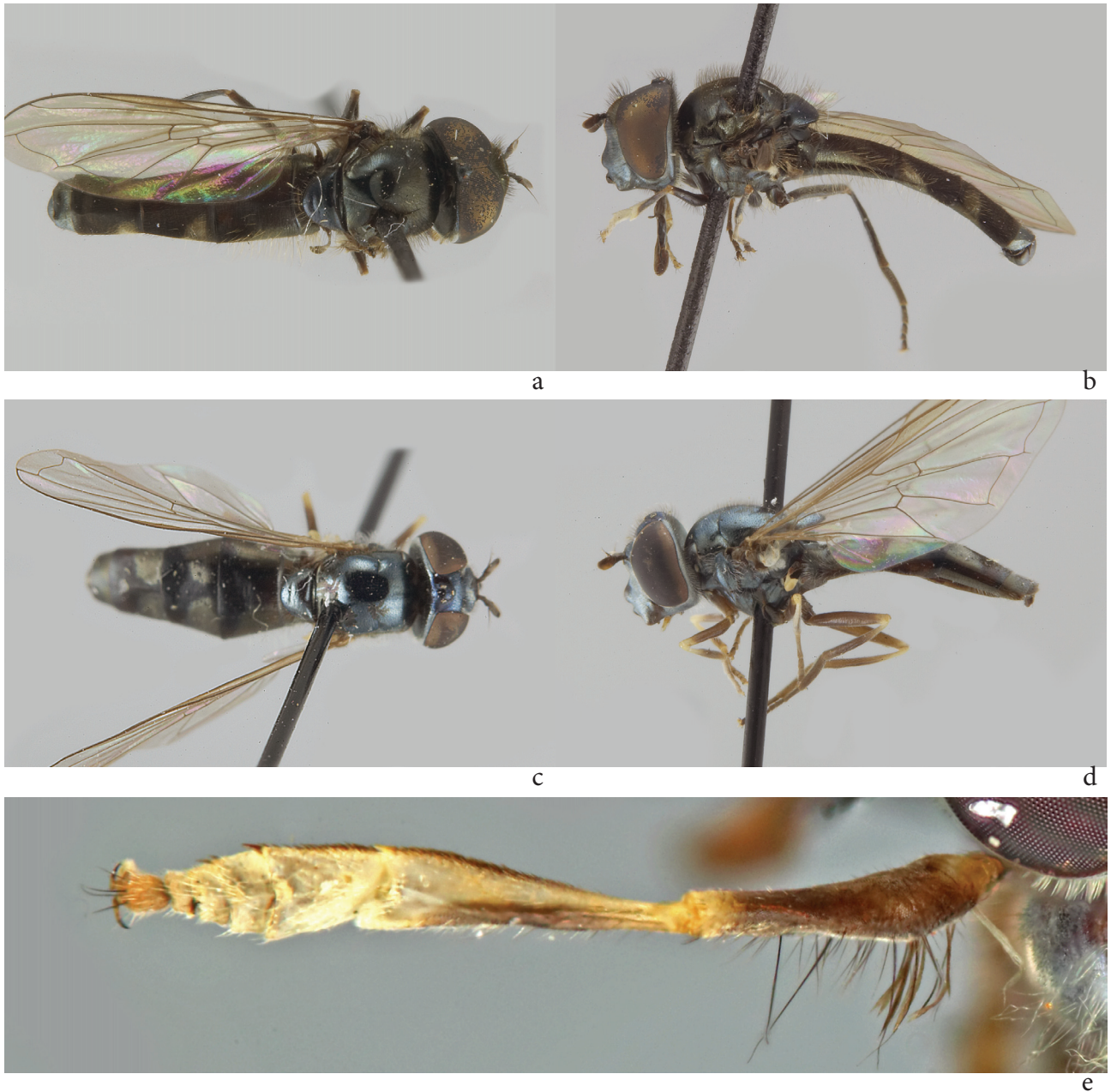


FIGURE 67. *P. nigrofemoratus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal



FIGURE 68. *P. nodosus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** female foreleg dorsal



FIGURE 69. *P. normae* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** female foreleg lateral

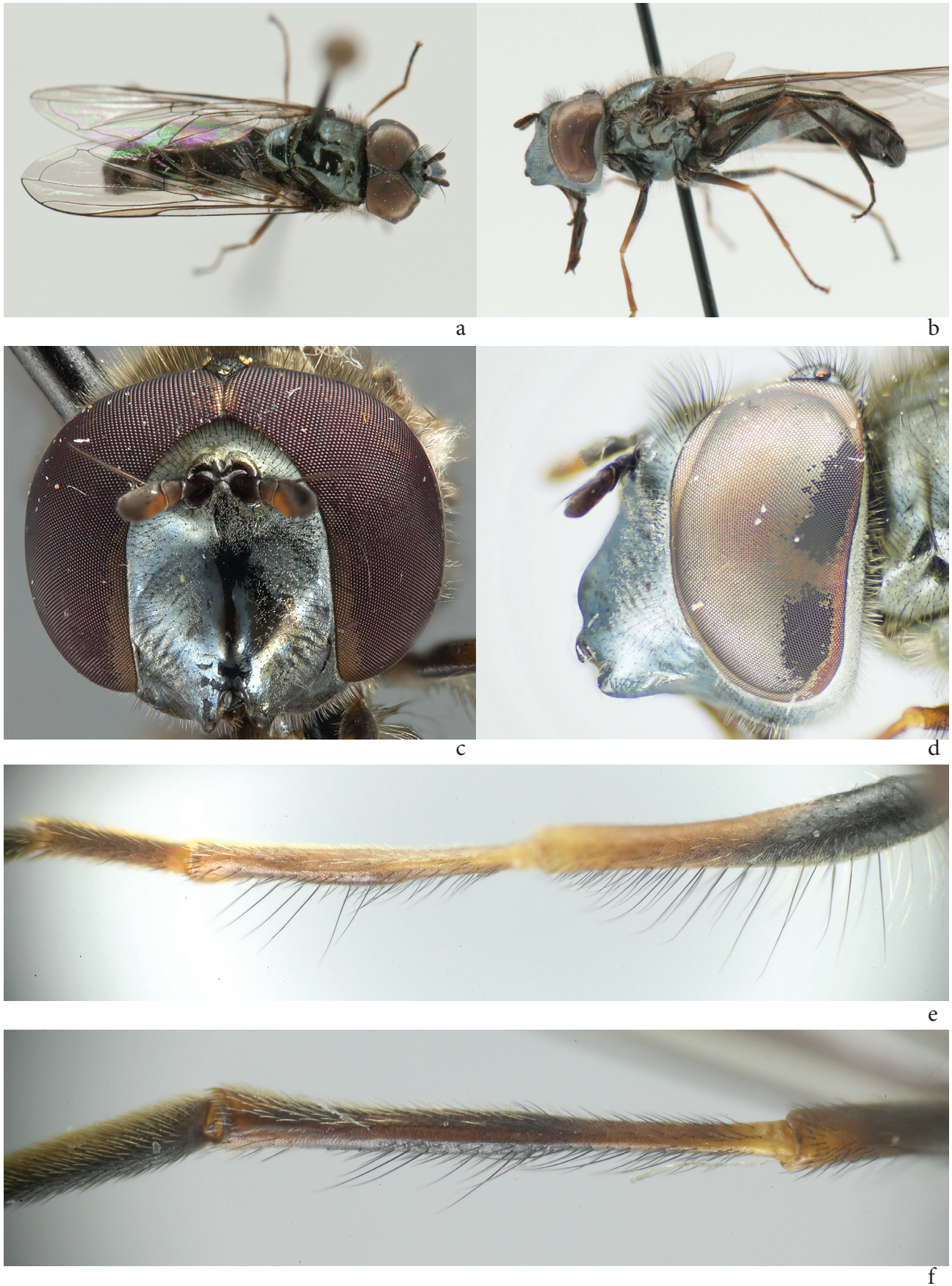


FIGURE 70. *P. obscurus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral, **e:** foreleg dorsal, **f:** hind leg dorsal

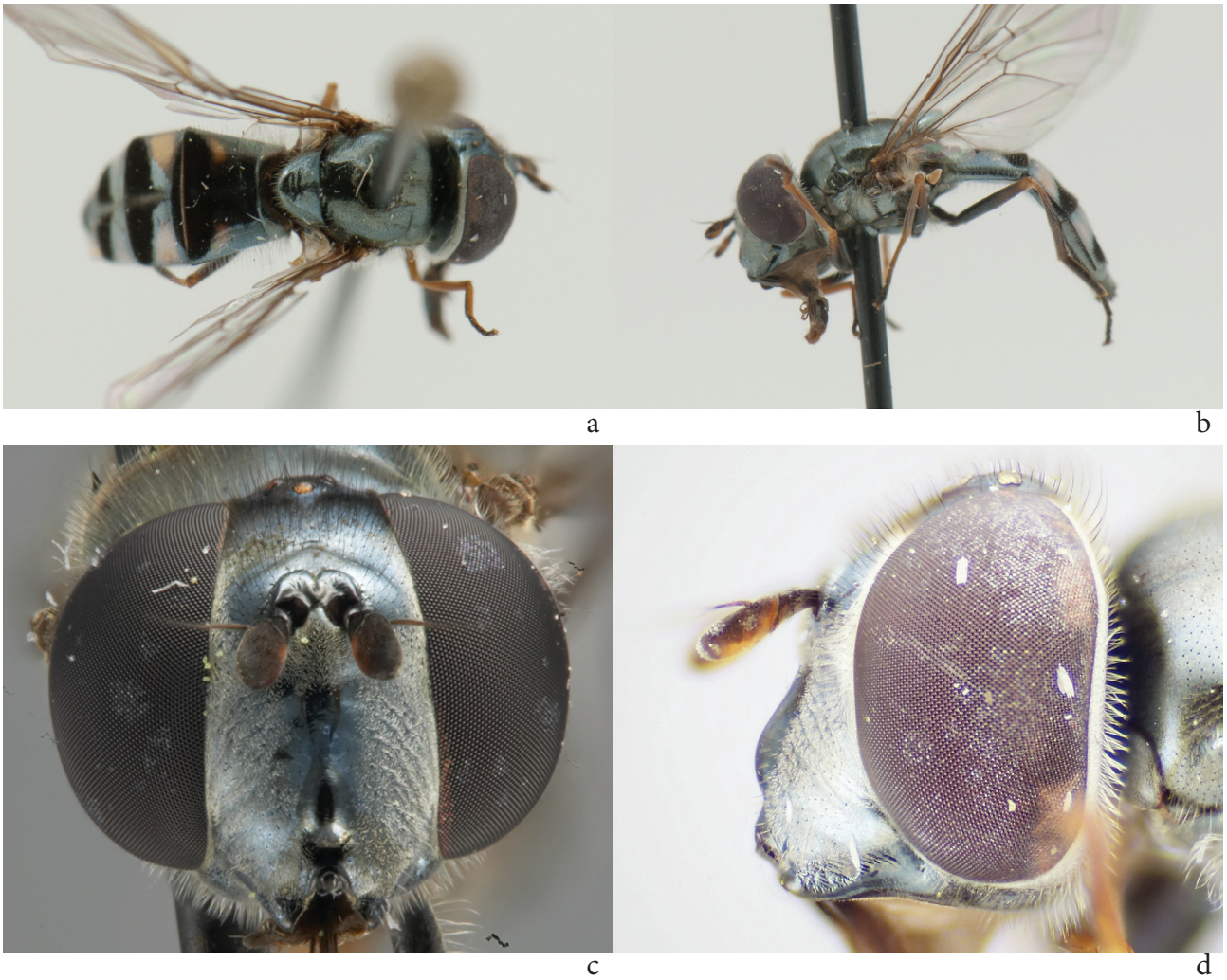


FIGURE 71. *P. obscurus* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral

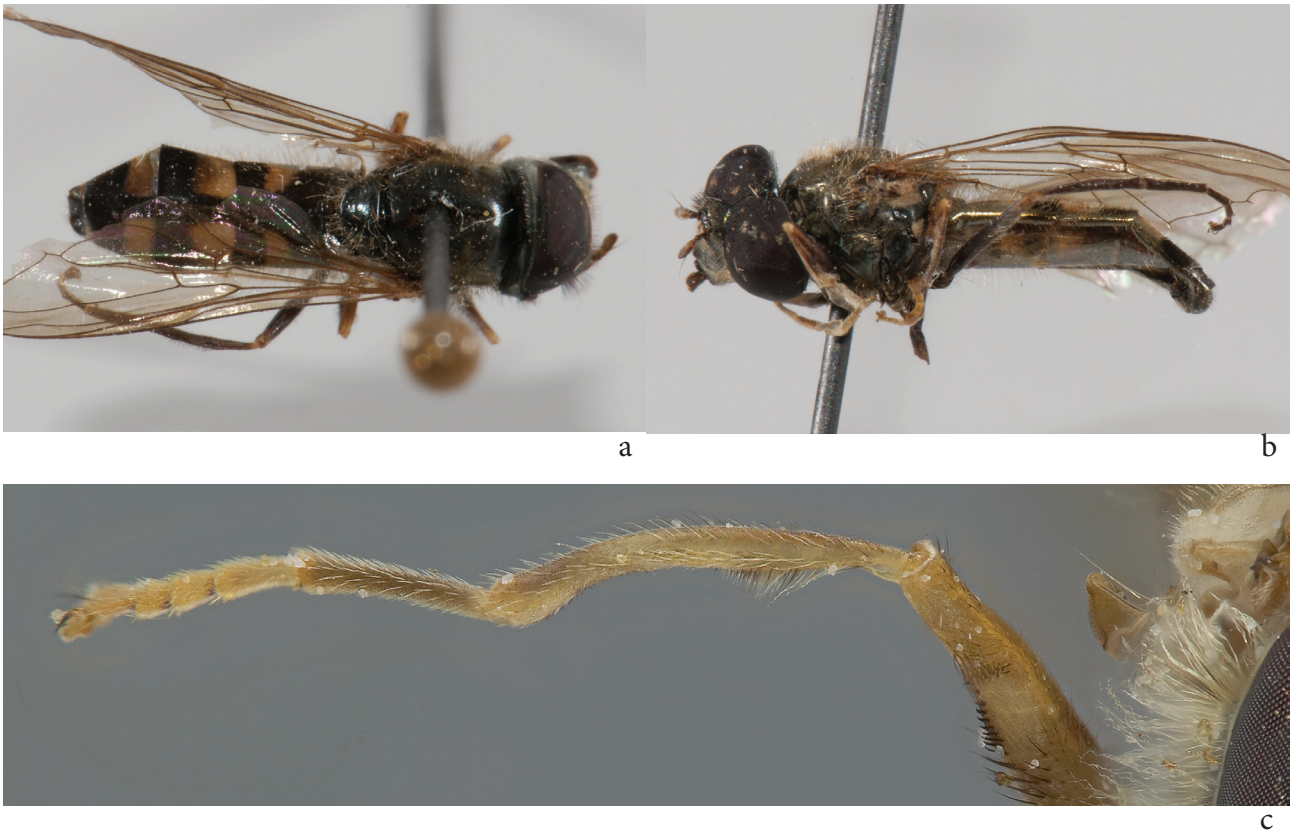


FIGURE 72. *P. octavus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** mid leg dorsal



FIGURE 73. *P. orarius* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male mid leg lateral, **f:** female frons dorsal



FIGURE 74. *P. oreadis* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg dorsal, **d:** mid leg lateral, **e:** hind leg lateral



FIGURE 75. *P. oreadis* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** fore-leg dorsal



FIGURE 76. *P. parmatus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal



FIGURE 77. *P. peltatoides* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male fore tarsomere lateral



FIGURE 78. *P. perpallidus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** male mid leg lateral



FIGURE 79. *P. pictipes* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male face frontal



FIGURE 80. *P. pilatus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** male foreleg dorsal, **d:** male mid leg lateral



FIGURE 81. *P. podagratus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal



FIGURE 82. *P. protrusus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal



FIGURE 83. *P. pullatus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** mid leg dorsal



FIGURE 84. *P. quadratus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** male foreleg dorsal, **d:** male mid leg dorsal, **e:** male mid femur lateral



FIGURE 85. *P. rosarum* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus

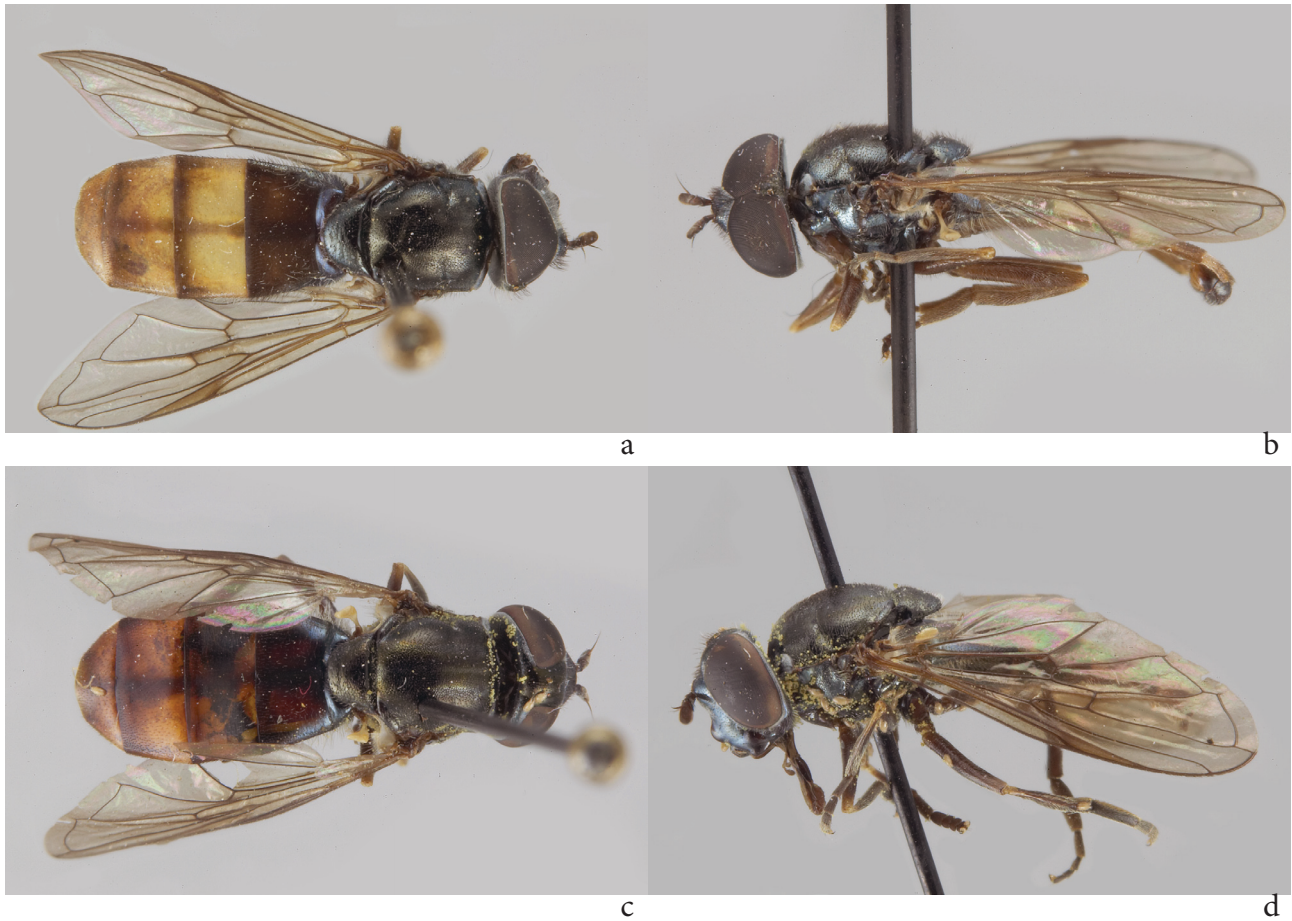


FIGURE 86. *P. rufigaster* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus

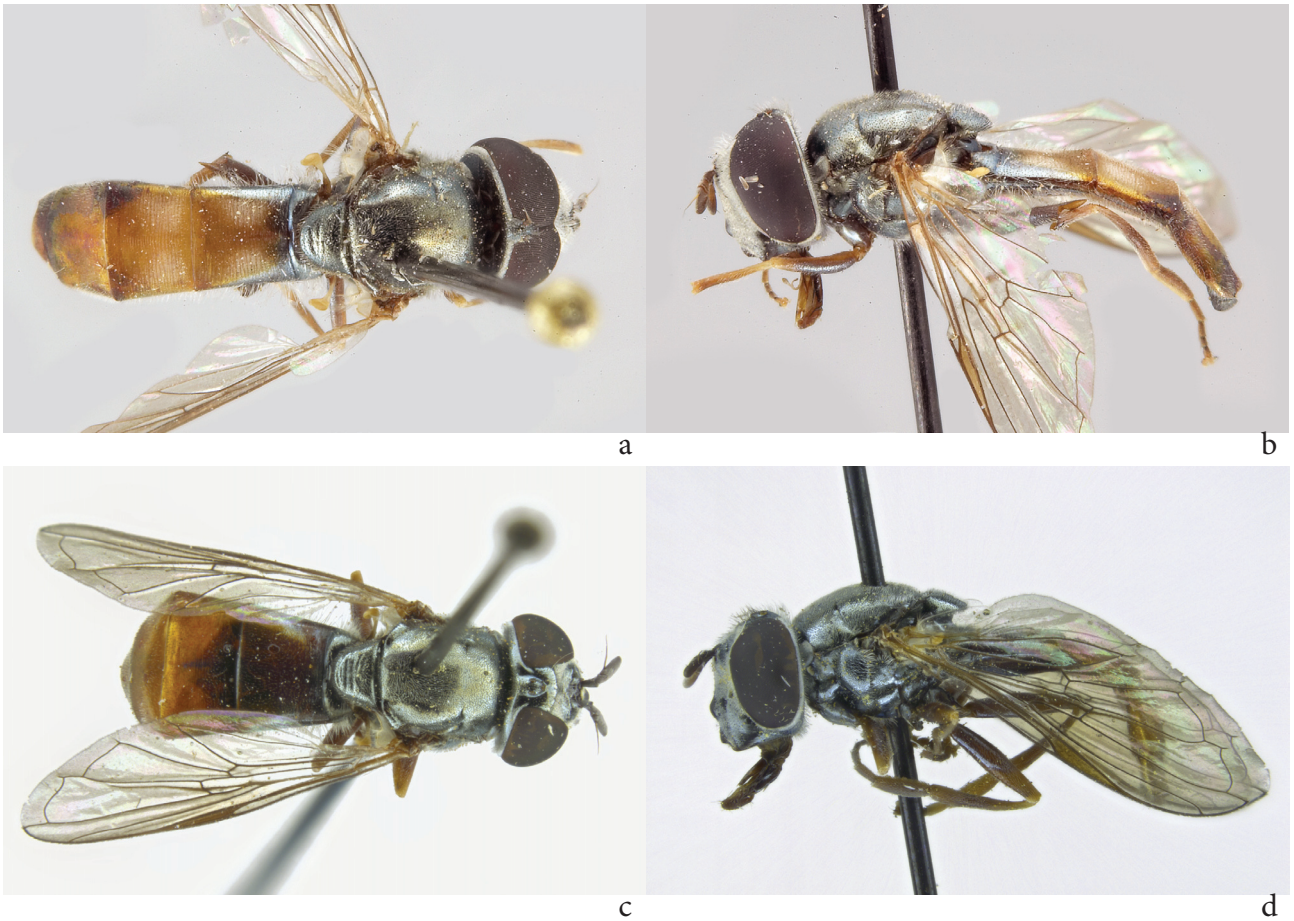


FIGURE 87. *P. russatus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus



FIGURE 88. *P. sabulicola* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral, **e:** foreleg dorsal

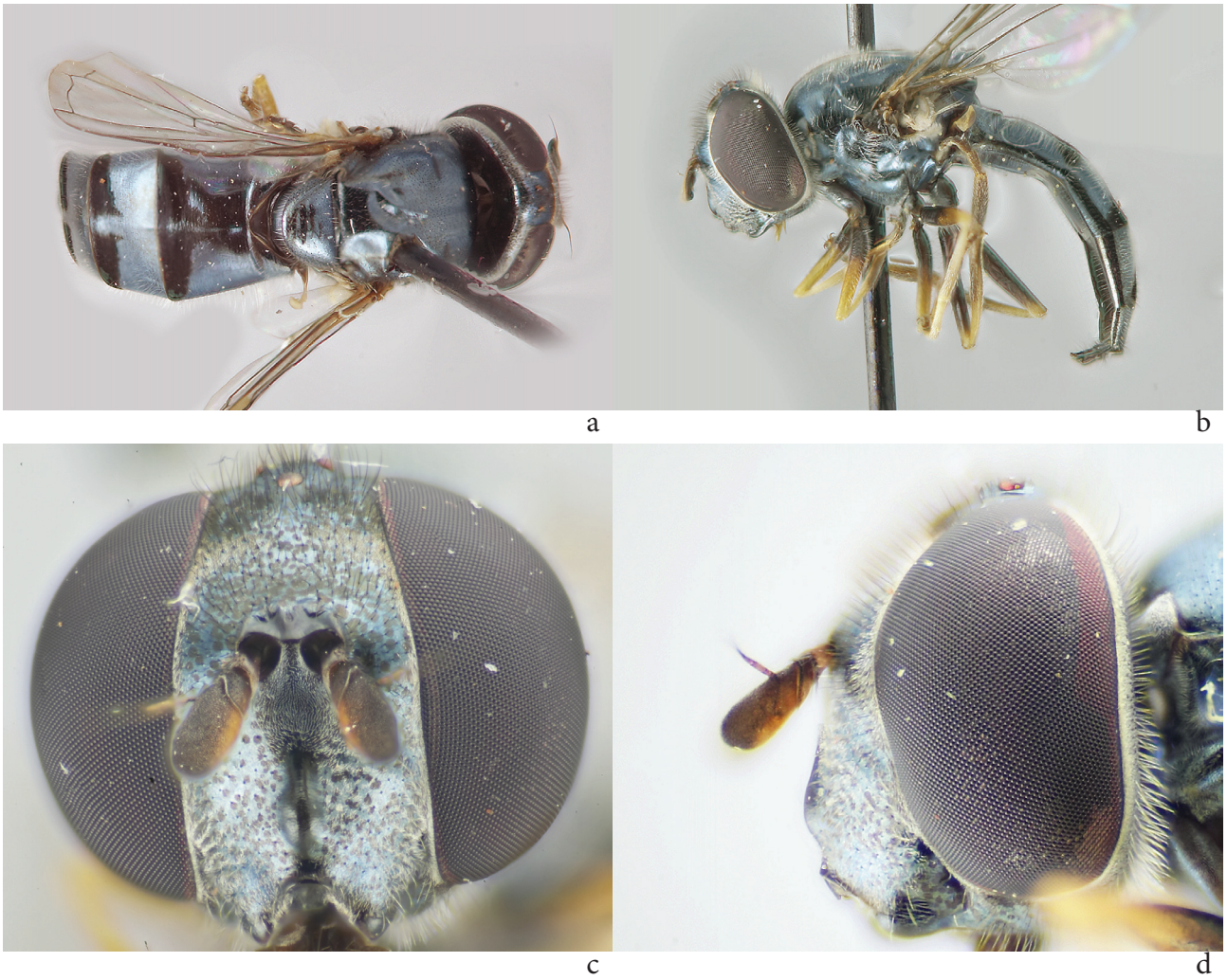


FIGURE 89. *P. sabulicola* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral



FIGURE 90. *P. scamboides* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** male mid leg lateral

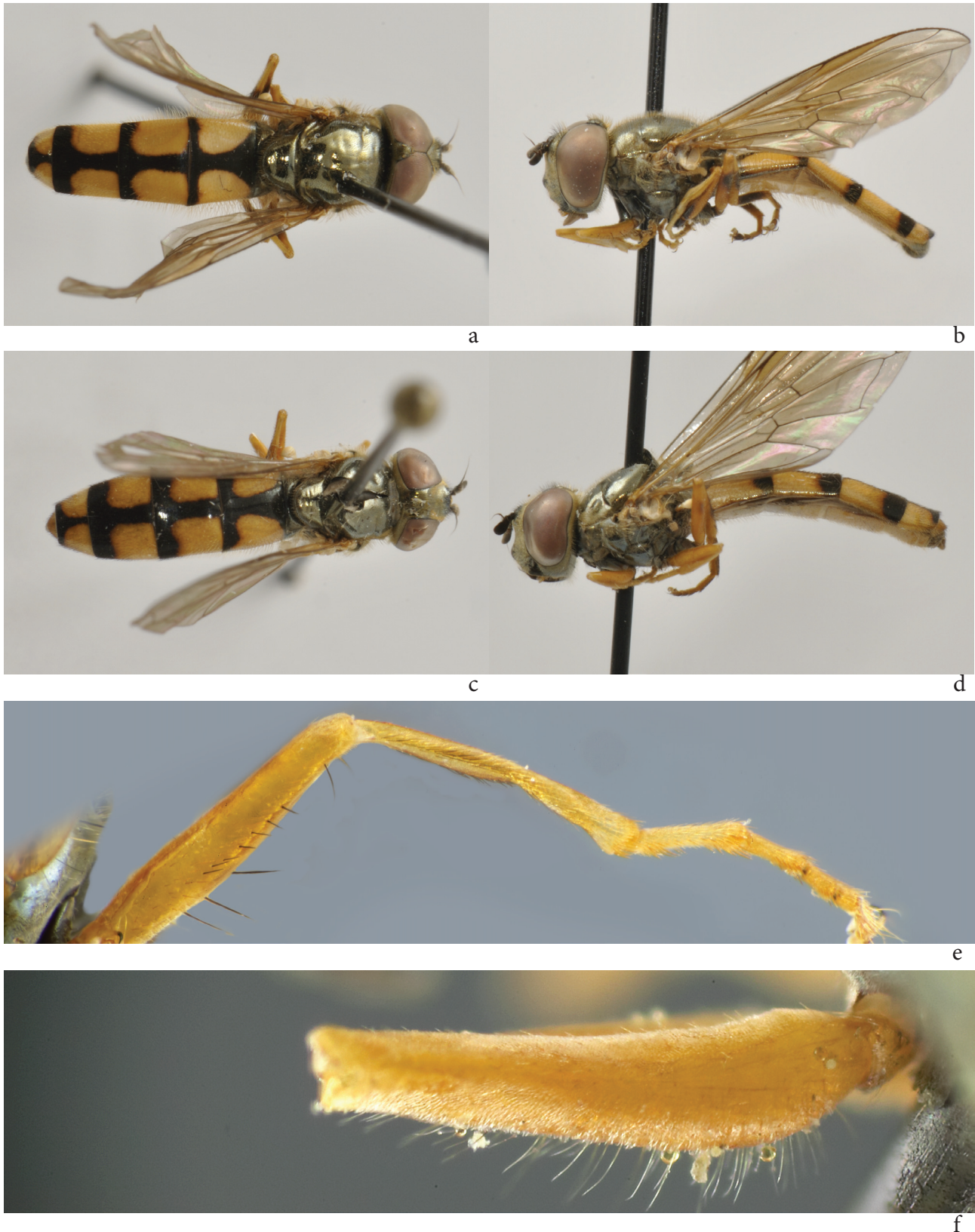


FIGURE 91. *P. scamus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male mid leg lateral, **f:** female fore femur dorsal

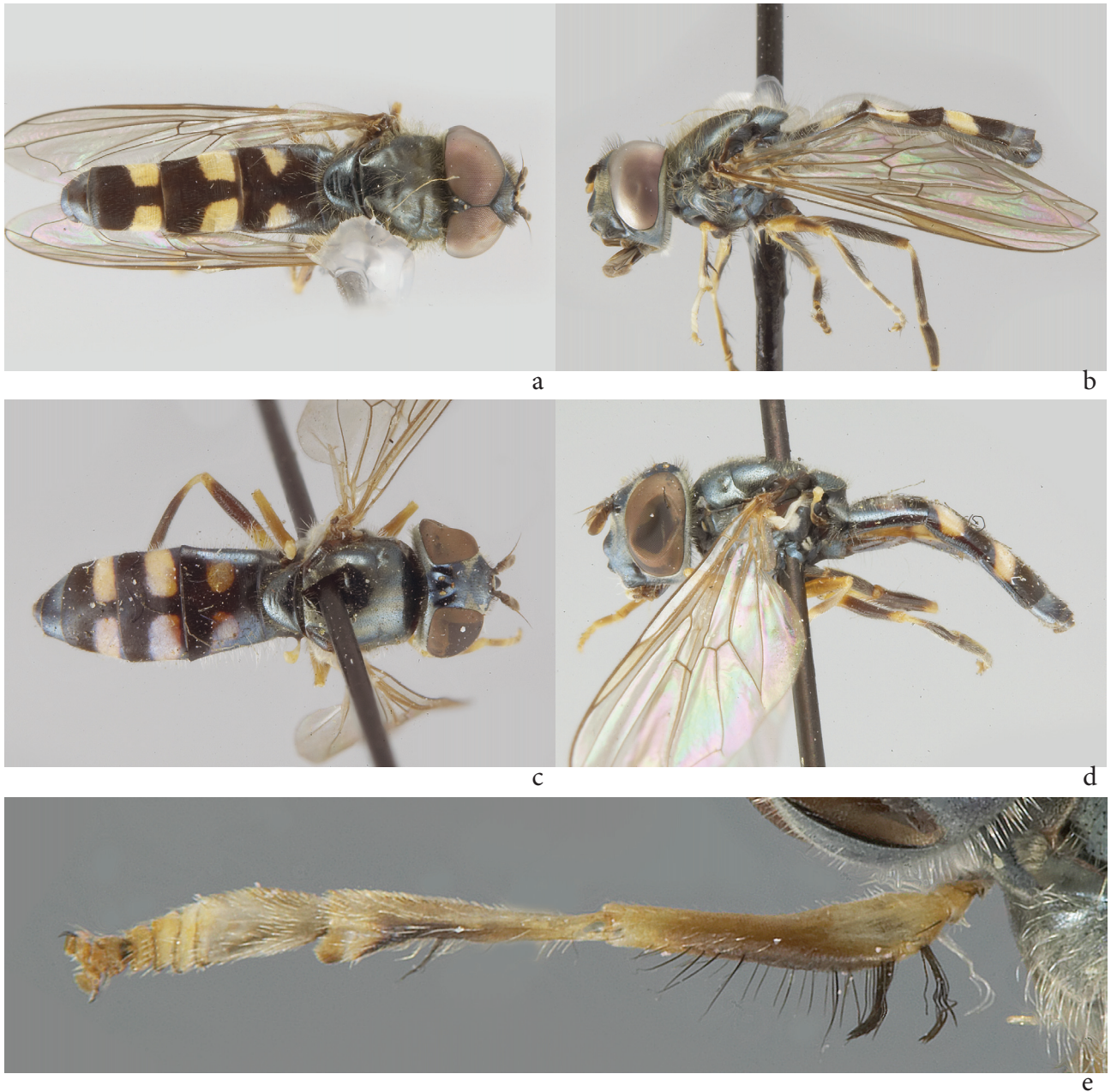


FIGURE 92. *P. scutatus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal



FIGURE 93. *P. setipes* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** male foreleg dorsal



FIGURE 94. *P. setitarsis* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg dorsal



FIGURE 95. *P. speighti* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg dorsal, **d:** mid leg anteroventral

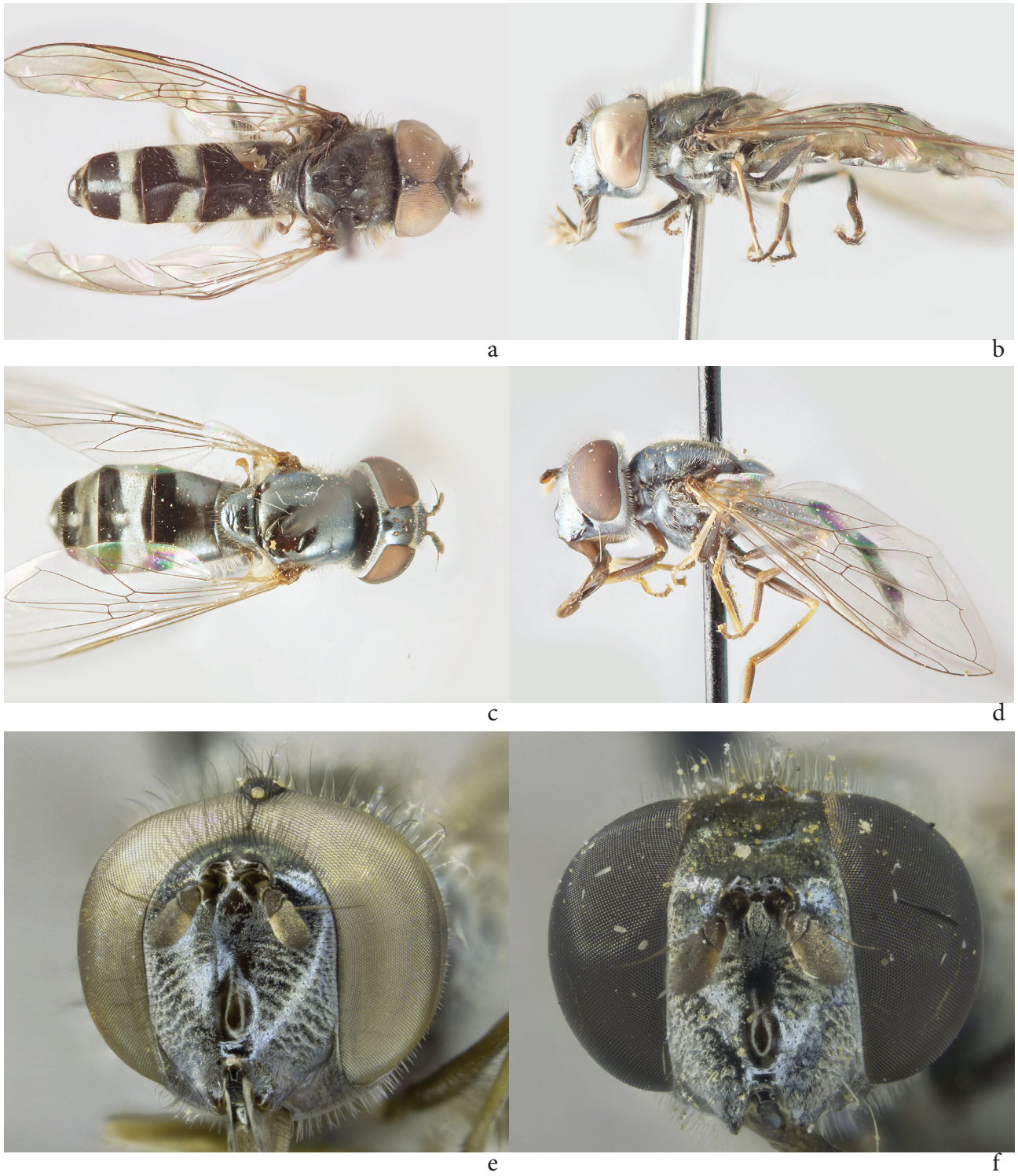


FIGURE 96. *P. spinipes* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male face frontal, **f:** female face frontal



FIGURE 97. *P. splendidus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg dorsal, **d:** mid leg anteroventral

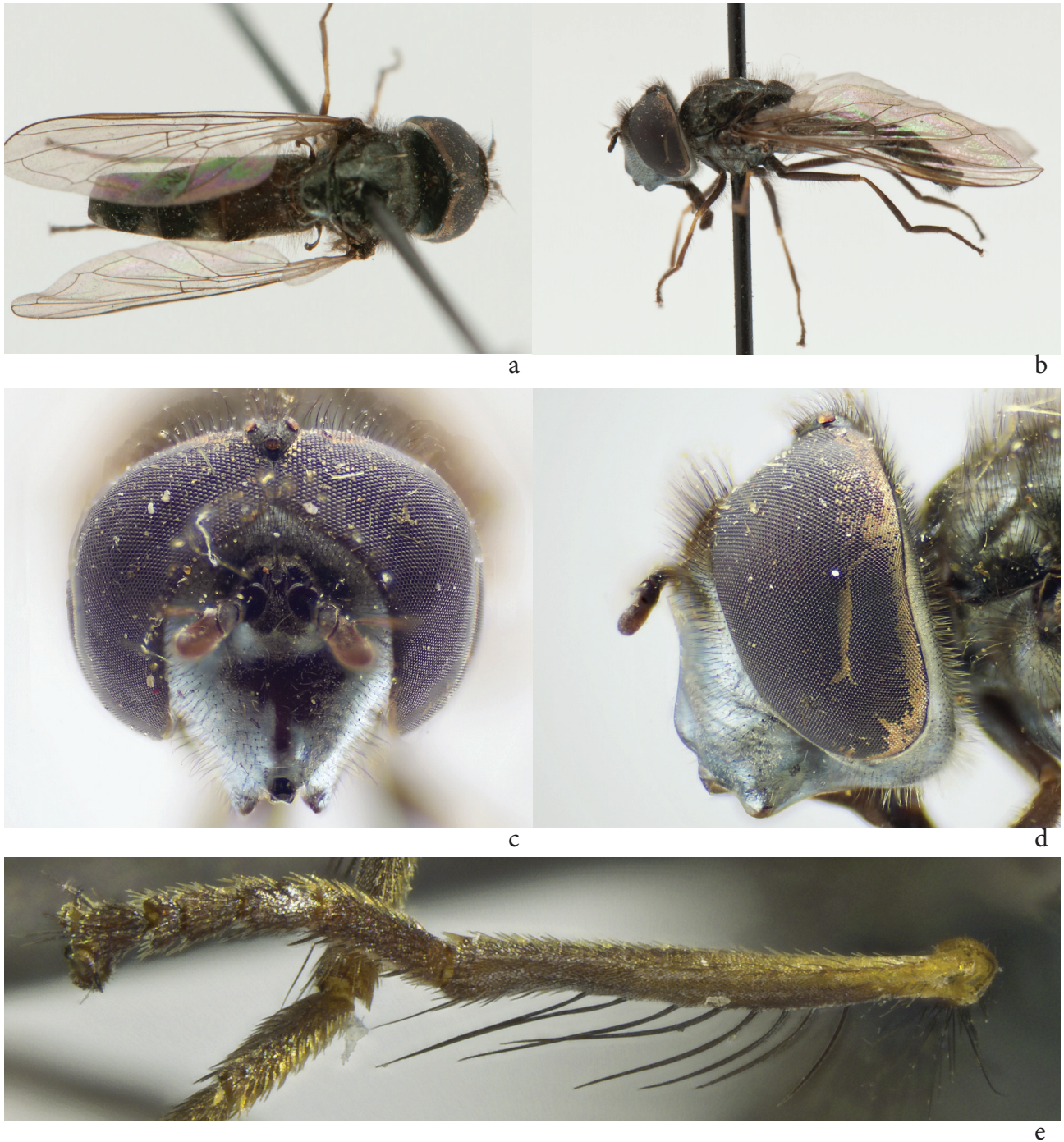


FIGURE 98. *P. squamulae* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral, **e:** foreleg dorsal



FIGURE 99. *P. stegnoides* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral, **e:** foreleg dorsal

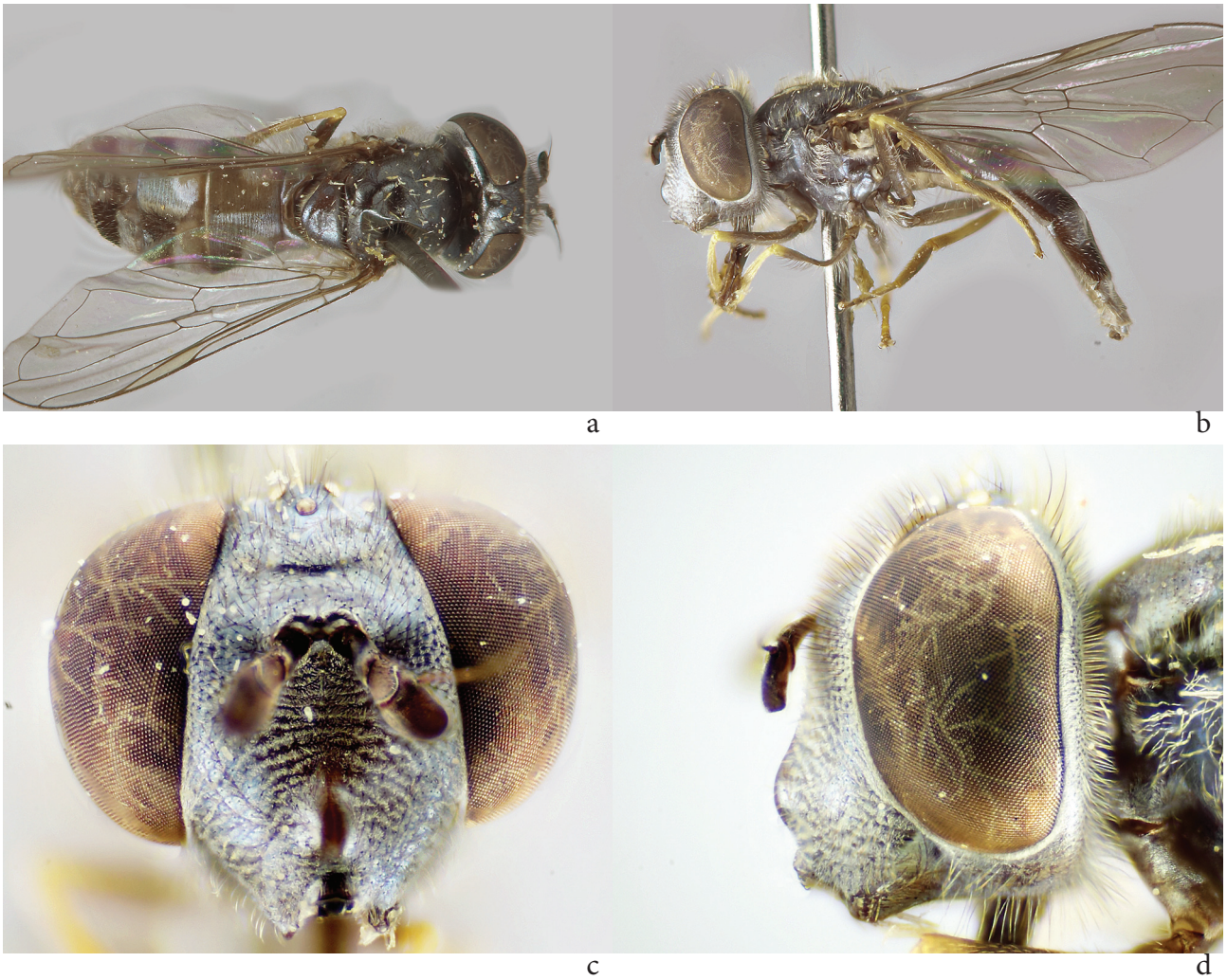


FIGURE 100. *P. stegnoides* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral



FIGURE 101. *P. stegnus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral, **e:** foreleg dorsal



FIGURE 102. *P. stegnus* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral

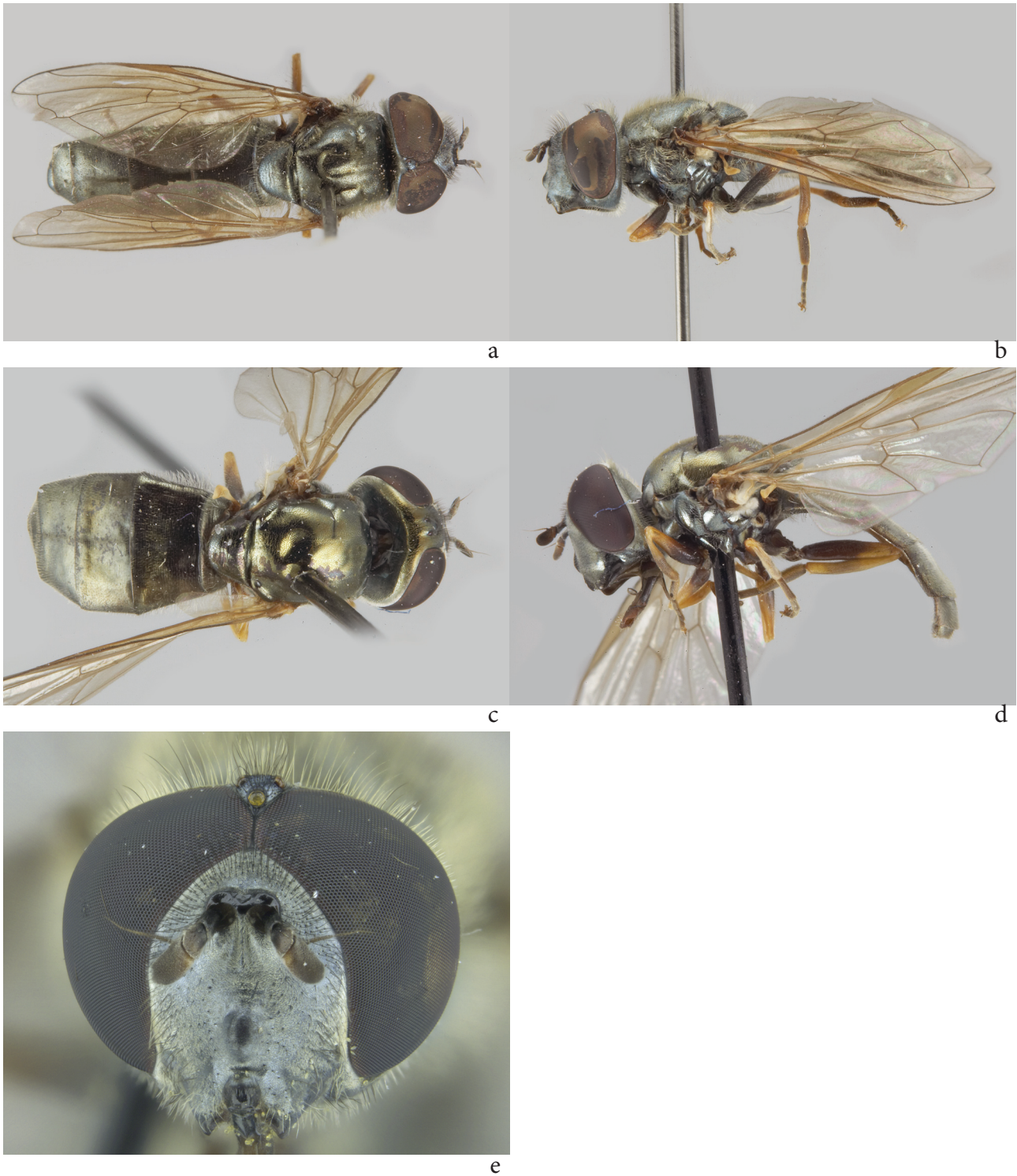


FIGURE 103. *P. striatus* diagnostic characters. **a**: male dorsal habitus, **b**: male lateral habitus, **c**: female dorsal habitus, **d**: female lateral habitus, **e**: male face frontal



FIGURE 104. *P. subordinatus* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal



FIGURE 105. *P. tenebrosus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** male foreleg dorsal, **d:** mid leg lateral



FIGURE 106. *P. thompsoni* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg lateral



FIGURE 107. *P. thylax* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg dorsal



FIGURE 108. *P. trichopus* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral, **e:** foreleg dorsal, **f:** hind leg dorsal

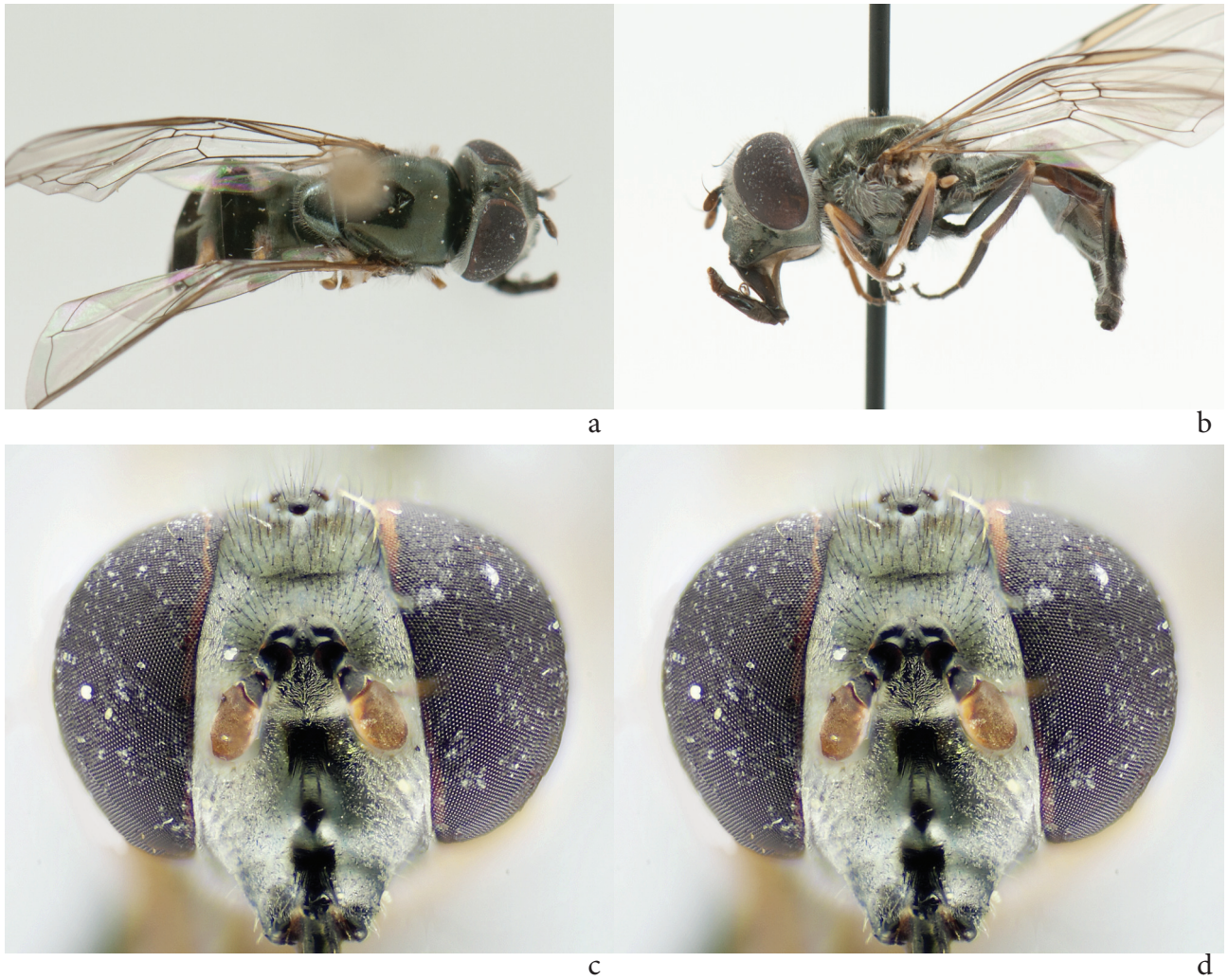


FIGURE 109. *P. trichopus* female diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** face frontal, **d:** head lateral



FIGURE 110. *P. urakawensis* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal, **f:** male mid leg dorsal



FIGURE 111. *P. varipes* diagnostic characters. **a:** male dorsal habitus, **b:** male lateral habitus, **c:** female dorsal habitus, **d:** female lateral habitus, **e:** male foreleg dorsal

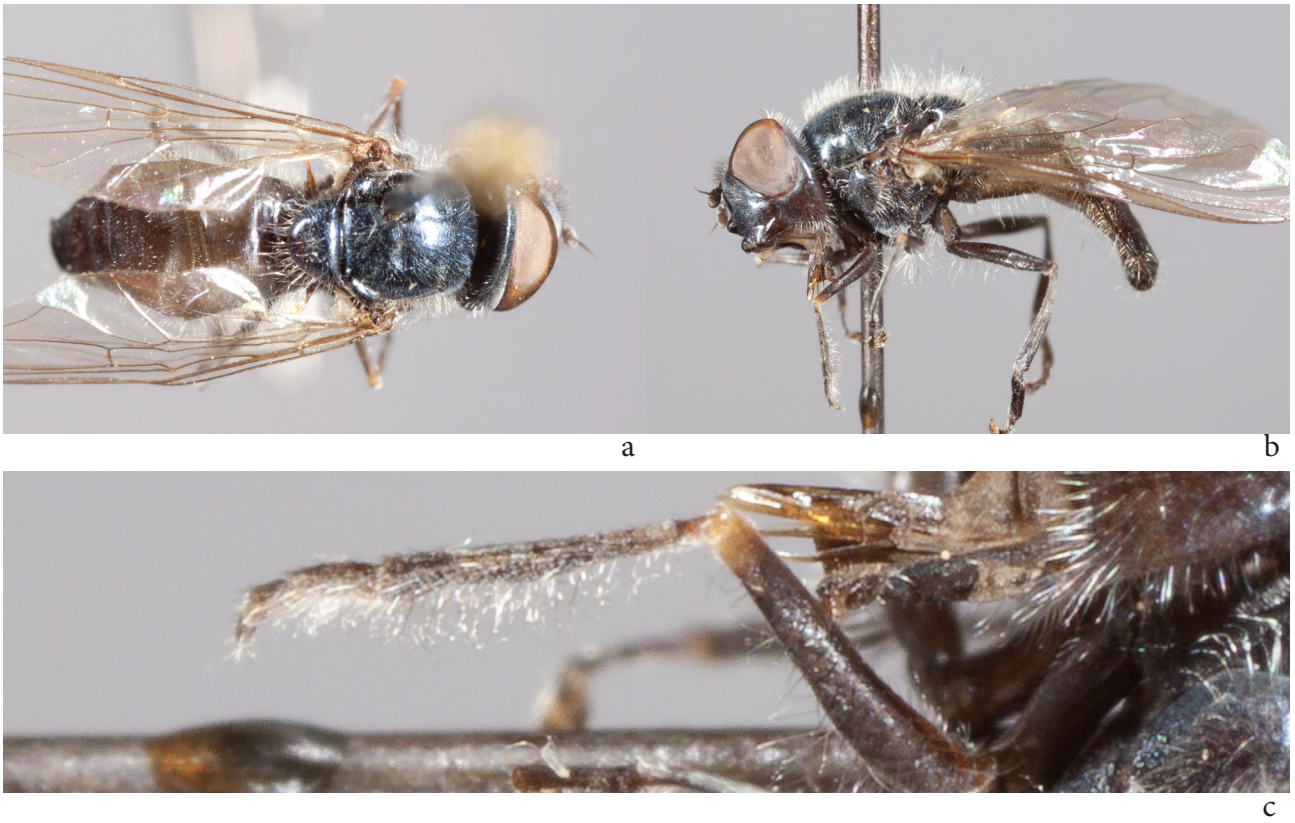


FIGURE 112. *P. woodi* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg lateral



FIGURE 113. *P. yukonensis* male diagnostic characters. **a:** dorsal habitus, **b:** lateral habitus, **c:** foreleg antero-dorsal, **d:** mid leg lateral



FIGURE 114. *granditarsis* group diagnostic characters. **a:** *P. rosarum* male face, **b:** *P. granditarsis* male head lateral, **c:** *P. granditarsis* female frons, **d:** *P. granditarsis* male foreleg dorsal, **e:** *P. granditarsis* male mid leg dorsal.



FIGURE 115. *manicatus* group diagnostic characters. **a:** *P. oreadis* male face, **b:** *P. oreadis* male head lateral, **c:** *P. groenlandicus* female frons, **d:** *P. oreadis* male foreleg dorsal, **e:** *P. flabella* male mid leg dorsal.



FIGURE 116. *peltatus* group diagnostic characters. **a:** *P. nearcticus* male face, **b:** *P. naso* male head lateral, **c:** *P. inversus* female frons, **d:** *P. naso* female head lateral, **e:** *P. nearcticus* female head lateral **f:** *P. naso* male foreleg dorsal, **g:** *P. naso* male mid leg anterolateral.



FIGURE 117. *albimanus* group diagnostic characters. **a:** *P. clypeatus* face, **b:** *P. immarginatus* head lateral, **c:** *P. modestus* female frons, **d:** *P. scambus* female arista, **e:** *P. quadratus* male foreleg dorsal, **f:** *P. immarginatus* female foreleg dorsal, **g:** *P. scambus* female fore femur dorsal



FIGURE 118. *ambiguus* group diagnostic characters. **a:** *P. coerulescens* male face, **b:** *P. kelloggi* male head lateral, **c:** *P. coerulescens* female frons, **d:** *P. coerulescens* male foreleg dorsal, **e:** *P. coerulescens* male mid leg anterolateral.



FIGURE 119. *stegnus* group diagnostic characters. **a:** *P. stegnus* male face, **b:** *P. obscurus* male face, **c:** *P. trichopus* male head lateral, **d:** *P. cofusus* male foreleg dorsal, **e:** *P. cofusus* male mid leg anterolateral.

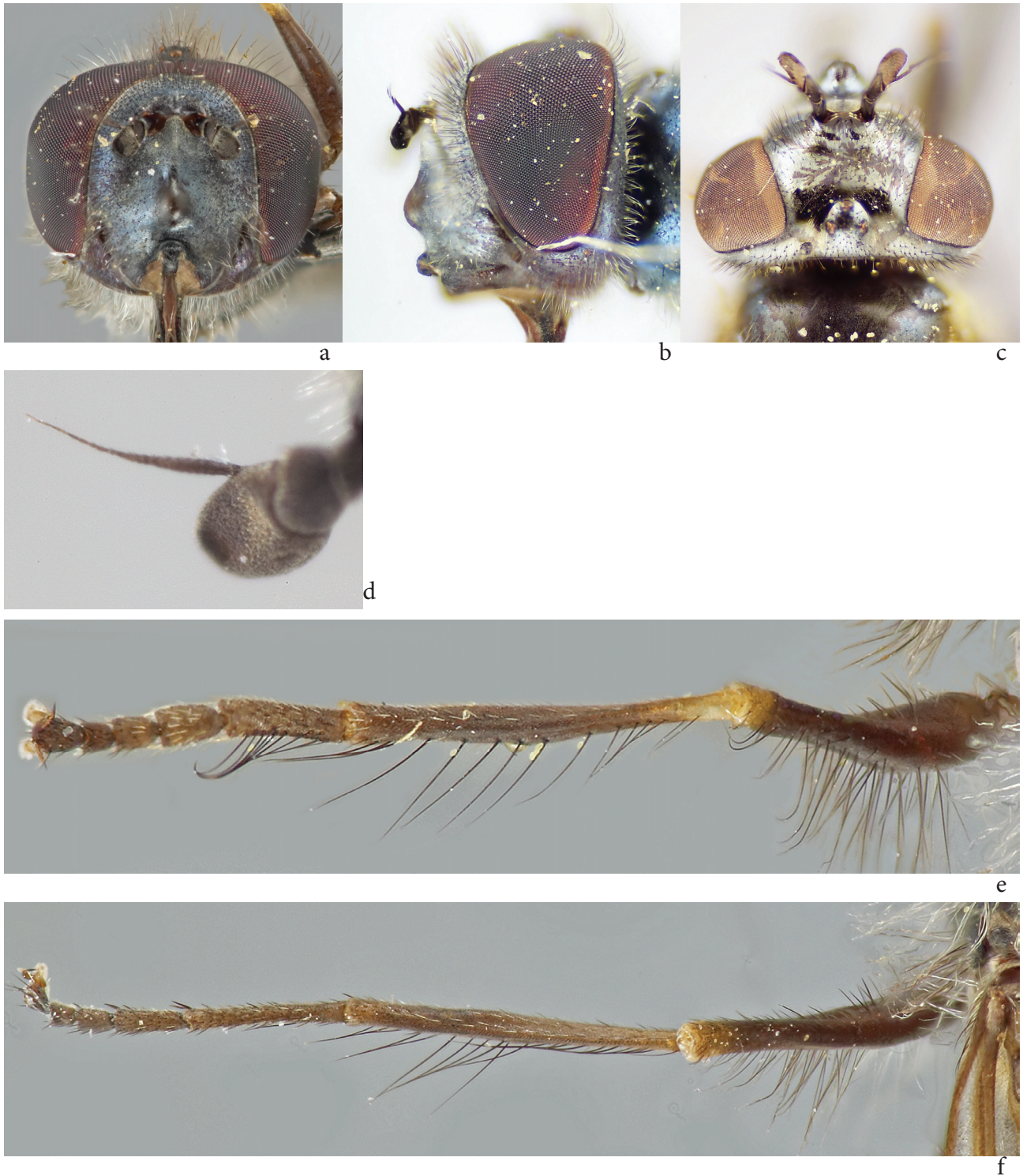


FIGURE 120. *chilosia* group diagnostic characters. **a:** *P. chilosia* male face frontal, **b:** *P. chilosia* male head lateral, **c:** *P. chilosia* female frons dorsal, **d:** *P. alpigenus* female arista, **e:** *P. chilosia* male foreleg dorsal, **f:** *P. chilosia* male mid leg anterolateral.

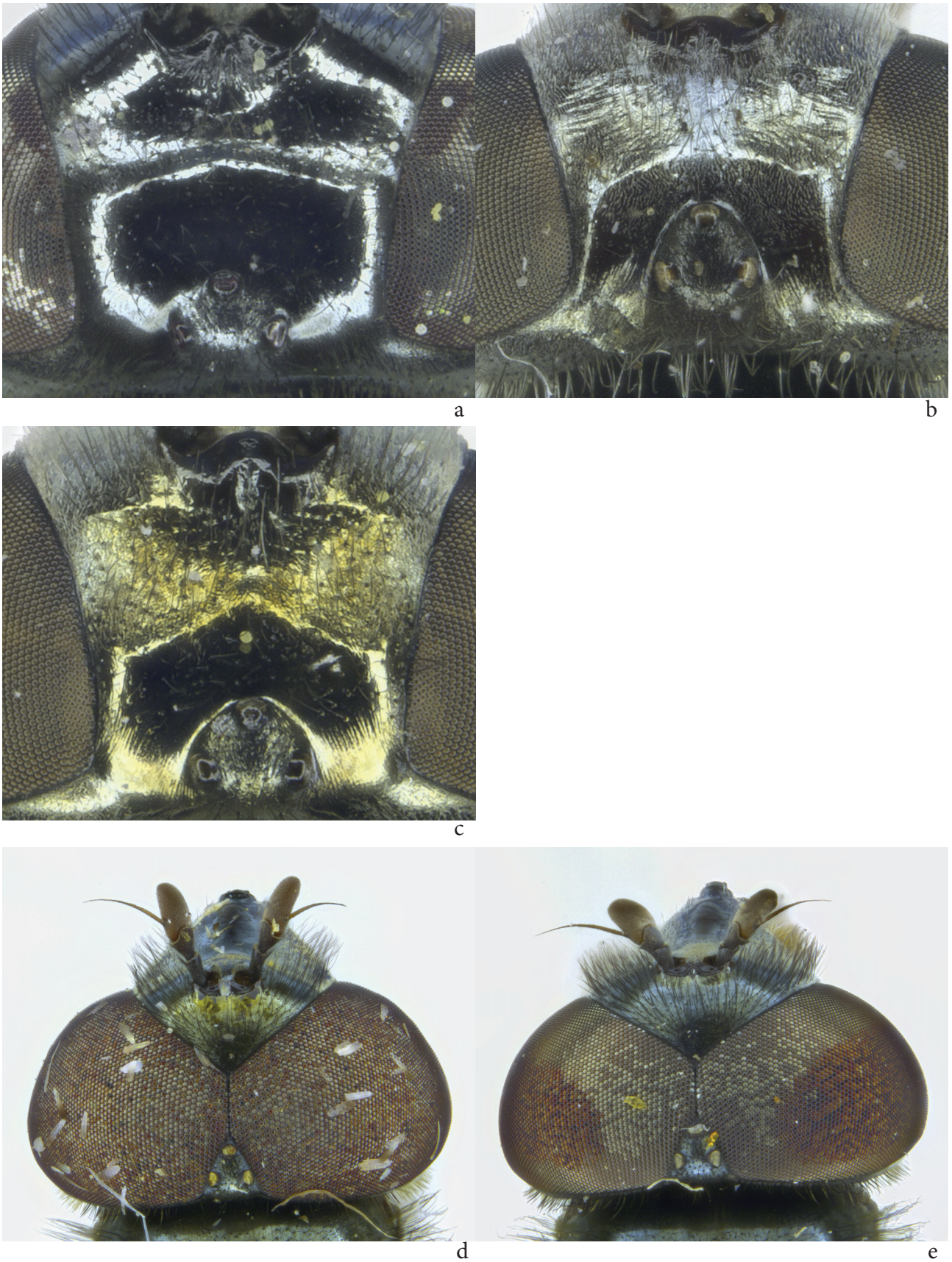


FIGURE 121. *Platycheirus* vertices dorsal. **a:** *P. discimanus* female, **b:** *P. groenlandicus* female, **c:** *P. subordinatus* female, **d:** *P. obscurus* male, **e:** *P. trichopus* male



a



b

FIGURE 122. female *Platycheirus katepisterna*. **a:** *P. pictipes*, **b:** *P. nearcticus*

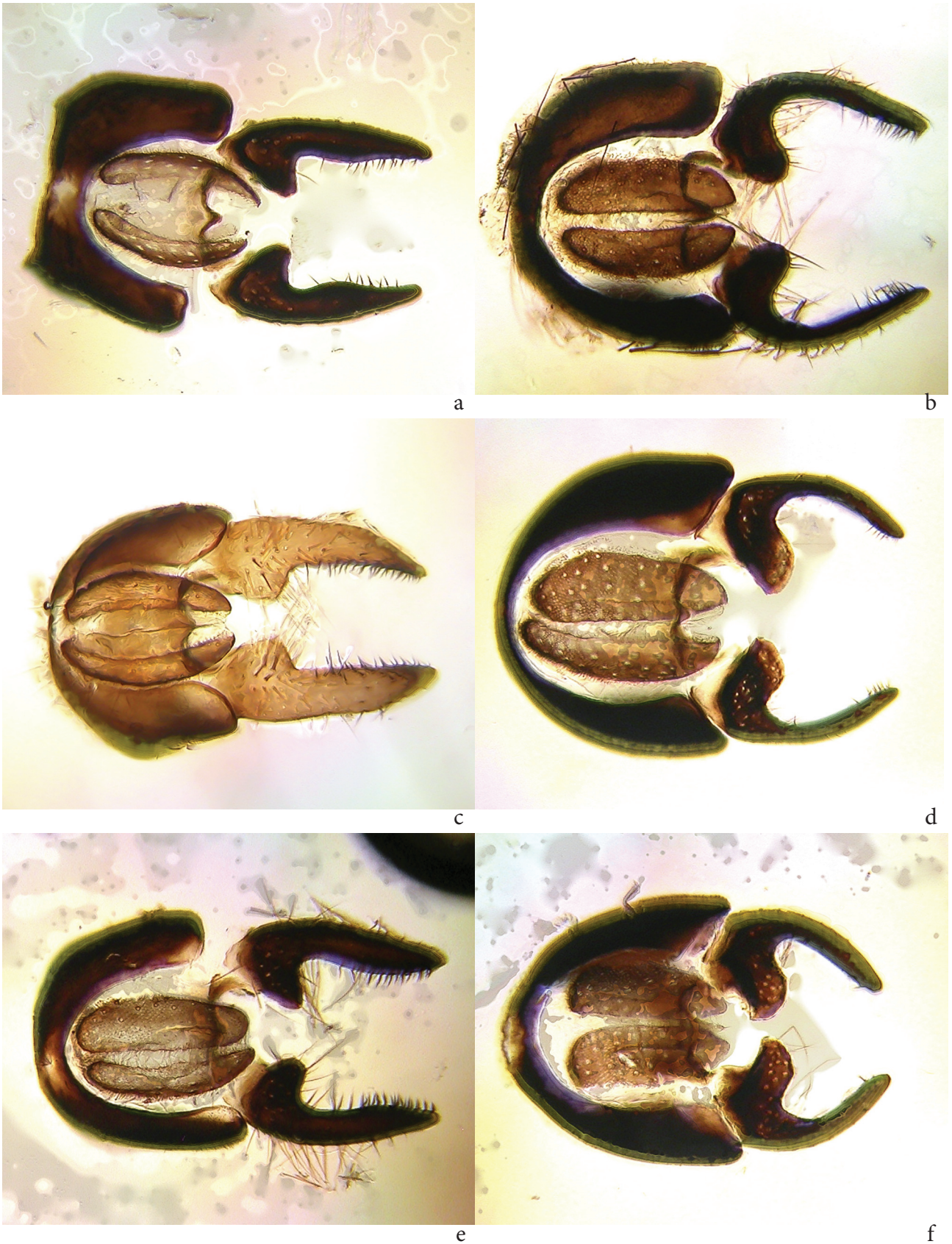
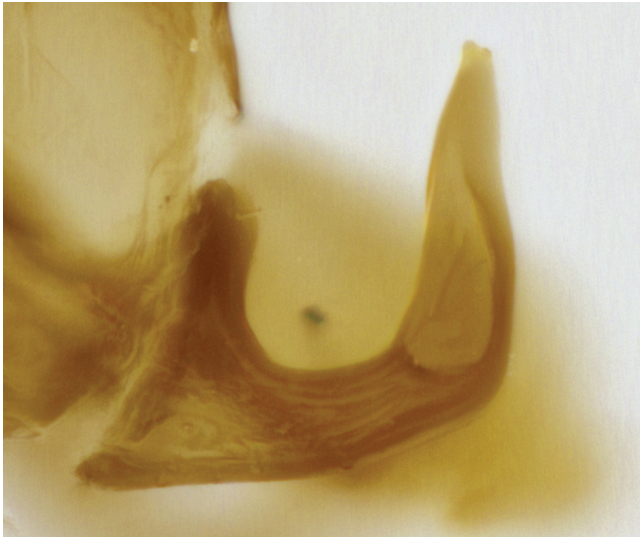
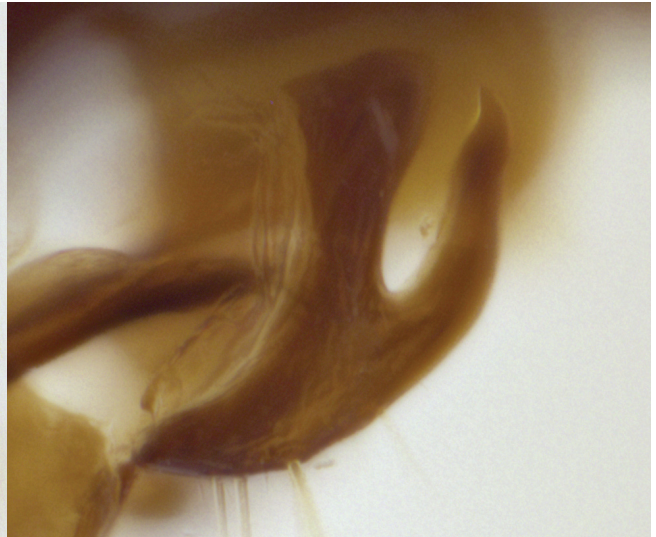


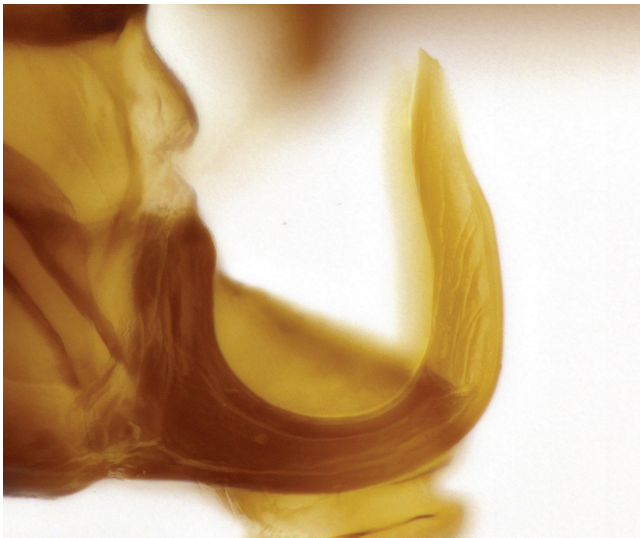
FIGURE 123. *stegnus* group surstyli. **a:** *P. confusus*, **b:** *P. obscurus*, **c:** *P. spinipes*, **d:** *P. stegnus*, **e:** *P. hesperius*, **f:** *P. stegnoides*.



a



b



c

FIGURE 124. *pictipes* group parameres. **a:** *P. luteipennis*, **b:** *P. pictipes*, **c:** *P. striatus*

TABLE 1. List of specimen sequences used for neighbour-joining tree. An asterisk (*) next to the voucher ID # denotes a sequence also used in phylogenetic analyses. All specimen records are available in the public BOLD dataset "DS-PLNWADY—dx.doi.org/10.5883/DS-PLNWADY" or by searching for their BOLD ID in the BOLD Public Data Portal. Specimens with no listed GenBank number were under 200 base pairs.

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus aeratus</i>	adys 0096	DEBU	PLNW212-10	HQ578026	United States	California
<i>Platycheirus aeratus</i>	CNCD24333	CNC	CNCDB3003-11	KF930563	Canada	Yukon Territory
<i>Platycheirus aeratus</i>	CNCD24332	CNC	CNCDB3002-11	KF930564	Canada	Yukon Territory
<i>Platycheirus aeratus</i>	UAM100034769	UAM	PLNW023-10	HQ577881	United States	Alaska
<i>Platycheirus aeratus</i>	UAM100035207*	UAM	PLNW024-10	HQ577882	United States	Alaska
<i>Platycheirus aeratus</i>	CNCD135387	CNC	CNCSY496-12	KT601586	United States	Arkansas
<i>Platycheirus aeratus</i>	adys 0048	CNC	PLNW164-10	HQ577996	United States	Colorado
<i>Platycheirus aeratus</i>	adys 0097	DEBU	PLNW213-10	HQ578027	United States	California
<i>Platycheirus aeratus</i>	CNCD135376	CNC	CNCSY492-12	KT601618	United States	Arkansas
<i>Platycheirus aeratus</i>	CNCD135386	CNC	CNCSY495-12	KT601606	United States	Arkansas
<i>Platycheirus aeratus</i>	CNCD24338	CNC	CNCDB3006-11	KF930565	Canada	Northwest Territories
<i>Platycheirus aeratus</i>	adys 0095	DEBU	PLNW211-10	HQ578025	United States	California
<i>Platycheirus aeratus</i>	CNCD24336	CNC	CNCDB3005-11	KF930566	Canada	Yukon Territory
<i>Platycheirus albimanus</i> 1	CNCD7976	CNC	PLNW409-11	JN285932	Canada	British Columbia
<i>Platycheirus albimanus</i> 1	CNCD1005*	CNC	PLNW387-11	JN285913	United States	Alaska
<i>Platycheirus albimanus</i> 1	debu01048845*	DEBU	PLNW402-11	JN285926	Canada	British Columbia
<i>Platycheirus albimanus</i> 1	debu01048844	DEBU	PLNW401-11	JN285925	Canada	British Columbia
<i>Platycheirus albimanus</i> 1	CNCD24400	CNC	CNCDB3009-11	KF930847	Canada	British Columbia
<i>Platycheirus albimanus</i> 1	CNCD1964	CNC	PLNW386-11	JN285912	United States	Oregon
<i>Platycheirus albimanus</i> 1	CNCD135235	CNC	CNCSY483-12	KT601612	Canada	British Columbia
<i>Platycheirus albimanus</i> 1	debu01047080*	DEBU	PLNW360-10	JF879997	United States	Washington

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus albimanus</i> 2	CNCD162596	CNC	CNCSY009-12	KT601588	Netherlands	Limburg
<i>Platycheirus albimanus</i> 2	adys 0020	CNC	PLNW136-10	KF930849	United States	Colorado
<i>Platycheirus albimanus</i> 2	CNCD162814	CNC	CNCSY227-12	KT601602	United Kingdom	England
<i>Platycheirus albimanus</i> 2	CNCD162594	CNC	CNCSY007-12	KT601594	Switzerland	Valais
<i>Platycheirus albimanus</i> 2	CNCD162593	CNC	CNCSY006-12	KT601607	United Kingdom	England
<i>Platycheirus albimanus</i> 2	CNCD162595	CNC	CNCSY008-12	KT601600	United Kingdom	Scotland
<i>Platycheirus albimanus</i> 2	CNCD105835	CNC	CNCDB3007-11	KF930853	Russia	
<i>Platycheirus albimanus</i> 2	CNCD105836	CNC	CNCDB3008-11	KC900457	Russia	
<i>Platycheirus albimanus</i> 2	CNCD105837	CNC	CNCDB3010-11	KF930850	Germany	
<i>Platycheirus albimanus</i> 2	CNCD105838	CNC	CNCDB3011-11	KF930848	Germany	
<i>Platycheirus albimanus</i> 2	JSS 20412	CNC	SONT081-10	HQ974788	Canada	Quebec
<i>Platycheirus albimanus</i> 2	JSS 20420	CNC	SONT089-10	KF930852	Canada	Quebec
<i>Platycheirus albimanus</i> 2	JSS 20423*	CNC	SONT092-10	KF930851	Canada	Quebec
<i>Platycheirus albimanus</i> 2	CNCD162815	CNC	CNCSY228-12	KT601601	United Kingdom	England
<i>Platycheirus alpigenus</i>	adys 0000*	CNC	PLNW116-10	HQ577954	United States	Colorado
<i>Platycheirus alpigenus</i>	debu00330166	DEBU	PLNW364-10	JF879999	United States	Colorado
<i>Platycheirus amplus</i>	10PROBE-11007	BIOUG	JWDCF752-10	JF875526	Canada	Manitoba
<i>Platycheirus amplus</i>	CNCD163005	CNC	CNCSY439-12	KT601610	Norway	Finnmark
<i>Platycheirus amplus</i>	UAM100034721	UAM	PLNW018-10	HQ577876	United States	Alaska
<i>Platycheirus angostipes</i>	CNCD162616	CNC	CNCSY029-12	KT601622	Switzerland	Valais
<i>Platycheirus angustatus</i>	CNCD162615	CNC	CNCSY028-12	KT601591	Luxembourg	
<i>Platycheirus angustatus</i>	JSS 20410	CNC	SONT079-10	HQ974786	Canada	Quebec

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus angustatus</i>	CNCD24512	CNC	CNCDB3018-11	KF930568	Canada	Alberta
<i>Platycheirus angustatus</i>	debu00330455	DEBU	PLNW370-10	JF880005	Canada	Alberta
<i>Platycheirus angustatus</i>	debu00330482	DEBU	PLNW343-10	JF879980	Canada	Alberta
<i>Platycheirus angustatus</i>	CNCD35138	CNC	CNCDB3017-11	KF930567	Russia	
<i>Platycheirus angustatus</i>	debu00330481	DEBU	PLNW375-10	JF880010	Canada	Alberta
<i>Platycheirus angustatus</i>	debu00330480*	DEBU	PLNW342-10	JF879979	Canada	Alberta
<i>Platycheirus angustatus2</i>	CNCD105839	CNC	CNCDB3015-11	KF930570	Russia	
<i>Platycheirus angustatus2</i>	CNCD35137	CNC	CNCDB3016-11	KF930569	Russia	
<i>Platycheirus angustatus2</i>	CNCD105840*	CNC	CNCDB3019-11	KF930571	Russia	
<i>Platycheirus angustatus3</i>	JSS 20411*	CNC	SONT080-10	HQ974787	Canada	Quebec
<i>Platycheirus angustatus3</i>	adys 0055	CNC	PLNW171-10	HQ578002	United States	Colorado
<i>Platycheirus angustatus4</i>	adys 0152	DEBU	PLNW268-10	HQ578073	Canada	Ontario
<i>Platycheirus angustatus4</i>	debu00330473	DEBU	PLNW376-10	JF880011	Canada	Alberta
<i>Platycheirus angustatus4</i>	debu01046843	DEBU	PLNW301-10	JF879954	Canada	Ontario
<i>Platycheirus angustatus4</i>	CNCD1008	CNC	PLNW390-11	JN285916	United States	Alaska
<i>Platycheirus angustatus4</i>	CNCD891	CNC	PLNW391-11	JN285917	United States	Alaska
<i>Platycheirus angustatus4</i>	CNCD1004*	CNC	PLNW392-11	JN285918	United States	Alaska
<i>Platycheirus angustatus4</i>	debu00316950	DEBU	PLNW456-11	JN285963	Canada	Alberta
<i>Platycheirus angustatus4</i>	adys 0161	DEBU	PLNW277-10	HQ578082	Canada	Ontario
<i>Platycheirus angustatus4</i>	UAM100035284	UAM	PLNW019-10	HQ577877	United States	Alaska
<i>Platycheirus angustatus4</i>	CNCD732	CNC	PLNW394-11	JN285920	United States	Alaska
<i>Platycheirus atlas</i>	CNCD105841*	CNC	CNCDB3020-11	KF930572	Morocco	

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus chilosia</i>	CNCD24719	CNC	CNCDB3021-11	KF930573	Canada	Yukon Territory
<i>Platycheirus ciliatus</i>	adys 0058*	CNC	PLNW174-10	KF919062	United States	Arizona
<i>Platycheirus ciliatus</i>	CNCD105842	CNC	CNCDB3026-11	KF930574	United States	California
<i>Platycheirus clarkei</i>	USNM ENT 00258302	CNC	PNAJS218-09	KF930578	New Zealand	Canterbury
<i>Platycheirus clarkei</i>	USNM ENT 00258303	CNC	PNAJS219-09	KF930577	New Zealand	Canterbury
<i>Platycheirus clypeatus</i>	CNCD9334	CNC	MHSYR291-07	KF930611	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD9460	CNC	MHSYR292-07	KF930604	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD9601	CNC	MHSYR295-07	KF930605	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CHU06-SYR-079	CNC	MHSYR104-07	KF930593	Canada	Manitoba
<i>Platycheirus clypeatus</i>	adys 0079	DEBU	PLNW195-10	HQ578014	Canada	Nova Scotia
<i>Platycheirus clypeatus</i>	CHU06-SYR-084	CNC	MHSYR109-07	KF930583	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-15980	BIOUG	JWDCK025-11	KF930584	Canada	Manitoba
<i>Platycheirus clypeatus</i>	debu00327613	DEBU	PLNW334-10	KF930581	Canada	Ontario
<i>Platycheirus clypeatus</i>	10PROBE-14342	BIOUG	JWDCJ002-11	JF877671	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CHU05-FLY-114	CNC	MHFLI114-06	KF930594	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CHU05-FLY-112	CNC	MHFLI112-06	KF930592	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CHU05-FLY-110	CNC	MHFLI110-06	KF930591	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CHU05-FLY-109	CNC	MHFLI109-06	KF930590	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CHU05-FLY-108	CNC	MHFLI108-06	KF930589	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CHU05-FLY-107	CNC	MHFLI107-06	KF930588	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CHU05-FLY-105	CNC	MHFLI105-06	KF930587	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CHU05-FLY-103	CNC	MHFLI103-06	KF930586	Canada	Manitoba

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus clypeatus</i>	CHU05-FLY-102	CNC	MHFLI102-06	KF930585	Canada	Manitoba
<i>Platycheirus clypeatus</i>	07PROBE-JW0965	BIOUG	JWDCB015-10	HM860984	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-14485	CNC	JWDCJ145-11	JN285902	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CHU05-FLY-106.1	CNC	MHFLI889-09	KF930580	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD9460t2	CNC	PLNW380-10	JF880015	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD162816	CNC	CNCSY229-12	KT601616	United Kingdom	England
<i>Platycheirus clypeatus</i>	PROBE-TW0039	BIOUG	TWDIP039-09	KF930579	Canada	Manitoba
<i>Platycheirus clypeatus</i>	debu00168830	DEBU	PLNW317-10	KF930595	Canada	Quebec
<i>Platycheirus clypeatus</i>	10PROBE-14727	BIOUG	JWDCJ1527-11	JF877744	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-13880	BIOUG	JWDCI585-10	JF877511	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-14112	BIOUG	JWDCI722-11	JN285883	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-12578	BIOUG	JWDCH372-10	JF876683	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-13459	BIOUG	JWDCI164-10	JF877258	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-14152	BIOUG	JWDCI762-11	JN285885	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-14273	BIOUG	JWDCI883-11	JF877608	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-10273	BIOUG	JWDCF018-10	JF874904	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-10474	BIOUG	JWDCF219-10	JF875080	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-10475	BIOUG	JWDCF220-10	KF930601	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-13460	BIOUG	JWDCI165-10	JF877259	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-10834	BIOUG	JWDCF579-10	JF875366	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD11286	CNC	SONA429-09	KF930603	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD11285	CNC	SONA428-09	KF930606	Canada	Manitoba

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus clypeatus</i>	debu00168827	DEBU	PLNW438-11	JN285951	Canada	Quebec
<i>Platycheirus clypeatus</i>	10PROBE-14803	BIOUG	JWDCJ1603-11	JF877799	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-15979	BIOUG	JWDCK024-11	KF930582	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-10473	BIOUG	JWDCF218-10	JF875079	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD162621	CNC	CNCSY034-12	KT601584	Netherlands	Utrecht
<i>Platycheirus clypeatus</i>	10PROBE-15332	BIOUG	JWDCJ897-11	KF930596	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD105844	CNC	CNCDB3028-11	KF930610	Ireland	Kerry
<i>Platycheirus clypeatus</i>	CNCD105845	CNC	CNCDB3029-11	KF930609	Ireland	Kerry
<i>Platycheirus clypeatus</i>	CNCD35153	CNC	CNCDB3030-11	KF930608	Russia	
<i>Platycheirus clypeatus</i>	CNCD105846	CNC	CNCDB3031-11	KF930607	Canada	Nova Scotia
<i>Platycheirus clypeatus</i>	debu00327826	DEBU	PLNW416-11	KF930602	Canada	Ontario
<i>Platycheirus clypeatus</i>	CNCD162622	CNC	CNCSY035-12	KT601605	Netherlands	Zeeland
<i>Platycheirus clypeatus</i>	10PROBE-14486	BIOUG	JWDCJ146-11	JN285903	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD162817	CNC	CNCSY230-12	KT601590	United Kingdom	
<i>Platycheirus clypeatus</i>	07PROBE-04527	BIOUG	LRSYR037-07	KF930612	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD9253*	CNC	MHSYR285-07	KF930598	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD9255	CNC	MHSYR286-07	KF930599	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-10845	BIOUG	JWDCF590-10	JF875376	Canada	Manitoba
<i>Platycheirus clypeatus</i>	CNCD9330	CNC	MHSYR289-07	KF930600	Canada	Manitoba
<i>Platycheirus clypeatus</i>	10PROBE-16642	BIOUG	JWDCL592-11	KF930597	Canada	Manitoba
<i>Platycheirus coerulescens</i> 1	adys 0027	CNC	PLNW143-10	HQ577979	United States	Colorado
<i>Platycheirus coerulescens</i> 1	adys 0039	CNC	PLNW155-10	HQ577989	United States	Colorado

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus coerulescens</i> 1	CHU06-SYR-082	CNC	MHSYR107-07	KF930613	Canada	Manitoba
<i>Platycheirus coerulescens</i> 1	debu00330216	DEBU	PLNW337-10	JF879974	United States	Colorado
<i>Platycheirus coerulescens</i> 1	debu00330232	DEBU	PLNW335-10	JF879972	United States	Colorado
<i>Platycheirus coerulescens</i> 1	adys 0024	CNC	PLNW140-10	HQ577976	United States	Colorado
<i>Platycheirus coerulescens</i> 1	adys 0025	CNC	PLNW141-10	HQ577977	United States	Colorado
<i>Platycheirus coerulescens</i> 1	adys 0023	CNC	PLNW139-10	HQ577975	United States	Colorado
<i>Platycheirus coerulescens</i> 1	debu00330219*	DEBU	PLNW336-10	JF879973	United States	Colorado
<i>Platycheirus coerulescens</i> 1	adys 0026	CNC	PLNW142-10	HQ577978	United States	Colorado
<i>Platycheirus coerulescens</i> 2	JSS 20350	CNC	SONT015-10	KF930614	United States	Oregon
<i>Platycheirus coerulescens</i> 2	JSS 20351	CNC	SONT016-10	HQ974727	United States	Oregon
<i>Platycheirus complicatus</i>	CNCD105847*	CNC	CNCDB3032-11	KF930615	Norway	Sor-Trondelag
<i>Platycheirus complicatus</i>	CNCD162592	CNC	CNCSY005-12	KT601603	Germany	Saxony-Anhalt
<i>Platycheirus confusus</i>	adys 0121	DEBU	PLNW237-10	HQ578044	Canada	Ontario
<i>Platycheirus confusus</i>	debu00212265	DEBU	PLNW323-10	JF879963	Canada	Ontario
<i>Platycheirus confusus</i>	10PROBE-16740	BIOUG	JWDCL405-11	KF930628	Canada	Manitoba
<i>Platycheirus confusus</i>	10PROBE-10118	BIOUG	JWDCE813-10	JF874778	Canada	Manitoba
<i>Platycheirus confusus</i>	adys 0117	DEBU	PLNW233-10	HQ578040	Canada	Ontario
<i>Platycheirus confusus</i>	adys 0111*	DEBU	PLNW227-10	HQ578034	United States	California
<i>Platycheirus confusus</i>	JSS 20417	CNC	SONT086-10	HQ974791	Canada	Quebec
<i>Platycheirus confusus</i>	JSS 20418	CNC	SONT087-10	HQ974792	Canada	Quebec
<i>Platycheirus confusus</i>	adys 0102	DEBU	PLNW218-10	HQ578032	United States	California
<i>Platycheirus confusus</i>	CNCD25175*	CNC	CNCDB3041-11	KC900449	Canada	Ontario

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus confusus</i>	CNCD25173	CNC	CNCDB3042-11	KF930631	Canada	Ontario
<i>Platycheirus confusus</i>	CNCD25167	CNC	CNCDB3043-11	KF930626	Canada	New Brunswick
<i>Platycheirus confusus</i>	CNCD25174	CNC	CNCDB3044-11	KF930630	Canada	Ontario
<i>Platycheirus confusus</i>	CNCD24738	CNC	CNCDB3025-11	KF930627	Canada	British Columbia
<i>Platycheirus confusus</i>	10PROBE-13674	BIOUG	JWDCI284-10	JF877351	Canada	Manitoba
<i>Platycheirus confusus</i>	adys 0118	DEBU	PLNW234-10	HQ578041	Canada	Ontario
<i>Platycheirus confusus</i>	adys 0119	DEBU	PLNW235-10	HQ578042	Canada	Ontario
<i>Platycheirus confusus</i>	adys 0120	DEBU	PLNW236-10	HQ578043	Canada	Ontario
<i>Platycheirus confusus</i>	10PROBE-16741	BIOUG	JWDCL406-11	KF930629	Canada	Manitoba
<i>Platycheirus confusus</i>	10PROBE-15769	BIOUG	JWDCJ1334-11	JN285896	Canada	Manitoba
<i>Platycheirus dexter</i>	CNCD35038	CNC	CNCDB3012-11	KF930632	Russia	
<i>Platycheirus dexter</i>	CNCD35040*	CNC	CNCDB3014-11	KF930633	Russia	
<i>Platycheirus discimanus</i>	CNCD162589	CNC	CNCSY002-12	KT601583	Switzerland	Valais
<i>Platycheirus discimanus</i>	CNCD162588	CNC	CNCSY001-12	KT601611	Switzerland	Valais
<i>Platycheirus discimanus</i>	CNCD105853*	CNC	CNCDB3047-11	KF930635	Netherlands	
<i>Platycheirus discimanus</i>	CNCD105855	CNC	CNCDB3049-11	KF930634	Netherlands	
<i>Platycheirus europaeus</i>	CNCD162699	CNC	CNCSY112-12	N/A	Belgium	Luxembourg
<i>Platycheirus europaeus</i>	CNCD162698	CNC	CNCSY111-12	N/A	Belgium	Luxembourg
<i>Platycheirus fasciculatus</i>	CNCD106396	CNC	CNCDB3698-11	KF930636	Italy	Veneto
<i>Platycheirus fasciculatus</i>	CNCD105856*	CNC	CNCDB3050-11	KF930638	Italy	
<i>Platycheirus fasciculatus</i>	CNCD105857	CNC	CNCDB3051-11	KF930637	Italy	
<i>Platycheirus flabella</i>	UAM100034817	UAM	PLNW020-10	HQ577878	United States	Alaska

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus flabella</i>	10PROBE-15485	BIOUG	JWDCJ1050-11	JN285892	Canada	Manitoba
<i>Platycheirus flabella</i>	CNCD7971	CNC	PLNW395-11	JN285921	Canada	British Columbia
<i>Platycheirus flabella</i>	10PROBE-15481	BIOUG	JWDCJ1046-11	KF930639	Canada	Manitoba
<i>Platycheirus flabella</i>	UAM100034764	UAM	PLNW021-10	HQ577879	United States	Alaska
<i>Platycheirus flabella</i>	UAM100035156*	UAM	PLNW026-10	HQ577884	United States	Alaska
<i>Platycheirus flabella</i>	UAM100035155	UAM	PLNW028-10	HQ577886	United States	Alaska
<i>Platycheirus flabella</i>	10PROBE-13585	BIOUG	JWDCI195-10	JF877276	Canada	Manitoba
<i>Platycheirus flabella</i>	UAM100035148	UAM	PLNW052-10	HQ577907	United States	Alaska
<i>Platycheirus flabella</i>	UAM100035149	UAM	PLNW059-10	HQ577913	United States	Alaska
<i>Platycheirus flabella</i>	10PROBE-13906	BIOUG	JWDCI611-10	JF877533	Canada	Manitoba
<i>Platycheirus flabella</i>	UAM100034656	UAM	PLNW067-10	HQ577921	United States	Alaska
<i>Platycheirus flabella</i>	UAM100034835	UAM	PLNW069-10	HQ577923	United States	Alaska
<i>Platycheirus flabella</i>	UAM100035108	UAM	PLNW070-10	HQ577924	United States	Alaska
<i>Platycheirus flabella</i>	UAM100034716	UAM	PLNW071-10	HQ577925	United States	Alaska
<i>Platycheirus flabella</i>	10PROBE-14419	BIOUG	JWDCJ079-11	JF877726	Canada	Manitoba
<i>Platycheirus fulviventrīs</i>	CNCD105860	CNC	CNCDB3054-11	KF930643	Germany	Schleswig-Holstein
<i>Platycheirus fulviventrīs</i>	CNCD105858*	CNC	CNCDB3052-11	KF930640	Germany	
<i>Platycheirus fulviventrīs</i>	CNCD162608	CNC	CNCSY021-12	KT601609	Netherlands	Zeeland
<i>Platycheirus fulviventrīs</i>	CNCD162609	CNC	CNCSY022-12	KT601593	Netherlands	North Holland
<i>Platycheirus fulviventrīs</i>	CNCD105861	CNC	CNCDB3055-11	KF930642	Germany	Schleswig-Holstein
<i>Platycheirus fulviventrīs</i>	CNCD105862	CNC	CNCDB3056-11	KC900479	Netherlands	
<i>Platycheirus fulviventrīs</i>	CNCD105859	CNC	CNCDB3053-11	KF930641	Netherlands	

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus granditarsis</i>	CNCD25663	CNC	CNCDB3061-11	KF930914	Canada	Ontario
<i>Platycheirus granditarsis</i>	CNCD846	CNC	CNCDB3827-11	KF930910	United States	Alaska
<i>Platycheirus granditarsis</i>	CNCD103085	CNC	CNCDB2242-11	KC900438	Canada	New Brunswick
<i>Platycheirus granditarsis</i>	adys 0057	CNC	PLNW173-10	KF930912	United States	Colorado
<i>Platycheirus granditarsis</i>	adys 0071	CNC	PLNW187-10	KF919079	Canada	Nova Scotia
<i>Platycheirus granditarsis</i>	UAM100042780*	UAM	PLNW077-10	HQ577931	United States	Alaska
<i>Platycheirus granditarsis</i>	adys 0005	CNC	PLNW121-10	HQ577958	United States	California
<i>Platycheirus granditarsis</i>	10PROBE-12231	BIOUG	JWDCG836-10	JF876344	Canada	Manitoba
<i>Platycheirus granditarsis</i>	PROBE-TW0070	BIOUG	TWDIP070-09	KF930644	Canada	Manitoba
<i>Platycheirus granditarsis</i>	CHU05-FLY-256	CNC	MHFLI256-06	KF930915	Canada	Manitoba
<i>Platycheirus granditarsis</i>	07PROBE-04724	BIOUG	LRSYR091-07	KF930913	Canada	Manitoba
<i>Platycheirus granditarsis</i>	adys 0115	DEBU	PLNW231-10	HQ578038	Canada	Ontario
<i>Platycheirus granditarsis</i>	CNCD105864	CNC	CNCDB3058-11	KF930911	Japan	
<i>Platycheirus granditarsis</i>	CHU06-SYR-176	CNC	MHSYR176-07	KF930916	Canada	Manitoba
<i>Platycheirus groenlandicus</i>	CNCD105893	CNC	CNCDB3125-11	KF930649	Norway	
<i>Platycheirus groenlandicus</i>	CNCD105895*	CNC	CNCDB3127-11	KF930645	Norway	
<i>Platycheirus groenlandicus</i>	CNCD25817*	CNC	CNCDB3062-11	KF930647	Canada	Northwest Territories
<i>Platycheirus groenlandicus</i>	CNCD25810	CNC	CNCDB3063-11	KF930646	Canada	Yukon Territory
<i>Platycheirus groenlandicus</i>	CNCD105894	CNC	CNCDB3126-11	KF919065	Norway	
<i>Platycheirus groenlandicus</i>	CNCD105892*	CNC	CNCDB3124-11	KF930648	Norway	
<i>Platycheirus holarcticus</i>	CNCD11238	CNC	SONA415-09	KF930653	Canada	Manitoba
<i>Platycheirus huttoni</i>	USNM ENT 00258199	CNC	PNAJS236-09	KF930672	New Zealand	Canterbury

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus huttoni</i>	USNM ENT 00258197	CNC	PNAJS234-09	KF930670	New Zealand	Canterbury
<i>Platycheirus huttoni</i>	USNM ENT 00258306	CNC	PNAJS222-09	KF930673	New Zealand	Marlborough
<i>Platycheirus huttoni</i>	USNM ENT 00258198	CNC	PNAJS235-09	KF930671	New Zealand	Canterbury
<i>Platycheirus hyperboreus</i>	debu01046850	DEBU	PLNW422-11	JN285941	Canada	Ontario
<i>Platycheirus hyperboreus</i>	CNCD297	CNC	CNCDB3134-11	KF930686	Canada	Ontario
<i>Platycheirus hyperboreus</i>	CNCD26218	CNC	CNCDB3135-11	KF930687	Canada	Ontario
<i>Platycheirus hyperboreus</i>	10PROBE-16135	BIOUG	JWDCK180-11	KF930679	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	10PROBE-16352	BIOUG	JWDCL112-11	KF930678	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	debu00083133	DEBU	PLNW437-11	JN285950	Canada	Ontario
<i>Platycheirus hyperboreus</i>	CNCD320	CNC	CNCDB3136-11	KF930688	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu00080115	DEBU	PLNW434-11	JN285949	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu01123055	DEBU	PLNW433-11	JN285948	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu01131223	DEBU	PLNW432-11	JN285947	Canada	Ontario
<i>Platycheirus hyperboreus</i>	CNCD26022	CNC	CNCDB3137-11	KC900439	Canada	Yukon Territory
<i>Platycheirus hyperboreus</i>	debu01046851	DEBU	PLNW423-11	JN285942	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu01046844	DEBU	PLNW420-11	JN285940	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu01046826	DEBU	PLNW418-11	JN285938	Canada	Ontario
<i>Platycheirus hyperboreus</i>	CNCD 1465	CNC	SONT011-10	HQ974724	United States	Oregon
<i>Platycheirus hyperboreus</i>	JSS 20348	CNC	SONT013-10	HQ974725	United States	Oregon
<i>Platycheirus hyperboreus</i>	debu01047403	DEBU	PLNW474-11	JN285977	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu01047402	DEBU	PLNW473-11	JN285976	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu01047400	DEBU	PLNW471-11	JN285974	Canada	Quebec

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus hyperboreus</i>	debu01124492	DEBU	PLNW467-11	JN285971	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu01047399	DEBU	PLNW466-11	JN285970	Canada	Quebec
<i>Platycheirus hyperboreus</i>	debu01047398	DEBU	PLNW465-11	JN285969	Canada	Quebec
<i>Platycheirus hyperboreus</i>	debu00297337*	DEBU	PLNW457-11	JN285964	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu00304701	DEBU	PLNW452-11	JN285960	United States	Alaska
<i>Platycheirus hyperboreus</i>	10PROBE-09745	BIOUG	JWDCE440-10	JF874513	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	10PROBE-09886	BIOUG	JWDCE581-10	JF874633	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	10PROBE-09887	BIOUG	JWDCE582-10	JF874634	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	10PROBE-09888	BIOUG	JWDCE583-10	JF874635	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	10PROBE-09902	BIOUG	JWDCE597-10	JF874647	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	UAM100015487	UAM	PLNW014-10	HQ577875	United States	Alaska
<i>Platycheirus hyperboreus</i>	adys 0127	DEBU	PLNW243-10	HQ578050	Canada	Ontario
<i>Platycheirus hyperboreus</i>	10PROBE-09940	BIOUG	JWDCE635-10	JF874681	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	UAM100034735	UAM	PLNW025-10	HQ577883	United States	Alaska
<i>Platycheirus hyperboreus</i>	adys 0162	DEBU	PLNW278-10	HQ578083	Canada	Ontario
<i>Platycheirus hyperboreus</i>	adys 0128	DEBU	PLNW244-10	HQ578051	Canada	Ontario
<i>Platycheirus hyperboreus</i>	10PROBE-09941	BIOUG	JWDCE636-10	JF874682	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	10PROBE-09957	BIOUG	JWDCE652-10	JF874696	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	CNCD845	CNC	PLNW393-11	JN285919	United States	Alaska
<i>Platycheirus hyperboreus</i>	adys 0159	DEBU	PLNW275-10	HQ578080	Canada	Ontario
<i>Platycheirus hyperboreus</i>	UAM100034779	UAM	PLNW039-10	HQ577896	United States	Alaska
<i>Platycheirus hyperboreus</i>	10PROBE-12224	BIOUG	JWDCG829-10	JF876338	Canada	Manitoba

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus hyperboreus</i>	debu01046860	DEBU	PLNW310-10	KF930684	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu01046839	DEBU	PLNW297-10	KF930683	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu01046832	DEBU	PLNW295-10	JF879952	Canada	Ontario
<i>Platycheirus hyperboreus</i>	PROBE-TW0034	BIOUG	TWDIP034-09	KF930677	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	PROBE-TW0032	BIOUG	TWDIP032-09	KF930676	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	PROBE-TW0030	BIOUG	TWDIP030-09	KF930675	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	UAM100034779t 2	UAM	PLNW379-10	JF880014	United States	Alaska
<i>Platycheirus hyperboreus</i>	CNCD163011	CNC	CNCSY445-12	KT601596	Greenland	
<i>Platycheirus hyperboreus</i>	09PROBE- JW0954	BIOUG	JWDCD004-10	HM862067	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	PROBE-TW0031	BIOUG	TWDIP031-09	KF930689	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	adys 0158	DEBU	PLNW274-10	HQ578079	Canada	Ontario
<i>Platycheirus hyperboreus</i>	debu00330269	DEBU	PLNW367-10	JF880002	United States	Colorado
<i>Platycheirus hyperboreus</i>	07PROBE-10547	BIOUG	JSFLA012-08	KF930674	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	PROBE-TW0033	BIOUG	TWDIP033-09	KF930690	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	CNCD135372	CNC	CNCSY490-12	KT601604	United States	Arkansas
<i>Platycheirus hyperboreus</i>	CNCD135417	CNC	CNCSY500-12	KT601595	United States	Arkansas
<i>Platycheirus hyperboreus</i>	adys 0059	CNC	PLNW175-10	KF930682	United States	Idaho
<i>Platycheirus hyperboreus</i>	UAM100034663	UAM	PLNW073-10	HQ577927	United States	Alaska
<i>Platycheirus hyperboreus</i>	adys 0053	CNC	PLNW169-10	HQ578001	United States	Montana
<i>Platycheirus hyperboreus</i>	adys 0064	CNC	PLNW180-10	HQ578006	United States	Colorado
<i>Platycheirus hyperboreus</i>	adys 0068	CNC	PLNW184-10	HQ578009	United States	Washington
<i>Platycheirus hyperboreus</i>	UAM100248413	UAM	PLNW083-10	HQ577937	United States	Alaska

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus hyperboreus</i>	10PROBE-14341	BIOUG	JWDCJ001-11	JF877670	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	adys 0031	CNC	PLNW147-10	HQ577982	United States	Colorado
<i>Platycheirus hyperboreus</i>	adys 0030	CNC	PLNW146-10	HQ577981	United States	Colorado
<i>Platycheirus hyperboreus</i>	adys 0029	CNC	PLNW145-10	KF930681	United States	Colorado
<i>Platycheirus hyperboreus</i>	adys 0028	CNC	PLNW144-10	HQ577980	United States	New York
<i>Platycheirus hyperboreus</i>	adys 0125	DEBU	PLNW241-10	HQ578048	Canada	Ontario
<i>Platycheirus hyperboreus</i>	adys 0126	DEBU	PLNW242-10	HQ578049	Canada	Ontario
<i>Platycheirus hyperboreus</i>	CNCD26115	CNC	CNCDB3133-11	KF930685	Canada	British Columbia
<i>Platycheirus hyperboreus</i>	10PROBE-15434	BIOUG	JWDCJ999-11	KF930680	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	10PROBE-15436	BIOUG	JWDCJ1001-11	JN285890	Canada	Manitoba
<i>Platycheirus hyperboreus</i>	debu00083137	DEBU	PLNW442-11	JN285952	Canada	Ontario
<i>Platycheirus hyperboreus</i> dark form	debu00304703*	DEBU	PLNW451-11	JN285959	United States	Alaska
<i>Platycheirus hyperboreus</i> dark form	PROBE-TW0331	BIOUG	TWDIP284-09	HM432968	Canada	Manitoba
<i>Platycheirus hyperboreus</i> dark form	10PROBE-10378	BIOUG	JWDCF123-10	JF875003	Canada	Manitoba
<i>Platycheirus immarginatus</i> 1	UAM100012452	UAM	PLNW013-10	HQ577874	United States	Alaska
<i>Platycheirus immarginatus</i> 1	adys 0133	DEBU	PLNW249-10	HQ578056	Canada	Ontario
<i>Platycheirus immarginatus</i> 1	adys 0008	CNC	PLNW124-10	HQ577961	United States	California
<i>Platycheirus immarginatus</i> 1	adys 0007	CNC	PLNW123-10	HQ577960	United States	California
<i>Platycheirus immarginatus</i> 1	adys 0006	CNC	PLNW122-10	HQ577959	United States	California
<i>Platycheirus immarginatus</i> 1	adys 0009*	CNC	PLNW125-10	HQ577962	United States	Wyoming
<i>Platycheirus immarginatus</i> 2	CNCD105899	CNC	CNCDB3138-11	KF930691	Norway	

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus immarginatus</i> 2	UAM100012451	UAM	PLNW090-10	HQ577943	United States	Alaska
<i>Platycheirus immarginatus</i> 2	adys 0045	CNC	PLNW161-10	HQ577993	United States	Colorado
<i>Platycheirus immarginatus</i> 2	CNCD105900	CNC	CNCDB3139-11	KF930692	Norway	
<i>Platycheirus immarginatus</i> 2	CNCD105903	CNC	CNCDB3142-11	KF930695	Ireland	
<i>Platycheirus immarginatus</i> 2	CNCD162613	CNC	CNCSY026-12	KT601623	Netherlands	Zeeland
<i>Platycheirus immarginatus</i> 2	CNCD105902	CNC	CNCDB3141-11	KF930693	Norway	
<i>Platycheirus immarginatus</i> 2	CNCD105901	CNC	CNCDB3140-11	KF930694	Norway	
<i>Platycheirus immarginatus</i> 2	CNCD162612	CNC	CNCSY025-12	KT601613	Netherlands	Zeeland
<i>Platycheirus immarginatus</i> 2	adys 0047*	CNC	PLNW163-10	HQ577995	United States	Colorado
<i>Platycheirus ingerae</i>	CNCD105904*	CNC	CNCDB3143-11	KF930696	Norway	
<i>Platycheirus inversus</i>	CNCD27047	CNC	CNCDB3147-11	KF930698	Canada	Nova Scotia
<i>Platycheirus inversus</i>	debu00330503	DEBU	PLNW369-10	JF880004	Canada	Ontario
<i>Platycheirus inversus</i>	JSS 20409	CNC	SONT078-10	HQ974785	Canada	Quebec
<i>Platycheirus inversus</i>	JSS 20408	CNC	SONT077-10	HQ974784	Canada	Quebec
<i>Platycheirus inversus</i>	USNM ENT 00257932	CNC	PNAJS260-09	GU708516	United States	New Hampshire
<i>Platycheirus inversus</i>	debu00171631*	DEBU	PLNW325-10	JF879964	Canada	Quebec
<i>Platycheirus inversus</i>	CNCD105906	CNC	CNCDB3146-11	KF930697	United States	New Hampshire
<i>Platycheirus inversus</i>	USNM ENT 00257933	CNC	PNAJS261-09	KF930699	United States	New Hampshire
<i>Platycheirus inversus</i>	adys 0116	DEBU	PLNW232-10	HQ578039	Canada	Ontario
<i>Platycheirus inversus</i>	CNCD27033	CNC	CNCDB3145-11	KF930703	Canada	Ontario
<i>Platycheirus inversus</i>	CNCD105905	CNC	CNCDB3144-11	KF930702	United States	Pennsylvania
<i>Platycheirus inversus</i>	CNCD27046	CNC	CNCDB3148-11	KF930700	Canada	New Brunswick

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus inversus</i>	CNCD103082	CNC	CNCDB2239-11	KF930701	Canada	New Brunswick
<i>Platycheirus jaerensis</i>	JSS 20400	CNC	SONT069-10	HQ974777	Canada	Quebec
<i>Platycheirus jaerensis</i>	USNM ENT 00258280	CNC	PNAJS196-09	KF930704	Norway	Rogaland
<i>Platycheirus jaerensis</i>	JSS 20426	CNC	SONT095-10	HQ974798	Canada	Quebec
<i>Platycheirus jaerensis</i>	JSS 20425	CNC	SONT094-10	HQ974797	Canada	Quebec
<i>Platycheirus jaerensis</i>	10PROBE-10122	BIOUG	JWDCE817-10	JF874781	Canada	Manitoba
<i>Platycheirus jaerensis</i>	CNCD105907*	CNC	CNCDB3149-11	KF919072	Netherlands	North Holland
<i>Platycheirus jakuticus</i>	CNCD105908	CNC	CNCDB3150-11	KF930709	Russia	
<i>Platycheirus jakuticus</i>	CNCD105911	CNC	CNCDB3153-11	KF930705	Russia	
<i>Platycheirus jakuticus</i>	CNCD105909*	CNC	CNCDB3151-11	KF930708	Russia	
<i>Platycheirus jakuticus</i>	CNCD105910	CNC	CNCDB3152-11	KF930707	Russia	
<i>Platycheirus jakuticus</i>	CNCD105912	CNC	CNCDB3154-11	KF930706	Russia	
<i>Platycheirus kelloggi</i>	adys 0032	CNC	PLNW148-10	HQ577983	United States	Colorado
<i>Platycheirus kelloggi</i>	adys 0063	CNC	PLNW179-10	KF930710	United States	Colorado
<i>Platycheirus kelloggi</i>	adys 0033	CNC	PLNW149-10	HQ577984	United States	Colorado
<i>Platycheirus kelloggi</i>	adys 0062	CNC	PLNW178-10	HQ578005	United States	Colorado
<i>Platycheirus kelloggi</i>	adys 0040*	CNC	PLNW156-10	HQ577990	United States	Colorado
<i>Platycheirus kelloggi</i>	adys 0034	CNC	PLNW150-10	HQ577985	United States	Colorado
<i>Platycheirus kittilaensis</i>	CNCD163015	CNC	CNCSY449-12	KT601620	Norway	Finnmark
<i>Platycheirus kittilaensis</i>	CNCD163002	CNC	CNCSY436-12	KT601598	Norway	Finnmark
<i>Platycheirus latimanus</i>	CNCD105913*	CNC	CNCDB3157-11	KF930711	Sweden	
<i>Platycheirus latimanus</i>	CNCD105914	CNC	CNCDB3158-11	KF930712	Sweden	

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus latus</i>	debu01046866	DEBU	PLNW313-10	KF930713	Canada	Yukon Territory
<i>Platycheirus lundbecki</i>	CNCD27078	CNC	CNCDB3160-11	KF930715	Canada	Yukon Territory
<i>Platycheirus lundbecki</i>	CNCD27080*	CNC	CNCDB3162-11	KF930714	Canada	Yukon Territory
<i>Platycheirus lundbecki3</i>	CNCD24725*	CNC	CNCDB3022-11	KF930716	Canada	Northwest Territories
<i>Platycheirus lundbecki2</i>	CNCD27081	CNC	CNCDB3161-11	KF930718	Canada	Yukon Territory
<i>Platycheirus lundbecki2</i>	CNCD27079*	CNC	CNCDB3163-11	KF930717	Canada	Yukon Territory
<i>Platycheirus luteipennis</i>	debu00317031*	DEBU	PLNW320-10	JF879962	Canada	Alberta
<i>Platycheirus manicatus</i>	CNCD105917	CNC	CNCDB3165-11	KF930719	Italy	
<i>Platycheirus manicatus</i>	CNCD162607	CNC	CNCSY020-12	KT601619	Switzerland	
<i>Platycheirus manicatus</i>	USNM ENT 00258284	CNC	PNAJS200-09	KF930721	Germany	Schleswig-Holstein
<i>Platycheirus manicatus</i>	CNCD35787	CNC	CNCDB3167-11	KF930720	Italy	
<i>Platycheirus manicatus</i>	CNCD162606	CNC	CNCSY019-12	KT601608	Switzerland	Valais
<i>Platycheirus manicatus</i>	CNCD162604	CNC	CNCSY017-12	KC900494	Netherlands	South Holland
<i>Platycheirus marokkana</i>	CNCD105922*	CNC	CNCDB3172-11	KF930723	Morocco	
<i>Platycheirus marokkana</i>	CNCD105919	CNC	CNCDB3169-11	KF930722	Morocco	
<i>Platycheirus marokkana</i>	CNCD105923	CNC	CNCDB3173-11	KF930724	Morocco	
<i>Platycheirus marokkana</i>	CNCD105920	CNC	CNCDB3170-11	KF930725	Morocco	
<i>Platycheirus marokkana</i>	CNCD105921	CNC	CNCDB3171-11	KF930726	Morocco	
<i>Platycheirus melanopsis</i>	CNCD105924	CNC	CNCDB3174-11	KF930728	Italy	
<i>Platycheirus melanopsis</i>	USNM ENT 00258287	CNC	PNAJS203-09	HQ969656	Switzerland	Appenzell-Ausser Rhoden
<i>Platycheirus melanopsis</i>	CNCD105925	CNC	CNCDB3175-11	KF930727	Italy	
<i>Platycheirus melanopsis</i>	CNCD105928*	CNC	CNCDB3178-11	KF930729	Switzerland	

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus meyeri</i>	CNCD105933	CNC	CNCDB3183-11	KF930732	Mexico	Mexico State
<i>Platycheirus meyeri</i>	CNCD105929	CNC	CNCDB3179-11	KF930733	Mexico	Mexico State
<i>Platycheirus meyeri</i>	CNCD105931	CNC	CNCDB3181-11	KF930731	Mexico	Oaxaca
<i>Platycheirus meyeri</i>	CNCD105930	CNC	CNCDB3180-11	KF930730	Mexico	Oaxaca
<i>Platycheirus meyeri</i>	CNCD105932	CNC	CNCDB3182-11	KF930734	Mexico	Oaxaca
<i>Platycheirus migriaulii</i>	CNCD105935	CNC	CNCDB3185-11	KF930736	Germany	
<i>Platycheirus migriaulii</i>	CNCD105934*	CNC	CNCDB3184-11	KF930735	Germany	
<i>Platycheirus modestus</i>	CNCD27156	CNC	CNCDB3189-11	KF930737	Canada	Alberta
<i>Platycheirus modestus</i>	CNCD27172	CNC	CNCDB3188-11	KF930741	Canada	British Columbia
<i>Platycheirus modestus</i>	debu00317159	DEBU	PLNW455-11	JN285962	Canada	Alberta
<i>Platycheirus modestus</i>	debu00317160	DEBU	PLNW425-11	JN285943	Canada	Alberta
<i>Platycheirus modestus</i>	CNCD926	CNC	PLNW407-11	JN285930	United States	Alaska
<i>Platycheirus modestus</i>	CNCD927	CNC	PLNW406-11	JN285929	United States	Alaska
<i>Platycheirus modestus</i>	CNCD27171	CNC	CNCDB3186-11	KF930738	Canada	British Columbia
<i>Platycheirus modestus</i>	CNCD928*	CNC	PLNW405-11	JN285928	United States	Alaska
<i>Platycheirus modestus</i>	CNCD27224	CNC	CNCDB3187-11	KF930740	Canada	Ontario
<i>Platycheirus modestus</i>	CNCD27174	CNC	CNCDB3190-11	KF930739	Canada	Yukon Territory
<i>Platycheirus modestus</i>	CNCD893	CNC	PLNW399-11	JN285924	United States	Alaska
<i>Platycheirus naso</i>	UAM100034724	UAM	PLNW062-10	HQ577916	United States	Alaska
<i>Platycheirus naso</i>	CNCD162729	CNC	CNCSY142-12	KT601599	Sweden	Norrbottn
<i>Platycheirus naso</i>	07PROBE-01318	BIOUG	LRSYR005-07	KF930660	Canada	Manitoba
<i>Platycheirus naso</i>	07PROBE-01315	BIOUG	LRSYR002-07	KF930654	Canada	Manitoba

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus naso</i>	07PROBE-01314	BIOUG	LRSYR001-07	KF930651	Canada	Manitoba
<i>Platycheirus naso</i>	07PROBE-04507	BIOUG	LRSYR017-07	KF930650	Canada	Manitoba
<i>Platycheirus naso</i>	07PROBE-04508	BIOUG	LRSYR018-07	KF930665	Canada	Manitoba
<i>Platycheirus naso</i>	07PROBE-04717	BIOUG	LRSYR084-07	KF930668	Canada	Manitoba
<i>Platycheirus naso</i>	07PROBE-04725	BIOUG	LRSYR092-07	KF930667	Canada	Manitoba
<i>Platycheirus naso</i>	CNCD9228	CNC	MHSYR284-07	KF930666	Canada	Manitoba
<i>Platycheirus naso</i>	07PROBE-JW0962	BIOUG	JWDCB012-10	HM860981	Canada	Manitoba
<i>Platycheirus naso</i>	07PROBE-JW0964	BIOUG	JWDCB014-10	HM860983	Canada	Manitoba
<i>Platycheirus naso</i>	07PROBE-JW0487	BIOUG	JWDCA487-10	HM860570	Canada	Manitoba
<i>Platycheirus naso</i>	PROBE-TW0037	BIOUG	TWDIP037-09	KF930663	Canada	Manitoba
<i>Platycheirus naso</i>	CNCD11238	CNC	PLNW404-11	JN285927	Canada	Manitoba
<i>Platycheirus naso</i>	debu00203838	DEBU	PLNW426-11	JN285944	Canada	Ontario
<i>Platycheirus naso</i>	10PROBE-16083	BIOUG	JWDCK128-11	KF930669	Canada	Manitoba
<i>Platycheirus naso</i>	debu00171723	DEBU	PLNW448-11	JN285957	Canada	Quebec
<i>Platycheirus naso</i>	CNCD11256	CNC	SONA419-09	KF930655	Canada	Manitoba
<i>Platycheirus naso</i>	CNCD11258	CNC	SONA420-09	KF930656	Canada	Manitoba
<i>Platycheirus naso</i>	CNCD11259	CNC	SONA421-09	KF930657	Canada	Manitoba
<i>Platycheirus naso</i>	CNCD11260	CNC	SONA422-09	KF930658	Canada	Manitoba
<i>Platycheirus naso</i>	CNCD11261	CNC	SONA423-09	KF930659	Canada	Manitoba
<i>Platycheirus naso</i>	JSS 20407	CNC	SONT076-10	HQ974783	Canada	Quebec
<i>Platycheirus naso</i>	JSS 20406	CNC	SONT075-10	HQ974782	Canada	Quebec
<i>Platycheirus naso</i>	UAM100034783	UAM	PLNW001-10	HQ577865	United States	Alaska

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus naso</i>	UAM100034665	UAM	PLNW002-10	HQ577866	United States	Alaska
<i>Platycheirus naso</i>	UAM100034830	UAM	PLNW003-10	HQ577867	United States	Alaska
<i>Platycheirus naso</i>	UAM100034706	UAM	PLNW004-10	HQ577868	United States	Alaska
<i>Platycheirus naso</i>	UAM100034704	UAM	PLNW027-10	HQ577885	United States	Alaska
<i>Platycheirus naso</i>	UAM100034766	UAM	PLNW037-10	HQ577894	United States	Alaska
<i>Platycheirus naso</i>	UAM100034759	UAM	PLNW047-10	HQ577903	United States	Alaska
<i>Platycheirus naso</i>	UAM100034688	UAM	PLNW050-10	HQ577905	United States	Alaska
<i>Platycheirus naso</i>	UAM100035293	UAM	PLNW053-10	HQ577908	United States	Alaska
<i>Platycheirus naso</i>	UAM100034798	UAM	PLNW061-10	HQ577915	United States	Alaska
<i>Platycheirus naso</i>	UAM100034696	UAM	PLNW063-10	HQ577917	United States	Alaska
<i>Platycheirus naso</i>	UAM100034675*	UAM	PLNW064-10	HQ577918	United States	Alaska
<i>Platycheirus naso</i>	UAM100034785	UAM	PLNW065-10	HQ577919	United States	Alaska
<i>Platycheirus naso</i>	UAM100034690	UAM	PLNW072-10	HQ577926	United States	Alaska
<i>Platycheirus naso</i>	UAM100042125	UAM	PLNW075-10	HQ577929	United States	Alaska
<i>Platycheirus naso</i>	UAM100041990	UAM	PLNW076-10	HQ577930	United States	Alaska
<i>Platycheirus naso</i>	UAM100247991	UAM	PLNW079-10	HQ577933	United States	Alaska
<i>Platycheirus naso</i>	UAM100248408	UAM	PLNW081-10	HQ577935	United States	Alaska
<i>Platycheirus naso</i>	UAM100248457	UAM	PLNW082-10	HQ577936	United States	Alaska
<i>Platycheirus naso</i>	UAM100022700	UAM	PLNW085-10	HQ577939	United States	Alaska
<i>Platycheirus naso</i>	UAM100036348	UAM	PLNW110-10	KF930664	United States	Alaska
<i>Platycheirus naso</i>	adys 0010	CNC	PLNW126-10	HQ577963	United States	Colorado
<i>Platycheirus naso</i>	adys 0011	CNC	PLNW127-10	HQ577964	United States	Colorado

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus naso</i>	adys 0092	DEBU	PLNW208-10	HQ578023	United States	Alaska
<i>Platycheirus naso</i>	10PROBE-14421	BIOUG	JWDCJ081-11	JF877728	Canada	Manitoba
<i>Platycheirus naso</i>	10PROBE-14420	BIOUG	JWDCJ080-11	JF877727	Canada	Manitoba
<i>Platycheirus naso</i>	debu00330265	DEBU	PLNW366-10	JF880001	United States	Colorado
<i>Platycheirus naso</i>	debu00330228	DEBU	PLNW368-10	JF880003	United States	Colorado
<i>Platycheirus naso</i>	10PROBE-14151	BIOUG	JWDCI761-11	JN285884	Canada	Manitoba
<i>Platycheirus naso</i>	10PROBE-14153	BIOUG	JWDCI763-11	JN285886	Canada	Manitoba
<i>Platycheirus naso</i>	10PROBE-14272	BIOUG	JWDCI882-11	JF877607	Canada	Manitoba
<i>Platycheirus naso</i>	10PROBE-13804	BIOUG	JWDCI414-10	KF930652	Canada	Manitoba
<i>Platycheirus naso</i>	10PROBE-09942	BIOUG	JWDCE637-10	JF874683	Canada	Manitoba
<i>Platycheirus naso</i>	10PROBE-10120	BIOUG	JWDCE815-10	JF874779	Canada	Manitoba
<i>Platycheirus naso</i>	debu00174464	DEBU	PLNW453-11	JN285961	Canada	Quebec
<i>Platycheirus naso</i>	debu00174463	DEBU	PLNW458-11	JN285965	Canada	Quebec
<i>Platycheirus naso</i>	debu00174717	DEBU	PLNW469-11	JN285972	Canada	Quebec
<i>Platycheirus naso</i>	debu00183312	DEBU	PLNW470-11	JN285973	Canada	Quebec
<i>Platycheirus naso</i>	CNCD25947	CNC	CNCDB3130-11	KF930661	Canada	Yukon Territory
<i>Platycheirus naso</i>	CNCD25986	CNC	CNCDB3131-11	KF930662	Canada	Alberta
<i>Platycheirus naso</i>	09PROBE-JW0174	BIOUG	JWDCC174-10	HM861389	Canada	Manitoba
<i>Platycheirus naso</i>	10PROBE-14050	BIOUG	JWDCI565-10	JF877493	Canada	Manitoba
<i>Platycheirus nearcticus</i>	adys 0130	DEBU	PLNW246-10	HQ578053	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0131	DEBU	PLNW247-10	HQ578054	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0132	DEBU	PLNW248-10	HQ578055	Canada	Ontario

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus nearcticus</i>	CNCD27337	CNC	CNCDB3194-11	KF930747	Canada	Ontario
<i>Platycheirus nearcticus</i>	10PROBE-14726	BIOUG	JWDCJ1526-11	JF877743	Canada	Manitoba
<i>Platycheirus nearcticus</i>	JSS 20404	CNC	SONT073-10	HQ974781	Canada	Quebec
<i>Platycheirus nearcticus</i>	07PROBE-04524	BIOUG	LRSYR034-07	KF930749	Canada	Manitoba
<i>Platycheirus nearcticus</i>	adys 0094	DEBU	PLNW210-10	HQ578024	United States	North Carolina
<i>Platycheirus nearcticus</i>	JSS 20405	CNC	SONT074-10	KF930745	Canada	Quebec
<i>Platycheirus nearcticus</i>	GUE06-SYR-023	BIOUG	SYRMH023-06	KF930751	Canada	Ontario
<i>Platycheirus nearcticus</i>	debu01046867	DEBU	PLNW314-10	JF879959	Canada	Ontario
<i>Platycheirus nearcticus</i>	CNCD9325	CNC	MHSYR288-07	KF930750	Canada	Manitoba
<i>Platycheirus nearcticus</i>	debu01046574*	DEBU	PLNW447-11	JN285956	Canada	Ontario
<i>Platycheirus nearcticus</i>	debu01046868	DEBU	PLNW315-10	KF930744	Canada	Ontario
<i>Platycheirus nearcticus</i>	10PROBE-16739	BIOUG	JWDCL404-11	KF930742	Canada	Manitoba
<i>Platycheirus nearcticus</i>	debu01047404	DEBU	PLNW475-11	JN285978	Canada	Ontario
<i>Platycheirus nearcticus</i>	debu01047405	DEBU	PLNW411-11	JN285934	Canada	Ontario
<i>Platycheirus nearcticus</i>	JSS 20358	CNC	SONT024-10	HQ974735	United States	North Carolina
<i>Platycheirus nearcticus</i>	07PROBE-JW0484	BIOUG	JWDCA484-10	HM860567	Canada	Manitoba
<i>Platycheirus nearcticus</i>	adys 0113	DEBU	PLNW229-10	HQ578036	United States	Tennessee
<i>Platycheirus nearcticus</i>	adys 0150	DEBU	PLNW266-10	HQ578071	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0149	DEBU	PLNW265-10	HQ578070	Canada	Ontario
<i>Platycheirus nearcticus</i>	CNCD27341	CNC	CNCDB3193-11	KF930743	Canada	Quebec
<i>Platycheirus nearcticus</i>	adys 0148	DEBU	PLNW264-10	HQ578069	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0147	DEBU	PLNW263-10	HQ578068	Canada	Ontario

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus nearcticus</i>	adys 0146	DEBU	PLNW262-10	HQ578067	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0145	DEBU	PLNW261-10	HQ578066	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0144	DEBU	PLNW260-10	HQ578065	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0143	DEBU	PLNW259-10	HQ578064	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0142	DEBU	PLNW258-10	HQ578063	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0141	DEBU	PLNW257-10	HQ578062	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0140	DEBU	PLNW256-10	HQ578061	Canada	Ontario
<i>Platycheirus nearcticus</i>	CNCD27310	CNC	CNCDB3191-11	KC900428	Canada	British Columbia
<i>Platycheirus nearcticus</i>	CNCD27332	CNC	CNCDB3192-11	KF930746	Canada	Ontario
<i>Platycheirus nearcticus</i>	CNCD27328	CNC	CNCDB3195-11	KF930748	Canada	Ontario
<i>Platycheirus nearcticus</i>	adys 0129	DEBU	PLNW245-10	HQ578052	Canada	Ontario
<i>Platycheirus neoperpallidus</i>	10PROBE-14062	BIOUG	JWDCI672-11	JN285879	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-15766	BIOUG	JWDCJ1331-11	JN285893	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-16791	BIOUG	JWDCL456-11	KF930863	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	adys 0041	CNC	PLNW157-10	HQ577991	United States	Colorado
<i>Platycheirus neoperpallidus</i>	10PROBE-16641	BIOUG	JWDCL591-11	KF930865	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	CNCD105980	CNC	CNCDB3298-11	KF930867	Netherlands	
<i>Platycheirus neoperpallidus</i>	CNCD105979	CNC	CNCDB3297-11	KF930866	Ireland	
<i>Platycheirus neoperpallidus</i>	10PROBE-15212	BIOUG	JWDCJ777-11	KF930864	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-14561	BIOUG	JWDCJ221-11	JF877833	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	debu00330267*	DEBU	PLNW347-10	JF879984	United States	Colorado
<i>Platycheirus neoperpallidus</i>	10PROBE-13458	BIOUG	JWDCI163-10	JF877257	Canada	Manitoba

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus neoperpallidus</i>	10PROBE-12603	BIOUG	JWDCH397-10	JF876700	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-14562	BIOUG	JWDCJ222-11	JF877834	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-14206	BIOUG	JWDCI816-11	JN285887	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-13889	BIOUG	JWDCI594-10	JF877518	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-13203	BIOUG	JWDCH003-10	JF876410	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-12590	BIOUG	JWDCH384-10	JF876690	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-14111	BIOUG	JWDCI721-11	JN285882	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-14110	BIOUG	JWDCI720-11	JN285881	Canada	Manitoba
<i>Platycheirus neoperpallidus</i>	10PROBE-14063	BIOUG	JWDCI673-11	JN285880	Canada	Manitoba
<i>Platycheirus nielsenii</i>	07PROBE-JW0961	BIOUG	JWDCB011-10	HM860980	Canada	Manitoba
<i>Platycheirus nielsenii</i>	CNCD27402	CNC	CNCDB3256-11	KF930754	Canada	Yukon Territory
<i>Platycheirus nielsenii</i>	CNCD162591	CNC	CNCSY004-12	KT601614	United Kingdom	Scotland
<i>Platycheirus nielsenii</i>	CNCD27406	CNC	CNCDB3258-11	KF930756	Canada	Yukon Territory
<i>Platycheirus nielsenii</i>	CNCD27400	CNC	CNCDB3257-11	KF930755	Canada	Yukon Territory
<i>Platycheirus nielsenii</i>	CNCD27396	CNC	CNCDB3255-11	KF930752	Canada	Yukon Territory
<i>Platycheirus nielsenii</i>	CNCD27403*	CNC	CNCDB3254-11	KF930753	Canada	Yukon Territory
<i>Platycheirus nigrofemoratus</i>	UAM100034821	UAM	PLNW033-10	HQ577891	United States	Alaska
<i>Platycheirus nigrofemoratus</i>	CNCD27414*	CNC	CNCDB3259-11	KF930757	Canada	Yukon Territory
<i>Platycheirus nigrofemoratus</i>	CNCD105959	CNC	CNCDB3262-11	KF930759	Norway	
<i>Platycheirus nigrofemoratus</i>	CNCD105958	CNC	CNCDB3261-11	KF930758	Sweden	
<i>Platycheirus nodosus</i>	CNCD27457	CNC	CNCDB3265-11	KF930764	Canada	Alberta
<i>Platycheirus nodosus</i>	CNCD27435	CNC	CNCDB3263-11	KF930766	Canada	Yukon Territory

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus nodosus</i>	CNCD9332	CNC	MHSYR290-07	KF930765	Canada	Manitoba
<i>Platycheirus nodosus</i>	debu00330468*	DEBU	PLNW377-10	JF880012	Canada	Alberta
<i>Platycheirus nodosus</i>	debu00330471	DEBU	PLNW378-10	JF880013	Canada	Alberta
<i>Platycheirus nodosus</i>	debu00330485	DEBU	PLNW350-10	JF879987	Canada	Alberta
<i>Platycheirus nodosus</i>	debu00330457	DEBU	PLNW349-10	JF879986	Canada	Alberta
<i>Platycheirus nodosus</i>	debu00330456	DEBU	PLNW348-10	JF879985	Canada	Alberta
<i>Platycheirus nodosus</i>	debu00330474	DEBU	PLNW371-10	JF880006	Canada	Alberta
<i>Platycheirus nodosus</i>	CNCD27448	CNC	CNCDB3266-11	KF930763	Canada	British Columbia
<i>Platycheirus nodosus</i>	CNCD27439	CNC	CNCDB3264-11	KF930761	Canada	Northwest Territories
<i>Platycheirus nodosus</i>	CNCD24731	CNC	CNCDB3023-11	KF930762	Canada	British Columbia
<i>Platycheirus nodosus</i>	10PROBE-14048	BIOUG	JWDCI563-10	JF877491	Canada	Manitoba
<i>Platycheirus normae</i>	debu01126318	DEBU	PLNW321-10	KF930768	Canada	Ontario
<i>Platycheirus normae</i>	adys 0154	DEBU	PLNW270-10	HQ578075	Canada	Ontario
<i>Platycheirus normae</i>	CNCD105960	CNC	CNCDB3267-11	KF930767	United States	Pennsylvania
<i>Platycheirus normae</i>	debu01046858*	DEBU	PLNW308-10	JF879958	Canada	Ontario
<i>Platycheirus normae</i>	debu01047397	DEBU	PLNW463-11	JN285968	Canada	Quebec
<i>Platycheirus notatus</i>	USNM ENT 00258190	CNC	PNAJS227-09	KF930769	New Zealand	
<i>Platycheirus notatus</i>	USNM ENT 00258191	CNC	PNAJS228-09	KF930770	New Zealand	Canterbury
<i>Platycheirus notatus</i>	USNM ENT 00258189*	CNC	PNAJS226-09	HQ969657	New Zealand	
<i>Platycheirus nr. nigrofemoratus</i>	UAM100036335	UAM	PLNW113-10	HQ577951	United States	Alaska
<i>Platycheirus nr. nigrofemoratus</i>	UAM100036315	UAM	PLNW112-10	HQ577950	United States	Alaska

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus</i> <i>nr.</i> <i>nigrofemoratus</i>	adys 0090	DEBU	PLNW206-10	HQ578021	United States	Alaska
<i>Platycheirus</i> <i>nr.</i> <i>nigrofemoratus</i>	UAM100036341	UAM	PLNW111-10	HQ577949	United States	Alaska
<i>Platycheirus</i> <i>nr.</i> <i>nigrofemoratus</i>	UAM100036329	UAM	PLNW109-10	KF930760	United States	Alaska
<i>Platycheirus</i> <i>nr.</i> <i>nigrofemoratus</i>	UAM100035664*	UAM	PLNW092-10	HQ577945	United States	Alaska
<i>Platycheirus</i> <i>nr.</i> <i>nigrofemoratus</i>	UAM100035770	UAM	PLNW091-10	HQ577944	United States	Alaska
<i>Platycheirus</i> <i>nr.</i> <i>nigrofemoratus</i>	UAM100022701	UAM	PLNW084-10	HQ577938	United States	Alaska
<i>Platycheirus</i> <i>obscurus</i>	adys 0104	DEBU	PLNW220-10	HQ578033	United States	North Carolina
<i>Platycheirus</i> <i>obscurus</i>	CNCD11207	CNC	SONA407-09	KF930771	Canada	Ontario
<i>Platycheirus</i> <i>obscurus</i>	JSS 18910	CNC	SONT053-10	HQ974763	United States	Virginia
<i>Platycheirus</i> <i>obscurus</i>	adys 0123	DEBU	PLNW239-10	HQ578046	Canada	Ontario
<i>Platycheirus</i> <i>obscurus</i>	adys 0124	DEBU	PLNW240-10	HQ578047	Canada	Ontario
<i>Platycheirus</i> <i>obscurus</i>	CNCD11206	CNC	SONA406-09	KC900463	Canada	Ontario
<i>Platycheirus</i> <i>obscurus</i>	JSS 20359	CNC	SONT025-10	HQ974736	United States	North Carolina
<i>Platycheirus</i> <i>obscurus</i>	JSS 20360	CNC	SONT026-10	HQ974737	United States	North Carolina
<i>Platycheirus</i> <i>obscurus</i>	JSS 18909	CNC	SONT052-10	HQ974762	United States	Virginia
<i>Platycheirus</i> <i>obscurus</i>	JSS 18901*	CNC	SONT051-10	HQ974761	United States	Virginia
<i>Platycheirus</i> <i>obscurus</i>	adys 0052	CNC	PLNW168-10	HQ578000	United States	New York
<i>Platycheirus</i> <i>obscurus</i>	debu00306168	DEBU	PLNW427-11	JN285945	Canada	Ontario
<i>Platycheirus</i> <i>obscurus</i>	JSS 18939	CNC	SONT055-10	HQ974765	United States	Virginia
<i>Platycheirus</i> <i>obscurus</i>	JSS 18922	CNC	SONT054-10	HQ974764	United States	Virginia

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus obscurus</i>	adys 0061	CNC	PLNW177-10	HQ578004	United States	North Carolina
<i>Platycheirus obscurus</i>	adys 0122	DEBU	PLNW238-10	HQ578045	Canada	Ontario
<i>Platycheirus occultus</i>	CNCD162717	CNC	CNCSY130-12	KT601625	Netherlands	Gelderland
<i>Platycheirus occultus</i>	CNCD162619	CNC	CNCSY032-12	KT601621	Switzerland	
<i>Platycheirus occultus</i>	CNCD162618	CNC	CNCSY031-12	KT601592	Netherlands	South Holland
<i>Platycheirus occultus</i>	CNCD162620	CNC	CNCSY033-12	KT601615	Luxembourg	
<i>Platycheirus octavus</i>	CNCD105962*	CNC	CNCDB3274-11	KF930773	United States	Oregon
<i>Platycheirus octavus</i>	CNCD105961	CNC	CNCDB3273-11	KF930772	United States	Oregon
<i>Platycheirus orarius</i>	adys 0077*	DEBU	PLNW193-10	HQ578012	Canada	Nova Scotia
<i>Platycheirus orarius</i>	CNCD105964	CNC	CNCDB3279-11	KF930778	United States	New Hampshire
<i>Platycheirus orarius</i>	CNCD105963	CNC	CNCDB3275-11	KF930775	United States	New Hampshire
<i>Platycheirus orarius</i>	adys 0078	DEBU	PLNW194-10	HQ578013	Canada	Nova Scotia
<i>Platycheirus orarius</i>	debu00168822	DEBU	PLNW464-11	KF930774	Canada	Quebec
<i>Platycheirus orarius</i>	adys 0080	DEBU	PLNW196-10	HQ578015	Canada	Nova Scotia
<i>Platycheirus orarius</i>	adys 0081	DEBU	PLNW197-10	HQ578016	Canada	Nova Scotia
<i>Platycheirus orarius</i>	CNCD27996	CNC	CNCDB3278-11	KF930777	Canada	Nova Scotia
<i>Platycheirus orarius</i>	CNCD27985	CNC	CNCDB3276-11	KF930776	Canada	New Brunswick
<i>Platycheirus oreadis</i>	debu01047079	DEBU	PLNW344-10	JF879981	United States	Colorado
<i>Platycheirus oreadis</i>	debu00330282*	DEBU	PLNW345-10	JF879982	United States	Colorado
<i>Platycheirus parmatus</i>	debu00330230	DEBU	PLNW354-10	JF879991	United States	Colorado
<i>Platycheirus parmatus</i>	USNM ENT 00258289	CNC	PNAJS205-09	KF930783	Norway	Hordaland
<i>Platycheirus parmatus</i>	debu00330229	DEBU	PLNW353-10	JF879990	United States	Colorado

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus parmatius</i>	debu00330221*	DEBU	PLNW352-10	JF879989	United States	Colorado
<i>Platycheirus parmatius</i>	CNCD105969	CNC	CNCDB3284-11	KF930782	Russia	
<i>Platycheirus parmatius</i>	UAM100034804	UAM	PLNW036-10	HQ577893	United States	Alaska
<i>Platycheirus parmatius</i>	CNCD105968	CNC	CNCDB3283-11	KF930781	Russia	
<i>Platycheirus parmatius</i>	CNCD105967	CNC	CNCDB3282-11	KF930780	Germany	Baden-Wuerttemberg
<i>Platycheirus parmatius</i>	UAM100034774	UAM	PLNW038-10	HQ577895	United States	Alaska
<i>Platycheirus parmatius</i>	CNCD105965	CNC	CNCDB3280-11	KF930779	Germany	Baden-Wuerttemberg
<i>Platycheirus peltatoides</i>	USNM ENT 00257940	CNC	PNAJS268-09	KF930785	Canada	British Columbia
<i>Platycheirus peltatoides</i>	UAM100035237	UAM	PLNW008-10	HQ577869	United States	Alaska
<i>Platycheirus peltatoides</i>	UAM100034705	UAM	PLNW074-10	HQ577928	United States	Alaska
<i>Platycheirus peltatoides</i>	CNCD28026	CNC	CNCDB3285-11	KF930784	Canada	Alberta
<i>Platycheirus peltatoides</i>	CNCD1007	CNC	PLNW389-11	JN285915	United States	Alaska
<i>Platycheirus peltatoides</i>	CNCD7962	CNC	PLNW396-11	JN285922	Canada	British Columbia
<i>Platycheirus peltatoides</i>	CNCD7975*	CNC	PLNW388-11	JN285914	Canada	British Columbia
<i>Platycheirus peltatoides</i>	UAM100034749	UAM	PLNW066-10	HQ577920	United States	Alaska
<i>Platycheirus peltatoides</i>	debu00330417	DEBU	PLNW362-10	JF879998	United States	Washington
<i>Platycheirus peltatus</i>	CNCD105971	CNC	CNCDB3288-11	KF930788	Russia	
<i>Platycheirus peltatus</i>	CNCD162597	CNC	CNCSY010-12	KT601585	Netherlands	Limburg
<i>Platycheirus peltatus</i>	CNCD105970	CNC	CNCDB3287-11	KF930786	Russia	
<i>Platycheirus peltatus</i>	CNCD105972	CNC	CNCDB3289-11	KF930787	Russia	
<i>Platycheirus peltatus</i>	CNCD35821	CNC	CNCDB3291-11	KC900436	Russia	
<i>Platycheirus pennipes</i>	CNCD105977*	CNC	CNCDB3295-11	KF930791	Russia	

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus pennipes</i>	CNCD105976	CNC	CNCDB3294-11	KF930790	Russia	
<i>Platycheirus pennipes</i>	CNCD105978	CNC	CNCDB3296-11	KF930792	Russia	
<i>Platycheirus pennipes</i>	CNCD105975	CNC	CNCDB3293-11	KF930789	Russia	
<i>Platycheirus perpallidus</i>	adys 0037*	CNC	PLNW153-10	HQ577987	United States	Colorado
<i>Platycheirus perpallidus</i>	adys 0035	CNC	PLNW151-10	HQ577986	United States	Colorado
<i>Platycheirus perpallidus</i>	CNCD28131	CNC	CNCDB3299-11	KF930862	Canada	Alberta
<i>Platycheirus perpallidus</i>	adys 0042	CNC	PLNW158-10	HQ577992	United States	Colorado
<i>Platycheirus perpallidus</i>	adys 0036	CNC	PLNW152-10	KF930861	United States	Colorado
<i>Platycheirus perpallidus</i>	JSS 20422	CNC	SONT091-10	HQ974795	Canada	Quebec
<i>Platycheirus perpallidus</i>	adys 0038	CNC	PLNW154-10	HQ577988	United States	Colorado
<i>Platycheirus pictipes</i>	JSS 20341*	CNC	SONT002-10	HQ974715	United States	Oregon
<i>Platycheirus pictipes</i>	adys 0114	DEBU	PLNW230-10	HQ578037	United States	Tennessee
<i>Platycheirus pictipes</i>	JSS 20414	CNC	SONT083-10	HQ974790	Canada	Quebec
<i>Platycheirus pictipes</i>	adys 0022	CNC	PLNW138-10	HQ577974	United States	Colorado
<i>Platycheirus pictipes</i>	adys 0169*	DEBU	PLNW285-10	HQ578090	United States	Colorado
<i>Platycheirus pictipes</i>	debu00330330	DEBU	PLNW341-10	JF879978	United States	Utah
<i>Platycheirus pictipes</i>	JSS 20342	CNC	SONT003-10	HQ974716	United States	Oregon
<i>Platycheirus pictipes</i>	CNCD1599	CNC	PLNW460-11	JN285967	United States	Oregon
<i>Platycheirus pictipes</i>	debu00330329	DEBU	PLNW340-10	JF879977	United States	Utah
<i>Platycheirus pictipes</i>	debu00330328	DEBU	PLNW339-10	JF879976	United States	Utah
<i>Platycheirus pictipes</i>	JSS 20416	CNC	SONT085-10	KF930625	Canada	Quebec
<i>Platycheirus pictipes</i>	debu00212020	DEBU	PLNW330-10	JF879969	Canada	Ontario

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus pictipes</i>	CNCD25146	CNC	CNCDB3036-11	KF930622	Canada	Yukon Territory
<i>Platycheirus pictipes</i>	adys 0021	CNC	PLNW137-10	HQ577973	United States	Colorado
<i>Platycheirus pictipes</i>	JSS 20352	CNC	SONT017-10	HQ974728	United States	Oregon
<i>Platycheirus pictipes</i>	CNCD25144	CNC	CNCDB3037-11	KF930620	Canada	Yukon Territory
<i>Platycheirus pictipes</i>	CNCD9496	CNC	MHSYR294-07	KF930616	Canada	Manitoba
<i>Platycheirus pictipes</i>	CNCD72490	CNC	CNCDB2931-11	KF930618	United States	California
<i>Platycheirus pictipes</i>	CNCD25147	CNC	CNCDB3038-11	KF930619	Canada	Yukon Territory
<i>Platycheirus pictipes</i>	CNCD72505*	CNC	CNCDB2932-11	KF930624	United States	California
<i>Platycheirus pictipes</i>	CNCD25152	CNC	CNCDB3039-11	KF930617	Canada	British Columbia
<i>Platycheirus pictipes</i>	debu01046824	DEBU	PLNW288-10	JF879950	Canada	British Columbia
<i>Platycheirus pictipes</i>	CNCD25160	CNC	CNCDB3035-11	KF930623	Canada	Alberta
<i>Platycheirus pictipes</i>	JSS 20347	CNC	SONT012-10	KF930621	United States	Oregon
<i>Platycheirus pictipes</i>	CNCD9493	CNC	MHSYR293-07	KF919066	Canada	Manitoba
<i>Platycheirus pilatus</i>	CNCD105981	CNC	CNCDB3300-11	KF930793	Canada	Yukon Territory
<i>Platycheirus pilatus</i>	debu00330266*	DEBU	PLNW346-10	JF879983	United States	Colorado
<i>Platycheirus pilatus</i>	10PROBE-14484	BIOUG	JWDCJ144-11	JN285901	Canada	Manitoba
<i>Platycheirus podagratus</i>	UAM100034836*	UAM	PLNW031-10	HQ577889	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100036717	UAM	PLNW115-10	HQ577953	United States	Alaska
<i>Platycheirus podagratus</i>	CNCD105982	CNC	CNCDB3301-11	KF930794	Russia	
<i>Platycheirus podagratus</i>	CNCD105984	CNC	CNCDB3303-11	KF930795	United States	Maine
<i>Platycheirus podagratus</i>	UAM100034731	UAM	PLNW046-10	KF930797	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034691	UAM	PLNW048-10	HQ577904	United States	Alaska

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus podagratus</i>	UAM100034823	UAM	PLNW043-10	HQ577900	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034767	UAM	PLNW042-10	HQ577899	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034723	UAM	PLNW049-10	KF930796	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034713	UAM	PLNW041-10	HQ577898	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034775	UAM	PLNW040-10	HQ577897	United States	Alaska
<i>Platycheirus podagratus</i>	JSS 20401	CNC	SONT070-10	HQ974778	Canada	Quebec
<i>Platycheirus podagratus</i>	UAM100034712	UAM	PLNW035-10	KF930798	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034736	UAM	PLNW051-10	HQ577906	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100035320	UAM	PLNW054-10	HQ577909	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034744	UAM	PLNW056-10	HQ577910	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034800	UAM	PLNW034-10	HQ577892	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034700	UAM	PLNW057-10	HQ577911	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100035098	UAM	PLNW058-10	HQ577912	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034710	UAM	PLNW032-10	HQ577890	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100035310	UAM	PLNW030-10	HQ577888	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100035433	UAM	PLNW060-10	HQ577914	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100035432	UAM	PLNW029-10	HQ577887	United States	Alaska
<i>Platycheirus podagratus</i>	07PROBE-JW0958	BIOUG	JWDCB008-10	HM860977	Canada	Manitoba
<i>Platycheirus podagratus</i>	UAM100034722	UAM	PLNW012-10	HQ577873	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034789	UAM	PLNW011-10	HQ577872	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034807	UAM	PLNW010-10	HQ577871	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034714	UAM	PLNW009-10	HQ577870	United States	Alaska

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus podagratus</i>	CNCD162614	CNC	CNCSY027-12	KF919055	Switzerland	Valais
<i>Platycheirus podagratus</i>	UAM100034825	UAM	PLNW068-10	HQ577922	United States	Alaska
<i>Platycheirus podagratus</i>	debu00171635	DEBU	PLNW449-11	JN285958	Canada	Quebec
<i>Platycheirus podagratus</i>	adys 0019	CNC	PLNW135-10	HQ577972	United States	Colorado
<i>Platycheirus podagratus</i>	UAM100034930	UAM	PLNW114-10	HQ577952	United States	Alaska
<i>Platycheirus podagratus</i>	UAM100034737*	UAM	PLNW044-10	HQ577901	United States	Alaska
<i>Platycheirus pullatus</i>	CNCD28200	CNC	CNCDB3304-11	KF930801	Canada	Yukon Territory
<i>Platycheirus pullatus</i>	CNCD28198	CNC	CNCDB3308-11	KF930802	Canada	Yukon Territory
<i>Platycheirus pullatus</i>	CNCD28196	CNC	CNCDB3307-11	KF930803	Canada	Northwest Territories
<i>Platycheirus pullatus</i>	debu00330208	DEBU	PLNW355-10	JF879992	United States	Colorado
<i>Platycheirus pullatus</i>	CNCD28197	CNC	CNCDB3306-11	KF930799	Canada	Northwest Territories
<i>Platycheirus pullatus</i>	CNCD28199	CNC	CNCDB3305-11	KF930800	Canada	Yukon Territory
<i>Platycheirus punctulata</i> grp.	CNCD105985	CNC	CNCDB3309-11	KF930806	Ecuador	Napo
<i>Platycheirus punctulata</i> grp.	JSS 20366	CNC	SONT035-10	HQ974746	Argentina	Salta
<i>Platycheirus punctulata</i> grp.	JSS 20368	CNC	SONT037-10	KF930804	Argentina	Tucuman
<i>Platycheirus punctulata</i> grp.	JSS 20367	CNC	SONT036-10	HQ974747	Argentina	Salta
<i>Platycheirus punctulata</i> grp.	JSS 20365	CNC	SONT034-10	HQ974745	Chile	
<i>Platycheirus punctulata</i> grp.	JSS 20362	CNC	SONT031-10	HQ974742	Chile	
<i>Platycheirus punctulata</i> grp.	JSS 20361	CNC	SONT030-10	HQ974741	Chile	
<i>Platycheirus punctulata</i> grp.	JSS 20354	CNC	SONT020-10	HQ974731	Argentina	La Rioja
<i>Platycheirus punctulata</i> grp.	JSS 20363	CNC	SONT032-10	HQ974743	Chile	
<i>Platycheirus punctulata</i> grp.	JSS 17477	CNC	SONT027-10	HQ974738	Ecuador	

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus punctulata</i> grp.	CNCD105989	CNC	CNCDB3313-11	KF930807	Ecuador	Pichincha
<i>Platycheirus punctulata</i> grp.	JSS 20364	CNC	SONT033-10	HQ974744	Chile	
<i>Platycheirus punctulata</i> grp.	CNCD105987*	CNC	CNCDB3311-11	KF930805	Ecuador	Pichincha
<i>Platycheirus quadratus</i>	adys 0046	CNC	PLNW162-10	HQ577994	United States	Colorado
<i>Platycheirus quadratus</i>	adys 0165	DEBU	PLNW281-10	HQ578086	Canada	Ontario
<i>Platycheirus quadratus</i>	USNM ENT 00257970	CNC	PNAJS281-09	KF930812	United States	Maryland
<i>Platycheirus quadratus</i>	debu01124792	DEBU	PLNW326-10	JF879965	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01124793	DEBU	PLNW327-10	JF879966	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01122510	DEBU	PLNW328-10	JF879967	Canada	Ontario
<i>Platycheirus quadratus</i>	debu00327773	DEBU	PLNW331-10	JF879970	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01132296	DEBU	PLNW332-10	JF879971	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01046859	DEBU	PLNW309-10	KF930810	Canada	Ontario
<i>Platycheirus quadratus</i>	debu00330479	DEBU	PLNW374-10	JF880009	Canada	Alberta
<i>Platycheirus quadratus</i>	CHU05-FLY-104	CNC	MHFLI104-06	KF930809	Canada	Manitoba
<i>Platycheirus quadratus</i>	debu00330475	DEBU	PLNW372-10	JF880007	Canada	Alberta
<i>Platycheirus quadratus</i>	JSS 18578	CNC	SONT050-10	HQ974760	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01046833	DEBU	PLNW296-10	JF879953	Canada	Ontario
<i>Platycheirus quadratus</i>	debu00074554	DEBU	PLNW459-11	JN285966	Canada	Ontario
<i>Platycheirus quadratus</i>	adys 0072*	CNC	PLNW188-10	KF930818	Canada	Nova Scotia
<i>Platycheirus quadratus</i>	debu01046829	DEBU	PLNW292-10	KF930811	Canada	Ontario
<i>Platycheirus quadratus</i>	debu00168824	DEBU	PLNW333-10	KF930808	Canada	Quebec
<i>Platycheirus quadratus</i>	CHU06-SYR-219	CNC	MHSYR219-07	KF930819	Canada	Manitoba

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus quadratus</i>	debu01046848	DEBU	PLNW304-10	JF879956	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01046827	DEBU	PLNW290-10	JF879951	Canada	Ontario
<i>Platycheirus quadratus</i>	adys 0049	CNC	PLNW165-10	HQ577997	United States	Colorado
<i>Platycheirus quadratus</i>	adys 0001	CNC	PLNW117-10	HQ577955	United States	New York
<i>Platycheirus quadratus</i>	adys 0044	CNC	PLNW160-10	KF930816	United States	Colorado
<i>Platycheirus quadratus</i>	debu01046845	DEBU	PLNW302-10	JF879955	Canada	Ontario
<i>Platycheirus quadratus</i>	CNCD298	CNC	CNCDB3317-11	KF930813	Canada	Ontario
<i>Platycheirus quadratus</i>	CNCD28284	CNC	CNCDB3318-11	KF930814	Canada	Ontario
<i>Platycheirus quadratus</i>	adys 0056	CNC	PLNW172-10	KF930817	United States	Nebraska
<i>Platycheirus quadratus</i>	adys 0043	CNC	PLNW159-10	KF930815	United States	Colorado
<i>Platycheirus quadratus</i>	JSS 20353	CNC	SONT019-10	HQ974730	United States	Alaska
<i>Platycheirus quadratus</i>	adys 0153	DEBU	PLNW269-10	HQ578074	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01046834	DEBU	PLNW419-11	JN285939	Canada	Ontario
<i>Platycheirus quadratus</i>	adys 0155	DEBU	PLNW271-10	HQ578076	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01046862	DEBU	PLNW431-11	JN285946	Canada	Ontario
<i>Platycheirus quadratus</i>	adys 0156	DEBU	PLNW272-10	HQ578077	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01046861	DEBU	PLNW444-11	JN285953	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01119906	DEBU	PLNW445-11	JN285954	Canada	Ontario
<i>Platycheirus quadratus</i>	debu01122511	DEBU	PLNW446-11	JN285955	Canada	Ontario
<i>Platycheirus quadratus</i>	adys 0003	CNC	PLNW119-10	HQ577957	United States	California
<i>Platycheirus quadratus</i>	adys 0002	CNC	PLNW118-10	HQ577956	United States	New York
<i>Platycheirus rosarum</i>	CNCD105814	CNC	CNCDB2927-11	KC900485	Germany	Baden-Wuerttemberg

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus rosarum</i>	07PROBE-JW0955	BIOUG	JWDCB005-10	HM860974	Canada	Manitoba
<i>Platycheirus rosarum</i>	CNCD105816	CNC	CNCDB2929-11	KF930918	Germany	Lower Saxony
<i>Platycheirus rosarum</i>	JSS 20419	CNC	SONT088-10	HQ974793	Canada	Quebec
<i>Platycheirus rosarum</i>	JSS 20424*	CNC	SONT093-10	HQ974796	Canada	Quebec
<i>Platycheirus rosarum</i>	CNCD105813	CNC	CNCDB2926-11	KF919081	Denmark	
<i>Platycheirus rosarum</i>	CNCD103086	CNC	CNCDB2243-11	KC900432	Canada	New Brunswick
<i>Platycheirus rosarum</i>	JSS 18577	CNC	SONT049-10	HQ974759	Canada	Ontario
<i>Platycheirus rosarum</i>	CNCD105815	CNC	CNCDB2928-11	KF930917	Germany	Lower Saxony
<i>Platycheirus rufigaster</i>	CNCD72494	CNC	CNCDB2935-11	KF930919	Canada	Northwest Territories
<i>Platycheirus sabulicola</i>	CNCD72513	CNC	CNCDB2939-11	KF930820	Canada	Yukon Territory
<i>Platycheirus scamboides</i>	CNCD72528	CNC	CNCDB2943-11	KF930821	United States	New Hampshire
<i>Platycheirus scamboides</i>	debu01047401*	DEBU	PLNW472-11	JN285975	United States	Virginia
<i>Platycheirus scambus</i>	10PROBE-15978	BIOUG	JWDCK023-11	KF930824	Canada	Manitoba
<i>Platycheirus scambus</i>	debu01046856	DEBU	PLNW307-10	JF879957	Canada	Ontario
<i>Platycheirus scambus</i>	debu00317161	DEBU	PLNW319-10	JF879961	Canada	Alberta
<i>Platycheirus scambus</i>	10PROBE-14061	BIOUG	JWDCI671-11	JN285878	Canada	Manitoba
<i>Platycheirus scambus</i>	debu00330268*	DEBU	PLNW351-10	JF879988	United States	Colorado
<i>Platycheirus scambus</i>	CNCD162610	CNC	CNCSY023-12	KT601587	Netherlands	Drenthe
<i>Platycheirus scambus</i>	UAM100247987	UAM	PLNW078-10	HQ577932	United States	Alaska
<i>Platycheirus scambus</i>	10PROBE-15213	BIOUG	JWDCJ778-11	KF930823	Canada	Manitoba
<i>Platycheirus scambus</i>	10PROBE-14728	BIOUG	JWDCJ1528-11	JF877745	Canada	Manitoba
<i>Platycheirus scambus</i>	adys 0082	DEBU	PLNW198-10	HQ578017	Canada	Nova Scotia

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus scambus</i>	adys 0087	DEBU	PLNW203-10	HQ578019	Canada	Nova Scotia
<i>Platycheirus scambus</i>	CNCD105818	CNC	CNCDB2944-11	KF930830	Russia	
<i>Platycheirus scambus</i>	CNCD105819	CNC	CNCDB2945-11	KF930831	Russia	
<i>Platycheirus scambus</i>	CNCD72576	CNC	CNCDB2947-11	KF930832	Ireland	
<i>Platycheirus scambus</i>	CNCD72548	CNC	CNCDB2948-11	KF930833	United Kingdom	
<i>Platycheirus scambus</i>	adys 0168	DEBU	PLNW284-10	HQ578089	Canada	Ontario
<i>Platycheirus scambus</i>	CNCD24736	CNC	CNCDB3024-11	KF930836	Canada	British Columbia
<i>Platycheirus scambus</i>	adys 0167	DEBU	PLNW283-10	HQ578088	Canada	Ontario
<i>Platycheirus scambus</i>	adys 0166	DEBU	PLNW282-10	HQ578087	Canada	Ontario
<i>Platycheirus scambus</i>	adys 0164	DEBU	PLNW280-10	HQ578085	Canada	Ontario
<i>Platycheirus scambus</i>	adys 0163	DEBU	PLNW279-10	HQ578084	Canada	Ontario
<i>Platycheirus scambus</i>	CNCD11284	CNC	SONA427-09	KF930834	Canada	Manitoba
<i>Platycheirus scambus</i>	CNCD11229	CNC	SONA412-09	KF930835	Canada	Manitoba
<i>Platycheirus scambus</i>	adys 0160	DEBU	PLNW276-10	HQ578081	Canada	Ontario
<i>Platycheirus scambus</i>	adys 0004	CNC	PLNW120-10	KF930829	United States	Colorado
<i>Platycheirus scambus</i>	adys 0157	DEBU	PLNW273-10	HQ578078	Canada	Ontario
<i>Platycheirus scambus</i>	10PROBE-15331	BIOUG	JWDCJ896-11	KF930825	Canada	Manitoba
<i>Platycheirus scambus</i>	10PROBE-16488	BIOUG	JWDCL248-11	KF930828	Canada	Manitoba
<i>Platycheirus scambus</i>	JSS 20355	CNC	SONT021-10	HQ974732	Canada	Quebec
<i>Platycheirus scambus</i>	JSS 20357	CNC	SONT023-10	HQ974734	Canada	Quebec
<i>Platycheirus scambus</i>	adys 0151	DEBU	PLNW267-10	HQ578072	Canada	Ontario
<i>Platycheirus scambus</i>	adys 0139	DEBU	PLNW255-10	HQ578060	Canada	Ontario

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus scambus</i>	adys 0138	DEBU	PLNW254-10	HQ578059	Canada	Ontario
<i>Platycheirus scambus</i>	adys 0137	DEBU	PLNW253-10	HQ578058	Canada	Ontario
<i>Platycheirus scambus</i>	adys 0136	DEBU	PLNW252-10	HQ578057	Canada	Ontario
<i>Platycheirus scambus</i>	JSS 18549	CNC	SONT046-10	HQ974756	Canada	Ontario
<i>Platycheirus scambus</i>	CNCD101850	CNC	CNCDB481-11	KF930822	Canada	Ontario
<i>Platycheirus scambus</i>	JSS 18550	CNC	SONT047-10	HQ974757	Canada	Ontario
<i>Platycheirus scambus</i>	CNCD105820	CNC	CNCDB2946-11	KF930826	Russia	
<i>Platycheirus scambus</i>	JSS 18568	CNC	SONT048-10	HQ974758	Canada	Ontario
<i>Platycheirus scambus</i>	debu01047412	DEBU	PLNW385-11	JN285911	Canada	Ontario
<i>Platycheirus scambus</i>	debu01047409	DEBU	PLNW384-11	JN285910	Canada	Ontario
<i>Platycheirus scambus</i>	10PROBE-15767	BIOUG	JWDCJ1332-11	JN285894	Canada	Manitoba
<i>Platycheirus scambus</i>	adys 0050	CNC	PLNW166-10	HQ577998	United States	New York
<i>Platycheirus scambus</i>	adys 0070	CNC	PLNW186-10	KF930837	United States	Colorado
<i>Platycheirus scambus</i>	adys 0073	CNC	PLNW189-10	KF930827	Canada	Nova Scotia
<i>Platycheirus scambus</i>	adys 0074	CNC	PLNW190-10	HQ578010	Canada	Nova Scotia
<i>Platycheirus scambus</i>	adys 0075	DEBU	PLNW191-10	HQ578011	Canada	Nova Scotia
<i>Platycheirus scutatus</i>	CNCD162598	CNC	CNCSY011-12	N/A	France	
<i>Platycheirus scutatus</i>	adys 0083	DEBU	PLNW199-10	HQ578018	Canada	Nova Scotia
<i>Platycheirus scutatus</i>	CNCD35831	CNC	CNCDB2952-11	KF930839	Norway	
<i>Platycheirus scutatus</i>	CNCD72991	CNC	CNCDB2951-11	KF930838	Norway	
<i>Platycheirus scutatus</i>	CNCD162601	CNC	CNCSY014-12	N/A	Netherlands	South Holland
<i>Platycheirus scutatus</i>	CNCD162599	CNC	CNCSY012-12	N/A	Finland	

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus scutatus</i>	debu01047406	DEBU	PLNW381-11	JN285907	Canada	Ontario
<i>Platycheirus scutatus</i>	debu01047408*	DEBU	PLNW383-11	JN285909	Canada	Ontario
<i>Platycheirus scutatus</i>	debu01047407	DEBU	PLNW382-11	JN285908	Canada	Ontario
<i>Platycheirus scutatus</i>	debu00254039.1	DEBU	PLNW398-11	JN285923	Canada	Ontario
<i>Platycheirus scutatus</i>	CNCD162603	CNC	CNCSY016-12	N/A	Slovenia	
<i>Platycheirus scutatus complex</i>	adys 0112*	DEBU	PLNW228-10	HQ578035	United States	California
<i>Platycheirus scutigera</i>	CNCD73063	CNC	CNCDB2954-11	KF930842	Venezuela	
<i>Platycheirus scutigera</i>	CNCD73059	CNC	CNCDB2955-11	KF930843	Venezuela	
<i>Platycheirus scutigera</i>	CNCD73060	CNC	CNCDB2956-11	KF930840	Venezuela	
<i>Platycheirus scutigera</i>	CNCD73062	CNC	CNCDB2958-11	KF930841	Ecuador	
<i>Platycheirus setipes</i>	debu00330251*	DEBU	PLNW338-10	JF879975	United States	Colorado
<i>Platycheirus setitarsis</i>	UAM100035184*	UAM	PLNW045-10	HQ577902	United States	Alaska
<i>Platycheirus setitarsis</i>	CNCD73070	CNC	CNCDB2961-11	KF930845	Canada	Yukon Territory
<i>Platycheirus setitarsis</i>	CNCD73073	CNC	CNCDB2959-11	KF930844	Canada	British Columbia
<i>Platycheirus sp. 13</i>	USNM ENT 00258343	CNC	PNAJS253-09	KF930846	New Zealand	Canterbury
<i>Platycheirus speighti</i>	JSS 18961	CNC	SONT063-10	HQ974771	United States	Alaska
<i>Platycheirus speighti</i>	JSS 18958	CNC	SONT060-10	HQ974769	United States	Alaska
<i>Platycheirus speighti</i>	adys 0091	DEBU	PLNW207-10	HQ578022	United States	Alaska
<i>Platycheirus speighti</i>	JSS 18959	CNC	SONT061-10	KF930857	United States	Alaska
<i>Platycheirus speighti</i>	JSS 18962*	CNC	SONT064-10	HQ974772	United States	Alaska
<i>Platycheirus speighti</i>	09PROBE-JW0172	BIOUG	JWDCC172-10	HM861387	Canada	Manitoba
<i>Platycheirus speighti</i>	JSS 18963	CNC	SONT065-10	HQ974773	United States	Alaska

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus speighti</i>	JSS 18964	CNC	SONT066-10	HQ974774	United States	Alaska
<i>Platycheirus speighti</i>	JSS 18965	CNC	SONT067-10	HQ974775	United States	Alaska
<i>Platycheirus speighti</i>	JSS 18966	CNC	SONT068-10	HQ974776	United States	Alaska
<i>Platycheirus speighti</i>	PROBE-TW0071	BIOUG	TWDIP071-09	KF930854	Canada	Manitoba
<i>Platycheirus speighti</i>	JSS 18954	CNC	SONT056-10	HQ974766	United States	Alaska
<i>Platycheirus speighti</i>	CNCD35830	CNC	CNCDB2953-11	KF930856		
<i>Platycheirus speighti</i>	JSS 18955	CNC	SONT057-10	HQ974767	United States	Alaska
<i>Platycheirus speighti</i>	JSS 18956	CNC	SONT058-10	KF930858	United States	Alaska
<i>Platycheirus speighti</i>	CNCD105821	CNC	CNCDB2950-11	KF930855	Russia	
<i>Platycheirus speighti</i>	JSS 18960	CNC	SONT062-10	HQ974770	United States	Alaska
<i>Platycheirus speighti</i>	JSS 18957	CNC	SONT059-10	HQ974768	United States	Alaska
<i>Platycheirus spinipes</i>	CNCD73088	CNC	CNCDB2964-11	KF930859	United States	California
<i>Platycheirus spinipes</i>	adys 0089*	DEBU	PLNW205-10	HQ578020	United States	New Mexico
<i>Platycheirus spinipes</i>	CNCD73081	CNC	CNCDB2965-11	KF930860	United States	California
<i>Platycheirus splendidus</i>	CNCD7964	CNC	PLNW408-11	JN285931	Canada	British Columbia
<i>Platycheirus splendidus</i>	CNCD162799	CNC	CNCSY212-12	N/A	Netherlands	
<i>Platycheirus splendidus</i>	debu00330476*	DEBU	PLNW373-10	JF880008	Canada	Alberta
<i>Platycheirus splendidus</i>	CNCD7967	CNC	PLNW415-11	JN285937	Canada	British Columbia
<i>Platycheirus splendidus</i>	CNCD7977	CNC	PLNW414-11	JN285936	Canada	British Columbia
<i>Platycheirus splendidus</i>	CNCD7968	CNC	PLNW412-11	JN285935	Canada	British Columbia
<i>Platycheirus splendidus</i>	CNCD7966	CNC	PLNW410-11	JN285933	Canada	British Columbia
<i>Platycheirus stegmus</i>	JSS 20343	CNC	SONT007-10	HQ974720	United States	Oregon

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus stegnus</i>	JSS 20345	CNC	SONT009-10	HQ974722	United States	Oregon
<i>Platycheirus stegnus</i>	adys 0099	DEBU	PLNW215-10	HQ578029	United States	California
<i>Platycheirus stegnus</i>	adys 0100	DEBU	PLNW216-10	HQ578030	United States	California
<i>Platycheirus stegnus</i>	CNCD73174	CNC	CNCDB2971-11	KF930868	United States	California
<i>Platycheirus stegnus</i>	adys 0051	CNC	PLNW167-10	HQ577999	United States	California
<i>Platycheirus stegnus</i>	adys 0069	CNC	PLNW185-10	KF930870	United States	Colorado
<i>Platycheirus stegnus</i>	CNCD73166	CNC	CNCDB2969-11	KF930869	Canada	British Columbia
<i>Platycheirus stegnus</i>	adys 0098	DEBU	PLNW214-10	HQ578028	United States	California
<i>Platycheirus stegnus</i>	CNCD 1386	CNC	SONT004-10	HQ974717	United States	California
<i>Platycheirus stegnus</i>	CNCD 1387	CNC	SONT005-10	HQ974718	United States	California
<i>Platycheirus stegnus</i>	CNCD 1446	CNC	SONT006-10	HQ974719	United States	Oregon
<i>Platycheirus stegnus</i>	JSS 20344	CNC	SONT008-10	HQ974721	United States	Oregon
<i>Platycheirus stegnus</i>	CNCD73169*	CNC	CNCDB2967-11	KF930871	United States	California
<i>Platycheirus stegnus</i>	adys 0013	CNC	PLNW129-10	HQ577966	United States	Colorado
<i>Platycheirus stegnus</i>	adys 0015	CNC	PLNW131-10	HQ577968	United States	Colorado
<i>Platycheirus stegnus</i>	adys 0101	DEBU	PLNW217-10	HQ578031	United States	California
<i>Platycheirus stegnus</i>	adys 0014	CNC	PLNW130-10	HQ577967	United States	California
<i>Platycheirus stegnus</i>	adys 0012	CNC	PLNW128-10	HQ577965	United States	Colorado
<i>Platycheirus sticticus</i>	CNCD105849*	CNC	CNCDB3034-11	KF930872	Norway	Sor-Trondelag
<i>Platycheirus striatus</i>	CNCD73492	CNC	CNCDB2976-11	KF930875	Canada	Quebec
<i>Platycheirus striatus</i>	CNCD73475	CNC	CNCDB2974-11	KF930877	Canada	British Columbia
<i>Platycheirus striatus</i>	CNCD73491	CNC	CNCDB2975-11	KF930874	Canada	Quebec

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus striatus</i>	UAM100034782	UAM	PLNW022-10	HQ577880	United States	Alaska
<i>Platycheirus striatus</i>	CNCD73514	CNC	CNCDB2973-11	KF930876	Canada	British Columbia
<i>Platycheirus striatus</i>	CNCD73515	CNC	CNCDB2972-11	KF930873	Canada	British Columbia
<i>Platycheirus striatus</i>	adys 0060*	CNC	PLNW176-10	HQ578003	United States	Colorado
<i>Platycheirus subordinatus</i>	CNCD73527	CNC	CNCDB2979-11	KF930880	Canada	Yukon Territory
<i>Platycheirus subordinatus</i>	CNCD73516*	CNC	CNCDB2978-11	KF930879	Norway	
<i>Platycheirus subordinatus</i>	CNCD73526	CNC	CNCDB2977-11	KF930878	Canada	Yukon Territory
<i>Platycheirus subordinatus</i>	CNCD163016	CNC	CNCSY450-12	KT601597	Norway	Finnmark
<i>Platycheirus subordinatus</i>	CNCD163004	CNC	CNCSY438-12	KT601624	Norway	Finnmark
<i>Platycheirus subordinatus</i>	CNCD162762	CNC	CNCSY175-12	KT601589	Sweden	Norrbottn
<i>Platycheirus tarsalis</i>	CNCD105827*	CNC	CNCDB2984-11	KF930576	Belgium	
<i>Platycheirus tarsalis</i>	CNCD162766	CNC	CNCSY179-12	N/A	Sweden	Uppsala
<i>Platycheirus tarsalis</i>	CNCD105825	CNC	CNCDB2982-11	KF930575	Germany	
<i>Platycheirus thompsoni</i>	CNCD73579	CNC	CNCDB2988-11	KF930885	United States	Pennsylvania
<i>Platycheirus thompsoni</i>	debu00212441	DEBU	PLNW435-11	KF930881	Canada	Ontario
<i>Platycheirus thompsoni</i>	CNCD73573	CNC	CNCDB2990-11	KF930884	Canada	Quebec
<i>Platycheirus thompsoni</i>	CNCD103084	CNC	CNCDB2241-11	KF930886	Canada	New Brunswick
<i>Platycheirus thompsoni</i>	CNCD73572	CNC	CNCDB2989-11	KF930883	Canada	Quebec
<i>Platycheirus thompsoni</i>	CNCD103083	CNC	CNCDB2240-11	KF930882	Canada	New Brunswick
<i>Platycheirus thompsoni</i>	CNCD73577	CNC	CNCDB2986-11	KF919076	Canada	New Brunswick
<i>Platycheirus thompsoni</i>	JSS 20356*	CNC	SONT022-10	HQ974733	Canada	Quebec
<i>Platycheirus thylax</i>	CNCD73607*	CNC	CNCDB3066-11	KF930889	Canada	Nova Scotia

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus thylax</i>	CNCD73608	CNC	CNCDB3067-11	KF930888	Canada	Nova Scotia
<i>Platycheirus thylax</i>	CNCD73606	CNC	CNCDB3065-11	KF930890	Canada	Nova Scotia
<i>Platycheirus thylax</i>	CNCD73605	CNC	CNCDB3064-11	KF930887	Canada	Nova Scotia
<i>Platycheirus transfugus</i>	CNCD105824	CNC	CNCDB3069-11	KF930892	Norway	
<i>Platycheirus transfugus</i>	CNCD105823	CNC	CNCDB3068-11	KF930891	Norway	
<i>Platycheirus transfugus</i>	CNCD105867*	CNC	CNCDB3070-11	KF930893	Norway	
<i>Platycheirus trichopus</i>	adys 0018	CNC	PLNW134-10	HQ577971	United States	Oregon
<i>Platycheirus trichopus</i>	CNCD27522	CNC	CNCDB3269-11	KF930894	Canada	British Columbia
<i>Platycheirus trichopus</i>	CNCD27516	CNC	CNCDB3271-11	KF930897	Canada	British Columbia
<i>Platycheirus trichopus</i>	adys 0017	CNC	PLNW133-10	HQ577970	United States	Colorado
<i>Platycheirus trichopus</i>	adys 0016	CNC	PLNW132-10	HQ577969	United States	Colorado
<i>Platycheirus trichopus</i>	adys 0067	CNC	PLNW183-10	HQ578008	United States	Washington
<i>Platycheirus trichopus</i>	CNCD 1468	CNC	SONT018-10	HQ974729	United States	Oregon
<i>Platycheirus trichopus</i>	JSS 20349*	CNC	SONT014-10	HQ974726	United States	Oregon
<i>Platycheirus trichopus</i>	JSS 20346	CNC	SONT010-10	HQ974723	United States	Oregon
<i>Platycheirus trichopus</i>	JSS 20340	CNC	SONT001-10	KF930896	United States	California
<i>Platycheirus trichopus</i>	debu00330391	DEBU	PLNW356-10	JF879993	United States	Washington
<i>Platycheirus trichopus</i>	debu00330388	DEBU	PLNW357-10	JF879994	United States	Washington
<i>Platycheirus trichopus</i>	debu00330352	DEBU	PLNW365-10	JF880000	United States	Washington
<i>Platycheirus trichopus</i>	CNCD27528	CNC	CNCDB3270-11	KF930895	Canada	British Columbia
<i>Platycheirus unknown sp. 1</i>	debu00168646	DEBU	PLNW329-10	JF879968	Canada	Quebec
<i>Platycheirus unknown sp. 1</i>	debu00171633	DEBU	PLNW318-10	JF879960	Canada	Quebec

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus</i> <i>unknown sp. 2</i>	USNM ENT 00258333	CNC	PNAJS243-09	KF930898	New Zealand	Southland
<i>Platycheirus</i> <i>unknown sp. 4</i>	USNM ENT 00258331	CNC	PNAJS241-09	KF930899	New Zealand	Canterbury
<i>Platycheirus</i> <i>unknown sp. 5</i>	USNM ENT 00258330	CNC	PNAJS240-09	HM432339	New Zealand	Canterbury
<i>Platycheirus</i> <i>unknown sp. 6</i>	USNM ENT 00258338	CNC	PNAJS248-09	GU708515	New Zealand	Canterbury
<i>Platycheirus</i> <i>unknown sp. 6</i>	USNM ENT 00258192	CNC	PNAJS229-09	GU708513	New Zealand	Canterbury
<i>Platycheirus</i> <i>unknown sp. 6</i>	USNM ENT 00258194	CNC	PNAJS231-09	KF930900	New Zealand	
<i>Platycheirus</i> <i>unknown sp. 6</i>	USNM ENT 00258193	CNC	PNAJS230-09	GU708514	New Zealand	Canterbury
<i>Platycheirus</i> <i>unknown sp. 6</i>	USNM ENT 00258336	CNC	PNAJS246-09	HQ969658	New Zealand	
<i>Platycheirus</i> <i>varipes</i>	CNCDB73658	CNC	CNCDB3078-11	KF930901	Canada	Yukon Territory
<i>Platycheirus</i> <i>varipes</i>	CNCDB73655	CNC	CNCDB3077-11	KF930903	Canada	Yukon Territory
<i>Platycheirus</i> <i>varipes</i>	CNCDB73640	CNC	CNCDB3076-11	KF930902	Canada	Yukon Territory
<i>Platycheirus</i> <i>varipes</i>	CNCDB163014	CNC	CNCDB448-12	KT601617	Norway	Sor-Trondelag
<i>Platycheirus</i> <i>varipes</i>	10PROBE-14992	BIOUG	JWDCJ557-11	JF878120	Canada	Manitoba
<i>Platycheirus</i> <i>varipes</i>	UAM100026855	UAM	PLNW088-10	HQ577942	United States	Alaska
<i>Platycheirus</i> <i>varipes</i>	UAM100247932*	UAM	PLNW080-10	HQ577934	United States	Alaska
<i>Platycheirus</i> <i>varipes</i>	JSS 20402	CNC	SONT071-10	HQ974779	Canada	Quebec
<i>Platycheirus</i> <i>varipes</i>	JSS 20413	CNC	SONT082-10	HQ974789	Canada	Quebec
<i>Platycheirus</i> <i>varipes</i>	10PROBE-15838	BIOUG	JWDCJ1403-11	JN285898	Canada	Manitoba
<i>Platycheirus</i> <i>varipes</i>	JSS 20403	CNC	SONT072-10	HQ974780	Canada	Quebec
<i>Platycheirus</i> <i>varipes</i>	JSS 20421	CNC	SONT090-10	HQ974794	Canada	Quebec
<i>Platycheirus</i> <i>varipes</i>	CNCDB73639	CNC	CNCDB3079-11	KF930904	Canada	Yukon Territory
<i>Platycheirus</i> <i>yukonensis</i>	CNCDB73724	CNC	CNCDB3082-11	KF930908	Canada	Yukon Territory

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TABLE 1. (Continued)

Species	Voucher ID	Deposition	BOLD ID	GenBank #	Country	State/Province
<i>Platycheirus yukonensis</i>	CNCD73729	CNC	CNCDB3083-11	KF930905	Canada	Yukon Territory
<i>Platycheirus yukonensis</i>	CNCD73709	CNC	CNCDB3084-11	KF919084	Canada	Yukon Territory
<i>Platycheirus yukonensis</i>	CNCD73712	CNC	CNCDB3085-11	KF930909	Canada	Yukon Territory
<i>Platycheirus yukonensis</i>	CNCD1046*	CNC	PLNW400-11	KF930906	United States	Alaska
<i>Platycheirus yukonensis</i>	CNCD73708	CNC	CNCDB3081-11	KF930907	Canada	Yukon Territory

TABLE 2. Mean and Max intraspecific genetic distances, nearest neighbour, and genetic distance to nearest neighbour of all species sequenced in BOLD.

Species	Mean intraspecific genetic distance	Max intraspecific genetic distance	Nearest neighbour	Distance to nearest neighbour
<i>Platycheirus aeratus</i>	0.16	0.61	<i>Platycheirus pennipes</i>	1.66
<i>Platycheirus albimanus1</i>	1.04	2.34	<i>Platycheirus setipes</i>	1.32
<i>Platycheirus albimanus2</i>	0.27	1.24	<i>Platycheirus marokkana</i>	0
<i>Platycheirus alpigenus</i>	0.31	0.31	<i>Platycheirus latimanus</i>	2.67
<i>Platycheirus amplus</i>	0.45	0.75	<i>Platycheirus naso</i>	0
<i>Platycheirus angostipes</i>	N/A	N/A	<i>Platycheirus occultus</i>	0
<i>Platycheirus angustatus</i>	0.42	1.26	<i>Platycheirus quadratus</i>	0
<i>Platycheirus angustatus2</i>	0	0	<i>Platycheirus occultus</i>	0.15
<i>Platycheirus angustatus3</i>	0	0	<i>Platycheirus angustatus</i>	1.24
<i>Platycheirus angustatus4</i>	0.06	0.31	<i>Platycheirus angustatus3</i>	1.87
<i>Platycheirus atlasi</i>	N/A	N/A	<i>Platycheirus scutatus</i>	0.66
<i>Platycheirus chilosia</i>	N/A	N/A	<i>Platycheirus yukonensis</i>	1.29
<i>Platycheirus ciliatus</i>	2.69	2.69	<i>Platycheirus setipes</i>	1.82
<i>Platycheirus tarsalis</i>	0.29	0.63	<i>Platycheirus manicatus</i>	1.26
<i>Platycheirus clarkei</i>	0	0	<i>Platycheirus sp. 13</i>	1.88
<i>Platycheirus clypeatus</i>	0.21	1.09	<i>Platycheirus fulviventrif</i>	0
<i>Platycheirus coerulescens1</i>	0.41	0.93	<i>Platycheirus lundbecki3</i>	0.15

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TABLE 2. (Continued)

Species	Mean intraspecific genetic distance	Max intraspecific genetic distance	Nearest neighbour	Distance to nearest neighbour
<i>Platycheirus coerulescens</i> 2	0.15	0.15	<i>Platycheirus lundibecki</i> 2	1.55
<i>Platycheirus complicatus</i>	0.62	0.62	<i>Platycheirus latimanus</i>	0
<i>Platycheirus confusus</i>	0.63	1.44	<i>Platycheirus trichopus</i>	2.02
<i>Platycheirus dexter</i>	2.55	2.55	<i>Platycheirus coerulescens</i> 1	0.63
<i>Platycheirus discimanus</i>	1.08	1.92	<i>Platycheirus pictipes</i>	2.7
<i>Platycheirus europaeus</i>	0	0	<i>Platycheirus pennipes</i>	0
<i>Platycheirus fasciculatus</i>	0	0	<i>Platycheirus manicatus</i>	1.24
<i>Platycheirus flabella</i>	0.4	0.96	<i>Platycheirus complicatus</i>	1.32
<i>Platycheirus fulviventrīs</i>	0.09	0.33	<i>Platycheirus clypeatus</i>	0
<i>Platycheirus granditarsis</i>	0	0	<i>Platycheirus sabulicola</i>	1.88
<i>Platycheirus groenlandicus</i>	0.31	1.08	<i>Platycheirus yukonensis</i>	2.83
<i>Platycheirus holarcticus</i>	N/A	N/A	<i>Platycheirus naso</i>	0
<i>Platycheirus huttoni</i>	0	0	<i>Platycheirus clarkei</i>	3.01
<i>Platycheirus hyperboreus</i> dark form	0.1	0.15	<i>Platycheirus hyperboreus</i>	1.04
<i>Platycheirus hyperboreus</i>	0.3	0.99	<i>Platycheirus clypeatus</i>	0
<i>Platycheirus immarginatus</i> 1	0.24	0.46	<i>Platycheirus quadratus</i>	0
<i>Platycheirus immarginatus</i> 2	0.03	0.19	<i>Platycheirus fulviventrīs</i>	0.99
<i>Platycheirus ingerae</i>	N/A	N/A	<i>Platycheirus setipes</i>	1.98
<i>Platycheirus inversus</i>	0.06	0.33	<i>Platycheirus peltatus</i>	0.33
<i>Platycheirus jaerensis</i>	0.37	0.77	<i>Platycheirus peltatus</i>	0.99
<i>Platycheirus jakuticus</i>	0.06	0.15	<i>Platycheirus yukonensis</i>	0
<i>Platycheirus kelloggi</i>	0.18	0.31	<i>Platycheirus dexter</i>	0.84
<i>Platycheirus kittilaensis</i>	0.35	0.35	<i>Platycheirus sticticus</i>	0
<i>Platycheirus latimanus</i>	0	0	<i>Platycheirus sticticus</i>	0

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TABLE 2. (Continued)

Species	Mean intraspecific genetic distance	Max intraspecific genetic distance	Nearest neighbour	Distance to nearest neighbour
<i>Platycheirus latus</i>	N/A	N/A	<i>Platycheirus pictipes</i>	0.84
<i>Platycheirus lundbecki</i>	0	0	<i>Platycheirus coerulescens1</i>	2.18
<i>Platycheirus lundbecki3</i>	N/A	N/A	<i>Platycheirus coerulescens1</i>	0.15
<i>Platycheirus lundbecki2</i>	0.15	0.15	<i>Platycheirus coerulescens2</i>	1.55
<i>Platycheirus luteipennis</i>	N/A	N/A	<i>Platycheirus striatus</i>	2.33
<i>Platycheirus manicatus</i>	0.39	0.77	<i>Platycheirus fasciculatus</i>	1.24
<i>Platycheirus marokkana</i>	0	0	<i>Platycheirus albimanus2</i>	0
<i>Platycheirus melanopsis</i>	0.32	0.66	<i>Platycheirus thylax</i>	1.32
<i>Platycheirus meyeri</i>	0.56	0.93	<i>Platycheirus splendidus</i>	2.55
<i>Platycheirus migriaulii</i>	0	0	<i>Platycheirus melanopsis</i>	2.34
<i>Platycheirus modestus</i>	0.08	0.19	<i>Platycheirus perpallidus</i>	0
<i>Platycheirus naso</i>	0.31	1.08	<i>Platycheirus peltatus</i>	0
<i>Platycheirus nearcticus</i>	0.08	0.32	<i>Platycheirus peltatus</i>	0.33
<i>Platycheirus neoperpallidus</i>	0.38	3.61	<i>Platycheirus quadratus</i>	0
<i>Platycheirus nielsenii</i>	0.29	0.93	<i>Platycheirus naso</i>	0
<i>Platycheirus nigrofemoratus</i>	0.06	0.18	<i>Platycheirus nodosus</i>	0
<i>Platycheirus nodosus</i>	0.05	0.5	<i>Platycheirus thompsoni</i>	0
<i>Platycheirus normae</i>	0.18	0.41	<i>Platycheirus perpallidus</i>	2.35
<i>Platycheirus notatus</i>	0.44	0.66	<i>Platycheirus unknown sp. 6</i>	5.39
<i>Platycheirus nr. nigrofemoratus</i>	0.04	0.15	<i>Platycheirus setipes</i>	3.17
<i>Platycheirus obscurus</i>	0.32	0.77	<i>Platycheirus spinipes</i>	0.99
<i>Platycheirus occultus</i>	1.34	2.72	<i>Platycheirus angostipes</i>	0
<i>Platycheirus octavus</i>	0	0	<i>Platycheirus amplus</i>	0
<i>Platycheirus orarius</i>	0.04	0.21	<i>Platycheirus perpallidus</i>	1.71

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TABLE 2. (Continued)

Species	Mean intraspecific genetic distance	Max intraspecific genetic distance	Nearest neighbour	Distance to nearest neighbour
<i>Platycheirus oreadis</i>	0	0	<i>Platycheirus tarsalis</i>	2.82
<i>Platycheirus parvatus</i>	0.64	1.39	<i>Platycheirus jaerensis</i>	2.32
<i>Platycheirus peltatoides</i>	0	0	<i>Platycheirus peltatus</i>	0
<i>Platycheirus peltatus</i>	0	0	<i>Platycheirus naso</i>	0
<i>Platycheirus pennipes</i>	0	0	<i>Platycheirus europaeus</i>	0
<i>Platycheirus perpallidus</i>	0.13	0.46	<i>Platycheirus modestus</i>	0
<i>Platycheirus pictipes</i>	0.55	1.31	<i>Platycheirus latus</i>	0.84
<i>Platycheirus pilatus</i>	0.2	0.31	<i>Platycheirus podagratus</i>	0.31
<i>Platycheirus podagratus</i>	0.3	0.77	<i>Platycheirus pilatus</i>	0.31
<i>Platycheirus pullatus</i>	0.15	0.48	<i>Platycheirus jaerensis</i>	3.65
<i>Platycheirus punctulata</i> grp.	2.88	5.4	<i>Platycheirus obscurus</i>	2.75
<i>Platycheirus quadratus</i>	0.19	0.77	<i>Platycheirus neoperpallidus</i>	0
<i>Platycheirus rosarum</i>	0.5	0.92	<i>Platycheirus granditarsis</i>	3
<i>Platycheirus rufigaster</i>	N/A	N/A	<i>Platycheirus clypeatus</i>	3.8
<i>Platycheirus sabulicola</i>	N/A	N/A	<i>Platycheirus granditarsis</i>	1.88
<i>Platycheirus scamboides</i>	0.2	0.2	<i>Platycheirus scambus</i>	0
<i>Platycheirus scambus</i>	0.33	2.26	<i>Platycheirus scamboides</i>	0
<i>Platycheirus scutatus</i> complex	N/A	N/A	<i>Platycheirus scutatus</i>	2.31
<i>Platycheirus scutatus</i>	0	0	<i>Platycheirus splendidus</i>	0.33
<i>Platycheirus scutigera</i>	1.06	2.36	<i>Melanostoma mellinum</i>	4.79
<i>Platycheirus setipes</i>	N/A	N/A	<i>Platycheirus albimanus</i> 1	1.32
<i>Platycheirus setitarsis</i>	0.19	0.31	<i>Platycheirus subordinatus</i>	3.68
<i>Platycheirus</i> sp. 13	N/A	N/A	<i>Platycheirus clarkei</i>	1.88
<i>Platycheirus speighti</i>	0.21	1.01	<i>Platycheirus splendidus</i>	0
<i>Platycheirus spinipes</i>	0.11	0.32	<i>Platycheirus obscurus</i>	0.99

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TABLE 2. (Continued)

Species	Mean intraspecific genetic distance	Max intraspecific genetic distance	Nearest neighbour	Distance to nearest neighbour
<i>Platycheirus splendidus</i>	0.56	1.9	<i>Platycheirus speighti</i>	0
<i>Platycheirus stegnus</i>	0.44	1.34	<i>Platycheirus sabulicola</i>	4.09
<i>Platycheirus sticticus</i>	N/A	N/A	<i>Platycheirus latimanus</i>	0
<i>Platycheirus striatus</i>	0.15	0.31	<i>Platycheirus luteipennis</i>	2.33
<i>Platycheirus subordinatus</i>	0.08	0.17	<i>Platycheirus complicatus</i>	0.86
<i>Platycheirus thompsoni</i>	0.16	0.62	<i>Platycheirus nodosus</i>	0
<i>Platycheirus thylax</i>	0.23	0.46	<i>Platycheirus melanopsis</i>	1.32
<i>Platycheirus transfugus</i>	0.22	0.33	<i>Platycheirus coerulescens</i> 1	1.63
<i>Platycheirus trichopus</i>	0.4	1.37	<i>Platycheirus obscurus</i>	1.55
<i>Platycheirus varipes</i>	0.07	0.47	<i>Platycheirus nigrofemoratus</i>	1.64
<i>Platycheirus yukonensis</i>	0	0	<i>Platycheirus jakuticus</i>	0

APPENDIX 1. Morphological characters used in analysis of males of the *Platycheirus albimanus* group.

1. Anterobasal corner of oral margin: 0—rounded; 1—pointed.
2. Facial pollinosity: 0—yellow; 1—grey.
3. Antenna: 0—orange below; 1—entirely black.
4. Arista with dorsal and ventral microtrichosity: 0—long (length = at least two-thirds the diameter of the arista); 1—short (length = less than half the diameter of the arista).
5. Facial pollinosity: 0—uniform; 1—with oblique ripples or punctures.
6. Arista: 0—smoothly tapered; 1—with basal half swollen.
7. Face with distinct medial keel below antennal bases: 0—absent; 1—present.
8. Female frons with 2 lateral pollinose triangles: 0—present; 1—absent—pollinosity uniform.
9. Facial width: 0—narrower or equal to the width of eye; 1—distinctly wider than eye.
10. Wavy hairs on scutum and scutellum: 0—absent; 1—present.
11. Thoracic hair colour: 0—entirely yellow; 1—with at least some black hairs.
12. Female thoracic hairs: 0—some longer than width of the fore femur; 1—all as short or shorter than width of fore femur.
13. Anepimeron with dense tuft of hairs: 0—absent; 1—present.
14. Wing with small to large bare areas near base: 0—present; 1—absent—entirely microtrichose.
15. Fore trochanter with short, dense, ventral setulae: 0—absent; 1—present.
16. Long, strongly curled, posterior bristle at apex of forefemur: 0—absent; 1—present.
17. Sub-basal tuft of long, white, closely appressed hairs on forefemur: 0—absent; 1—present; 2—hairs with lanceolate tips.
18. Second sub-basal tuft of long, white, closely appressed hairs on forefemur: 0—absent; 1—present.
19. Two posterior tufts of flattened black hairs on forefemur: 0—absent; 1—present.
20. Posterior tuft of loose, black hairs at about a quarter the length of the forefemur: 0—absent; 1—present.
21. Row of 3–5 long, posterior bristles on forefemur: 0—absent; 1—present.
22. Row of 6–8 black bristles on ventral surface of forefemur: 0—absent; 1—present.

23. Row of many long, strong posterior black hairs on forefemur: 0—absent; 1—present, unmodified; 2—present, flattened.
24. Fore tibia: 0—unmodified; 1—broadened over entire length; 2—broadened only apically.
25. Long wavy hairs on posterior of fore tibia: 0—absent; 1—present.
26. Fore and mid tibia with row of long, posterior setae: 0—absent; 1—present.
27. Fore tarsomere 1: 0—unmodified; 1—smoothly broadened to apex; 2—broadened to midpoint, then parallel sided to apex; 3—with posterior margin strongly convex; 4—strongly broadened and with a dorsal keel; 5—with a strong lateral projection.
28. Mid femur with an anterobasal cluster of 3–5 long, strong bristles: 0—absent; 1—present.
29. Mid femur with a shallow anterior cavity: 0—absent; 1—present.
30. Mid femur with anteroventral setulae: 0—absent; 1—forming an irregularly spaced row on basal half; 2—forming a regular row on apical two-thirds, this row ending in a long, recurved hair.
31. Row of 6–8 long, ventral bristles on mid femur: 0—absent; 1—present.
32. Long, recurved hairs on apical quarter of mid femur: 0—absent; 1—present.
33. Dense, ventral brush of hairs on the ventral side of mid femur: 0—absent; 1—present.
34. Wavy hairs on apical three-quarters of the ventral surface of the mid tibia: 0—absent; 1—present.
35. Mid tibia with median swelling and pile tuft: 0—absent; 1—tuft short (1–1.5 times tibial diameter); 2—tuft long (2–3 times tibial diameter).
36. Strongly appressed hairs forming anteroventral and posteroventral rows on the mid tibia: 0—absent; 1—present.
37. Long, wavy black hairs on the basal half of the anteroventral surface of the mid tibia: 0—absent; 1—present.
38. 1–2 long, straight, posterior black bristles at midlength of tibia: 0—absent; 1—present.
39. Long, wavy posterior hairs on mid tibia: 0—absent; 1—present.
40. Mid tibia: 0—narrow; 1—broadly expanded and flattened.
41. Dorsobasal lobe of surstylus: 0—absent; 1—present, shorter than wide; 2—present, longer than wide.
42. Male abdomen: 0—parallel sided; 1—broadly oval.

<i>M. mellinum</i>	000
<i>P. luteipennis</i>	1101001000010010
<i>P. pictipes</i>	1101000000010010
<i>P. obscurus</i>	110110000010000000000000010000000000000000000000000010
<i>P. confusus</i>	111110000010000000000000010000000000000000000000000010
<i>P. granditarsis</i>	1110000000000100000000000005000000000000000000000000101
<i>P. rosarum</i>	1110000000000100
<i>P. yukonensis</i>	111101111110010000000100010000000000000000000000000010
<i>P. pullatus</i>	1111011?11100100000001000100000000000000000000000000010
<i>P. coerulescens</i>	110100000000000010000010000010000000000000000000000010
<i>P. lundbecki</i>	111100000010000100000100000100000000000000000000000010
<i>P. aeratus</i>	0111000001000110100000010010010001000000020
<i>P. angustatus</i>	011100000010001010000001002001100000100020
<i>P. clypeatus</i>	001100000010011010000101002001100000100020
<i>P. hispidipes</i>	110?000?0110000010011001001001000000010020
<i>P. hyperboreus</i>	010100000010001010000101003001100000100020
<i>P. immarginatus</i>	001100000010011010001001002002100000000020
<i>P. normae</i>	001100000000011010000001000000000000000000020
<i>P. perpallidus</i>	001100000000011010000001002000010000100020
<i>P. neoperpallidus</i>	001100000000011010000001002000010000100020
<i>P. podagratus</i>	011100000010011011010001003001000000100020
<i>P. quadratus</i>	011100000010011010000001002000001000100120
<i>P. setipes</i>	1111000?0010000010001001001002000000010020
<i>P. tenebrosus</i>	0110000?00100110100000010030000000000000020
<i>P. modestus</i>	0111000000100110000000001002000010000100020
<i>P. orarius</i>	011100010010011000001101003001110100000020
<i>P. scamboides</i>	0000000?0000011000001001002002100001000020
<i>P. scambus</i>	001000000000011000001101002002100001000020

<i>P. varipes</i>	111100000010000000000001003002000000100020
<i>P. parmatius</i>	100100100110001000000012004000010000100011
<i>P. nodosus</i>	011100000010011021000001002000000000000020
<i>P. pilatus</i>	0111000?0010011021000001002000100000100020
<i>P. thompsoni</i>	010000000010011021000001002000100000000020
<i>P. albimanus</i>	1111000000100010101010010020020000000010020
<i>P. ciliatus</i>	1111000?00100010101010010020020000000010020
<i>P. nigrofemoratus</i>	1111000000100110101010010020020000000010020
<i>P. scutatus</i>	110100000000001010100001002002000000000020
<i>P. splendidus</i>	1001000?0000001010100001002002000000000020
<i>P. speighti</i>	1101000?0000001010100001002002000000000020
<i>P. urakawensis</i>	1110000000100010101010010020020000000010020
<i>P. amplus</i>	100100100110001000000022004010000020000011
<i>P. naso</i>	100100100110111000000022004010000020000011
<i>P. inversus</i>	100100100010001000000022004010000020000011
<i>P. jaerensis</i>	100100100000001000000012004010000010000011
<i>P. latitarsis</i>	100?00100010001000000022003010000010000011
<i>P. nearcticus</i>	100000100000001000000022004010000010000011
<i>P. nielsenii</i>	110100100010111000000022004010000020000011
<i>P. octavus</i>	100?00100010101000000022004010000010000011
<i>P. peltatoides</i>	100100100010111000000022004010000010000011
<i>P. discimanus</i>	111101111010011000000010101000000000101010
<i>P. flabella</i>	111101111010011000000011010100100000000010
<i>P. groenlandicus</i>	111101111100110000000010101000000000101010
<i>P. manicatus</i>	101100111110011000000000101001000000000011
<i>P. oreadis</i>	111101111110001000000000101000000000001011
<i>P. subordinatus</i>	111101111100011000000010001000000000101010
<i>P. thylax</i>	111101111110011000000010101000000000000010

APPENDIX 3. Material examined.

Platycheirus aeratus

Holotype ♂ *Platycheirus pauper* Hull, 1944: Trail Ridge Road [United States of America] Colo[rado] [40.441427°N, 105.755575°W] VII 24 [19]39 / Col by M. T. James / HOLOTYPE *Platycheirus pauper* Hull CNC No 19301 / Holotype *Pauper* Hull / CNC DIPTERA #83908 (CNC). **Canada: British Columbia:** Barkerville, Cariboo Co., 53.083426°N, 121.510871°W, 02.viii.1925, N. Criddle (1 ♂, CNC); Kitimat, Range 5 Coast L.D., 54.05566°N, 128.656697°W, 04.viii.1960, C.H. Mann (1♂, CNC); Liard Hot Springs, Liard River Hot Springs Provincial Park, 59.425991°N, 126.096398°W, 457m, 9–10.vii.1959, E.E. MacDougall (1♂, CNC); Moosehorn Lake, Cassiar L.D., 58.164009°N, 132.12694°W, 1372m, 30.vii.1960, R. Pilfrey, 03.viii.1960, W.W. Moss (2♂, CNC); Oliver, Okanagan-Similkameen R.D., 49.182338°N, 119.550442°W, 17.viii.1923, C.B.D. Garrett (1♀, CNC); Pete Lake, 57.931509°N, 131.936219°W, 1219m, 20.viii.1960, R. Pilfrey (1♂, CNC); Summit Lake, Mile 392 of Alaska Highway, Northern Rockies R.D., 58.648201°N, 124.666912°W, 1372m, 11–14.vii.1959, R.E. Leech (2♂, CNC); **Manitoba:** Fort Churchill, 58.75525°N, 94.078885°W, 17.vi.1952, J.G. Chillcott (2♂, CNC); **Newfoundland and Labrador:** Hebron, Labrador, 58.199007°N, 62.627869°W, 15.vii.1954, J.F. McAlpine (1♂, CNC); **Northwest Territories:** 21 miles east Tuktoyaktuk, 69.426844°N, 132.172475°W, 2–5.vii.1971, D.M. Wood (1♂, CNC); Salmita Mines, 64.077971°N, 111.243513°W, 21.vi.1953, 30.vi.1953, 4.vii.1953, J.G. Chillcott (4♂, CNC); **Nunavut:** Geillini Lake, 60.279831°N, 95.596472°W, 19.vi.1952, J.G. Chillcott (1♂, CNC); Wharton Lake, 63.869527°N, 99.765977°W, 18.viii.1966, J.G. Chillcott (1♂, CNC); **Quebec:** Indian House Lake, 56.25°N, 64.7°W, 25.vii.1954, W.R. Richards (1♀, CNC); Kangirsuk (Payne Bay), 60.019774°N 70.024029°W, 30.vii.1954, R. McCondochie (1♂, CNC); **Yukon Territory:** East Blackstone River, Km 97 Dempster Highway, 64.847484°N, 138.316761°W, 15.vii.1983, G.G.E. Scudder (1♂, CNC); Hunter Creek, Dawson, 63.779°N, 138.61°W, 914m, 03.vii.1949, P.F. Bruggemann (1♂, CNC); km 141, Dempster Highway, 65.06101°N, 138.126705°W, 22–24.vi.1982, G. & D.M. Wood (2♂, 2♀, CNC); La Force Lake, 62.683333°N, 132.33°W, 1676 m, 01.vii.1960 E.W. Rockburne (1♂, CNC); Mile 51, Dempster Highway, 64.605992°N, 138.33789°W, 25–27.vi.1973, G. & D.M. Wood (1♂, CNC); North Fork Crossing, Mile 42 Peel Pit Road, 64.565983°N, 138.250648°W, 1067m, 24.vi.1962, P.J. Skitsko (2♂, CNC); North Fork Pass, Ogilvie Mountains, 64.565983°N, 138.250648°W, 1250m,

20.vi.1962, P.J. Skitsko (2♂, CNC); Otter Lake, 62.486817°N, 130.4167°W, 1219m, 29.vii.1960, J.E.H. Martin (1♂, CNC); White Mountains, Erebia Creek, 792m 30.vi.1987, S.G. Cannings (1♂, CNC); **United States of America:** **Alaska:** Cape Thompson, 68.13°N, 165.967°W, 25.vii.1961, B.S. Heming (5♀, CNC); Denali National Park and Preserve, 63.731998°N, 148.979996°W, 24.vi.2001, O. Helmy (2♂, UAM); Isabel pass, Mile 206 Richardson Highway, 63.484367°N, 145.839383°W, 884m, 13.vii.1962, R.E. Leech (2♀, CNC); King Salmon, Naknek River, 58.678852°N, 156.666556°W, 04.viii.1952, J.B. Hartley (1♀, CNC); Mile 32, Denali Highway, 63.390138°N, 148.588876°W, 1219m, 22–23.vii.1962, P.J. Skitsko (11♀, CNC); Unalakleet, 63.873056°N, 160.788056°W, 19.vii.1961, B.S. Heming (1♀, CNC); **California:** Buck's Lake, Plumas County, 39.890961°N, 121.185778°W, 01.vii.1949, D. Cox (2♂, CNC); Strawberry, Tuolumne County, 38.199053°N, 120.008565°W, 01.vii.1949, A.T. McClay (1♂, CNC); Tahoe City, 39.166°N, 120.239°W, 2200 m, 14.vi.2007, S.M. Blank (3♂, CSCA); **Colorado:** Echo Lake, Mount Evans, 39.658085°N, 105.6035°W, 3231 m, 08.viii.1961, S.M. Clark (1♂, CNC); Fulford Cave Campground, 39.492°N, 106.659°W, 22.vi.1996, S. Fitzgerald (1♂, CSU); Nederland, Science Lodge, 39.95°N, 105.5°W, 2896m, 28.vi.1961, W.R.M. Mason (1♂, CNC); Niwot Ridge, Near Ward, 40.069933°N, 105.607397°W, 3505m, 04.vii.1961, C.H. Mann, (4♂, CNC); Summit County, Henry's Fork Park, 38.538611°N, 106.189722°W, 2926m, 1–10.viii.1979, S. & J. Peck (1♂, CNC); Summit Lake, Mount Evans, 40.567018°N, 105.593372°W, 3901m, 16–24.vii.1961, C.H. Mann (2♂, CNC); Trail Ridge Road, 40.441427°N, 105.755575°W, 24.vii.1939, M.T. James (1♂, CNC).

Platycheirus albimanus

Canada: Alberta: Eisenhower Junction, Banff National Park, 51.2667°N, 115.9167°W, 1433m, 07.vii.1962, Malaise trap, W.R.M. Mason (1♂, CNC); Grande Prairie, Division No. 19, 55.170756°N, 118.794706°W, 11.vi.1961, A.R. Brooks (1♂, CNC); Hailstone Butte, 50.20833°N, 114.45833°W, 21.vii.1987, S.A. Marshall (1♂, DEBU); Johnston Canyon, Banff National Park, 51.266815°N, 115.830613°W, 1433m, 18.vii.1962, K.C. Herrmann (1♂, CNC); Mount Temple Chalet, Lake Louise, 51.413528°N, 116.19088°W, 2134m, 26.vii.1962, E. Mason (1♂, CNC); Sunshine Lodge, Banff National Park, 51.173957°N, 115.571108°W, 2286m, 21.vii.1962, K.C. Herrmann (1♂, CNC); **British Columbia:** 10 miles West of Terrace, 54.450431°N, 128.815819°W, 09.vi.1960, J.G. Chillcott (1♂, CNC); Alliford Bay, Queen Charlotte Islands, 53.212584°N, 131.986014°W, 28.v.1957, E.E. MacDougall (1♂, CNC); Atlin, 59.5775°N, 133.69236°W, 671m, 09.vi.1955, H. Huckel (1♂, CNC); Capilano, N. Vancouver, Greater Vancouver R.D., 49.326833°N, 123.141014°W, 300m, 11.x.1972, J.R. Vockeroth (1♂, CNC); Diamond Head Trail, Garibaldi Park, Near Squamish, 49.811126°N, 123.07434°W, 975m, 1–13.viii.1953, W.R.M. Mason (3♂, CNC); Gagnon Road, 6miles West of Terrace, 54.499294°N, 128.716143°W, 20–24.vi.1960, J.G. Chillcott (3♂, CNC); Hedley, Okanagan-Similkameen R.D., 49.369117°N, 120.03823°W, 26.vii.1923, 29.viii.1923, C.B.D. Garrett (1♂, 1♀, CNC); Kitsumkalum Lake, 20 Miles North of Terrace, 54.762473°N, 128.770968°W, 16.vi.1960, B.S. Heming (1♂, CNC); Kleanza Creek, Near Terrace, 54.597897°N, 128.386241°W, 15.vii.1955, G.P. Holland, 30.vi.1960, J.G. Chillcott, 12.vi.1960, B. Heming, (3♂, CNC); Lakelse Lake Bog, Near Terrace, 54.344012°N, 128.592884°W, 14.vi.1960, C.H. Mann (1♂, CNC); Lakelse Lake, Hot Springs Area, 54.371144°N, 128.535718°W, 14.vi.1960, G.E. Shewell (1♂, CNC); Massett, Queen Charlotte Islands, 54.010928°N, 132.140142°W, 08.vi.1957, 14.vii.1957, sweep, E.E. MacDougall (2♂, CNC); McQueen Lake, 10 Miles North of Kamloops, Thompson-Nicola R.D., 50.828873°N, 120.442513°W, 18.vi.1973, H.J. Teskey (1♂, CNC); Meager Creek Hot Springs, Squamish-Lillooet R.D., 50.561617°N, 123.486344°W, 14.v.1987, C.S. Guppy (1♂, CNC); Mount Revelstoke National Park, 51.035979°N, 118.142509°W, 1829m, 25–30.vii.1952, G.J. Spencer (3♂, CNC); Okanagan, 49.14633°N, 119.41708°W, 25.v.2010 (1♂, 1♀, DEBU); Penticton, Okanagan-Similkameen R.D., 49.480552°N, 119.584669°W, 21.iv.1927, E.R. Buckell (1♂, CNC); Port Clements, Queen Charlotte Islands, 53.685593°N, 132.171603°W, 20.vi.1957, E.E. MacDougall (1♂, CNC); Queen Charlotte Is., Graham Is. nr. Q.C. city, 53.2528°N, 132.1027°W, 10–23.vii.1988, S.A. Marshall (2♂, DEBU); Remo, 7 Miles South West of Terrace, 54.491489°N, 128.7248°W, 13.vi.1960, J.G. Chillcott (1♂, CNC); Revelstoke Mountain, Mount Revelstoke National Park, 51.035979°N, 118.142509°W, 1829m, 12.viii.1923, E.R. Buckell (1♂, 3♀, CNC); Robson, Central Kootenay L.D., 49.342029°N, 117.697831°W, 29.v.1948, 22.x.1948, H.R. Foxlee (2♂, CNC); Shames, 18 Miles South West of Terrace, 54.409648°N, 128.935301°W, 23.vi.1960, J.G. Chillcott (1♂, CNC); Snowfield, Jade Pass, Mount Revelstoke National Park, 51.078605°N, 118.084511°W, 2134m, 03.viii.1952, G.J. Spencer (1♂, CNC); Terrace, 54.516512°N, 128.586663°W, 10.vii.1960, 20.vii.1960, W.R. Richards (2♂, CNC); Vernon, North Okanagan R.D., 50.263769°N, 119.273734°W, 11.v.1920, M.H. Ruhmann (1♂, CNC); Victoria, Capital R.D., 48.456755°N, 123.360889°W, 23.iv.1917, A.E. Cameron (1♂, CNC); Zymoetz River, 6 Miles East of Terrace, 54.535845°N, 128.458557°W, 03.vi.1960, J.G. Chillcott (1♂, CNC); Zymoetz River, 6 Miles East of Terrace, 54.535845°N, 128.458557°W, 58m, 20.vi.1960, R. Pilfrey (1♂, CNC); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 29.vi.1955, E.F. Cashman (1♂, CNC); Saint Anthony, Division No.9, 51.372031°N, 55.597547°W, 03.vii.1951, J.B.

Wallis (1♂, CNC); Top of Signal Hill, St. John's, Division No. 1, 47.570024°N, 52.681812°W, 24.vii.1967, J.F. McAlpine (1♂, CNC); **Northwest Territories:** Fort McPherson, Mackenzie, 67.437°N, 134.881°W, 26.vi.1957, R. Hurley (1♂, CNC); **Ontario:** Low Bush, Lake Abitibi, 48.90556°N, 80.00556°W, 9.vi.1925, 17.vi.1925, 18.vi.1925, 16.viii.1925, N.K. Bigelow (3♂, 3♀, DEBU); **Quebec:** Mont Jacques Cartier, La Haute-Gaspésie, 48.989915°N, 65.946427°W, 1200m, 11.viii.1983, B.M. Bissett (1♂, 1♀, CNC); Thunder River, 50.275192°N, 64.768603°W, 21.vi.1930, W.J. Brown (1♀, CNC); **Yukon Territory:** 14 miles East of Dawson, 64.058557°N, 138.955026°W, 396m, 30.vii.1962, P.J. Skitsko (1♂, CNC); Carcross, sand dunes, 60.186691°N, 134.692703°W, 16.vi.1982–18.vi.1982, G. & D.M. Wood (1♂, CNC); North Fork Crossing, Mile 42 Peel Pit Road, 64.565983°N, 138.250648°W, 1067m, 26.vi.1962, R.E. Leech (1♂, CNC); Whitehorse, 60.733402°N, 135.082092°W, 1067m, 13.vi.1949, D.L. Watson (1♂, CNC); **Germany:** Schleswig-Holstein Watschaukrug (road), Near town of Husby, 54.7667°N 9.5667°E, 09.viii.1979, C. ClauBen (1♂, CNC); **Scotland:** Lochaber Sanna, 56.745528°N, 6.174314°W, 11.vi.1982, B.J. & F.C. Thompson (1♀, CNC); Perth and Kinross 1 mile east of Carie, 56.512275°N, 4.17312°W, 15.vi.1982, B.J. & F.C. Thompson (1♂, 1♀, CNC); **United States of America:** **Alaska:** Anchorage, 61.218054°N, 149.90027°W, 02.vii.1951, R.S. Bigelow (1♂, CNC); Cold Bay, 163 W, 55.244894°N, 163.009591°W, 27.vii.1952, J.B. Hartley (1♂, CNC); Mount Fairplay, Mile 32 Taylor Highway, 63.679038°N, 142.262944°W, 1097m, 11.viii.1962, R.E. Leech (1♂, CNC); Nome, 64.5°N, 165.4°W, 02.vii.1951, D.P. Whillans (1♂, CNC); Unalakleet, 63.873056°N, 160.788056°W, 13.vi–10.viii.1961, B.S. Heming (17♂, CNC); **California:** Huntington Lake, Rancheria Creek, Fresno County, 37.255484°N, 119.171799°W, 2600m, 07.vii–22.viii.1984, J. MacDonald (14♀, CNC); **Colorado:** 10 Miles East of Silverton, 37.809565°N, 107.485032°W, 2743m, 13.viii.2012, F.M. Carpenter (1♂, CNC); High Creek Fen, 14 km S Fairplay, 39.1034°N, 105.98889°W, 2822 m, 2.vii.1995, B. Kondratieff & R. Durfee (1♂, CSU); Independence Pass, Lake County, 39.104722°N, 106.557321°W, 3688m, 31.vii.1961, B.H. Poole (1♂, CNC); Mount Evans, Timberline, 39.645575°N, 105.594897°W, 3566m, 22.vii.1961, S.M. Clark (1♂, CNC); near Saguache, 38.088736°N, 106.142177°W, 3353m, 03.viii.1937, R.H. Painter (1♂, CNC); **Idaho:** Moscow Mountains, 46.800972°N, 116.866093°W, .vi.1926, F.M. Hull (2♂, CNC); **New Mexico:** Cloudcroft, 32.957313°N, 105.742486°W, 26.v.1964, J.F. McAlpine (1♂, CNC); **Washington:** Fort Lewis, Pierce County, 47.116969°N, 122.585721°W, 06.iv.1946, Paul H. Arnaud (2♂, CNC); Fort Lewis, Pierce County, 47.116969°N, 122.585721°W, 17.iv.1946, Paul H. Arnaud (1♂, CNC); Hurricane Ridge, Olympic National Park, 47.933146°N, 123.409627°W, 21.vii.1968, B.V. Peterson (2♂, CNC); Mount Rainier, 46.853048°N, 121.753127°W, .vii.1926, F.M. Hull (1♂, CNC).

Platycheirus alpinus

United States of America: **Colorado:** High Creek Fen, 14 km S Fairplay, 39.1034°N, 105.9889°W, 2822 m, 7.vi.1995, B.C. Kondratieff, 27.vi.2010, A.D. Young (1♂, 1♀, DEBU).

Platycheirus ambiguus

Norway: Hordaland Isdalen, Bergen, 60.394008°N, 5.373117°E, 21.v.1976, Tore Nielsen (2♂, CNC).

Platycheirus amplus

Holotype ♂ *Platycheirus amplus* Curran, 1927: *Platycheirus* HOLOTYPE *amplus* Curran CNC No. 2022 / Low Bush [Canada] Ont[ario] Lake Abitibi [48.91608°N, 80.13985°W] VII-15-1925 N.K. Bigelow / CNC DIPTERA #24423 (CNC). **Canada:** **Manitoba:** Churchill, 58.71667°N, 94.11667°W, 20.vi.1952, E.E. Wiffen (1♂, DEBU); **Newfoundland and Labrador:** St. John's, Division No.1, 47.576727°N, 52.701133°W, 12.vii.1949, F.G. DiLabio (1♂, CNC); **Northwest Territories:** Ft. McPherson, 67.4°N, 134.8°W, 9.vii.1957, R. Hurley (1♂, CNC); **Ontario:** Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.13985°W, 15.vii.1925, N.K. Bigelow (1♂, CNC); **Quebec:** Ile d'Anticostie, Lac Simone, 49.85°N, 64.13389°W, 15.vi.2007–29.vi.2007, Malaise trap (1♂, CNC); **Yukon Territory:** Dawson, 64.05002°N, 139.41052°W, 30.vi.1949, W.W. Judd (1♂, CNC); North Fork Crossing, Mile 42 Peel Pit Road, 64.56598°N, 138.25065°W, 1067m, 26.vi.1962, R.E. Leech (1♂, CNC); North Fork Pass, Ogilvie Mountains, 64.56598°N, 138.25065°W, 07.vii.1962, P.J. Skitsko (1♂, CNC); Whitehorse, 60.73340°N, 135.08209°W, 09.vii.1950, R.C. Hasselback (1♂, CNC); **Norway:** Grimdalen, 16.vii.1978, T. Nielsen (2♀, TNPC); **United States of America:** **Alaska:** Denali National Park and Preserve, 63.869°N, 150.229°W, 08.vii.2001, O. Helmy (1♂, UAM); Savonoski, Naknek Lake, 58.65029°N, 156.00744°W, .vii.1919, Jas S. Hine (1♂, CNC); Umiat, 69.367°N, 152.133°W, 16.vii.1959, 07.viii.1959, J.E.H. Martin (4♂, CNC).

Platycheirus angustatus

Canada: Alberta: Banff National Park, Two Jack Lake, 51.23053°N, 115.49782°W, 1444 m, 14.vii.2010, A.D. Young (1♂, 3♀, DEBU); Banff National Park, 51.180275°N, 115.568433°W, 06.vii.1906, N.B. Sanson, 29.v–16.vi.1922, C.B.D. Garrett (3♂, 1♀, CNC); Banff National Park, Cascade Trail, 51.254108°N, 115.515622°W, 1524m, 10.vii.1968, H.J. Teskey (2♂, CNC); Cypress Hills, Division No. 1, 49.638516°N, 110.111602°W, 08.vii.1972, J.W. Boyes (1♂, CNC); Hinton, Division No. 14, 53.404277°N, 117.573976°W, 26.vii.1939, P. Rock (1♂, CNC); Nordegg, Division No. 9, 52.471024°N, 116.076825°W, 10.ix.1921, J. McDunnough (1♀, CNC); Sibbald Flats Recreational Area, 51.04444°N, 114.85°W, 8.viii.1980, S.A. Marshall (1♂, DEBU); **British Columbia:** Creston, Central Kootenay R.D., 49.095523°N, 116.508317°W, 08.v.1958, H. & A. Howden (1♂, CNC); Gagnon Road, 6miles West of Terrace, 54.499294°N, 128.716143°W, 24.vi.1960, G.E. Shewell (1♂, CNC); Hixon, Fraser-Fort George R.D., 53.42026°N, 122.58596°W, 06.vii.1966, E.D.A. Dyer (1♂, CNC); Kitsumkalum Lake, 20 Miles North of Terrace, 54.762473°N, 128.770968°W, 16.vi.1960, J.G. Chillcott (1♂, CNC); Kleanza Creek, Near Terrace, 54.597897°N, 128.386241°W, 30.vi.1960, R.J. Pilfrey, 13.vii.1960, C.H. Mann (2♂, CNC); Lakelse Lake Bog, Near Terrace, 54.344012°N, 128.592884°W, 14.vi.1960, B. Heming (1♂, CNC); Lakelse Lake, Hot Springs Area, 54.371144°N, 128.535718°W, 14.vi.1960, G.E. Shewell (1♂, CNC); Oliver, Okanagan-Similkameen R.D., 49.182338°N, 119.550442°W, 01.v.1923, C.B.D. Garrett (1♀, CNC); Robson, Central Kootenay L.D., 49.342029°N, 117.697831°W, 07.vi.1948, H.R. Foxlee (1♂, CNC); Salmon Arm, Columbia-Shuswap R.D., 50.703923°N, 119.273924°W, 23.vi.1925, 02.vii.1925, A.A. Dennys (2♂, CNC); Spring Creek, Terrace, 54.539511°N, 128.618192°W, 03.vi.1960, B.S. Heming, 11.vi.1960, R. Pilfrey (3♂, CNC); Summit Lake, Mile 392 of Alaska Highway, Northern Rockies R.D., 58.648201°N, 124.666912°W, 1524m, 23.vi–21.vii, 1959 E.E. MacDougall (41♂, CNC); Terrace, 54.516512°N, 128.586663°W, 11.vi.1960, J.G. Chillcott (1♂, CNC); **Manitoba:** 5 miles South West of Shilo, 49.763964°N, 99.717403°W, 05.vi.1958, J.F. McAlpine (1♂, CNC); Baldur, 49.38333°N, 99.23°W, 20.vii.1926, N. Criddle (1♂, CNC); Morris, Division No. 3, 49.351472°N, 97.364558°W, 07.viii.1958, A. & J. Brooks (1♂, CNC); Ninette, Division No.5, 49.399267°N, 99.63205°W, 17.v.1958, J.F. McAlpine (1♂, CNC); **New Brunswick:** Birch Cove, near Chamcook, Charlotte Co., 45.129092°N, 67.065743°W, 14.viii.1957, G.E. Shewell (1♂, CNC); Kouchibouguac National Park, Kent Co., 46.819201°N, 64.96788°W, 06–09.vii.1977, J.F. McAlpine (2♂, CNC); **Northwest Territories:** Aklavik, 68.219638°N, 135.010707°W, 30.vi.1956, E.F. Cashman (1♂, CNC); Norman Wells, 65.281569°N, 126.828015°W, 27.vi.1969, G.E. Shewell (1♂, CNC); **Nova Scotia:** Cape Breton Highlands National Park, Cape Rouge, 46.737292°N, 60.919889°W, 11.vi.1984, J.R. Vockeroth (1♂, CNC); Cape Breton Highlands National Park, Mackenzie Mountain, 46.773977°N, 60.818772°W, 300m, 07.vii.1983, J.R. Vockeroth (1♂, CNC); Cape North, Victoria Co., 46.884555°N, 60.506046°W, 23.vi.1983, J.R. Vockeroth (1♀, CNC); Lockeport, Shelburne Co., 43.698745°N, 65.113342°W, 20–21.vii.1958, J.R. Vockeroth (2♂, CNC); **Ontario:** 14 Miles East of Kenora, Kenora District, 49.757898°N, 94.181909°W, 9.vi.1960–10.vi.1960, Kelton & Whitney (1♂, CNC); 2 Miles North of Metcalfe, Ottawa Division, 45.265406°N, 75.488737°W, 30.v.1982, B.E. Cooper (1♀, CNC); 5 km South West of Perth, Lanark County, 44.86464°N, 76.312432°W, 26.v.1987, J.R. Vockeroth (1♂, CNC); 6 Miles South of Devlin, Koochiching County, 48.531646°N, 93.672462°W, 28.vi.1960, Kelton & Whitney (1♂, CNC); Algonquin Prov. Pk., 45.83611°N, 78.42917°W, 30.viii.1995, B. Jagger (1♂, DEBU); Ancaster, 43.217793°N, 79.987295°W, 8.viii.1969–10.viii.1969, J.E.H. Martin (1♂, CNC); Arkell, 43.53333°N, 80.16667°W, 6.vi.1978, S.M. Ball (1♂, DEBU); Belleville, Hastings Co., 44.17024°N, 77.383004°W, 02.ix.1950, J.C. Martin (1♂, CNC); Burk's Falls, Parry Sound District, 45.61841°N, 79.406451°W, 12.vii.1926, F.P. Ide (2♂, CNC); Crozier, Koochiching County, 48.619038°N, 93.516796°W, 04.vi.1960, Kelton & Whitney (1♂, CNC); Dundas, 43.26667°N, 79.96667°W, 1.vi.1978, G. Sevean (1♂, DEBU); Guelph, 43.55°N, 80.25°W, 19–26.v.1978, P. Jursevskis (3♂, DEBU); Jordan, 43.14722°N, 79.36944°W, 28.vii.1914, W.A. Ross (1♂, DEBU); Jordan, Niagara Regional Municipality, 43.144765°N, 79.36873°W, 02.vii.1914, W.A. Ross (1♂, CNC); Jordan, Niagara Regional Municipality, 43.144765°N, 79.36873°W, 09.v.1915, C.H. Curran (1♀, CNC); Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 15.vii.1925, N.K. Bigelow (1♂, CNC); Marmora, Hastings Co., 44.483359°N, 77.68088°W, 23.v.1952, J.R. McGillis, 26.vi.1952, J.R. Vockeroth, 10.vii.1952, 13.vii.1952, C. Boyle (8♂, CNC); Maynooth, Hastings Co., 45.229716°N, 77.940949°W, 25.v.1951, J.F. McAlpine (1♂, CNC); Metcalfe, Ottawa Division, 45.235824°N, 75.472712°W, 30–31.v.1982, B.E. Cooper (6♂, CNC); Mount Forest, 43.98194°N, 80.73611°W, 26.viii.1984, J.G. Stewart (1♂, DEBU); Mount Forest, 5 km SW, 43.94583°N, 80.77222°W, 6.vi.1993, J. Skevington (1♂, DEBU); Niagara Glen, Niagara Regional Municipality, 43.117864°N, 79.086698°W, 01.vi.1926, G.S. Walley (1♂, CNC); Orillia, Simcoe Co., 44.609505°N, 79.42068°W, 28.vii.1914, C.H. Curran (1♀, CNC); Osgoode, Ottawa Division, 45.144769°N, 75.605322°W, 28.v.1965, J.R. Vockeroth (1♂, CNC); Ottawa, Ottawa Division, 45.411604°N, 75.688669°W, 27.vii.1912, Beaulieu, 25.vii.1961, G.S. Walley, 22.v.1963, H. Rutz (3♂, CNC); Rockwood, 43.61667°N, 80.13333°W, 25.v.1976, M.J. Sharkey (1♂, DEBU); Sudbury, Greater Sudbury Division, 46.493128°N, 80.990562°W, (1♀, CNC); Vineland, 43.15°N, 79.4°W, 30.vi.1915, W.A. Ross (1♂, DEBU); **Quebec:**

Abbotsford, 45.437637°N, 72.887923°W, 29.v.1936, 14.viii.1936, 05.ix.1936, G.E. Shewell (1♂, 3♀, CNC); Aylmer, Communaute-Urbaine-de-l'Outaouais, 45.400224°N, 75.817137°W, 16.vii.1959, C.H. Mann (1♂, CNC); Beechgrove, Les Collines-de-l'Outaouais, 45.64508°N, 76.123602°W, 17.v.1961, B. Poole (1♂, CNC); Beechgrove, Les Collines-de-l'Outaouais, 45.64508°N, 76.123602°W, 21.v.1964, J.R. Vockeroth (2♂, CNC); Coaticook, 10.ix.1913, J.I. Beaulne (1♀, DEBU); Eardley, Communaute-Urbaine-de-l'Outaouais, 45.409016°N, 75.867594°W, 21.vii.1968, P. Ward (1♂, CNC); Ile d'Anticostie, Jupiter, 49.530833°N, 63.280556°W, 17.vi.2007–1.vii.2007, 27.vii.2007–10.viii.2007, Malaise trap (2♂, CNC); Knowlton, Brome-Missisquoi, 45.216716°N, 72.514769°W, 17.vii.1968, J.R. Vockeroth (1♂, CNC); Lac Mondor, Near Ste. Flore, Le Centre-de-la-Maurice, 46.625254°N, 72.768842°W, 21.v.1951, E.G. Munroe (1♂, CNC); Mistassini, Le Domaine-du-Roy, 48.888579°N, 72.205228°W, 16.vi.1956, J.R. Lonsway (1♂, CNC); Mistassini, Le Domaine-du-Roy, 48.888579°N, 72.205228°W, 03.vii.1956, J.R. McGillis (3♂, CNC); Mont Saint-Hilaire, La Vallee-du-Richelieu, 45.552948°N, 73.155276°W, 04.viii.1965, J.W. Boyes (1♂, CNC); Old Chelsea, 45.483°N, 75.866667°W, 20.v.1987, J.R. Vockeroth (5♀, CNC); Old Chelsea, Les Collines-des-L'Outaouais, 45.499972°N, 75.814667°W, 27.iv.1987, 20.v.1987, J.R. Vockeroth (13♂, CNC); **Saskatchewan**: Christopher Lake, Division No. 15, 53.539931°N, 105.789257°W, 13.vii.1959, A. & J. Brooks (2♂, CNC); Debden, Division No. 16, 53.524998°N, 106.880904°W, 07.vi.1948, J.R. Vockeroth (1♂, CNC); Fort Qu'Appelle, Division No. 6, 50.7688°N, 103.789405°W, 20.viii.1962, K.C. Herrmann (2♂, CNC); Ogema, 16.vi.1916, N. Criddle (1♀, DEBU); Pheasant Creek, Division No. 6, 50.583246°N, 103.467217°W, 13.vii.1937, A.R. Brooks (1♂, CNC); Prince Albert National Park, Division No. 16, 53.978773°N, 106.241378°W, 07.vi.1938, J.G. Rempel (2♂, CNC); Prince Albert, Division No. 15, 53.19949°N, 105.759892°W, 29.v.1948, J.R. Vockeroth (1♂, CNC); Rockglen, Division No. 3, 49.179763°N, 105.949305°W, 21.vi.1955, J.R. Vockeroth (1♂, CNC); Saskatoon, Division No. 11, 52.129272°N, 106.67027°W, 05.vi.1923, K.M. King (1♂, CNC); St. Victor, Division No. 3, 49.435418°N, 105.871418°W, 27.vi.1955, J.R. Vockeroth (1♂, CNC); Sturgis, Division No. 9, 51.939509°N, 102.541388°W, 23.v.1955, J.R. Vockeroth (1♂, CNC); Uranium City, Division No.16, 59.566669°N, 108.616668°W, 18.vi.1962, J.G. Chillcott (1♂, CNC); **Yukon Territory**: Dawson, 64.050017°N, 139.41052°W, 30.vi.1949, W.W. Judd (1♂, CNC); Rampart House, 67.421455°N, 140.983336°W, 07–12.vii.1951, C.C. Loan, J.E.H. Martin (6♂, CNC); **Germany**: Schleswig-Holstein Sylt Island, Rantum, 54.845578°N, 8.293°E, 04.vii.1979, ClauBen (1♀, CNC); Schleswig-Holstein Sylt Island, Vogelkoje, 54.881559°N, 8.30256°E, 28.vi.1979, ClauBen (1♂, CNC); **United States of America: Alaska**: Denali National Park and Preserve, 63.731998°N, 148.979996°W, 24.vi.2001, O. Helmy (1♂, UAM); Naknek, 58.729427°N, 157.026703°W, 03.vii.1952, W.R. Mason, 18.vii.1952, J.B. Hartley (2♂, CNC); Umiat, 69.367°N, 152.133°W, 12.vii.1959, 15.vii.1959, J.E.H. Martin, 13.vii.1959, R. Madge (3♂, CNC); **Colorado**: Chicago Creek, Clear Creek County, 39.69415°N, 105.616756°W, 2682m, 02.viii.1961, B.H. Poole (1♂, CNC); **Maine**: Hunt Trail, Mount Katahdin, 45.9°N, 68.9167°W, 488–732m, 1.vii.1968–6.vii.1968, D.M. Wood (1♂, CNC); **New Hampshire**: Colebrook, 42.001389°N, 73.084444°W, 30.v.1965, D.M. Wood (4♂, CNC); **New York**: Ithaca, 42.43°N, 76.48333°W, 17.v.1935, V.T. (1♂, CNC); **Wisconsin**: Sturgeon Bay, 44.834164°N, 87.377042°W, 20.vii.1920, Chas L. Fluke (1♂, CNC); **Wyoming**: Madison, 43.0667°N, 89.4°W, 30.viii.1917, Chas L. Fluke (1♂, CNC); University of Wyoming Campus, 43.084281°N, 107.556417°W, 14.viii.1953, M.T. James (1♂, CNC).

Platycheirus atlas

Morocco: Imill, High Atlas, 1740m, 08.v.1993, G.Shewell (1♀, CNC).

Platycheirus brunnifrons

United States of America: Alaska: Fairbanks, 40 mi. N, 65.412°N, 147.654°W, 28.vii.1976, A. Fjellberg (1♂, TNPC);

Colorado: North Park, 40.918°N, 106.334°W, 1.vii.1932 (1♂, TNPC).

Platycheirus chilosia

Holotype ♀ *Melanostoma chilosia* Curran, 1922: [Canada] Al[ber]ta, Banff [51.180275°N, 115.568433°W], N.B. Sanson, 1916 / HOLOTYPE *M. chilosia* Curran CNC No. 470 / protrusus or carinatus / *P. carinatus* Det. A.D. Young 2012 / CNC 388665 (CNC). **Canada: British Columbia**: 15 km East of Hudson's Hope, Peace River L.D., 56.124142°N, 121.740103°W, 22.vi.1985, S.G. Cannings (2♀, CNC); 24 Km South of Pink Mountain, 56.990434°N, 122.170806°W, 24.vi.1985, S.G. Cannings (1♀, CNC); 7 km West of Sandspit, Moresby Island, Skeena-Queen Charlotte R.D., 53.237861°N, 131.919468°W, 27.viii.1984, G.G.E. Scudder (1♀, CNC); Blackfish Sd., Leone Island, Mount Waddington R.D., 50.602177°N, 126.657388°W, 14.viii.1984, E.U. Bijdemast (1♀, CNC); Boundary Lake, Peace River L.D., 56.335077°N, 120.009227°W, 23.vi.1985, S.G. Cannings (2♀, CNC); Buckinghorse River at Alaska Highway, Peace River L.D., 57.385406°N, 122.853126°W, 24.vi.1985, B.A. Macdonald (1♀, CNC); Hudson Bay Mountain, Bulkley-Nechako R.D., 54.801121°N, 127.326263°W, 11.viii.1986, S.G. Cannings (1♀, CNC); Oliver Lake, Kaien

Island, Skeena-Queen Charlotte R.D., 54.281304°N, 130.266085°W, 14.viii.1986, G.G.E. Scudder (1♀, CNC); Sandspit, Moresby Island, Skeena-Queen Charlotte R.D., 53.242509°N, 131.820752°W, 25.viii.1984, G.G.E. Scudder (1♀, CNC); Spanish Hills, Galiano Island, Cowichan Valley R.D., 48.999859°N, 123.574375°W, 23.vii.1984, G.G.E. Scudder (1♀, CNC); Wadhams, Central Coast R.D., 51.512203°N, 127.514737°W, 02.viii.1986, G.G.E. Scudder (1♀, CNC); **Manitoba:** Fort Churchill, 58.75525°N, 94.078885°W, 20.vii.1963, H.K. Rutz (1♂, CNC); **Northwest Territories:** Aklavik, 68.219638°N, 135.010707°W, 29.vi.1956, R.E. Leech (2♀, CNC); Cache Creek Springs, 07.viii.1987, S.G. Cannings (1♀, CNC); Hazen Camp, 81.8167°N, 71.3°W, 12.vii.1963, H.K. Rutz (5♀, CNC); Hazen Camp, Top Mt. McGill Basking in a Sheltered place, 81.8167°N 71.3°W, 12.vii.1963 H.K. Rutz (2♀, CNC); Holman, Victoria Island, 70.738254°N, 117.776673°W, 24.vi.1975, G. & D.M. Wood (1♀, CNC); km 155 Dempster Highway, 65.067522°N, 138.295428°W, 22–24.vi.1982, G. & M. Wood (13♀, CNC); km 465 Dempster Highway, 67.214948°N, 135.582531°W, 25–26.vi.1982, G. & M. Wood (4♀, CNC); Km 491 Dempster Highway, 67.182795°N, 135.791046°W, 26.vi.1982, G. & M. Wood (8♂, CNC); Km 82 Dempster Highway, 64.581259°N, 138.261721°W, 29.vi.1982, G. & M. Wood (2♀, CNC); Masik River, Banks Island, 71.588636°N, 123.444123°W, 04–28.vii.1968, W.R.M. Mason (3♀, CNC); Reindeer Depot, Mackenzie Delta, 68.668974°N, 134.071574°W, 25.vi–08.vii.1948, J.R. Vockeroth (7♀, CNC); Richardson Mountains, 66.03°N, 136.7833°W, 11–12.vii.1982, M. Wood (2♀, CNC); Sachs Harbour, Banks Island, 71.988419°N, 125.239387°W, 27–30.vi.1968, W.R.M. Mason (2♀, CNC); Tuktoyaktuk, 69.438369°N, 133.01637°W, 12.vii.1984, S.G. Cannings (2♀, CNC); Victoria Island, 71.25°N, 114.000001°W, 1–30.vii.1975, G. & D.M. Wood (33♀, CNC); **Nunavut:** Alexandra Fjord, Ellesmere Island, 78.865955°N, 75.851162°W, 02.vii.1981, O. Kukal (1♂, CNC); Axel Heiberg Island, 79.699646°N, 91.25271°W, 23.vii.1963, H.K. Rutz (1♂, CNC); Cambridge Bay, Victoria Island, 69.118656°N, 105.058062°W, 14.vii–08.viii.1950, E.H.N. Smith (33♀, CNC); Chesterfield Inlet, 63.341731°N, 90.711198°W, 15.vii.1950, 16.viii.1950, J.R. Vockeroth (4♀, CNC); Clyde River, Baffin Island, 70.474206°N, 68.588656°W, 29.vi–06.vii.1950, J.E.H. Martin (3♀, CNC); Coral Harbour, Southampton Island, 64.137944°N, 83.165217°W, 06–09.vii.1948, G.E. Shewell, 19.vi.1952, P.R. Ehrlich (4♀, CNC); Eureka, Ellesmere Island, 79.985184°N, 85.81996°W, 04.vii.1953, 06–07.vii.1954, P.F. Bruggemann (4♀, CNC); Frobisher Bay, 63.744953°N, 68.516605°W, 10–11.viii.1959, W.R.M. Mason (1♀, CNC); Gypsum Hill, Axel Heiberg Island, 79.400002°N, 90.750005°W, 20.vii.1963 H.K. Rutz (1♂, CNC); Hazen Camp, Ellesmere Island, 81.832998°N, 71.335776°W, 09.vii–03.viii.1961, 01–29.vii.1963, D.R. Oliver, 08.vi–28.vii.1962, J.F. McAlpine, (56♂, 52♀, CNC); Head of Clyde River Inlet, Baffin Island, 70.470277°N, 68.495793°W, 07.viii.1958, G.E. Shewell (2♀, CNC); Padlei (Padley), 61.916563°N, 96.666577°W, 18.vii–09.viii.1950, R.A. Hennigar (10♀, CNC); Quoich River, 64.004072°N, 93.504141°W, 22.vii.1950, J.G. Chillcott (1♀, CNC); Repulse Bay, 66.532078°N, 86.243994°W, 02–26.vii.1950, J.E.H. Martin (5♀, CNC); Taloyoak (Spence Bay), 69.540656°N, 93.543269°W, 30.vi–14.vii.1950, A.E.R. Downe (3♀, CNC); Wager Bay, 65.93°N, 90.816667°W, 22.vii.1950, J.G. Chillcott (3♀, CNC); **Quebec:** Blanc Sablon, 51.423°N, 57.165507°W, 30.vi.1983, A. Borkent (1♂, CNC); Duplinter, Lac Delorme, 54.5167°N, 69.8667°W, 7–12.vii.1977, D.M. Wood (1♂, 1♀, CNC); Great Whale River, 55.116816°N, 76.405554°W, 17.vi.1949, J.R. Vockeroth (1♂, CNC); Kangirsuk (Payne Bay), 60.019774°N, 70.024029°W, 10.vii.1958, W.R.M. Mason (1♂, CNC); Sugluk Island, 62.285763°N, 75.555071°W, 28.vi.1954, H. Huckel (1♂, CNC); **Yukon Territory:** Blackstone River, km 97 Dempster Highway, 64.847484°N, 138.316761°W, 15.vii.1983, G.G.E. Scudder (3♀, CNC); Blow River, 68.757068°N, 137.304629°W, 14.vii.1984, S.G. Cannings (2♀, CNC); British Mountains, 68.99769°N, 140.527793°W, 600m, 22.vi.1984, G. & M. Wood & D. Lafontaine (1♂, CNC); Chapman Lake, km 118 Dempster Highway, 64.848284°N, 138.347053°W, 15.vii.1983, G.G.E. Scudder (1♀, CNC); Dickson Lake, Mount Mye, 62.341848°N, 133.130162°W, 1524m, 14.vi.1960, J.E.H. Martin (2♂, CNC); Firth River, 69.207056°N, 140.071033°W, 23–25.vi.1984, S.G. Cannings (4♀, CNC); Fish Creek, 04.vii.1984, S.G. Cannings (1♀, CNC); Fish Creek, Ridge to the North, 01.vii.1984, S.G. Cannings (1♀, CNC); Kluane National Park, 61.214965°N, 138.688228°W, 29.viii.1986, S.G. Cannings (1♀, CNC); Km 141 Dempster Highway, 65.06101°N, 138.126705°W, 24–28.vi.1982, G. & D.M. Wood (1♂, CNC); Km 155 Dempster Highway, 65.067106°N, 138.295866°W, 1500m, 05.vii.1985, S.G. Cannings (1♀, CNC); Km 155 Dempster Highway, 65.067106°N, 138.295866°W, 950m, 18–25.vi.1980, Wood & Lafontaine (5♂, 1♀, CNC); Km 155 Dempster Highway, 65.067106°N, 138.295866°W, 22–26.vi.1982, G. & D.M. Wood (21♂, 1♀, CNC); Km 465 Dempster Highway, 67.046392°N, 136.209668°W, 25–26.vi.1982, G. & D.M. Wood (10♂, CNC); Km 82 Dempster Highway, 64.581259°N, 138.261721°W, 29.vi.1982, G. & D.M. Wood (5♂, CNC); Mile 51 Dempster Highway, 64.605992°N, 138.33789°W, 17–21.vi.1973, G. & D.M. Wood (2♂, CNC); Mile 87 Dempster Highway, 65.054721°N, 138.128324°W, 16.vii.1973, 27–30.vi.1973, G. & D.M. Wood (3♂, CNC); North Fork Pass, Tombstone Campground, 12.vii.1985, S.G. Cannings (1♀, CNC); Richardson Mountains, 68.163651°N, 136.988868°W, 1219m, 06–12.vii.1982, D.M. Wood (9♂, CNC); Sheep Creek Road, Kluane National Park, 61.00687°N, 138.584189°W, 07.viii.1986, S.G. Cannings (1♀, CNC); White Mountains, 30.vi.1987, S.G. Cannings (2♀, CNC); White Mountains, Erebia Creek, 729m, 03.vii.1987, Malaise trap,

S.G. Cannings (1♀, CNC); Wright Pass, Dempster Highway, 67.083297°N, 136.162751°W, 27.vi.1987, S.G. Cannings (1♀, CNC); **Greenland:** Nedre Midsommer Sø, 82.25°N, 35°W, 17.v–26.vii.1966, Canadian Peary Land Expedition (133♀, CNC).

Platycheirus ciliatus

Holotype ♂ *Platycheirus ciliatus* Bigot, 1884: Holotype / *P. ciliatus* EX COLL. BIGOT / J. Skevington Specimen # 45698 / *P. Ciliatus* [United States of America] Californ[ia]. J. Bigot (OUMNH). **Canada: British Columbia:** Miracle Beach, near Oyster River, 49.85°N, 125.1°W, 13.vi.1955, R. Coyles (1♂, CNC); **United States of America: Alaska:** Cape Thompson, 68.13°N, 165.967°W, 22–25.vii.1961, R. Madge (6♂, CNC); Isabel pass, Mile 206 Richardson Highway, 63.484367°N, 145.839383°W, 884m, 13.vii.1962, R.E. Leech (1♂, CNC); Naknek, 58.729427°N, 157.026703°W, 08.vii.1952, J.B. Hartley (1♂, CNC); Nome, 64.5°N, 165.4°W, 18.vi.1951, D.P. Whillans (2♂, CNC); Umiat, 69.367°N, 152.133°W, 04–15.vii.1959, R. Madge (3♂, CNC); Unalakleet, 63.873056°N, 160.788056°W, 16–21.vii.1961, B.S. Heming (19♂, CNC); **California:** Redwood Cr., downstream of Muir Woods, 37.88067°N, 122.57683°W, 25.ix.2002, S. Lew (1♂, EMEC); Lily Pond, Alpine Lk., Marin Co., 457.21m, 07.viii.1970, D. D. Munroe (1♂, CNC); Fish Ranch Road, Alameda County, 37.863234°N, 122.215571°W, 04.iii.1949, B.V. Peterson (1♂, CNC); **Oregon:** Wahkeena Falls, Hwy 30, 12.vii.1968, B.V. Peterson (1♂, CNC); **Washington:** Seattle, 47.60621°N, 122.332071°W, 10.iv.1931, R. Coyles (1♂, CNC).

Platycheirus clausseni

United States of America: Colorado: Cameron Pass, 40.52083°N, 105.8925°W, 7.vii.1931, (1♂, CSU).

Platycheirus clypeatus

Canada: Alberta: Banff, Banff National Park, 51.180275°N, 115.568433°W, 29.v–17.viii.1922, C.B.D. Garrett (7♀, CNC); **British Columbia:** Mount Revelstoke National Park, 51.035979°N, 118.142509°W, 1768m, 15.viii.1952, G.J. Spencer (1♂, CNC); **Manitoba:** Churchill, 58.768828°N, 94.171563°W, 25–29.vi.1948, G.E. Shewell, 10.vi–04.viii.1952 J.G. Chillcott (32♂, CNC); Mile 505, Hudson Bay Railway, 56.202722°N, 95.114134°W, 13.vi.1952, 26.vii.1952, J.G. Chillcott (3♂, CNC); Warkworth Creek, Near Churchill, 58.548754°N, 93.981843°W, 21.vi.1952, J.G. Chillcott (3♂, CNC); Churchill Area, 58.632°N, 94.22 05°, vii.2007, A. Renaud (1♂, CNC); Churchill Area, Bluff D at Bird Cove, 58.762001°N, 93.893°W, 30.vi.2007, J. Skevington (1♀, CNC); 11 km S Churchill, Churchill River weir, Goose Creek Road, between Pumphouse and the Weir, 58.674999°N, 94.167°W, 02.vii.2007, J.Skevington (1♂, CNC); **Newfoundland and Labrador:** Agriculture Experimental Station, St. John's, 47.514837°N, 52.784212°W, 05.viii.1967, Malaise trap, J.F. McAlpine (1♂, CNC); Bell Island, Division No. 1, 47.626192°N, 52.963847°W, 4–7.viii.1967, J.F. McAlpine (2♂, CNC); Cartwright, Labrador, 53.694772°N, 57.010406°W, 03–24.vii.1955, E.F. Cashman (7♂, CNC); Goose Bay, Labrador, 53.326031°N, 60.387266°W, 17.vi.1948, H.C. Friesen (4♂, CNC); Saint Anthony, Division No.9, 51.372031°N, 55.597549°W, 22.vi–20.vii.1951, J.B. Wallis (14♂, CNC); St. John's, Division No.1, 47.576727°N, 52.701133°W, 12.vii.1949, F.G. DiLabio (3♂, CNC); **Northwest Territories:** Aklavik, 68.219638°N. 135.010707°W, 22.vi–02.vii.1956, E.F. Cashman (5♂, CNC); **Nova Scotia:** Cape Breton Highlands National Park, 10 km South of Pleasant Bay on Bog Trail, Inverness Co., 46.767398°N, 60.839665°W, 21.vi.1983, A. Borkent (1♂, CNC); Cape Breton Highlands National Park, Boardwalk Bog, 08.vii.1983, D.M. Wood (1♂, CNC); Cape Breton Highlands National Park, French Lake Bog, 46.731589°N, 60.887575°W, 425m, 08.vii.1982, R. Layberry (1♂, CNC); Cape Breton Highlands National Park, French Lake, 46.728452°N, 60.86483°W, 24–30.vi.1984, H.J. Teskey (2♂, CNC); Cape Breton Highlands National Park, North Mountain, 46.795174°N, 60.68649°W, 400m, 08.vi.1983, (1♂, CNC); Cape Breton Highlands National Park, Paquette Lake, 46.833315°N, 60.431884°W, 02.vii.1983, sweep, L. LeSage (1♂, CNC); Kentville, Kings Co., 45.077239°N, 64.496688°W, 06.viii.1958, J.R. Vockeroth (2♂, CNC); Lawrencetown, Halifax County, 44.644175°N, 63.344629°W, 19–20.vii.1967, D.M. Wood (1♂, CNC); Sable Island, Halifax County, 43.93017°N, 59.901979°W, 6–12.vi.1966, H.F. Howden (5♂, CNC); South Harbour Beach, Victoria Co., 46.878287°N, 60.429055°W, 22.vi.1983, J.R. Vockeroth (2♂, CNC); West End of Sable Island, Halifax Co., 43.942552°N, 60.088374°W, 16.vii.1967, D.M. Wood (1♂, CNC); **Nunavut:** Arviat (Eskimo Point), 61.108219°N, 94.058513°W, 31.vii.1950, 06–08.viii.1950, G.G. DiLabio (11♂, CNC); Geillini Lake, 60.279831°N, 95.596472°W, 19.vii.1952, J.G. Chillcott (3♂, CNC); **Ontario:** Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 19–27.vii.1925, N.K. Bigelow (5♀, CNC); **Prince Edward Island:** Mount Herbert, Queens County, 46.230254°N, 63.039204°W, 22.viii.1984, L.S. Thompson (1♂, CNC); **Quebec:** 37 km North West of Schefferville, Sept-Rivieres-Caniapiscau, 55.038335°N, 66.424521°W, 11.vii.1981, F. Brodo (3♂, CNC); Great Whale River, 55.116816°N, 76.405554°W, 29.vi.1949, J.R. Vockeroth (1♂, CNC); Inukjuak (Port Harrison), 58.456121°N, 78.108488°W, 23.vii–05.viii.1949, D.P.

Whillans (1♂, CNC); Kuujuaq (Fort Chimo), 58.100076°N, 68.406179°W, 29.vi.1948, H.N. Smith (1♂, CNC); **Yukon Territory:** North Fork Crossing, Mile 43 Peel Pit Road, 64.565983°N, 138.250648°W, 1067m, 03.vii.1962, R.E. Leech (1♂, CNC); **United States of America: Colorado:** Kinikini, 40.7°N, 105.663°W, 5.vi.1996, S. Fitzgerald (2♂, CSU).

Platycheirus coerulescens

Canada: Alberta: Banff, Banff National Park, 51.180275°N, 115.568433°W, 09.vi.1922, C.B.D. Garrett (1♂, CNC); Fort Chipewyan, Division No. 16, 58.716057°N, 111.152443°W, 24.vii.1927, J. Russell (1♂, CNC); Lethbridge, 49.69444°N, 112.84167°W, 29.iv.1925, H.E. Gray (3♀, DEBU); Lethbridge, Division No. 2, 49.693249°N, 112.839298°W, 05.v.1915, E.H. Strickland, 29–30.vii.1925, H.E. Gray (1♂, 3♀, CNC); Medicine Hat, Division No. 1, 50.040483°N, 110.673523°W, 05–27.v.1927, F.S. Carr (4♀, CNC); Norton, 31.v.1955, J.R. Vockeroth (1♂, CNC); **British Columbia:** Atlin, 59.5775°N, 133.69236°W, 1219m, 02.viii.1955, H. Huckel (1♂, CNC); Fort Nelson, Peace River Land District, 58.804594°N, 122.697436°W, 26.viii.1948, W.R.M. Mason (1♂, CNC); Hedley, Okanagan-Similkameen R.D., 49.357784°N, 120.075962°W, 29.viii.1923, C.B.D. Garrett (1♀, CNC); Hope Mountains, Fraser Valley, R.D., 49.192286°N, 121.208676°W, 1829m, 21.vii.1932, A.N. Gartrell (1♂, CNC); Kaslo, Central Kootenay R.D., 49.912541°N, 116.909681°W, 12.iv.–10.vii.1908, Cockle (2♀, CNC); Manning Park, Blackwall Mountain, Okanagan-Similkameen, R.D., 49.098666°N, 120.766925°W, 1829m, 05.viii.1953, D.F. Hardwick (1♂, CNC); Manning Park, Blackwall Mountain, Okanagan-Similkameen, R.D., 49.098666°N, 120.766925°W, 1829m, 09.viii.1953, J.R. McGillis (2♂, CNC); Oliver, Okanagan-Similkameen R.D., 49.182338°N, 119.550442°W, 11–25.iv.1923, C.B.D. Garrett, 23.iv.1927, E.R. Buckell (5♂, 3♀, CNC); Penticton, Okanagan-Similkameen R.D., 49.480552°N, 119.584669°W, 21.iv.1927, E.R. Buckell (1♂, CNC); Royal Oak, Capital R.D., 48.484275°N, 123.3804°W, 29.iv.1917, R.C. Treherne (1♀, CNC); **Manitoba:** Aweme, 49.708529°N, 99.602758°W, 01–03.v.1916, N. Criddle, 24.iv.1922, R.M. White (2♂, 1♀, CNC); Churchill, 58.768828°N, 94.171563°W, 27.viii.1948, L.A. Miller, 02.ix.1948, R. Richards (2♂, CNC); Churchill River, 20 Miles South of Churchill, 58.502358°N, 94.249862°W, 5–6.viii.1937, D.G. Denning, (4♂, 4♀, CNC); Fort Churchill, 58.75525°N, 94.078885°W, 15.viii.1952, J.G. Chillcott (1♂, CNC); Mafeking, Division No. 20, 52.680985°N, 101.109055°W, 03.ix.1959, A. & J. Brooks (1♂, CNC); **Northwest Territories:** Cameron Bay, Great Bear Lake, 66.063674°N, 117.885377°W, 22.vii.1937, T.N. Freeman (1♂, CNC); Fort Norman, Mackenzie River, 64.91124°N, 125.46112°W, 12.viii.1922, C.H. Crickmay (1♂, CNC); Fort Smith, Mackenzie, 60.007115°N, 111.889653°W, 20.v.1950, J.B. Wallis (1♂, CNC); Hyndman Lake, 68.23°N, 131.166667°W, 31.vii–30.viii.1969, G.E. Shewell (2♂, CNC); Kidluit Bay, Richards Island, 69.352136°N, 135.376863°W, 31.vii.1948, J.R. Vockeroth (1♂, CNC); Norman Wells, 65.281569°N, 126.828015°W, 12.viii.1969, G.E. Shewell (1♂, 1♀, CNC); Reindeer Depot, Mackenzie Delta, 68.668974°N, 134.071574°W, 01–02.viii.1948, J.R. Vockeroth (2♂, 12♀, CNC); Yellowknife, 62.45524°N, 114.36924°W, 1.vi.1953, J.G. Chillcott (1♂, CNC); Yellowknife, Road near Stock Lake, 62.473004°N, 114.396249°W, 12.vi.1966, G.E. Shewell (1♂, CNC); **Ontario:** Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 21.vii.1925, N.K. Bigelow (1♂, CNC); **Saskatchewan:** Midale, Division No. 2, 49.395887°N, 103.410535°W, 12.vi.1940 (1♂, CNC); Nipawin, Division No.14, 53.365608°N, 104.011519°W, 02.vi.1948, J.R. Vockeroth (1♂, CNC); Saskatoon, Division No. 11, 52.129272°N, 106.67027°W, 17.v.1948, J.R. Vockeroth (1♂, CNC); **Yukon Territory:** Whitehorse, 60.733402°N, 135.082092°W, 30.viii.1959, R. Madge (1♀, CNC); **United States of America: California:** Tioga Pass, Hall Area site, Mono County, 37.919391°N, 119.255072°W, A.R. Moldenke (1♂, CNC); **Colorado:** Boulder, 39.936516°N, 105.270546°W, 1676m, 16.vi.1961, B.H. Poole (1♂, CNC); Cameron Pass, 40.520816°N, 105.892513°W, 07.vii.1931, (2♂, CNC); Cascade Creek, 40.201°N, 105.83°W, 2743 m, 23.iv.2006, C. Slater (2♂, CSU); Doolittle Ranch, Mount Evans, 39.675739°N, 105.601348°W, 2987m, B.H. Poole (3♂, CNC); Echo Lake, Mount Evans, 39.658085°N, 105.6035°W, 3231m, 20.vii.–11.viii.1961 B.H. Poole (2♂, CNC); Goliath Peak, 36.64°N, 105.6°W, 3658 m, 7.viii.2006, C. Slater (1♂, CSU); Little Beaver Creek, 40.624°N, 105.524°W, 5.vii.1996, S. Fitzgerald (1♂, CSU); Loveland Pass, 39.65°N, 105.87°W, 3597 m, 21.iii.2003, C. Slater (1♂, CSU); Mount Cooper, ~11 km N Leadville, ski hill, 39.34958°N, 106.28428°W, 3584 m, 28.vi.2010, A.D. Young (3♂, DEBU); Nederland, Science Lodge, 39.95°N, 105.5°W, 2896m, 28.vi.1961, B.H. Poole (1♂, CNC); Pingree Park, 40.567018°N, 105.59777°W, 8.viii.1925, W.J. Brown (1♂, CNC); Red Rocks Park, 39.037°N, 105.07°W, 7.iv.1995, D. Leatherman (1♂, CSU); Trail Ridge Road, 40.441427°N, 105.755575°W, 29.vii.1988, M. & H. James (1♂, CNC); **Idaho:** Galena Summit, Blaine County, 43.8707396°N, 114.713955°W, 2621m, 15.vii.1961, B.H. Poole (1♂, CNC); **Montana:** Horse Creek Flats, Ravalli County, 46.129917°N, 114.335826°W, 19.vii.1939, C.B. Philip (1♂, CNC); **New Hampshire:** Jemez Springs Mountains, 35.771336°N, 106.690555°W, v (1♂, CNC); **New Mexico:** Cloudcroft, 32.957313°N, 105.742486°W, 26.v.1964, J.F. McAlpine (1♂, CNC); Jemez Springs Mountains, 35.771336°N, 106.690555°W, iv (2♂, CNC); **Oregon:** Steen's Mountain Spring, N. Side of Big Indian Gorge, 42.667222°N, 118.587778°W, 2730m, 28.vii.–6.viii.2005, Malaise trap, G.W. Courtney (2♂, CNC); **Utah:** Carbon County,

41.671259°N, 106.935023°W, 01.viii.1925, C.L. Corkins (1♂, CNC); Salt Lake City, 40.760779°N, 111.891047°W, 04.v.1913, Timberlake (1♂, CNC); **Wyoming:** Albany County, Pole Mountain, 42.576919°N, 105.895861°W, 24.v.1950, D.G. Denning (1♂, CNC); Albany County, Snowy Range Mountains, 41.3477477°N, 106.3241289°W, 26.vii.1947, D.G. Denning (1♂, CNC); Battle Lake Road, Sierra Madre Range, 41.157762°N, 107.008936°W, 2591m, 18.vii.1961, B.H. Poole (1♂, CNC); Wyoming, 43.084281°N, 107.556417°W, 05.v.1905, F.M. Hull (5♂, CNC).

Platycheirus confusus

Holotype ♂ *Melanostoma confusa* Curran, 1925: HOLOTYPE *M. confusa* Curran, CNC No. 467 / [Canada] Orillia Ont[ario] [44.609505°N, 79.42068°W] 5.V.1921 / Collector H. Curran / CNC DIPTERA #25313 (CNC). **Canada:** **Alberta:** Banff, Banff National Park, 51.180275°N, 115.568433°W, 05.v.- 17.vii.1922, C.B.D. Garrett, 04.vii.1924, E. Hearle (6♂, 9♀, CNC); Eisenhower Junction, Banff National Park, 51.2667°N, 115.9167°W, 1433m, 04–15.vii.1962, K.C. Herrmann, W.R.M. Mason (2♂, 2♀, CNC); Elkwater, Cypress Hills, Division No. 1, 49.658812°N, 110.283687°W, 08.vii.1972, J.W. Boyes (1♀, CNC); Healy Creek, Banff National Park, 51.149095°N, 115.685002°W, 1737m, 24.vii.1962, W.R.M. Mason (1♂, CNC); Kananaskis, Forest Experimental Station, Seebe, 51.100879°N, 115.087692°W, 15–24.vi.1968, Malaise trap, H.J. Teskey, (2♀, CNC); Lethbridge, Division No. 2, 49.693249°N, 112.839298°W, 12.v.1949, G.E. Swailes (1♀, CNC); Mile 14 Banff, Banff-Jasper Highway, 51.231247°N, 115.838509°W, 02.viii.1955, R. Coyles (1♀, CNC); Waterton Lakes National Park, 49.076725°N, 113.938101°W, 1–5.vii.1980, H.J. Teskey (1♀, CNC); Wigmore Creek, Banff National Park, 51.531843°N, 115.726102°W, 2012m, 20.vii.1962, E. Mason (6♂, CNC); **British Columbia:** 10 miles West of Terrace, 54.450431°N, 128.815819°W, 09.vi.1960, J.G. Chillcott (1♂, CNC); 32 miles South West of Terrace, 54.194076°N, 129.140296°W, 04.vi.1960, G.E. Shewell 06.vi.1960 C.H. Mann 11.vi.1960 B. Heming (23♂, CNC); Bowser, Nanaimo Regional District, 49.442103°N, 124.68311°W, 31.v.1955, R. Coyles (2♂, CNC); Cowichan Lake, Cowichan Valley R.D., 48.888341°N, 124.314449°W, 06.vi.1955, R. Coyles (2♂, CNC); Gagnon Road, 6miles West of Terrace, 54.499294°N, 128.716143°W, 67m, 08.vi.1960, B. Heming, 20.vi.1960, J.G. Chillcott (4♂, CNC); Glacier Creek, 10 miles North of Terrace, 54.650597°N, 128.655585°W, 152m, 02.vi.1960, W.W. Moss (4♂, CNC); Graham Is., 3 km N of Tlell, 53.5798°N, 131.9229°W, 12–13.vii.1988, T.A. Wheeler (2♂, DEBU); Kitimat, Range 5 Coast L.D., 54.05566°N, 128.656697°W, 02.vi.1960, J.G. Chillcott (3♂, CNC); Kitsequecla River, 76 Miles East of Terrace, 54.503464°N, 126.655409°W, 206m, 16.vii.1960, C.H. Mann (1♂, CNC); Kitsumkalum Lake, 20 Miles North of Terrace, 54.762473°N, 128.770968°W, 31.v.1960, B.S. Heming, 16.vi.1960, J.G. Chillcott (9♂, CNC); Kleanza Creek, Near Terrace, 54.597897°N, 128.386241°W, 76m, 14.vi.1960, B. Heming, 13.vii.1960, B. Heming (2♂, CNC); Lakelse Lake Bog, Near Terrace, 54.344012°N, 128.592884°W, 14.vi.1960, B. Heming, 11.vii.1960, W.R. Richards (11♂, CNC); Lakelse Lake, Hot Springs Area, 54.371144°N, 128.535718°W, 14.vi.1960, G.E. Shewell (1♂, CNC); Lakelse, near Terrace, 54.344012°N, 128.592884°W, 91m, 14.vi.1960, W.W. Moss (1♂, CNC); Lisadele Lake, Cassiar L.D., 58.680264°N, 133.050826°W, 1219m, 10.viii.1960, W.W. Moss (1♂, CNC); Moosehorn Lake, Cassiar L.D., 58.164009°N, 132.12694°W, 1372m, 26.vii.1960, W.W. Moss, 29.vii.1960, R. Pilfrey (2♂, CNC); Mount Thornhill, Near Terrace, 54.500002°N, 128.43693°W, 1311–1615m, 14.vii.1960, J.G. Chillcott (1♂, CNC); Prince Rupert, Skenna-Queen Charlotte R.D., 54.31368°N, 130.315462°W, 04.vi.1960, J.G. Chillcott (2♂, CNC); Remo, 7 Miles South West of Terrace, 54.491489°N, 128.7248°W, 13.vi.1960, B. Heming (1♂, CNC); Shames, 16 Miles South West of Terrace, 54.409648°N, 128.935301°W, 04.vi.1960, J.G. Chillcott (2♂, CNC); Shames, 18 Miles South West of Terrace, 54.409648°N, 128.935301°W, 23.vi.1960, J.G. Chillcott, 17.vii.1960, B. Heming (6♂, CNC); Spring Creek, Terrace, 54.539511°N, 128.618192°W, 03.vi.1960, B.S. Heming (1♂, CNC); Terrace, 54.516512°N, 128.586663°W, 20–22.vi.1960, C.H. Mann, 19.vii.1960, B. Heming (5♂, CNC); Tunjony Lake, Cassiar L.D., 58.438°N, 132.746°W, 975m, 18–20.vii.1960, W.W. Moss, R. Pilfrey (2♂, CNC); Tyee, 27 Miles East of Prince Rupert, Skeena-Queen Charlotte R.D., 54.202612°N, 129.949475°W, 24.vi.1960, R.J. Pilfrey (1♂, CNC); **New Brunswick:** 15 km South East of Doaktown, Northumberland County, 46.435098°N, 66.019105°W, 23.v.1979, Thomsons, Maddisons and Andrews (1♂, CNC); 5 km South East of Doaktown, Northumberland County, 46.510218°N, 66.084743°W, 18–28.v.1979, D. & W. Maddison, B. Andrews (2♂, 3♀, CNC); Bog 10 km North East of Chipman, Queens County, 46.24798°N, 65.732778°W, 17.v.1979, W. & D. Maddison (1♂, CNC); Charlotte County, 45.23102°N, 66.925304°W, 14.vi.1955, W.T.A. Neilson (2♀, CNC); Fredericton, 45.0667°N, 64.48333°W, 19.v.1921 (3♀, CNC); Fredericton, York County, 45.959225°N, 66.640351°W, 16.v.1963, R.C. Clark (2♂, CNC); Kouchibouguac National Park, Kent Co., 46.819201°N, 64.96788°W, 28.vi.1977, J.R. Vockeroth (1♀, CNC); Lincoln, Sunbury County, 45.897332°N, 66.570753°W, 24.iv.1968, I.W. Varty (1♂, CNC); St. Andrews, 45.08333°N, 67.05°W, 20–22.v.1978, S.A. Marshall (3♂, 5♀, DEBU); **Newfoundland and Labrador:** Logy Bay, 47.6366°N, 52.6869°W, 2.vi.1986, D. Larson (1♂, DEBU); Pinware River Provincial Park, Division No. 9, 51.634267°N, 56.708114°W, 29.vi.1983, A. Borkent (1♂, CNC); Portugal Cove, 47.62778°N, 52.85556 4°W, vii.1942 (1♂, DEBU); Wiltondale, Division No. 9, 49.395068°N, 57.607907°W, 19.vi.1979, B.V. Peterson (1♀, CNC); **Nova**

Scotia: Cape Breton Highlands National Park, at herbs, 46.764713°N, 60.630731°W, 400m, 26.v.- 28.vi.1984, B.E. Cooper (45♂, 29♀, CNC); Cape Breton Highlands National Park, Middle Head, Victoria Co. 46.656586°N, 60.365462°W, 24.vi.1983, J.R. Vockeroth (1♀, CNC); Cape Breton Highlands National Park, Near Lake of Islands, 46.764713°N, 60.630731°W, 18.vi.1983, A. Borkent (2♀, CNC); Cape Breton Highlands National Park, North Mountain, Inverness Co., 46.795174°N, 60.68649°W, 400m, 25.vi.1983, J.R. Vockeroth (1♀, CNC); Dingwall, Victoria Co., 46.896638°N, 60.469402°W, 23.vi.1983, J.R. Vockeroth (1♀, CNC); Greenfield, Queens Co., 44.271541°N, 64.841796°W, 10–13.v.1968, D.M. Wood (1♂, CNC); Kentville, Kings Co., 45.077239°N, 64.496688°W, 23.v.1951 (1♂, 1♀, CNC); Pt. Orchard, 23.v.1951, Stultz & Dondale (1♀, CNC); South Harbour Beach, Victoria Co., 46.878287°N, 60.429055°W, 22.vi.1983, 06.vii.1983, J.R. Vockeroth (2♀, CNC); **Ontario:** Algonquin Prov. Pk., Madawaska River at Hwy 60, 45.50199°N, 77.97628°W, 12–27.v.2007, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Swan Lk. Stn., Scott Lk., 45.4875°N, 78.72222°W, 30.v.1994, 1–10.vii.1994, Malaise trap (2♂, DEBU); Belfountain, 43.79306°N, 80.01528°W, 26.v.1976, S.L. Miller (1♂, DEBU); Chalk River, 46.01806°N, 77.45306°W, 30.vi.1969, R.L. Richardson (1♀, DEBU); Cove Island, *Primula mistassinica* flowers, 45.3054°N, 81.7226°W, 1.vi.1996, B. Larson (1♂, DEBU); Dirleton, Ottawa Division, 45.494944°N, 76.142874°W, 29.iv.1968, J.E.H. Martin (1♀, CNC); Emo, Koochiching County, 48.633522°N, 93.837576 °W, 25.vi.1924, J. Brimley (1♀, CNC); Griffith, 7 miles East, 45.243279°N, 77.031193°W, 30–31.v.1983, B.E. Cooper, 05.vi.1983, B.E. Cooper, 20.vii.1985, B.E. Cooper (5♂, 7♀, CNC); Guelph, Wellington Co. 43.534656°N, 80.236609°W (1♀, CNC); Howdenvale, *Primula mistassinica*, 44.8256°N, 81.2969°W, 1.vi.1997, B. Larson (3♂, DEBU); Huntsville, S. Waseosa Rd., 45.38056°N, 79.29167°W, 16.viii.1993, 27.vii.1994, 24–29.v.1996, 5.vi.1997, W.J. Crins (4♀, DEBU); Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 06–11.vi.1925, N.K. Bigelow (8♂, 2♀, CNC); Maynooth, Hastings Co., 44.483359°N, 77.68088°W, 26.vi.1951, 24.v.1970, J.F. McAlpine (1♂, 1♀, CNC); Mer Bleu, 5 Miles East of Ottawa, Ottawa Division, 45.40331°N, 75.5083°W, 05.vi.- 21.vii.1966, Malaise trap, D.D. Munroe (9♀, CNC); Oliphant, 44.7333°N, 81.2666°W, 31.v.1997, B. Larson (1♂, DEBU); Orillia, Simcoe Co., 44.609505°N, 79.42068°W, 28.iv.- 29.v.1921, C.H. Curran (2♂, 7♀, CNC); Pinery Provincial Park, Riverside Trail, Lambton Co., 43.266062°N, 81.811662°W, 04.ix.1997, I. Carmichael (1♀, CNC); Port Franks, Watson Property nr. L-Lake, 43.21667°N, 81.9°W, 15–17.vi.1996, Malaise traps, J. Skevington (1♂, DEBU); Preston, 43.38333°N, 80.35°W, 28.v.1970, K.S.S. Nair (1♀, DEBU); **Quebec:** 2 Miles North of Eardley, Les Collines-de-l'Outaouais, 45.581565°N, 76.091683°W, 03.v.1968, D.M. Wood (2♂, CNC); Abbotsford, 45.437637°N, 72.887923°W, 30.v.1968, D.M. Wood (1♀, CNC); Aylmer, Communaute-Urbaine-de-l'Outaouais, 45.400224°N, 75.817137°W, 10–19.v.1927, C.H. Curran (1♂, 1♀, CNC); Baie-Comeau, Manicougan, 49.214479°N, 68.194714°W, 09.vi.1954, C.C. Steward (1♀, CNC); Beechgrove, Les Collines-de-l'Outaouais, 45.64508°N, 76.123602°W, 03–17.v.1951, J.R. Vockeroth, J.F. McAlpine, B. Poole (9♂, 1♀, CNC); Breckenridge, Les Collines-de-l'Outaouais, 45.551425°N, 76.168849°W, 07.vi.1962, C.H. Mann (1♀, CNC); Broadview, 15.v.1925, G.S. Walley (1♀, CNC); Duncan Lake, near Rupert, 45.681389°N, 76.050278°W, 21.v.1971, J.F. McAlpine (1♂, CNC); Harrington Lake, Gatineau Park, 45.860192°N, 74.553289°W, 30.v.1954, W.R. Coyles, 03.vi.1954, E.E. Sterns (2♀, CNC); Hull, 45.44167°N, 75.73333°W, 20–24.v.1923, C.H. Curran (1♂, 1♀, DEBU); Hull, Communaute-Urbaine-de-l'Outaouais, 45.447639°N, 75.733192°W, 20–27.v.1923, C.H. Curran (2♂, 1♀, CNC); Ile d'Anticostie, Jupiter, 49.530833°N, 63.280556°W, 16–30.vi.2007, Malaise trap, 1–18.vii.2007, (2♂, CNC); Kingsmere, Les Collines-de-l'Outaouais, 45.49347°N, 75.845565°W, 16.v.1958, J.G. Chillcott (1♂, CNC); Lac Mondor, Near Ste. Flore, Le Centre-de-la-Maurice, 46.625254°N, 72.768842°W, 15.v.1951, E.G. Munroe (1♂, 1♀, CNC); Laniel, Temiscamingue, 47.045828°N, 79.268979°W, 10.vi.1931, H.S. Fleming, 07.vi.1963, W. Gagne (2♀, CNC); Larouche, Baie-Comeau, Manicougan, 14.vi.1954, C.C. Steward (1♀, CNC); Mistassini, Le Domaine-du-Roy, 48.888579°N, 72.205228°W, 09.vi.1956, J.R. Lonsway (1♂, CNC); Old Chelsea, Les Collines-des-L'Outaouais, 45.499972°N, 75.814667°W, 16.v.1958, J.R. Vockeroth, 22.v.1968, J.R. Vockeroth (2♀, CNC); Outremont, Montreal, Communaute-Urbaine-de-Montreal, 45.507128°N, 73.622812°W, 05.vi.1920, J. Ouellet (1♀, CNC); Round Top Mountain, Sutton, Brome-Missisquoi, 45.087005°N, 72.541096°W, 05.vi.1963, J.G. Chillcott (1♂, CNC); Tetreauval, 50.8167°N, 58.95°W, 20.v.1923, C.H. Curran (1♀, CNC); **Yukon Territory:** La Force Lake, 62.683°N, 132.33°W, 1006m, 26.vi.–10.vii.1960, J.E.H. Martin, E.W. Rockburne (10♂, CNC); North Fork Crossing, Mile 42 Peel Pit Road, 64.565983°N, 138.250648°W, 26.vi.1962, R.E. Leech (1♂, CNC); Otter Lake, 62.486817°N, 130.4167°W, 1219m, 15–17.vii.1960, J.E.H. Martin (3♂, CNC); Sheldon Lake, 62.616763°N, 131.266603°W, 1067m, 03–07.vii.1960, E.W. Rockburne (4♂, CNC); Swim Lakes, 62.210135°N, 132.809978°W, 975m, 10.vi.1960, J.E.H. Martin (1♂, CNC); **United States of America: California:** Buck Meadows - Mather Site, Tuolumne County, 37.81278°N, 120.06333°W, A.R. Moldenke (1♀, CNC); Calaveras Big Tree St. Pk., 38.262°N, 120.26°W, 1463 m, 22.v.–11.vi.2007, A.R. Cline & P.H. Kerr (1♂, CSCA); Tahoe City, 39.166°N, 120.239°W, 2200 m, 14.vi.2007, S.M. Blank (1♂, CSCA); **Colorado:** Mount Mitchell State Park, 35.75°N, 82.28°W, 12.vii.2008, B.C. Kondratieff (1♂, CSU); **North Carolina:** Great Smoky Mountain National Park, Clingman's

Dome, 30.047433°N, 99.140319°W, 1920–2024m, 17.v.1957, J.R. Vockeroth (1♂, CNC); **Oregon:** Hood River, 45.705397°N, 121.521462°W, 26.v.1917, F.R. Cole (1♂, CNC); Hood River, 45.705397°N, 121.521462°W, 05.vi.1917, F.R. Cole (1♂, CNC); Sunset Bay, Coos County, 43.333347°N, 124.371796°W, 17.vii.1965, Malaise trap (1♂, CNC); **Washington:** Mount Rainier, 46.853048°N, 121.753127°W, vii.1926, F.M. Hull (1♂, CNC).

Platycheirus coracinus

Holotype ♂ *Platycheirus coracinus* Vockeroth, 1990: [Canada] Yukon [Territory] 10 km South of Carcross [60.078988°N, 134.706019°W] 1830m 18.VII.1980, G. & D.M. Wood / HOLOTYPE *Platycheirus coracinus* Vockeroth CNC No 17271 / CNC DIPTERA #25165 (CNC).

Platycheirus discimanus

Canada: Manitoba: Aweme, 49.708529°N, 99.602758°W, 01.v.1922, R.M. White (3♂, CNC); Onah, Division No. 7, 49.805973°N, 99.524133°W, 10.v.1923, N. Criddle (3♂, CNC); **Ontario:** Footes Bay, 27.iv.1959, J.G. Chillcott (1♂, CNC); **Norway:** Hordaland Isdalen, Bergen, 60.394008°N, 5.373117°W, 09–10.v.1974, Tore Nielsen (1♂, 1♀, CNC); Isdalen, 9.v.1970, T. Nielsen (1♀, TNPC).

Platycheirus flabella

Holotype ♂ *Platycheirus flabella* Hull, 1944: Holotype *flabella* Hull / [United States of America] Mt. Ranier Wash[ington] [46.9°N, 121.54°W] July [19] 26 F.M. Hull / *Platycheirus flabella* Hull Det F.M. Hull / HOLOTYPE *Platycheirus flabella* Hull CNC No 19302 / CNC DIPTERA #177623 (CNC). **Canada: Alberta:** Cameron Lake, Waterton Lakes National Park, Division No. 3, 49.011457°N, 114.049238°W, 17.vi.1956, E.E. Sterns (8♂, CNC); **British Columbia:** Lisadele Lake, Cassiar L.D., 58.680264°N, 133.050826°W, 1219m, 05.viii.1960, W.W. Moss (1♂, CNC); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 30.vi.1955, E.E. Sterns (1♂, CNC); **Quebec:** Knob Lake, 54.783°N, 66.783°W, 07–10.vii.1948, E.G. Munroe (2♂, CNC); **Yukon Territory:** La Force Lake, 62.683°N, 132.33°W, 1006m, 27.vi.1960, J.E.H. Martin (1♂, CNC); North Fork Crossing, Mile 42 Peel Pit Road, 64.565983°N, 138.250648°W, 1067m, 24.vi.- 04.vii.1962, P.J. Skitsko (4♂, CNC); North Fork Crossing, Mile 43 Peel Pit Road, 64.565983°N, 138.250648°W, 1067m, 26.vi.- 05.vii.1962, R.E. Leech (3♂, CNC); Otter Lake, 62.486817°N, 130.4167°W, 1219m, 29.vii.1960, J.E.H. Martin (1♂, CNC); **United States of America: Alaska:** Denali National Park and Preserve, 63.731998°N, 148.979995°W, 24.vi.- 08.vii.2001, O. Helmy (2♂, 8♀, UAM).

Platycheirus granditarsis

Canada: Alberta: Banff, Banff National Park, 51.180275°N, 115.568433°W, 01–26.vi.1922, C.B.D. Garrett, 15.vii.1924, E. Hearle (2♂, 5♀, CNC); Eisenhower Junction, Banff National Park, 51.2667°N, 115.9167°W, 1433m, 06.vii.1955, J.R. McGillis, 07.vii.1962, Malaise trap, W.R.M. Mason (5♂, 1♀, CNC); Eisenhower Lookout, Banff National Park, 51.295448°N, 115.917276°W, 1402m, 07–15.vii.1962, K.C. Herrmann (3♂, CNC); Fort McMurray, 56.73104°N, 111.447752°W, 28.vii.1952, G.E. Ball (1♀, CNC); Jasper, 52.87928°N, 118.07926°W, 27–30.vii.1926, J. McDunnough (1♀, DEBU); Waterton Lakes National Park, 49.076725°N, 113.938101°W, 18.vi.1956, E.E. Sterns, 7–20.vii.1980, H.J. Teskey (4♂, 2♀, CNC); White Mud River, Peace River District, 56.510519°N, 117.660461°W, 15.vii.1932, L.S. Russell (2♀, CNC); **British Columbia:** 10 miles North of Terrace, 54.669741°N, 128.717772°W, 16.vii.1960, B. Heming (1♀, CNC); Agassiz, 49.238948°N, 121.765842°W, 24.vii.1922, R. Glendenning, 01.ix.1925, 27.vii.1926, R. Glendenning, 29.vii.1926, 26.v.1927, H.H. Ross, 04.vi.1927, R. Glendenning (5♂, 6♀, CNC); Bear Lake, Fraser-Fort George R.D., 54.499389°N, 122.687445°W, 22.vi.1985, S.G. Cannings (1♂, CNC); Clinton, Thompson-Nicola R.D., 51.089604°N, 121.590819°W, 20.vii.1938, J.K. Jacob (1♀, CNC); Goldstream Provincial Park, Vancouver Island, 48.481548°N, 123.548592°W, 15.vii.1926, W. Downes (1♂, CNC); Hatzic Lake, Fraser Valley R.D., 49.167692°N, 122.239657°W, 18–22.vii.1953, W.R.M. Mason (5♂, CNC); Horsefly, Cariboo R.D., 52.332688°N, 121.415978°W, 14.vii.1973, H.J. Teskey (1♀, CNC); Lac la Hache, Lilliooet L.D., 51.81404°N, 121.47343°W, 15.vi.1973, H.J. Teskey (1♀, CNC); Likely, Cariboo Co, 52.616685°N, 121.563802°W, 09.vii.1938, G.S. Walley (1♂, CNC); McQueen Lake, 10 Miles North of Kamloops, Thompson-Nicola R.D., 50.828873°N, 120.442513°W, 18.vi.1973, H.J. Teskey (1♂, CNC); Milner, Greater Vancouver R.D., 49.12645°N, 122.624898°W, 12.vii.1953, W.R.M. Mason (4♂, CNC); Mission City, Fraser Valley R.D., 49.140168°N, 122.309497°W, 09.vi.1953, W.R.M. Mason, 15–20.vii.1953, G.J. Spencer (2♂, 2♀, CNC); New Westminster, Greater Vancouver R.D., 49.203705°N, 122.914588°W, 14.viii.1924, W. Downes (1♂, CNC); Oliver, Okanagan-Similkameen R.D., 49.182338°N, 119.550442°W, 305m, 20.viii.1953, J.R. McGillis (1♀, CNC); Pitt Meadows, 49.25°N, -22.7°W, 21.vii.1953, G.J. Spencer (1♂, CNC); Revelstoke, Mount Revelstoke National Park, 51.035979°N, 118.142509°W, 02.vii.1973, H.J. Teskey (1♀, CNC);

Robson, Central Kootenay L.D., 49.342029°N, 117.697831°W, vi.1963, J.W. Boyes (1♂, CNC); Salmon Arm, Columbia-Shuswap R.D., 50.703923°N, 119.273924°W, 05.viii.1925, A.A. Dennys (1♀, CNC); Summit Lake, Mile 392 of Alaska Highway, Northern Rockies R.D., 58.648201°N, 124.666912°W, 1280m, 21.vii.1959, R.E. Leech (3♂, 6♀, CNC); Summit Lake, Mile 392 of Alaska Highway, Northern Rockies R.D., 58.648201°N, 124.666912°W, 1372m, 11–14.vii.1959, E.E. MacDougall (2♀, CNC); Terrace, 54.516512°N, 128.586663°W, 76m, 17.vii.1960, Light Trap, B. Heming, 20.vii.1960, W.R. Richards (2♂, CNC); Vernon, North Okanagan R.D., 50.263769°N, 119.273734°W, 27.vii.1937, H. Leech (1♀, CNC); **Manitoba:** 5 miles South West of Shilo, 49.763964°N, 99.717403°W, 22.vii.1958, R.L. Hurley (1♀, CNC); Atikakes Lake, 14.viii.1949, J.B. Wallis (1♂, CNC); Cedar Lake, Division No. 21, 53.388894°N, 100.256038°W, 1–15.vii.1936, F.M. Carpenter & C.T. Parsons (1♀, CNC); Churchill, 58.768828°N, 94.171563°W, 11.vii.1933, A.T. Harper, 27.vii.1948, W.R. Richards, 26.vii.1950 H.J. Teskey (3♂, CNC); Fort Churchill, 58.75525°N, 94.078885°W, 10–18.vii.1952, J.G. Chillcott (2♂, 4♀, CNC); Gillam, 56.35333°N, 94.714404°W, 21–25.vii.1950, J.F. McAlpine (1♂, 1♀, CNC); International Peace Gardens, Turtle Mountain Forest Reserve, 49.000579°N, 100.058331°W, 17.vii.1958, R.L. Hurley (1♀, CNC); Mafeking, Division No. 20, 52.680985°N, 101.109055°W, 03.ix.1959, A. & J. Brooks (1♀, CNC); Mile 505, Hudson Bay Railway, 56.202722°N, 95.114134°W, 16.vii.1952, J.G. Chillcott (1♂, CNC); Ramsay Creek, ~24 km E Churchill, 58.73075°N, 93.78037°W, 29.vii.2007, Malaise trap, A. Renaud (1♀, DEBU); Ste. Rose, 50.992945°N, 99.40651°W, 11.vii.2012, E. Criddle (1♀, CNC); Stockton, Division No. 7, 49.591633°N, 99.455762°W, 20.vi.1925, R.M. White (1♂, CNC); Strathclair, Division No. 15, 50.404318°N, 100.395101°W, 15.vii.1926, E. Criddle (1♀, CNC); Wabowden, Division No. 22, 54.91059°N, 98.629015°W, 02.viii.1949, J.B. Wallis (1♀, CNC); Wapusk Natl. Pk., 57.8049°N, 93.2077°W, 14–28.vii.2007, Malaise trap, A. Renaud (1♀, DEBU); Winnipeg, Division No.11, 49.89663°N, 97.139037°W, 09.viii.1958, A. & J. Brooks (1♀, CNC); **New Brunswick:** Kouchibouguac National Park, Kent Co., 46.819201°N, 64.96788°W, 13.vii.1977, G.A. Calderwood, 12.vii.1978, D.B. Lyons, 21.vii.1978, S.J. Miller (3♀, CNC); St. Andrews, 45.08°N, 67.05°W, 18.vii.1978, S.A. Marshall (1♂, DEBU); **Newfoundland and Labrador:** Agriculture Experimental Station, St. John's, 47.514837°N, 52.784212°W, 28.vii.1967, Malaise trap, J.F. McAlpine (1♀, CNC); **Northwest Territories:** Fort McPherson, Mackenzie, 67.437°N, 134.881°W, 20.vii.1957, S.D. Hicks (1♂, CNC); Fort Simpson, McKenzie River, 61.847213°N, 121.350423°W, 25.vi.1922, C.H. Crickmay, 17.vii.1950, D.P. Whillans (1♂, 2♀, CNC); Hay River, Mackenzie, 60.817093°N, 115.784232°W, 11.vii.1951, P.R. Ehrlich (1♂, 2♀, CNC); Kam Lake, Yellowknife, 62.421364°N, 114.404544°W, 20.vi.1966, G.E. Shewell (1♂, CNC); Norman Wells, 65.281569°N, 126.828015°W, 28.vii.1949, W.R.M. Mason, 25–27.vi.1969, G.E. Shewell (1♂, 6♀, CNC); Nyarling River, 60.992618°N, 113.764204°W, 11.vii.1926, J. Russell (1♂, CNC); Reindeer Depot, Mackenzie Delta, 68.668974°N, 134.071574°W, 13.vii.1948, J.R. Vockeroth, 06.viii.1948, W.J. Brown (2♂, 1♀, CNC); Yellowknife, 62.446696°N, 114.391481°W, 04.viii.1949, E.F. Cashman (1♀, CNC); **Nova Scotia:** Baddeck, Victoria Co., Cape Breton Island, 46.10001°N, 60.753507°W, G. Fairchild (1♂, CNC); Kentville, Kings Co., 45.077239°N, 64.496688°W, 06.viii.1958, J.R. Vockeroth (1♀, CNC); Macguire's Farm, 46.15°N, 60.17°W, 2.vii.1998, T.A. Jones (1♂, CBU); **Ontario:** 10 miles East on Highway 11 from Fort Frances, Rainy River District, 48.662556°N, 93.282429°W, 8–9.vii.1978, H.J. Teskey (1♀, CNC); Algoma, Lk. Duval camp, 46.73472°N, 83.06444°W, 15.viii.2009, S.A. Marshall (1♂, DEBU); Algonquin Prov. Pk., Little Madawaska River, 45.2545°N, 76.7606°W, 13.viii.1995, B. Larson (1♀, DEBU); Algonquin Prov. Pk., Radiant Lake, East end of lake, 45.9948°N, 78.2641°W, 31.viii.1997, W.J. Crins (1♂, DEBU); Algonquin Provincial Park, 45.9605°N, 78.0611°W, 5–6.vii.2006, J.&A. Skevington (1♂, CNC); Atikokan, 4 miles East on Highway 11, 48.723518°N, 91.313476°W, 05.vii.1978, H.J. Teskey (1♀, CNC); Bouchard Lake campground, 48.76944°N, 85.47833°W, 12.viii.2009, S.A. Marshall (1♀, DEBU); Bradford, 44.11528°N, 79.56528°W, 29.v.1958, D.H. Pengelly (1♂, DEBU); Burk's Falls, Parry Sound District, 45.61841°N, 79.406451°W, 12–14.vii.1926, F.P. Ide (18♂, 1♀, CNC, DEBU); Calton Swamp Wildlife Management Area, Elgin Co., 42.7229°N, 80.87922°W, 18.vii.1990, I. Carmichael (1♀, CNC); Chaffey's Lock, Leeds Co., 44.579098°N, 76.319816°W, 31.vii.1971, P. Ward (1♀, CNC); Chatham, 42.40528°N, 82.18778°W, 1925, R. Wright (1♂, DEBU); Cochrane, 50°N, 82°W, 20.vii.1973, S. Bower (1♀, DEBU); Elsie Lk., 48.41835°N, 84.97517°W, 13.viii.2009, S.A. Marshall (1♀, DEBU); Finland, Rainy River District, 48.856°N, 93.915°W, 21.vii.1960, S.M. Clark (1♀, CNC); Guelph, 43.55°N, 80.25°W, 02.vi.1913, C.H. Curran, 28.vi.1973, D.H. Pengelly, 3.vi.1975, N. Wilcox, 6.vi.1978, M. Lichtenberg (3♂, 3♀, CNC, DEBU); Kearney, Parry Sound District, 45.557061°N, 79.22506°W, 08.vii.1926, F.P. Ide (1♂, CNC); Kenora, 49.76389°N, 94.50694°W, 7.vii.2002, W.J. Crins (1♀, DEBU); Marmora, Hastings Co., 44.483359°N, 77.68088°W, 25.vii.1952, C. Boyle (1♂, CNC); Mer Bleu, 5 Miles East of Ottawa, Ottawa Division, 45.40331°N, 75.5083°W, 26.vi.1904, W. Metcalfe, 07.vi.1923, C.H. Curran, 23.vii.1923, R. Ozburn, 03.vi.1938, O. Peck, 19.vii.1963, J.R. Vockeroth (5♂, 3♀, CNC); Merivale Road, Ottawa, Ottawa Division, 45.373585°N, 75.732716°W, 28.vi.1945, G.S. Walley (1♂, CNC); Moosonee, 51.28056°N, 80.64556°W, 14.vii.1999, W.J. Crins (1♂, DEBU); Ogoki, 51.633716°N, 85.927716°W, 11.viii.1952, J.B. Wallis (1♂, CNC); Orillia, Simcoe Co.,

44.609505°N, 79.42068°W, 26.vi.1914, C.H. Curran (1♂, CNC); Ottawa, Ottawa Division, 45.411604°N, 75.688669°W, 26.v.1914, J.I. Beauine, 08.vi.1927, C.H. Curran, 01.vi.1951, J.F. McAlpine, 03.vi.1938, 23.v.1958, J.R. Vockeroth, 26.viii.1961, B.S. Heming (4♂, 4♀, CNC); Puslinch, 43.5°N, 80.2°W, 18–20.vi.1988, Malaise, Coote & Marshall (1♂, DEBU); Sand Pits, Ottawa, Ottawa Division, 30.v.1940, G.A. Hobbs (1♂, CNC); Severn, Simcoe Co., 44.752167°N, 79.511547°W, 12.vi.1927, C.H. Curran (1♀, CNC); Simcoe, Norfolk Co., 42.835994°N, 80.304764°W, 13.vi.1939, G.E. Shewell (1♀, CNC); Smiths Falls, Lanark County, 44.900397°N, 76.019364°W, 22.vi.1984, B.M. Bissett (7♂, 1♀, CNC); South March, Ottawa Division, 45.35173°N, 75.951618°W, 04.vi.1970, H.J. Teskey (1♂, CNC); Strathroy, Middlesex Co., 42.955521°N, 81.623292°W, 13.vi.1984, H.F. Hudson (1♂, CNC); Sudbury, Greater Sudbury Division, 46.493128°N, 80.990562°W (1♂, 3♀, CNC); Thorold, Niagara Regional Municipality, 43.123593°N, 79.19895°W, 31.v.1961, Kelton & Brumpton (1♀, CNC); Thunder Bay, 48.40139°N, 89.26806°W, 17.vii.1970, K.J.G. Deacon (1♂, DEBU); Turkey Point, Haldimand-Norfolk Regional Municipality, 42.681317°N, 80.331903°W, 08.vi.1931, G.S. Walley (1♂, CNC); Valens, Hamilton Division, 43.36213°N, 80.129591°W, 26.vii.1968, D.M. Wood (1♂, CNC); **Prince Edward Island:** Mount Herbert, Queens County, 46.230254°N, 63.039204°W, 22.viii.1981, L.S. Thompson (1♀, CNC); **Quebec:** 4 miles North of Eardley, 45.605811°N, 75.876404°W, 20.viii.1971, D.M. Wood (2♀, CNC); Abbotsford, 45.437637°N, 72.887923°W, 30.ix.1935, G.E. Shewell, 24.vii.1936, G.E. Shewell (1♂, 2♀, CNC); Beechgrove, Les Collines-de-l'Outaouais, 45.64508°N, 76.123602°W, 07.vi.1955, J.F. McAlpine (1♂, CNC); Cap-Chat, La Haute-Gaspésie, 49.096686°N, 66.684935°W, 13.viii.1954, W.J. Brown (1♂, CNC); Forestville, La Haute-Côte-Nord, 48.739162°N, 69.087761°W, 11.viii.1950, R. de Ruelle (1♀, CNC); Hemmingford, Les Jardins-de-Napierville, 45.04571°N, 73.588046°W, 26.vi.1923, C.H. Curran (2♂, CNC); Kazabazua, La Vallée-de-la-Gatineau, 45.952028°N, 76.021718°W, 6–10.vi.1927, W.J. Brown (1♂, CNC); Knowlton, Brome-Missisquoi, 45.216716°N, 72.514769°W, 23.vi.1929, L.J. Milne (1♂, CNC); La Verendrye Park: le Domaine, 47.0325°N, 76.536944°W, 19.viii.1965, D.M. Wood (1♂, CNC); Mile 61, Route 58, La Verendrye Provincial Park, 47.329309°N, 76.91563°W, 26.vi.1965, 16.viii.1965, D.M. Wood (1♂, 2♀, CNC); Mistassini, Le Domaine-du-Roy, 48.888579°N, 72.205228°W, 12.vii.- 09.viii.1956, J.R. McGillis, J.R. Lonsway (6♂, CNC); Montigny, Antoine-Labelle, 46.404505°N, 75.116616°W, 11.vi.1941, G.S. Walley (1♂, CNC); Montreal, Communaute-Urbaine-de-Montreal, 45.526155°N, 73.702807°W, G. Chagnon (1♂, CNC); Nemaska, 51.686365°N, 76.25767°W, 25.vi.1949, D.P. Gray (1♂, CNC); New Richmond, Bonaventure, 48.161182°N, 65.857535°W, 06.viii.1954, J.E.H. Martin (1♂, CNC); Nominigüe, Antoine-Labelle, 46.353134°N, 75.092576°W, 13.vi.1941, O. Peck (1♂, CNC); Parke Reserve, Kamouraska Co., 47.523387°N, 69.624739°W, 289m, 26.viii.1957, W.R.M. Mason (1♂, CNC); Sainte-Catherine, La Jacques-Cartier, 46.844391°N, 71.615247°W, 13–15.viii.1971, D.M. Wood (1♂, 1♀, CNC); Waskaganish (Rupert House), 51.483858°N, 78.748036°W, 15- 29.vii.1949, D.P. Whillans, D.P. Gray, E.J. LeRoux (8♂, 3♀, CNC); **Saskatchewan:** Big River, Division No. 16, 53.833292°N, 107.031165°W, 03.vii.1959, A. & J. Brooks (1♂, 1♀, CNC); Candle Lake, Division No. 15, 53.75079°N, 105.254307°W, 19.viii.1959, A. & J. Brooks (1♀, CNC); Cantyre, Division No. 14, 53.366668°N, 101.849997°W, 12.ix.1959, J.R. Vockeroth (1♂, CNC); Christopher Lake, Division No. 15, 53.539931°N, 105.789257°W, 11–15.vii.1959, A. & J. Brooks (1♂, 4♀, CNC); Green Lake, 54.176653°N, 107.731795°W, 03.vii.1959, A.R. Brooks (3♂, 1♀, CNC); Greenwater Lake, Greenwater Lake Provincial Park, 52.506605°N, 103.49879°W, 07.ix.1959, A. & J. Brooks (1♂, CNC); Indian Head, Division No. 6, 50.53392°N, 103.668977°W, 13.vii.1926, E. Hearle (1♀, CNC); Kenosee, Division No. 1, 49.83502°N, 102.290234°W, 19.vii.1958, A. & J. Brooks (1♀, CNC); Meadow Lake, 54.12361°N, 108.43611°W, vii.1977, W.T. Nash (1♂, DEBU); Tangleflags, Division No. 17, 53.483064°N, 109.63754°W, 11.vii.1926, N.J. Atkinson (1♀, CNC); **Yukon Territory:** Dawson, 64.050017°N, 139.41052°W, 366m, 25.vi.1949, P.F. Bruggemann, 17–21.vi.1949, W.W. Judd (7♂, 2♀, CNC); Kluane, Slims River 61.00972°N, 138.5125°W, 22.vii.1985, S.A. Marshall (1♂, DEBU); North Fork Pass, Ogilvie Mountains, 64.565983°N, 138.250648°W, 07.vii.1962, P.J. Skitsko (1♀, CNC); Rampart House, 67.421455°N, 140.983336°W, 06–21.vii.1951, J.E.H. Martin, C.C. Loan (5♂, 2♀, CNC); Whitehorse, 60.733402°N, 135.082092°W, 26.viii.1959, R. Madge (1♀, CNC); **United States of America:** **Alaska:** Anchorage, 61.218054°N, 149.90027°W, 18–31.vii.1951, R.S. Bigelow (7♀, CNC); Fairbanks, 64.83°N, 147.7167°W, 25.vi.1952, W.R. M. Mason (1♀, CNC); Kanuti National Wildlife Refuge, 66.150002°N, 152.014008°W, 19.vii.2008, L. Saperstein (1♀, UAM); King Salmon, Naknek River, 58.678852°N, 156.666556°W, 23.vii–20.viii.1952, W.R. Mason, J.B. Hartley (6♀, CNC); Naknek, 58.729427°N, 157.026703°W, 24.vii.1952, J.B. Hartley, 08.viii.1952, W.R. Mason (2♀, CNC); **California:** Bridgeville, 40.469306°N, 123.799763°W, 20.vi.1959, Kelton & Madge (1♀, CNC); Victorville, 34.536107°N, 117.291157°W, 16.v.1955, W.R. Richards (6♂, 8♀, CNC); **Colorado:** Boulder, 39.936516°N, 105.270546°W, 30.vii.1932, M.T. James (1♀, CNC); Doolittle Ranch, Mount Evans, 39.675739°N, 105.601348°W, 2987m, 27.vii.1961, J.G. Chillcott (1♀, CNC); **Indiana:** Plymouth, 41.348115°N, 86.310119°W, vi.1918–viii.1918, M.R. Smith (1♀, CNC); **Massachusetts:** Cheshire, 42.562028°N, 73.162881°W (1♂, CNC); **Montana:** Hamilton, 46.23°N, 114.15°W, 06.iii.1934, C.B. Philip (1♂, CNC); **New York:** Ithaca, 42.43°N, 76.48333°W, 11.ix.1896 (1♀, CNC); **Oregon:** Sunset Bay, Coos County,

43.333347°N, 124.371796°W, 17.vii.1965, Malaise trap (1♀, CNC); **Pennsylvania:** Le Roy, Bradford County, 41.675822°N, 76.707513°W, 10–11.viii.1982, G. & M. Wood (1♂, 1♀, CNC); **Utah:** Allen Canyon, 37.2436°N, 109.2493°W, 16.vii.1955, S.L. Wood (1♂, 2♀, CNC); Canyon, Ogden, Utah Experimental Station, 41.223°N, 111.97383°W, 06.iv.1937, G.F. Knowlton & C.F. Smith (1♀, CNC); Garden City, 41.946878°N, 111.39354°W, 16.vii.1955, S.L. Wood (1♂, CNC); Greendale, 40.88746°N, 109.497639°W, 08.xi.1987, G.F. Knowlton & F.C. Harmston (1♂, CNC); Huntsville, 41.260774°N, 111.769938°W, 06.viii.1938, G.F. Knowlton & D.E. Hardy (1♀, CNC); Monarch, 40.417177°N, 110.105432°W, 09.v.1938, G.F. Knowlton & F.C. Harmston (1♂, CNC); Providence, 41.70632°N, 111.817165°W, 22.vii.1938, G.F. Knowlton & D.E. Hardy (1♂, CNC); Woodruff, 41.521888°N, 111.162416°W, 30.viii.1937, G.F. Knowlton (1♀, CNC); **Washington:** Fort Lewis, Sears Lake, Pierce County, 47.116969°N, 122.585721°W, 19.ix.1945, Paul H. Arnaud (3♂, 2♀, CNC); Yakima, 46.416766°N, 121.35005°W, 18.v.-20.vi.1941, Reeves & Brookman (5♂, 6♀, CNC); **Wisconsin:** Madison, 43.0667°N, 89.4°W, 09.v.1918, 19.viii.1918, Chas L. Fluke (1♂, 1♀, CNC); **Wyoming:** Albany County, Snowy Range Mountains, 41.3477477°N, 106.3241289°W, 04.viii.1948, D.G. Denning (1♀, CNC).

Platycheirus groenlandicus

Canada: Alberta: Snow Creek Pass, Banff National Park, 51.60524°N, 115.808617°W, 2316m, 24.vi.1962, K.C. Herrmann (2♂, CNC); Sunshine Lodge, Banff National Park, 51.173957°N, 115.571108°W, 2438m, 21.vii.1962, W.R.M. Mason (1♂, CNC); **Manitoba:** Fort Churchill, 58.75525°N, 94.078885°W, 16–23.vi.1952, J.G. Chillcott (3♂, CNC); **Northwest Territories:** Baker Lake, 64.319987°N, 96.018194°W, 25.vii.1947, T.N. Freeman (1♂, CNC); Coppermine, 62.562732°N, 115.092764°W, 30.vi.1951, S.D. Hicks (1♂, CNC); Holman, Victoria Island, 70.738254°N, 117.776673°W, 21.vi.1952, B.A. Gibbard (1♂, CNC); Hooper Island, Mackenzie Delta, 69.690245°N, 134.84891°W, 28.vi.1971, D.M. Wood (1♂, CNC); Masik River, Banks Island, 71.588636°N, 123.444123°W, 03–24.vii.1968, W.R.M. Mason (3♂, 2♀, CNC); Reindeer Depot, Mackenzie Delta, 68.668974°N, 134.071574°W, 26.vi.1948, J.R. Vockeroth (1♂, CNC); Salmita Mines, 64.077971°N, 111.243513°W, 18–30.vi.1953, J.G. Chillcott (6♂, CNC); **Nunavut:** Cambridge Bay, Victoria Island, 69.118656°N, 105.058062°W, 18.vii.1950, E.H.N. Smith (1♂, CNC); Chesterfield Inlet, 63.341731°N, 90.711198°W, 04–27.vii.1950, J.G. Chillcott (51♂, 32♀, CNC); Coral Harbour, Southampton Island, 64.137944°N, 83.165217°W, 06–11.vii.1948, G.E. Shewell, 25.vi.1952, P.R. Ehrlich (9♂, CNC); Padlei (Padley), 61.916563°N, 96.666577°W, 18.vii.1950, R.A. Hennigar (1♂, CNC); **Quebec:** Kuujjuaq (Fort Chimo), 58.100076°N, 68.406179°W, 21.vi.1948, R.H. MacLeod (1♂, CNC); **Yukon Territory:** Firth River, 69.207056°N, 140.071033°W, 14.vii.1956, R.E. Leech (1♂, CNC); Herschel Island, 69.588436°N, 139.083819°W, 09.vii.1953, J.S. Waterhouse (1♂, CNC); North Fork Pass, Ogilvie Mountains, 64.565983°N, 138.250648°W, 1250m, 12.vi.1962, R.E. Leech, 03.vii.1962, P.J. Skitsko (2♂, CNC); Richardson Mountains, 68.163651°N, 136.988868°W, 914m, 11.vii.1982, M. Wood (1♂, CNC); **Norway:** Breiseterdalen, 6.vii.1974, T. Nielsen (1♀, TNPC); **United States of America: Alaska:** Cape Thompson, 68.13°N, 165.96°W, 29.vii.1961, R. Madge, 01.viii.1961, B.S. Heming (2♂, CNC); Mile 32, Denali Highway, 63.390138°N, 148.588876°W, 1219m, 22–23.vii.1962, P.J. Skitsko (2♂, CNC).

Platycheirus hesperius

United States of America: California: Alhambra, 34.095296°N, 118.127024°W, i–ii.1920 (3♀, CNC); Alum Rock Park, Santa Clara County, 37.397625°N, 121.800592°W, 18.ii.1940, J.W. Tilden (1♂, CNC); Berkeley, 37.875149°N, 122.243713°W (1♂, CNC); Hoopa, 41.05°N, 123.67°W, 19.ix.1920, C.D. Duncan (1♂, CNC); Inverness, Marin Co., 38.101034°N, 122.856938°W, 27.viii.1916, L. Bruner (2♂, CNC); Whittier, 33.979179°N, 118.032844°W, 19.iv.1912, Timberlake (1♀, CNC).

Platycheirus hispidipes

Canada: British Columbia: Holotype ♂ *Platycheirus hispidipes* Vockeroth, 1990: HOLOTYPE *Platycheirus hispidipes* Vockeroth CNC No. 17272 / [Canada] 32 mi. SW Terrace [54.194076°N, 129.140296°W] B[ritish] C[olumbia] 11.VI.1960 R. Pilfrey 50'[15m] / CNC DIPTERA #25926 (CNC).

Platycheirus huttoni

New Zealand: Marlborough, Nelson, 41.270802°S, 173.283997°E, 20.x.1969, J.I. Townsend, J.S. Dugdale, S. Eldridge (1♂, USNM); South Island Arthur's Pass National Park, 42.907600°S, 171.557999°E, 920m, 27.xii.1986, FC & BJ Thompson (2♀, USNM); South Island Arthur's Pass National Park, 42.907600°S, 171.557999°E, 28.xii.1986, FC & BJ Thompson (1♂, USNM).

Platycheirus hyperboreus

Holotype ♂ *Platycheirus erraticus* Curran, 1927: *Platycheirus* HOLOTYPE ♂ *erraticus* Curran. No.2024 / [Canada] Orillia Ont[ario] [44.609505°N, 79.42068°W] 28.IV.1921 / Collector H. Curran / CNC DIPTERA #26146 (CNC).

Holotype ♂ *Platycheirus chirosphena* Hull, 1944: Holotype *Chirosphena* Hull / Oliver B[ritish]. C[olumbia]. [49.182338°N, 119.550442°W] 6-V C GARRETT / HOLOTYPE *Platycheirus chirosphena* Hull CNC No. 19304 / CNC DIPTERA #26117 (CNC).

Canada: Alberta: 50 miles North West of Lake George, 29.v.1966, D.M. Wood (1♂, CNC); Banff, Banff National Park, 51.180275°N, 115.568433°W, 1358m, 26.v.1960, J.G. Chillcott (2♂, CNC); Calgary, Division No. 6, 51.042354°N, 114.077982°W, 23.v.1961, J.R. Vockeroth (1♂, CNC); Edmonton, Division No.11, 53.540941°N, 113.493698°W, 02.vi.1920, F.S. Carr (1♂, CNC); Eisenhower Lookout, Banff National Park, 51.295448°N, 115.917276°W, 1402m, 07.vii.1962, K.C. Herrmann (1♂, CNC); Johnston Canyon, Banff National Park, 51.266815°N, 115.830613°W, 1433m, 06.viii.1962, K.C. Herrmann (1♂, CNC); **British Columbia:** Agassiz, 49.238948°N, 121.765842°W, 22.vii.1926, R. Glendenning (1♂, CNC); Atlin, 59.5775°N, 133.69236°W, 671m, 13.vi.1955, H. Huckel, 01.viii.1955, B.A. Gibbard (2♂, CNC); Creston, Central Kootenay R.D., 49.095523°N, 116.508317°W, 11.vii.1927, A.A. Dennys (1♂, CNC); Graham Island, 10 km N. of Tlell, 53.65°N, 131.93°W, 13.vii.1988, T.A. Wheeler (1♂, DEBU); Hixon, Fraser-Fort George R.D., 53.42026°N, 122.58596°W, 28.vi.1966, E.D.A. Dyer (1♂, CNC); Kitimat, Range 5 Coast L.D., 54.05566°N, 128.656697°W, 04.viii.1960, C.H. Mann (1♂, CNC); Kooryet Bay, Banks Island, Skeena-Queen Charlotte R.D., 53.335351°N, 129.867859°W, 11.viii.1986, G.G.E. Scudder (1♂, CNC); Lakelse Lake, Hot Springs Area, 54.371144°N, 128.535718°W, 30.v.1960, J.G. Chillcott (1♂, CNC); Lisadele Lake, Cassiar L.D., 58.680264°N, 133.050826°W, 1219m, 06.viii.1960, W.W. Moss (1♂, CNC); Macgillivray Creek Game Reserve, near Chilliwack, 49.174059°N, 122.019823°W, 28.vii.1953, G.J. Spencer (1♂, CNC); Mission City, Fraser Valley R.D., 49.140168°N, 122.309497°W, 09–24.vii.1953, G.J. Spencer (2♂, CNC); Moosehorn Lake, Cassiar L.D., 58.164009°N, 132.12694°W, 1372m, 25.vii.1960, W.W. Moss (2♂, CNC); Moresby Island, Queen Charlotte Islands, 52.672276°N, 131.866632°W, 01.vi.1957, E.E. MacDougall (1♂, CNC); Mount Hays, Prince Rupert, Skenna-Queen Charlotte R.D., 54.283706°N, 130.314737°W, 730m, 15.viii.1986, G.G.E. Scudder (1♂, CNC); Oliver, Okanagan-Similkameen R.D., 49.182338°N, 119.550442°W, 19.iv.- 02.v.1923, 16–19.viii.1923, C.B.D. Garrett, 28.vii.1953, J.R. McGillis (5♂, 4♀, CNC); Prince Rupert, Skenna-Queen Charlotte R.D., 54.31368°N, 130.315462°W, 04.vi.1960, R. Pilfrey (1♂, CNC); Revelstoke, Mount Revelstoke National Park, 51.035979°N, 118.142509°W, 02.vii.1973, H.J. Teskey (1♂, CNC); Spring Creek, Terrace, 54.539511°N, 128.618192°W, 03.vi.1960, B.S. Heming, 11.vi.1960, W.W. Moss (2♂, CNC); Summit Lake, Mile 392 of Alaska Highway, Northern Rockies R.D., 58.648201°N, 124.666912°W, 1433m, 23–24.vi.1959, R.E. Leech, 28.vi.1959, E.E. MacDougall, 21.vii.1959 (4♂, CNC); Terrace, 54.516512°N, 128.586663°W, 76m, 24.vii.1960, B. Heming (1♂, CNC); Vancouver, Greater Vancouver R.D., 49.263588°N, 123.138565°W, 26.iv.1902 (1♂, CNC); **Manitoba:** Aweme, 49.708529°N, 99.602758°W, 09.x.1915, 12.vi.1916, 31.viii.1923, 03.vi.1924, N. Criddle, 01.ix.1923, H.A. Robertson (3♂, 2♀, CNC); Bolave, 29.vii.1922, H.A. Robertson (1♀, CNC); Churchill, 58.768828°N, 94.171563°W, 25–29.vi.1948, G.E. Shewell (3♂, CNC); Deer River, Mile 473, Hudson Bay Railway, 58.25948°N, 94.163845°W, 03.vii.1952, J.G. Chillcott (1♂, CNC); Fort Churchill, 58.75525°N, 94.078885°W, 18.vi.1952, J.G. Chillcott (2♂, CNC); Gardenton, 2 km W on Hwy 209, Tallgrass Prairie Res. Field Stn., 49.0871°N, 96.6701°W, 26.viii.1996, Malaise trap, H.D. White (2♂, DEBU); Glen Souris, Division No. 7, 49.757886°N, 99.759157°W, 03.ix.1973, H.A. Robertson (2♀, CNC); Goodlands, Division No. 5, 49.09331°N, 100.60097°W, 23.viii.1923, N. Criddle (1♀, CNC); Mafeking, Division No. 20, 52.680985°N, 101.109055°W, 03.ix.1959, A. & J. Brooks (1♂, CNC); Teulon, Division No. 14, 50.387058°N, 97.259644°W, Hunter & Cumming (1♂, CNC); Warkworth Creek, Near Churchill, 58.548754°N, 93.981843°W, 07.vii.1952, J.G. Chillcott (2♂, CNC); **New Brunswick:** Kouchibouguac National Park, Kent Co., 46.819201°N, 64.96788°W, 05.vi.1977, J.R. Vockeroth (1♂, CNC); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 12.vii.1955, E.E. Sterns (1♂, CNC); Great Caribou Island, Labrador, 52.265166°N, 55.620305°W, 27.vii.1906, G.M. Allen (1♀, CNC); Hopedale, Labrador, 55.460131°N, 60.213557°W, 07.vii.1923 (1♂, CNC); Portugal Cove, 47.62778°N, 52.85556°W, 27–28.vi.1987, T.A. Wheeler (2♂, DEBU); **Northwest Territories:** 30 miles East of Tuktoyaktuk, 69.436263°N, 132.234417°W, 18.vi.1971, D.M. Wood (1♂, CNC); Aklavik, 68.219638°N, 135.010707°W, 02.vii.1956, R.E. Leech (1♂, CNC); Beaverhill Lake, M.T.S. Gravity Survey Camp, 62.801565°N, 104.372098°W, 29.vi.1966, G.E. Shewell (7♂, CNC); Eskimo Point, 61.108219°N, 94.058513°W, 28.vii.1950, G.G. DiLabio (2♂, CNC); Ford Lake, M.T.S. Gravity Survey Camp, 63.133386°N, 107.416561°W, 02.vii.1966, G.E. Shewell (7♂, CNC); Fort Resolution, 61.172054°N, 113.673764°W, 16.vi.1947, F.M. Atton (1♂, CNC); Muskox Lake, 64.633135°N, 108.249285°W, 10.vii.1953, J.G. Chillcott (6♂, CNC); Reindeer Depot, Mackenzie Delta, 68.668974°N, 134.071574°W, 10.vii.1948, J.R. Vockeroth (1♂, CNC); Resdelta, Great Slave Lake, 61.504643°N, 114.433913°W, 23.vi.1947, F.M. Atton (1♂, CNC); Salmita Mines, 64.077971°N, 111.243513°W, 22.vi.–02.vii.1953, J.G. Chillcott (25♂, CNC); Tuktoyaktuk,

69.438369°N, 133.01637°W, 15.vii.1971, D.M. Wood (1♂, CNC); Yellowknife, 62.446696°N, 114.391481°W, 01-04.vi.1953, J.G. Chillcott, 14.vi.1953, E.F. Cashman (3♂, CNC); **Nova Scotia:** Cape Breton Highlands National Park, Ingonish Centre, Victoria County, 46.665508°N, 60.40912°W, 10.viii.1983, J.R. Vockeroth (2♂, CNC); Cape Breton Highlands National Park, North Mountain, Inverness Co., 46.795174°N, 60.68649°W, 400m, 06.vii.1983, J.R. Vockeroth, 01.vii.1984, H.J. Teskey (1♂, 3♀, CNC); Cape Breton Highlands National Park, Pleasant Bay, Inverness Co., 46.822961°N, 60.799065°W, 28.vi-11.vii.1984, H.J. Teskey (3♀, CNC); Cape North, Victoria Co., 46.88455°N, 60.506046°W, 23.vi.1983, J.R. Vockeroth (1♂, 3♀, CNC); Kentville, Kings Co., 45.077239°N, 64.496688°W, 28.vii.1924, R.P. Gorham (1♂, CNC); South Harbour Beach, Victoria Co., 46.878287°N, 60.429055°W, 27.vi-03.vii.1983, J.R. Vockeroth (1♂, 9♀, CNC); **Nunavut:** Conrad Lake, 64.866679°N, 104.249992°W, 08.vii.1966, G.E. Shewell (4♂, CNC); **Ontario:** 2 km North of Metcalfe, 45.265406°N, 75.488737°W, 25-30.v.1982, 25.vii.1982, 22.ix.1982, B.E. Cooper (7♂, 1♀, CNC); 8 Km South of Richmond, Elgin Co., 42.692678°N, 80.845247°W, 01-13.ix.1983, G. & D.M. Wood, B.E. Cooper (3♂, CNC); Algonquin Prov. Pk., Cecil Lk., 45.4511°N, 78.4956°W, 19.v-3.vi.2009, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Crossbar Lake, 45.32708°N, 78.29901°W, 15-29.v.2009, Malaise, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Florence Lake, 45.44371°N, 78.49012°W, 31.v-14.vi.2008, 19.v.2009, E. Proctor (2♂, DEBU); Algonquin Prov. Pk., Madawaska Lake, 45.32936°N, 78.30364°W, 15-29.v.2009, Malaise, E. Proctor (2♂, DEBU); Algonquin Prov. Pk., Pewee Lake, 45.5713°N, 78.5248°W, 11.viii.1999, W.J. Crins (1♂, DEBU); Algonquin Prov. Pk., Swan Lk. Stn., Scott Lk., 45.4875°N, 78.72222°W, 2.vi.1993, B. Larson (1♂, DEBU); Ancaster, 43.217793°N, 79.987295°W, 8-26.viii.1969, J.E.H. Martin (4♂, CNC); Arkell, 43.53333°N, 80.16667°W, 16.v.1973, D.H. Pengelly (1♂, DEBU); Badenoch Tract, 4 km NE Morriston, 43.47361°N, 80.08333°W, 30.iv-21.v.2000, M. Buck (2♂, DEBU); Barr property, ~7 km NE Centreton, site 1, 44.12778°N, 77.9825°W, 19.v-1.vi.2011, Malaise, Brunke & Paiero (2♂, DEBU); Belleville, 44.167°N, 77.383°W, 5-9.vii.1950, J.C. Fisher (2♂, DEBU); Borer's Falls, 43.29306°N, 79.9375°W, 14.viii.1978, M.L.B. Farrell (1♂, DEBU); Bruce Pen. Natl. Pk., Cameron Lk. fen, 45.22056°N, 81.53333°W, 26.vi.1998, S.A. Marshall (1♂, DEBU); Bruce Pen. Natl. Pk., Cyprus Lk. Campgrd., trail nr. Horse Lk., 45.23°N, 81.53°W, 24-25.vi.1995, S.A. Marshall (1♂, DEBU); Carp, 45.34583°N, 76.0375°W, 23.viii.1975, D.J. Aspinall (1♂, DEBU); Chatham, Chatham-Kent Division, 42.412001°N, 82.185001°W, 20.v.1925, G.S. Walley (1♂, CNC); Chatterton, Hastings Co., 44.248799°N, 77.487766°W, 25.vii.1956, J.C. Martin (1♂, CNC); Damascus, Wilde Lake Bog, 43.91667°N, 80.48333°W, 6-11.v.1986, Malaise, S.A. Marshall (2♂, DEBU); Dorcas Bay, 45.183°N, 81.583°W, 25.viii-1.ix.1999, Malaise, S.A. Marshall (1♂, DEBU); Dunks Bay, 45.24967°N, 81.64083°W, 24.viii.2000, S.A. Marshall (1♂, DEBU); Elora, 43.683°N, 80.433°W, 30.v.1978, J. Cappleman, 19.vii.2004, R. Dell (2♂, DEBU); Fathom Five Natl. Pk., Cove Is., 45.30500°N, 81.72889°W, 27.vii.1995, sweep, J.M. Dow, 26.vii.1995, R. Langstaff, 24.vii-18.viii.1996, Malaise trap, K. Welstead (3♂, DEBU); Fathom Five Natl. Pk., Cove Is., light station, 45.3276°N, 81.7350°W, 27.vii.1995, R. Langstaff (1♂, DEBU); Fathom Five Natl. Pk., Cove Is., north trail, 45.31528°N, 81.74444°W, 12-28.vii.1995, Malaise trap, S.A. Marshall (1♂, DEBU); Fathom Five Natl. Pk., Land Base, 45.28611°N, 81.65972°W, 14.viii.1996, S.A. Marshall (1♂, DEBU); Fergus, Marshall property, 43.69139°N, 80.38667°W, 26.vii.1985, Malaise, S.A. Marshall (1♂, DEBU); Griffith, 7 miles East, 45.243279°N, 77.031193°W, 01.viii.1982, 31.v-11.vi.1983, 20.vii.1985, B.E. Cooper (9♂, CNC); Guelph, 43.55°N, 80.25°W, 1.viii.1976, J.F. Fortin, 26.v.1978, R.O. Kreuzer, 16-22.v.1979, B. Merchant, 17.vi.1979, K.N. Barber (6♂, DEBU); Guelph, University Arboretum, 43.53611°N, 80.22917°W, 27.v-26.vii.1991, Malaise, 11.v.2005, O. Lonsdale (3♂, DEBU); Hilton Beach, 46.25°N, 83.88333°W, 4.vii.1990, Malaise, J.E. Swann (1♂, DEBU); Huff's Island, Prince Edward County, 44.125002°N, 77.318465°W, 31.vii.1951, J.C. Martin (1♂, CNC); Inglewood, 43.79643°N, 79.93348°W, 6.v.1990, S.A. Kells (1♂, DEBU); Jordan, 43.14722°N, 79.36944°W, 31.vii.1915, 23.vi.1919, W.A. Ross, 13.vi-06.vii.1919, 12.viii.1920, C.H. Curran, 26.v.1962, Kelton & Thorpe, 11.v.1977 (7♂, 6♀, DEBU, CNC); Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 18.vii-04.viii.1925, N.K. Bigelow (3♂, CNC); Manestar Tract, 6 km NNW St. Williams, 42.70467°N, 80.46056°W, 30.vi.2000, M. Parchami-Araghi, 23.vi.2002, M. Buck (2♂, DEBU); Manitoulin I., Carter Bay, 45.60639°N, 82.14083°W, 10.vii.2003, M. Buck (1♂, DEBU); Marmora, Hastings Co., 44.483359°N, 77.68088°W, 20.v.1952, J.R. McGillis, 19.vii.1952, Malaise trap, J.R. Vockeroth (2♂, CNC); Maynooth, Hastings Co., 45.229716°N, 77.940949°W, 23.v.1970, J.F. McAlpine (1♂, CNC); McDonald Island, St. Lawrence Islands National Park, 44.313741°N, 76.171094°W, 14.viii.1976, Malaise trap, A. Carter (1♂, CNC); Mer Bleu, 5 Miles East of Ottawa, Ottawa Division, 45.40331°N, 75.5083°W, 07.vi-19.viii.1966, Malaise trap, D.D. Munroe, 23.v.1973, E. Small (14♂, CNC); Metcalfe, Ottawa Division, 45.235824°N, 75.472712°W, 31.v.1983, 13.viii.1983, 01.viii.1984, 01.x.1984, B.E. Cooper (4♂, CNC); Midland, Simcoe Co., 44.752113°N, 79.887253°W, 20.v.1959, J.G. Chillcott (1♂, CNC); Miners Bay, Haliburton Co., 44.819856°N, 78.775222°W, 26.v.1927, F.P. Ide (1♂, CNC); Mount Forest, 5 km SW, 43.94583°N, 80.77222°W, 6.vi.1993, J. Skevington (1♂, DEBU); Normandale, Haldimand-Norfolk R.M., 42.712251°N, 80.312022°W, 27.v.1956, J.R. Vockeroth, 29.v.1956, J.R. Lonsway (2♂, CNC); Oakville, nr. Hwy 25 &

Burnhamthorpe Rd., 43.45389°N, 79.79222°W, 19.viii.2004, J. Klymko (1♂, DEBU); Orillia, Simcoe Co., 44.609505°N, 79.42068°W, 15.vii.1914, 30.v.1920, 24.iv.1921, 23.vii.1923, C.H. Curran (4♂, CNC); Ottawa, near Uplands Airport, Ottawa Division, 45.33°N, 75.583°W, 26.vii.1987, Malaise trap, J.M. Cumming (1♂, CNC); Ottawa, Ottawa Division, 45.411604°N, 75.688669°W, 25.viii.1908, J. Fletcher, 28.viii.1912, 04.vii.1916, Beaulieu, 28.viii.1924, H.L. Viereck, 29.v.1925, C.H. Curran, 21.vii.1938, A. Brooks (4♂, 2♀, CNC); Peter's Woods Prov. Nat. Res., front woods, 44.12389°N, 78.04194°W, 19.v–1.vi.2011, Malaise, Brunke & Paiero (1♂, DEBU); Pinery Prov. Pk., 43.3°N, 81.83°W, 1.vi.1991, Malaise, J. Skevington (1♂, DEBU); Pinery Prov. Pk., Burley Campground, 43.24167°N, 81.87222°W, 27.vi–1.vii.1995, Malaise, J. Skevington (1♂, DEBU); Pinery Provincial Park, Nipissing Trail, 43.240278°N, 81.844722°W, 07.vii.2004, [hand collected], J.H. Skevington, L. Bartels (1♂, CNC); Port Franks, Karner Blue Sanctuary, 43.21667°N, 81.9°W, 10.vii.1996, 3.ix.1996, 8–15.viii.1996, Malaise trap, J. Skevington, 06.vii.2004, [hand collected], J.H. Skevington, L. Bartels (4♂, DEBU); Reg. Rd. 60, 5.5 km W Jct. Hwy 24 & 59, 42.64°N, 80.5567°W, 29.viii.2001, M. Buck (1♂, DEBU); Richmond, 8 km S, 45.12778°N, 75.85472°W, 22.viii.2000, sweeping, M. Buck (1♂, DEBU); Rondeau Prov. Pk., South Point Trail, nr. east parking lot, 42.26167°N, 81.84694°W, 10–17.vi.2003, Malaise, Marshall *et al.*, 5.ix.2003, M. Buck (2♂, DEBU); Salmon River Alvar, 44.1769°N, 77.2509°W, 6.v.1998, B. Larson (1♂, DEBU); St. Williams, 42.66729°N, 80.41506°W, 10.vi.1987, J. Skevington (1♂, DEBU); St. Williams, Haldimand-Norfolk R.M., 42.667292°N, 80.415065°W, 18.v.1970, D.M. Wood (1♂, CNC); Stittsville, Ottawa Division, 45.263479°N, 75.925163°W, 19.viii.1968, J.R. Vockeroth (1♂, CNC); Sturgeon Bay, Simcoe County, 44.732653°N, 79.731547°W, 13.v.1959, J.G. Chillcott (1♂, CNC); Vineland, 43.15°N, 79.4°W, 1.v.1929, T. Armstrong (1♂, DEBU); Whitby, 43.93194°N, 78.95417°W, 28.vii.1974, G.L. Arinobu (1♂, DEBU); Windsor, 42.3°N, 83.01667°W, 10.viii.1976, J. Heraty (1♂, DEBU); Wylde Lake Bog, 8 km E Arthur, 43.83°N, 80.53°W, 2.viii.2009, S.A. Marshall (1♂, DEBU); 51.25377°N, 85.32321°W, G.J. Spencer (1♂, DEBU); **Quebec:** Abbotsford, 45.437637°N, 72.887923°W, vi.1935, G.E. Shewell, 18.v.1936, 27.v.1937, G.E. Shewell (3♂, 1♀, CNC); Beechgrove, Les Collines-de-l'Outaouais, 45.64508°N, 76.123602°W, 21.v.1964, J.R. Vockeroth (2♂, CNC); Bourgeois Lake, Gatineau Park, 45.50128°N, 75.873815°W, 11.vi.1987, J.R. Vockeroth (1♀, CNC); Cottage Beaulieu, 50.25°N, 74.3667°W, 16.vii.1906, Beaulieu (1♀, CNC); Fairy Lake, 01.vi.1927, G.S. Walley, 30.v.1965 (1♂, 1♀, CNC); Forestville, La Haute-Cote-Nord, 48.739162°N, 69.087761°W, 11.viii.1950, R. de Ruelle (1♂, CNC); Gatineau Park, Les Collines-de-l'Outaouais, 45.558059°N, 75.948981°W, 11.vi.1987, J.R. Vockeroth (1♂, CNC); Hemmingford, Les Jardins-de-Napierville, 45.04571°N, 73.588046°W, 08.vi.1922, C.E. Petch, 31.ix.1924, T. Armstrong, 22.vii.1925, G.H. Hammond (3♂, CNC); Hull, Communaute-Urbaine-de-l'Outaouais, 45.447639°N, 75.733192°W, 10.viii.1965, Malaise trap (1♂, CNC); Indian House Lake, 56.328482°N, 64.720845°W, 08–09.vii.1954, W.R. Richards (2♂, CNC); Inukjuak (Port Harrison), 58.456121°N, 78.108488°W, 23–26.vii.1949, 05.viii.1949, D.P. Whillans (12♂, CNC); Kangirsuk (Payne Bay), 60.019774°N, 70.024029°W, 08.vii.1954, H. Huckel (1♂, CNC); Kangirsuk (Payne Bay), 60.019774°N, 70.024029°W, 11.viii.1958, E.E. MacDougall (1♂, CNC); Kuujuaq (Fort Chimo), 58.100076°N, 68.406179°W, 21–25.vi.1948, R.H. MacLeod (4♂, CNC); Mile 139, Route 58, La Verendrye Provincial Park, 48.097161°N, 77.70512°W, 30.vi.1965, D.M. Wood (1♂, CNC); Mistassini, Le Domaine-du-Roy, 48.888579°N, 72.205228°W, 23–25.vi.1956, J.R. Lonsway, 02.vii.1956, J.R. McGillis (3♂, CNC); Mont Saint-Hilaire, La Vallee-du-Richelieu, 45.552948°N, 73.155276°W, vii (1♂, CNC); Montreal Area, Communaute-Urbaine-de-Montreal, 45.526155°N, 73.702807°W, 21.vii.1906, 16.v.1965, J.W. Boyes (2♂, CNC); Old Chelsea, 45.483°N, 75.867°W, 20.v.1987, J.R. Vockeroth (8♀, CNC); Old Chelsea, Les Collines-des-L'Outaouais, 45.499972°N, 75.814667°W, 20.v.1987, J.R. Vockeroth (11♂, CNC); Queen's Park, Aymer, Communaute-Urbaine-de-l'Outaouais, 45.410788°N, 75.885505°W, 31.vi.1925, J.A. Adams (1♂, CNC); Rouville, Rouville County, 45.433169°N, 73.050538°W, 24.v.1906, N. Criddle (1♀, CNC); Sainte-Martin, Beauce-Sartigan, 45.959277°N, 70.662718°W, v (1♂, CNC); Schefferville, Sept-Rivieres—Caniapiscau, 54.802248°N, 66.816053°W, 04–20.vii.1981, Malaise trap, F. Brodo (6♂, CNC); St. Anne, Communaute-Urbaine-de-Quebec, 46.871112°N, 71.448222°W, 05.ix.1939 (1♂, CNC); **Saskatchewan:** Canora, Division No. 9, 51.636184°N, 102.430879°W, 13.vi.1954, Brooks & Wallis (1♂, CNC); Indian Head, Division No. 6, 50.53392°N, 103.668977°W, 02.viii.1939, C.R. Douglas (1♂, CNC); Nipawin, Division No.14, 53.365608°N, 104.011519°W, 02.vi.1948, J.R. Vockeroth (1♂, CNC); Pheasant Creek, Division No. 6, 50.583246°N, 103.467217°W, 13.vii.1937, A.R. Brooks (1♂, CNC); Waskesiu Lake, Prince Albert National Park, 53.922846°N, 106.081366°W, 04.vi.1938, J.G. Rempel (1♂, CNC); **Yukon Territory:** 13 miles East of Dawson, 64.061327°N, 139.016032°W, 396m, 30.vi.1962, R.E. Leech (1♂, CNC); Dawson, 64.050017°N, 139.41052°W, 21.vi.1949, W.W. Judd (1♂, CNC); Dawson, 64.050017°N, 139.41052°W, 30.vi.1949, W.W. Judd (1♂, CNC); Firth River, 69.207056°N, 140.071033°W, 07.viii.1956, E.F. Cashman (1♂, CNC); Herschel Island, 69.588436°N, 139.083819°W, 28–29.vi.1971, D.M. Wood (1♂, CNC); km 141, Dempster Highway, 65.06101°N, 138.126705°W, 22–24.vi.1982, G. & D.M. Wood (1♂, CNC); Otter Lake, 62.486817°N, 130.4167°W, 1219m, 22.vii.1960, J.E.H. Martin (1♂, CNC); Rampart House, 67.421455°N, 140.983336°W, 21.vii.1951, J.E.H. Martin, 13–19.vii.1951, C.C. Loan (3♂,

CNC); White Mountains, Erebia Creek, 792m, 01.vii.1987, Malaise trap, S.G. Cannings (4♂, CNC); **United States of America: Alaska:** Becharof, 57.855999°N, 156.516998°W, 13.vi.2007, S.R. Clawson (1♂, UAM); Denali National Park and Preserve, 63.731998°N, 148.979996°W, 24.vi.2001, O. Helmy (1♂, 2♀, UAM); Kanuti National Wildlife Refuge, 66.424004°N, 151.871994°W, 25.vii.2008, L. Saperstein (1♀, UAM); Nome Kougark Rd., mi 17, 64.706001°N, 165.297°W, 21.vi.2005, J. & R. Skevington (1♀, CNC); Nome, 64.5°N, 165.4°W, 18.vi.1951, D.P. Whillans (1♂, CNC); Nome, 64.5°N, 165.4°W, 21.vi.1951, D.P. Whillans (1♂, CNC); Umiat, 69.367°N, 152.133°W, 14.vii.1959, J.E.H. Martin (1♂, CNC); Unalakleet, 63.873056°N, 160.788056°W, 12–14.vii.1961, B.S. Heming, 13.vii.1961, R. Madge (7♂, CNC); **California:** Fresno County, Dinkey Creek area, Laurel Creek, 37.159063°N, 119.058608°W, 04.vi.1987 (1♂, CNC); Huntington Lake, Rancheria Creek, Fresno County, 37.255484°N, 119.171799°W, 2600m, 16.viii.1984, J. MacDonald (5♀, CNC); Sardine Creek, Mono County, 38.309918°N, 119.594406°W, 2591m, 28.vi.1951, 18.vii.1951, A.T. McClay (3♂, CNC); Summit Lake, Shasta County, 40.492681°N, 121.424768°W, vii.1947, C.A. Hanson (1♂, CNC) **Colorado:** Corona Pass, Boulder County, 39.936516°N, 105.678611°W, 3231m, 09.vii.1961, J.G. Chillcott (1♂, CNC); Cottonwood Pass, Gunnison County, 39.548824°N, 107.039314°W, 3353m, 29.vii.1961, J.G. Chillcott (1♂, CNC); Doolittle Ranch, Mount Evans, 39.675739°N, 105.601348°W, 2987m, 23.vii.1961, C.H. Mann, 27.vii.1961, J.G. Chillcott (2♂, CNC); Echo Lake Park, 39.65977°N, 105.60477°W, 3176 m, 29.vi.2010, A.D. Young (1♀, DEBU); Echo Lake, Mount Evans, 39.658085°N, 105.6035°W, 3231m, 25.vii.1961, C.H. Mann (1♂, CNC); Fulford Cave Campground, 39.492°N, 106.659°W, 22.vi.1996, S. Fitzgerald (1♂, CSU); Mt. Shadow Falls Ranch, 37.43°N, 104.88°W, 8.viii.2007, B.C. Kondratieff (1♂, CSU); Niwot Ridge, Near Ward, 40.069933°N, 105.607397°W, 3505m, 05.viii.1961, J.R. Stainer (1♂, CNC); Silver Creek, 37.418°N, 106.786°W, 6.vii.1997, Ellingson (2♂, CSU); **Illinois:** Seymour, 40.108044°N, 88.426468°W, 14.iv.1929, Park & Ross (1♂, CNC); **Maryland:** Patuxent, 38.539967°N, 76.747688°W, 05.viii.1979, E.E. Grissell & M. Schauff (1♂, CNC); **Massachusetts:** Nyack Mountain, 48.429°N, 74.972°W, 25.viii.2004, B.C. Kondratieff (1♀, CSU); **Nevada:** Angel Lake, 12 miles South West of Wells, 41.026589°N, 115.087003°W, 2560m, 11.vii.1961, J.G. Chillcott (1♂, CNC); Echo Lake, Mount Evans, 39.658085°N, 105.6035°W, 3231m, 25.vii.1961, C.H. Mann (1♂, CNC); **New Hampshire:** Coos Co., First Connecticut Lake, 45.093871°N, 71.244495°W, 18.vi.1982, J.R. Vockeroth (7♀, CNC); **New York:** Ausable River, 44.414°N, 73.68°W, 8.v.2006, L. Myers (1♂, CSU); **North Carolina:** Highlands, 35.05°N, 83.183°W, 914–1158m, 01.vi.1957, W.R.M. Mason, 14.vi.1957, J.R. Vockeroth, 18.vii.1957, J.G. Chillcott, 21.viii.1957, L.A. Kelton (4♂, CNC); Mitchell County, Roan Mountain, 36.196231°N, 82.0704°W, 1890m, 13.viii.1957, J.G. Chillcott (1♂, CNC); **Tennessee:** Great Smoky Mountain National Park, Indian Gap, 35.6167°N, 83.43°W, 1585m, 18.vi.1957, J.R. Vockeroth (1♂, CNC); Great Smoky Mountains National Park, Grotto Falls Trailhead, 35.66°N, 83.47°W, 28.v.1999, M. Hauser (1♂, CSCA); Knoxville, 35.949663°N, 83.92944°W, 19.v.1957, W.R.M. Mason (1♂, CNC); University Farm, Knoxville, 35.949663°N, 83.92944°W, 20.v.1957, J.R. Vockeroth (1♂, CNC); **Utah:** Logan Canyon, 41.83°N, 111.667°W, 24.vii.1943, G.F. Knowlton & D.R. Maddock (1♂, CNC); Manti, 39.268295°N, 111.636863°W, 17.vi.1941, G.F. Knowlton & F.C. Harmston (1♂, CNC); **Virginia:** Falls Church, 38.8667°N, 77.1667°W, 04.vii.2012, N. Banks (1♂, CNC); Glencarlyn, 38.863797°N, 77.126944°W, 28.vi.2012, N. Banks (1♂, CNC); Hawksbill, Shenandoah National Park, 38.555401°N, 78.395006°W, 1097–1234m, 07.vi.1962, J.R. Vockeroth (1♂, CNC); **Washington:** Mt. Ranier National Park, Reflection Lakes, 46.9°N, 121.54°W, 13.vii.2004, B.C. Kondratieff (1♀, CSU); **Wyoming:** Albany County, Snowy Range Mountains, 41.347747°N, 106.324129°W, 31.vii.1949, D.G. Denning (1♂, CNC); Laramie, 41.311367°N, 105.591101°W, 06.vii.1947, D.G. Denning (1♂, CNC).

Platycheirus immarginatus

Holotype ♂ *Platycheirus felix* Curran, 1931: HOLOTYPE *Platycheirus felix* Curran CNC NO 3410 / Bonne Esperance [Canada] Que[bec]. [51.47167°N, 57.70956°W] 14.VII.1929 W.J. Brown / CNC DIPTERA #26746 (CNC). **Canada:** **Alberta:** Cadomin, base of Prospect Mt., 52.91111°N, 117.39722°W, 18.vii.1987, S.A. Marshall (1♂, DEBU); Chin, Division No. 2, 49.762755°N, 112.449243°W, 30.v.1923, H.L. Seamans (2♂, CNC); Empress, Division No. 4, 50.954515°N, 110.010012°W, 07.vi.1957, Brooks, MacNay (1♂, CNC); Fort McMurray, 56.73104°N, 111.447752°W, 14.vii.1953, G.E. Ball (2♂, CNC); Hailstone Butte, 50.20833°N, 114.45833°W, 21.vii.1987, J. Troubridge (1♂, DEBU); Jenner, 5 mi. N, 50.81667°N, 111.18611°W, 16–17.viii.1980, S.A. Marshall (4♂, DEBU); Lethbridge, Division No. 2, 49.693249°N, 112.839298°W, 12.vi.1930, R.W. Salt, 04–21.vi.1956, E.E. Sterns (7♂, CNC); Manyberries, Division No. 1, 49.401096°N, 110.698297°W, 04.vi.1956, E.E. Sterns (1♂, CNC); Milk River, Division No. 2, 49.149652°N, 112.085193°W, 05.vi.1955, J.R. Vockeroth (1♂, CNC); Onefour, Cypress Co., 49.115857°N, 110.475698°W, 06.vi.1955, J.R. Vockeroth, 13.vi.1956, E.E. Sterns (2♂, CNC); Orion, Division No. 1, 49.435832°N, 110.812986°W, 20.vi.1929, J.H. Pepper (1♂, CNC); Policeman's Coulee, Border Rd., 35 km ESE Milk River, 49.00611°N, 111.66556°W, 7–8.vii.2009, J.H. Kits (2♂, DEBU); Scandia, Division No. 2, 50.280891°N, 112.043525°W, 09.vii.1956,

E.E. Sterns (1♂, CNC); Slave Lake, 55.288162°N, 114.77238°W, 06.vi.1966, G.E. Shewell (1♂, CNC); Whiskey Gap, Division No. 3, 49.0167°N, 113.0167°W, 30.vi.1982, B.V. Peterson (1♂, CNC); **British Columbia:** Atlin, Cassiar L.D., 59.5775°N, 133.69236°W, 671m, 16.viii.1955, H.J. Huckel (2♂, CNC); Bevan, Comox-Strathcona Co., 49.658856°N, 125.090192°W, 18.vi.1955, G.E. Shewell (2♂, CNC); Cowichan Lake, Cowichan Valley R.D., 48.888341°N, 124.314449°W, 18.vii.1927, W. Downes (1♂, CNC); Hixon, Fraser-Fort George R.D., 53.42026°N, 122.58596°W, 07.vi.1966, E.D.A. Dyer (1♂, CNC); Ladysmith, Cowichan Valley R.D., 48.991353°N, 123.821264°W, 01.vi.1955, J.R. McGillis (1♂, CNC); Mission City, Fraser Valley R.D., 49.140168°N, 122.309497°W, 06.vi.1953, E. Mason (1♂, CNC); Oliver, Okanagan-Similkameen R.D., 49.182338°N, 119.550442°W, 12.v.1967, D.C. Allen, 13.v.2012, C.B.D. Garrett (2♂, CNC); Point Grey, Greater Vancouver R.D., 49.265517°N, 123.206019°W, 07.vi–15.v.1973, J.R. Vockeroth (3♂, CNC); Port Edward, Skeena-Queen Charlotte R.D., 54.221122°N, 130.2905°W, 18.vii.1960, B. Heming (1♂, CNC); Richmond, Greater Vancouver R.D., 49.170171°N, 123.136579°W, 05.vi.1973, J.R. Vockeroth (1♂, CNC); Tyee, 27 Miles East of Prince Rupert, Skeena-Queen Charlotte R.D., 54.202612°N, 129.949475°W, 24.vi.1960, W.W. Moss (2♂, CNC); Vaseux Lake, 49.283°N, 119.53°W, 19.v.1987, J. Skevington (2♂, DEBU); **Manitoba:** 15 Miles South of Brandon, Division No. 7, 49.622803°N, 99.961665°W, 07.viii.1958, J.G. Chillcott (4♂, CNC); 2 Miles East of Douglas, Division No. 7, 49.901042°N, 99.660306°W, 27.vii.1958, J.G. Chillcott (1♂, CNC); 5 Miles North of Minnedosa, Division No. 15, 50.314971°N, 99.867547°W, 08.vii.1958, R.B. Madge (1♂, CNC); 5 miles South West of Shilo, 49.763964°N, 99.717403°W, 22.vii–02.viii.1958, R.L. Hurley, J.G. Chillcott (3♂, CNC); Aweme, 49.708529°N, 99.602758°W, 26.v.1920, 06.vi.1922, 10–15.vi.1924, N. N. Criddle, 05.vi.1922, 30.viii.1923, R.M. White (5♂, 3♀, CNC); Carberry, Division No. 7, 49.871229°N, 99.360835°W, 20.v.1953, Brooks - Kelton (1♂, CNC); Churchill, 58.768828°N, 94.171563°W, 24.vii.1948, W.R. Richards, 08.vii.1952, J.G. Chillcott (2♂, CNC); Goodlands, Division No. 5, 49.09331°N, 100.60097°W, 20.viii.1923, N. Criddle (1♀, CNC); Hartney, Division No. 5, 49.481449°N, 100.521895°W, 28.viii.1922, N. Criddle (1♂, CNC); Horton, Division No. 5, 49.101863°N, 100.108372°W, 21.vii.1953, Brooks - Kelton (1♂, CNC); International Peace Gardens, Turtle Mountain Forest Reserve, 49.000579°N, 100.058331°W, 07.viii.1958, R.B. Madge (1♂, CNC); Onanole, 2km E, 50.62407°N, 99.93976°W, 3.vi.1987, J. Troubridge (1♂, DEBU); Pilot Mound, Division No. 4, 49.202272°N, 98.893064°W, 31.vii.1958, A. & J. Brooks (1♂, CNC); Saint Claude, Division No. 10, 49.657462°N, 98.345939°W, 02.viii.1923, N. Criddle, H.A. Robertson (2♀, CNC); Strathclair, Division No. 15, 50.404318°N, 100.395101°W, 08–28.viii.1923, H.A. Robertson (3♀, CNC); Victoria Beach, Division No. 1, 50.702391°N, 96.561465°W, 08.viii.1926, G.S. Brooks (1♀, CNC); Wabowden, Division No. 22, 54.91059°N, 98.629015°W, 08.viii.1949, J.B. Wallis (1♂, CNC); Waskada, 49.097802°N, 100.801073°W, 03.viii.1922, N. Criddle (5♂, 1♀, CNC); Westbourne, Division No. 8, 50.129316°N, 98.585977°W, 24.viii.1922, H.A. Robertson (1♂, CNC); Whitewater Lake, 4 Miles North of Whitewater, Division No. 10, 49.250624°N, 100.227926°W, 30.vii–14.viii.1958, J.G. Chillcott, R.L. Hurley, 22.vi.1958, R.B. Madge (15♂, CNC); Winnipeg, Division No.11, 49.89663°N, 97.139037°W, 09.viii.1958, A. & J. Brooks (1♂, CNC); **New Brunswick:** Chamcook, Charlotte Co., 45.126407°N, 67.071693°W, 09.viii.1957, G.E. Shewell (1♂, CNC); Kouchibouguac National Park, Kent Co., 46.819201°N, 64.96788°W, 14.viii.1978, D.B. Lyons (1♂, CNC); **Newfoundland and Labrador:** Agriculture Experimental Station, St. John's, 47.514837°N, 52.784212°W, 26.vii.1967, J.F. McAlpine (4♂, CNC); Cartwright, Labrador, 53.694772°N, 57.010406°W, 12.vii.1955, E.F. Cashman (1♂, CNC); Saint Anthony, Division No.9, 51.372031°N, 55.597547°W, 02–03.vii.1951, J.B. Wallis (4♂, CNC); Traverspine River, Goose Bay, Labrador, 53.250493°N, 60.283904°W, 10.viii.1951, D.L. Watson (1♂, CNC); **Northwest Territories:** Muskox Lake, 64.633135°N, 108.249285°W, 11–25.vii.1953, J.G. Chillcott (2♂, CNC); Norman Wells, 65.281569°N, 126.828015°W, 20.vi.1949, W.R.M. Mason, 08–09.viii.1969, G.E. Shewell (6♂, CNC); Wrigley, Mackenzie, 63.209367°N, 123.34594°W, 14.vi.1969, G.E. Shewell (1♂, CNC); Yellowknife, 62.446696°N, 114.391481°W, 15.vii–17.viii.1949, E.F. Cashman, 01–08.vi.1953, J.G. Chillcott (9♂, CNC); **Nova Scotia:** Armdale, Halifax, Halifax Co., 44.637274°N, 63.6335°W, 29.vii.1968, 30.vi.1984, P. Ward (1♂, CNC); Cape Breton Highlands National Park, French Lake, Inverness Co., 46.728452°N, 60.86483°W, 24–30.vi.1984, H.J. Teskey (2♂, CNC); Cape North, Victoria Co., 46.884555°N, 60.506046°W, 23.vi.1983, J.R. Vockeroth (1♂, 14♀, CNC); Johnstown, 45.78°N, 60.73°W, 11.vi.1996, J. Meagher (1♂, CBU); South Harbour Beach, Victoria Co., 46.878287°N, 60.429055°W, 27.vi.1983, J.R. Vockeroth (5♂, CNC); South Harbour Beach, Victoria Co., 46.878287°N, 60.429055°W, 03.vii.1983, J.R. Vockeroth (5♂, CNC); **Ontario:** 1 km South of Perth, Lanark County, 44.845708°N, 76.231653°W, 26.v.1987, J.R. Vockeroth (3♂, CNC); 2 km South of Perth, Lanark County, 44.845708°N, 76.231653°W, 26.v.1987, J.R. Vockeroth (2♂, CNC); 3 km South of Perth, Lanark County, 44.845708°N, 76.231653°W, 26.v.1987, J.R. Vockeroth (1♂, CNC); 4 km South of Perth, Lanark County, 44.845708°N, 76.231653°W, 26.v.1987, J.R. Vockeroth (1♂, CNC); 5 km South of Perth, Lanark County, 44.845708°N, 76.231653°W, 26.v.1987, J.R. Vockeroth (1♀, CNC); 6 km South of Perth, Lanark County, 44.845708°N, 76.231653°W, 26.v.1987, J.R. Vockeroth (1♀, CNC); 8 Km South of Richmond, Elgin Co., 42.692678°N, 80.845247°W, 12.viii.1983, B.E. Cooper (1♂, CNC); Algonquin Prov.

Pk., Frontier Lk., 45.93°N, 77.58°, 9.viii.1999, W.J. Crins (3♂, DEBU); Algonquin Prov. Pk., Pondweed Lake, 45.46488°N, 78.43066°W, 20.v–3.vi.2009, Malaise, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Swan Lk. Stn., Scott Lk., 45.4875°N, 78.7222°W, 7–14.vi.1994, Malaise (1♂, DEBU); Atikokan, 4 miles East on Highway 11, 48.723518°N, 91.313476°W, 05.vii.1978, H.J. Teskey (1♂, CNC); Black Creek Swamp, 43.96111°N, 77.03056°W, 20.vi.1993, veg. dominated by black ash, J. Skevington (1♂, DEBU); Bruce Pen. Natl. Pk., Cameron Lk., 45.216°N, 81.533°W, 16.vii.1998, S.A. Marshall (1♂, DEBU); Forks of the Credit, 43.80139°N, 79.99444°W, 29.v.1981, G. Aiudi (1♂, DEBU); Grenadier Island Centre, St. Lawrence Islands National Park, 44.38673°N, 75.90123°W, 27.v.1975, E. Sigler (1♂, CNC); Griffith, 7 miles East, 45.243279°N, 77.031193°W, 31.v–05.vi.1983, B.E. Cooper (2♂, CNC); Guelph, 43.55°N, 80.25°W, 28.v.1975, J.M. Cumming, 26.v.1981, C. Farivar, 22.v.1982, D. Massawe (3♂, DEBU); Guelph, Wellington Co., 43.534656°N, 80.236609°W, 09.v.1913, C.H. Curran (1♂, CNC); Harkaway, Beaverdale Bog, 44.41444°N, 80.64639°W, 19.vii.2009, S.A. Marshall (1♂, DEBU); Jordan, 43.14722°N, 79.36944°W, 24.vii.1915, W.A. Ross (1♂, DEBU); Kinburn, Ottawa Division, 45.383°N, 76.183°W, 20.vi.1965, J.E.H. Martin (1♂, CNC); Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 11.vi.1925, N.K. Bigelow (1♂, CNC); Marmora, Hastings Co., 44.483359°N, 77.68088°W, 23.v–15.vi.1952, J.C. Mitchell, 11.vi.1952, J.R. McGillis, 10.vii.1952, C. Boyle, 21.vii.1952, J.R. Vockeroth (9♂, CNC); Maynooth, Hastings Co., 45.229716, 77.940949°W, 2–3.vi.1982, B.M. Nelson (1♂, CNC); Midland, Simcoe Co., 44.752113°N, 79.887253°W, 20.v.1959, J.G. Chillcott (3♂, CNC); Mono Cliffs Prov. Pk., 44.05°N, 80.06°W, 21.vi.2003, M. Buck (2♂, DEBU); Moose Factory, Cochrane District, 51.259085°N, 80.604429°W, 09.vi.1949, D.P. Whillans (1♂, CNC); Norway Point, Muskoka District Municipality, 45.224472°N, 79.025847°W, 14.vii.1920, J. McDunnough (1♂, CNC); One Sided Lake, 49.05°N, 93.883°W, 29.vi.1960, Kelton & Whitney (1♂, CNC); Orangeville 43.91528°N, 80.10833°W, 19.viii.1984, Malaise trap, B. Wisenden (1♂, DEBU); Ottawa, Fletcher Wildlife Reserve, 45.23°N, 75.42°W, 27.v.2010, hand net, H Penney, B Lamborn (1♂, CNC); Ottawa, Ottawa Division, 45.411604°N, 75.688669°N, 02.vi.1908, J.A. LeClourneau, 05.v.1952, J.G. Chillcott, 12.vii.1956, J.R. Vockeroth (4♂, CNC); Perth Road, Frontenac Co., 44.466237°N, 76.492107°W, 31.viii.1971, P. Ward (1♂, CNC); Portland, Leeds County, 44.68333°N, 76.18333°W, 27.v.1973, P. Ward (1♂, CNC); Powassan, 46.05417°N, 79.34583°W, 14.vii.1978, S.M. Ball (1♂, DEBU); Sault Sainte Marie, 46.51667°N, 84.3°W, 31.v.1986, G. Aiudi (1♂, DEBU); Six Mile Lake, 6 Miles North of Port Severn, 44.882453°N, 79.739501°W, 22–29.v.1959, J.G. Chillcott (3♂, CNC); Smiths Falls, Lanark County, 44.900397°N, 76.019364°W, 22.vi.1984, B.M. Bissett (1♂, CNC); Spring Creek at Hwy 6, 45.06689°N, 81.40956°W, 19.v.2000, sweep in Caltha, S.A. Marshall (2♂, DEBU); 51.25377°N, 85.32321°W, G.J. Spencer (1♂, DEBU); **Quebec:** Beechgrove, Les Collines-de-l'Outaouais, 45.64508°N, 76.123602°W, 16–21.v.1961, 25.v.1965, 27.vi.1984, 28.v.1985, 21.v.1987, J.R. Vockeroth (15♂, 4♀, CNC); Bonne-Esperance, 51.471668°N, 57.709556°W, 14.vii.1929, W.J. Brown (1♂, 1♀, CNC); Bourgeois Lake, Gatineau Park, 45.50128°N, 75.873815°W, 11.vi.1987, J.R. Vockeroth (7♂, CNC); Bradore Bay, 51.499226°N, 57.246365°W, 19–27.vii.1929, W.J. Brown (2♀, CNC); Cap-Rouge, Communaute-Urbaine-de-Quebec, 46.755824°N, 71.355909°W, 09.vii.1953, R. Lambert (1♂, CNC); Harrington Harbour, 50.500173°N, 59.481684°W, 30.vi.1929, W.J. Brown (1♀, CNC); Hemmingford, Les Jardins-de-Napierville, 45.04571°N, 73.588046°W, 26.vi.1923, C.H. Curran (1♀, CNC); Kuujjuaq (Fort Chimo), 58.100076°N, 68.406179°W, 22.vii.1948, H.N. Smith (1♂, CNC); Lac Brome, Brome-Missisquoi, 45.248519°N, 72.514063°W, 08.vii.1927, G.S. Walley (1♂, CNC); Les Eboulements, Charlevoix, 47.478655°N, 70.32275°W, 16.ix.1961, B. Poole (1♂, CNC); Mile 61, Route 58, La Verendrye Provincial Park, 47.329309°N, 76.91563°W, 26.vi.1965, D.M. Wood (1♂, CNC); Mistassini, Le Domaine-du-Roy, 48.888579°N, 72.205228°W, 03.vii.1956, J.R. McGillis (3♂, CNC); Montreal, Communaute-Urbaine-de-Montreal, 45.526155°N, 73.702807°W, 07–21.vii.1906 (2♂, CNC); Perkins, Les Collines-de-l'Outaouais, 45.592305°N, 75.619843°W, 14.viii.1938, G.E. Shewell (2♂, CNC); Quebec, 52.800654°N, 72.557946°W, 12.vii.1929, W.J. Brown (1♀, CNC); Tabatiere, 50.8167°N, 58.95°W, 11.vii.1929, W.J. Brown (1♀, CNC); Waskaganish (Rupert House), 51.483858°N, 78.748036°W, 15.vi.1949, E.J. LeRoux (1♂, CNC); **Saskatchewan:** Canora, Division No. 9, 51.636184°N, 102.430879°W, 10–13.vi.1954, Brooks & Wallis (2♂, CNC); Christopher Lake, Division No. 15, 53.539931°N, 105.789257°W, 19.vii.1959, A. & J. Brooks (1♂, CNC); Dundurn, Division No. 11, 51.810342°N, 106.506077°W, 19.viii.2012, N. Criddle (1♂, CNC); Great Deer, Division No. 16, 52.580321°N, 107.056629°W, 03.ix.1948, J.R. Vockeroth (1♂, CNC); Hudson Bay, Division No. 14, 52.856798°N, 102.396575°W, 06.ix.1959, A. & J. Brooks (4♂, CNC); Katepwa Beach, Division No. 3, 50.700014°N, 103.633932°W, 19.viii.1962, K.C. Herrmann (4♂, CNC); Kenosee, Division No. 1, 49.83502°N, 102.290234°W, 15.vi.1958, A.R. Brooks (1♂, CNC); Lisieux, Division No. 3, 49.279756°N, 105.973993°W, 21.vi.1955, J.R. Vockeroth (1♂, CNC); Ogema, Division No. 2, 49.576394°N, 104.920104°W, 17.vi.1916, N. Criddle (1♂, CNC); Saskatoon, Division No. 11, 52.129272°N, 106.67027°W, 15.vii.1917, A.E. Cameron, 06.vi.1923, 27.vi.1924, N.J. Atkinson, 30.v.1949, J.R. Vockeroth (15♂, CNC); Swift Current, Division No. 8, 50.290473°N, 107.790758°W, 13.vi.1937, A.R. Brooks (2♂, CNC); Val Marie, Division No. 4, 49.244605°N, 107.72924°W, 09.vi.1955, J.R. Vockeroth (8♂, CNC);

Welby, Division No. 5, 50.529808°N, 101.56723°W, 15.viii.1954, Brooks & Wallis (2♂, CNC); Willows, Division No. 3, 49.602228°N, 105.846155°W, 19.vi.1955, J.R. Vockeroth (1♂, CNC); **Yukon Territory:** Firth River, 69.207056°N, 140.071033°W, 14.vii.1956, E.F. Cashman (1♂, CNC); Rampart House, 67.421455°N, 140.983336°W, 12–15.vii.1951, C.C. Loan, J.E.H. Martin (10♂, CNC); Ross River, 61.981832°N, 132.447121°W, 914m, 20.vi.1960, J.E.H. Martin (1♂, CNC); **United States of America: Alaska:** Juneau, 58.369852°N, 134.566447°W, 09.vi.1988, F. Brodo (1♂, CNC); King Salmon, 58.672001°N, 156.656006°W, 26.vi.2007, S.R.Clawson (1♂, UAM); Naknek, 58.729427°N, 157.026703°W, 21.vii.1952, J.B. Hartley (1♂, CNC); Nome, 64.5°N, 165.4°W, 12–19.vi.1951, D.P. Whillans (4♂, CNC); Peninsula National Wildlife Refuge, 58.672001°N, 156.656006°W, 26.vi.2007, S.R.Clawson (1♀, UAM); Umiat, 69.367°N, 152.133°W, 05–25.vii.1959, J.E.H. Martin, R. Madge (21♂, CNC); Unalakleet, 63.873056°N, 160.788056°W, 22–28.vi.1961, B.S. Heming (6♂, CNC); **California:** Lake Temescal, Alameda County, 37.846541°N, 122.230467°W, 03.v.1949, R.M. Wheeler (1♂, CNC); Loomis, 38.821289°N, 121.193004°W, 11.iv.1925, E.I. Schilinger (1♂, CNC); 41.5°N, 120.6°W, 24.v.2007, B.C. Kondratieff (3♂, CSU); **Colorado:** Boulder, 39.936516°N, 105.270546°W, 19.vi.1933, M.T. James (3♂, CNC); Roggen, 40.167061°N, 104.376602°W, 18.v.1934 (2♂, CNC); **Idaho:** Spirit Lake, 46.274303°N, 122.133704°W, 18.v.1928, G.S. Walley (1♂, CNC); **Massachusetts:** Stony Brook Res, 42.256529°N, 71.124056°W, 21.vi.1925 (1♂, CNC); **Minnesota:** Bena, 47.340788°N, 94.20718°W, 17.v.1955, J.R. Vockeroth, 21.v.1960, J.G. Chillcott (13♂, CNC); **Oregon:** Gold Beach, 42.407333°N, 124.421774°W, 11.vii.1925, H.A. Scullen (1♂, CNC); **Pennsylvania:** Centre Co., Black Moshannon State Park, 41.032222°N, 78.005278°W, 22.viii.1986, F.D. Fee (1♂, CNC); **Utah:** Green River, 38.99525°N, 110.161804°W, 13.iv.1942, G.F. Knowlton (1♂, CNC); **Vermont:** Ferdinand Township, 44.712396°N, 71.753301°W, 16–17.vi.1975, H.J. Teskey (1♂, CNC); **Washington:** Fort Lewis, Pierce County, 47.116969°N, 122.585721°W, 08.v.1946, Paul H. Arnaud (2♂, CNC); Soda Lake, 46.96°N, 119.24°W, 28.iv.1991, S.D. Gaimari (1♂, CSCA); **Wisconsin:** Madison, 43.0667°N, 89.4°W, 05.ix.1918, Chas L. Fluke (2♂, CNC); **Wyoming:** Camp Guernsey, Gray Rock Ranch, 42.2241°N, 104.8296°W, 14.vii.2008, B. Heinold (1♂, CSU); Albany County, Snowy Range Mountains, 41.347747°N, 106.324129°W, 23.viii.1947, D.G. Denning (1♂, CNC).

Platycheirus inversus

Holotype ♂ *Platycheirus inversus* Ide, 1926: *Platycheirus* HOLOTYPE *inversus* Ide CNC No. 1301 / [Canada, Quebec] Hull [45.44764°N, 75.73312°W] 30.V.[19]03 / CNC DIPTERA #27039 (CNC). **Canada: New Brunswick:** Northumberland Co., E. Beaver Bk. Bog, 47.145699°N, 65.580498°W, 02.vi.2010, S.Robinson, J.Klymko (1♂, CNC); Priceville, Northumberland County, 46.511726°N, 66.290249°W, 07.vii.1971, B.V. Peterson (1♂, CNC); **Nova Scotia:** Southampton, Cumberland County, 45.588954°N, 64.245758°W, 12.vi.1975, J.A. Herbert (1♂, CNC); Weymouth, Digby County, 44.388832°N, 65.993347°W, 02.vi.1911, J.A. Herbert (1♂, CNC); **Ontario:** Algonquin Prov. Pk., Madawaska Lake, 45.32936°N, 78.30364°W, 12–26.vi.2009, Malaise E. Proctor (1♂, DEBU); Jackfish Lake, ~31 km SE Dryden, 49.6169°N, 92.44194°W, 376 m, 17.vii.2010, A.D. Young (1♀, DEBU); Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 11.vi.1925, N.K. Bigelow (1♂, CNC); Mer Bleu, 5 Miles East of Ottawa, Ottawa Division, 45.40331°N, 75.5083°W, 07.vii.1966, Malaise trap D.D. Munroe (1♂, CNC); Oiseau Bay, Pukaskwa National Park, 48.3925°N, 86.183611°W, 15.vii.1981, C. Keddy (1♂, CNC); Osgoode, Ottawa Division, 45.144769°N, 75.605322°W, 28.v.1965, J.R. Vockeroth (1♂, CNC); Petawawa, Renfrew County, 45.890226°N, 77.26695°W, 07.vi.1961, J.R. Vockeroth (1♂, CNC); Thornhill, York Regional Municipality, 43.814434°N, 79.423359°W, 30.v.1964, J.R. Vockeroth (1♂, CNC); **Quebec:** Aylmer, Communaute-Urbaine-de-l'Outaouais, 45.400224°N, 75.817137°W, 04.vi.1924, H.L. Viereck (1♂, CNC); Duncan Lake, near Rupert, 45.681389°N, 76.050278°W, 15.vi.1971, J.F. McAlpine (1♂, CNC); Hull, Communaute-Urbaine-de-l'Outaouais, 45.447639°N, 75.733192°W, 30.v.1903 (1♂, CNC); Ile d'Anticostie, Jupiter, 49.530833°N, 63.280556°W, 17–27.vii.2007, Malaise trap (2♂, CNC); James Bay Rte., km 204.5, 50.98306°N, 77.63389°W, 7–16.vii.2001, Malaise trap, M. & B. Buck (3♂, DEBU); Knowlton, Brome-Missisquoi, 45.216716°N, 72.514769°W, 14.vi.1928, J.A. Adams (11♂, CNC); Laniel, Temiscamingue, 47.045828°N, 79.268979°W, 10.vi.1931, H.S. Fleming (1♂, CNC); Mont Saint-Hilaire, La Vallee-du-Richelieu, 45.552948°N, 73.155276°W, 10.v.1905, J.W. Boyes (1♂, CNC); Mont-Joli, La Mitis, 48.58721°N, 68.192412°W, 31.vii.1954, J.R. McGillis (1♂, CNC); **United States of America: Maine:** Abol Trail, 45.883935°N, 68.947545°W, vi.1968, P. Ward (1♂, CNC); **New Hampshire:** Coos Co., 4 mi. NE. Pittsburg, Black Lake Road, 27.v.1986, Sweeping, D.Chandler, J.Burger (1♂, CNC); Glen House, 44.289163°N, 71.225764°W, 15.vii.2012, C.W. Johnson (1♂, CNC); Hubbard Brook Experimental forest, 44.134998°N, 71.630798°W, 08.vi.1976, G.G.Whitney (2♂, USNM); Mount Washington, 44.289083°N, 71.225223°W, 06.vii.2012 (1♂, CNC); Norton Pool, 3 miles North East of East Inlet Dam, Coos County, 45.2°N, 71.1°W, 24.vi.1986, sweep, D.S. Chandler (1♂, CNC); Norton Pool, 3 miles North East of East Inlet Dam, Coos County, 45.2°N, 71.1°W, 27.v–11.vi.1986, Malaise trap, 09.vii.1986, sweep, D.S. Chandler (4♂, CNC); **New York:** McLean Bogs, Tompkins County, 42.542739°N, 76.287971°W, 29.v.1915 (1♂, CNC); **Pennsylvania:** Centre Co., Black

Moshannon Sp., 25.v.1986, (1♂, CNC); **West Virginia:** Cranberry Glades, 38.200951°N, 80.268129°W, 01.vi.1955, H.V. Weems, Jr. (3♂, CNC); Cranberry Glades, Pocahontas County, 38.200951°N, 80.268129°W, 01.vii.1967, Malaise trap, H.V. Weems, Jr. (1♂, CNC).

Platycheirus jaerensis

Canada: Manitoba: Churchill Area, 58.631944°N, 94.219722°W, 05.vii.2007, A. Renaud (1♂, CNC); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 26.vi.1955, E.F. Cashman (1♂, CNC); **Nova Scotia:** Cape Breton Highlands National Park, Pleasant Bay, Inverness Co., 46.822961°N, 60.799065°W, 12.vi.1984, B.E. Cooper (1♂, CNC); **Quebec:** Ile d'Anticostie, Jupiter, 49.530833°N, 63.280556°W, 17.vi–1.vii.2007, Malaise trap (2♂, CNC); **Norway:** Rogaland, 58.860001°N, 5.711000°E, 01.vi.1972, Tore Nielsen (1♀, USNM); Oksnevad, 10.vi.1972, 8.vi.1975, 13.vi.1978, T. Nielsen (3♀, TNPC); Stokka 31.v.1972, T. Nielsen (1♂, 1♀, CNC).

Platycheirus jakuticus

Russia: 02–27.vi.1985 (5♂, CNC).

Platycheirus kelloggi

Canada: British Columbia: Moosehorn Lake, Cassiar L.D. 58.164009°N, 132.12694°W, 1585m, 27.vii.1960, W.W. Moss (2♂, CNC); Mount McLean, Squamish-Lillooet R.D., 50.727718°N, 122.018366°W, 12.vii.1926, E.R. Buckell (2♀, CNC); **Yukon Territory:** Mount McIntyre, Whitehorse, 60.731784°N, 135.113173°W, 1585m, 21.vi.1949, B. Hocking (1♀, CNC); **United States of America: Colorado:** Corona Pass, Boulder County, 39.936516°N, 105.678611°W, 3231m, 06.vii.1961, J.G. Chillcott (2♀, CNC); Doolittle Ranch, Mount Evans, 39.675739°N, 105.601348°W, 2987m, 03.viii.1961, S.M. Clark, 12.viii.1961, W.R.M. Mason (2♀, CNC); Echo Lake, Mount Evans, 39.658085°N, 105.6035°W, 3231m, 20.vii.1961, B.H. Poole (1♀, CNC); Goliath Peak, 36.64°N, 105.6°W, 3658 m, 7.viii.2006, C. Slater (1♂, CSU); Independence Pass, Lake County, 39.104722°N, 106.557321°W, 3688m, 07.viii.1961, C.H. Mann (1♀, CNC); Loveland Pass, Western Slope, 39.65°N, 105.867°W, 3002m, 28.vii.1961, B.H. Poole (1♀, CNC); Mount Evans, 39.25°N, 106.167°W, 2896–4267m, 28.vi.– 07.viii.1961, C.H. Mann, W.R.M. Mason, J.G. Chillcott, J.R. Stainer, S.M. Clark (27♀, CNC); Nederland, Science Lodge, 39.95°N, 105.5°E, 2896–3597m, 28.vi.1961, 03.vii.1961, B.H. Poole, 04–28.vii.1961, J.R. Stainer (10♀, CNC); Niwot Ridge, Near Ward, 40.069933°N, 105.607397°W, 3505m, 04.vii.1961, C.H. Mann (2♀, CNC); Pingree Park, 40.567018°N, 105.597778°W, 20.viii.1924, 16–21.viii.1925, Chas L. Fluke (2♀, CNC); Rogers Peak, 39.617°N, 105.629°W, 3658 m, 4.vii.2005, C. Slater (2♂, CSU); Summit Lake, Mount Evans, 40.567018°N, 105.593372°W, 3901m, 07–10.vii.1961, C.H. Mann (2♀, CNC); Trail Ridge Road, 40.441427°N, 105.755575°W, 2987m, 29.vii.1988, M.T. & H.B. James (3♀, CNC); Uncompahgre Park, 38.071°N, 105.605°W, 25.vi.1997, Ellingson (1♂, CSU); **Wyoming:** 43.084281°N, 107.556417°W, 05.v.1905, F.M. Hull (2♀, CNC).

Platycheirus latus

Holotype ♀ *Melanostoma lata* Curran, 1922: M. HOLOTYPE *lata* Curran. CNC No. 468 / [Canada, Yukon Territory] White Horse [60.73340°N, 135.08209°W] July – August. A.P. Howes / CNC DIPTERA #27060 (CNC). **Canada: Alberta:** Banff, Banff National Park, 51.180275°N, 115.568433°W, 1768m, 13–28.vi.1922, C.B.D. Garrett (2♂, CNC); **Yukon Territory:** Carcross, sand dunes, 60.186691°N, 134.692703°W, 16–18.vi.1982, G. & D.M. Wood (1♂, 2♀, CNC); La Force Lake, 62.683°N, 132.33°W, 914–1006m, 26.vi–13.vii.1960, J.E.H. Martin, E.W. Rockburne (7♀, CNC); Swim Lakes, 62.210135°N, 132.809978°W, 975m, 20–25.vi.1960, J.E.H. Martin (1♂, 1♀, CNC); Whitehorse, 60.733402°N, 135.082092°W, vii–viii, A.P. Harves (1♀, CNC).

Platycheirus latitarsis

Holotype ♂ *Platycheirus latitarsis* Vockeroth, 1990: *Platycheirus* HOLOTYPE *latitarsis* Vockeroth CNC No.19273 / [Canada, British Columbia] Kitsequecla R[iver], 76 Mi[les]. E[ast]. Terrace [54.503464°N, 126.655409°W] El. 675' [206m] 16–vii-1960 C.H. Mann / CNC DIPTERA #27071 (CNC). **Canada: British Columbia:** 32 miles South West of Terrace, 54.194076°N, 129.140296°W, 13.vii.1960, B. Heming (1♂, CNC); Aiyansh, Nass River, 55.217977°N, 129.117227°W, 152m, 25.vi.1960, W.W. Moss (1♂, CNC); Goldstream Provincial Park, Vancouver Island, 48.481548°N, 123.548592°W, 02.vii.1972, J.W. Boyes (1♂, CNC); Hixon, Fraser-Fort George R.D., 53.42026°N, 122.58596°W, 21.vi.1966, E.D.A. Dyer (1♂, CNC); Spring Creek, Terrace, 54.539511°N, 128.618192°W, 67m, 11.vi.1960, R. Pilfrey (1♂, CNC); **Yukon Territory:** Dawson, 64.050017°N, 139.41052°W, 10.vi.1949, W.W. Judd (1♂, CNC).

Platycheirus lundbecki

Canada: Manitoba: Fort Churchill, 58.75525°N, 94.078885°W, 12.vi.1952, C.D. Bird (1♂, CNC); Fort Churchill, 58.75525°N, 94.078885°W, 23.vi.1952, J.G. Chillcott (1♂, CNC); **Northwest Territories:** Kidluit Bay, Richards Island, 69.352136°N, 135.376863°W, 27.vii.1948, J.R. Vockeroth (1♂, CNC); **Ontario:** 18 km East of Elliot Lake, Algoma Co., 46.370301°N, 82.375486°W, 18.vii.1953, J.G. Chillcott (1♂, CNC); **Quebec:** Kangirsuk (Payne Bay), 60.019774°N, 70.024029°W, 08.vii.1954, H. Huckel, 24.vi.1958, 07.vii.1958, 11.viii.1958, E.E. MacDougall, 06–26.vii.1958, W.R.M. Mason (13♂, CNC); Sugluk Island, 62.285763°N, 75.555071°W, 22.vii.1954, H. Huckel (1♂, CNC); **Yukon Territory:** Erebia Creek, White Mountains, 67.966612°N, 136.483327°W, 792m, 29.vi.1987, Malaise trap, S.G. Cannings (4♂, CNC); **Greenland:** Nedre Midsommer Sø, 82.25°N, 34.25°W, 23.vi.- 17.vii.1966, Can. Peary Land Exped.[ition] (5♂, 12♀, CNC); Sondrestom Air Base, 67.010556°N, 50.709167°W, 08–30.vi.1952, W.J. Brown (4♂, 8♀, CNC); **United States of America: Alaska:** Cape Thompson, 68.13°N, 165.97°W, 24.vii.1961, B.S. Heming (1♂, CNC).

Platycheirus luteipennis

Holotype ♀ *Melanostoma atra* Curran, 1925: [United States of America] Colo[rado] 1680 / 262 / Holotype *M. atra*. **Holotype** ♂ *Melanostoma agens* Curran, 1931: *Melanostoma* TYPE *agens* ♂ Curran No. / [Canada] Melita Man[itoba]. 9.vii.1927 E. & S. Criddle / HOLOTYPE *Melanostoma agens* 3439 No. Curran / CNC DIPTERA #27105 / *Melanostoma agens* Curran Det. Curran (CNC). **Canada: Alberta:** Lethbridge, Division No. 2, 49.693249°N, 112.839298°W, 14.vii.1928, G.F. Manson (1♂, 1♀, CNC); Scandia, Division No. 3, 50.280891°N, 112.043525°W, 09.vii.1956, E.E. Sterns (3♂, CNC); Scandia, Division No. 6, 50.280891°N, 112.043525°W, 09.vii.1956, E.E. Sterns (1♀, CNC); **Manitoba:** Beulah, Division No. 15, 50.260069°N, 101.034856°W, 13.vii.1927, E. & S. Criddle (2♂, CNC); Deloraine, Division No. 5, 49.193312°N, 100.493989°W, 02.vii.1927, E. & S. Criddle (1♂, CNC); Melita, Division No. 5, 49.271291°N, 100.985802°W, 09.vii.1927, E. & S. Criddle (1♂, CNC); Pierson, Division No. 5, 49.177701°N, 101.263676°W, 03.vii.1927, H.J. Brodie (1♂, CNC); **Saskatchewan:** Lisieux, 49.28°N, 105.97°W, 21.vi.1955, A.R. Brooks (1♂, CNC); Saskatoon, Division No. 11, 52.129272°N, 106.67027°W, 09.vii.1957, A.R. Brooks (1♂, 1♀, CNC); Swift Current, Division No. 8, 50.290473°N, 107.790758°W, 09.vii.1930, C.W. Smith (1♂, CNC); Waseca, Division No. 17, 53.099758°N, 109.47212°W, 10.vii.1926, N.J. Atkinson (1♀, CNC).

Platycheirus manicatus

Finland: Batsfjord, 12.vii.1983, T. Nielsen (2♀, TNPC); **Germany:** Schleswig-Holstein, Wattschaukrug, 54.700001°N, 9.220000°E, 07.viii.1976, C. ClauBen (1♂, USNM); **Sweden:** Abisko, 06.vi–23.vii.1951, J.R. Vockeroth (1♂, 3♀, CNC); **United States of America: Alaska:** Mile 213, Richardson Highway, 63.2°N, 145.65°W, 16.vi.1951, D.P. Whillans (1♂, CNC).

Platycheirus marokkana

Morocco: Imill, High Atlas, 1740m, 08.v.1993, G.Shewell (3♀, CNC); Marrakech, 1m S Asni, 1600m, 30.ix.1994, C.Kassebeer (1♂, CNC); Marrakech, Oujrgane, 1000m, 07.iii.1996, C. Kassebeer (1♀, CNC).

Platycheirus modestus

Holotype ♂ *Platycheirus modestus* Ide, 1926: *Platycheirus* HOLOTYPE *modestus* Ide CNC No. 1300 / [Canada] Megantic Que[bec]. [45.57781°N, 70.88411°W] 22.vi.1923 C.H. Curran / CNC DIPTERA #27227 (CNC). **Canada: Alberta:** Banff, Banff National Park, 51.180275°N, 115.568433°W, 1358m, 26.v.1960, B.S. Heming (1♂, CNC); Bellevue, 49.57139°N, 114.3625°W, 1250 m, 8.vii.2009, J.H. Kits (1♂, 2♀, DEBU); Slave Lake, 55.288162°N, 114.77238°W, 05–06.vi.1966, G.E. Shewell (3♂, CNC); Waterton Lakes National Park, 49.076725°N, 113.938101°W, 7–12.vii.1980, H.J. Teskey (1♂, CNC); **British Columbia:** Boundary Lake, Peace River L.D., 56.335077°N, 120.009227°W, 23.vi.1985, S.G. Cannings (2♂, CNC); Robson, Central Kootenay L.D., 49.342029°N, 117.697831°W, vi.1963, J.W. Boyes (2♂, CNC); **Manitoba:** Whitewater, Division No. 5, 49.20607°N, 100.285041°W, 19.vii.1953, A.R. Brooks (1♂, CNC); **New Brunswick:** Birch Cove, near Chamcook, Charlotte Co., 45.129092°N, 67.065743°W, 14.viii.1957, G.E. Shewell (1♂, CNC); Fredericton, York County, 45.959225°N, 66.640351°W, 05.vii.1913, J.D. Tothill, 06.vi.1950, D.D. Pond (2♂, CNC); **Newfoundland:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 24–26.vii.1955, E.E. Sterns (2♂, CNC); Goose Bay, Labrador, 53.326031°N, 60.387266°W, 23–26.vi.1948, H.C. Friesen (5♂, CNC); Junction at Highway 430 & Upper Humber Road, 12.vi.1979, Larson & Swales (1♂, CNC); **Northwest Territories:** Hay River, Mackenzie, 60.817093°N, 115.784232°W, 11.vii.1951, P.R. Ehrlich (1♂, CNC); Muskox Lake, 64.633135°N, 108.249285°W, 25.vii.1953, J.G. Chillcott (1♂, CNC); Norman Wells, 65.281569°N, 126.828015°W, 02.vii.1969, G.E. Shewell (1♂, CNC); **Nova Scotia:** Cape North, Victoria Co., 46.884555°N, 60.506046°W, 23.vi.1983,

J.R. Vockeroth (4♂, 1♀, CNC); Kentville, Kings Co., 45.077239°N, 64.496688°W, 24.vi.1923, R.P. Gorham, 06.viii.1958, J.R. Vockeroth (2♂, CNC); Truro, Colchester Co., 45.364959°N, 63.279846°W, 12.vii.1913, R. Matheson (1♂, CNC); **Nunavut**: Hodgeson Lake, Norman Wells, 65.302804°N, 126.683198°W, 04.vii.1969, G.E. Shewell (1♂, CNC); **Ontario**: 14 km East of Kenora, 49.757898°N, 94.181909°W, 9–10.vi.1960, Kelton & Whitney (1♂, CNC); Bruce Pen. Natl. Pk., Singing Sands, 45.19283°N, 81.58267°W, 26.viii.1997, S.A. Marshall (1♂, DEBU); Charlton, Timiskaming District, 47.808313°N, 79.99539°W, vi, Parish (1♂, CNC); Fergus, 43.7°N, 80.4°W, 25.v.1987, 28.v.-1.vi.1990, Malaise, S.A. Marshall (4♂, DEBU); Guelph, 43.55°N, 80.25°W, 29.v.1974, D.J. McComb (1♂, DEBU); Mer Bleu, 5 Miles East of Ottawa, Ottawa Division, 45.40331°N, 75.5083°W, 08.vi.1927, G.S. Walley, 14.vi.1972, H.J. Teskey (2♂, CNC); Ottawa, Ottawa Division, 45.411604°N, 75.688669°W, 02-08.vi.1927, C.H. Curran (46♂, 4♀, CNC); Smiths Falls, Lanark County, 44.900397°N, 76.019364°W, 22.vi.1984, J.R. Vockeroth (1♂, CNC); **Prince Edward Island**: Cavendish Beach, Green Gables, Queens County, 46.501787°N, 63.420409°W, 22.vii.1967, D.M. Wood (1♂, CNC); **Quebec**: Beechgrove, Les Collines-de-l'Outaouais, 45.64508°N, 76.123602°W, 28.v.1985, J.R. Vockeroth (1♂, CNC); Bradore Bay, 51.499226°N, 57.246365°W, 21.vii.1929, W.J. Brown (1♂, CNC); Great Whale River, 55.116816°N, 76.405554°W, 08.vii.1949, J.R. Vockeroth (1♂, CNC); Kazabazua, La Vallée-de-la-Gatineau, 45.952028°N, 76.021718°W, 6–10.vi.1927, F.P. Ide, W.J. Brown (2♂, 4♀, CNC); Lac Phillippe, 45.603081°N, 75.997235°W, 25.vii.1987, J.R. Vockeroth (1♀, CNC); Lac-Mégantic, Le Granit, 45.57781°N, 70.884105°W, 22.vi.1923, C.H. Curran (2♂, CNC); Mile 139, Route 58, La Verendrye Provincial Park, 48.097161°N, 77.70512°W, 29.vi.1965, D.M. Wood (6♂, CNC); Mile 61, Route 58, La Verendrye Provincial Park, 47.329309°N, 76.91563°W, 26.vi.1965, D.M. Wood (10♂, CNC); Mistassini, Le Domaine-du-Roy, 48.888579°N, 72.205228°W, 26.vi–04.vii.1956, J.R. Lonsway, 03.vii–04.viii.1956, J.R. McGillis (15♂, CNC); Old Chelsea, Les Collines-des-L'Outaouais, 45.499972°N, 75.814667°W, 20.v.1987, J.R. Vockeroth (1♂, CNC); Saint-Chrysostome, Le Haut-Saint-Laurent, 45.101444°N, 73.762152°W, 28.vi.1927, G.S. Walley (1♂, CNC); Sainte-Anne-des-Monts, La Haute-Gaspésie, 49.122277°N, 66.492466°W, 13.vi.1954, G.P. Holland (1♂, CNC); Trois-Rivières, 46.350883°N, 72.54806°W, v.1916, F. Germain (1♂, CNC); Waskaganish (Rupert House), 51.483858°N, 78.748036°W, 12.vii.1949, D.P. Gray (1♂, CNC); **Saskatchewan**: Canora, Division No. 9, 51.636184°N, 102.430879°W, 15.vi.1954, Brooks & Wallis (2♂, CNC); Christopher Lake, Division No. 15, 53.539931°N, 105.789257°W, 11.vii.1959, A. & J. Brooks (2♂, CNC); Kenosee, Division No. 1, 49.83502°N, 102.290234°W, 30.v.1958, A.R. Brooks (1♂, CNC); Saskatoon, Division No. 11, 52.129272°N, 106.67027°W, 03.vi.1926, K.M. King, 30.v.1949, A.R. Brooks (4♂, CNC); Uranium City, Division No.16, 59.566669°N, 108.616668°W, 18–20.vi.1962, J.G. Chillcott (2♂, CNC); Val Marie, Division No. 4, 49.244605°N, 107.72924°W, 09.vi.1955, J.R. Vockeroth (1♂, CNC); Waldheim, Division No. 15, 52.620552°N, 106.654152°W, 26.vi.1923, K.M. King (1♂, CNC); Waskesiu Lake, Prince Edward National Park, 53.925028°N, 106.079995°W, 04.vi.1938, J.G. Rempel (1♂, CNC); **Yukon Territory**: 13 miles East of Dawson, 64.061916°N, 139.005745°W, 396m, 30.vi.1962, R.E. Leech (20♂, CNC); Dawson, 64.050017°N, 139.41052°W, 21.vi.1949, W.W. Judd (7♂, CNC); Dawson, 64.050017°N, 139.41052°W, 22.vi.1949, W.W. Judd (1♂, CNC); McDougall Pass, 67.720911°N, 136.457671°W, 03.vii.1987, S.G. Cannings (1♂, CNC); North Fork Pass, Ogilvie Mountains, 64.565983°N, 138.250648°W, 07.vii.1963, P.J. Skitsko (1♂, CNC); Rampart House, 67.421455°N, 140.983336°W, 11–21.vii.1951, J.E.H. Martin (2♂, CNC); **United States of America**: **Alaska**: Fairbanks, 64.83°N, 147.7167°W, 16.vi.1952, J.B. Hartley (1♂, CNC); Isabel pass, Mile 206 Richardson Highway, 63.484367°N, 145.839383°W, 13.vii.1962, R.E. Leech (1♂, CNC); 11 km East of Anchor Point, near Homer, 59.889°N, 151.782°W, 16.vi.2005, J. & R. Skevington (1♀, CNC); Kenai River, Near Seward, 60.483°N, 150.064°W, 16.vi.2005, J. & R. Skevington (1♂, CNC); Unalakleet, 63.873056°N, 160.788056°W, 29.vi–13.vii.1961, R. Madge, B.S. Heming (7♂, CNC); **Maine**: Maine Agricultural Experiment Station, Orono, 44.898465°N, 68.669873°W, 11.viii.1915, C.L. Metcalf (1♂, CNC); **New Hampshire**: Colebrook, 42.001389°N, 73.084444°W, 30.v.1965, D.M. Wood (1♂, CNC); Coos Co., First Connecticut Lake, 45.093871°N, 71.244495°W, 18.vi.1982, J.R. Vockeroth (2♂, CNC); Glen House, 44.289163°N, 71.225764°W, 14.vi.2012 (1♂, CNC).

Platycheirus naso

Holotype ♀ *Syrphus naso* Walker, 1849: Holo-type / Type / *Syrphus naso*. Wlk. / [Canada, Ontario] Albany R[iver]. Hudson's Bay. [52.21546°N, 81.84412°W] / J. Skevington Specimen #45666 (BMNH). **Canada**: **Alberta**: Dutch Creek Bridge at Highway 940, 03.vii.1982, B.V. Peterson (1♂, 1♀, CNC); Eisenhower Junction, Banff National Park, 51.2667°N, 115.9167°W, 1433m, 06.vii.1955, J.R. McGillis (1♂, CNC); Mount Eisenhower, Banff National Park, 51.298694°N, 115.925724°W, 24.vi.1968, Mosquin & Seaborn (1♂, CNC); Mount Temple Chalet, Lake Louise, 51.413528°N, 116.19088°W, 2134m, 26.vii.1962, E. Mason (1♂, CNC); Redoubt Lake, Lake Louise, Banff National Park, 51.477459°N, 116.074133°W, 26.vii.1962, K.C. Herrmann (1♂, CNC); Snow Creek Pass, Banff National Park,

51.60524°N, 115.808617°W, 2256m, 08.vii.1962, W.R.M. Mason (2♂, CNC); Sunwapta Pass, Banff National Park, 52.202927°N, 117.142006°W, 2042m, 09.vi.1955, G.E. Shewell (1♂, CNC); Victoria Glacier, Banff National Park, 51.382738°N, 116.27942°W, 1829–1981m, 18.vii.1955, R. Coyles (1♂, CNC); **British Columbia:** Eva Lake Trail, Mount Revelstoke National Park, 51.079905°N, 118.108837°W, 1829m, 31.vii.1952, G.J. Spencer (1♂, CNC); Graham Is., Slatechuck Mt. summit, 53.2613°N, 132.2375°W, 975m, 19.vii.1988, T.A. Wheeler (8♂, DEBU); Moosehorn Lake, Cassiar L.D., 58.164009°N, 132.12694°W, 1372m, 28–29.vii.1960, R. Pilfrey (3♂, CNC); Mount Allard, Near Terrace, 54.759555°N, 128.892456°W, 1219m, 20.vii.1960, B.S. Heming (1♂, CNC); Mount Revelstoke National Park, 51.035979°N, 118.142509°W, 1798m, 12.vii.1952, G.J. Spencer (1♂, CNC); Pete Lake, 57.931509°N, 131.936219°W, 1219m, 17.viii.1960, R. Pilfrey (1♂, CNC); Queen Charlotte Is., Graham Is., Nalkoon Prov. Pk., Sleeping Beauty Mtn., 54.56667°N, 128.86389°W, 19.vii.1988, S.A. Marshall (2♂, DEBU); Summit Lake, Mile 392 of Alaska Highway, Northern Rockies R.D., 58.648201°N, 124.666912°W, 1433m, 15.vii.1959, E.E. MacDougall, 21.vii.1959, R.E. Leech (2♂, CNC); **Manitoba:** Churchill, 58.768828°N, 94.171563°W, 29.vi.1948, G.E. Shewell (1♂, CNC); Churchill Area, Burn site N[orth] of Twin lakes, 58.618611°N, 93.828889°W, 29.vi.2007, J. Skevington (1♂, CNC); Churchill Area, Goose Creek Road, between Pumphouse and the Weir, 58.63°N, 94.23°W, 02.vii.2007, J. Skevington (1♀, CNC); Churchill Area, Ramsay Creek, 58.780833°N, 93.780278°W, 30.vi.2007, Malaise trap, A. Renaud (1♂, CNC); Churchill Area, Wapusk Nat[ional] Park, 57.933055°N, 93.159444°W, 14.vii.2007, Malaise trap, A. Renaud (3♂, CNC); Churchill, 12 km E on Launch Rd., 58.75457°N, 93.99849°W, 10–14.vii.2007, Malaise trap, A. Renaud (2♂, DEBU); Eastern Creek, Near Churchill, 58.760035°N, 93.952418°W, 09.vii.1952, J.G. Chillcott (1♂, CNC); Fort Churchill, 58.75525°N, 94.078885°W, 17–24.vi.1952, J.G. Chillcott (3♂, CNC); Gillam, 56.35333°N, 94.714404°W, 19.vi.1950, J.F. McAlpine (1♂, CNC); Ramsay Creek, ~24 km E Churchill, 58.73075°N, 93.78037°W, 3–7.vii.2007, Malaise trap, A. Renaud (2♂, DEBU); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 26.vi.1955, E.F. Cashman, 11.vii.1955, E.E. Sterns (2♂, CNC); Hebron, Labrador, 58.199007°N, 62.627869°W, 15.vii.1954, E.E. Sterns (1♂, CNC); Hopedale, Labrador, 55.460131°N, 60.213557°W, 07.vii.1923 (1♂, CNC); Nutak, Okak Island, Labrador, 57.481667°N, 61.830834°W, 23.vii.1954, J.F. McAlpine (1♂, CNC); **Northwest Territories:** 21 miles east Tuktoyaktuk, 69.426844°N, 132.172475°W, 8–12.vii.1971, D.M. Wood (1♂, CNC); Aklavik, 68.219638°N, 135.010707°W, 02.vii.1956, E.F. Cashman (1♂, CNC); Ford Lake, M.T.S. Gravity Survey Camp, 63.133386°N, 107.416561°W, 23–28.vi.1966, G.E. Shewell (5♂, CNC); Lisadele Lake, Cassiar L.D., 58.680264°N, 133.050826°W, 1219m, 06.viii.1960, W.W. Moss (1♂, CNC); Muskox Lake, 64.633135°N, 108.249285°W, 12–20.vii.1953, J.G. Chillcott (4♂, CNC); Reindeer Depot, Mackenzie Delta, 68.668974°N, 134.071574°W, 25.vi.1948, 16.vii.1948, J.R. Vockeroth (2♂, CNC); Salmita Mines, 64.077971°N, 111.243513°W, 30.vi.1953, 04–06.vii.1953, J.G. Chillcott (3♂, CNC); **Nova Scotia:** Cape Breton Highlands National Park, Mackenzie Fire Tower, 46.773977°N, 60.818772°W, 11.vii.1983, D.M. Wood (1♀, CNC); Cape Breton Highlands National Park, North Mountain, Inverness Co., 46.795174°N, 60.68649°W, 400m, 25.vi.–06.vii.1983, J.R. Vockeroth (1♂, 4♀, CNC); **Ontario:** Elsie Lk., 48.41835°N, 84.97517°W, 13.viii.2009, S.A. Marshall (1♀, DEBU); Tobermory, 45.25°N, 81.67°W, 21.v.2006, in cottage window, S.A. Marshall (1♂, DEBU); **Quebec:** Great Whale River, 55.116816°N, 76.405554°W, 24.vi.1949, J.R. Vockeroth (1♂, CNC); Ile d'Anticostie, Jupiter, 49.530833°N, 63.280556°W, 30.vi.–18.vii.2007, Malaise trap (2♂, CNC); Indian House Lake, 56.328482°N, 64.720845°W, 18.vii.1954, R. Coyles (1♂, CNC); Kangirsuk (Payne Bay), 60.019774°N, 70.024029°W, 29.vii.–01.viii.1958, E.E. MacDougall (2♂, CNC); Knob Lake, 54.783°N, 66.783°W, 05–16.vii.1948, E.G. Munroe (2♂, CNC); Kuujuaq (Fort Chimo), 58.100076°N, 68.406179°W, 26.vi.1948, H.N. Smith, 05.vii.1958, W.R.M. Mason (2♂, CNC); **Yukon Territory:** British Mountains, 68.99769°N, 140.527793°W, 320m, 21–25.vi.1984, G. & M. Wood & D. Lafontaine (2♂, CNC); Dawson, 64.050017°N, 139.41052°W, 21.vi.1949, W.W. Judd (1♂, CNC); Dempster Hwy., Eagle R. Crossing, 66.44283°N, 136.70998°W, 9–10.vii.1985, Malaise, S.A. Marshall (1♂, DEBU); Firth River, 69.207056°N, 140.071033°W, 17.vii.1956, R.E. Leech (1♂, CNC); km 140.5, Dempster Highway, 65.042996°N, 138.136503°W, 900m, 18.vi.1980, Wood & Lafontaine (2♂, CNC); km 141, Dempster Highway, 65.06101°N, 138.126705°W, 22–28.vi.1982, G. & D.M. Wood (4♂, 1♀, CNC); km 155, Dempster Highway, 65.067106°N, 138.295866°W, 950m, 11–12.vii.1981, Lafontaine and G. & M. Wood (1♂, CNC); La Force Lake, 62.683°N, 132.33°W, 1006m, 25.vi.1960, E.W. Rockburne (1♂, CNC); Mile 51, Dempster Highway, 64.605992°N, 138.33789°W, 7–12.vii.1973, G. & D.M. Wood (1♂, CNC); Mile 87, Dempster Highway, 65.054721°N, 138.128324°W, 27–30.vi.1973, G. & D.M. Wood (2♂, CNC); North Fork Crossing, Mile 42 Aklavik Road, 64.565983°N, 138.250648°W, 1067m, 28.vi.–06.vii.1962, R.E. Leech (4♂, CNC); North Fork Crossing, Mile 43 Peel Pit Road, 64.565983°N, 138.250648°W, 1067m, 03.vii.1962, P.J. Skitsko (2♂, CNC); Rampart House, 67.421455°N, 140.983336°W, 12.vii.1951, C.C. Loan (1♂, CNC); Sheldon Lake, 62.616763°N, 131.266603°W, 914m, 21.vii.1960, E.W. Rockburne (1♂, CNC); White Mountains, Erebia Creek, 792m, 02.vii.1987, Malaise trap, S.G. Cannings (2♂, CNC); **United States of America:** **Alaska:** Andrew Lake, 51.938999°N, 176.619003°W, 13.vii.2008, D.S. Sikes (1♀,

UAM); Cold Bay, 163°W, 55.244894°N, 163.009591°W, 26.vii.1952, W.R. Mason (1♂, CNC); Denali National Park and Preserve, 63.868999°N, 150.229004°W, 08–24.vii.2001, O. Helmy (4♂, 1♀, UAM); Isabel pass, Mile 206 Richardson Highway, 63.484367°N, 145.839383°W, 884m, 13–18.vii.1962, P.J. Skitsko (5♂, CNC); Kanuti National Wildlife Refuge, 66.488998°N, 151.270996°W, 30.vii.2006, J. Cornell, 14–25.vii.2008, L. Saperstein (6♀, UAM); King Salmon, Naknek River, 58.678852°N, 156.666556°W, 05.viii.1952, J.B. Hartley (1♂, CNC); Mile 213, Richardson Highway, 63.2°N, 145.65°W, 17.vi.1951, J.R. McGillis (1♂, CNC); Mile 32, Denali Highway, 63.390138°N, 148.588876°W, 1372m, 22.vii.1962, R.E. Leech, P.J. Skitsko (5♂, CNC); Nome, 64.5°N, 165.4°W, 12–15.vi.1951, 02.vii.1951, D.P. Whillans (11♂, CNC); Route 3, Mile 270, 11 Miles South of Anderson, 64.217681°N, 149.283595°W, 884m, 23.vi–11.viii.1984, Malaise trap, S. & J. Peck (1♂, CNC); Tangle Lakes, 63.033115°N, 146.043535°W, 28.vi–8.vii.1969, Malaise trap, J. Matthews (1♂, 1♀, CNC); Umiat, 69.367°N, 152.133°W, 19.vii.1959, J.E.H. Martin (1♂, CNC); Unalakleet, 63.873056°N, 160.788056°W, 20–22.vi.1961, B.S. Heming (3♂, CNC); **Colorado:** Chasm Lake, 40.258°N, 105.605°W, 19.vii.2009, B. Heinold (1♂, CSU); Cottonwood Pass, Gunnison County, 39.548824°N, 107.039314°W, 3688m, 29.vii.1961, J.G. Chillcott (1♂, CNC); Doolittle Ranch, Mount Evans, 39.675739°N, 105.601348°W, 2987m, 18.vii.–06.viii.1961, W.R.M. Mason (6♂, CNC); Echo Lake Park, 39.65977°N, 105.60477°W, 3176 m, 29.vi.2010 A.D. Young (1♀, DEBU); Independence Pass, Lake County, 39.104722°N, 106.557321°W, 3688m, 07.viii.1961, J.G. Chillcott (1♂, CNC); Mount Cooper, ~11 km N Leadville, ski hill, 39.34958°N, 106.28428°W, 3584m, 28.vi.2010, A.D. Young (1♀, DEBU); Summit Lake, Mount Evans, 40.567018°N, 105.593372°W, 3901m, 07–17.vii.1961, C.H. Mann (2♂, CNC); Uncompahgre Park, 38.071°N, 105.605°W, 20.vii.1995, B. Heinold (1♂, CSU); **New Hampshire:** Coos County, Mount Washington, Lake of the Clouds, 44.258396°N, 71.31762°W, 28–30.vi.1983, J.F. Burger (2♂, CNC); Mount Washington, 44.797716°N, 110.434368°W, 1650m, 08.vii.1981, J.R. Vockeroth (1♂, CNC); **New Mexico:** Lincoln County, Jordan, 43.13°N, 79.3667°W, 2957m, 10–26.vi.1979, S. & J. Peck (1♂, CNC); **Vermont:** Mirror Lake, Duchesne County, 38.31073°N, 112.367492°W, 3063m, 16.vii.1966, B.V. Peterson (1♂, CNC).

Platycheirus nearcticus

Holotype ♂ *Platycheirus nearcticus* Vockeroth, 1990: *Platycheirus* HOLOTYPE *nearcticus* Vockeroth CNC No. 17274 / [Canada] Masham Twp. QUE[bec]. [45.68333°N, 76.05000°W] Gatineau Co. 22–26.vi.1974 D. M. Wood / CNC DIPTERA #27339 (CNC). **Canada:** **Alberta:** North of Seba Beach, Division No. 11, 53.584764°N, 114.738094°W, 1–5.vi.1967, A.G. Raske & B.M. Dahl (1♂, CNC); **British Columbia:** Cowichan Lake, Cowichan Valley R.D., 48.888341°N, 124.314449°W, 06.vi.1955, R. Coyles, 19.vi.1964, J.A. Chapman (2♂, CNC); Hixon, Fraser-Fort George R.D., 53.42026°N, 122.58596°W, 07–21.vi.1966, E.D.A. Dyer (3♂, CNC); McQueen Lake, 10 Miles North of Kamloops, Thompson-Nicola R.D., 50.828873°N, 120.442513°W, 19.vi.1973, H.J. Teskey (1♂, CNC); Robson, Central Kootenay L.D., 49.342029°N, 117.697831°W, 09.vii.1955, H.R. Foxlee (1♂, CNC); Vernon, North Okanagan R.D., 50.263769°N, 119.273734°W, 28.v.1923, E.P. Venables (3♂, CNC); **Manitoba:** Ninette, Division No.5, 49.399267°N, 99.63205°W, 24.v.1958, J.F. McAlpine (1♂, CNC); Onah, Division No. 7, 49.805973°N, 99.524133°W, 18.vi.1924, R.D. Bird (1♂, CNC); **New Brunswick:** Kouchibouguac National Park, Kent Co., 46.819201°N, 64.96788°W, 05.vi.1977, J.R. Vockeroth, 08.vii.1977, J.F. McAlpine, 19.vii.1977, G.A. Calderwood, 15.vi.1978, S.J. Miller (4♂, CNC); **Newfoundland and Labrador:** Agriculture Experimental Station, St. John's, 47.514837°N, 52.784212°W, 12.vii.1967, Malaise trap, J.F. McAlpine (1♂, CNC); Badger, Division No. 6, 48.979892°N, 56.039568°W, 17.vi.1981, C. Moore (1♂, CNC); **Nova Scotia:** 2.9 km before Meat Cove, Victoria County, 47.017556°N, 60.545936°W, 13.vii.1983, R.A. Layberry (2♂, 2♀, CNC); Cape Breton Highlands National Park, 46.764713°N, 60.630731°W, 29.vii.1984, H.J. Teskey (1♂, CNC); Cape Breton Highlands National Park, Black Brook, Victoria County, 46.76559°N, 60.444095°W, 2–4.vi.1983, D.M. Wood (1♂, CNC); Cape Breton Highlands National Park, French Lake, Inverness Co., 46.728452°N, 60.86483°W, 8–13.viii.1984, H.J. Teskey (1♀, CNC); Cape Breton Highlands National Park, Mackenzie Fire Tower, 46.773977°N, 60.818772°W, 400m, 11.vii.1983, D.M. Wood (3♀, CNC); Cape Breton Highlands National Park, Mackenzie Mountain, Inverness Co., 46.773977°N, 60.818772°W, 300m, 25.vi.– 07.vii.1983, J.R. Vockeroth (4♂, 5♀, CNC); Cape Breton Highlands National Park, Middle Head, Victoria Co., 46.656586°N, 60.365462°W, 06.vii.1983, J.R. Vockeroth (1♀, CNC); Cape Breton Highlands National Park, North Mtn. Bog, Inverness Co., 46.805111°N, 60.688224°W, 400m, 11.vii.1983, Flight Trap, D.M. Wood (1♂, 2♀, CNC); Cape Breton Highlands National Park, Pleasant Bay, Inverness Co., 46.822961°N, 60.799065°W, 02.vi.1984, B.E. Cooper (1♀, CNC); Pt. Orchard, 27.v.1951, Stultz & Dondale (1♂, CNC); South Harbour Beach, Victoria Co., 46.878287°N, 60.429055°W, 06–12.vii.1983, J.R. Vockeroth (1♂, 1♀, CNC); **Ontario:** Algonquin Prov. Pk., Florence Lake, 45.44371°N, 78.49012°W, 3–17.vi.2009, Malaise E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Madawaska Lake, 45.32936°N, 78.30364°W, 12–26.vi.2009, Malaise, E. Proctor (2♂, 10♀, DEBU); Algonquin Prov. Pk., Sitting Duck Lake, 45.44985°N, 78.46831°W, 3–17.vi.2009, Malaise, E. Proctor (1♂, DEBU); Arthur, 43.83333°N, 80.5375°W, 14.vi.1998, B. Larson (1♂, DEBU);

Badenoch Tract, 4 km NE Morriston, 43.47361°N, 80.08333°W, 21.v.2000, M. Buck (1♂, DEBU); Barr property, ~7 km NE Centreton, site 1, 44.12778°N, 77.9825°W, 19.v–1.vi.2011, Malaise, Brunke & Paiero (1♂, DEBU); Blair, RARE, Cruickston Creek, 43.37787°N, 80.34952°W, 301m, 10–15.viii.2006, Malaise, Bergeron & Cheung (1♂, DEBU); Chatham, Chatham-Kent Division, 42.412001°N, 82.185001°W, 20.v.1925, G.S. Walley (1♂, CNC); Collingwood, 44.50139°N, 80.24028°W, 24.v.1987, J.T. Troubridge (1♂, DEBU); Cranberry Lk., Runtz prop., 44.43333°N, 79.29333°W, 24.v–2.vi.2007, Malaise trap, Douglas *et al.* (1♂, DEBU); Cronmiller prop., ~6 km W St. Williams, site 1, 42.67222°N, 80.49139°W, 17–31.v.2011, Malaise, Brunke & Paiero (1♂, DEBU); Esquesing, 43.61667°N, 79.94028°W, 18.v.1998, B. Larson (1♂, DEBU); Five Points, 20–25.viii.1983, J.G. Thompson (1♂, DEBU); Griffith, 7 miles East, 45.243279°N, 77.031193°W, 03–11.iv.1983, B.E. Cooper (2♂, CNC); Guelph, 43.55°N, 80.25°W, 11.vi.1913, H.C. Curran, 30.v.1914, D.J. McComb, 28.vi.2007, A. Brunke (5♂, 3♀, DEBU); Guelph, Eramosa River at Stone Rd., 43.54727°N, 80.19715°W, 12.v.2000, on *Caltha* flowers, S.A. Marshall (1♂, DEBU); Guelph, University Arboretum, Wild Goose Trail, 43.53889°N, 80.21667°W, 15.vi.2009, A.D. Young (1♀, DEBU); Hilton Beach, 46.25°N, 83.883°W, 30.v.1992, J.E. Swann (1♂, DEBU); Jordan, 43.14722°N, 79.36944°W, 15.v.1915, 16.vi.1915, W.A. Ross, 10.viii.1915, W.A. Ross (3♂, DEBU); Kelly's Camp, 21.vi.1932, W.A. Reeks (1♂, CNC); McDonald Island, St. Lawrence Islands National Park, 44.313741°N, 76.171094°W, (1♂, CNC); Mer Bleu, 5 Miles East of Ottawa, Ottawa Division, 45.40331°N, 75.5083°W, 21.vi.1966, Malaise trap, D.D. Munroe (2♂, CNC); Metcalfe, Ottawa Division, 45.235824°N, 75.472712°W, 31.v.1983, B.E. Cooper (1♂, CNC); Nestor Falls, Kenora District, 49.115235°N, 93.926097°W, 7–8.viii.1960, Kelton & Whitney (1♂, CNC); Newport Forest, ~3 km SW of Wardsville, 42.63111°N, 81.77861°W, 30.vii.2009, G.F.G. Miranda (1♂, DEBU); Niagara Falls, Niagara Regional Municipality, 43.099589°N, 79.103587°W, 30.v.1961, L.A. Kelton (1♂, CNC); Niagara Glen, Niagara Regional Municipality, 43.117864°N, 79.086698°W, 01–22.vi.1926, G.S. Walley (3♂, CNC); Normandale, Haldimand-Norfolk R.M., 42.712251°N, 80.312022°W, 29.v.1956, J.R. Lonsway (1♂, CNC); Oakville, nr. Hwy 25 & Burnhamthorpe Rd., 43.45389°N, 79.79222°W, 26.vii–16.viii.2006, Malaise, S.M. Paiero (2♂, DEBU); Orangeville, 43.91528°N, 80.10833°W, 29.viii.1993, S.A. Marshall (1♂, DEBU); Orillia, Simcoe Co., 44.609505°N, 79.42068°W, 12.vi.1927, C.H. Curran (1♂, CNC); Osgoode, Ottawa Division, 45.144769°N, 75.605322°W, 28.v.1965, J.R. Vockeroth (1♂, CNC); Ottawa, near Uplands Airport, Ottawa Division, 45.33°N, 75.58333°W, 15–30.viii.1987, Malaise trap, J.M. Cumming (8♂, CNC); Rondeau Prov. Pk., Marsh Trail North, 42.3°N, 81.85°W, 10.viii.2003, M. Buck (1♂, DEBU); Selkirk Prov. Pk., 42.8158°N, 79.9578°W, 16.v.1998, B. Larson (1♂, DEBU); Thwartway Island, St. Lawrence Island National Park, 44.294283°N, 76.150445°W, 06.viii.1976, Malaise trap, W. Reid (1♂, CNC); Tillsonburg, Oxford Co., 42.866315°N, 80.73185°W, 04.v.1926, G.S. Walley (1♂, CNC); Vineland, 43.15°N, 79.4°W, 30.v.1915 (1♀, DEBU); Wilson Tract, 42.634°N, 80.561°W, 20.v.1995, D.C. Caloren (1♂, DEBU); **Quebec:** 2 Miles North of Eardley, Les Collines-de-l'Outaouais, 45.581565°N, 76.091683°W, 24.v.1968, D.M. Wood (1♂, CNC); Abbotsford, 45.437637°N, 72.887923°W, 30.viii.1936, 25.vi.1937, G. Shewell (2♂, CNC); Aylmer, Communaute-Urbaine-de-l'Outaouais, 45.400224°N, 75.817137°W, 24.vi.1924, C.H. Curran (1♂, CNC); Covey Hill, 25.vi.1924, G.S. Walley (1♀, DEBU); Covey Hill, 28.vi.1923, C.H. Curran (1♀, DEBU); Covey Hill, Le Haut-Saint-Laurent, 45.019681°N, 73.745746°W, 12.vi.1924, C.H. Curran (1♂, CNC); Gaspé, La Cote-de-Gaspé, 48.829099°N, 64.486513°W, 23.vi.1954, G.P. Holland (1♂, CNC); Gatineau Park, Les Collines-de-L'Outaouais, 45.558059°N, 75.948981°W, 16.v.1905, J.W. Boyes (1♀, CNC); Ile d'Anticostie, Jupiter, 49.530833°N, 63.280556°W, 27.vii–10.viii.2007, Malaise trap (1♂, CNC); Ile d'Anticostie, Lac Simone, 49.85°N, 64.13°W, 29–15.vii.2007, Malaise trap (1♂, CNC); Laniel, Temiscamingue, 47.045828°N, 79.268979°W, 10.vi.1931, H.S. Fleming, 13.vi.1938, A.R. Hall (2♂, CNC); Masham Township, Gatineau Co., 45.643433°N, 76.026846°W, 22–26.vi.1974, 7–14.ix.1974, D.M. Wood (3♂, CNC); Messines, La Vallée-de-la-Gatineau, 46.236165°N, 76.021751°W, 07.vi.1970, J.R. Vockeroth (1♂, CNC); Montreal, Communaute-Urbaine-de-Montreal, 45.526155°N, 73.702807°W, 15–16.v.1905, J.W. Boyes (3♂, CNC); Second stream West on Northern Side of Harrington Lake, Gatineau Park, 45.587912°N, 75.975159°W, 18.vi.1965, B.V. Peterson (1♂, CNC); Summit of King Mountain, Old Chelsea, Les Collines-des-L'Outaouais, 45.498058°N, 75.864116°W, 26.v.1975, H.C.W. Walther (1♂, CNC); **Saskatchewan:** Big River, 53.83472°N, 107.03333°W, 5.vi.1973, B.A. Hannigan (1♂, DEBU); **Yukon Territory:** Whitehorse, 60.733402°N, 135.082092°W, 09.viii.1949, D.L. Watson, 09.vii.1950, L. Fisher, 22.vii.1950, R.H. Robertson (3♂, CNC); **United States of America: Colorado:** Clear Creek, 39.690446°N, 105.641253°W, 12.v.1926, Ash. O (1♂, CNC); **Maryland:** Laurel, 39.08333°N, 76.83°W, 25.v.1965, Malaise trap, J.G. Chillcott (1♂, CNC); **Massachusetts:** Lexington, 42.43°N, 71.2167°W, 10.vi.2012 (1♂, CNC); **New Hampshire:** Coos Co., 4 miles North East of Pittsburg, Back Lake Road, 45.088867°N, 71.332237°W, 27.v.1986, sweep D. Chandler & J. Burger (2♂, CNC); Coos Co., Pittsburg, 45.051157°N, 71.391469°W, 18.vi.1982, J.R. Vockeroth (1♂, CNC); Jackson, 44.145833°N, 71.180833°W, 25.ix.2012, C.W. Johnson (1♂, CNC); Jaffrey, 42.814957°N, 72.022399°W, 18.vi.2012, C.W. Johnson (1♂, CNC); **New Jersey:** Riverton, 40°N, 74.983°W, 20.vii.1920, F.M. Hull (1♂, CNC); **New Mexico:** Cloudcroft, 32.957313°N, 105.742486°W, 26.v.1964, J.F. McAlpine

(1♂, CNC); **New York:** Flushing, 40.765808°N, 73.833084°W, 19.v.1918 (1♂, CNC); Nyack, 41.090652°N, 73.917915°W, 15.v.1919 (1♂, CNC); **North Carolina:** Blue Ridge Parkway, W of Boone, 36.233°N, 81.516°W, 24.v.1999, M. Hauser (1♀, CSCA); Great Smoky Mts. Nat. Park, Big Cove Road, Site #3, 35.711389°N, 83.3025°W, 28.iv–4.v.2001, B. Wiegmann (1♂, CNC); Pisgah National Forest, 36.183°N, 81.77°W, 25.v.1999, M. Irwin (1♂, CSCA); **Pennsylvania:** North Mountain, 41.292503°N, 76.555031°W, 04.viii.2012 (1♂, CNC); Phoenixville, Chester County, 40.130382°N, 75.514913°W, 17.v.1964, J.G. Chillcott (1♂, CNC); **Tennessee:** Great Smoky Mountains National Park, Cosby Ranger Station, 35.78°N, 83.21°W, 15.v.2004, M.E. Irwin (1♂, CSCA); **Virginia:** Cascade, Falls Trail, 19.v.1997, C.S. Onodera (1♂, DEBU); Cascades Recr. Area, 37.35°N, 80.60833°W, 11–25.v.2008, J. Mui (1♂, DEBU); Pandapas Pond, 37.275°N, 80.4667°W, 500m, 16.v.2005, J. Novikan (1♂, DEBU).

***Platycheirus neoperpallidus* sp. nov.**

Holotype ♂ *Platycheirus neoperpallidus* Young, 2015: [United States of America] Co[lorado]: Clear Creek Co., Echo Lake Park, 39°39'35"N, 105°36'17"W, 3176m, 29 Jun 2010, A.D. Young, debu00330267 / Holotype *Platycheirus neoperpallidus* A. D. Young 2015 (DEBU). **Canada: Alberta:** 15 miles East of Morley, 51.169227°N, 114.505479°W, 23.vi.1962, K.C. Herrmann (1♂, CNC); Kananaskis, Forest Experimental Station Seebe, 51.100879°N, 115.087692°W, 05.vi.1968, H.J. Teskey (1♂, CNC); Lethbridge, Division No. 2, 49.693249°N, 112.839298°W, 26.vi.1927, H.E. Gray, 21–25.vi.1956, E.E. Sterns (7♂, CNC); Milk River, Division No. 2, 49.149652°N, 112.085193°W, 05.vi.1955, J.R. Vockeroth (1♂, CNC); Mountain View, Division No. 3, 49.132789°N, 113.60841°W, 09.vi.1962, W.R.M. Mason (3♂, CNC); **British Columbia:** 32 miles South West of Terrace, 54.194076°N, 129.140296°W, 30m, 13.vii.1960, B. Heming (2♂, CNC); Atlin, Cassiar L.D., 59.5775°N, 133.69236°W, 671m, 16.viii.1955, H.J. Huckel (1♂, CNC); Graham Island, 10 km N. of Tlell, 53.65°N, 131.93°W, 13.vii.1988, sweeping, T.A. Wheeler (2♂, DEBU); Hatzic Lake, Fraser Valley R.D., 49.167692°N, 122.239657°W, 20.vii.1953, W.R.M. Mason (1♂, CNC); King Salmon Lake, Cassiar L.D., 58.716999°N, 132.902999°W, 533m, 04.viii.1960, R. Pilfrey (1♂, CNC); Lakelse Lake Bog, Near Terrace, 54.344012°N, 128.592884°W, 11.vii.1960, C.H. Mann, 05.viii.1960, B. Heming (2♂, CNC); Mission City, Fraser Valley R.D., 49.140168°N, 122.309497°W, 27.vii.1953, G.J. Spencer (1♂, CNC); Prince Rupert, Skenna-Queen Charlotte R.D., 54.31368°N, 130.315462°W, 18.vii.1960, B. Heming (1♂, CNC); Shames, 18 Miles South West of Terrace, 54.409648°N, 128.935301°W, 24.vii.1960, C.H. Mann (1♂, CNC); Telegraph Creek, Sawmill River, 50.320173°N, 119.912212°W, 335m, 28.viii.1960, W.W. Moss (9♂, CNC); Terrace, 54.516512°N, 128.586663°W, 17.vii.1960, C.H. Mann, 15.viii.1960, B. Heming (2♂, CNC); **Northwest Territories:** Gros Cap Island, Great Slave Lake, 61.983453°N, 113.530461°W, 26.viii.1947, J.R. Vockeroth (1♂, CNC); **Ontario:** Guelph, 43.55°N, 80.25°W, (1♂, DEBU); Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 18.vii.1925, N.K. Bigelow (1♂, CNC); **Quebec:** Kazabazua, La Vallée-de-la-Gatineau, 45.952028°N, 76.021718°W, 17.vii.1927, W.J. Brown (1♂, CNC); **Saskatchewan:** Kenosee, Division No. 1, 49.83502°N, 102.290234°W, 15.vi.1958, A.R. Brooks (2♂, CNC); Saskatoon, Division No. 11, 52.129272°N, 106.67027°W, 30.v.1949, A.R. Brooks (1♂, CNC); Val Marie, Division No. 4, 49.244605°N, 107.72924°W, 09.vi.1955, J.R. Vockeroth (2♂, CNC); **Yukon Territory:** Dawson, 64.050017°N, 139.41052°W, 17.vii.1949, W.W. Judd (1♂, CNC); **United States of America: Alaska:** Anchorage, 61.218054°N, 149.90027°W, 20–24.vii.1951, R.S. Bigelow (2♂, CNC); Cape Thompson, 68.13°N, 165.967°W, 28.vii.1961, R. Madge (1♂, CNC); **Colorado:** Buena Vista, 38.842218°N, 106.131129°W, 2377m, 22–23.vi.1961, .H. Mann (1♂, CNC); Echo Lake Park, 39.66°N, 105.605°W, 3176m, 29.vi.2010, A.D. Young (1♂, DEBU). High Creek Fen, 14 km S Fairplay, 39.1034°N, 105.98889°W, 2822m, 2.vii.1995, B. Kondratieff & R. Durfee (1♀, CSU); **Utah:** Summit County, Henry's Fork Park, 38.538611°N, 106.189722°W, 2926m, 1–10.viii.1979, S. & J. Peck (1♂, CNC).

Platycheirus nielseni

Holotype ♂ *Platycheirus nielseni* Vockeroth, 1990: *Platycheirus* HOLOTYPE nielseni Vockeroth CNC No. 17288 / [Canada] YUKON [Territory], 65 55'N, 135 46'W 3300' Richardson Mts 5.vii.[19]82 M. Wood / CNC DIPTERA #27392 (CNC). **Canada: Manitoba:** Fort Churchill, 58.75525°N, 94.078885°W, 20–24.vi.1952, J.G. Chillcott (2♂, CNC); **Newfoundland and Labrador:** Hopedale, Labrador, 55.460131°N, 60.213557°W, 07–19.vii.1923 (2♂, CNC); Saint Anthony, Division No.9, 51.372031°N, 55.597547°W, 03.vii.1951, J.B. Wallis (1♂, CNC); **Northwest Territories:** Aklavik, 68.219638°N, 135.010707°W, 30.vi.1956, E.F. Cashman (1♂, CNC); **Nunavut:** Clyde River, Baffin Island, 70.474206°N, 68.588656°W, 04.vii.1958, J.E.H. Martin (1♂, CNC); **Yukon Territory:** 40 km West of Dawson, 64.05°N, 139.4167°W, 02.vii.1980, Wood & Lafontaine (1♂, CNC); 5 km North West of Old Crow, 67.601544°N, 139.920943°W, 792m, 01.vii.1983, S.G. Cannings (1♂, CNC); km 155 Dempster Highway, 65.067106°N, 138.295866°W, 1520m, 13–15.vii.1981, Lafontaine and G. & M. Wood (1♂, CNC); km 416 Dempster Highway,

66.644581°N, 136.324471°W, 750m, 22–28.vi.1980, Wood & Lafontaine (2♂, CNC); Richardson Mountains, 68.163651°N, 136.988868°W, 914m, 04–06.vii.1982, D.M. Wood (10♂, CNC).

Platycheirus nigrofemoratus

Canada: Newfoundland and Labrador: Cutthroat Harbour, Silutalik Island, Labrador, 57.468066°N, 61.616438°W, 21.vii.1954, E.E. Sterns (1♂, CNC); Hopedale, Labrador, 55.460131°N, 60.213557°W, 07.vii.1923 (1♂, CNC); **Northwest Territories:** Granet Lake, Franklin, 68.701471°N, 125.58813°W, 20.vii.1969, G.E. Shewell (1♂, CNC); **Quebec:** Great Whale River 55.116816°N, 76.405554°W, 23–24.vi.1949, J.R. Vockeroth (3♂, CNC); **Yukon Territory:** Erebia Creek, White Mountains, 67.966612°N, 136.483327°W, 09.vii.1987, Malaise trap, S.G. Cannings (1♂, CNC); km 155 Dempster Highway, 65.067106°N, 138.295866°W, 950m, 11–18.vii.1981, Lafontaine and G. & M. Wood (2♂, CNC); North Fork Crossing, Ogilvie Mountains, 64.565983°N, 138.250648°W, 03.vii.1962, P.J. Skitsko (1♂, CNC); **Norway:** Kautokeino, 3–4.vii.1979, T.R.Nielsen (1♀, CNC); **Sweden:** Abisko, 24.vi.1972, T.R.Nielsen (1♂, CNC); **United States of America: Alaska:** Denali National Park and Preserve, 63.731998°N, 148.979996°W, 24.vi.2001, O. Helmy (1♀, UAM); King Salmon, Naknek River, 58.678852°N, 156.666556°W, 04.vii.1952, W.R. Mason (1♂, CNC); Sanask Island, 54.423°N, 162.69°W, 13.vii.2007 (1♀, MHPC); Adak E. shore Andrew Lake, 51.938999°N, 176.619003°W, 07–13.vii.2008, D.S.Sikes (6♀, UAM); Kanuti National Wildlife Refuge, 54.457001°N, 162.699005°W, 01.vi.2006, J. Cornell (1♀, UAM).

Platycheirus nodosus

Holotype ♂ *Platycheirus nodosus* Curran, 1923: HOLOTYPE *Platycheirus nodosus* Curr. CNC No. 519 / [Canada] Banff Al[ber]ta [51.18028°N, 115.56843°W] 18.vi.1922 C. B. D. Garrett / CNC Diptera #27450 (CNC). **Canada: Alberta:** 14 Miles West of Banff, Banff National Park, 51.176388°N, 115.886983°W, 1372m, 11.viii.1955, J.R.W. McGillis (1♂, CNC); Banff Natl. Pk., Two Jack Lake, 51.23053°N, 115.49782°W, 1444 m, 14.vii.2010, A.D. Young (3♂, 3♀, DEBU); Banff Natl. Pk., Vermillion Lakes, 51.18322°N, 115.60025°W, 1381m, 14.vii.2010, A.D. Young (2♂, DEBU); Banff, Banff National Park, 51.180275°N, 115.568433°W, 01–18.vi.1922, C.B.D. Garrett (2♂, 2♀, CNC); Fort McMurray, 56.73104°N, 111.447752°W, 20.vi.1953, G.E. Ball (1♂, CNC); Lake Louise, Division No. 15, 51.413528°N, 116.19088°W, 1402m, 07.vii.1955, R. Coyles (2♂, CNC); Slave Lake, 55.288162°N, 114.77238°W, 06.vi.1966, G.E. Shewell (1♂, CNC); Waterton Lakes National Park, 49.076725°N, 113.938101°W, 7–12.vii.1980, H.J. Teskey (1♂, CNC); **British Columbia:** Atlin, Cassiar L.D., 59.5775°N, 133.69236°W, 671m, 30.vi.1955, B.A. Gibbard (1♂, CNC); Crowsnest, East Kootenay R.D., 49.632832°N, 114.69266°W, 17.vi.1962, K.C. Herrmann (1♂, CNC); Lac Le Jeune, Thompson-Nicola R.D., 50.483929°N, 120.488055°W, 25.vi.1973, H.J. Teskey (1♂, CNC); Richter Pass, Near Osoyoos, Okanagan-Similkameen R.D., 49.079154°N, 119.598202°W, 30.v.1958, H. & A. Howden (1♂, CNC); Robson, Central Kootenay L.D., 49.342029°N, 117.697831°W, 13.v.1958, H.R. Foxlee (1♂, CNC); Summit Lake, Mile 392 of Alaska Highway, Northern Rockies R.D., 58.648201°N, 124.666912°W, 1372m, 25–27.vi.1959, E.E. MacDougall (2♂, CNC); **Manitoba:** Minnedosa, Division No. 15, 50.248512°N, 99.838781°W, 07.vi.1926, R.M. White (1♂, CNC); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 26.vi.1948, W.W. Judd, 30.vi.-05.vii.1955, E.F. Cashman, 12.vii.1955, E.E. Sterns (7♂, CNC); **Northwest Territories:** Harris River, East Side of Mackenzie River near Fort Simpson, 61.874522°N, 121.300488°W, 09.vi.1972, B.V. Peterson (1♂, CNC); Norman Wells, 65.281569°N, 126.828015°W, 21–27.vi.1969, G.E. Shewell (3♂, CNC); **Ontario:** Moose Factory, Cochrane District, 51.259085°N, 80.604429°W, 18.vi.1949, P.J. Lachaine (1♂, CNC); **Quebec:** Bradore Bay, 51.499226°N, 57.246365°W, 21.vii.1929, W.J. Brown (1♂, CNC); Kuujuaq (Fort Chimo), 58.100076°N, 68.406179°W, 02.vii.1954, W.R. Richards (1♂, CNC); Mistassini, Le Domaine-du-Roy, 48.888579°N, 72.205228°W, 30.vi.-04.vii.1956, J.R. Lonsway, 03.vii.1956, J.R. McGillis (9♂, CNC); **Saskatchewan:** Prince Albert National Park, Division No. 16, 53.978773°N, 106.241378°W, 07.vi.1938, J.G. Rempel (1♂, CNC); Uranium City, Division No.16, 59.566669°N, 108.616668°W, 20.vi.1962, J.G. Chillcott (1♂, CNC); **Yukon Territory:** Dawson, 64.050017°N, 139.41052°W, 10–21.vi.1949, W.W. Judd (3♂, CNC); La Force Lake, 62.683°N, 132.33°W, 914m, 28–29.vi.1960, J.E.H. Martin (3♂, CNC); Ross River, 61.981832°N, 132.447121°W, 914m, 20.vi.1960, J.E.H. Martin (2♂, CNC); Snag, Small lake, 20.vi.1987, S.A. Marshall (1♂, DEBU); Swim Lakes, 62.210135°N, 132.809978°W, 975m, 13–18.vi.1960, J.E.H. Martin, E.W. Rockburne (7♂, CNC); Whitehorse, 60.733402°N, 135.082092°W, 03.vii.1988, F. Brodo (1♂, CNC).

Platycheirus normae

Canada: Ontario: Algonquin Prov. Pk., Madawaska Lake, 45.32936°N, 78.30364°W, 24.v-7.vi.2008, Malaise, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Swan Lk. Stn., Scott Lk., 45.4875°N, 78.7222°W, 16–28.vii.1993, Malaise C1, Larson, Marshall & Barr (1♂, DEBU); Arnprior, Renfrew County, 45.440062°N, 76.370707°W, 20.viii.1930, C.H.

Curran (1♂, CNC); Douro Twp., Blezard Line, 44.2949°N, 78.0978°W, 20.v.2001 (1♀, DEBU); Minaki, Kenora District, 49.981816°N, 94.67065°W, 04.vii.1928, J. McDunnough (1♂, CNC); Polar Bear Prov. Pk., 55.143°N, 85.788°W, 9.vii.2002, W.J. Crins (1♂, DEBU); Uthoff, Muskoka District Municipality, 44.679283°N, 79.480102°W, 14.vii.1923, C.H. Curran (1♂, CNC); **Prince Edward Island:** Dalvey House National Park, 46.414905°N, 63.073145°W, 04.viii.1940, G.S. Walley (1♂, CNC); **Quebec:** James Bay Rte. km 328.1, 2 km N Jolicoeur River, 51.89778°N, 77.41056°W, 16.vii.2001, sweeping (1♀, DEBU); Lac Roddic, 7km NE Bouchette, 46.253°N, 75.896°W, 24.vii.2004, L. Bartels (1♀, DEBU); Inverhuron Prov. Pk., 44.30°N, 81.59°W, 25.vii.2003, M. Buck (1♀, DEBU) **United States of America: Pennsylvania:** Centre Co., Black Moshannon SP, 07.viii.1987, F.D.Fee (1♂, 1♀, CNC).

Platycheirus notatus

New Zealand: 11 km SE of Kumara, 42.722401°S, 171.251007°E, 28.xii.1986, FC & BJ Thompson (1♀, USNM); 4 km SW of Reefton, 42.170799°S, 171.940994°E, 18.xii.1986, FC Thompson (1♂, USNM); Arthur's Pass National Park, 42.907600°S, 171.557999°E, 28.xii.1986, FC & BJ Thompson (1♂, USNM).

Platycheirus obscurus

Holotype ♀ *Melanostoma rostrata* Bigot, 1884: Holotype / *M. rostrata* EX COLL. BIGOT / J. Skevington Specimen # 45753 / *M. Rostrata* ♀ [United States of America] Californ[ia]. J. Bigot (OUMNH). **Holotype** ♀ *Melanostoma nitidiventris* Curran, 1931: *Melanostoma* HOLOTYPE nitidiventris 3409 CNC No. Curran / [Canada] Jordan Ont[ario]. [43.14477°N, 79.36873°W] 13.v.1935 C.H. Curran / *Melanostoma* TYPE nitidiventris Curran ♀ No. /CNC DIPTERA #27487 (CNC). **Canada: New Brunswick:** Bailey, 45.63°N, 66.583°W, 6.ix.1977, S.M. Smith (1♂, DEBU); Dalhousie, Restigouche County, 48.063562°N, 66.369676°W, 05.vi.1953, A.P. Arthur (1♀, CNC); Doaktown, Northumberland Co., 46.556585°N, 66.126203°W, 06.vii.1971, B.V. Peterson (1♂, CNC); Grand Manan Island, 44.70833°N, 66.78889°W, 23.viii.1991, S.A. Marshall (1♂, DEBU); Grays Mills, Kings County, 45.496036°N, 66.058802°W, 12.ix.1922, R.P. Gorham (1♂, CNC); Kouchibouguac National Park, Kent Co., 46.819201°N, 64.96788°W, 28.vi.1977, G.A. Calderwood (1♀, CNC); **Newfoundland and Labrador:** Agriculture Experimental Station, St. John's, 47.514837°N, 52.784212°W, 12.vii.1967, Malaise trap, J.F. McAlpine (1♀, CNC); Gros Morne Natl. Pk., West Brook, 49.68889°N, 57.7375°W, 8–11.viii.1992, Malaise, Skevington & Goering (1♀, DEBU); Logy Bay, 47.6366°N, 52.6869°W, 2.vi.1986, D. Larson (2♀, DEBU); Portugal Cove, 47.62778°N, 52.85556°W, 28.vi.1987, T.A. Wheeler (1♀, DEBU); Portugal Cove, Indian Meal Line, 47.5968°N, 52.7301°W, 28.vi–15.vii.1982 (1♂, 2♀, DEBU); Saint Mary's, Division No. 1, 46.912459°N, 53.571118°W, 10.viii.1967, J.F. McAlpine (3♂, CNC); Salmonier Line Jct., Salmonier & Back R., 20.ix.1981 (1♀, DEBU); St. Johns, 47.5605°N, 52.7128°W, 8.vi.1986 (1♂, DEBU); St. John's, Pippy Park, 47.5605°N, 52.7128°W, 1.vii.1981, D. Larson (1♂, DEBU); **Nova Scotia:** Cape Breton Highlands National Park, French Lake Bog, Inverness Co., 46.731589°N, 60.887575°W, 11.vii.1983, sweep, G. & D.M. Wood (1♂, CNC); Cape Breton Highlands National Park, Mackenzie Mountain, Inverness Co., 46.773977°N, 60.818772°W, 300m, 07.vii.1983, J.R. Vockeroth (1♀, CNC); Cape Breton Highlands National Park, North Mountain, Inverness Co., 46.795174°N, 60.68649°W, 400m, 25.vi–04.vii.1983, J.R. Vockeroth, 07.vi.1984, B.E. Cooper (3♀, CNC); Cape Breton Highlands National Park, North Mtn. Bog, Inverness Co., 46.805111°N, 60.688224°W, 11.vii.1983, Flight Trap, D.M. Wood (1♂, CNC); Cape Breton Highlands National Park, Pleasant Bay, Inverness Co., 46.822961°N, 60.799065°W, 05.vi.1984, B.E. Cooper (2♂, CNC); Lockeport, Shelburne Co., 43.698745°N, 65.113342°W, 20–28.vii.1958, J.R. Vockeroth (1♂, 2♀, CNC); Mount Uniacke, Hants County, 44.903949°N, 63.842316°W, 05.viii.1958, J.R. Vockeroth (1♂, CNC); nr. Thorburn, 45.5654°N, 62.548°W, 3.viii.1992, sweep, Skevington & Goering (4♂, 4♀, DEBU); Weymouth, Digby County, 44.388832°N, 65.993347°W, 31.v.1911, (1♀, CNC); **Ontario:** 2 Miles North of Metcalfe, Ottawa Division, 45.265406°N, 75.488737°W, 11.ix.1982, B.E. Cooper (1♂, CNC); 5 km South of Severn Falls, Muskoka District Municipality, 44.825689°N, 79.602258°W, 01.v.1959, J.G. Chillcott (1♂, CNC); Algoma, Lk. Duval camp, 46.73472°N, 83.06444°W, 15.viii.2009, S.A. Marshall (1♂, DEBU); Algonquin Prov. Pk., 45.83611°N, 78.42917°W, 18.ix.1982, L.B. Carlson (1♀, DEBU); Algonquin Prov. Pk., 8 km N of Hwy. 60, 45.83611°N, 78.42917°W, 29.vi.1997, W.J. Crins (1♀, DEBU); Algonquin Prov. Pk., Arowhon Rd., old railway bed, 45.57667°N, 78.70278°W, 15.viii.2002, M. Buck (2♂, DEBU); Algonquin Prov. Pk., Crossbar Lake, 45.32708°N, 78.29901°W, 24.v–7.vi.2008, Malaise, E. Proctor (2♀, DEBU); Algonquin Prov. Pk., Highland Trail, 45.369°N, 78.9257°W, 22–23.viii.2009, on goldenrod, A. Young (4♂, 3♀, DEBU); Algonquin Prov. Pk., Misty Lk., West I., 45.69861°N, 78.81361°W, 27.viii.2006, M.D. Bergeron (1♀, DEBU); Algonquin Prov. Pk., Swan Lk. Stn., Scott Lk., 45.4875°N, 78.72222°W, 28.vii.1993, B. Larson, 19–26.v.1994, A1 Malaise, Barr & Marshall (2♀, DEBU); Algonquin Prov. Pk., Welcome Lk., 45.42444°N, 78.42611°W, 19.viii.2009, J.H. Kits (1♂, DEBU); Algonquin Provincial Park, Beaver Pond Trail, 45.556°N, 78.585°W, 02.ix.2007, J. Skevington (2♀, CNC); Ancaster, Hamilton Division, 43.217793°N, 79.987295°W, 01.iv.1967, J.E.H. Martin (1♂, CNC); Arkell,

43.533°N, 80.167°W, 16.vi.1960, D.H. Pengelly (1♂, DEBU); Aubrey Island, St. Lawrence Islands National Park, 44.29639°N, 76.193334°W (1♀, CNC); Bacchus Woods, 42.69028°N, 80.44028°W, 26.ix.1987, J. Skevington (1♀, DEBU); Beamsville, 43.167°N, 79.483°W, 4.v.1928, W.L. Putman (1♀, DEBU); Beauvillage Island, St. Lawrence Islands National Park, 44.303476°N, 76.187416°W, 21.vii.1976, Malaise trap, W. Reid (1♀, CNC); Belfountain, 43.79306°N, 80.01528°W, 26.v.1976, S.L. Miller, 26.v.1990, S.A. Kells (1♂, 1♀, DEBU); Bells Corners, Ottawa, Ottawa Division, 45.319249°N, 75.829664°W, 17.v.1947, 01.v.1951, R. Lambert (1♂, 1♀, CNC); Belwood, 43.79167°N, 80.32222°W, 10.vi.1968, D.H. Pengelly (1♀, DEBU); Black Rapids, Ottawa, Carleton Co., 45.321266°N, 75.696493°W, 28.vi.1959, J.R. Vockeroth (1♂, 1♀, CNC); Blair, RARE, Cruickston Creek, 43.37787°N, 80.34952°W, 301m, 12–20.vi.2006, Malaise, Bergeron & Cheung (4♂, 1♀, DEBU); Blair, RARE, The Dells, 43.38194°N, 80.34222°W, 265 m, 20.vi–17.vii.2006, Malaise, Bergeron & Cheung (1♀, DEBU); Bracebridge S.L., 45.04167°N, 79.31111°W, 27.v.1995, 15.ix.1996, W.J. Crins (2♀, DEBU); Britainnia, Ottawa, Ottawa Division, 45.35°N, 75.783°W, 16.v.1937, G.A. Hobbs (3♂, CNC); Bruce Pen. Natl. Pk., Cameron Lk. Rd. S, 45.215°, 81.56556°W, 4.viii.1997, S.A. Marshall (1♂, DEBU); Bruce Pen. Natl. Pk., Emmett Lk. Rd., 45.21667°N, 81.48333°W, 2.vii.1999, S.A. Marshall (1♂, DEBU); Bruce Peninsula Natl. Pk., Burnt Point trail, 45.2604°N, 81.6475°W, 6.ix.2009, S.A. Marshall (1♂, DEBU); Burlington, Kerns Rd. Quarry, 43.35°N, 79.85°W, 11.v.1997, W.J. Crins (1♀, DEBU); Burnstown, 45.3877°N, 76.579°W, 17.vii.1969, J. Robillard (1♂, DEBU); Carp, Ottawa Division, 45.347852°N, 76.034592°W, 22.iv.1954, J.E.H. Martin (1♂, CNC); Chaffey's Locks, 44.5792°N, 76.3206°W, 25.v.1961, G.K. Morris (2♂, DEBU); Chatham, Chatham-Kent Division, 42.412001°N, 82.185001°W, 19–20.v.1925, G.S. Walley (7♂, 1♀, CNC); Crystal Beach, 01.vi.1961, Kelton & Brumpton (1♂, CNC); Cumberland, 45.43°N, 75.43°W, 14.vii.1969, P.W. Arntfield (1♀, DEBU); Cyprus Lk. Rd., 1.5 km S, 45.2113°N, 81.5423°W, 6.v.2000, on *Caltha*, M. Buck (2♂, 2♀, DEBU); Dalton, Hand Lk., 48.17694°N, 84.07806°W, 11.viii.2009, S.A. Marshall (1♂, DEBU); Dorcas Bay, 45.18333°N, 81.58333°W, 5.v.2000, S.A. Marshall (1♂, DEBU); Dunks Bay, 45.24967°N, 81.64083°W, 24.vi–4.vii.1996, 11.viii.1996, 31.vii.1997, Malaise, S.A. Marshall (6♂, 6♀, DEBU); Duval Lake, 46.2711°N, 83.0521°W, 28.viii.2010, S.A. Marshall (1♀, DEBU); Etobicoke, 43.69306°N, 79.55833°W, 7.ix.1997, B. Larson (1♂, DEBU); Fathom Five Natl. Pk., W Cove Is., 45.3015°N, 81.739°W, 25.vi–12.vii.1995, Malaise trap, S.A. Marshall (1♀, DEBU); Fenelon Falls, Kawartha Lakes Div., 44.538149°N, 78.735433°W, 27.v.1927, F.P. Ide (1♂, CNC); Fergus, 43.7°N, 80.36667°W, 19.iv.2002, 24.viii–1.ix.2009, S.A. Marshall (4♂, 2♀, DEBU); Fergus, along Grand River, 43.70278°N, 80.37917°W, 14.v.1990, S.A. Marshall (1♂, DEBU); Forks of the Credit, 43.80139°N, 79.99444°W, 31.vii.1981, G. Aiudi (1♀, DEBU); Foymount, Renfrew County, 45.434717°N, 77.304654°W, 488m, 25.vi.1983, H. Walther (1♂, CNC); Frankford, Hastings County, 44.201343°N, 77.59576°W, 23.vi.1954, J.C. Martin (1♂, CNC); Frater, Algoma, 47.334681°N, 84.558028°W, 28.viii.1924, E.B. Watson (2♂, CNC); Glamorgan Twp., Gooderham Burnt R., 44.9063°N, 78.3798°W, 13.vi.1993, Malaise, E.R. Barr (1♀, DEBU); Gordon Island, St. Lawrence Island National Park, 44.330627°N, 76.102794°W, 07.vii.1976, W. Reid (1♂, CNC); Grand Bend, Lambton County, 43.312268°N, 81.756734°W, 06.ix.1954, C.D.F. Miller (1♂, CNC); Grenadier Island Centre, St. Lawrence Islands National Park, 44.38673°N, 75.90123°W, 02.vii.1975, Malaise trap, E. Sigler (1♀, CNC); Griffith, 7 miles East, 45.243279°N, 77.031193°W, 21.viii.1982, 11.vi–17.ix.1983, 08.ix.1984, 01.vi–05.viii.1985, B.E. Cooper (4♂, 12♀, CNC); Guelph, 43.55°, 80.25°W, 29.iv–14.vii.1913, H.C. Curran, 25.ix.1958, 23.iv.1959, B.R. Carswell, 22.v.1959, R.D. Crawford, 28.v.1968, L.L. Tibbles, 14.v.1977, W.A. Attwater, 19.v.1978, S.M. Ball, 6.vi.1978, J. Cappleman, 19.v.1978, 22.v.1979, D. Morris (12♂, 8♀, DEBU); Guelph, Kortright Park, 43.50556°N, 80.24861°W, 18.v.1993, sweep, W. Bennett (1♂, DEBU); Guelph, Kortright Rd., 43.5125°N, 80.2333°W, 5.v.2005, swarm, S.A. Marshall (1♂, DEBU); Guelph, University Arboretum, 43.53611°N, 80.22917°W, 11.v.2005, O. Lonsdale, 27.iv.2009, A.D. Young (3♂, 1♀, DEBU); Guelph, University Arboretum, Wild Goose Trail, 43.53889°N, 80.21667°W, 15.vi–16.v.2009, A.D. Young (6♂, 4♀, DEBU); Hamilton, Westdale Ravine, 43.25958°N, 79.92066°W, 26.iv.1997, W.J. Crins (1♂, DEBU); Hiawatha, 44.1794°N, 78.2044°W, 9.viii.2000, W.J. Crins (1♂, DEBU); Hilton Beach, 46.25°N, 83.88333°W, 26.viii.1990, Malaise, J.E. Swann (1♂, DEBU); Honeywood, Pine River, 44.1166°N, 81.6666°W, 17.v.2004, S.A. Marshall (1♀, DEBU); Hope Bay, 44.9032°N, 81.158°W, 1.vi.1997, B. Larson (1♂, DEBU); Huntsville, S. Waseosa Rd., 45.38056°N, 79.29167°W, 1.ix.1993, 22–27.v.1995, W.J. Crins (2♂, 4♀, DEBU); Hwy 6 nr. Cypress Lk., 45.19583°N, 81.5625°W, 6.v.2000, on *Caltha*, S.A. Marshall (1♂, 1♀, DEBU); Johnston Harbour trail to Lk. Scugog, 45.12083°N, 81.53194°W, 6.v.2000, M. Buck (1♂, DEBU); Jordan, 43.14722°N, 79.36944°W, 7.v.1915, W.A. Ross (1♀, DEBU); Jordan, 43.14722°N, 79.36944°W, 7.v–26.vi.1915, 14.vii–ix.1919, 17.v–3.vi.1920, W.A. Ross, 13.v.1915, 12.viii.1920, H.C. Curran (12♂, 5♀, CNC, DEBU); Kinburn, Ottawa Division, 45.38333°N, 76.18333°W, 29.iv.1957, J.E.H. Martin (1♀, CNC); Leamington, Essex County, 42.0531°N, 82.599811°W, 11.vi.1929, L.J. Milne (1♂, CNC); London, 42.98333°N, 81.23333°W, 3.vi.1994, B. Larson (1♂, DEBU); Long Point Prov. Pk., 42.58333°N, 80.38333°W, 1.vi.2002, M. Buck (1♂, 2♀, DEBU); Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 06.vi–19.ix.1925, N.K. Bigelow (3♂, 10♀, CNC); Manestar Tract, 6 km NNW St. Williams,

42.70467°N, 80.46056°W, 24.iv.2000, M. Parchami-Araghi, 22.v.2000, 15.vi.2001, M. Buck (3♀, DEBU); Manitoulin I., Misery Bay Prov. Nat. Res., 45.79124°N, 82.74946°W, 2.vii.2010, S.A. Marshall (1♂, DEBU); Manitoulin I., Providence Point, 45.65°N, 82.26667°W, 20.vii.2003, M. Buck (2♂, DEBU); Marmora, Hastings Co., 44.483359°N, 77.68088°W, 23.v–07.vi.1952, J.R. Vockeroth (2♂, 1♀, CNC); Maynooth, Hastings Co., 45.229716°N, 77.940949°W, 23.v.1970, J.F. McAlpine (1♂, CNC); McDonald Island, St. Lawrence Islands National Park, 44.313741°N, 76.171094°W, 13.vii.1976, W. Reid, 17–24.vii.1976, Malaise trap, A. Carter, 24.vii.1976, Malaise trap, W. Reid, 07–19.ix.1976, Malaise trap, G. Calderwood (7♂, 1♀, CNC); Mer Bleu, 5 Miles East of Ottawa, Ottawa Division, 45.40331°N, 75.5083°W, 07.vi.1923, C.H. Curran, 28.v–0.ix.1966, Malaise trap, D.D. Munroe, 01–05.vi.1973, E. Small (2♂, 9♀, CNC); Mer Bleue Bog nr. Notre-Dame-des-Champs, 45.39941°N, 75.49873°W, 27.vii.1924, R.H. Ozburn (1♀, DEBU); Metcalfe, Ottawa Division, 45.235824°N, 75.472712°W, 21.ix.1983, B.E. Cooper (1♀, CNC); Midland, Simcoe Co., 44.752113°N, 79.887253°W, 02–26.v.1959, J.G. Chillcott (2♀, CNC); Miners Bay, Haliburton Co., 44.819856°N, 78.775222°W, 24.v.1927, F.P. Ide (1♂, CNC); Morris Island, The Sny nr. Fitzroy Harb., 45.47083°N, 76.21389°W, 30.viii.1997, W.J. Crins (1♂, DEBU); Mulcaster Island, St. Lawrence Island National Park, 44.3425°N, 76.051111°W, 05.x.1976, sweep, W. Reid (1♂, CNC); Muldrew Lk., nr. Gravenhurst, 44.87917°N, 79.40972°W, 10–16.vi.2005, O. Lonsdale (1♀, DEBU); Nassagawa Tp, 1st Line, Frank Tract, 43.5387°N, 80.1052°W, 15.vii.2002, W.J. Crins (1♂, DEBU); Newmarket, 44.05°N, 79.46667°W, 7.iv.1970, G.A. Surgeoner (1♀, DEBU); Neys Prov. Pk., Lookout Trail area, 48.78333°N, 86.61667°W, 16.vii.2002, M. Buck (1♂, DEBU); Niagara Glen, Niagara Regional Municipality, 43.117864°N, 79.086698°W, 01–24.vi.1926, G.S. Walley, 09.vi.1966, J.R. Vockeroth (5♀, CNC); Normandale, Haldimand-Norfolk R.M., 42.712251°N, 80.312022°W, 21–27.v.1956, J.R. Vockeroth, 22–28.v.1956, J.R. Lonsway (5♂, 6♀, CNC); North Gower, Ottawa Division, 45.13152°N, 75.716161°W, 27.viii.1984, D. Bell (1♂, CNC); Oakville, 43.45°N, 79.68333°W, 24.vii.1976, W.A. Attwater (1♀, DEBU); Old Cut, Long Point Bird Obs., 42.58222°N, 80.39722°W, 18.ix.2007, G.F.G. Miranda (2♀, DEBU); Opeongo Lake, 45.70972°N, 78.36806°W, 26.vii.1981, B.V. Brown (1♂, DEBU); Orillia, 44.60417°N, 79.42361°W, 30.vi.1913, 25.v.1914, 10.viii.1919, 30.v.1920, 12.ix–07.x.1920, 24.iv–26.ix.1921, 05.vi.1925, 16.vi.1927, C.H. Curran (16♂, 9♀, CNC, DEBU); Ottawa, Ottawa Division, 45.411604°N, 75.688669°W, 24.viii.1906, J. Fletcher, 17.ix.1911, J.D. Tothill, 18.viii.1924, G.S. Walley, 28.viii.1924, H.L. Viereck, 29.v.1925, C.H. Curran, 12–17.vi.1946, G.E. Shewell, 14.vi.1946, A. Brooks, 18.vi.1954, D. Cobb, 06.v.1955, 26.v.–30.vi.1958, 01–24.ix.1961, 01.x.1962, 25.v.1963, 13–19.ix.1964, 18.ix.1965, J.R. Vockeroth, 20.vi.1957, 26.v.1958, J.G. Chillcott, 15.vii.1957, J.E.H. Martin, 22.vi.1958, M.H. Prime, 17.v.1961, Kelton, 31.v.1969, P.W. Arntfield (32♂, 16♀, CNC, DEBU); Pelee I., Fish Point Prov. Nat. Res., 41.7344°N, 82.67528°W, 8.vi.2002, S.M. Paiero (1♂, DEBU); Perth Road, Frontenac County, 44.466237°N, 76.492107°W, 28.v.1971, P. Ward (1♂, CNC); Picton, Prince Edward Division, 44.008627°N, 77.13918°W, 07.vii.1970, J.F. McAlpine (1♂, CNC); Pinery Prov. Pk., 43.3°N, 81.83333°W, 20.iv.1990, J. Skevington, 2.ix.1994, S.A. Marshall (2♂, DEBU); Pinery Prov. Pk., Carolinian Trail parking lot, 43.2375°N, 81.87528°W, 3.ix.2008, S.A. Marshall (1♂, DEBU); Point Pelee Natl. Pk., 41.95833°N, 82.5125°W, 1.vii.1978, J. Cappleman, 13.vi.1979, B. Wit, 25.vi.1979, D.L. Krailo, 12.vi–10.v.1961, G.K. Morris, 26.vi.1979, K.L. Bailey, 7.vii.1980, S. Beierl, 21.vi.1981, W.E. Ralley, 10–15.v.2000, Malaise & pan traps, O. Lonsdale (5♂, 8♀, DEBU); Point Pelee, Essex Co., 41.956157–82.514529 26.v.1925 G.S. Walley (1♀, CNC); Point Pelee, Essex Co. 41.956157–82.514529 27.v–12.vi.1925 G.S. Walley 21.vi–08.vii.1927 F.P. Ide 28–29.vi.1961 Kelton & Brumpton 25.vi.1962 S.M. Clark (13♂, 3♀, CNC); Port Elgin 44.43583–81.40556 21.v.1993 D.C. Caloren (2♂, DEBU); Prescott 44.7125–75.51667 9.v.1977 K.N. Barber (1♂, DEBU); Presqu'île Prov. Pk. 43.99444–77.7125 4.ix.2000 17.vi.2001 P.D. Careless (1♂, 1♀, DEBU); Pukaskwa Natl. Pk., Coastal Trail 48.4413–86.207 26.vi.1997 B. Larson (1♀, DEBU); Putnam, Middlesex County 42.98962–80.953947 26–28.vi.1925 G.S. Walley (3♀, CNC); Rockcliffe Park, Ottawa, Ottawa Division 45.447959–75.68848 18.viii.1982–23.viii.1982 H. Walther (1♀, CNC); Rondeau Park, Chatham-Kent Division 42.328932–81.845165.ix.1972 (1♀, CNC); Rondeau Prov. Pk., South Point Trail, nr. east parking lot 42.26167–81.84694 19.v–17.vi.2003 7.ix–10.x.2003 Malaise Marshall *et al.* (2♂, 3♀, DEBU); Rondeau Prov. Pk., Visitor Centre 42.28056–81.84389 29.v.2003 M. Buck (1♀, DEBU); Russell Island 45.2645–81.6962 24.v.1996 *Primula mistassinica* flowers B. Larson (2♂, DEBU); Sand Lake, Parry Sound District 45.626272–79.173695 02.vii.1926 F.P. Ide (1♀, CNC); Sauble Beach 44.63333–81.26667 9.vii.1981 J. Cairns (1♂, DEBU); Scarborough 43.75556–79.23056 28.iv.1968 L.L. Tibbles (1♂, DEBU); Severn, Simcoe Co. 44.752167–79.511547 17.vi.1925 J. McDunnough (2♂, CNC); Simcoe, Norfolk Co. 42.835994–80.304764 24.vi.1939 G.E. Shewell 02.v.1955 T.N. Freeman (3♂, CNC); Smith's Bay, Near Picton, Prince Edward Division 44.018826–77.124755 01.vii.1970 J.F. McAlpine (1♀, CNC); South March, Ottawa Division, 45.35173°N, 75.951618°W, 06.v.1959, J.R. Vockeroth (1♂, CNC); Spring Creek at Hwy 6, 45.06689°N, 81.40956°W, 3.v.2008, *Caltha*, S.A. Marshall (1♀, DEBU); St. Williams, Haldimand-Norfolk R.M., 42.667292°N, 80.415065°W, 18.v.1970, D.M. Wood (1♀, CNC); Stittsville, Ottawa Division, 45.263479°N, 75.925163°W, 24.vi–21.ix.1963, W.R.M. Mason (2♂, CNC); Stoney Creek, 43.20139°N, 79.7°W,

23.iv.1968, P. Budd (4♂, DEBU); Stoney Creek, Eramosa Karst, 43.1835°N, 79.8058°W, 29.v.2002, W.J. Crins (1♂, DEBU); Strathroy, Middlesex Co., 42.955521°N, 81.623292°W, 20.iv–06.vi.1927, H.F. Hudson (2♂, CNC); Tenby Bay, 46.13056°N, 83.92639°W, 27.v.1986, at dandelion, J.E. Swann (2♂, DEBU); Thwartway Island, St. Lawrence Island National Park, 44.294283°N, 76.150445°W, 05–17.vii.1976, A. Carter & W. Reid, 03.viii.1976, Malaise trap, W. Reid, 15.viii–09.ix.1976, Malaise trap, A. Carter, 13.vii.1976, sweep, H.J. Teskey (11♂, CNC); Tillsonburg, Oxford Co., 42.866315°N, 80.73185°W, 04.vi.1926, G.S. Walley (1♀, CNC); Tobermory Bog, 45.22583°N, 81.64167°W, 23.vi.2002, S.A. Marshall (1♂, DEBU); Tobermory, 1 km S, 45.23333°N, 81.63333°W, 22.vii.1995, S.A. Marshall (1♂, DEBU); Toosee Lake, 46.76667°N, 83°W, 6.viii.2008, S.A. Marshall (2♂, DEBU); Toronto, 43.7°N, 79.41667°W, 10.v.1977, J.W. McCreadie, 14.v.1981, L. Coote, 19.vii.1885, J.W. Brodis (1♂, 2♀, CNC, DEBU); Turkey Point Prov. Pk., 42.71167°N, 80.34222°W, 22.vii–3.viii.2009, Malaise trap, S.M. Paiero (1♂, DEBU); Vineland, 43.15°N, 79.4°W, 30.v.1915, (1♂, DEBU); Windsor, ~1.5 km S Ojibway Prairie, 42.22611°N, 83.07417°W, 22.ix–13.x.2001, Malaise, S.M. Paiero (1♂, DEBU); Wolf Island, 49.08833°N, 93.99472°W, 22.ix.2002, W.J. Crins (1♂, DEBU); **Quebec:** 4 Miles North of Eardley, Communaute-Urbaine-de-l'Outaouais, 45.46753°N, 75.876404°W, 25.viii.1971, D.M. Wood (3♂, CNC); Abbotsford, 45.437637°N, 72.887923°W, 18.v–30.viii.1936, 21.v.1937, G.E. Shewell (6♂, 6♀, CNC); Aylmer, Communaute-Urbaine-de-l'Outaouais, 45.400224°N, 75.817137°W, 28.v.1923, 21.ix.1924, 10.v.1925, C.H. Curran, 31.vii.1946, G.E. Shewell (4♂, 2♀, CNC); Beechgrove, Les Collines-de-l'Outaouais, 45.64508°N, 76.123602°W, 15.v.1951, J.F. McAlpine, 17.v.1961, B. Poole, 13.v.1965, J.R. Vockeroth (1♂, 2♀, CNC); Breckenridge, Les Collines-de-l'Outaouais, 45.551425°N, 76.168849°W, 19.vii.1962, C.H. Mann (1♀, CNC); Champlain Lookout, Gatineau Park, Les Collines-de-l'Outaouais, 45.508314°N, 75.913273°W, 335m, 01.vi.1968, J.R. Vockeroth (2♂, CNC); Duncan Lake, near Rupert, 45.681389°N, 76.050278°W, 01.vii.1969, 28.vii.1971, J.F. McAlpine (1♂, 1♀, CNC); Fairy Lake, 17.v.1927, F.P. Ide (1♀, CNC); Forestville, La Haute-Cote-Nord, 48.739162°N, 69.087761°W, 08.vii.1950, J.R. McGillis (1♀, CNC); Harrington Lake, Gatineau Park, 45.860192°N, 74.553289°W, 30.v.1954, J.E.H. Martin, 03.vi.1954, E.E. Sterns, 04.vi.1954, W.R. Richards, 12.vi.1954, H.J. Huckel (1♂, 4♀, CNC); Hemmingford, Les Jardins-de-Napierville, 45.04571°N, 73.588046°W, 14–24.vii.1925, G.H. Hammond (2♀, CNC); Hull, Communaute-Urbaine-de-l'Outaouais, 45.447639°N, 75.733192°W, 20–26.v.1923, 05.vi.1924, C.H. Curran (4♂, 6♀, CNC); Ile de Montreal, Communaute-Urbaine-de-Montreal, 45.50651°N, 73.654732°W, 02.ix.1906, Beaulieu (2♂, 2♀, CNC); La Verendrye Park: le Domaine, 48.097161°N, 77.737372°W, 19.viii.1965, D.M. Wood (1♀, CNC); Lac-Megantic, Le Granit, 45.57781°N, 70.884105°W, 19.vi.1923, C.H. Curran (1♂, CNC); Laniel, Temiscamingue, 47.045828°N, 79.268979°W, 07.viii.1935, H.S. Fleming (2♀, CNC); Laurentide Park, 46.433°N, 74.98333°W, 01–31.viii.1955, Martin & Munroe, 07.viii.1959, G.E. Shewell, 15.viii.1971, D.M. Wood (4♂, 3♀, CNC); Les Eboulements, Charlevoix, 47.478655°N, 70.32275°W, 16.ix.1961, B. Poole (1♂, CNC); Masham Township, Gatineau Co., 45.643433°N, 76.026846°W, 22–26.vi.1974, D.M. Wood (1♂, CNC); Messines, La Vallee-de-la-Gatineau, 46.236165°N, 76.021751°W, 10.vii.1947, W.R.M. Mason (1♀, CNC); Mile 61, Route 58, La Verendrye Provincial Park, 47.329309°N, 76.91563°W, 16.viii.1965, D.M. Wood (5♂, 2♀, CNC); Mile 61, Route 58, La Verendrye Provincial Park, 47.329309°N, 76.91563°W, 20.viii.1965, D.M. Wood (16♂, 1♀, CNC); Mistassini, Le Domaine-du-Roy, 48.888579°N, 72.205228°W, 09–30.vi.1956, J.R. Lonsway, 23.vi.1956, J.R. McGillis (4♀, CNC); Mont Albert, La Haute-Gaspesie, 49.131813°N, 66.464367°W, 12.viii.1954, J.E.H. Martin (2♀, CNC); Mont Jacques Cartier, La Haute-Gaspesie, 48.989915°N, 65.946427°W, 1200m, 11.viii.1983, B.M. Bissett (1♂, CNC); Mont Orford, Memphremagog, 45.313384°N, 72.234255°W, 29.viii.1937, G.E. Shewell, 05.vi.1963, 21.vii.1968, J.R. Vockeroth (2♂, 2♀, CNC); Mont Saint-Hilaire, La Vallee-du-Richelieu, 45.552948°N, 73.155276°W, 10–16.v.1905, 12.vi–26.vii.1964, 26.vi–29.vii.1965, J.W. Boyes (13♂, 1♀, CNC); Mont-Joli, La Mitis, 48.58721°N, 68.192412°W, 13.viii.1954, J.R. McGillis (1♀, CNC); Montreal Area, Communaute-Urbaine-de-Montreal, 45.526155°N, 73.702807°W, 16.v.1905, J.W. Boyes (1♂, 2♀, CNC); Montreal, Communaute-Urbaine-de-Montreal, 45.526155°N, 73.702807°W, 01.ix.1906 (1♂, CNC); North Summit of Mont Albert, La Haute-Gaspesie, 48.933731°N, 66.152045°W, 3550m, 01.vii.1954, G.P. Holland (1♀, CNC); Old Chelsea, Les Collines-des-L'Outaouais, 45.499972°N, 75.814667°W, 13.ix.1956, 31.viii.1958, 11.vi.1959, 18.viii.1965, 31.v.1969, 26.ix.1971, J.R. Vockeroth, 12.vi.1980, S.A. Marshall (4♂, 3♀, CNC, DEBU); Parke Reserve, Kamouraska Co., 47.523387°N, 69.624739°W, 30.vii.1957, G.E. Shewell (1♀, CNC); Pointe-a-la-Croix, Avignon, 48.017889°N, 66.683635°W, 25.ix.1947, D.F. Hardwick (1♂, CNC); Queen's Park, Aymer, Communaute-Urbaine-de-l'Outaouais, 45.410788°N, 75.885505°W, 26.viii.1924, C.B. Hutchings, 28.viii.1924, A.R. Graham (1♂, 1♀, CNC); Quyon, Les Collines-de-l'Outaouais, 45.520095°N, 76.235516°W, 28.iv.1925, G.H. Hammond (1♂, CNC); Rigaud, Summit of Mount Rigaud, Vaudreuil-Soulanges, 45.466534°N, 74.325875°W, 11.vi.1981, J.R. Vockeroth, 23.x.1985, B.E. Cooper (2♂, CNC); Rougemont, Rouville, 45.439333°N, 73.059468°W, 31.vii.1958, E.J. LeRoux (1♀, CNC); Summit of King Mountain, Old Chelsea, Les Collines-des-L'Outaouais, 45.498058°N, 75.864116°W, 351m, 13–22.vi.1961, 31.v.1965, 11.vi.1971, 12.vi.1980, J.R. Vockeroth, 22.v–21.vi.1968, 05.viii.1971, 19.v.1972, D.M. Wood, 26.v.1975, H.C.W. Walther (28♂,

1♀, CNC); Waskaganish (Rupert House), 51.483858°N, 78.748036°W, 16.vi.1949, E.J. LeRoux (1♀, CNC); **United States of America: District of Columbia:** Washington D.C., 38.9°N, 77.03°W, 29.x.1926, N.K. Bigelow (1♀, CNC); **Georgia:** Great Smoky Mountain National Park, Indian Gap, 35.6167°N, 83.43°W, 1554m, 23.vii.1957, J.G. Chillcott (1♂, CNC); Satolah, Rabun Co., 34.98333°N, 83.18333°W, 11.v–11.vi.1957, W.R.M. Mason (2♂, CNC); **Maine:** Baxter Peak, Mount Katahdin, 45.9°N, 68.9167°W, 1585m, 01.vii.1968, D.M. Wood (1♂, CNC); Baxter State Park, 46.05414°N, 68.983504°W, 24.viii.1951, The Dietrichs (1♂, CNC); Tableland, Mt. Katahdin, 45.904968°N, 68.921017°W, 1372m, 01.vii.1968, D.M. Wood (2♀, CNC); **Maryland:** Laurel, 39.08333°N, 76.83°W, 25.iv–14.v.1965, Malaise trap (1♂, 4♀, CNC); **Massachusetts:** Forest Hills, 42.28333°N, 71.1°W, 18.v.1926, G. Salt (1♀, CNC); Salem, 42.519546°N, 70.896615°W, 04.v.2012, S.E. Cassino (1♂, CNC); **Mississippi:** Lafayette County, 34.3667°N, 89.5167°W, v–vii.1945, 15.iv.1948, F.M. Hull (2♂, 4♀, CNC); Oxford, 34.366495°N, 89.519248°W, 13–18.iii.1945 (2♀, CNC); **New Hampshire:** Bigelow Lawn, Mount Washington, 44.2549°N, 71.321517°W, 1646m, 31.vii.1954, Becker, Munroe & Mason (1♂, CNC); Coos County, Mount Washington, 44.289083°N, 71.225223°W, 24.vii.1980, J.F. Burger & F.E. Brackley (2♀, CNC); Crawford Notch St. Pk., 27.vii.1990, on *Spirea*, S.A. Marshall (2♂, 1♀, DEBU); Gorham, 44.387839°N, 71.173131°W, 20.viii.1955, J.R. Vockeroth (1♀, CNC); Lakes of the Clouds, Mount Washington, 44.258396°N, 71.31762°W, 1524m, 07–09.viii.1954, Becker Munroe & Mason (3♀, CNC); Lakes of the Clouds, Mount Washington, 44.258396°N, 71.31762°W, 1524m, 31.viii.1954, Becker Munroe & Mason (2♀, CNC); Mount Washington, 44.289083°N, 71.225223°W, 19–22.vii.1929, G.S. Walley, 1737m, 02.viii.1954, Becker Munroe & Mason (8♂, 7♀, CNC); Mount Washington, Auto Road, 44.289083°N, 71.225223°W, 1768m, 14.viii.1958, J.R. Vockeroth (5♂, 10♀, CNC); Mount Washington, Summit Flats, 44.289083°N, 71.225223°W, 1798–1890m, 29.viii.1954, Becker Munroe & Mason (1♀, CNC); Oakes Gulf, Mount Washington, 44.23°N, 71.3°W, 1433–1524m, 06–08.viii.1954, Becker Munroe & Mason (1♂, 1♀, CNC); **New York:** 6 Mile Creek, Ithaca, 42.424556°N, 76.472295°W, 05.v.1951, John C. Martin (1♂, CNC); Crane Mountain, 43.5°N, 74°W, 988m, 3.viii.1983, S.A. Marshall (1♀, DEBU); Indian Falls, Mount Marcy, 44.140608°N, 73.929033°W, 04.ix.1942, H. Dietrich (1♂, CNC); Ithaca, 42.43°N, 76.48333°W, 10.v.1914, (5♂, CNC); Lake Placid, 30.viii.1979, S.A. Marshall (1♂, DEBU); North Boston, 25.iv.1959, R.D. Crawford (3♂, 1♀, DEBU); Raquette Lake, 43.81312°N, 74.65739°W, 11.vi.1943, H. Dietrich (1♂, CNC); Ringwood, Ithaca, 42.443961°N, 76.501881°W, 27.iv.1951, John C. Martin (2♀, CNC); Slaterville, 42.395628°N, 76.350491°W, 04.vi.1950, J.C. Martin (1♂, CNC); Wallface, 44.137832°N, 74.036538°W, 22.vii.2012, A. Nicolay (2♂, CNC); Wallflower, vii.1922, A. Nicolay (1♀, CNC); Whiteface Mountain, 44.39726°N, 73.899556°W, 1402–1485m, 19.vii.1962, J.R. Vockeroth & J.G. Chillcott (5♂, 1♀, CNC); **North Carolina:** Doughton Gap, Wilkes County, 36.373801°N, 80.957392°W, 853m, 06.vi.1962, J.G. Chillcott (2♂, CNC); Great Smoky Mountain National Park, Clingman's Dome, 30.047433°N, 99.140319°W, 1920–2024m, 17.v.–02.vii.1957, J.R. Vockeroth, 05.viii.1957, W.R. Richards, 06.viii.1957, C.J. Durden, 17.v.1957, W.R.M. Mason (14♂, 35♀, CNC); Highlands, 35.05°N, 83.18333°W, 1158m, 09.v.–25.vi.1957, J.R. Vockeroth, 10.v.–03.vi.1957, W.R.M. Mason (4♂, 11♀, CNC); Highlands, Indian Gap, 35.6167°N, 83.43°W, 945m, 25.v.1957, J.R. Vockeroth (1♀, CNC); Highlands, Whiteside Mountain, 35.4°N, 82.33°W, 1494m, 01.vii.1957, W.R.M. Mason, 04.viii.1957, J.R. Vockeroth (1♂, 1♀, CNC); Mitchell County, Roan Mountain, 36.196231°N, 82.0704°W, 1890m, 13.viii.1957, J.G. Chillcott, 13.vii.1957, L.A. Kelton (2♂, 9♀, CNC); Mount Mitchell, 35.496528°N, 80.553399°W, 2073m, 12.viii.1957, J.G. Chillcott (2♂, 12♀, CNC); Mount Richland-Balsam, Blue Ridge Mountain Parkway, 35.220188°N, 82.592506°W, 1829–1951m, 30.v.1965, J.G. Chillcott (2♂, 1♀, CNC); Mount Richland-Balsam, Blue Ridge Mountain Parkway, 35.220188°N, 82.592506°W, 1829–1951m, 09.vi.1965, J.G. Chillcott (1♂, CNC); Wayah Bald, Macon County, 35.179761°N, 83.56147°W, 1615m, 19.vii.1957, J.G. Chillcott (1♀, CNC); Great Smoky Mountain National Park, Indian Gap, 35.6167°N, 83.43°W, 640m, 18.vi.1957, W.R.M. Mason (1♂, CNC); Great Smoky Mountain National Park, Indian Gap, 35.6167°N, 83.43°W, 640m, 08.vii.1957, W.R.M. Mason (1♂, CNC); **Ohio:** Columbus, 41.432777°N, 97.358614°W, 27.iv–29.x.1923 (8♂, 10♀, CNC); **Pennsylvania:** Cotton Point St. Pk., 11.v.1991, S.A. Marshall (1♂, DEBU); Perdix, 40.353844°N, 76.964447°W, 17.ix.1910 (1♀, CNC); **South Carolina:** Clemson, 34.683431°N, 82.837385°W, 27.iii.1951, W.R.M. Mason (1♀, CNC); **Tennessee:** 10 miles West of Bryceville, 36.178296°N, 84.364542°W, 27.v.1965 (1♀, CNC); Capitol Hill, Scott County, 36.16589°N, 86.784166°W, 28.v.1965, J.G. Chillcott (1♂, CNC); East Ridge, 34.994744°N, 85.225663°W, 09.v.1952, G.S. Walley (1♂, 3♀, CNC); Gatlinburg, Newfound Gap, Great Smoky Mountain National Park, 35.611206°N, 83.424881°W, 1219m, 03.vi.1962, J.R. Vockeroth (1♀, CNC); Great Smoky Mountain National Park, 35.635336°N, 83.527223°W, 2012m, 20.vii.1957, H. & A. Howden (1♂, CNC); Great Smoky Mountain National Park, Collins Gap, 35.57°N, 83.5°W, 1737m, 22.viii.1957, W.R.M. Mason (2♀, CNC); Great Smoky Mountain National Park, Indian Gap, 35.6167°N, 83.43°W, 1585m, 20.v–18.vi.1957, J.R. Vockeroth, 28.v.1957, W.R.M. Mason, 24.vii.1957, W.R. Richards (8♀, CNC); Great Smoky Mts. Natl. Pk., Elkmont, 35.65°N, 83.56667°W, 26.iv.2000, S.A. Marshall (2♀, DEBU); Indian Gap, 35.6167°N, 83.43°W, 23.vii.1957, W.R. Richards (1♂, CNC); Indian Gap to Clingman's Dome, Great Smokey Mountain National Park, 1585–

2012m, 06.viii.1957, J.G. Chillcott (2♂, 4♀, CNC); University Farm, Knoxville, 35.949663°N, 83.92944°W, 20.v.1957, W.R.M. Mason & J.R. Vockeroth (1♂, 1♀, CNC); **Vermont:** Jay Peak, 44.9167°N, 72.5167°W, 1036–1158m, 20.vii.1968, J.R. Vockeroth (1♀, CNC); **Virginia:** 10 km NW Blacksburg, 19.v.1997, S.A. Marshall (1♂, DEBU); Apple Orchard Mountain, Blue Ridge Parkway, mile 38, 37.801948°N, 79.219091°W, 19.vi.1965, J.G. Chillcott (1♀, CNC); Bald Knob, 10 km NW Blacksburg, 18.v.1997, S.A. Marshall (2♀, DEBU); Brush Mountain, Blacksburg, 37.240038°N, 80.568373°W, 853m, 27.v.1962, J.G. Chillcott, 640m, 28.v.1962, J.R. Vockeroth (1♂, 2♀, CNC); Cascades Recr. Area, 37.35°N, 80.60833°W, 19.v.1997, D.C. Caloren, 14.v.1998, 25.v.1999, S.A. Marshall, 11.v.2008, B. Wells & R. Labbee (5♂, 6♀, DEBU); George Washington Natl. For., Signal Knob Trail, 5 mi E of Strasberg, 7.iv.1991, S.A. Marshall (1♂, DEBU); Glen Alton, nr. Interior, 37.43°N, 80.55°W, 21.v.2008, S.A. Marshall (1♀, DEBU); Hawksbill, Shenandoah National Park, 38.555401°N, 78.395006°W, 1097–1234m, 07.vi.1962, J.R. Vockeroth (2♂, 2♀, CNC); Mount Rogers Natl. Rec. Area, Elk Garden, 26.v.2005, S.A. Marshall (1♂, DEBU); Mount Rogers, Grayson County, 36.659844°N, 81.544556°W, 04.vi.1963, S.E. Neff (1♂, CNC); Mount Rogers, Smyth County, 36.661046°N, 81.570725°W, 1615–1737m, 01-06.vi.1962, J.R. Vockeroth (1♂, 4♀, CNC); Mountain Lake Biol. Stn., 37.37528°N, 80.52167°W, 23–30.v.2005, Malaise over pond inflow, S.A. Marshall (3♀, DEBU); Mountain Lake Biol. Stn., 37.37528°N, 80.52167°W, 17.v.1998, A. Sokolosky, 17–28.v.1999, S.M. Paiero, 13–26.v.2001, S.A. Marshall (5♂, DEBU); Mountain Lake Biol. Stn. vic., Bear Cliff Trail, 14.v.1998, sweep, S.A. Marshall (2♀, DEBU); Mountain Lake, Giles County, 37.35°N, 80.53°W, 1158m, 28.v.1962, J.G. Chillcott (4♂, CNC); Mt. Rogers Natl. Rec. Area, Whitetop Mountain, 26.v.2005, wild mustard, M. Henry (1♂, DEBU); Pandapas Pond, 37.275°N, 80.46667°W, 500m, 19.v.1999, S.A. Marshall, 25.v.2008, K. Adams (1♂, 1♀, DEBU); Ripplemead, Rte 460 bridge, 37.32861°N, 80.68°W, 11.v.2008, netted by flowers R. Labbee (1♂, DEBU); Snowflake, Scott County, 36.689822°N, 82.489874°W, 20.v.1965, J.G. Chillcott (1♂, CNC); Speedwell, 2.8 miles South, 36.772684°N, 81.171767°W, 10.vi.1974, H.J. Teskey (1♂, CNC); Stony Creek, Giles County, 37.421854°N, 80.582961°W, 610m, 26.v.1962, J.G. Chillcott (1♂, CNC); Wind Rock, 37.41667°N, 80.51667°W, 16.v.1998, S.A. Marshall (1♀, DEBU); Woolwine, Patrick County, 36.789973°N, 80.277414°W, 762m, 19.v.1965, J.G. Chillcott (1♂, CNC); **Wisconsin:** Madison, 43.0667°N, 89.4°W, 11.v.1919, C.L. Fluke (3♀, CNC); Madison, 43.0667°N, 89.4°W, 12.v.1919, C.L. Fluke (1♂, CNC).

Platycheirus octavus

Holotype ♂ *Platycheirus octavus* Vockeroth, 1990: *Platycheirus* HOLOTYPE *octavus* Vockeroth CNC No. 17460 / [Canada] Robson, B[ritish].C[olumbia]. [49.34203°N, 117.69783°W] 28.IV.1958 H. R. Foxlee / CNC DIPTERA #27976 (CNC). **Canada: British Columbia:** 32 miles South West of Terrace, 54.194076°N, 129.140296°W, 06.vi.1960, J.G. Chillcott (1♂, CNC); Robson, Central Kootenay L.D., 49.342029°N, 117.697831°W, 11.v.1956, 28.iv.1958, H.R. Foxlee (2♂, CNC); Vernon, North Okanagan R.D., 50.263769°N, 119.273734°W, 15.v.1923, D.G. Gillespie (1♂, CNC); Westwick Lakes, Cariboo R.D., 51.992078°N, 122.165164°W, 26.v.1963, G.G.E. Scudder (1♂, CNC); **United States of America: Oregon:** U.Goose Crk., 34 mi. SE. Union, Baker Co., 1268m, 12–14.vi.1977, Malaise baited with CO₂, E.J.Davis, 19.vi.1976, E.J.Davis (2♂, CNC); **Washington:** Pullman, 43.78083°N, 117.17972°W, 2000–2500ft, 19.v.1941 (1♂, CNC).

Platycheirus orarius

Holotype ♂ *Platycheirus orarius* Vockeroth, 1990: *Platycheirus* HOLOTYPE *orarius* Vockeroth C.N.C. No 17275 / [United States of America] N[ew]. H[ampshire]. ,Rye Odiorne Beach [43.01345°N, 70.77090°W] 22.VI.1982 J.R. Vockeroth / swept from salt marsh / CNC DIPTERA #178017 (CNC). **Canada: New Brunswick:** Birch Cove, near Chamcook, Charlotte Co., 45.129092°N, 67.065743°W, 16.viii.1957, G.E. Shewell, 04.vii.1965, G.E. Shewell (2♂, CNC); Kouchibouguac National Park, Kent Co., 46.819201°N, 64.96788°W, 24.vi.1977, D.M. Wood (1♂, CNC); Maces Bay, Charlotte Co., 45.099334°N, 66.47122°W, 09.vii.1971, B.V. Peterson (1♂, CNC); Richibucto, Kent County, 46.616546°N, 64.788828°W, 12.vii.1977, J.R. Vockeroth (1♀, CNC); Tabusintac, Northumberland County, 47.340168°N, 65.147826°W, 24.vii.1939, J. McDunnough (2♂, CNC); Tantramar Marsh, Sackville, 45.900134°N, 64.237778°W, 14.vii.1983, J.R. Vockeroth (1♀, CNC); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 07.vii.1955, E.E. Sterns (2♂, CNC); **Nova Scotia:** Cranberry Island, near Lockeport, Shelburne County, 43.698851°N, 65.101044°W, 20.vii.1958, J.R. Vockeroth (1♂, CNC); Kentville, Kings Co., 45.077239°N, 64.496688°W, 03.vii.1924, R.P. Gorham (2♂, CNC); Lunenburg, Lunenburg County, 44.378469°N, 64.316825°W, 03.vii.1967, B. Wright (1♂, CNC); Morrison Beach, 45.71°N, 60.33°W, 4.vii.2007, M. Bungay (2♂, 2♀, CBU); Ottawa House, Parrsboro, Cumberland County, 45.375151°N, 64.329148°W, 13.viii.1943, J. McDunnough (1♂, CNC); Porter's Point, Kings County, 45.13962°N, 64.380079°W, 01.vii.1948, K.D. Archibald (1♀, CNC); Tantramar Marsh, Sackville, Westmorland County, 45.900134°N, 64.237778°W, 14.vii.1983, J.R. Vockeroth (1♂, 3♀, CNC);

Quebec: James Bay, W Chisasibi, 53.78694°N, 79.07861°W, 12.vii.2001, sweeping, M. Buck (1♂, DEBU); New Richmond, Bonaventure, 48.161182°N, 65.857535°W, 06.viii.1954, J.E.H. Martin (1♂, CNC); Notre-Dame-du-Portage, Riviere-du-Loup, 47.764667°N, 69.612809°W, 17.viii.1957, sweep, W.R.M. Mason (1♂, CNC); **United States of America: Maine:** Narrows, Mount Desert, 44.441059°N, 68.336887°W, C.W. Johnson (1♂, CNC); **Massachusetts:** Cohasset, 42.245451°N, 70.823847°W, 05.vi.2012, C.W. Johnson (1♂, CNC); Marthas Vineyard, 41.380498°N, 70.645473°W, 08.vi.2012, C.W. Johnson (1♂, CNC); Nantucket, 41.283°N, 70.083°W, 23.vi.2012, C.W. Johnson (1♂, CNC); Plum Island, 42.812558°N, 70.813374°W, 06.vi.2012, G. Fairchild (1♂, CNC); Provincetown, 42.060907°N, 70.180299°W, 23.vi.2012, C.W. Johnson (1♂, CNC); **New Hampshire:** Rye, Odiorne Beach, 22.vi.1982, Sweeping, J.R. Vockeroth (2♂, 8♀, CNC); **New Jersey:** Point Pleasant, 40.083171°N, 74.068193°W, 01.vii.1917, J. Bequaert (2♂, CNC).

Platycheirus oreadis

Holotype ♂ *Platycheirus oreadis* Vockeroth, 1990: [United States of America] Mt. Evans, COLO[rado], [39.5987°N, 105.64062°W] 13200' [3813m] 6-VIII S.M. Clark [19]61 / HOLOTYPE *Platycheirus oreadis* Vockeroth CNC No. 17226 / CNC Diptera # 203560 (CNC). **United States of America: Colorado:** Mount Evans, Summit Lake, 39.5987°N, 105.64062°W, 3813m, 10.vii.1961, S.M. Clark, 30.vi.2010, A.D. Young & M.M. Locke (2♂, 1♀, CNC, DEBU).

Platycheirus parmatius

Holotype ♂ *Platycheirus bigelowi* Curran, 1927: *Platycheirus* HOLOTYPE *bigelowi* curran CNC No. 2023 / [Canada] Low Bush Ont[ario]. Lake Abitibi [48.91608°N, 80.13985°W] VI-9-1925 N.K. Bigelow / CNC DIPTERA #28002 (CNC). **Canada: Newfoundland and Labrador:** Saint Anthony, Division No.9, 51.372031°N, 55.597549°W, 14.vi.1951, B.J. Moore (1♂, CNC); **Ontario:** Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 09–30.vi.1925, N.K. Bigelow (1♂, 1♀, CNC); **Norway:** Hordaland, 60.3899994°N, 5.330000°W, 20.v.1972, Tore Nielsen (1♀, USNM); **United States of America: Alaska:** Cooper Landing, Kenai Peninsula, 60.49°N, 149.834167°W, 07.vi.1951, W.J. Brown (1♂, CNC); Denali National Park and Preserve, 63.731998°N, 148.979996°W, 24.vi.2001, O. Helmy (2♀, UAM); **Colorado:** Mount Cooper, ~11 km N Leadville, ski hill, 39.34958°N, 106.28428°W, 3584m, 28.vi.2010, A.D. Young (6♂, DEBU).

Platycheirus peltatoides

Holotype ♂ *Platycheirus peltatoides* Curran, 1923: HOLOTYPE *Platycheirus peltatoides* Curr CNC No. 584 / [Canada] Penticton B[ritish].C[olumbia]. [49.48055°N, 119.58467°W] 10.V.1919 E.R. Buckell / CNC DIPTERA #28006 (CNC). **Canada: Alberta:** 1 mile South of Lake Louise, Banff-Jasper Highway, 51.396804°N, 116.143501°W, 14.vii.1955, J.R. McGillis (1♂, CNC); Jasper National Park, Cavell Meadows, 52.9459°N, 117.9305°W, 5.viii.2000, W.J. Crins (1♂, DEBU); Mount Eisenhower, Banff National Park, 51.298694°N, 115.925724°W, 11.vi.1968, Mosquin & Seaborn (1♂, CNC); Waterton Lakes National Park, 49.076725°N, 113.938101°W, 14–20.vii.1980, H.J. Teskey (1♂, CNC); **British Columbia:** 10 miles West of Terrace, 54.450431°N, 128.815819°W, 09.vi.1960, J.G. Chillcott (1♂, CNC); 32 miles South West of Terrace, 54.194076°N, 129.140296°W, 04.vi.1960, G.E. Shewell, 06.vi.1960, J.G. Chillcott, 11.vi–05.vii.1960, W.W. Moss (7♂, CNC); Agassiz, 49.238948°N, 121.765842°W, 01.v.1924, R. Glendenning (1♂, CNC); Atlin, Cassiar L.D., 59.5775°N, 133.69236°W, 671m, 07.vi.1955, B.A. Gibbard (1♂, CNC); Bear Mountain, Baranof Is., 57.049052°N, 135.156878°W, 06.v.1920 (1♂, CNC); Bowron Lake, Cariboo Co., 53.236626°N, 121.372871°W, 04.vii.1947, J. Grant (1♂, CNC); Bowser, Nanaimo Regional District, 49.442103°N, 124.68311°W, 30.v.1955, W.J. Brown (1♂, CNC); British Columbia, 53.759303°N, 124.778114°W, 26–15.v.1961, 02.iv.1965, 03–11.v.1966 (5♂, CNC); Cayuse Creek, Robson, 49.405835°N, 117.995467°W, 1524m, 06.viii.1964, J.W. Boyes (1♂, CNC); Cranbrook, East Kootenay R.D., 49.517983°N, 115.761504°W, 12.v.1926, A.A. Dennys (1♀, CNC); Douglas Lake, Thompson-Nicola R.D., 50.166005°N, 120.202783°W, 22.vi.1958, H.F. Howden (1♂, CNC); Eva Lake Trail, Mount Revelstoke National Park, 51.079905°N, 118.108837°W, 1829m, 31.vii.1952, G.P. Holland (1♂, CNC); Field, Yoho Valley, Yoho National Park, 51.398846°N, 116.491084°W, 19.vii.1912, R.C. Osburn (1♂, CNC); Gagnon Road, 6miles West of Terrace, 54.499294°N, 128.716143°W, 67m, 08.vi.1960, W.W. Moss (1♂, CNC); Gagnon Road, 6miles West of Terrace, 54.499294°N, 128.716143°W, 20.vi.1960, J.G. Chillcott (2♂, CNC); Hedley, Okanagan-Similkameen R.D., 49.357784°N, 120.075962°W, 20.vii.1923, C.B. Garrett (2♂, CNC); Kitimat River, 24 miles South of Terrace, 54.207711°N, 128.555421°W, 19.vii.1960, C.H. Mann (1♂, CNC); Kitimat, Range 5 Coast L.D., 54.05566°N, 128.656697°W, 02.vi.1960, J.G. Chillcott (2♂, CNC); Kleanza Creek, Near Terrace, 54.597897°N, 128.386241°W, 17.vi.1960, C.H. Mann, 30.vi.1960, B. Heming (2♂, CNC); Lakelse Lake, Hot Springs Area, 54.371144°N, 128.535718°W, 14.vi.1960, G.E. Shewell (1♂, CNC); Lisadele Lake, Cassiar L.D., 58.680264°N, 133.050826°W,

1219m, 06.viii.1960, W.W. Moss (1♂, CNC); Midday Valley, Merritt, Thompson-Nicola R.D., 50.068913°N, 120.802871°W, 30.v.1923, R. Hopping (1♂, CNC); Revelstoke Mountain, Mount Revelstoke National Park, 51.035979°N, 118.142509°W, 1829m, 12.viii.1923, E.R. Buckell, 12.viii.1923, P.N. Vroom (4♂, 6♀, CNC, DEBU); Mount Revelstoke National Park, 51.035979°N, 118.142509°W, 1829m, 19.vii.1952, G.P. Holland, 1829m, 28.vii.1952, G.J. Spencer (3♂, CNC); Mount Thornhill, Near Terrace, 54.500002°N, 128.43693°W, 1219m, 14.vii.1960, J.G. Chillcott (1♂, CNC); Mt Seymour Provincial Park, 49.344799°N, 122.973000°W, 10.v.1966, (1♂, USNM); Penticton, Okanagan-Similkameen R.D., 49.480552°N, 119.584669°W, 10.v.1919, E.R. Buckell (1♂, CNC); Prince Rupert, Skenna-Queen Charlotte R.D., 54.31368°N, 130.315462°W, 04.vi.1960, B. Heming (1♂, CNC); Remo, 7 Miles South West of Terrace, 54.491489°N, 128.7248°W, 13.vi.1960, J.G. Chillcott (2♂, CNC); Robson, Central Kootenay L.D., 49.342029°N, 117.697831°W, 24.v.1948, H.R. Foxlee (1♂, CNC); Shames, 16 Miles South West of Terrace, 54.409648°N, 128.935301°W, 04.vi.1960, J.G. Chillcott (1♂, CNC); Shames, 18 Miles South West of Terrace, 54.409648°N, 128.935301°W, 23.vi.1960, J.G. Chillcott (2♂, CNC); Sheep Lake, Paulson, 49.243583°N, 118.052516°W, 02.vii.1964, J.M.V. Brink (1♂, CNC); Terrace, 54.516512°N, 128.586663°W, 23.vii.1960, W.R. Richards (1♂, CNC); Terrace, 3 Miles South on Lakelse Road, 54.438865°N, 128.533852°W, 19.viii.1960, C.H. Mann (1♂, CNC); Tunjony Lake, Cassiar L.D., 58.438°N 132.746°W, 975m, 19.vii.1960, R. Pilfrey (1♂, CNC); Vernon, North Okanagan R.D., 50.263769°N, 119.273734°W, 30.vi.1920, M.H. Ruhmann (1♀, CNC); Victoria, Capital R.D., 48.456755°N, 123.360889°W, 03.v.1919, W.B. Anderson (1♂, CNC); Wapta Lake, Yoho National Park, 51.441244°N, 116.343819°W, 1585m, 22.vii.1955, R. Coyles (2♂, CNC); **Saskatchewan:** Prince Albert, Division No. 15, 53.19949°N, 105.759892°W, 07.vii.1911, T.N. Willing (1♀, CNC); **Yukon Territory:** Carcross, sand dunes, 60.186691°N, 134.692703°W, 16.vi–18.vi.1982, G. & D.M. Wood (1♂, CNC); **United States of America: Alaska:** Anchorage, 61.218054°N, 149.90027°W, 19.vii.1951, R.S. Bigelow (1♂, CNC); Cold Bay, 163°W, 55.244894°N, 163.009591°W, 27.vii.1952, J.B. Hartley (1♂, CNC); Cottonwood Bay, 59.338001°N, 153.421005°W, 08.vii.2002, S.L. Jennings (1♂, UAM); Denali National Park and Preserve, 63.869000°N, 150.229004°W, 24.vi–08.vii.2001, O. Helmy (2♀, UAM); Isabel pass, Mile 206 Richardson Highway, 63.484367°N, 145.839383°W, 884m, 13–18.vii.1962, P.J. Skitsko (7♂, CNC); Paxson Lodge, Gulkana, 62.2403°N, 145.4228°W, 30.viii.1951, W.R.M. Mason (1♂, CNC); Richardson Hwy km 156.4, Hogan Hill, 19.vi.1987, S.A. Marshall (1♂, DEBU); Seward, 60.374167°N, 149.3463889°N, 10.viii.1951, W.J. Brown (1♂, CNC); Tangle Lakes, 63.033115°N, 146.043535°W, 28.vi–8.vii.1969, Malaise trap, J. Matthews (1♂, CNC); **Washington:** Mount Rainier, 46.853048°N, 121.753127°W, 02.viii.1926, F.M. Hull (5♂, CNC); Silver Fir Campground, ~17 km NE Mt. Baker, 613 m, 7–9.vii.2010, A.D. Young (1♀, DEBU).

Platycheirus perpallidus

Lectotype ♂ *Platycheirus perpallidus* Verrall, 1901: VC-TYPE 43 *Platycheirus* ♂ *perpallidus* Verrall / black pile / To be desig. As LT by J.R. Vockeroth / Sutton Birmingham [52.56370°N, 1.79132°W] 2.7.[18]95 / J. Skevington Specimen #45735 (OUMNH). **Canada. Alberta.** Banff, Banff National Park, 51.180275°N, 115.568433°W, 01-05.vi.1922, C.B.D. Garrett (2♂, CNC); Lake Louise, Division No. 15, 51.413528°N, 116.19088°W, 1402m, 07.vii.1955, R. Coyles (1♂, CNC); Slave Lake, 55.288162°N, 114.77238°W, 05.vi.1966, G.E. Shewell (5♂, CNC); Whiskey Gap, Division No. 3, 49.016998°N, 113.017°W, 30.vi.1982, B. V. Peterson (1♂, CNC); **British Columbia:** Cathedral Glacier, Cathedral Mountain, Yoho National Park, 51.405277°N, 116.388891°W, 25.vii.1955, R. Coyles (1♂, CNC); Oliver, 49.18333°N, 119.55°W, 28.iv.1923, C.B. Garrett (1♂, DEBU); Telegraph Creek, Sawmill River, 50.320173°N, 119.912212°W, 335m, 28.viii.1960, W.W. Moss (2♂, CNC); **Manitoba:** Ste. Rose, Division No. 17, 50.992945°N, 99.40651°W, 11.vii.2012, E. Criddle (1♂, CNC); **Newfoundland and Labrador:** Goose Bay, Labrador, 53.326031°N, 60.387266°W, 26.vi.1948, H.C. Friesen (1♂, CNC); **Northwest Territories:** Fort Smith, Mackenzie, 60.007115°N, 111.889653°W, 27.vi.1950, J.B. Wallis (1♂, CNC); Yellowknife, 62.446696°N, 114.391481°W, 06.vi.1953, J.G. Chillcott (1♂, CNC); **Quebec:** Schefferville, Sept-Rivieres—Caniapiscau, 54.802248°N, 66.816053°W, 03.vii.1981, F. Brodo (1♂, CNC); **United States of America: Alaska:** Anchorage, 61.218054°N, 149.90027°W, 20.vii.1951, R.S. Bigelow (1♂, CNC); **Colorado:** High Creek Fen, 14 km S Fairplay, 39.1034°N, 105.98889°W, 2822 m, 2.vii.1995, B. Kondratieff & R. Durfee (3♂, 1♀, CSU); **Utah:** Kamas, 40.643023°N, 111.280735°W, 15.viii.1943, G.F. Knowlton & D.R. Maddock (1♂, CNC); **Wyoming:** Yellowstone Park, 44.462085°N, 110.642441°W, 20–25.vii.1920, A.A. Nichol (1♂, CNC).

Platycheirus pictipes

Lectotype ♂ *Melanostoma pictipes* Bigot, 1884: **Lectotype** *Melanostoma pictipes* Bigot, Thompson 2000 / LT / J. Skevington Specimen # 45696 / *M. pictipes* ♂ Californ. J. Bigot (OUMNH). **Holotype** ♂ *Platycheirus rufimaculatus* Vockeroth, 1990: *Platycheirus* HOLOTYPE *rufimaculatus* Vockeroth CNC No. 17281 / leg. A.R. Moldenke StanfordUniversity PhD ThesisResearch 1968-1970 [United States of America] Tioga Pass [37.919391°N,

119.255072°W] – Hall Area site, Mono Co., CALIF[ornia]. # refers to date and host / 4-VII-69.GL arabis sp. #1478 / CNC DIPTERA #72504 (CNC). **Canada: Alberta:** Mackenzie Highway, Mile 232, 09.vi.1966, G.E. Shewell, (1♂, CNC); Waterton Lakes National Park, 49.076725°N, 113.938101°W, 24.vi.1923, J. McDunnough, 01.vii.1924, H.L. Seamans, 1980, H.J. Teskey (3♂, CNC); **British Columbia:** Hedley, Nickel Plate, Okanagan-Similkameen R.D., 49.369117°N, 120.03823°W, 1524m, 18–24.vii.1953, J.E.H. Martin (2♂, CNC); Lac la Hache, Lillioet L.D., 51.81404°N, 121.47343°W, 02-06.vii.1964, L.H. McMullen (2♂, CNC); Lumby, North Okanagan R.D., 50.249766°N, 118.966421°W, 22.vi.1973, H.J. Teskey (2♂, CNC); Mt. Kobau, 49.12°N, 119.67°W, 1760m, 8.vii.1991, Blades & Maier (1♂, CNC); Robson, 49.33°N, 117.6833°W, 28.vi.1956, H.R. Foxlee (1♂, CNC); Waldies Rd, Robson, 49.33394°N, 117.663855°W, 19.vi.1947, H. R. Foxlee (1♂, CNC); **Newfoundland and Labrador:** Top of Signal Hill, St. John's, Division No. 1, 47.570024°N, 52.681812°W, 24.vii.1967, J.F. McAlpine (2♂, CNC); **Northwest Territories:** Wrigley, Mackenzie, 63.209367°N, 123.34594°W, 07.vi.1969, G.E. Shewell (2♂, CNC); **Quebec:** Ile d'Anticostie, Jupiter, 49.530833°N, 63.280556°W, 1–18.vii.2007, Malaise trap (3♂, CNC); **Saskatchewan:** Regina, Division No. 6, 50.454228°N, 104.612885°W, 25.vi.1947, (1♂, CNC); **Yukon Territory:** 40 North of Whitehorse, prairie, 61.10841°N, 135.2902°W, 19.vi.1982, G. & D.M. Wood (1♂, CNC); Carmacks, prairie slope, 62.10133°N, 136.265752°W, 19.vi.1982, G. & D.M. Wood (3♂, CNC); Dempster Highway, Mile 87, 65.054721°N, 138.128324°W, 16–17.vii.1973, G. & D.M. Wood (2♂, CNC); Rampart House, 67.421455°N, 140.983336°W, 12.vii.1951, J.E.H. Martin (1♂, CNC); **United States of America: California:** “Californ”, (3♂, 1♀, OUMNH); Mono County, Tioga Pass, Hall Area site, 37.919391°N, 119.255072°W, 04–20.vii.1969, A.R. Moldenke (7♂, 1♀, CNC); Sierra County, Weber Lake, 37.74188°N, 119.175041°W, 05.viii.1951, E. I. Schlinger (1♀, CNC); Sonora Pass, 38.327691°N, 119.636839°W, 3048–3353m, 11.vii.1951, R.W. Morgan, 21.vi.2007, S.M. Blank (4♂, CNC); **Colorado:** Bent Peak Bowl, 37.86°N, 107.38°W, 13.vii.1995, S. Hoffman (1♂, CSU); Doolittle Ranch, Mount Evans, 39.675739°N, 105.601348°W, 2987m, 13.vii.1961, W.R.M. Mason (1♂, CNC); Echo Lake, Mount Evans, 39.658085°N, 105.6035°W, 3231m, 20.vii.1961, B.H. Poole (1♂, CNC); Eldora, 2 miles North West, 39.948598°N, 105.563889°W, 02.vii.1961, J.G. Chillcott (1♂, CNC); Estes Park, 40.376877°N, 105.52137°W, 2987m, vii.1892, F.H. Snow (2♂, CNC); Nederland, Science Lodge, 39.95°N, 105.5°W, 2896m, 29.vi.- 06.vii.1961, W.R.M. Mason (9♂, CNC); Redcloud Park, 37.94°N, 107.422°W, 3658 m, 13.viii.1995, S. Fitzgerald (1♂, CSU); **Idaho:** Moscow Mountain, 46.800972°N, 116.866093°W, 09.vii.1911, vi.1926, A.R. Moldenke (6♂, CNC); **Iowa:** Ames, 42.03°N, 93.6167°W, 8–18.vii.1923, F.M. Hull (1♂, CNC); **Maine:** Lincoln County, 44.108282°N, 69.511031°W, 10–11.vi.1952, D.J. Borror (2♂, CNC); **Nevada:** Carson City, 39.163798°N, 119.767403°W, 21.ix.1951, A.T. McClay (1♂, CNC); **Oregon:** Klamath County, Sand Creek, 42.876245°N, 121.831687°W, 26.vi.1952, E.I. Schlinger (1♀, CNC); Steen's Mountain Spring, N. Side of Big Indian Gorge, 42.667222°N, 118.587778°W, 2730m, 28.vii–6.viii.2005, Malaise trap, G.W. Courtney (1♂, CNC); Summit of Steen's Mountain, 42.636389°N, 118.576667°W, 2979m, 09.viii.2005, J. Skevington (2♂, CNC); **Utah:** Daniels Pass, 2 miles South, Wasatch County, 40.280034°N, 111.223675°W, 2560m, 09.vii.1961, J.G. Chillcott (1♂, CNC); Guardsman Pass near Brighton, Summit, 40.60384°N, 111.582143°W, 2987m, 10.vii.1961, B.H. Poole (1♂, CNC); Miners Peak [Iron county?], 37.502755°N, 112.969112°W, 10.vii.1957 (1♂, CNC); Tony Grove Lk., 41.893, -111.643 1.vii.2010 A.D. Young (5♂, DEBU); **Washington:** Mount Rainier, 46.853048°N, 121.753127°W, vii.1926, F.M. Hull (5♂, CNC); **Wyoming:** Teton Pass, Eastern side, 43.4975°N, 110.955278°W, 2256–2560m, 16.vii.1961, B.H. Poole (1♂, CNC); University of Wyoming, S.H. Knight Science Camp, Medicine Bowl National Forest, 2896–3048m, 20.vii.1966, H.V. Weems, Jr. (1♂, CNC).

Platycheirus pilatus

Holotype ♂ *Platycheirus pilatus* Vockeroth, 1990: [United States of America] Echo L. 10,600' [3231m] Mt. Evans, COLO[rado]. [39.65809°N, 105.6035°W] July 12 1961 C.H. Mann / HOLOTYPE *Platycheirus pilatus* Vockeroth CNC No 17277 / CNC DIPTERA #87943 (CNC). **Canada: Alberta:** Banff, 51.1667°N, 115.567°W, 1.v.922, C.B.D. Garrett (1♂, CNC); **Manitoba:** Fort Churchill, 58.768828°N, 94.171563°W, 08.vii.1952, C.D. Bird (1♂, CNC); Mile 504, Hudson Bay Railway, 56.19674°N, 95.137659°W, 21.vi.1952, J.G. Chillcott (1♂, CNC); Warkworth Creek, Near Churchill, 58.548754°N, 93.981843°W, 21.vi–07.vii.1952, J.G. Chillcott (3♂, CNC); **Northwest Territories:** Fort Franklin, Great Bear Lake, 65.19132°N, 123.418625°W, 22.vi.1969, G.E. Shewell (1♂, CNC); Reindeer Depot, Mackenzie Delta, 68.668974°N, 134.071574°W, 10.vii.1948, J.R. Vockeroth (1♂, CNC); **Yukon Territory:** British Mountains, 69.2167°N, 140.0833°W, 320m, 18–21.vi.1984, G. & M. Wood & D. Lafontaine (3♂, CNC); North Fork Crossing, Mile 43 Peel Pit Road, 64.565983°N, 138.250648°W, 1067m, 03.vii.1962, R.E. Leech (1♂, CNC); Otter Lake, 62.486817°N, 130.4167°W, 1219m, 16.vii.1960, J.E.H. Martin (1♂, CNC); **United States of America: Alaska:** Isabel pass, Mile 206 Richardson Highway, 63.484367°N, 145.839383°W, 884m, 13.vii.1962, R.E. Leech (1♂, CNC); Mile 213, Richardson Highway, 63.2°N, 145.65°W, 17.vi.1951, J.R. McGillis (1♂, CNC); Unalakleet, 28.vi.1961, B.S.

Heming (1♂, CNC); **Colorado:** Corona Pass, Boulder County, 39.936516°N, 105.678611°W, 3231m, 06.vii.1961, J.G. Chillcott (2♂, CNC); Echo Lake Park, 39.65977°N, 105.60477°W, 3176 m, 29.vi.2010, A.D. Young (1♂, DEBU); Echo Lake, Mount Evans, 39.658085°N, 105.6035°W, 3231m, 12.vii.1961 C.H. Mann (5♂, CNC).

Platycheirus podagratus

Canada: Alberta: Banff, Banff National Park, 51.180275°N, 115.568433°W, 1.vi–04.vii.1922, C.B.D. Garrett (4♂, 5♀, CNC); Waterton, Waterton Lakes National Park, 49.051122°N, 113.911807°W, 11.vi.1962, K.C. Herrmann (1♂, CNC); **British Columbia:** King Salmon Lake, Cassiar L.D., 58.716999°N, 132.902999°W, 533m, 17.vii.1960, W.W. Moss (1♂, CNC); Summit Lake, Mile 392 of Alaska Highway, Northern Rockies R.D., 58.648201°N, 124.666912°W, 1372m, 01.vii.1959, R.E. Leech (1♂, CNC); **Manitoba:** Warkworth Creek, Near Churchill, 58.548754°N, 93.981843°W, 07.vii.1952, J.G. Chillcott (1♂, CNC); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 26–30.vi.1955, E.F. Cashman (2♂, CNC); Saint Anthony, Division No.9, 51.372031°N, 55.597549°W, 03.vii.1951, J.B. Wallis (1♂, CNC); **Northwest Territories:** Aklavik, 68.219638°N, 135.010707°W, 02.vii.1956, R.E. Leech (1♂, CNC); Muskox Lake, 64.633135°N, 108.249285°W, 25.vii.1953, J.G. Chillcott (1♂, CNC); **Ontario:** Low Bush, Lake Abitibi, Cochrane District, 48.91608°N, 80.139852°W, 10.vi.1925, N.K. Bigelow (1♂, CNC); **Quebec:** Ile d'Anticostie, Jupiter, 49.530833°N, 63.280556°W, 16.vi–30.vi.2007, Malaise trap (1♂, CNC); **Yukon Territory:** British Mountains, 69.2167°N, 140.0833°W, 320m, 18–20.vi.1984, G. & M. Wood & D. Lafontaine (1♂, CNC); Firth River, 69.21667°N, 140.08333°W, 25.vi.1984, S.G. Cannings, 07.viii.1956, E.F. Cashman (2♂, CNC); North Fork Crossing, Mile 42 Peel Pit Road, 64.565983°N, 138.250648°W, 1067m, 24.vi.1962, R.E. Leech (1♂, CNC); Rampart House, 67.421455°N, 140.983336°W, 09.vii.1951, C.C. Loan (1♂, CNC); Swim Lakes, 62.210135°N, 132.809978°W, 975m, 15–17.vi.1960, J.E.H. Martin (5♂, CNC); **United States of America: Alaska:** Andrew Lake, 51.938999°N, 176.619003°W, 13–20.vii.2008, D.S.Sikes (2♀, UAM); Cape Thompson, 68.13°N, 165.97°W, 22.vii–01.viii.1961, R. Madge, B.S. Heming (5♂, CNC); Cold Bay, 163°W, 55.244894°N, 163.009591°W, 26.vii.1952, J.B. Hartley (1♂, CNC); Denali National Park and Preserve, 63.731998°N, 148.979996°W, 24.vi.2001, O. Helmy (4♂, 21♀, UAM); Isabel pass, Mile 206 Richardson Highway, 63.484367°N, 145.839383°W, 884m, 13.vii.1962, R.E. Leech (3♂, CNC); King Salmon, Naknek River, 58.678852°N, 156.666556°W, 04–08.viii.1952, W.R. Mason (2♂, CNC); Mile 213, Richardson Highway, 63.2°N, 145.65°W, 17.vi.1951, J.R. McGillis (5♂, CNC); Mile 32, Denali Highway, 63.390138°N, 148.588876°W, 1219m, 23.vii.1962, P.J. Skitsko (2♂, CNC); Nome, 64.5°N, 165.4°W, 12–19.vi.1951, D.P. Whillans (17♂, CNC); Umiat, 69.367°N, 152.133°W, 05.vii.1959, R. Madge (2♂, CNC); **Colorado:** Echo Lake, Mount Evans, 39.6580°N, 105.6035°W, 3231m, 13–22.vii.1961, C.H. Mann (2♂, CNC); Fulford Cave Campground, 39.492°N, 106.659°W, 22.vi.1996, S. Fitzgerald (1♂, CSU); **Utah:** Garden City, 41.94688°N, 111.39354°W, 12.vi.1941, G.F. Knowlton & F.C. Harmston (2♂, CNC).

Platycheirus protrusus

Holotype ♂ *Platycheirus protrusus* Vockeroth, 1990: [United States of America] Mt. Evans, COLO[rado]. [39.25°N, 106.17°W] 14,000' [4267m] 25-VII B.H. Poole '61 / HOLOTYPE *Platycheirus protrusus* Vockeroth CNC No 17278 / CNC DIPTERA #88005 (CNC). **United States of America: Colorado:** Mount Evans, 39.25°N, 106.17°W, 4267m, 25.vii.1961, B.H. Poole (2♀, CNC).

Platycheirus pullatus

Holotype ♂ *Platycheirus pullatus* Vockeroth, 1990: *Platycheirus* HOLOTYPE *pullatus* Vockeroth CNC No. 17277 / [Canada] Victoria Is., N[orth].W[est].T[erritories]. 71 17°N 114 W [71.25°N, 114.00001°W] 23-28.VII.1975 G. & M. Wood / CNC DIPTERA #28193 (CNC). **Canada: Alberta:** Sulphur Mountain, Banff National Park, 51.149438°N, 115.583484°W, 2195m, 28.vii.1967, J.R. Vockeroth (1♂, CNC); **Northwest Territories:** Victoria Island, 71.25°N, 114.000001°W, 1–28.vii.1975, G. & D.M. Wood (5♂, CNC); **Yukon Territory.** km 141, Dempster Highway 65.06101°N, 138.126705°W, 24–28.vi.1982, G. & D.M. Wood (1♂, CNC); km 155, Dempster Highway, 65.067106°N, 138.295866°W, 22.vi–02.vii.1982, G. & D.M. Wood (5♂, 1♀, CNC); Richardson Mountains, 68.163651°N 136.988868°W, 853m, 11.vii.1982, D.M. Wood (1♂, CNC).

Platycheirus quadratus

Canada: Alberta: Banff Natl. Pk., Two Jack Lake, 51.23053°N, 115.49782°W, 1444m, 14.vii.2010, A.D. Young (2♀, DEBU); Banff, Banff National Park, 51.180275°N, 115.568433°W, N.B. Sanson (1♀, CNC); Fairview, 56.06667°N, 118.38333°W, 10.viii.1982, E. Lippert (1♀, DEBU); Nordegg, Division No. 9, 52.471024°N, 116.076825°W, 05.vi.1921, J. McDunnough (1♀, CNC); **British Columbia:** Chilcotin, Thompson-Nicola R.D., 50.690549°N,

120.327736°W, 26.vii.1920, E.R. Buckell (1♀, CNC); McGillivray Creek, Game Reserve Near Chilliwack, Thompson-Nicola R.D., 50.493275°N, 121.704617°W, 14.vii.1953, W.R.M. Mason (1♂, CNC); Mission City, Fraser Valley R.D., 49.140168°N, 122.309497°W, 27.vii.1953, G.J. Spencer (1♂, CNC); Oliver, Okanagan-Similkameen R.D., 49.182338°N, 119.550442°W, 305m, 28.iv–11.v.1923, C.B.D. Garrett, 09.v.1953, D.F. Hardwick, 20.viii.1953, J.R. McGillis (8♂, CNC); Osoyoos, Okanagan-Similkameen R.D., 49.033038°N, 119.46347°W, 17.v.1923, C.B.D. Garrett (1♀, CNC); **Manitoba:** Aweme, 49.708529°N, 99.602758°W, 24.vi.1916, 20.vii.1917, N. Criddle (2♀, CNC); Onah, Division No. 7, 49.805973°N, 99.524133°W, 21.vii.1921, H.A. Robertson (1♀, CNC); Teulon, Division No. 14, 50.387058°N, 97.259644°W, H.D. Camming (1♀, CNC); **New Brunswick:** Birch Cove, near Chamcook, Charlotte Co., 45.129092°N, 67.065743°W, 14.viii.1957, G.E. Shewell (1♂, CNC); Chamcook, Charlotte Co., 45.126407°N, 67.071693°W, 09.viii.1957, G.E. Shewell (1♂, CNC); Kouchibouguac National Park, Kent Co., 46.819201°N, 64.96788°W, 30.vi.1977, J.R. Vockeroth (1♂, CNC); Saint Andrews, Charlotte Co., 45.079914°N, 67.058441°W, 09.viii.1957, G.E. Shewell (1♂, CNC); **Nova Scotia:** Cape Breton University, 46.11°N, 60.23°W, 2.ix.1998, L. Connors (1♂, CBU); Kentville, Kings Co., 45.077239°N, 64.496688°W, 06.viii.1958, J.R. Vockeroth (1♂, CNC); Lockeport, Shelburne Co., 43.698745°N, 65.113342°W, 09.viii.1958, J.R. Vockeroth (1♂, CNC); **Ontario:** 2 Miles North of Metcalfe, Ottawa Division, 45.265406°N, 75.488737°W, 25–31.v.1982, B.E. Cooper (4♂, CNC); 5 km South West of Perth, 44.86464°N, 76.312432°W, 26.v.1987, J.R. Vockeroth (1♀, CNC); 5 Miles South of Richmond in fen, 42.692678°N, 80.845247°W, 13.ix.1978, G. & D.M. Wood (1♂, CNC); 8 Km South of Richmond, Elgin Co., 42.692678°N, 80.845247°W, 13.ix.1983, B.E. Cooper (1♂, CNC); Algonquin Prov. Pk., Swan Lk. Stn., Scott Lk., 45.4875°N, 78.72222°W, 17.vi.1993, sphagnum/leatherleaf near C1 Malaise, S.A. Marshall (1♂, DEBU); Aurora, York Regional Municipality, 43.999658°N, 79.467574°W, 06.vi.1909 (1♀, CNC); Barr property, ~7 km NE Centreton, site 1, 44.12778°N, 77.9825°W, 16–27.vi.2011, Malaise, Brunke & Paiero (1♂, DEBU); Belleville, 44.16667°N, 77.38333°W, 1.vii.1950, J.C. Fisher (1♂, DEBU); Belwood, 43.79167°N, 80.32222°W, 30.vii.1972, D.H. Pengelly (1♂, DEBU); Bradford, 44.11528°N, 79.56528°W, 10.vii.1979, K.R. Fisher (1♂, DEBU); Bruce Pen. Natl. Pk., Cameron Lk. fen, 45.22056°N, 81.53333°W, 26.vi.1998, S.A. Marshall (1♂, DEBU); Bruce Pen. Natl. Pk., Emmett Lk. Rd., 45.22306°N, 81.47194°W, 22.vi.2008, S.A. Marshall (2♂, DEBU); Bruce Pen. Natl. Pk., Marr Lake, 45.2424°N, 81.5279°W, 6.vii.1995, S.A. Marshall (1♂, DEBU); Bruce Pen. Natl. Pk., Singing Sands, 45.19283°N, 81.58267°W, 1.vii.1999, S.A. Marshall (1♂, DEBU); Cedar Creek Cons. Area, 42.02806°N, 82.82417°W, 12.v.1998, B. Larson (1♂, DEBU); Chatham, Chatham-Kent Division, 42.412001°N, 82.185001°W, 10.iv.1927, C.W. Smith, 08.vii.1934, H.G. Dyar (2♂, CNC); Dornoch, 44.31111°N, 80.85694°W, 20.vii.1996, S.A. Marshall (1♂, DEBU); Dundas, 43.26667°N, 79.96667°W, 1.vi.1978, G. Sevean, 3.vi.1978, N. Pierce, 19.vi.1978, S.M. Ball, 16.v.1979, S. Beierl (5♂, DEBU); Dundas Marsh, Hamilton, 43.25°N, 79.97°W, 22.v.1947, W. Judd (2♂, CNC); Dwyer Hill, Ottawa Division, 45.1167°N, 75.93°W, 22.vi.1984, J.R. Vockeroth (1♀, CNC); Elora, 43.68333°N, 80.43333°W, 22.ix.1970, R.D. Fairbairn, 31.v.1978, P. Jerseuskis (2♂, DEBU); Elora, Irvine St., 43.69167°N, 80.43056°W, 3.ix.2001, H.R. Mattila (1♂, DEBU); Fathom Five Natl. Pk., Bear's Rump Is., 45.31611°N, 81.56694°W, 6.viii.1996, Malaise, K. Welstead (1♂, DEBU); Fathom Five Natl. Pk., Cove Is., 45.305°N, 81.72889°W, 24.vii–18.viii.1996, Malaise trap, K. Welstead (1♂, DEBU); Fergus, 43.7°N, 80.36667°N, 13.vii.1993, 9.viii.1985, Malaise trap, S.A. Marshall (2♂, DEBU); Fingal Wildlife Management Area, Elgin County, 42.679484°N, 81.326601°W, 07.ix.1992, 04.ix.1993, N. Carmichael, 24.ix.1997, 06.v.1998, I. Carmichael (4♂, CNC); Forks of the Credit, 43.80139°N, 79.99444°W, 31.vii.1981, C. Farivar (1♂, DEBU); Grand Bend, Lambton County, 43.312271°N, 81.756729°W, 19.vii.1939, G.E. Shewell (1♂, CNC); Griffith, 7 miles East, 45.243279°N, 77.031193°W, 01.viii.1982, 16–23.ix.1983, vii.1990, B.E. Cooper (3♂, CNC); Grimsby, 43.2°N, 79.56667°W, 20.vi.1978, W.A. Attwater (1♂, DEBU); Guelph, 43.55°N, 80.25°W, 15.viii.1974, G.L. Arinobu, 25.v.1977, A.A. Konecny, 5.vi.1978, P. Jurseuskis, 6.vi.1978, G. Sevean, 9.vi–17.vii.1978, M. Lichtenberg, 13.vi.1979, K.L. Runciman, 21–22.vii.1979, D. Lewis, 23.vii.1979, K.L. Runciman, 11.ix.1983, M. Mezenberg, 11.x.1983, T. Puntus, 29.ix.1984, B.J. Sinclair, 22.ix.1993, C.D. Jones (18♂, DEBU); Guelph, Eramosa R., 43.54583°N, 80.225°W, 16.ix.1990, net M. Montes-Castillo (1♂, DEBU); Guelph, University Arboretum, 43.53611°N, 80.22917°W, 13–17.vi.1983, dry Malaise head nr. pond, Brown & Marshall (1♂, DEBU); Guelph, University Arboretum, 43.53611°N, 80.22917°W, 26.v–24.vii.1991, Malaise (4♂, DEBU); Guelph, University Arboretum, Wild Goose Trail, 43.53889°N, 80.21667°W, 23.v.2009, A.D. Young (2♂, DEBU); Hamilton, 43.25°N, 79.85°W, 25.vi.1979, S. Beierl (1♂, DEBU); Harrow, 42.03333°N, 82.91667°W, 20.vii.1970, E.A. Innes, 18.v.1973, R.E. Roughley (4♂, DEBU); Hepworth, 44.61667°N, 81.15°W, 1.vi.1978, G. Sevean (2♂, DEBU); Huff's Island, Prince Edward County, 44.125002°N, 77.318465°W, 31.vii.1951, J.C. Martin (1♂, CNC); Inverhuron Prov. Pk., 44.3°N, 81.59028°W, 6.vi.2003, by stream, M. Buck (7♂, DEBU); Johnston Harbour, 45.11889°N, 81.54583°W, 18.vii.2003, S.A. Marshall (1♂, DEBU); Jordan, 43.14722°N, 79.36944°W, 10.viii.1914, W.A. Ross (1♂, DEBU); Jordan, 43.14722°N, 79.36944°W, 19.v–8.vi.1914, 9.viii.1915, 12.v.1916, 20.ix.1917, 7.vii.1919, W.A. Ross, 24.v.1978, 17.v.1979, R. Boyle (15♂, 1♀, DEBU); Keswick, 44.24444°N,

79.47639°W, 16.viii.1983, N.R. Ennis (1♂, DEBU); Lake Matchedash, 44.8125°N, 79.58333°W, 31.vii–3.viii.1996, B. Larson (3♂, DEBU); Leamington, 42.05°N, 82°W, 6.vi.2005, S. Gallant (1♂, DEBU); Manitoulin I., Carter Bay, 45.60639°N, 82.14083°W, 10.vii.2003, M. Buck, 1.viii.2003, S.M. Paiero (2♂, DEBU); Manitoulin I., Misery Bay Prov. Pk., 45.79361°N, 82.73639°W, 12.vii.2003, M. Buck (2♂, DEBU); Manitoulin I., Portage Bay, 45.75°N, 82.53333°W, 21.vii.2003, M. Buck (3♂, DEBU); Manitoulin I., Providence Bay, 45.66139°N, 82.26111°W, 26.vi.2003, M. Buck (2♂, DEBU); Manitoulin I., Sand Bay, 45.80167°N, 82.79333°W, 17.vii.2003, M. Buck (1♂, DEBU); Manitoulin I., Shrigley Bay, 45.72583°N, 82.48472°W, 9.vii.2003, M. Buck (1♂, DEBU); Manitoulin I., Square Bay, 45.7°N, 82.38333°W, 11.vii.2003, M. Buck (1♂, DEBU); Marmora, Hastings Co., 44.483359°N, 77.68088°W, 11.vi.1952, J.R. McGillis (1♂, CNC); McDonald Island, St. Lawrence Islands National Park, 44.313741°N, 76.171094°W, 14.vii–20.viii.1976, W. Reid (2♂, CNC); Metcalfe, Ottawa Division, 45.235824°N, 75.472712°W, 25–31.v.1983, 20.ix.1984, B.E. Cooper (3♂, CNC); Middle I., 41.68333°N, 82.68333°W, 4.vii.2003, dead tree, D.K.B. Cheung (1♂, DEBU); Milton, 43.51667°N, 79.88333°W, 26.v.1982, R. Young (1♂, DEBU); Muldrew Lk., nr. Gravenhurst, 44.87917°N, 79.40972°W, 10–16.vi.2005, O. Lonsdale (1♂, DEBU); Normandale, Haldimand-Norfolk R.M., 42.712251°N, 80.312022°W, 25–29.v.1956, J.R. Lonsway (4♂, CNC); North Gower, Ottawa Division, 45.13152°N, 75.716161°W, 06.viii.1984, D. Bell (1♂, CNC); Oakville, 43.45°N, 79.68333°W, 22.v.1976, 5.vii.1978, W.A. Attwater (3♂, DEBU); Oakville, Field NE of Kingsway and Ford Dr., 43.493°N, 79.6658°W, 22.vii.2005, M. Bergeron (1♂, DEBU); Oakville, nr. Hwy 25 & Burnhamthorpe Rd., 43.45389°N, 79.79222°W, 19.viii.2004, J. Klymko (1♂, DEBU); Ohsweken, 43.06944°N, 80.11806°W, 13.v.1982, A. John (2♂, DEBU); Orwell, 42.77639°N, 81.03333°W, 15.vi.1978, W.A. Attwater (1♂, DEBU); Ottawa, 45.41667°N, 75.7°W, 1905, J. Fletcher, 08.ix.1912, J.I. Beaulne, 10.vii.1914, G. Beaulieu, 08.vi.1927, C.H. Curran, 02.ix.1984, 02.ix.1985, 14.ix.1986, 30.v.1987, 21.viii–11.ix.1988, J.R. Vockeroth, (6♂, 8♀, CNC, DEBU); P. Cutterbuck Pd, Boxall, Elgin County, 24.vi.1990, 20.v.1991, I. Carmichael (2♂, CNC); Pinery Provincial Park, Nipissing Trail, 43.240278°N, 81.844722°W, 07.vii.2004, [hand collected], J.H. Skevington, L. Bartels (2♂, CNC); Point Pelee Natl. Pk., 41.95833°N, 82.5125°W, 19.vii.1978, D. Morris, 26.vi.1979, D.L. Krailo, 25.vii.1979, W.A. Attwater, 14.vii.1982, C. Hare (5♂, DEBU); Point Pelee Natl. Pk., Fish Point, 41.725°N, 82.67222, 1.x.2000, M. Cripps (1♂, DEBU); Point Pelee Natl. Pk., The Tip, 41.91427°N, 82.51064°W, 17.vii.2003, H. Carscadden (1♂, DEBU); Point Pelee Natl. Pk., West Beach, 41.98333°N, 82.54722°W, 10–23.ix.1999, Malaise & pan traps, O. Lonsdale, 4.vii.2000, E. Reichert (2♂, DEBU); Point Pelee, Essex Co., 41.956157°N, 82.514529°W, 05–10.vi.1925, 04.vi.1929, G.S. Walley (4♂, CNC); Port Franks, Karner Blue Sanctuary, 43.21667°N, 81.9°W, 10.vii.1996, J. Skevington (1♂, DEBU); Port Stanley, 42.66667°N, 81.21667°W, 10.v.1922, G.J. Spencer (3♂, DEBU); Puslinch, 43.5°N, 80.2°W, 18–20.vi.1983, Malaise, Coote & Marshall (1♂, DEBU); Rondeau Park, Chatham-Kent Division, 42.328932°N, 81.845165°W, 10.vii.1962, S.M. Clark (1♂, CNC); Rondeau Prov. Pk., Harrison Trail nr. group campground, 42.29889°N, 81.84667°W, 17.vi.2003, H. Carscadden (1♂, DEBU); Rondeau Prov. Pk., Marsh Trail North, 42.3°N, 81.85°W, 20.vii.2004, J. Klymko (2♂, DEBU); Rondeau Prov. Pk., South Point, 42.25°N, 81.86667°W, 7.ix.2003, M. Buck (2♂, DEBU); Rondeau Prov. Pk., South Point Trail, nr. east parking lot, 42.26167°N, 81.84694°W, 17.vi.2003, S.M. Paiero, 29.v–16.x.2003, Malaise, S.A. Marshall, 16.vii.2003, H. Carscadden, 5.ix.2003, M. Buck (11♂, DEBU); Sewage Lake, Port Stanley, Elgin County, 42.679588°N, 81.246772°W, 22.viii.1990, I. Carmichael (2♂, CNC); Smiths Falls, Lanark County, 44.900397°N, 76.019364°W, 22.vi.1984, J.R. Vockeroth (5♂, 10♀, CNC); St. Thomas, Elgin County, 42.77852°N, 81.175149°W, 27.vii.1924, H.G. Dyar (1♂, CNC); Strathroy, Middlesex Co., 42.955521°N, 81.623292°W, 28.vi.1920, 03.viii.1925, H.F. Howden (2♂, CNC); Turkey Point, 42.69306°N, 80.32778°W, 15.vi.2003, S.A. Marshall (1♂, DEBU); Turkey Point Prov. Pk., site 2, 42.7077°N, 80.34139°W, 15.vi–5.vii.2011, Malaise, Brunke & Paiero (1♂, DEBU); Vineland, 43.15°N, 79.4°W, viii.1956, H.W.H. Zavitz, 7.vi.1979, B. Merchant (2♂, DEBU); Walpole Island, 42.6125°N, 82.51528°W, 26.v.1993, B. Larson (1♂, DEBU); Wasaga Beach, 44.49861°N, 80.01667°W, 12.ix.1981, E.J. Hancock (1♂, DEBU); Wasaga Beach, Nottawasaga R., 44.5205°N, 80.0162°W, 8.vi.1992, R.W. Burgess (2♂, DEBU); Woodbridge, field along Vaughn Mills Rd., 43.80417°N, 79.61111°W, 10.vi.2006, M.D. Bergeron (1♂, DEBU); 51.25377°N, 85.32321°W, 15.viii.1915, W.A. Ross (1♂, DEBU); **Quebec:** Abbotsford, 45.437637°N, 72.887923°W, 30.viii.1935, 12.viii.1936, 16.vi.1937, G.E. Shewell (2♂, 1♀, CNC); Beechgrove, Les Collines-de-l'Outaouais, 45.64508°N, 76.123602°W, 27.vi.1984, J.R. Vockeroth (4♀, CNC); Bourgeois Lake, Gatineau Park, 45.50128°N, 75.873815°W, 11.vi.1987, J.R. Vockeroth (3♂, CNC); Fairy Lake, 30.v.1965 (1♂, CNC); Hemmingford, Les Jardins-de-Napierville, 45.04571°N, 73.588046°W, 26.vi.1923, C.H. Curran (1♀, CNC); Hull, Communaute-Urbaine-de-l'Outaouais, 45.447639°N, 75.733192°W, 10.vi.1923, C.H. Curran (1♂, ♀, CNC); Knowlton, Brome-Missisquoi, 45.216716°N, 72.514769°W, 17.vii.1968, J.R. Vockeroth (1♂, CNC); Lac Bernard, 07.viii.1938, G.E. Shewell (1♂, CNC); Lac Phillipe, Gatineau Park, 45.603081°N, 75.997235°W, 25.vii.1987, J.R. Vockeroth (1♂, CNC); Lac-Megantic, Le Granit, 45.57781°N, 70.884105°W, 17.vi.1923, C.H. Curran (3♂, CNC); Missisquoi Bay, Brome-Missisquoi, 45.040124°N, 73.110799°W, 28.vii.1936, G.E. Shewell (1♂, CNC); Montreal, 45.51667°N, 73.65°W, 10.vi.1906 (1♂,

DEBU); Norway Bay, Pontiac, 45.518425°N, 76.407276°W, 22.viii.1938, G.E. Shewell (2♂, CNC); Old Chelsea, 45.483°N, 75.867°W, 20.v.1987, J.R. Vockeroth (3♀, CNC); Old Chelsea, Les Collines-des-L'Outaouais, 45.499972°N, 75.814667°W, 20.v.1987, J.R. Vockeroth (4♂, CNC); St. Anne, Communaute-Urbaine-de-Quebec, 46.871112°N, 71.448222°W, 27.vii.1933 (1♂, CNC); Thunder River, 50.275192°N, 64.768603°W, 19.vi.1930, W.J. Brown (1♀, CNC); **Saskatchewan:** Regina, Division No. 6, 50.454228°N, 104.612885°W, 20.vi.1908, T.N. Willing (1♀, CNC); **United States of America: California:** Davis, 38.544904°N, 121.740514°W, 11.iv.1950, 26.v.1955, A.T. McClay (2♂, CNC); 41.5°N, 120.6°W, 24.v.2007, B.C. Kondratieff (1♂, CSU); **Colorado:** Fort Collins, 40.58526°N, 105.084423°W, 20.vii.1938 (7♀, CNC); **Connecticut:** Winnipauk, 41.146485°N, 73.421787°W, 04.viii.2012, C.W. Johnson (1♂, CNC); **Georgia:** Pine Mountain, Rabun County, 33.675951°N, 84.11491°W, 427m, 15.v.1957, W.R. Mason (1♂, CNC); **Idaho:** Spirit Lake, 46.274303°N, 122.133704°W, 18.v.1928, G.S. Walley (1♂, CNC); **Illinois:** Champaign, 40.11642°N, 88.243383°W, 30.x.1956, J.F. McAlpine (1♂, CNC); Charleston, 39.496146°N, 88.176152°W, 11.v.1929, A.R. Park (3♀, CNC); Decatur, 39.840315°N, 88.9548°W, 03.vii.1932, A.R. Park (1♀, CNC); Macomb, McDonough County, 40.470581°N, 90.666542°W, 10–11.vi.1963 (7♂, CNC); Seymour, 40.108044°N, 88.426468°W, 14.iv.1929, Park & Ross (3♀, CNC); Urbana, 40.1°N, 88.2°W, 23.ix.1927, 26.iv.1928, A.R. Park (1♂, 1♀, CNC); Urbana, Dunlap Orchard, Underbands, 40.1°N, 88.2°W, 28.iv.1933, H.E. McClure (1♀, CNC); Urbana, Kale Fields, 40.1°N, 88.2°W, 30–31.vii.1935, E.M. Heiss (1♂, 5♀, CNC); Urbana, University Flower Gardens, 40.1°N, 88.2°W, 04.vii.1935, E.M. Heiss (1♀, CNC); **Indiana:** Plymouth, 41.348115°N, 86.310119°W, vi–viii.1918, M.R. Smith (1♂, CNC); **Iowa:** Ames, 42.03°N, 93.6167°W, 16.vi–13.vii.1923 (12♂, CNC); Ames, Osburn, 42.03°N, 93.6167°W, C.W. Johnson (1♂, CNC); Pleasant Valley, 48.90667°N, 122.70333°W, 05.vii.1928, G.S. Walley (1♂, CNC); Thompson, 43.371344°N, 93.773556°W, 18.v.1928, G.S. Walley (2♂, CNC); **Maryland:** 5 km East of Grantsville, 39.694933°N, 79.092623°W, 12.viii.1986, K.G.A. Hamilton (1♂, CNC); Rayville, 39.649799°N, 76.700699°W, 28.vii.1989, J.A. Wolinski (1♂, USNM); **Michigan:** Ag. Coll. Mich. [Agriculture College Michigan?], 42.723048°N, 84.481183°W, 03.iv.1905, 14.ix.1920, 18.vii.1923, L.G. Gentner (6♂, CNC); **Mississippi:** Agr. Col. Miss. [Agriculture College Mississippi?], 30.8°N, 89.683°W, 12.iii.1920 (1♂, CNC); Lafayette County, 34.366667°N, 89.516667°W, v–vi.1945, F.M. Hull (1♂, CNC); Oxford, 34.366495°N, 89.519248°W, 27.iii.1943, W.R. Mason (2♂, CNC); Oxford, 34.366495°N, 89.519248°W, 29.iii.1943, W.R. Mason (1♂, CNC); **Missouri:** Columbia, 38.951705°N, 92.334072°W, 08.iv.1905 (6♂, CNC); **New Hampshire:** Coos Co., First Connecticut Lake, 45.093871°N, 71.244495°W, 18.vi.1982, J.R. Vockeroth (1♂, 5♀, CNC); Durham, 43.133974°N, 70.926448°W, 11–28.viii.1981, K. Tracewski (2♂, CNC); Mount Washington, Auto Road, 44.289083°N, 71.225223°W, 1463m, 14.viii.1958, J.R. Vockeroth (2♂, CNC); Mount Washington, Lakes of the Clouds, 44.258396°N, 71.31762°W, 1524m, 09.viii.1954, Becker Munroe & Mason (1♂, CNC); **New Jersey:** Delaware Water Gap, 40.979262°N, 75.142956°W, 01.vii.2012, C.W. Johnson (1♂, CNC); Riverton, 40°N, 74.983°W, 28.v.2012, C.W. Johnson (1♂, CNC); **New York:** Grindstone Cr., 43.46°N, 76.05°W, 28.v.2009, B.C. Kondratieff (1♂, CSU); Ithaca, 42.433°N, 76.483°W, 28.viii.1914, 11–13.v.1915 (5♂, CNC); Johnson Hollow Brook, 42.32°N, 74.47°W, 25.vi.2007, B.C. Kondratieff (1♂, CSU); Lake Tear, Essex County, 44.10704°N, 73.935403°W, 1311–1402m, 29.vii.1920 (1♂, CNC); McLean, 42.542739°N, 76.287971°W, 25.v.1912 (1♂, CNC); Rhinebeck, 41.931829°N, 73.907437°W, 27.vii.1967, C.R. Crosby (1♂, CNC); **North Carolina:** Bubbling Spring Creek, near Tennessee Bald, 35.79861°N, 82.85444°W, 1554m, 17.vii.1957, J.G. Chillcott (1♂, CNC); Highlands, 35.05°N, 83.183°W, 1158m, 25.v–03.vi.1957, J.R. Vockeroth, 21–31.v.1957, W.R.M. Mason (7♂, CNC); Pisgah National Forest, 36.183°N, 81.77°W, 24.v.1999, W.K. Holston (1♂, CSCA); **Oregon:** Gold Beach, 4.vi.2009, S.A. Marshall (1♂, DEBU); **Pennsylvania:** Lewisburg, Union County, 40.964529°N, 76.884413°W, 26.viii.1981, J.R. Vockeroth (1♂, CNC); **South Carolina:** Oatland, Georgetown County, 33.495168°N, 79.347276°W, 22.v.1984, H.J. Teskey (1♂, CNC); **Tennessee:** Great Smoky Mountain National Park, Clingman's Dome, 35.562755°N, 83.498498°W, 1920–2024m, 18.vi.1957, J.R. Vockeroth (3♂, CNC); Great Smoky Mountains National Park, Upland Research Lab, 35.86°N, 83.48°W, 600m, 27.v.1999, Metz (1♂, CSCA); University Farm, Knoxville, 35.949663°N, 83.92944°W, 20.v.1957, J.R. Vockeroth (1♂, CNC); **Virginia:** Blacksburg, 37.229573°N, 80.413939°W, 640m, 28.v.1962, J.R. Vockeroth (1♂, CNC); Longshop, Montgomery County, 549m, 29.v.1962, J.R. Vockeroth (1♂, CNC); Shenandoah National Park, Big Meadow, 38.5°N, 78.45°W, 1300m, 9–20.v.1987, Malaise trap, BRC Hym. Team (2♂, CNC); **Wisconsin:** Madison, 43.0667°N, 89.4°W, 06.viii.1920, C.L. Fluke (1♂, CNC).

Platycheirus rosarum

Canada: Alberta: Jumping Pound, 51.066667°N, 114.55°W, 11–12.viii.1962, Malaise trap W.R.M. Mason (1♀, CNC); Wagner Bog, 8 km North of Stony Plain, 53.601081°N, 114.003054°W, 11.vi.1980, Wood & Lafontaine (1♂, CNC); **British Columbia:** 5 miles NW of Oliver, 49.233689°N, 119.642571°W, 04.vii.1949, H. & A. Howden (1♀, CNC); Douglas Lake, 50.166005°N, 120.202783°W, 30.vii.1924, E. Criddle (1♀, CNC); Lac La Hache, 51.81269°N,

121.472589°W, 18.viii.1964, L.H. McMullen (1♀, CNC); Summit Lake, Mile 392 of Alaska Highway, Northern Rockies R.D., 58.648201°N, 124.666912°W, 1280.16m, 31.vii.1959, R.E. Leech (1♀, CNC); **Manitoba:** Grandview, 51.173114°N, 100.696364°W, 23.vii.1945, F.I.S. (1♂, CNC); Seddon's Corner, Life Table Plot, 50.0621°N, 96.2921°W, 7.viii.1962, (1♀, DEBU); **New Brunswick:** Chamcook 45.1167°N, 67.0667°W, 16.viii.1957, G.E. Shewell (1♀, CNC); Kouchibouguac N[ational] P[ark], 46.85°N, 64.97°W, 30.vi.1977, J.R. Vockeroth, 06–11.vii.1977, J.F. McAlpine, 22.vii–22.viii.1977, G.A. Calderwood, 05.vii–13.viii.1978, S.J. Miller, 02.viii.1978, D.B. Lyons (3♂, 7♀, CNC); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 23.vii–01.viii.1955, E.F. Cashman (3♂, CNC); Pasadena, 47.532°N, 52.7581°W, 16.vi–12.viii.1984, D.W. Langor (4♂, 6♀, DEBU); Pynn's Bk., 49.087°N, 57.541°W, 12.vii.1984, D.W. Langor (1♀, DEBU); **Nova Scotia:** CBHnt. Pk. [Cape Breton Highlands National Park], Chesticamp R., 46.72°N, 60.66°W, 14.vii.1983, D.M. Wood (1♀, CNC); CBHnt. Pk. [Cape Breton Highlands National Park], French Lake, 46.72°N, 60.66°W, 24.vi–13.vii.1984, H.J. Teskey (1♂, 1♀, CNC); CBHnt. Pk. [Cape Breton Highlands National Park], French Lake Bog, 46.72°N, 60.66°W, 08–15.vii.1983, sweeping, G. & M. Wood, 8–13.vii.1984, H.J. Teskey (2♂, 2♀, CNC); CBHnt. Pk. [Cape Breton Highlands National Park], North Mt., 46.72°N, 60.66°W, 400m, 01.vii.1983, J.R. Vockeroth (1♂, CNC); Kentville, 45.0667°N, 64.48333°W, 09.vii.1924, R.P. Gorham (1♂, CNC); White P[oin]t B[ea]ch, Queens Co[unty], 43.996°N, 64.727°W, 21.vii.1934, J. McDunnough (1♂, CNC); **Ontario:** 2 mi[les] N[orth of] Metcalfe, 45.23°N, 75.4667°W, 28.vi.1982, B.E. Cooper (1♀, CNC); 7 miles East, Griffith, 45.242753°N, 77.031244°W, 11.vi–05.viii.1983, B.E. Cooper (3♀, CNC); Alfred, 45.55767°N, 74.88336°W, 11.vii.1974, 17.vi.1976, H.J. Teskey (2♀, CNC); Alfred Bog (approximate), 45.55767°N, 74.88336°W, 26.v.1975, 01.vi.1981, Malaise trap, B D.M. Wood (4♀, CNC); Algonquin Prov. Pk., Costello Creek, 45.599°N, 78.3304°W, 23.vi.2001, W.J. Crins (1♂, DEBU); Algonquin Prov. Pk., Crossbar Lake, 45.32708°N, 78.29901°W, 7–21.vi.2008, Malaise, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Little Madawaska River, 45.2545°N, 76.7606°W, 13.viii.1995, B. Larson (1♀, DEBU); Algonquin Prov. Pk., Radiant Lake, East end of lake, 45.9948°N, 78.2641°W, 31.viii.1997, W.J. Crins (1♂, DEBU); Algonquin Prov. Pk., Sitting Duck Lake, 45.44985°N, 78.46831°W, 27.vi–11.vii.2007, Malaise, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Swan Lk. Stn., Scott Lk., 45.4875°N, 78.72222°W, sweep, S.A. Marshall (1♂, DEBU); Atikokan, 4 miles East on Highway 11, 48.723518°N, 91.313476°W, 05.vii.1978, H.J. Teskey (1♀, CNC); Bedford Mills, Frontenac Co., 44.602169°N, 76.404773°W, 14.vi.1973, P. Ward (1♂, CNC); Blackburn, 45.443531°N, 75.513739°W, 06.viii.1926, F.P. Ide, 13.vi.1951, J.F. McAlpine, 17.viii.1956, C.D. Miller (5♂, 2♀, CNC); Bobcaygeon, 44.533°N, 78.55°W, 26.vi.1931, J. McDunnough (3♂, CNC); Carleton Co. 8 km S Richmond fen, 45.069535°N, 75.854558°W, 18.viii.1983, B. E. Cooper, 01–15.ix.1983, G. & M. Wood (2♂, 3♀, CNC); Charlton, 47.808313°N, 79.99539°W, vi.1973, H.S. Parish (1♂, CNC); Copetown, Summit Muskeg, 43.24416°N, 80.05638°W, 25.vi.2007, S.A. Marshall (1♂, DEBU); Damascus, 43.91667°N, 80.48194°W, 1.vi.1986, M.J. Sharkey (1♀, DEBU); Damascus, Wilde Lake Bog, 43.91667°N, 80.48333°W, 4.viii.1986, on pitcher plants, 8.vi.1991, sweep, 25–31.viii.1992, pantraps, S.A. Marshall (3♀, DEBU); Guelph, 43.55°N, 80.25°W, 16.ix.1970, T.C. Taylor (1♀, DEBU); Hamilton, Westdale Ravine, 43.264°N, 79.898°W, 24.viii.1961, R.M. Idema (1♂, CNC); Huntsville, S. Waseosa Rd., 45.38056°N, 79.29167°W, 16.viii.1993, 13.viii.1995, 27.vii.1997, W.J. Crins (4♂, DEBU); Iroquois Falls, 48.761811°N, 80.685262°W, 30.vi.1987, J.R. Vockeroth (1♂, CNC); Manitoulin I., Carter Bay, 45.60639°N, 82.14083°W, 13.vii.2003, M. Buck (1♀, DEBU); Manitoulin I., Sand Bay, 45.80167°N, 82.79333°W, 17.vii.2003, M. Buck (1♀, DEBU); Mer Bleu, 5 mi[les] E Ottawa, 45.40331°N, 75.5083°W, 28.v.1925, A. Richardson, 05.viii.1926, G.S. Walley, 02.vi.1927, F.P. Ide, 03.vi.1938, A.R. Brooks, 19.vii.1963, J.R. Vockeroth, 03.vi–03.ix.1966, Malaise trap, D.D. Munroe (89♂, 222♀, CNC, DEBU); Midland, 44.75°N, 79.88333°W, 9.viii.1977, A.A. Konecny, 10.viii.1977, K.N. Barber (1♂, 2♀, DEBU); Miller Creek Conservation Area, 42.95556°N, 78.975°W, 5.vi.1999, W.J. Crins (2♂, DEBU); Neys Prov. Pk., Dune Trail, 48.78111°N, 86.61472°W, 7–19.vii.2002, Malaise trap, M. Buck (1♀, DEBU); North Gower, 45.131508°N, 75.71616°W, 07.viii.1984, D. Bell (1♂, CNC); Ogoki, 51.6167°N, 85.93°W, 08.vii.1952, J.B. Wallis (1♀, CNC); Orillia, 44.60417°N, 79.42361°W, 5.vi.1925, C.H. Curran (1♂, DEBU); Ottawa, 45.41667°N, 75.7°W, 29.v.1925, 02.vi.1927, C.H. Curran, 27.vii.1946, A.R. Brooks, 15.vii.1957, J.F.H. Martin (9♂, 8♀, CNC, DEBU); Point Pelee Natl. Pk., 41.95833°N, 82.5125°W, 18.viii.1983, dry Malaise trap, Marshall Logan & Grigsby (1♂, DEBU); Point Pelee Natl. Pk., 41.95833°N, 82.5125°W, 25.vii.1976, J.M. Heraty (1♀, DEBU); Port Franks, Watson Property nr. L-Lake, 43.21667°N, 81.9°W, 13–15.vi.1996, Malaise trap, J. Skevington (1♀, DEBU); Pukaskwa Natl. Pk., SW of Admin. Bldg., 48.60167°N, 86.28861°W, 19–22.vii.2001, Malaise trap, M. & B. Buck (1♀, DEBU); Richmond fen (5 m. South of Richmond), 45.139863°N, 75.849864°W, 13.ix.1978, G. & M. Wood (2♂, CNC); Smiths Falls, 44.903828°N, 76.0216°W, 22.vi.1984, B.M. Bissett (1♂, CNC); St. Lawrence Islands National Park, Grenadier Island Centre, 44.38673°N, 75.90123°W, 16.vi.1975, H.J. Teskey, 18.vii.1975, Malaise trap, R.J. McMillan (1♂, 1♀, CNC); Tobermory Bog, 45.22583°N, 81.64167°W, 7.viii.2000, S.A. Marshall (1♀, DEBU); Tobermory, 1 km S, 45.23333°N, 81.63333°W, 22.vii.1995, S.A. Marshall (1♀, DEBU); **Quebec:** 4 miles North of Eardley, 45.605811°N, 76.106524°W,

20–25.viii.1971, D.M. Wood (2♀, CNC); Abbotsford, 45.43°N, 72.88333°W, 30.viii.1936, G.E. Shewell (1♀, CNC); Abbotsford, 45.437637°N, 72.887923°W, 09.vii.1956, J.R. Lonsway (1♀, CNC); Beechgrove, 45.65°N, 76.13°W, 29.vi.1962, J.R. Vockeroth (1♀, CNC); Duncan Lake, n[ea]r Rupert, 45.681389°N, 76.050278°W, 10.vi–1.viii.1969, J.F. McAlpine (1♂, 5♀, CNC); Duplinter, Lac Delorme, 54.5167°N, 69.8667°W, 7–12.vii.1977, D.M. Wood (2♂, CNC); Gatineau Co., Masham, 45.643433°N, 76.026846°W, 15.viii.1974, H.J. Teskey (1♀, CNC); Hemmingford, 45.04571°N, 73.588046°W, 26.vi.1923, C.H. Curran (1♂, CNC); Ile d'Anticostie, Jupiter, 49.530833°N, 63.280556°W, 27.vii.2007–10.viii.2007, Malaise trap (1♀, CNC); La Verendrye Prov. Pk., 46.783191°N, 76.249004°W, 19.viii.1965, D.M. Wood (1♀, CNC); Masham T[o]w[nshi]p, Gatineau Co., 45.643433°N, 76.026846°W, 10.vii–18.viii.1974, D.M. Wood (8♀, CNC); Mile 139, Route 58, La Verendrye Provincial Park, 48.097161°N, 77.70512°W, 30.vi.1965, D.M. Wood (2♂, 6♀, CNC); Mile 139, Route 58, La Verendrye Provincial Park, 48.097161°N, 77.70512°W, 01.vii.1965, D.M. Wood (8♀, CNC); Rupert House, 51.487642°N, 78.748312°W, 27.vi.1949, D.P. Gray (1♀, CNC); Schefferville, 54.802248°N, 66.816053°W, 18.vi.1960, B.V. Peterson (3♂, CNC); Schefferville, 54.802248°N, 66.816053°W, 19.vii.1981, F. Brodo (3♀, CNC); Ste. Catherine, Cte. Portneuf, 46.85°N, 71.6167°W, 13–15.viii.1971, D.M. Wood (1♂, CNC); **Saskatchewan:** Christopher Lake, 53.539968°N, 105.789257°W, 11–15.vii.1959, A. & J. Brooks (2♀, CNC); Waskesiu Lake, 53.925028°N, 106.081366°W, 26.vii.1939, A.R. Brooks (1♀, CNC); **Yukon Territory:** Dawson, 64.042839°N, 139.416794°W, 04.vii.1949, W.M. Judd (1♀, CNC); Dempster Hwy, km 206.6, 65.42896°N, 138.21001°W, 6.vii.1985, S.A. Marshall (1♀, DEBU); La Force L[ake], 62.68333°N, 132.3°W, 1005.84m, 10.vii.1960, J.E.H. Martin (1♀, CNC); Ross River, 61.981832°N, 132.447121°W, 914.4m, 20.vi.1960, J.E.H. Martin (1♂, CNC); Swim Lakes, 62.2167°N, 133°W, 975.36m, 23.vi.1960, J.E.H. Martin (1♀, CNC); **United States of America: Alaska:** Trapper Creek, 62.32°N, 150.23°W, 23.vi–19.vii.1984, S. & J. Peck (1♂, CNC); Anchorage, 61.218054°N, 149.90027°W, 24.vii.1951, R.S. Bigelow (1♂, CNC); **Maine:** E[ast] Dover, 45.186721°N, 69.170044°W, 09.vii.1965, D.M. Wood (1♀, CNC); **Massachusetts:** Lenox Eastover, 42.35647°N, 73.284833°W, 5–9.vii.1982, H.J. Teskey (4♀, CNC); **Vermont:** Ferdinand Township, 44.712396°N, 71.753301°W, 16–17.vi.1975, H.J. Teskey (3♀, CNC); **Wisconsin:** Madison, 7.vii.1918, C.L. Fluke (1♂, DEBU).

Platycheirus rufigaster

Holotype ♂ *Platycheirus rufigaster* Vockeroth, 1990: *Platycheirus* HOLOTYPE *rufigaster* Vockeroth CNC No. 17280 / [Canada] N[orth].W[est].T[erritories]. -21 m[iles].e[ast]. Tuktoyaktuk [69.4225°N, 132.1342°W] 2-5.VII.71 D.M. Wood / CNC DIPTERA #72498 (CNC). **Canada: Northwest Territories:** 21 miles east Tuktoyaktuk, 69.4225°N, 132.1342°W, 2–12.vii.1971, D.M. Wood (3♂, 2♀, CNC).

Platycheirus russatus

United States of America: California: Colton, 34.073902°N, 117.313655°W, 18.x.1909, G.R. Pilate (1♂, CNC); Santa Ana River, 29.vi.1965, J. Bath (1♂, UCR); **Nevada:** Fallon, 39.45510°N, 118.76744°W, 304m, 1.vi.1930, E.L. Bell (1♀, AMNH).

Platycheirus sabulicola

Holotype ♂ *Platycheirus sabulicola* Vockeroth, 1990: HOLOTYPE *Platycheirus sabulicola* Vockeroth CNC No. 19482 / [Canada] YUKON [Territory], Carcross sand dunes [60.18722°N, 134.69472°W] 16-18.VI.1982 G. & M. Wood / CNC DIPTERA #72501 (CNC). **Canada: Northwest Territories:** Wrigley, 63.186017°N, 123.361563°W, 06.vi.1969, G. E. Shewell (1♂, CNC); **Saskatchewan:** Lake Athabaska, Yakow Lake dunes, 59.2°N, 108.0167°W, 21–29.vi.1988, M. Polak M. Wood (1♂, CNC); **Yukon Territory:** Carcross sand dunes, 60.18722°N, 134.69472°W, 16–18.vi.1982, G. & M. Wood (13♂, 5♀, CNC).

Platycheirus scamboides

Canada: Ontario: Chatterton, 44.24583°N, 77.47917°W, 25.viii.1948, John C. Martin, 7–8.viii.1968, R.H. Parry (2♂, CNC, DEBU); Normandale, 42.7°N, 80.3167°W, 27.v.1956, J. R. Vockeroth (1♂, CNC); Orwell, 42.77639°N, 81.03333°W, 28.v.1979, B. Merchant (1♂, DEBU); Point Pelee, 41.9667°N, 82.5167°W, 21.vi.1927, F. P. Ide (1♂, CNC); **United States of America: Connecticut:** Storrs, 41.808431°N, 72.249523°W, 22.vii.1953, H. W. Smith (1♂, CNC); **Massachusetts:** West Springfield, 42.107038°N, 72.620368°W, 22.v.1916, H.E. Smith (1♂, CNC); **New Hampshire:** Durham, 43.133974°N, 70.926448°W, 11.viii.1981, K. Tracewski (1♂, CNC); **New Jersey:** Ramsey, 41.057319°N, 74.140977°W, 05.vi.1916, (1♂, CNC); **New York:** Babylon, Long Island, 40.695655°N, 73.325675°W, 22.v.1936, Blanton & Borders (1♂, CNC); Flushing, 40.765808°N, 73.833084°W, 29–30.v.932, C. H. Curran (4♂,

CNC); Pine Island, 41.297872°N, 74.459324°W, 08.ix.1910 (1♂, CNC); **Virginia:** Cascades Recr. Area, 37.35°N, 80.60833°W, 11–25.v.2008, A.D. Young (1♂, DEBU).

Platycheirus scambus

Canada: Alberta: Banff, 51.1667°N, 115.567°W, 25.v.1922, C. B. D. Garrett (1♀, CNC); Banff, 51.1667°N, 115.567°W, 29.v–25.vii.1922, C. B. D. Garrett (6♂, 8♀, CNC); Banff Natl. Pk., Two Jack Lake, 51.23053°N, 115.49782°W, 1444m, 14.vii.2010, A.D. Young (1♂, DEBU); Elkwater Lake, 49.660514°N, 110.283443°W, 12.vi.1956, E.E. Sterns (1♂, CNC); McMurray, 56.73°N, 111.3833°W, 25.vi.1953, G.E. Ball (1♂, CNC); **British Columbia:** 10 miles North of Terrace, 54.669741°N, 128.717772°W, 16.vii.1960, B. Heming (1♂, CNC); 32 miles South West of Terrace, 54.194076°N, 129.140296°W, 30m, 06–11.vi.1960, W.W. Moss (3♂, CNC); Agassiz, 49.23°N, 121.767°W, 05.ix.1922, R. Glendenning (1♂, CNC); Alta Lake Mons, 50.1082°N, 122.9898°W, 10–11.vi.1926, J. McDunnough (2♀, DEBU); Atlin, 59.5775°N, 133.69236°W, 671m, 13–30.vii.1955, B.A. Gibbard (2♂, CNC); Gagnon Road, 6 miles West of Terrace, 54.499294°N, 128.716143°W, 67m, 08.vi.1960, W.W. Moss, 20.vi.1960, J.G. Chillcott, 24.vi.1960, C.H. Mann (4♂, CNC); Hot Springs Area, Lakelse Lake, 54.35°N, 128.5333°W, 14.vi.1960, G.E. Shewell (3♂, CNC); Milner, 49.12645°N, 122.624898°W, 12.vii.1953, W.R.M. Mason (3♂, CNC); Mission City, 49.140168°N, 122.309497°W, 06.vi.1953, W.R.M. Mason, 14.vi.1953, Edith Mason, 28.vi.1953, G.J. Spencer (6♂, CNC); Moresby Camp, Queen Charlotte Islands, 53.052012°N, 132.024416°W, 29.vi.1957, E.E. MacDougall (1♂, CNC); Nanaimo, Buttertubs Marsh, 49.17°N, 123.9691°W, 12.v.2005, sweeps in graminoids, J. Klymko (1♂, DEBU); Oliver, 49.18333°N, 119.55°W, 03.ix.1923, C. B. D. Garrett (1♀, CNC); Prince Rupert, 54.202612°N, 129.949475°W, 04.vi.1960, B. Heming, 18.vii.1960, C.H. Mann (5♂, CNC); Qualicum Bay, 49.396248°N, 124.610053°W, 15.iv.1955, R. Coyles (1♂, CNC); Robson, 49.33°N, 117.6833°W, 09.vi.1950, H.R. Foxlee (2♂, CNC); Ruskin, 49.198422°N, 122.441919°W, 26.vi.1953, G.J. Spencer (1♂, CNC); Sawmill Lake, Telegraph Creek, 50.320173°N, 119.912212°W, 335m, 02.vii.1957, R. Pilfrey (1♂, CNC); Shames, 16 Miles South West of Terrace, 54.409648°N, 128.935301°W, 32m, 23.vi.1960, B. Heming (1♂, CNC); Spring Creek, Terrace, 54.539511°N, 128.618192°W, 67m, 11.vi.1960, R. Pilfrey (3♂, CNC); **Manitoba:** 5 miles South West of Shilo, Floodplain Community near Tamarack Bog, 49.763964°N, 99.717403°W, 07.vii.1958, R. Hurley (1♂, CNC); 5 miles South West of Shilo, Tamarack Bog Community, 49.763964°N, 99.717403°W, 16.vi.1958, C.D.F. Miller (1♂, CNC); Aweme, 49.70833°N, 99.60278°W, 15.vi.1924, N. Criddle (1♂, DEBU); Churchill, 58.768828°N, 94.171563°W, 28.vi–28.vii.1948, W.R. Richards (2♂, CNC); Churchill Area, Goose Creek Road, between Pumphouse and the Weir, 58.63°N, 94.23°W, 02.vii.2007, J. Skevington (1♂, CNC); Churchill Area, Pump House, 58.626111°N, 94.230278°W, 13.vii.2007, sweep, A. Renaud (1♂, CNC); Gillam, 56.35333°N, 94.714404°W, 05.vii.1950, J.F. McAlpine (1♂, CNC); Minnedosa, 50.245278°N, 99.842778°W, 07.vi.1926, R.M. White (1♂, CNC); **New Brunswick:** Chamcook, 45.05°N, 66.83°W, 09.viii.1957, G.E. Shewell (1♂, CNC); Fredericton, 45.959225°N, 66.640351°W, 05.vii.1913, J.D. Tothill (1♂, CNC); Kouchibouguac National Park, 46.85°N, 64.9667°W, 30.vi.1977, J.R. Vockeroth, 06–13.vii.1977, J.F. McAlpine, 28.viii.1978, S.J. Miller (7♂, CNC); St. Andrews, 45.079914°N, 67.058441°W, 03–11.viii.1957, G.E. Shewell (2♂, CNC); **Newfoundland and Labrador:** Cartwright, Labrador, 53.7°N, 57°W, 02.vii–07.viii.1955, E.E. Sterns, 03–28.vii.1955, E.F. Cashman (86♂, CNC); Cheeseman Provincial Park, 47.629143°N, 59.25766°W, 23.vi.1983, A. Borkent (1♂, CNC); Goose Bay, Labrador, 53.326031°N, 60.387266°W, 26.vi.1948, H.C. Friesen (2♂, CNC); Nicholsville, 49.192476°N, 57.451015°W, G.K. Noble (1♂, CNC); St. Anthony [Saint Anthony], 51.372031°N, 55.597546°W, 03.vii.1951, J.B. Wallis (1♂, CNC); Steenville, 48.55°N, 58.55°W, 19.vi.1979, B.V. Peterson (1♂, CNC); **Northwest Territories:** Norman Wells, 65.2667°N, 126.828015°W, 07.vii.1949, W. R. M. Mason, 27.vi.1969, G. E. Shewell (2♂, CNC); Reindeer Depot, Mackenzie Delta, 68.668974°N, 134.071574°W, 07–10.vii.1948, J. R. Vockeroth (2♂, CNC); Yellowknife, 62.45°N, 114.35°W, 11.vii.1949, E.F. Cashman (1♂, CNC); Yellowknife, Kam Lake, 62.423349°N, 114.402442°W, 20.vi.1966, G.E. Shewell (1♂, CNC); **Nova Scotia:** Cape Breton Highlands National Park, 0.5km East of Glasgow lake, 46.773977°N, 60.818772°W, 10.vii.1983, R.A. Layberry (1♂, CNC); Cape Breton Highlands National Park, Boardwalk Bog, 46.773977°N, 60.818772°W, 08.vii.1983, D.M. Wood (4♂, CNC); Cape Breton Highlands National Park, Middle Head, 46.656586°N, 60.365462°W, 24.vi.1983, J.R. Vockeroth (1♂, CNC); Cape Breton Highlands National Park, North Mountain, 46.73°N, 60.63°W, 400m, 22.vi–11.vii.1983, J.R. Vockeroth (3♂, CNC); Cape Breton Highlands National Park, North Side of Round Lake, 46.807944°N, 60.50644°W, 10.vii.1983, R.A. Layberry (1♂, CNC); Cape Breton Highlands National Park, Pleasant Bay, 46.73°N, 60.63°W, 09.vi.1984, B.E. Cooper (1♂, CNC); Cape Breton National Park, Paquette Lake, 46.833315°N, 60.431884°W, 02.vii.1983, L. LeSage (1♂, CNC); Cape North, 46.884555°N, 60.506046°W, 23.vi.1983, J.R. Vockeroth (5♂, CNC); Cranberry Island, Lockeport, 43.698851°N, 65.101044°W, 20.vii.1958, J.R. Vockeroth (1♂, CNC); Englishtown, Cape Breton, 46.281429°N, 60.543997°W, 04.vii.2012 (1♂, CNC); Hay Island, 46.02°N, 59.69°W, 23.vii.2007, D.B. McCorquodale (2♂, CBU); Highland Road, 15–10 miles North of Hunter, 46.123658°N, 60.764439°W, 08.vi.1984, H.J.

Teskey (1♂, CNC); Ironville, CBI, 46.13472°N, 60.45972°W, 2.vii.1992, W.J. Crins (1♂, DEBU); Lawrencetown, Halifax County, 44.644175°N, 63.344629°W, 19–20.vii.1967, H.F. Howden (2♂, CNC); Lockeport, 43.698745°N, 65.101044°W, 29.vii.1958, J.R. Vockeroth (1♂, CNC); Louisbourg, 45.93°N, 59.98°W, 21.viii.2007, D.B. McCorquodale (1♂, CBU); Morrison Beach, 45.71°N, 60.33°W, 4.vii.2007, L. MacInnis (2♂, CBU); Mount Uniacke, 44.903949°N, 63.842316°W, 05.viii.1958, J.R. Vockeroth (3♂, CNC); Pleasant Bay, 46.822961°N, 60.63°W, 2–11.vii.1984, H.J. Teskey (1♂, CNC); South Harbour, 45.865833°N, 60.445177°W, 27.vi.1983, J.R. Vockeroth (3♂, CNC); South Harbour Beach, 46.878287°N, 60.429055°W, 22.vi–06.vii.1983, J.R. Vockeroth (26♂, CNC); Truro, 45.35°N, 63.2667°W, 12.vii.1913, R. Matheson (1♂, CNC); **Ontario:** 5 km South West of Perth, 44.86464°N, 76.312432°W, 26.v.1987, J.R. Vockeroth (2♀, CNC); 7 miles East of Griffith, 45.243279°N, 77.031193°W, 02–08.vii.1983, B.E. Cooper (2♂, CNC); Algonquin Prov. Pk., 45.83611°N, 78.42917°W, 15.vi.1995, X. Sun (1♂, DEBU); Algonquin Prov. Pk., Cecil Lk., 45.4511°N, 78.4956°W, 3–17.vi.2009, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Crossbar Lake, 45.32708°N, 78.29901°W, 29.v–26.vi.2009, Malaise E. Proctor (3♂, DEBU); Algonquin Prov. Pk., Florence Lake, 45.44371°N, 78.49012°W, 3–17.vi.2009, Malaise, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Frontier Lk., 45.93°N, 77.58917°W, 9.viii.1999, W.J. Crins (1♂, DEBU); Algonquin Prov. Pk., Madawaska Lake, 45.32936°N, 78.30364°W, 1–12.vii.2007, Malaise, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Pondweed Lake, 45.46488°N, 78.43066°W, 1.vii.2009, Malaise, E. Proctor (1♂, DEBU); Algonquin Prov. Pk., Radiant Lake, East end of lake, 45.9948°N, 78.2641°W, 31.viii.1997, W.J. Crins (3♂, DEBU); Algonquin Prov. Pk., Sitting Duck Lake, 45.44985°N, 78.46831°W, 17.vi–05.viii.2008, Malaise, E. Proctor (3♂, DEBU); Algonquin Prov. Pk., Swan Lk. Stn., Scott Lk., 45.4875°N, 78.72222°W, 15.vi.1995, S.A. Marshall (3♂, DEBU); Alma, 43.73056°N, 80.50278°W, 3.vi.1977, K.N. Barber (1♂, DEBU); Ancaster, 43.2167°N, 79.98333°W, 8–10.viii.1969, J.E.H. Martin (1♂, CNC); Arkell, 43.53333°N, 80.16667°W, 6.vi.1978, J. Cappleman (2♂, DEBU); Black Rapids, Rideau River, 45.321266°N, 75.696493°W, 12.vi.1926, F.P. Ide (1♂, CNC); Burke Falls, 45.619883°N, 79.408748°W, 15.vii.1926, F.P. Ide (1♂, CNC); Camp 33, Lake Abitibi, 48.65°N, 79.83°W, 06.vii.1925, N.K. Bigelow (1♂, CNC); Canfield, 4 km S, 42.94167°N, 79.7375°W, 15.v.1987, J. Troubridge (1♂, DEBU); Carp Ridge, South March, 45.308477°N, 76.04119°W, 25.vi.1985, Teskey & Naismith (1♂, CNC); Collingwood, 44.50139°N, 80.24028°W, 24.v.1987, J.T. Troubridge (1♂, DEBU); Cranberry Lk., Runtz prop., 44.43333°N, 79.29333°W, 24.v–2.vi.2007, Malaise trap, Douglas *et al.* (1♂, DEBU); Dorset, 45.23333°N, 78.9°W, 21.viii.1977, G. Mouland (2♂, DEBU); Elora, 43.68333°N, 80.43333°W, 30.v.1978, J. Cappleman (1♂, DEBU); Fathom Five Natl. Pk., N Cove Is., 45.31528°N, 81.74444°W, 26.vi.1995, S.A. Marshall (1♂, DEBU); Fawn-Severn River confluence, 7.vii.2002, W.J. Crins (2♂, DEBU); Fergus, 43.7°N, 80.36667°W, 10.vi.1973, N.D. White, 6.vi.1990, Malaise trap, S.A. Marshall (2♂, DEBU); Guelph, 43.55°N, 80.25°W, 30.v.1968, L.L. Tibbles, 31.v.1973, D.H. Pengelly, 3.vi.1975, J.M. Cumming, 16.viii.1981, G.M. Grant (4♂, DEBU); Guelph, University Arboretum, 43.53611°N, 80.22917°W, 10–13.vi.1983, 26.v–13.viii.1991, Malaise trap (7♂, DEBU); Huntsville, S. Waseosa Rd., 45.38056°N, 79.29167°W, 31.v–17.vi.1995, 30.v.1998, W.J. Crins (12♂, DEBU); Kinburn, 45.38333°N, 76.18333°W, 20.vi.1965, J.E.H. Martin (1♂, CNC); Kitchener, Grand River, 43.24362°N, 80.09706°W, 9.viii.1990, H. Dewar (1♂, DEBU); London, 42.98333°N, 81.23333°W, W. Saunders (1♂, DEBU); Low Bush, Lake Abitibi, 48.90556°N, 80.00556°W, 03.vii–08.viii.1925, N.K. Bigelow (2♂, 9♀, CNC); Manitoulin I., Carter Bay, 45.60639°N, 82.14083°W, 22.vii–1.viii.2003, Malaise, Buck & Paiero (1♂, DEBU); Marmora, 44.48333°N, 77.6667°W, 11.vi.1952, J.R. McGillis (1♂, CNC); Middlesex Co., 43°N, 81.41667°W, 14.vi.1994, B. Larson (1♂, DEBU); Midland, 44.752113°N, 79.887253°W, 02.v–30.vii.1956, J.G. Chillcott (3♂, CNC); Mount Forest, 5 km SW, 43.94583°N, 80.77222°W, 6.vi.1993, J. Skevington (1♂, DEBU); Newmarket, 44.05°N, 79.46667°W, 24.v.1970, G.A. Surgeoner (1♂, DEBU); Niagara Glen, 43.13°N, 79.05°W, 02.vi.1926, G.S. Walley (1♂, CNC); Normandale, 42.718889°N, 80.339722°W, 29.v.1956, J.R. Lonsway, 02.vi.1956, J.R. Vockeroth (2♂, CNC); Orillia, 44.7167°N, 79.48333°W, 23.vii.1925, C.H. Curran (1♂, CNC); Orwell, Springwater Woods Cons. Area, 42.76667°N, 81.03333°W, 27.v.1989, S.A. Marshall (1♂, DEBU); Ottawa, 45.41667°N, 75.7°W, 09.vii.1913, J.L. Beaulne, 7.vi.1923, 08.vi.1927, C.H. Curran, 28.viii.1924, H.L. Viereck, 19.vii.1946, A. Brooks, 09.vi.1958, 31.v.1959, 22.vi.1963, 30.v.1987, J.R. Vockeroth, 08.ix.1985, B.M. Bissett (12♂, 2♀, CNC, DEBU); Park Township, Algoma District, 47.646°N, 84.795°W, 09.vi.1955, P.D. Syme (1♂, CNC); Petawawa, 45.9°N, 77.33°W, 07.vi.1961, J.R. Vockeroth (2♂, CNC); Point Pelee Natl. Pk., West Beach, 41.93333°N, 82.51528°W, 7.vi.2000, O. Lonsdale (1♂, DEBU); Puslinch, 43.5°N, 80.2°W, 29.vi.1983, Malaise, Coote & Marshall (1♂, DEBU); Severn, 44.8°N, 79.7167°W, 12.vi.1927, C.H. Curran (2♂, CNC); Smith's Falls, 44.9°N, 76.016667°W, 22.vi.1984, J.R. Vockeroth (4♂, 13♀, CNC); South Baymouth, 45.5601°N, 82.0099°W, 21.viii.1986, D.H. Pengelly (1♂, DEBU); St. Lawrence Islands National Park, Grenadier Island Centre, 44.38673°N, 75.90123°W, 26.vi.1975, H.C.W. Walther (1♂, CNC); Stouffville, 43.96667°N, 79.25°W, 26.vii–4.viii.1983, Malaise head, B.V. Brown (2♂, DEBU); Sudbury County, 46.493128°N, 80.990562°W, 07.vii.1925, M.B. Dunn (1♂, CNC); Thornhill, 43.814434°N, 79.423359°W, 30.v.1964, J.R. Vockeroth (1♂, CNC); Vermillion Bay, Cedar Lake, 50.209444°N, 93.138056°W,

07.vii.1963, R.J. Acheson (1♂, CNC); **Quebec**: 3.2 miles East of Matapedia on Highway 6, 47.994229°N, 66.894048°W, 04.vii.1971, B.V. Peterson (1♂, CNC); Abbotsford, 45.437637°N, 72.887923°W, 24.viii.1926, 10.vi.1936, G. Shewell (2♂, 2♀, CNC); Aylmer, 45.83°N, 71°W, 19.v.1927, C.H. Curran (1♂, CNC); Beechgrove, 45.65°N, 76.13°W, 27.vi.1984, B.M. Bissett, 28.v.1985, 01.vi.1987, J.R. Vockeroth (2♂, 2♀, CNC); Cap Chat, 49.1°N, 66.683°W, 08.vii.1954, G.P. Holland (1♂, CNC); Cap Rouge, 46.74113°N, 71.354497°W, 04.viii.1955, O. Peck (1♂, CNC); Cottage Beaulieu, 50.25°N, 74.3667°W, 16.viii.1906 (1♂, CNC); Farnham, 45.283748°N, 72.976764°W, 05.vi.1963, J.R. Vockeroth (5♂, CNC); Gatineau National Park, 1 mile North of Meach Lake, 45.545411°N, 75.866849°W, 18.vi.1982, H.C.W. Walther (1♂, CNC); Gatineau Park, Bourgeois Lake, 45.5°N, 75.8667°W, 11.vi.1987, J.R. Vockeroth (7♂, CNC); Great Whale River, 55.116816°N, 76.405554°W, 15.vi.1949, J.R. Vockeroth (1♂, CNC); Knowlton, 45.216716°N, 72.514769°W, 05.vii.1929, J. McDunnough, 02.viii.1929, L.J. Milne (2♂, CNC); La Barriere, 46.420897°N, 73.71493°W, 06.viii.1980, B. Batulla (1♂, CNC); Little Montreal River, Napierville, 45.187055°N, 73.401653°W, 09.vii.1937, Shewell (1♂, CNC); Mile 139, Route 58, La Verendrye Provincial Park, 48.097161°N, 77.70512°W, 29.vi.1965, D.M. Wood (1♂, CNC); Mistassini Post, 50.254888°N, 72.23°W, 03–12.vii.1956, J.R. McGillis, 04.vii.1956, J.R. Lonsway (6♂, CNC); Mont St. Hilaire, 45.54333°N, 73.15167°W, 16.v.1905, J.W. Boyes (2♂, CNC); Montreal area, 45.5°N, 73.68333°W, 15.v.1905, J.W. Boyes (1♂, CNC); Mount Orford, 45.313384°N, 72.234255°W, 366m, 05.vi.1963, J.R. Vockeroth (3♂, CNC); Mt. Albert, 49.131813°N, 66.464367°W, 27.vii.1954, J.E.H. Martin (1♂, CNC); Natashquan, 50.1667°N, 61.75°W, 01-07.viii.1929, W. J. Brown (5♀, CNC); Old Chelsea, 45.48333°N, 75.8667°W, 09.viii.1961, 20.v.1987, J.R. Vockeroth (2♂, CNC); St. Chrysostome, 45.109335°N, 73.746061°W, 25.vi.1927, W.J. Brown (1♂, CNC); Tabatiere, 50.8167°N, 58.95°W, 11.vii.1929, W.J. Brown (3♂, CNC); Woburn, 45.386361°N, 70.864441°W, 19.vi.1923, C.H. Curran (2♂, CNC); **Saskatchewan**: Lisieux, 49.2667°N, 105.9833°W, 21.vi.1955, J.R. Vockeroth (1♂, CNC); Yorkton, 51.213889°N, 102.462778°W, 31.v.1954, J.R. Vockeroth (1♂, CNC); **Yukon Territory**: 13 miles East of Dawson, 64.061327°N, 139.016032°W, 396m, 30.vi.1962, R. E. Leech (1♂, CNC); Rampart House, 67.4167°N, 140.9833°W, 12–13.vii.1951, C. C. Loan, 14–25.vii.1951, J. E. H. Martin (10♂, CNC); Swim Lakes, 62.2167°N, 133°W, 975m, 18.vi.1960, J. E. H. Martin (1♂, CNC); **United States of America**: **Alaska**: Juneau, 58.369852°N, 134.566447°W, 21.vi.1988, F. Brodo (1♂, CNC); Kanuti National Wildlife Refuge, 66.488998°N, 151.270996°W, 16.vii.2008, L. Saperstein (1♀, UAM); Unalakleet, 63.8667°N, 160.7833°W, 13.vii.1961, R. Madge (1♂, CNC); **California**: Buck's Lake, Plumas County, 39.890961°N, 121.185778°W, 23.vi.1949, A.S. Deal (2♂, CNC); Hat Lake, Shasta County, 40.508732°N, 121.466024°W, 11.vii.1947, T.F. Leigh (1♂, CNC); **Colorado**: Doolittle Ranch, Mount Evans, 39.675739°N, 105.601348°W, 2987m, 27.vii.1961, J.G. Chillcott (1♂, CNC); Echo Lake Park, 39.65977°N, 105.60477°W, 3176m, 29.vi.2010, A.D. Young (1♂, DEBU); High Creek Fen, 14 km S Fairplay, 39.1034°N, 105.98889°W, 2822m, 2.vii.1995, B. Kondratieff & R. Durfee (1♂, CSU); Pingree Park, 40.561094°N, 105.597778°W, 17.viii.1932, James (1♂, CNC); **Maine**: Baxter St. Park, Abol Pond, 46.05414°N, 68.983504°W, 180m, 30.vi.1968, P. Ward (1♂, CNC); Fort Kent, 47.25°N, 68.58333°W, 5–6.vii.1916, C.L. Metcalf (1♂, CNC); Hunt Trail, Mount Katahdin, 45.904968°N, 68.921017°W, 488–732m, 1–6.vii.1968, D.M. Wood (1♂, CNC); Mount Katahdin, 45.904968°N, 68.921017°W, 1158m, 29.vi.1968, D.M. Wood (1♂, CNC); **Massachusetts**: North Adams, 42.700915°N, 73.108715°W, 18.vi.2012, C.W. Johnson (1♂, CNC); **Minnesota**: Itasca, 47.550792°N, 93.568365°W, 17.vi.1914, S.A. Graham (1♂, CNC); **New Hampshire**: Coos Co., First Connecticut Lake, 45.093871°N, 71.244495°W, 18.vi.1982, J.R. Vockeroth (6♂, 7♀, CNC); Coos Co., Pittsburg, 45.051157°N, 71.391469°W, 18.vi.1982, J.R. Vockeroth (1♀, CNC); Dismal Lake, Crawford Notch Park, 44.181811°N, 71.397042°W, 21.viii.1983, B.M. Bissett (1♂, 1♀, CNC); **New York**: Chipmunk Swamp, Vandalia, 42.096175°N, 78.579748°W, 8–10.vi.1915 (1♂, CNC); Essex County, Wallface Mountain, 44.137832°N, 74.036538°W, vii.1922, A. Nicolay (1♂, CNC); Ringwood, Ithaca, 42.443961°N, 76.501881°W, 13.vii.1920 (1♂, CNC); Slaterville, Caroline, 42.395628°N, 76.350491°W, 14.vi.1904 (1♂, CNC); Stinson Brook, 43.67°N, 75.965°W, 29.vi.2009, L. Myers (1♂, CSU); **North Carolina**: Wayah Bald, 35.179761°N, 83.56147°W, 1250m, 29.vii.1957, W.R. Richards (1♂, CNC); Wayah Gap, 35.153426°N, 83.58044°W, 1250m, 28.vii.1957, J.G. Chillcott (1♂, CNC); **Oregon**: Sunset Bay, Coos County, 43.333347°N, 124.371796°W, 17.vii.1965, Malaise trap (1♂, CNC); **Utah**: Guardsman Pass near Brighton, East side, 40.60384°N, 111.582143°W, 91m, 10.vii.1961, J.G. Chillcott (1♂, CNC); Miners Peak, Iron County, 37.502755°N, 112.969112°W, 09.vii.1919 (1♂, CNC); **Vermont**: West Danville, Highway 15, 44.436057°N, 72.222395°W, 24.vi.1980, B.V. Peterson (1♂, CNC); **Washington**: Pullman, 46.7167°N, 117.167°W, 30.v.1907 (1♂, CNC); Sears Lake, Fort Lewis, Pierce County, 47.116969°N, 122.585721°W, 08.ix.1945, Paul H. Arnaud (1♂, CNC); **Wyoming**: Albany County, Snowy Range Mountains, 41.347747°N, 106.324129°W, 04.vii.1947, D.G. Denning (3♂, CNC).

Platycheirus scutatus

Austria: Obergurgl, 46.87016°N, 11.0273°E, 1950m, 18.vii.1953, J.R. Vockeroth (1♀, CNC); **Canada: Alberta:** Banff, 51.1667°N, 115.567°W, 09–29.vi.1922, C.B.D. Garrett (2♀, CNC); Elkwater Lake, 49.660514°N, 110.283443°W, 12.vi.1956, E.E. Sterns (1♂, CNC); Kananaskis, Forest Experimental Station Seebe, 51.100879°N, 115.087692°W, 05.vi–18.vii.1968, H.J. Teskey (2♂, CNC); Mount Eisenhower, Banff National Park, 51.298694°N, 115.917276°W, 07.vi.1968, Mosquin & Seaborn (1♂, CNC); Waterways, 56.697944°N, 111.336036°W, 01.vi.1947, J.R. Vockeroth (1♂, CNC); **Newfoundland and Labrador:** Agriculture Experimental Station, St. John's, 47.514837°N, 52.784212°W, 15.vii.1957, Malaise trap, J.F. McAlpine (1♂, CNC); Steveston, 48.55°N, 58.55°W, 19.vi.1979, B.V. Peterson (1♂, CNC); **Nova Scotia:** Cape Breton Highlands National Park, North Mountain Bog, 46.7667°N, 60.8167°W, 400m, 31.v.1984, B.E. Cooper (1♂, CNC); Sydney River, 46.11°N, 60.23°W, 25.ix.2005, A.A.M. MacDonald (1♂, CBU); **Ontario:** Dundas, 43.26667°N, 79.96667°W, 24.vii.1999, W.J. Crins (1♂, DEBU); North Gower, 45.131508°N, 75.71616°W, 05.viii.1984, D. Bell (1♂, CNC); Ottawa, 45.2667°N, 75.75°W, 19.ix.1964, J.R. Vockeroth (1♂, CNC); Toronto, 43.73°N, 79.3667°W, 31.vii.1985, J.R. Vockeroth (1♂, CNC); **Quebec:** Montreal area, 45.5°N, 73.68333°W, 15–17.v.1905, J.W. Boyes (4♂, CNC); Mt. St. Hilaire, 45.54333°N, 73.155276°W, 29.vii.1965, J.W. Boyes (1♂, CNC); **Yukon Territory:** Firth River, 69.2167°N, 140.0833°W, 25.vi.1984, S.G. Cannings (1♂, CNC); **Czech Republic:** Nadas, 49.789327°N, 3.194729°E, 03.viii.1965, J.W. Boyes (1♂, CNC); **Italy:** Pavia, 45.185888°N, 9.156563°E, 19.v.1905, P.G. Rubini (2♂, CNC); **Norway:** Dale, Ry: Hetland, 06.vii.1969, Tore Nielsen (1♂, CNC); Nja, Ry: Time, 58.723966°N, 5.745896°E, 12.vi.1972, Tore Nielsen (1♂, CNC); **Sweden:** Abisko, Lpl., 68.33°N, 8.85°E, 12.viii.1951, J.R. Vockeroth (1♀, CNC); **Switzerland:** Wallis Binnatal, 46.366667°N, 8.2°E, 427–457m, 25.vii.1947, F. Keiser (1♀, CNC); **United States of America: Pennsylvania:** Centre County, State College, 40.793395°N, 77.860001°W, 27.viii.1987, F.D. Fee (1♂, CNC); **Washington:** Mount Rainier, 46.853048°N, 121.753127°W, 02.vii.1926, F.M. Hull (3♂, CNC); **Yugoslavia:** Belgrade, 44.793211°N, 20.480485°E, 22.v.1971, J.W. Boyes (1♂, CNC).

Platycheirus setipes

Holotype ♂ *Platycheirus setipes* Vockeroth, 1990: HOLOTYPE *Platycheirus setipes* Vockeroth CNC No. 17293 / [Canada] B[ritish] C[olumbia]. Manning Park Dry Ridge summit [49.0667°N, 120.7833°W] 1830m 25.vi.1983 S.G. Cannings / CNC DIPTERA #73064 (CNC). **Canada: British Columbia:** Robson, 49.3°N, 117.69306°W, 13.viii.1964, H.R. Foxlee (1♂, CNC); **United States of America: Colorado:** Echo Lake Park, 39.65977°N, 105.60477°W, 3176m, 29.vi.2010, A.D. Young (1♂, DEBU).

Platycheirus setitarsis

Holotype ♂ *Platycheirus setitarsis* Vockeroth, 1990: *Platycheirus* HOLOTYPE *setitarsis* CNC No. 17282 / [Canada, Northwest Territories] Reindeer Depot [68.7°N, 134.11667°W]. Mackenzie Delta 28-VI 1948 J. R. Vockeroth / CNC DIPTERA #73066 (CNC). **Canada: British Columbia:** Summit Lake, Mile 392 of Alaska Highway, 58.648201°N, 124.666912°W, 1524–1615m, 18.vi.1959, R.E. Leech, 06.vii.1959, E.E. MacDougall (4♂, CNC); Summit of Pink Mountain, 57.039033°N, 122.50519°W, 15.vi.1980, Wood & Lafontaine (1♂, CNC); **Manitoba:** Warkworth Creek, Near Churchill, 58.507672°N, 93.997769°W, 10.vi.1952, C.D. Bird, 21.vi.1952, J.G. Chillcott (2♂, CNC); **Northwest Territories:** 30 miles East of Tuktoyaktuk, 69.436263°N, 132.234417°W, 18.vi.1971, D.M. Wood (1♂, CNC); Reindeer Depot, 68.7°N, 134.11667°W, 28.vi.1948, J.R. Vockeroth, 23.vii.1948, W.J. Brown (4♂, CNC); **Yukon Territory:** North Fork Pass, Ogilvie Mountains, 64.565983°N, 138.250648°W, 4100m, 12.vi.1962, R.E. Leech (1♂, CNC); Whitehorse, 60.733402°N, 135.082092°W, 06.vii.1988, F. Brodo (1♂, CNC); **United States of America: Alaska:** Denali National Park and Preserve, 63.731998°N, 148.979996°W, 24.vi.2001, O. Helmy (1♂, UAM); Unalakleet, 63.8667°N, 160.7833°W, 20.vi.1961, B.S. Heming (1♂, CNC).

Platycheirus speighti

Canada: Alberta: Waterton, 49.051122°N, 113.911807°W, 07.vi.1962, W.R.M. Mason (1♂, CNC); Waterton Lakes National Park, 49.076725°N, 113.938101°W, 14–20.vii.1980, H.J. Teskey (1♂, CNC); **British Columbia:** Hixon, 53.4°N, 122.567°W, 07.vi.1966, E.D.A. Dyer (1♂, CNC); Hixon, 53.4°N, 122.567°W, 21.vi–06.vii.1966, E.D.A. Dyer (2♂, CNC); **Russia:** 19.v.1978 (1♂, CNC); **United States of America: Alaska:** Elma Island, 54.423°N, 162.69°W, 2.vii.2007, F. Rudebusch (1♂, MHPC); Wosnesenski Island, 55.215°N, 161.364°W, H. Goulet, C. Boudreault (1♂, 10♀, CNC).

Platycheirus spinipes

Mexico: Durango, 10 Miles West of El Salto, 23.781338°N, 104.947773°W, 2926m, 18.vii.1964, J.E.H. Martin (1♂, CNC); Durango Navios, 26 miles East of El Salto, 23.781338°N, 104.947773°W, 2438m, 02.viii.1964, J.F. McAlpine (1♂, CNC); La Venta, 18.095°N, 94.043889°W, 09.viii.1969, D. Kritsch (1♂, CNC); **United States of America:** **Arizona:** Diamond Rock, White Mountains, 33.813691°N, 109.303261°W, 08.iv.1947, (1♀, CNC); Ramsey Canyon, 15 Miles South of Sierra Vista, Huachuca Mountains, 31.337025°N, 110.302646°W, 1585m, 30.iv.1967, R.F. Sternitzky (1♂, CNC); **California:** Fresno Co., Huntington Lake, Midge Creek, 37.255484°N, 119.171799°W, 2200m, 13.viii.1984, J. MacDonald (4♂, CNC); Huntington Lake, Rancheria Creek, Fresno County, 37.255484°N, 119.171799°W, 2600m, 09–10.viii.1984, J. MacDonald (8♂, 1♀, CNC); Mariposa Co., Miami Ranger Station, 37.366996°N, 119.630434°W, 22.v.1942, Arthur J Walz (1♀, CNC); **Colorado:** Nome [?], 39.746735°N, 104.85146°W, 09.ix.1988 (1♀, CNC); Pingree Park, 40.567018°N, 105.597778°W, 25.viii.2012, W.J. Brown (1♂, CNC); **New Mexico:** Cloudcroft, 32.957313°N, 105.742486°W, 2591–2743m, 06.ix.1963, H.V. Weems, Jr. (4♂, 4♀, CNC); Jemez Springs Mountains, 35.771336°N, 106.690555°W, v (2♀, CNC); Lincoln Co., Sierra Blanca, 33.374246°N, 105.809432°W, 2957m, 10–26.vi.1979, S. & J. Peck (1♂, CNC); Lincoln National Forest, 32.83°N, 162.69°W, 13–15.vi.2007 (1♀, MHPC); **Oregon:** Steen's Mountain Spring, N. Side of Big Indian Gorge, 42.667222°N, 118.587778°W, 2730m, 28.vii–6.viii.2005, Malaise trap, G.W. Courtney (4♀, CNC); **Texas:** Big Bend National Park, Pine Canyon, 29.78°N, 103.48°W, 1524–1829m, 10.v.1959, J.F. McAlpine (1♂, CNC); **Utah:** Summit Co., Henry's Fork Park, 40.96246°N, 109.581532°W, 2926m, 1–10.viii.1979, S. & J. Peck (1♂, CNC); **Wyoming:** University of Wyoming, 43.084281°N, 107.556417°W, 15.viii.1988, W.J. Brown (1♂, CNC).

Platycheirus splendidus

Canada: **Alberta:** Banff, 51.1667°N, 115.567°W, 27–31.v.1922, C.B.D. Garrett (2♂, CNC); Banff Natl. Pk., Two Jack Lake, 51.23053°N, 115.49782°W, 1444 m, 14.vii.2010, A.D. Young (1♀, DEBU); Eisenhower Junction, Banff National Park, 51.2667°N, 115.568433°W, 1433m, 10.vii.1955, G.E. Shewell (1♂, CNC); Waterton, 49.051122°N, 113.911807°W, 07.vi.1962, K.C. Herrmann (1♂, CNC); **British Columbia:** Hixon, 53.4°N, 122.567°W, 14–21.vii.1966, E.D.A. Dyer (2♂, CNC); Kootenay National Park, Daer-Pitts Aspen Control 1, 50.950001°N, 116.033°W, 03.vi.2000, G. Gareau (2♂, 3♀, CNC); McQueen Lake, 10 Miles North of Kamloops, 50.828873°N, 120.442513°W, 19.vi.1973, H.J. Teskey (1♂, CNC); Mount Revelstoke National Park, Eva Lake trail, 51.079905°N, 118.108837°W, 1829m, 08.vii.1952, G.P. Holland (1♂, CNC); Revelstoke Mountain, 51.094483°N, 118.044867°W, 1829m, 12.viii.1923, E.R. Buckell (1♂, CNC); Summit Lake, Mile 392 of Alaska Highway, 58.648201°N, 124.666912°W, 1524m, 15.vi.1959, E.E. MacDougall (1♂, CNC); Victoria, 48.43°N, 123.37°W, 06.vi.1930, W.H.A. Preece (1♂, CNC); **Manitoba:** Churchill, 58.768828°N, 94.171563°W, 10.vii.1948, W.P. Richards (1♂, CNC); Fort Churchill, 58.75525°N, 94.078885°W, 20.vi.1952, J.G. Chillcott (1♂, CNC); **Ontario:** Low Bush, Lake Abitibi, 48.9167°N, 80.13°W, 11.vi.1925, N.K. Bigelow (1♂, CNC); **Saskatchewan:** La Ronge, 55.10823°N, 105.285989°W, 03.viii.1949, F.M. Atton (1♂, CNC); **Yukon Territory:** Herschel Island, 69.588436°N, 139.083819°W, 18–24.vii.1971, D.M. Wood (1♂, CNC); km 141 Dempster Highway, 65.06101°N, 138.126705°W, 22–24.vi.1982, G. & M. Wood (2♂, CNC); **Alaska:** Anchorage, 61.23°N, 149.9°W, 12–26.vi.1951, R.S. Bigelow (2♂, CNC); Cape Thompson, 68.13°N, 165.967°W, 01.viii.1961, B.S. Heming (1♂, CNC); **Mississippi:** Lafayette County, 34.3667°N, 89.5167°W, 05.vi.1960, F.M. Hull (2♂, CNC).

Platycheirus squamulae

Holotype ♂ *Melanostoma squamulae* Curran 1922: M. HOLOTYPE *squamulae* Curran CNC No. 469 / [Canada] Victoria B[ritish] C[olumbia] [48.43°N, 123.37°W] 7.IV 1920 / CNC DIPTERA #73113 (CNC). **Canada:** **British Columbia:** Bowser, 49.43629°N, 124.679436°W, 05.vi.1955, J.R. McGillis (3♀, CNC); Victoria, 48.43°N, 123.37°W, vi.1916, R.C. Treherne (1♀, CNC).

Platycheirus stegnoides

Holotype ♂ *Platycheirus stegnoides* Vockeroth, 1990: *Platycheirus* HOLOTYPE *stegnoides* Vockeroth CNC No 17284 / [Canada] Lakelse L[ake]. Bog nr. Terrace, B[ritish]. C[olumbia]. [54.344012°N, 128.592884°W] 14.VI 1960 C.H. Mann / CNC DIPTERA #73119 (CNC). **Canada:** **British Columbia:** Bowser, 49.43629°N, 124.679436°W, 30.v.1955, J.R. McGillis (1♀, CNC); Cowichan Lake, 48.8667°N, 124.267°W, 06.vi.1955, J.R. McGillis (1♂, CNC); Gagnon Road, 6 miles West of Terrace, 54.499294°N, 128.716143°W, 67m, 20.vi.1960, W.W. Moss (2♂, CNC); Hot Springs Area, Lakelse Lake, 54.35°N, 128.5333°W, 14.vi.1960, G.E. Shewell (1♀, CNC); Kleanza Creek, 54.597897°N, 128.386241°W, 69–76m, 17–30.vi.1960, W.W. Moss (1♂, 1♀, CNC); Kleanza Creek, 14 miles East of Terrace, 54.515716°N, 128.25942°W, 76m, 29.vi.1960, B. Heming (1♀, CNC); Lakelse Lake Bog, Near Terrace, 54.344012°N, 128.592884°W, 14–27.vi.1960, C.H. Mann, B. Heming (8♂, 1♀, CNC); Miracle Beach, near Oyster River, 49.85°N,

125.1°W, 11.vi.1955, J.R. McGillis (1♀, CNC); Mission City, 49.140168°N, 122.309497°W, 21.vii.1953, W.R.M. Mason (1♂, CNC); Prince Rupert, 54.202612°N, 129.949475°W, 18.vii.1960, C.H. Mann (2♀, CNC); Shames, 18 Miles South West of Terrace, 54.409648°N, 128.935301°W, 24.vii.1960, C.H. Mann (1♀, CNC); Tyee, 27 Miles East of Prince Rupert, 54.202612°N, 129.949475°W, 24.vi.1960, W.W. Moss (1♂, CNC); U.B.C. Forest near Haney, Garibaldi Park, 49.306229°N, 122.576202°W, 335m, 6–7.vii.1953, G.J. Spencer (3♂, CNC); Vancouver, 49.263588°N, 123.138565°W, 11–12.vi.1966, J.W. Boyes (3♂, 2♀, CNC); Zymagotitz River, 6 miles West of Terrace, 54.518045°N, 128.667225°W, 58m, 20.vi.1960, R. Pilfrey (1♀, CNC).

Platycheirus stegnus

Canada: Alberta: Banff, 51.1667°N, 115.567°W, 1372m, 28.vii.1967, J.R. Vockeroth (1♀, CNC); **British Columbia:** 8 km Northwest of Sidney, 48.685685°N, 123.440946°W, 25.vi–11.vii.1988, Malaise trap, J.M. Cumming (4♀, CNC); Bowser, 49.43629°N, 124.679436°W, 31.v–16.vi.1955, J.R. McGillis (1♂, 1♀, CNC); Cloverdale, 49.108333°N, 122.725°W, 09.x.1959, A.T. Wilkinson (3♀, CNC); Cordova Bay, 49.213033°N, 123.950049°W, 25.viii.1952, A.R. Forbes, 24.iv.1953, M.D. Noble (1♂, 1♀, CNC); Cowichan Lake, 48.8667°N, 124.267°W, 06.vi.1955, R. Coyles (1♀, CNC); Cranbrook, 43.7°N, 115.767°W, 15.vi.1926, A.A. Dennys (1♀, CNC); Galiano Island, North end, 48.92°N, 123.42°W, 02.x.1983, G.G.E. Scudder (1♂, CNC); MacGillivray Creek Game Reserve, near Chilliwack, 49.174059°N, 122.019823°W, 14.vi.1953, W.R.M. Mason (1♂, CNC); Madden Lake, Oliver, 49.231684°N, 119.625749°W, 08.vii.1959, L.A. Kelton (1♀, CNC); Mission City, 49.140168°N, 122.309497°W, 14.vi.1953, Edith Mason, 28.vi.1953, G.J. Spencer, 29.vi.1953, W.R.M. Mason (2♂, 2♀, CNC); Moersby Island, Sandspit, 12 km West, 48.715357°N, 123.309261°W, 10.v.1984, G.G.E. Scudder (2♂, CNC); Okanagan Falls, 49.7°N, 119.567°W, 13.v.1919, E.R. Buckell (1♀, CNC); Oliver, 49.18333°N, 119.55°W, 28.vii.1953, J.R. McGillis, 29.v.1959, E.E. MacDougall, 02.v.1967, 04–11.vi.1969, D. Allan (3♂, 6♀, CNC); Oliver, Baldy Mountain, 49.039444°N, 117.778056°W, 1067m, 24.vii.1953, J.E.H. Martin (1♂, CNC); Pitt Meadows, 49.25°N, 122.7°W, 09.vii.1953, G.J. Spencer (1♀, CNC); Point Grey, 49.2667°N, 123.267°W, 11.viii–23.x.1972, 13.iv–07.vi.1973, 01–23.x.1982, J.R. Vockeroth (3♂, 5♀, CNC); Robson, 49.33°N, 117.6833°W, vi.1963, J.W. Boyes (1♂, CNC); Squamish, Diamond Head Trail, 49.811126°N, 123.07434°W, 975m, 03.viii.1953, W.R.M. Mason (1♀, CNC); Vancouver, 49.263588°N, 123.138565°W, 15.iv.1962, J.E.R. Stainer (1♂, CNC); Vaseaux Lake, Oliver, 49.28333°N, 119.5333°W, 29.v.1959, R.E. Leech (1♀, CNC); Vernon, 50.255069°N, 119.292145°W, 13.x.1918, E.R. Buckell (1♀, CNC); Victoria, 48.43°N, 123.37°W, 20.v.1916, R.C. Treherne, 06.v.1917, A.E. Cameron, 20.viii.1924, W. Downes, 29.vi.1953, W.R.M. Mason (3♂, 1♀, CNC); **Mexico:** Durango, 10 Miles West of El Salto, 23.781338°N, 104.947773°W, 2743m, 05.vi–10.viii.1964, J.F. McAlpine, 31.vii.1964, J.E.H. Martin, 09.viii.1964, W.C. McGuffin (19♂, 8♀, CNC); Durango Buenos Aires, 10 miles West La Ciudad, 2743m, 11.vi.1964, J.F. McAlpine (1♀, CNC); Durango Navios, 26 miles East of El Salto, 23.781338°N, 104.947773°W, 2438m, 27.vii.1964, J.F. McAlpine, 02.viii.1964, L.A. Kelton (1♂, 11♀, CNC); Chiapas, San Cristobal de Las Casas, 16.75°N, 92.63°W, 06.viii.1962, H.E. Milliron (2♂, CNC); Chis., 3 miles North San Cristobal, 20.701338°N, 101.476697°W, 2134m, 29.v.1969, H.J. Teskey (1♀, CNC); Chis., 8 miles Northeast, San Cristobal, 20.730939°N, 101.379943°W, 2286m, 15.v.1969, H.J. Teskey (1♂, CNC); Chis., Mount Tzontehuitz, 2896m, 12.vi.1969, H.J. Teskey, (1♂, CNC); Chis., Mount Tzontehuitz, 12 miles Northeast San Cristobal, 2865m, 19.v.1969, B.V. Peterson (1♂, CNC); Chis., San Cristobal de Las Casas, 16.737585°N, 92.636652°W, 2160m, 25.v–11.vi.1969, B.V. Peterson (1♂, 3♀, CNC); Guerrero, Chilpancingo, 17.55°N, 99.5°W, 15.vii.1962, H.E. Milliron (1♂, CNC); San Juan Del Rio, 10 miles East Queretaro, 20.385633°N, 99.99722°W, 30.vii.1954, J.G. Chillcott (2♂, 1♀, CNC); Toluca, 22 miles North, Mexico, 19.60787°N, 99.645814°W, 2682m, 17.viii.1954, J.G. Chillcott (1♀, CNC); **United States of America: Arizona:** Apache Camp, Santa Catalina Mountains, 32.444024°N, 110.850389°W, 1676m, 25.vii.1917, J. Bequaert (1♂, CNC); Ash Canyon, 19 miles South Sierra Vista, Huachuca Mountains, 31.382045°N, 110.225079°W, 1737m, 11.iv.1964, Sternitzky (1♂, CNC); Carr Canyon, 15 miles South of Sierra Vista, Huachuca Mountains, 31.429933°N, 110.28879°W, 1524m, 22.iii.1966, R.F. Sternitzky (1♂, CNC); Chiricahua Mountains, Pinery Campground, 31.812681°N, 109.551592°W, 2135m, 03.vi.1991, J.R. Vockeroth (7♂, CNC); Cochise Co., Sierra Vista, 31.544228°N, 110.292928°W, 1399m, 03.iv.1967, R.F. Sternitzky (2♂, 1♀, CNC); Huachuca Canyon, Ft. Huachuca, 31.555357°N, 110.349754°W, 1676m, 19.iv.1966, R.F. Sternitzky (1♂, CNC); Oak Creek Canyon, 34.961452°N, 111.753046°W, 1829m, vii, F.H. Snow (1♂, CNC); Ramsey Canyon, 15 Miles South of Sierra Vista, Huachuca Mountains, 31.337025°N, 110.302646°W, 1585m, 27.iii.1967, R.F. Sternitzky (2♂, CNC); Ramsey Canyon, Huachuca Mountains, 34.446077°N, 110.311099°W, 1676m, 10.iv–2.v.1967, D.M. Wood (6♂, CNC); Southwest Research Stn., 31.88333°N, 109.2°W, 7–14.v.2010, C. McCreary (2♀, DEBU); **California:** Alpine Co., Hope Valley, 38.7667°N, 119.9167°W, 09.vii.1943, P.D. Hurd (1♂, CNC); Berkeley, 37.875149°N, 122.243713°W, 20.iii.1941, E.G. Linsley, 27.iii.1948, P.D. Hurd (1♂, 1♀, CNC); Blue Lake, 41.146°N, 120.286°W, 22.v.2007, B.C. Kondratieff (1♀, CSU); Bluff Lake Road, 2300m, 6.vi.1992, Malaise J.

Skevington & A. Goering (2♀, DEBU); Campus Experimental Area, San Mateo County, 37.429599°N, 122.170695°W, A.R. Moldenke (12♂, 6♀, CNC); Claremont, 43.37674°N, 72.346756°W, Essig (1♀, CNC); Contra Costa Co., Fish Ranch Rd., 37.863234°N, 122.215571°W, 23.v.1948, P.D. Hurd (1♂, CNC); Contra Costa Co., Low Level Tunnel, 37.853409°N, 121.901795°W, 23.vii.1941, C.W. Anderson (1♂, CNC); Crescent City, Lake Earl, 3.vi.2009, S.A. Marshall (1♀, DEBU); Davis, 38.544906°N, 121.740517°W, 18.iv.1950, 04.v.1951, A.T. McClay (1♂, 1♀, CNC); Del Norte Co., Requa, 41.546667°N, 124.066389°W, 10.x.1920, Carl D. Duncan (1♀, CNC); Del Puerto Rd., 28.v.1992, flowering shrubs, J. Skevington & A. Goering (2♂, DEBU); Dog Valley Campground, 39.566°N, 120.065°W, 21.vi.2009, B.C. Kondratieff (1♂, CSU); Eldorado Co., Echo Lake, 38.833796°N, 120.041573°W, 2286m, 12.vii.1961, B.H. Poole (1♀, CNC); Eldorado Co., Kyburz, 38.775971°N, 120.285885°W, 02.v.1949, W.F. Ehrhardt (1♂, CNC); Eldorado Co., Wright Lake, 38.84913°N, 120.2318°W, 02.vii.1948, D. Carter (1♂, CNC); Eureka, 40.802071°N, 124.163673°W, 22.vi.1959, Kelton & Madge (2♀, CNC); Fresno Co., Dinkey Creek area, Laurel Creek, 37.159063°N, 119.058608°W, 04.vi.1987 (2♀, CNC); Green Valley Rd. Campground, 25 km NE of San Bernardino, 34.24°N, 117.07°W, 6–7.vi.1992, Malaise J. Skevington & A. Goering (1♂, DEBU); Hat Lake, Lassen National Park, 40.508769°N, 121.465815°W, 03.vi.1941, Arthur J Walz (4♀, CNC); Huntington Lake, Rancheria Creek, Fresno County, 37.255484°N, 119.171799°W, 2600m, 07.vii–09.viii.1984, J. MacDonald (2♂, 1♀, CNC); Julian, 10.iv.1980, S.A. Marshall (1♂, DEBU); Kern Co., Frazier Park, 34.822756°N, 118.944822°W, 02.v.1952, R.M. Bohart (1♀, CNC); Laguna Mts., 32.88°N, 116.43°W, 1770m, 31.v.2002, M.E. Irwin & F.D. Parker (3♂, CSCA); Marin Co., Lily Pond, Alpine Lake, 37.926534°N, 122.634977°W, 457m, 05.vi–27.x.1970, D.D. Munroe (2♂, CNC); Marin Co., Woodacre, 38.012701°N, 122.645261°W, 31.iii.1949, P.D. Hurd (1♂, CNC); Marin County, Mount Tamalpais, 37.923822°N, 122.596203°W, 18.vi.1961, H.F. Howden (1♀, CNC); McCann, 40.32361°N, 123.835°W, 19.vi.1959, Kelton & Madge (1♀, CNC); Mono Co., Sardine Creek, 38.309918°N, 119.594406°W, 2591m, 06–12.vii.1951, A.T. McClay (8♀, CNC); Monterey Co., Paraiso Springs, 36.331353°N, 121.36882°W, 22.v.1922, J.R. Vockereth (2♂, CNC); Mt. Pinos, 2930m, 3–4.vi.1992, sweep, J. Skevington & A. Goering (3♀, DEBU); Ottawa, 25.v.1945 (1♀, CNC); Plumas Co., Bucks Lake, 39.992683°N, 120.803947°W, 13.v.1949, P.D. Hurd (1♂, CNC); Sagehen, Creek near Hobart Mills, 39.433869°N, 120.254564°W, 152m, 13.vii.1961, B.H. Poole (1♂, CNC); San Berdo Co., Upper Santa Ana River, 34.1003°N, 117.120741°W, 12.v–03.vi.1947, Grace H. & John L. Sperry (9♂, CNC); San Mateo Co., Redwood City, 39.45°N, 122.2333°W, 18.i.1946, Paul H. Arnaud (1♂, CNC); San Mateo Co., Strawberry Bend, 29.iv.1921 (1♀, CNC); Santa Clara, 37.354108°N, 121.955236°W, 22.v.1922, Leroy Childs (1♂, CNC); Santa Clara Co., Mount Hamilton site, 37.341789°N, 121.642983°W, A.R. Moldenke (2♀, CNC); Shasta Co., Viola, 40.517921°N, 121.680971°W, 20.v.1941, E.G. Linsley (3♀, CNC); Shingletown, Shasta County, 40.492378°N, 121.889159°W, 02.vi.1941, C.D. Michener (2♂, 4♀, CNC); Stanford University, 37.427982°N, 122.170387°W, 18.v.1914, Childs (1♂, CNC); Sutter Buttes, 19.iv.2005, C.L. Bellamy (1♀, CSCA); Tulare Co., Wood Lake, 36.413561°N, 119.098718°W, 14.iv.1947, Rotary trap, Norman W. Frazier (1♀, CNC); Tuolumne Co., Buck Meadows– Mather site, 37.81278°N, 120.06333°W, A.R. Moldenke (2♀, CNC); Tuolumne Co., Pinecrest, 38.189932°N, 119.991207°W, 01–26.vii.1948, P.H. Arnaud Jr., 03.vii.1951, A.T. McClay (2♂, 5♀, CNC); Victorville, 34.536107°N, 117.291157°W, 12.v.1955, W.R. Richards, 16–24.v.1955, W.R.M. Mason (4♀, CNC); Viola, 2 miles West of Shasta County, 40.517921°N, 121.680971°W, 27.v.1941, P.D. Hurd (1♂, CNC); Yolo Co., Putah Creek, 38.764602°N, 121.901795°W, 16.iii.1952 (1♂, CNC); **Colorado:** Boulder, 40.014986°N, 105.270546°W, 01.iv.1934, M.T. James (1♂, 1♀, CNC); Chicago Creek, Clear Creek County, 39.69415°N, 105.616756°W, 2682m, 02.viii.1961, B.H. Poole (5♂, CNC); Doolittle Ranch, Mount Evans, 39.675739°N, 105.601348°W, 2987m, 08.vii.1961, W.R.M. Mason, 08.viii.1961, B.H. Poole (2♂, CNC); Echo Lake, Mount Evans, 39.658085°N, 105.6035°W, 3231m, 19.vii.1961, C.H. Mann (1♂, CNC); Estes Park, 40.567018°N, 105.593372°W, 2286m, 02.vii.1961, C.H. Mann, 14.viii.1961, B.H. Poole (2♂, 2♀, CNC); Idaho Springs, 5 miles Southwest, 39.71053°N, 105.554275°W, 2621m, 27.vii.1961, C.H. Mann (1♂, CNC); Jefferson, 39.37561°N, 105.798698°W, 2865m, 21.vi.1961, C.H. Mann (1♀, CNC); Little Beaver Creek, 40.624°N, 105.524°W, 5.vi.1996, S. Fitzgerald (2♂, CSU); Mount Evans, 39.256667°N, 106.181667°W, 3658m, 03.viii.1961, W.R.M. Mason (1♂, CNC); Nederland, 3 miles N, 40.073599°N, 105.534351°W, 2591m, 02.vii.1961, J.G. Chillcott (1♂, CNC); Nederland, Science Lodge, 39.961376°N, 105.510831°W, 2896m, 01–06.vii.1961, B.H. Poole (3♂, 7♀, CNC); Pingree Park, viii.1925, W.J. Brown, 23.viii.1926, R.H. & L.D. Beamer, 09.vii.1938, M.T. James (4♂, 1♀, CNC, DEBU); Summit Lake, Mount Evans, 40.567018°N, 105.593372°W, 3901m, 24.vii.1961, W.R.M. Mason (1♂, CNC); Twin Crater Lakes, 40.647°N, 105.94°W, 17.ix.1995, S. Fitzgerald (1♂, CSU); **Idaho:** Hwy. 21 Roadside, near Stanley, 44.22°N, 114.94°W, 9.viii.1990, J.E. Swann (1♂, 1♀, DEBU); **New Mexico:** Jemez Springs Mountains, 35.771336°N, 106.690555°W, iv (2♂, 1♀, CNC); **Oregon:** Coos Co., Sunset Bay, 43.333347°N, 124.371796°W, 17.vii.1965, Malaise trap (3♀, CNC); Hood River, 45.705397°N, 121.521462°W, 20.vii.1917 (1♂, CNC); Jackson Co., Emigrant Dam, 42.161523°N, 122.604195°W, 09.vii.1957, M.F. McClay (1♂, CNC); Mary's Peak, ~23 km WSW Corvallis, 11.vi.2009, S.A. Marshall

(1♂, 1♀, DEBU); Siskiyou, 42.075°N, 122.605833°W, 14.vi.1959, Kelton & Madge (1♂, 1♀, CNC); **Texas:** Big Bend National Park, Boot Spring, 29–103 1829m, 18.vi.1959, J.F. McAlpine (1♀, CNC); **Utah:** Daniels Pass, 2 miles South, Wasatch County, 40.280034°N, 111.223675°W, 2591m, 09.vii.1961, J.G. Chillcott, 09.vii.1961, B.H. Poole (1♂, 1♀, CNC); Delta, 39.352178°N, 112.57717°W, 20.v.1941, G.F. Knowlton & F.C. Harmston (1♀, CNC); Summit Co., Henry's Fork Park, 40.96246°N, 109.581532°W, 2926m, 1–10.viii.1979, S. & J. Peck (1♂, CNC); Willow Creek, 40.589115°N, 111.810488°W, 23.vi.1943, G.F. Knowlton & P. Telford (1♀, CNC); **Washington:** Bremerton, Kitsap County, 47.570017°N, 122.652625°W, 25.ix.1955, Don Frechin (1♂, 1♀, CNC); Fort Lewis, Pierce County, 47.116969°N, 122.585721°W, 15.iv.1945, 06–17.iv.1946, Paul H. Arnaud (12♂, 6♀, CNC); Mount Baker, Northeast slope, 48.90495°N, 121.697917°W, 1350m, 27.v.1973, J.R. Vockeroth (1♀, CNC); Mount Rainier, 46.853048°N, 121.753127°W, vii.1926 (2♂, 3♀, CNC); Pullman, 46.7167°N, 117.167°W, 07.vi.2012 (1♀, CNC); Yakima Co., Pine Grass Ridge, 46.602071°N, 120.505899°W, 25.v.1941, B. Brookman (1♂, CNC); **Wyoming:** 05.v.1905, F.M. Hull (1♀, CNC).

Platycheirus striatus

Holotype ♂ *Platycheirus striatus* Vockeroth, 1990: HOLOTYPE *Platycheirus triatus* Vockeroth CNC No. 17285 / [United States of America] Nederland, COLO[rado]. [39.961376°N, 105.510831°W] Science Lodge 9500' [2896m] 1–VII B.H. Poole '61 / CNC DIPTERA #73503 (CNC). **Canada:** **Alberta:** Banff, 51.1667°N, 115.567°W, 16.vii.1922, C.B.D. Garrett (1♂, CNC); Kananaskis, Forest Experimental Station Seebe, 51.100879°N, 115.087692°W, 03.vii.1968, H.J. Teskey (2♂, CNC); McMurray, 56.73°N, 111.3833°W, 20.vi.1953, G.E. Ball (1♂, CNC); Mount Eisenhower, Banff National Park, 51.298694°N, 115.917276°W, 24.vi.1968, Mosquin & Seaborn (1♂, CNC); Waterton, 49.08333°N, 113.867°W, 11.vi.1962, K.C. Herrmann (1♂, CNC); **British Columbia:** Atlin, 59.5775°N, 133.69236°W, 671m, 27.vi.1955, B.A. Gibbard, 03.vii.1955, H.J. Huckel (2♂, CNC); Horsefly, 52.332688°N, 121.415978°W, 14.vii.1973, H.J. Teskey (1♂, CNC); Lac La Hache, 51.81269°N, 121.472589°W, 20.vi–02.vii.1964, L.H. McMullen (3♂, CNC); Manning Park, Dry Ridge summit, 49.0667°N, 120.7833°W, 1830m, 25.vi.1983, S.G. Cannings (2♂, CNC); Manning Provincial Park, 49.1°N, 120.78°W, 1830m, 21.vi.1986, S.G. Cannings (1♂, CNC); Manning Provincial Park, Valley View, 49.38°N, 121.43°W, 1830m, 21.vi.1986, S.G. Cannings (2♂, CNC); Williams Lake, 52.134171°N, 122.138702°W, 12.vii.1938, J.K. Jacob (1♂, CNC); **Manitoba:** Churchill, 58.71667°N, 94.11667°W, 20.vi.1952, E.E. Wiffen (1♂, DEBU); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 23.vii.1955, E.F. Cashman (1♂, CNC); **Ontario:** Low Bush, Lake Abitibi, 48.9167°N, 80.13°W, 16.vi–01.vii.1925, N.K. Bigelow (4♂, CNC); Macdiarmid, Lake Nipigon, 49.438216°N, 88.12695°W, 21.vi.1923, N.K. Bigelow (1♂, CNC); Post Island, Big Trout Lake, Patricia District, 53.792691°N, 89.978497°W, 27.vi.1961, Davies & Wood (1♂, CNC); **Quebec:** Duplinter, Lac Delorme, 54.5167°N, 69.8667°W, 7–12.vii.1977, D.M. Wood (3♂, CNC); Mile 139, Route 58, La Verendrye Provincial Park, 48.097161°N, 77.70512°W, 01.vii.1965, D.M. Wood (1♂, CNC); Mistassini Post, 50.254888°N, 72.23°W, 25.vi.1956, J.R. Lonsway (1♂, CNC); **Yukon Territory:** La Force Lake, 62.683333°N, 132.33°W, 1006m, 29.vi.1960, E.W. Rockburne (1♂, CNC); Swim Lakes, 62.2167°N, 133°W, 975m, 10–20.vi.1960, J.E.H. Martin (3♂, CNC); **United States of America:** **Alaska:** Denali National Park and Preserve, 63.731998°N, 148.979996°N, 24.vi.2001, O. Helmy (1♂, UAM); **California:** Mono Co., Sardine Creek, 38.309918°N, 119.594406°W, 2591m, 11.vii.1951, A.T. McClay (1♂, CNC); **Colorado:** Col. Univ. Camp, Nederland, 3048m, 3–4.vii.1932 (1♂, CNC); Estes Park, 40.376877°N, 105.593372°W, 02.vii.1961, B.H. Poole (1♂, CNC); Nederland, Science Lodge, 39.961376°N, 105.510831°W, 2896m, 27.vi–04.vii.1961, B.H. Poole, 29.vi–05.vii.1961, W.R.M. Mason (10♂, CNC); **Wyoming:** Laramie, 41.311367°N, 105.591101°W, 29.vi.1947, D.G. Denning (1♂, CNC).

Platycheirus subordinatus

Canada: **Yukon Territory:** Herschel Island, 69.58333°N, 139.0833°W, 28.vii.1971, Malaise trap, W.R. Mason (1♂, CNC); km 465 Dempster Highway, 67.046392°N, 136.209668°W, 25–26.vi.1982, G. & M. Wood (1♂, CNC); White Mountains, Erebia Creek, 67.9667°N, 136.4833°W, 792m, 30.vi.1987, Malaise trap, S.G. Cannings, 720m, 29.vi–10.vii.1987, J. Troubridge (2♂, CNC); **Norway:** v/Ustetind, Bv: Hol, 60.466667°N, 8.083°E, 02–03.vii.1970, Tore Nielsen (2♂, 3♀, CNC); **United States of America:** **Alaska:** Cape Thompson, 68.13°N, 165.967°W, 29.vii.1961, B.S. Heming (1♂, CNC); Kivalina, 68.2667°N, 163.45°W, 10–17.vii.1974, K.W. Philip (1♂, CNC); Mile 32, Denali Highway, 63.390138°N, 148.588876°W, 22.vii.1962, R.E. Leech (1♂, CNC); Nome, 64.5°N, 165.4°W, 08.vi.1951, D.P. Whillans (1♂, CNC).

Platycheirus tenebrosus

Canada: British Columbia: Lisadele Lake, 58.68333°N, 133.067°W, 1219m, 06.viii.1960, R. Pilfrey (2♂, CNC); Moresby Camp, Queen Charlotte Islands, 53.052012°N, 132.024416°W, 30.v.1957, E.E. MacDougall (2♂, CNC); Prince Rupert, 54.202612°N, 129.949475°W, 04.vi.1960, J.G. Chillcott (1♂, CNC); **United States of America: Alaska:** Isabel pass, Mile 206 Richardson Highway, 63.484367°N, 145.839383°W, 884m, 13.vii.1962, R.E. Leech (18♂, CNC); Naknek, 58.729427°N, 157.026703°W, 03.vii.1952, J.B. Hartley (1♂, CNC); Nome, 64.5°N, 165.4°W, 12-02.vii.1951, D.P. Whillans (12♂, CNC); Unalakleet, 63.8667°N, 160.7833°W, 21.vi.1961, B.S. Heming (1♂, CNC).

Platycheirus thompsoni

Holotype ♂ *Platycheirus thompsoni* Vockeroth, 1990: *Platycheirus* HOLOTYPE *thompsoni* Vockeroth CNC No. 17287 / [Canada] QUE[bec]. Beechgrove [45.65°N, 76.13333°W] 27.VI.1984 B.M.Bissett / CNC DIPTERA #73565 (CNC). **Canada: New Brunswick:** Kouchibouguac National Park, 46.85°N, 64.9667°W, 15.vi.1978, S.J. Miller, 16.vi.1978, D.B. Lyons (2♂, CNC); Restigouche Co., Jacquet R Gg PNA, along Jacquet, 47.7733°N, 66.1253°W, 25.vi.2010, J. Klymko, S. L. Robinson (2♂, CNC); **Ontario:** Lobo, 43.000305°N, 81.421994°W, 29.v.1928, A.A. Wood (1♂, CNC); Midland, 44.752113°N, 79.887253°W, 30.vii.1956, 02.v.1959, J.G. Chillcott (2♂, CNC); Normandale, 42.7°N, 80.3167°W, 28.v.1956, J.R. Lonsway, 02.vi.1956, J.R. Vockeroth (2♂, CNC); Ottawa, 48.416043°N, 75.501453°W, 18.vi.1957, J.G. Chillcott (1♂, CNC); **Quebec:** Beechgrove, 45.65°N, 76.13333°W, 27.vi.1984, B.M. Bissett, 27.vi.1984, 31.v–01.vi.1987, J.R. Vockeroth (6♂, 1♀, CNC); Fairy Lake Creek, 45.43525°N, 75.749844°W, 30.v.1965, J.G. Chillcott (1♂, CNC); **United States of America: Pennsylvania:** Centre Co., Moshannon State Park, 41.032222°N, 78.005278°W, 07.vi.1989, F.D. Fee (1♂, CNC).

Platycheirus thylax

Holotype ♂ *Platycheirus thylax* Hull, 1944: [Canada] Aylmer, Que[bec]. [45.83°N, 71°W] 13.V.1920 J. McDunnough / HOLOTYPE *Platycheirus thylax* Hull CNC No 19310 / Holotype *thylax* Hull / CNC DIPTERA #73589 (CNC). **Canada: Alberta:** Banff, 51.1667°N, 115.567°W, 02.vi.1922, C.B.D. Garrett, 1358m, 26.v.1960, R.J. Pilfrey (1♂, 1♀, CNC); Mount Eisenhower, Banff National Park, 51.298694°N, 115.917276°W, 18.vi.1968, Mosquin & Seaborn (1♂, CNC); **British Columbia:** Cranbrook, 43.7°N, 115.767°W, 16.v.1922, C.B.D. Garrett (1♀, CNC); Lisadele Lake, 58.68333°N, 133.067°W, 1219m, 11.vii.1960, W.W. Moss (1♂, CNC); **Newfoundland and Labrador:** Cartwright, Labrador, 53.694772°N, 57.010406°W, 29.vi.1955, E.E. Sterns (2♂, CNC); Goose Bay, Labrador, 53.326031°N, 60.387266°W, 10.vi.1948, W.W. Judd (3♂, CNC); Harmon Field, 48.546643°N, 58.557741°W, 27.v.1949, W.J. Brown (1♂, CNC); **Nova Scotia:** Cape Breton Highlands National Park, 46.764713°N, 60.86483°W, 05.vi.1984, B.E. Cooper (1♂, CNC); Cape Breton Highlands National Park, French Lake Bog, 46.773977°N, 60.818772°W, 28.v.1984, B.E. Cooper (1♂, CNC); Cape Breton Highlands National Park, North Mountain Bog, 46.7667°N, 60.8167°W, 400m, 29.v.1984, B.E. Cooper (1♂, CNC); Cape Breton Highlands National Park, North Mountain Bog, 46.7667°N, 60.8167°W, 400m, 30.v.1984, B.E. Cooper (1♂, CNC); Halifax Co., 44.648338°N, 63.600631°W, 06.vi.1958, J. McDunnough (1♂, CNC); **Ontario:** Algonquin Prov. Pk., W. Smith Lake, 45.57083°N, 78.61806°W, 19.v.1996, W.J. Crins (1♂, DEBU); Bell's Corners, 45.322127°N, 75.833249°W, 08.v.1951, J.F. McAlpine (1♂, CNC); Constance Bay, 45.495556°N, 76.086944°W, 01.v.2005, [hand collected], J. Skevington (1♂, CNC); Dirleton, 45.494944°N, 76.142874°W, 29.iv.1948, J.E.H. Martin (1♂, CNC); Kinburn, 45.38333°N, 76.18333°W, 13.v.1956, J.E.H. Martin (3♂, CNC); Marmora, 44.48333°N, 77.6667°W, 07.v.1952, J.R. Vockeroth (1♂, CNC); **Quebec:** Aylmer, 45.83°N, 71°W, 10–23.v.1923, C.H. Curran, J. McDunnough (2♂, 11♀, CNC); Beechgrove, 45.65°N, 76.13°W, 10.v.1962, J.R. Vockeroth (1♂, CNC); Great Whale River, 55.25°N, 77.78333°W, 23.vi.1949, J.R. Vockeroth (1♂, CNC); Hull, 45.447639°N, 75.733192°W, 07.v.1924, C.H. Curran (1♂, CNC); Lac Mondor, Ste. Flore, 46.625254°N, 72.768842°W, 08–11.v.1951, E.G. Munroe (5♂, CNC).

Platycheirus trichopus

Canada: British Columbia: 8 km Northwest of Sidney, Capital R.D., 48.685685°N, 123.440946°W, 1829m, 2–11.vii.1988, Malaise trap, J.M. Cumming (1♂, CNC); Apex Mountain, Penticton, 49.482486°N, 119.934458°W, 1981m, 26.vii.1967, G.J. Spencer (2♀, CNC); Bowser, Nanaimo Regional District, 49.442103°N, 124.68311°W, 31.v.1955, R. Coyles, 05.vi.1955, J.R. McGillis (2♀, CNC Burnaby Mountain, Greater Vancouver R.D., 49.279167°N, 122.908611°W, 24.vi.1979, D. Gillespie (2♂, CNC); Burnaby, Greater Vancouver R.D., 49.229195°N, 122.947248°W, 20–23.viii.1970, R.A. Ellis (1♂, 1♀, CNC); Capilano, Greater Vancouver R.D., 49.326833°N, 123.141014°W, 300m, 05–19.x.1972, J.R. Vockeroth (9♂, 6♀, CNC); Clayburn, New Westminster L.D., 49.083333°N, 122.283333°W, 19.vii.1953, W.R.M. Mason (2♀, CNC); Cowichan Lake, Cowichan Valley R.D., 48.888341°N, 124.314449°W, 25.vi.1964, J.A. Chapman

(1♀, CNC); Diamond Head Trail, Garibaldi Park, Near Squamish, 49.811126°N, 123.07434°W, 975m, 28.viii.1953, G.J. Spencer (1♀, CNC); Hixon, Fraser-Fort George R.D., 53.42026°N, 122.58596°W, 14.vi.1966, E.D.A. Dyer (1♀, CNC); Horseshoe Bay, Greater Vancouver R.D., 49.369273°N, 123.278875°W, 0–300m, 29.v.1961, J.R. Vockeroth (1♀, CNC); Lighthouse Park, West Vancouver, Greater Vancouver R.D., 49.335544°N, 123.26255°W, 25.v.1973, J.R. Vockeroth (1♀, CNC); Manning Park, Blackwall Mountain, Okanagan-Similkameen, R.D., 49.098666°N, 120.766925°W, 1829m, 07.viii.1953, D.F. Hardwick (1♂, CNC); Meager Creek Hot Springs, Squamish-Lillooet R.D., 50.561617°N, 123.486344°W, 15.v.1987, C.S. Guppy (1♀, CNC); Milner, Greater Vancouver R.D., 49.12645°N, 122.624898°W, 12.vii.1953, G.J. Spencer (1♀, CNC); Mount Seymour, Vancouver, Greater Vancouver R.D., 49.365345°N, 122.948225°W, 790m, 17.v.1973, J.R. Vockeroth (1♂, CNC); Point Grey, Greater Vancouver R.D., 49.265517°N, 123.206019°W, 01.x-19.ix.1972, 11.v.1973, J.R. Vockeroth (10♂, 7♀, CNC); Robson, Central Kootenay L.D., 49.342029°N, 117.697831°W, 06.v.1959, H.R. Foxlee (1♀, CNC); Sardis, Fraser Valley R.D., 49.132521°N, 121.959959°W, 26.vii.1948, H.R. Foxlee (1♀, CNC); Stein Lake, Thompson-Nicola R.D., 50.162807°N, 122.185489°W, 27.vi.1986, S.G. Cannings (1♀, CNC); Terrace, 54.516512°N, 128.586663°W, 11.viii.1960, W.R. Richards (1♀, CNC); Vancouver, Greater Vancouver R.D., 49.263588°N, 123.138565°W, 26.ix.1949, K. Bourns, 11–12.v.1966, J.W. Boyes, 15.iv.1962, J.E.R. Stainer, 28.iii.1987, J.R. Vockeroth (4♂, 5♀, CNC); Victoria, Capital R.D., 48.456755°N, 123.360889°W, 26.iv–10.v.1916, R.C. Treherne, 02.iv.1921, W.R.S., 08–09.vi.1926, W. Downes, 26.iii.1984, J.R. Vockeroth (3♂, 3♀, CNC); William's Lake, 52.1167°N, 122.067°W, 20.viii.1960, B. Heming (1♀, CNC); **Nunavut:** Arviat (Eskimo Point), 61.108219°N, 94.058513°W, 09.viii.1950, G.G. DiLabio (1♀, CNC); **United States of America:** **Alaska:** Skagway, 59.45194°N, 135.31583°W, 23.viii.2010, on wall, S.P.L. Luk (1♀, DEBU); **Arizona:** Cochise Co., Chiricahua Mountains, 31.929812°N, 109.382285°W, J.L. Neff, A.R. Moldenke (2♀, CNC); Diamond Rock, White Mountains, 33.813691°N, 109.303261°W, 25.viii.1947 (1♀, CNC); Ramsey Canyon, 15 Miles South of Sierra Vista, Huachuca Mountains, 31.337025°N, 110.302646°W, 1585m, 10.iv.1967, R.F. Sternitzky (2♂, CNC); Ramsey Canyon, 15 Miles South of Sierra Vista, Huachuca Mountains, 31.337025°N, 110.302646°W, Malaise trap, 04–09.iv.1967, R.F. Sternitzky (1♂, 1♀, CNC); Ramsey Canyon, 15 Miles South of Sierra Vista, Huachuca Mountains, 31.337025°N, 110.302646°W, 1585m, 09.iv.1967, R.F. Sternitzky (1♀, CNC); Ramsey Canyon, Huachuca Mountains, 34.446077°N, 110.311099°W, 1676m, 02.v.1967, D.M. Wood (1♂, CNC); **California:** Antioch, 38.004921°N, 121.805789°W, 16.iii.1951, J.C. Hall, 26.iv.1968, D.D. Munroe (2♂, CNC); Baxters, Placer County, 20.v.1952, A.T. McClay (1♂, CNC); Berkeley, 37.875149°N, 122.243713°W, 30.v.1951, E.I. Schilinger (1♀, CNC); Campus Experimental Area, San Mateo County, 37.429599°N, 122.170695°W, A.R. Moldenke (7♂, 2♀, CNC); Carmel, 36.555239°N, 121.923288°W, 07.vi.1921, L.S. Slevin (1♂, CNC); Crystal Lake, Los Angeles County, 39.32268°N, 120.570209°W, 09.vii.1952, A.T. McClay (1♀, CNC); Dark Canyon N. Of Idyllwild, 33.816667°N, 116.716667°W, 24.v.2003, J. Skevington (1♂, CNC); Davis, 38.544904°N, 121.740514°W, 06–19.v.1951, A.T. McClay (2♂, 2♀, CNC); Dodge Ridge, Tuolumne County, 38.139363°N, 120.022407°W, 15.vii.1951, A.T. McClay (1♀, CNC); Fish Canyon, 34.601655°N, 118.664533°W, 26.x.1949, E.I. Schilinger (1♂, CNC); Fort Bragg, 39.445723°N, 123.805293°W, 22.vi.1920, Carl D. Duncan (1♀, CNC); Fresno County, Dinkey Creek area, Laurel Creek, 37.159063°N, 119.058608°W, 04.vi.1987 (1♂, 1♀, CNC); Great Smoky Mountains National Park, Clingmans Dome, 35.55°N, 83.47°W, 1800m, 29.v.1999, M. Hauser (1♂, CSCA); Hollister, 38.544904°N, 121.740514°W, 29.v.1948, E.I. Schilinger (1♂, CNC); Huntington Lake, Midge Creek, Fresno County, 37.255484°N, 119.171799°W, 2200m, 10–13.viii.1984, J. MacDonald (4♂, 1♀, CNC); Huntington Lake, Rancheria Creek, Fresno County, 37.255484°N, 119.171799°W, 2600m, 22.viii.1984, J. MacDonald (6♂, CNC); Lafayette, 37.885795°N, 122.117499°W, 06.iv.1968, D.D. Munroe (1♂, CNC); Lily Pond, Alpine Lake, Marin County, 37.81278°N, 120.06333°W, 457m, 18.iii–17.iv.1971, Malaise trap, D.D. Munroe (1♂, 1♀, CNC); Los Angeles, 34.052234°N, 118.243685°W, 1915 (1♀, CNC); Los Gatos, 37.226611°N, 121.97468°W, vi.1933, C.A. Hamsher (2♀, CNC); Montara, 37.542162°N, 122.516089°W, 26.iii.1951, E.I. Schilinger (1♂, CNC); Monterey, 36.600238°N, 121.894676°W, 05.vii.1973, pan trap, J.R. Vockeroth (1♂, CNC); Mount Diablo, 37.881591°N, 121.913847°W, 24.iii.1951, 11.v.1952, E.I. Schilinger (1♂, 1♀, CNC); Mt. Pinos, 2930 m, 2–3.vi.1992, Malaise, J. Skevington & A. Goering (1♂, DEBU); Palm Canyon, Palm Springs, 33.763323°N, 116.554999°W, 16.iii.1955, W.R.M. Mason (1♂, CNC); Redwood City, San Mateo County, 37.442154°N, 122.328755°W, 28.v.1946, Paul H. Arnaud (1♀, CNC); San Anselmo, 17.iv.1980, carrion, S.A. Marshall (1♀, DEBU); Saratoga, 37.26°N, 122.02°W, 14.iv.1980, S.A. Marshall (5♂, DEBU); Sequoia National Park, 36.56076°N, 118.767601°W, 26.vii.1980, R.H. Painter (1♀, CNC); Snow Creek, White Water, 33.899738°N, 116.673349°W, 22.iii.1955, W.R.M. Mason (1♂, CNC); Snow Crest Camp, San Bernardo County, 34.254561°N, 117.633667°W, 07.vii.1952, H.L. Mathis (1♂, CNC); Strawberry, Tuolumne County, 38.199053°N, 120.008565°W, 25.vi.1951, R.W. Morgan (1♀, CNC); Tioga Pass, Hall Area site, Mono County, 37.919391°N, 119.255072°W, A.R. Moldenke (3♀, CNC); University Park, San Mateo County, 33.663176°N, 117.810627°W, 24.iv.1921, Carl D. Duncan (1♀, CNC); Whittier, 33.979179°N, 118.032844°W, 27.i.1923, Timberlake (1♀, CNC);

Whittier, 33.979179°N, 118.032844°W, 27.vii.1923, Timberlake (1♂, CNC); **Colorado:** Copper Mountain, 39.496°N, 106.135°W, 3353m, 3.ix.1995, S. Fitzgerald (1♂, CSU); Doolittle Ranch, Mount Evans, 39.675739°N, 105.601348°W, 2987m, 11.viii.1961, W.R.M. Mason (1♂, CNC); Golden Gate Canyon State Park, 38.852°N, 105.418°W, 26.vi.2005 (1♂, CSU); Mount Cooper, ~11 km N Leadville, ski hill, 39.34958°N, 106.28428°W, 3584m, 28.vi.2010, A.D. Young (1♂, DEBU); **Idaho:** Galena Summit, Blaine County, 43.870740°N, 114.713955°W, 2621m, 15.vii.1961, B.H. Poole (1♀, CNC); Mary's Peak, Hwy 34, 44.505833°N, 123.551111°W, 16.vii.1968, B.V. Peterson (1♀, CNC); Moscow Mountain, 46.800972°N, 116.866093°W, vi.1921, vi.1926, F.M. Hull (1♂, 2♀, CNC); **New Mexico:** Cherry Creek Campgrd, 14 mi N Silver City, 32.91417°N, 108.225°W, 2103m, 14.viii.2007, S.A. Marshall (1♀, DEBU); Santa Fe Natl. For., Holy Ghost Campground, 27.v.1991, J.E. Swann (2♂, DEBU); **Oregon:** Marys Peak, 44.51032°N, 123.55098°W, 1085m, 5.vii.2010, M.M. Locke (3♂, DEBU); Sutherlin, 13 mi. NW, 43.479°N, 123.491°W, 31.v.1996, R.S. Beal (1♂, CSU); **Washington:** Fort Lewis, Pierce County, 47.116969°N, 122.585721°W, 31.iii–12.vi.1946, Paul H. Arnaud (5♂, 3♀, CNC); Illahee, Kitsap County, 47.623261°N, 122.598096°W, 06.ix–23.x.1955, D.P. Frechin (5♂, 1♀, CNC); Mount Baker, 48.90495°N, 121.697917°W, 11.vii.1985, A. Borkent, 7–8.vii.2010, A.D. Young & M.M. Locke (2♂, 3♀, CNC); Mt. Ranier National Park, Panther Creek, 46.9°N, 121.54°W, 17.vi.2004, B.C. Kondratieff (1♀, CSU); Seattle, 47.60621°N, 122.332071°W (1♂, CNC); Silver Fir Campground, ~17 km NE Mt. Baker, 613m, 7–9.vii.2010, M.M. Locke (1♀, DEBU); White Pass, Pacific Crest Trail, 46.64332°N, 121.37878°W, 1345m, 6.vii.2010, A.D. Young (1♀, DEBU).

Platycheirus urakawensis

Canada: British Columbia: Kleanza Creek, 54.597897°N, 128.386241°W, 17.vi.1960, W.W. Moss (1♂, CNC); Kleanza Creek, 14 mi E Terrace, 54.5956°N, 128.3917°W, 17.vi.1960, J.G. Chillcott (1♂, CNC); **Japan:** Kumamoto Izumi-mura, Mt. Hakuchozan, 1300m, 19–30.vii.1977, K.Ohara 26.v.1978 T.Goto (5♀, CNC); **United States of America: Alaska:** Route 3, Mile 270, 11 Miles South of Anderson, 64.217681°N, 149.283595°W, 23.vi–2.viii.1984, S. & J. Peck (1♂, CNC).

Platycheirus varipes

Canada: British Columbia: Atlin, 59.5775°N, 133.69236°W, 22.vii.1955, B.A. Gibbard (1♂, CNC); Moosehorn Lake, 58.1667°N, 132.1167°W, 1372m, 28.vii.1960, W.W. Moss (1♂, CNC); Mt. Revelstoke, 51.05°N, 118.1333°W, 1645m, 06.vii.1952, G.P. Holland (1♂, CNC); Summit Lake, Mile 392 of Alaska Highway, 58.648201°N, 124.666912°W, 1524m, 15.vi–30.vii.1959, E.E. MacDougall (3♂, CNC); **Manitoba:** Gillam, 56.35333°N, 94.714404°W, 26.vi.1950, J.F. McAlpine (1♂, CNC); **Northwest Territories:** Hopedale, Labrador, 55.457954°N, 60.211485°W, 07.vii.1923 (1♂, CNC); Salmita Mines, 64.08333°N, 111.25°W, 04.vii.1953, J.G. Chillcott (1♂, CNC); Victoria Island, 71.28333°N, 114°W, 25–30.vi.1975, G. & M. Wood (1♂, CNC); Yellowknife, 64.08333°N, 111.25°W, 10.vi.1949, E.F. Cashman (1♂, CNC); **Ontario:** Low Bush, Lake Abitibi, 48.90556°N, 80.00556°W, 9.vi–3.viii.1925, N.K. Bigelow (3♂, 3♀, DEBU); **Quebec:** Great Whale River, 55.25°N, 77.78333°W, 20.vi–02.viii.1949, J.R. Vockeroth (3♂, CNC); Ile d'Anticostie, Jupiter, 49.530833°N, 63.280556°W, 16–30.vi.2007, Malaise trap (1♂, CNC); Ile d'Anticostie, Lac McRay, 49.873056°N, 64.08°W, 15–29.vi.2007, Malaise trap (1♂, CNC); Indian House Lake, 56.328482°N, 64.720845°W, 22.vii.1954, R. Coyles (1♂, CNC); Knob Lake, 54.78333°N, 66.78333°W, 07.vii.1948, E.G. Munroe (1♂, CNC); Mistassini, 48.888579°N, 72.23°W, 29.v.1956, J.R. McGillis (1♂, CNC); Thunder River, 50.275192°N, 64.768603°W, 14.vi.1930, W.J. Brown (1♀, CNC); **Yukon Territory:** Dickson Lake, Mount Mye, 62.35°N, 133.1333°W, 1524m, 14.vi.1960, J.E.H. Martin (1♂, CNC); Herschel Island, 28.vi–28.vii.1971, Malaise trap, W.R. Mason (2♂, CNC); km 82, Dempster Highway, 64.581259°N, 138.261721°W, 1300m, 20–21.vii.1981, Lafontaine & G & M. Wood (1♂, CNC); Mile 51, Dempster Highway, 64.605992°N, 138.33789°W, 7–12.vii.1973, G. & D.M. Wood (1♂, CNC); Mile 87, Dempster Highway, 65.054721°N, 138.128324°W, 8–17.vii.1973, G. & D.M. Wood (2♂, CNC); North Fork Crossing, Mile 42 Peel Pit Road, 64.565983°N, 138.250648°W, 1067m, 26–28.vi.1962, P.J. Skitsko (2♂, CNC); North Fork Crossing, Mile 43 Peel Pit Road, 64.565983°N, 138.250648°W, 1067m, 02–07.vii.1962, R.E. Leech, 03.vii.1962, P.J. Skitsko (7♂, CNC); North Fork Pass, Ogilvie Mountains, 64.565983°N, 138.250648°W, 1250m, 20.vi.1962, R.E. Leech (1♂, CNC); Otter Lake, 62.486817°N, 130.4167°W, 1219m, 16.vii.1960, E.W. Rockburne (2♂, CNC); **United States of America: Alaska:** Deering, 66.075556°N, 162.717222°W, 1–6.viii.1968, Malaise trap, J. Matthews (1♂, CNC); Kanuti National Wildlife Refuge, 66.488998°N, 151.270996°W, 16.vii.2008, L. Saperstein (1♀, UAM); Koyukuk-Nowitna Nat.Wild. Ref., Nogahabara Dunes, 65.40100°N, 157.294006°W, 21.vii.2001, J.J.Kruse (1♀, UAM); Nome, 64.5°N, 165.4°W, 21.vi.1951, D.P. Whillans (1♂, CNC); Unalakleet, 63.8667°N, 160.7833°W, 10.viii.1961, B.S. Heming (1♂, CNC); **Maine:** Echo Lake, Mount Desert, 44.439636°N, 70.02021°W, vii.1912 (1♂, CNC); **New Hampshire:** Coos Co.,

Scott Bog, Connecticut Lakes, 45.08338°N, 71.24952°W, 05.vi.1988, F.D. Fee (1♂, CNC); **Wyoming:** Albany Co., Snowy Range Mountains, 41.321287°N, 105.874033°W, 26.vii.1947, D.G. Denning (1♂, CNC).

Platycheirus woodi

Holotype ♂ *Platycheirus woodi* Vockeroth, 1990: HOLOTYPE *Platycheirus woodi* Vockeroth CNC No 18789 / [Canada] YUKON [Territory] 66 08'N 135 44'W [66.13°N, 135.7333°W] 2600' [792m] Richardson mts. 6.VII.[19]82 M. Wood / CNC DIPTERA #73694 / *woodi* n. sp. holotype (CNC). **Canada: Yukon Territory:** Richardson Mountains, 66.13°N, 135.7333°W, 06.vii.1982, M. Wood (1♂, CNC).

Platycheirus yukonensis

Holotype ♂ *Platycheirus yukonensis* Vockeroth, 1990: [Canada] MI[le]. 51, Y[ukon]. T[erritory]. Dempster Hwy. [64.605992°N, 138.33789°W] 17–21.VI.1973 G. & D.M. Wood / HOLOTYPE *Platycheirus yukonensis* Vockeroth CNC No 20224 / CNC DIPTERA #73695 (CNC). **Canada: Yukon Territory:** British Mountains, 69.2167°N, 140.0833°W, 320m, 21–25.vi.1980, G. & M. Wood & D. Lafontaine (1♂, CNC); Dickson Lake, Mount Mye, 62.341848°N, 133.130162°W, 1524m, 14.vi.1960, J.E.H. Martin (1♂, CNC); Herschel Island, 69.58333°N, 139.0833°W, 05–08.vii.1953, J.S. Waterhouse, 28.vii.1953, C.D. Bird, 28–29.vi.1971, D.M. Wood (11♂, CNC); km 465, Dempster Highway, 67.046392°N, 136.209668°W, 800m, 23–25.vi.1980, Wood & Lafontaine (1♂, CNC); Mile 51, Dempster Highway, 64.605992°N, 138.33789°W, 7–27.vi.1973, G. & D.M. Wood (16♂, CNC); Mile 87, Dempster Highway, 65.054721°N, 138.128324°W, 27–30.vi.1973, G. & D.M. Wood (1♂, CNC); North Fork Pass, Ogilvie Mountains, 64.565983°N, 138.250648°W, 1250m, 12–16.vi.1962, R.E. Leech, 24.vii.1973, G. & D.M. Wood (4♂, CNC).