Zootaxa 5557 (1): 001–263
https://www.mapress.com/zt/

Monograph

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

https://doi.org/10.11646/zootaxa.5557.1.1
http://zoobank.org/urn:lsid:zoobank.org:pub:6CE8CC38-F965-4404-ACCD-6D0DBDB942FB

ZOOTAXA

5557

Illustrated key to the genera and catalogue of Mymaridae (Hymenoptera) in the Neotropical region

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Magnolia Press
Auckland, New Zealand

Accepted by G. Gibson: 2 Sept. 2024; published: 24 Dec. 2024

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(*Zootaxa* 5557)

263 pp.; 30 cm.

24 Dec. 2024

ISBN 978-1-77973-233-0 (paperback)

ISBN 978-1-77973-234-7 (Online edition)

FIRST PUBLISHED IN 2024 BY

Magnolia Press

P.O. Box 41-383

Auckland 1041

New Zealand

e-mail: magnolia@mapress.com

https://www.mapress.com/zt

ISSN 1175-5326 (Print edition)

ISSN 1175-5334 (Online edition)

Table of Contents

Abstract . . . 5
Introduction . . . 5
Methods . . . 6
Family diagnosis . . . 8
Hosts and biology . . . 8
Key to Neotropical genera of Mymaridae. Females . . . 8
Key to Neotropical genera of Mymaridae. Males . . . 13
Catalogue of Mymaridae in the Neotropical region . . . 16
ACMOPOLYNEMA Ogloblin, 1946 . . . 17
AGALMOPOLYEMA Ogloblin, 1960 . . . 22
ALAPTUS Westwood, 1839 . . . 25
ANAGROIDEA Girault, 1915 . . . 27
ANAGRUS Haliday, 1833 . . . 27
ANAPHES Haliday, 1833 . . . 35
ARESCON Walker, 1846 . . . 37
AUSTRALOMYMAR Girault, 1929 . . . 39
CALLODICOPUS Ogloblin, 1955 . . . 39
CAMPTOPTERA Foerster, 1856 . . . 40
CAMPTOPTEROIDES Viggiani, 1974 . . . 42
CHRYSOCTONUS Mathot, 1966 . . . 42
CLERUCHOIDES Lin & Huber, 2007 . . . 43
CLERUCHUS Enock, 1909 . . . 44
CNECOMYMAR Ogloblin, 1963 . . . 44
COSMOCOMOIDEA Howard, 1908 . . . 46
CREMNOMYMAR Ogloblin, 1952 . . . 59
DICOPOMORPHA Ogloblin, 1955 . . . 61
DICOPUS Enock, 1909 . . . 62
ENTRICHOPTERIS Yoshimoto, 1990 . . . 63
ERYTHMELUS Enock, 1909 . . . 65
GAHANOPSIS Ogloblin, 1946 . . . 70
GASTROGONATOCERUS Ogloblin, 1935 . . . 72
GONATOCERUS Nees, 1834 . . . 74
KALOPOLYNEMA Ogloblin, 1960 . . . 77
KIKIKI Huber & Beardsley, 2000 . . . 78
KRATERISKE Huber, 2015 . . . 78
KROKELLA Huber, 1993 . . . 79
LITUS Haliday, 1833 . . . 79
LYMAENON Walker, 1846 . . . 80
MEGAMYMAR Huber, 2022 . . . 82
MYMAR Curtis, 1829 . . . 82
NEOMYMAR Crawford, 1913 . . . 83
NEOPOLYNEMOIDEA Huber, 2022 . . . 84
NEOSTETHYNIUM Ogloblin, 1964 . . . 84
NEPOLYNEMA Triapitsyn, 2014 . . . 85
NOTOMYMAR Doutt & Yoshimoto, 1970 . . . 85
OMYOMYMAR Schauff, 1983 . . . 86
OOCTONUS Haliday, 1833 . . . 87
PALAEONEURA Waterhouse, 1915 . . . 88
PARANAPHOIDEA Girault, 1913 . . . 89
PLATYFRONS Yoshimoto, 1990 . . . 89
PLATYPOLYNEMA Ogloblin, 1960 . . . 90
PLATYSTETHYNIUM Ogloblin, 1946 . . . 90
POLYNEMA Haliday, 1833 . . . 91
POLYNEMULA Ogloblin, 1967 . . . 94
PORCEPICUS Huber, 2022 . . . 95
PTILOMYMAR Annecke & Doutt, 1961 . . . 95
QUASIPALAEONEURA Triapitsyn & Huber, gen. n. . . . 96
SCHIZOPHRAGMA Ogloblin, 1949 . . . 97
STEPHANOCAMPTA Mathot, 1966 . . . 99

STEPHANODES Enock, 1909 100
STETHYNIUM Enock, 1909 101
TANYXIPHIUM Huber, 2015 101
TETRAPOLYEMA Ogloblin, 1946 102
TINKERBELLA Huber & Noyes, 2013 103
VLADIMIR Triapitsyn, 2013 103
XENOPOLYNEMA Ogloblin, 1960 104
YOSHIMOTOANA Huber, 2015 104
Nomina nuda 105
Mymaridae spp.. 105
Discussion and conclusions 105
Acknowledgments 106
References 106
Erratum in *Zootaxa* 5504 (1), 1–75 123
APPENDIX 124

Abstract

This paper summarizes the current knowledge on Neotropical Mymaridae. Separate identification keys for females, and for males where known, are given for the 60 valid genera of Mymaridae in the Neotropical region south of Mexico but including Bermuda and the islands of the Caribbean Sea. The subgenera of four genera (*Anagrus* Haliday, *Anaphes* Haliday, *Erythmelus* Enock and *Polynema* Haliday) are also included in the key to females. The genera are illustrated with 356 photographs. The 298 valid species reported from the region are catalogued. Host genus and, sometimes, species records are reported for 15 genera and 61 species of Mymaridae from rearings undertaken in the region. The hosts identified to order and sometimes to family are known for a few additional genera. An appendix lists the 34 species from Mexico but not recorded in the Neotropical region as defined in this publication. *Tanyostethium* Yoshimoto, **syn. n.**, is synonymized under *Erdosiella* Soyka and its type species *Tanyostethium elongatum* Yoshimoto is transferred to *Erdosiella* as *Erdosiella elongatum* (Yoshimoto), **comb. n.** †*Palaeopatasson* Witsack, **syn. n.**, is synonymized under *Schizophragma* Ogloblin and its type species, †*Palaeopatasson grollei* Witsack is transferred to *Schizophragma* as *Schizophragma* †*grollei* (Witsack), **comb. n.** One new genus in the *Polynema* group of genera is described from the New World, *Quasipalaeoneura* Triapitsyn & Huber, **gen. n.**, with the type species *Polynema mymaripennis* Dozier. *Palaeoneura mymaripennis* (Dozier) and *P. durwest* Triapitsyn are transferred to *Quasipalaeoneura* as, respectively, *Quasipalaeoneura mymaripennis* (Dozier), **comb. n.** and *Quasipalaeoneura durwest* (Triapitsyn), **comb. n.**.

Key words: Chalcidoidea, egg parasitoid, biodiversity, Neotropical species

Introduction

In many regions and terrestrial habitats individuals of Mymaridae are often the most numerous parasitoid wasps collected, not only in the superfamily Chalcidoidea but among all parasitoid Hymenoptera. This is because they parasitize the egg stage of their hosts, the most abundant stage of most insects. Their relative abundance in mass collections of parasitic Hymenoptera is illustrated in the following examples. In three localities in Brazil, Souza *et al.* (2006), Simões-Pires *et al.* (2016), and Dall'Oglio *et al.* (2016) demonstrated their relative abundance in two agricultural areas and in a forested area, respectively. In the agricultural area with sorghum, maize, beans and wheat, Moericke (yellow pan) traps yielded about 5,300 Hymenoptera, almost 31% of which were Mymaridae (Souza *et al.* 2006). In the organic irrigated rice area 914 individuals out of 3184 parasitoid wasps, i.e., about 29%, were Mymaridae (Simões-Pires *et al.* 2016). In the forested area (a *Eucalyptus* forest), 4934 individuals out of 9639 individuals, i.e., about 51%, were Mymaridae. In contrast, Mymaridae were collected in very low numbers relative to the other families of parasitic Hymenoptera in both a pineapple plantation and nearby tropical dry forest (Arrieche *et al.* 2015), and in relatively moderate numbers in a cover coconut palm plantation where 1007 individuals, i.e., 5.1%, of 19,861 parasitoids were Mymaridae (Comério *et al.* 2013). While the number of collected individuals in many regions is often among the highest in Chalcidoidea, the number of species is much lower. Noyes & Valentine (1989) stated that Mymaridae make up less than 10% of known chalcidoid species worldwide, except in New Zealand where they make up 25%. Given the numerical abundance and diversity of Mymaridae, and their importance in ecological terms as natural enemies, it is therefore useful to be able to identify them, to genus at least. The present paper was prepared to help interested entomologists in Central and South America and the West Indies identify the Mymaridae genera of this region.

Guzmán-Larralde *et al.* (1997) identified numerous genera from central Mexico. Guzmán-Larralde *et al.* (2016) and Huber *et al.* (2020) then treated, respectively, the fauna of Mymaridae of Mexico and America north of Mexico (accidentally excluding Bermuda), so the area covered here is the remainder of the Western Hemisphere. The fauna of the region covered is fairly well known at the generic level but generally poorly known at the species level. De Santis (1967, 1980) catalogued the species of Argentina and Brazil, respectively. De Santis (1979, 1983, 1989) and De Santis & Fidalgo (1994) catalogued the rest of the Neotropical region (including parts of Mexico). Yoshimoto (1990) keyed the genera and listed the species for the entire Western Hemisphere, and also keyed the subgenera of *Anaphes* Haliday and the species groups of *Acmopolynema* Ogloblin and *Gonatocerus* Nees. Huber (1995, 2006) provided overviews of the Mymaridae, with lists of the genera for southern Central America and the entire Neotropical region (including Mexico), respectively. Generic keys exist for only two countries: Argentina (Luft Albarracin *et al.* 2009) and Cuba (Alayo & Hernández 1978). Triapitsyn *et al.* (2010) treated the 84 valid species of *Gonatocerus* Nees for the Neotropical region including Mexico and keyed the five subgenera they recognized.

Huber (2015a) raised these subgenera to genus. There is a genus and species list of fairyflies in Argentina (Luft Albarracin *et al.* 2014). Aquino (2024) produced an online catalogue of the Mymaridae of Brazil.

Here we key the genera of Mymaridae, and catalogue the extant species and Neotropical literature associated with them. Only one fossil species is described from the region: *Palaeopatasson grollei* Witsack from Dominican Republic Oligocene amber (Witsack 1986). It is placed in synonymy below. Huber (2006) reported *Ceratanaphes* Noyes & Valentine from Chile but specimens examined from elsewhere in South America suggest that the genus grades into *Cleruchus* Enock and no true *Ceratanaphes* occur in the Western Hemisphere.

Methods

Geographical range covered. For the purpose of this work the Neotropical region excludes Mexico, whose fauna of Mymaridae was already treated (Guzmán-Larralde *et al.* 2015), but includes Bermuda, the islands of the Caribbean, and all of Central and South America and their offshore islands in the South Pacific and South Atlantic Oceans from 120°W to about 30°W. These limits are used so as to include Easter Island at 109° 27'W and St. Peter and St. Paul Archipelago at 29° 20' W. Among the various islands or island groups off both coasts of Central and South America nominal species have been described only from the Juan Fernández Islands and South Georgia Island. Genera or species described from elsewhere were more likely accidentally or deliberately introduced into several of the other islands, however. The seven southern counties in Florida (USA) are essentially Neotropical but their fauna was treated as being within the Nearctic region (Huber *et al.* 2020). This is mentioned here because some genera, e.g., *Anagroidea* Girault has no described species in the Neotropical region but has one described species from southern Florida that likely occurs further south as well.

Keys and illustrations. The format followed here is similar to that of Huber *et al*. (2020, 2021). Separate keys to females and males are given. The keys and generic diagnoses are supplemented with 356 images. In the key to males the images for females are usually referenced as most features illustrated are the same in both sexes; only a few images of males are given. The few images specifically of males are indicated in the captions. The images are not necessarily of a single species in a given genus so it should not be assumed that images of a fore and hind wing are necessarily of the same species as images of the head or body. A fairly standard set of images is given for each genus, namely head anterior view, and posterior view as photographed through the head, female and occasionally male antennae, a pair of wings, mesosoma dorsal view, and occasionally "ventral" view as photographed through the mesosoma, metasoma dorsal view, and "ventral" view as photographed through the metasoma (to show the genitalia) and, occasionally, a lateral view. In general, the back of the head and the dorsal or ventral views of the metasoma are least informative but included nonetheless, for comparison. The metasoma in 'ventral' view is given to show the length and structure of the female genitalia. Other images may be included to show unique features for a particular genus. Occasionally, only a habitus is shown because either no other specimens are known, e.g., *Megamymar* Huber, or the genus is so distinctive, e.g., *Mymar* Curtis. We emphasize that the images are to illustrate features of the genus, and should not be used to identify particular species. Occasionally, no suitable specimens from the Neotropical region were available so photographs of species from other regions were used (*Cleruchoides* Lin & Huber, *Cnecomymar* Ogloblin, *Paranaphoidea* Girault, *Stethynium* Enock).

Terms. Morphological terms used for body parts generally follow the standard terms used in Chalcidoidea (Gibson 1997) with illustrations and a few changes for Mymaridae in Huber (2015a) and Huber *et al.* (2020). Comparison of the photographs presented here may also be made with labelled scanning electron micrographs (Huber *et al.* 2023a, 2023b, 2024). Burks *et al.* (2025, in press) updated and standardized morphological terms for Chalcidoidea. Body parts are therefore not labelled on illustrations in the present paper.

Taxonmic conventions and literature. To avoid repetition, generic synonymies are given only for genera not treated in Huber *et al.* (2020, 2021). In the species catalogue the genera are listed alphabetically. If a genus does not yet have named species the approximate number of countries from which specimens of the genus were examined are given under "Distribution", based usually on specimens deposited in two major collections of Mymaridae (Ottawa, Ontario, Canada, and Riverside, California, USA; their acronyms are listed below).

Within each genus the species and their Neotropical synonyms are listed alphabetically, followed by the reference to the original description. Because the regional catalogues listed above do not give complete citations we provide that information here for as much of the Neotropical literature as we could check. The Universal Chalcidoidea

Database (Noyes 2019) includes the world literature up to end of March, 2019, and TaxonWorks (UCD Community 2024) gives it as much as possible up to the present (especially for the taxonomic literature). For species distributed over two or more continents the extralimital literature is therefore usually excluded even though it may contain important information on biology. That literature may be found in those two sources. Sometimes we reference useful identification keys that treat mainly the extralimital fauna but may still be useful for the Neotropical fauna. Finally, the literature published by Alexandre Arsène Girault (1884–1941) required unique treatment because he published 462 papers as sole author (63 of the privately printed) and another 9 as co-author. Dahms (1978) numbered and catalogued the sole-authored ones in chronological order, assigning a unique number to each. Those numbers are given in brackets for the Girault references cited in the text and references to indicate unequivocally which are which; it makes them easier to find, even though only 15 of them are cited herein.

The type locality is as it was given in the original description but usually without details of elevation, latitude/longitude, collection date, collector name(s), and habitat (if given). Several species have a distribution over two or more biogeographic regions; extralimital references to these are summarized elsewhere, e.g., for species in the Nearctic region (Huber *et al*. 2020), the Afrotropical region (Huber *et al.* 2021) and in some generic revisions, e.g., Triapitsyn (2017) for *Alaptus* Westwood (except a few references missed by him). Extralimital synonyms are excluded as well as most extralimital literature that does not specifically mention specimens from the Neotropical region.

Abbreviations used in the keys, text or illustrations are as follows: fl = flagellum (in males), fu = funicle segment (in females), gs = gastral sternum, gt = gastral tergum, mps = multiporous plate sensillum or sensilla (= longitudinal sensillum or sensilla, of authors), TL = type locality.

Name-bearing (i.e., primary) type specimens of Neotropical species are deposited in the following institutions. The abbreviations follow Evenhuis (2023). If material was examined from an institution, the curator who made the loan or allowed us to examine material when we visited is given.

ANIC—Australian National Insect Collection, CSIRO, Canberra City, Australian Capital Territory, Australia. J. Cardale.

BPBM—Bernice P. Bishop Museum, Honolulu, Hawaii, USA. K. Arakaki.

CNC—Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, Ontario, Canada. J. Huber.

IAVH—Instituto Alexander von Humboldt, Bogotá, Colombia.

IFML—Instituto Fundación Miguel Lillo, Tucumán, Argentina.

INBio—Insituto Nacional de Biodiversidad de Costa Rica, San José, Costa Rica.

INHS—Illinois Natural History Survey, Urbana, Illinois, USA.

INPA—Instituto Nacional de Pesquisas da Amazonia, Colecão Sistemática da Entomologia, Manaus, Amazonas, Brazil.

MACN—División Entomología, Museo Argentino de Ciencias Naturales « Bernardino Rivadavia », Buenos Aires, Argentina. A. Roig-Alsina.

MEUC—Universidade de Santiago de Chile, Santiago, Chile.

MLPA—Museo de La Plata, La Plata, Argentina. D. Aquino.

MNCN—Museo Nacional de Ciencias Naturales, Madrid, Spain. M. París.

NHMUK—Natural History Museum, London, England, UK. N. Dale-Skey.

NHMW—Naturhistorisches Museum Wien, Vienna, Austria. M. Vizek.

NMID—National Museum of Ireland, Dublin, Republic of Ireland. J. O'Connor.

OUMNH—University Museum of Natural History, Oxford, England, UK. J. Hogan.

PPDD—Insect Collection, Ministry of Agriculture, Dokki, Cairo, Egypt.

QM—Queensland Museum, Brisbane, Australia. C. Burwell.

RBINS—Royal Belgian Institute of Natural Sciences, Brussels, Belgium.

UCRC—Entomology Research Museum, Department of Entomology, University of California, Riverside, California, USA. S. Triapitsyn.

USNM—National Museum of Natural History, Smithsonian Institution, Washington, District of Columbia, USA. M. Gates.

UUZM—Uppsala University, Uppsala, Sweden.

ZMHB—Museum für Naturkunde der Humboldt-Universität, Berlin, Germany.

Family diagnosis

Mymaridae specimens are distinguished from other Chalcidoidea by the head with dark bars of inrolled cuticle (trabeculae) on vertex (Figs 17, 28) and on face dorsally lateral to each torulus (Figs 1a, 6a). Other features helpful in distinguishing the Neotropical species from species belonging to other families of Chalcidoidea are: toruli closer to eyes than to each other (Figs 1a, 6a); fore wing, if present, with venation in macropterous species usually less than 0.4× wing length, rarely longer (Figs 3, 8); costal cell with one backwards projecting setae, the hypochaeta (Figs 3, 21), rarely two (Fig. 166) or more, on ventral surface just anterior to the parastigma; stigmal vein short, represented only by the short stigma; marginal vein usually absent; postmarginal vein almost always absent; hind wing narrow and parallel sided, almost always with membrane except posterior to venation (Figs 3, 8, 9), rarely the hind wing wider, with narrow membrane extending at least halfway towards base of venation (Fig. 21), exceptionally the membrane entirely absent (Fig. 187).

In general, Mymaridae are gracile wasps, with long antennae and legs (Figs 186, 187, 198), which distinguishes them immediately from other families of minute Hymenoptera, e.g., Aphelinidae, Signiphoridae and Trichogrammatidae.

Hosts and biology

At least one reliable host genus is recorded for about 40% of the world genera of Mymaridae (Huber 1986). All species, with two exceptions (Huber *et al.* 2006), are parasitoids inside the eggs of other insects. In the Neotropical region, 61 species in 15 genera have recorded host genera or species and a few additional genera have host records to family or order. This is only about 25% of the genera and 20% of the described species in the region. Very few host records for a given species of Mymaridae are available. Most often, there is only one published record, giving the misleading impression that a species is host specific when, most likely, it probably parasitizes several different host species, either in the same genus or across several genera or even families within the same order. An example is *Anagrus amazonensis* Triapitsyn, Querino & Feitosa, which parasitizes eggs of hosts in three different insect orders (Feitosa *et al.* 2016).

Two species, *Anaphes nitens* (Girault) and *Cleruchoides noackae* Lin & Huber, were introduced from Australia and/or South Africa and have successfully established in South America to control, respectively, *Gonipterus platensis* Marelli (Coleoptera: Curculionidae) and *Thaumastocoris peregrinus* Carpintero & Dellapé (Hemiptera: Thaumastcoridae). Their hosts were introduced accidentally and became serious pests on *Eucalyptus* spp.; they are being controlled to varying extents by the two parasitoids. An unsuccessful attempt was made to introduce and release *Anaphes tasmaniae* Huber & Prinsloo into Chile and Rapa Nui (Easter Island) (Ide *et al.* 2013a). Evidence is needed that this species has established successfully in either South America or Rapa Nui before it can be included in the catalogue of Neotropical species. Attempts to introduce another species, *Anaphes inexpectatus* Huber & Prinsloo against *G. platensis*, are being considered (Wilcken *et al.* 2018) or have been made (Cardeño 2019) into Brazil and Colombia, respectively. The results are unknown. In the expectation that establishment will be successful, we include *A. inexpectatus* in the list of Neotropical species.

Key to Neotropical genera of Mymaridae. Females

[Antenna with apical segments wider than the remaining segments, forming a distinct 1- to 3-segmented clava, e.g., Figs 2, 194, 219.]

1 Wings short, at most extending to apex of mesosoma, or wings absent or apparently so (Fig. 213). 2
- Wings fully developed, extending at least to apex of gaster but usually well beyond 6

2(1) Clava 3-segmented (Fig. 212); mandible with 1 (2?) equal ventral teeth, each with pointed apex, and a dorsal tooth with wide serrated apex . . . . ***Notomymar* Doutt & Yoshimoto** (part)
- Clava 1-segmented (= entire); mandible with 3 equal teeth, each with pointed apex and no serrations 3

3(2) Ocelli absent (Fig. 68a,b), their position indicated by slight change in sculpture; wings absent. (Figs 71, 73, 74) . . . . ***Chrysoctonus* Mathot**
- Ocelli present; micropterous or, if brachypterous, the wings rarely extending at most to apex of gaster 4

4(3) Propodeum with submedian carinae anteriorly, and plicae and costulae, and a faint areole each side of midline (Fig. 48); ovipositor sheath with setae along most of its exserted length (Fig. 49a) . . . . ***Australomymar* Girault** (part)
\- Propodeum without plicae, costulae or areoles; ovipositor sheath with one seta subapically or apparently no setae (ovipositor not exserted or only slightly so) 5
5(4) Propodeum with submedian carinae narrowly spaced apart posteriorly (appearing almost single) and diverging anteriorly. . . . . ***Cremnomymar* Ogloblin** (part)
\- Propodeum without submedian carinae but with submedian sulci widely spaced along entire length . . . . ***Polynema* Haliday** (part) [some *P.* (*Doriclytus* Foerster)]
6(1) Tarsi 5-segmented. 7
\- Tarsi 4-segmented (Fig. 198), exceptionally 3-segmented. 26
7(6) Funicle 8-segmented. 8
\- Funicle at most 7-segmented 16
8(7) Propodeum with diamond-like pattern of carinae (Fig. 234); metasoma, especially in lateral view, with gt_1 and gt_2 distinctly longer than remaining terga (Fig. 235a) . . . . ***Ooctonus* Haliday**
\- Propodeum without carinae as described above, either with 2 longitudinal, more or less parallel (Fig. 96) or oval submedian carinae or lines, or carinae absent and propodeum almost smooth; metasoma, in lateral view, with gt_1 and gt_2 only slightly longer than gt_2 9
9(8) Malar sulcus absent; propodeum almost entirely covered with numerous small deep pits (Fig. 353); petiole almost as long as gaster. . . . . ***Yoshimotoana* Huber**
\- Malar sulcus present (Figs 93a, 326a) but sometimes faint; propodeum without small deep pits except sometimes a few submedially; petiole at most about one-third length of gaster, usually much shorter 10
10(9) Gaster almost always projecting anteriorly ventral to mesosoma as gastral sac containing base of ovipositor and sheaths (Figs 140b, 145); back of head with transoccipital sulcus (Figs 136b, 141b). 11
\- Gaster not projecting anteriorly ventral to mesosoma (gastral sac absent and base of ovipositor and sheaths originating posterior to mesosoma); back of head without transoccipital sulcus 12
11(10) Fore wing almost without microtrichia posterior to and just distal to venation, and remainder of wing microtrichia usually fairly widely separated from one another, relatively sparse; dorsellum with posterior margin evenly rounded; propodeum with two or three fine, faint longitudinal carinae (Fig. 144) between submedian carinae when these present; propodeal spiracle sometimes huge, almost as long as dorsellum (Fig. 144). . . . . ***Gastrogonatocerus* Ogloblin**
\- Fore wing with numerous microtrichia posterior to and distal to venation, the remainder of wing with microtrichia close together, dense; dorsellum with posterior margin slightly sinuate, with obtuse median projection (Fig. 139); propodeum with submedian carinae close together posteriorly for most of length then anteriorly abruptly flaring towards spiracle, and following contour of posterior margin of metanotum (Fig. 139); propodeal spiracle small, about as long as mesonotal spiracle . . . . ***Gahanopsis* Ogloblin** (part)
12(10) Ocellar triangle with 2 setae between lateral ocelli; pronotum with lateral lobes abutting medially (Fig. 96), not separated by a median, usually less sclerotized rectangular area; propodeum with straight or curved submedian carina (Fig. 96) often extending to anterior margin, rarely the carinae converging or short. 13
\- Ocellar triangle with 3 or 4 setae between lateral ocelli (Figs 181b); pronotum with lateral lobes sometimes separated by a median, well defined and usually less sclerotized rectangular area (Figs 184); propodeum with straight, fairly widely spaced, submedian lines or sulci slightly converging dorsally and extending to anterior margin of propodeum (Figs 184, 324) 15
13(12) Clava with numerous short oblique mps (Fig. 165); fore wing with 2 hypochaetae midway between proximal and distal macrochaetae (Fig. 166); propodeum with semicircular submedian carinae with raised flat-topped sides delimiting a median oval, and a short median carina extending dorsally from anterior apex of oval (Fig. 167) . . . . ***Krateriske* Huber**
\- Clava usually with 6 long mps (Fig. 94); fore wing with 1 hypochaeta midway between proximal and distal macrochaetae; propodeum without median oval or carina as described above but with or without submedian carinae 14
14(13) Fore wing almost always slightly wider (often less than 3.7× as long as wide), with apex somewhat truncate (not as convexly/ distinctly rounded), either without microtrichia posterior to most of venation (Fig. 95) or, if some microtrichia present, these usually not as dense as microtrichia distal to venation; propodeum with distinct straight and parallel or curved converging or diverging submedian carinae (Fig. 96) . . . . ***Cosmocomoidea* Howard**
\- Fore wing slightly narrower (at least 3.7× as long as wide), with apex more convexly rounded and usually with numerous microtrichia posterior to venation (Fig. 149), sometimes as dense as distal to venation; propodeum without submedian carinae (Fig. 150), at most with faint submedian sulci . . . . ***Gonatocerus* Nees**
15(12) Mandibles not shortened, their apices meeting or overlapping when closed; dorsellum strap-like, with anterior and posterior margins parallel (Fig. 184) . . . .***Lymaenon* Walker**
\- Mandibles shortened, their apices not or barely meeting when closed (Fig. 321a); dorsellum rhomboidal (Fig. 324), with anterior and posterior margins diverging . . . . ***Tanyxiphium* Huber**
16(7) Funicle 7-segmented (Figs 51, 110, 115, 305) with fl_3 sometimes extremely short, ring-like (Fig. 63) 17
\- Funicle 5-segmented (Figs 15, 41) or 6-segmented (Figs 177, 278) 23
17(16) Fore wing at most 4.5× as long as wide (Fig. 138); ovipositor and sheaths enclosed in a gastral sac distinctly projecting anteriorly ventral to mesosoma . . . .***Gahanopsis*** (part) [(*G. arkadak* (Triapitsyn) and *G. deficiens* (Ogloblin)]
\- Fore wing at least 8.0× as long as wide; ovipositor and sheaths not projecting anteriorly ventral to mesosoma 18
18(17) Petiole much wider than long, at least 0.5× as wide as gt_1 and barely differentiated from it (difficult to see) 19
\- Petiole about as long as wide (rarely wider than long) or somewhat longer, much narrower than width of gt_1 and clearly differentiated from it (Figs 58–61, 65, 307) 21

19(18) Head in anterior or posterior views with mandibles directed ventrally (Figs 114a,b), not crossing, apparently with 1 larger and 1 smaller tooth . . . . *Dicopus* **Enock**

- Head in anterior view with mandibles directed medially (Figs 50a,b, 109a,b), when closed with teeth almost meeting or crossing, with 2 equal sized teeth 20

20(19) Head in posterior view with vertexal trabeculae visible as thick straight dark bars forming an obtuse angle above foramen magnum and extending to ventral prolongation of each supraorbital trabecula (Fig. 50b) . . . . ***Callodicopus*** **Ogloblin**

- Head in posterior view without vertexal trabeculae, at most with short, curved postoccipital sulcus above foramen magnum (Fig. 109b) . . . . ***Dicopomorpha*** **Ogloblin**

21(18) Fore wing with posterior margin towards apex straight (Fig. 64) so wing apex not curved; fore wing beyond venation with brown suffusion medially and apically separated by a hyaline area (Fig. 64) . . . . ***Camptopteroides*** **Viggiani**

- Fore wing with posterior margin towards apex concave so wing apex curved (Fig. 57); fore wing beyond venation uniformly hyaline, without brown suffusion except sometimes narrowly along margins 22

22(21) Fore wing narrow, with at most 2 longitudinal rows of microtrichia beyond venation (Fig. 57); propodeum without translucent reticulated structures submedially and laterally; petiole ventrally not surrounded by translucent reticulated structure . . . . ***Camptoptera*** **Foerster**

- Fore wing wider, with several rows of microtrichia covering wing surface beyond venation (Fig. 306); propodeum with large vertical translucent reticulated structures submedially and laterally (Fig. 307); petiole ventrally surrounded by translucent reticulated structure (Fig. 308a) . . . . ***Stephanocampta*** **Mathot**

23(16) Funicle 6-segmented. 24

- Funicle 5-segmented (Fig. 15) 25

24(23) Metasoma dorsoventrally flattened, wider than high; mesosoma and metasoma with long, strong, erect spines laterally (Figs 281, 282); gt_1 only slightly longer than each remaining tergum (Fig. 281) . . . . ***Porcepicus*** **Huber**

- Metasoma laterally compressed, higher than wide; mesosoma and metasoma without spines; gt_1 much longer than each remaining tergum (Fig. 180a). . . . . ***Litus*** **Haliday**

25(23) Fore wing with venation extending at least about 0.7× wing length (Fig. 42); marginal vein present and long (Fig. 42); fore wing with posterior margin behind venation not notched . . . . ***Arescon*** **Walker**

- Fore wing with venation extending at most about 0.4× wing length; marginal vein absent (Fig. 16); fore wing with posterior margin behind venation usually distinctly notched (Fig. 16) . . . . ***Alaptus*** **Westwood**

26(6) Tarsi 3-segmented. . . . . ***Kikiki*** **Huber & Beardsley**

- Tarsi 4-segmented. 27

27(26) Funicle 8-segmented (Fig. 284); propodeum and gt_1 with large translucent reticulated structures (Fig. 286); propodeal spiracle branched (Fig. 286) . . . . ***Ptilomymar*** **Annecke & Doutt**

- Funicle at most 6-segmented; propodeum without structures as described above; propodeal spiracle not branched 28

28(27) Clava 2- or 3-segmented. 29

- Clava 1-segmented 39

29(28) Clava 2-segmented (Figs 219, 226, 300) 30

- Clava 3-segmented (Figs 194, 200, 315) 33

30(29) Funicle with all segments more or less quadrate (Fig. 265); head in lateral view longer than high (Fig. 265). . . . . ***Platystethynium*** **(*Platypatasson* Ogloblin)**

- Funicle with some segments distinctly longer than wide; head in lateral view higher than long 31

31(30) Clava often with apical finger-like projection (Fig. 219) or slight apical constriction (Fig. 226) and ovipositor projecting distinctly beyond apex of gaster (Figs 223, 229) . . . . ***Omyomymar*** **Schauff**

- Clava without apical finger-like projection and ovipositor barely or not projecting beyond apex of gaster. 32

32(31) Frenum entire, not longitudinally divided (Fig. 36); propodeum with median longitudinal sulcus (Figs 36, 38) and, in lateral view, strongly sloping relative to scutellum (Fig. 37); mesophragma with apex truncate or convex; metasoma uniformly black or dark brown . . . . ***Anaphes*** **(*Patasson* Walker)**

- Frenum longitudinally divided, with each paramedial plate longer than wide (Fig. 302); propodeum without median sulcus (Fig. 302) and, in lateral view, almost in same plane as scutellum; mesophragma with apex concave or notched; metasoma light brown or light coloured (white, yellow) at base, in contrast to darker brown on remainder of gaster ***Schizophragma*** **Ogloblin**

33(29) Fore wing with venation extending more that 0.5× wing length (Figs 172, 195) 34

- Fore wing with venation extending at most 0.4× wing length. 35

34(33) Ovipositor not exserted beyond apex of gaster. . . . . ***Krokella*** **Huber**

- Ovipositor exserted beyond apex of gaster by over half gaster length (Fig. 198) . . . . ***Neopolynemoidea*** **Huber**

35(33) Ovipositor and sheaths enclosed in a narrow gastral sac projecting anteriorly ventral to mesosoma past level of head (Figs 247, 251); back of head with transoccipital sulcus extending from eye to eye above foramen magnum, thus separating occiput from gena/postgena (Figs 247, 251) . . . . ***Paranaphoidea*** **(*Idiocentrus* Gahan)**

- Ovipositor and sheaths not projecting ventral to mesosoma; back of head without transverse sulcus dorsal to foramen magnum 36

36(35) Funicle with all segments more or less quadrate, each about as long as wide (as in Fig. 265); head in lateral view triangular, with face distinctly angled ventral to torulus and torulus clearly anterior to anterior margin of eye (as in Fig. 265) [not certain if this subgenus occurs in Neotropical region] . . . . ***Platystethynium*** **(*Platystethynium* Ogloblin)**

- Funicle with some segments distinctly longer than wide; head in lateral view more quadrate, with face barely angled ventral to toruli and toruli at same level as anterior margin of eye 37

37(36) Frenum divided medially by longitudinal sulcus into paramedial plates, each longer than wide (Fig. 317); scutellar seta absent

(Fig. 317) . . . .***Stethynium* Enock**
- Frenum entire; scutellar seta present 38

38(37) Transoccipital sulcus absent (Fig. 199b); mandibles short, their apices not crossing when closed, with all teeth probably equal in size (Fig. 199a) . . . .***Neostethynium* Ogloblin**
- Transoccipital sulcus present (Fig. 215b); mandibles not reduced, their apices crossing when closed; dorsal tooth wider than either ventral tooth and its ventral margin serrated (Fig. 215a) . . . . ***Notomymar* Doutt & Yoshimoto**

39(28) Petiole shorter than wide (best seen in dorsal view) or apparently so (dorsal view of propodeum-petiole junction not visible in *Megamymar* — Fig. 186) so metasoma appearing sessile or almost so (subsessile) (Figs 36, 38, 49a,b, 79, 84, 133). 40
- Petiole in dorsal view almost always at least as long as wide (except *Platypolynema*—see couplet 66), usually much longer, so metasoma distinctly petiolate (Figs 5, 24, 92a, 102, 245) 51

40(39) Ovipositor distinctly exserted beyond apex of gaster, usually with exserted part longer than gaster length (Figs 49a, 186)…41
- Ovipositor not exserted posterior to apex of gaster 42

41(40) Body length not more than about 3.5 mm, usually much less; ovipositor sheath as long as ovipositor and strongly exserted, with the exserted portion bearing several setae along its length (Fig. 49a); gaster not projecting anterodorsal to posterior apex of mesosoma . . . . ***Australomymar* Girault**
- Body length 4.5 mm; ovipositor sheaths much shorter than ovipositor, not exserted beyond apex of gaster and apparently without seta; gaster projecting anterodorsal to posterior apex of mesosoma, forming a short horn (Fig. 186). . . . .***Megamymar* Huber**

42(40) Mandible minute and barely visible, without teeth (Fig. 130a); each maxilla slightly longer than their combined width (Fig. 130b); gena in lateral view narrow behind eye (Fig. 135), often apparently absent; dorsellum triangular, about as long as wide and extending posteriorly over anterior margin of propodeum (Figs 133, 135); hypopygium prominent, extending about to apex of gaster (Fig. 135) 43
- Mandible larger and clearly visible, with at least one (Fig. 78) but usually more distinct teeth (Figs 25a, 33a, 81a); each maxilla shorter than their combined width; gena in lateral view wide behind eye, so visible; dorsellum either not distinct or, if distinct and triangular, wider than long and not extending posteriorly over anterior (dorsal) margin of propodeum; hypopygium inconspicuous, not extending to apex of gaster 44

43(42) Fore wing with anterior and posterior margins beyond venation diverging, the width near wing apex greater than width at apex of venation and membrane with a minute seta dorsally behind base of parastigma (near apex of hypochaeta) (Fig. 132). . . . . ***Erythmelus* (*Erythmelus* Enock)**
- Fore wing with anterior and posterior margins beyond venation almost parallel, the width near wing apex about same as width at apex of venation and membrane without a minute seta dorsally behind base of parastigma. . . . . ***Erythmelus* (*Parallelaptera* Enock)**

44(42) Funicle 5-segmented (Fig. 336); mandible with 4 teeth (Fig. 335a) . . . . ***Tinkerbella* Huber & Noyes**
- Funicle 6-segmented; mandible with at most 3 teeth 45

45(44) Frenum divided medially by longitudinal sulcus into paramedial plates, each shorter than wide (Fig. 28) 46
- Frenum, entire, without mediolongitudinal sulcus (Figs 36, 84) though a trace of one possible (Fig. 79) 47

46(45) Ocelli not surrounded by pale lines; fl_2 longer than any other funicle segment. . . . . ***Anagrus* (*Anagrella* Bakkendorf)**
- Ocelli with sulci (seen as pale lines in slide mounts) extending between them and enclosing them like a crown (stemmaticum) (Fig. 28); fl_2 not longer than any other funicle segment. 48

47(45) Fl_1 as long as pedicel (Fig. 31); frenum with paramedial plates widely separated from each other; metafemur length less than 2× trochanter length, the trochantellus incision usually almost half way between coxa-trochanter and femur-tibia articulations . . . . A***nagrus* (*Paranagrus* Perkins)**
- Fl_1 shorter than pedicel (Fig. 26); frenum with paramedial plates close together (Fig. 28); metafemur more than 2× as long as trochanter length, the trochantellus incision almost one-third way between coxa-trochanter and femur-tibia articulation . . . . ***Anagrus* (*Anagrus* Haliday)**

48(46) Head in lateral view with face flat or, at most, slightly convex, with torulus at same level as anterior margin of eye; pronotum entire, not divided medially into two lateral lobes (Fig. 36); propodeum with a median longitudinal sulcus (Fig. 36) . . . .***Anaphes* (*Anaphes* Haliday)**
- Head in lateral view with face at least slightly bulging (angular), with toruli anterior to anterior margin of eye; pronotum divided medially into two lateral lobes (Figs 79, 84); propodeum without median longitudinal sulcus (Figs 79, 84) 49

49(48) Funicle segments almost all wider than long or quadrate (Fig. 82); fore wing parallel sided for most of its length beyond venation (Fig. 83) . . . .***Cleruchus* Enock** (part)
- Funicle segments mostly longer than wide (Fig. 76); fore wing widening for most of its length beyond venation (Fig. 77). . 50

50(49) Face with a narrow, distinct dark brown line extending from ventral margin of each torulus to mouth margin (Fig. 78); fore wing posterior margin with distinct lobe at level of apex of venation (Fig. 77) . . . . ***Cleruchoides* Lin & Huber**
- Face without brown lines; fore wing posterior margin with only a slight lobe at level of apex of venation (Fig. 83) . . . .***Cleruchus*** (part)

51(39) Mandibles directed ventrally, not crossing medially when closed (Figs 19a,b), each with 1 tooth; head in lateral view somewhat triangular, with face strongly bulging (Fig. 24); head and mesosoma with distinct reticulate sculpture (Fig. 22) . . . .***Anagroidea* Girault**
- Mandibles directed medially, crossing when closed, each with 3 equal teeth; head in lateral view with face flat or, at most slightly bulging; head and mesosoma usually with faint reticulations (distinct in some, absent in others). 52

52(51) Toruli abutting transverse trabecula (Figs 188a, 330a) 53
- Toruli separated from transverse trabecula by at least 0.3× their own height but usually by at least their own height. 55

53(52) Scutellum divided medially by a longitudinal sulcus (Fig. 333); fore wing posterior to and just distal to venation with distinct basal lobe, then wing gradually and evenly widening towards its apex (wing membrane wide) . . . . . ***Tetrapolynema* Ogloblin**

\- Scutellum entire, not divided medially; fore wing posterior to venation without distinct basal lobe, uniformly narrow (wing membrane narrow or absent) for considerable distance towards wing apex before widening fairly abruptly into an oval apex (Figs 187, 190) 54

54(53) Scape about 8× as long as wide, widest near base, narrowest medially, then widening again towards apex (Fig. 187); fore wing extremely narrow and parallel-sided in basal half then widening considerably in apical half; hind wing filamentous and with 1 long apical seta (Fig. 187) . . . . ***Mymar* Curtis**

\- Scape shorter, with widest point near middle and narrower towards apices; fore wing widening more gradually from base towards apex (Fig. 190); hind wing with membrane, and with setae along both anterior and posterior margins and at apex (Fig. 190). . . . . ***Neomymar* Crawford**

55(52) Mesothoracic spiracle closer to anterior apex of notaulus than to tegula (Fig. 312); mesosoma smooth and shiny . . . .***Stephanodes* Enock**

\- Mesothoracic spiracle closer to tegula than to anterior apex of notaulus; mesosoma usually with at least some faint, usually engraved, sculpture and dull. 56

56(55) Propodeum medially with V-shaped carinae (Fig. 4); fore wing membrane almost always with numerous thickened microtrichia often on the banded areas (Fig. 3) . . . . ***Acmopolynema* Ogloblin**

\- Propodeum medially either smooth (Figs 10a, 90a, 107, 122, 127, 155, 209, 269a, 292) or with 1 thin or thick median carina (Fig. 343) or with 2 straight, curved or somewhat X-shaped submedian carinae (Figs 101, 255, 276, 348); fore wing membrane almost always without thickened microtrichia, the microtrichia thin except, rarely, thickened just distal to venation apex . . 57

57(56) Antenna with fu_5 and fu_6 about as wide as clava, much wider than preceding segments (Fig. 125) . . . ***Erdosiella* Soyka (part)**

\- Antenna with fu_5 and fu_6 narrower than clava, not much wide than preceding segments 58

58(57) Propodeum with two straight or curved or somewhat X-shaped submedian carinae delimiting a median area of various shapes (oval, rectangular, rhomboidal, triangular). 59

\- Propodeum without carinae (Fig. 10a) or with a median carina (Fig. 107) 62

59(58) Propodeum with submedian carinae joined by 1 or 2 transverse carinae (Figs 255, 276). 60

\- Propodeum with submedian carinae not joined by transverse carinae, instead either somewhat X-shaped (Fig. 101) or semicircular (Fig. 348) 61

60(59) Ovipositor extending anteriorly in gastral sac ventral to mesosoma to about level of metanotum (Figs 271, 275); face without a pit next to each torulus . . . . ***Polynemula* Ogloblin**

\- Ovipositor not extending anteriorly ventral to mesosoma (Fig. 256); face with a pit next to each torulus (Fig. 252a) . . . . ***Platyfrons* Yoshimoto**

61(59) Propodeum with submedian carinae somewhat X-shaped (Fig. 101); propodeal seta on a distinct angular projection or tubercle near posterolateral margin (Fig. 101) . . . . ***Cremnomymar* Ogloblin (part)**

Propodeum with submedian carinae semicircular and meeting dorsally (Fig. 348); propodeal seta not on a tubercle (Fig. 348) . . . .***Xenopolynema* Ogloblin**

62(58) Fore wing widening fairly abruptly just distal to venation, oval or paddle-shaped (Figs 106, 208) 63

\- Fore wing widening gradually distal to venation, somewhat triangular 64

63(62) Mesoscutum with minute pores along inner margin of notaulus and along posterior margin of lateral lobe (Fig. 209); scutellum with patch of minute pores lateral and posterior to each campaniform sensilla (Fig. 209); propodeal seta not on a tubercle or protuberance . . . . ***Nepolynema* Triapitsyn**

\- Mesoscutum and scutellum without minute pores; propodeal seta on distinct, posteriorly facing protuberance near posterior margin (Figs 101, 107) . . . .***Cremnomymar* Ogloblin** (part)

64(62) Metatibia along its length usually with conspicuous erect setae longer than width of tibia (Fig. 91); fore wing with rather long, sparse setae not arranged in rows (Fig. 89); body fairly uniformly yellow . . . . ***Cnecomymar* Ogloblin**

\- Metatibia along its length with short, inconspicuous setae; fore wing usually (except *Entrichopteris*) with rather short, decumbent usually dense setae, but if setae sparse then some arranged in at least one distinct row; body usually brown or black 65

65(64) Face with distinct subantennal sulci extending ventrally from toruli and converging to mouth margin (Figs 152a, 259) 66

\- Face without subantennal sulci (Figs 6a, 119a, 124a, 240, 266a, 340a) or at most with faint ones (Fig. 290) 67

66(65) Ovipositor distinctly exserted beyond apex of gaster and not extending anteriorly in a gastral sac ventral to mesosoma (Fig. 156). . . . . ***Kalopolynema* Ogloblin**

\- Ovipositor slightly exserted beyond apex of gaster and extending in a gastral sac anteriorly ventral to mesosoma (Fig. 258) . . . . ***Platypolynema* Ogloblin**

67(65) Propodeum with a thick median carina . . . . ***Vladimir* Triapitsyn**

\- Propodeum without carinae or at most a thin median carina (some *Agalmopolynema* and *Polynema*) 68

68(67) Fore wing with 2 wide dark cross bands and mixture of long and short, mostly erect microtrichia; hind wing strongly curved (Fig. 121) . . . .***Entrichopteris* Yoshimoto**

\- Fore wing without dark bands (Figs 8, 9, but if with dark bands (Fig. 126) these not exactly as above. 69

69(68) Fore wing with 3 dark bands, a narrow one posterior to parastigma, a wider one submedially, and a wide one apically (Fig. 126). . . . . ***Erdosiella* Soyka (part)**

\- Fore wing without dark bands (Figs 8, 9, 239, 268) or, at most, 2 dark bands (Fig. 297) 70

70(69) Petiole joined to gs_1 (Fig. 13) 71

\- Petiole apparently joined to gt_1. 72

71(70) Propleura abutting widely anterior to pronotum (Fig. 10b); fore wing with parastigma + stigma extremely short, as long as wide

(Figs 8, 9) . . . . *Agalmopolynema* **Ogloblin**

- Propleura abutting narrowly anterior to pronotum (Fig. 291); fore wing with parastigma + stigma longer, about 2× as long as wide (Figs 293, 297). . . . . *Quasipalaeoneura* **Triapitsyn & Huber, gen. n.**

72(70) Face with small pit medially next to each torulus (as in Fig. 272). . . . . *Polynema* **(*Doriclytus* Foerster)**

- Face without pit medially next to each torulus (Fig. 266a) 73

73(72) Propleura narrowly abutting medially anterior to prosternum, so separating prosternum from head [the prosternum "closed"] (Figs 241, 244) . . . . *Palaeoneura* **Waterhouse**

- Propleura not meeting medially anterior to prosternum, so not separating prosternum from head [the prosternum "open"] (Fig. 269b). 74

74(73) Fore wing without microtrichia behind apex of venation . . . . *Polynema* **(*Dorypolynema* Hayat & Anis)**

- Fore wing with some microtrichia behind apex of venation (Fig. 268) . . . .*Polynema* **(*Polynema* Haliday)**

Key to Neotropical genera of Mymaridae. Males

[Antenna without clava, the flagellar segments all about equal in width, e.g., Figs 173, 242, 298, 319, 355.]

In the Neotropical region, males of *Kalopolynema*, *Kikiki*, *Megamymar*, *Neopolynemoidea*, *Paranaphoidea*, *Platystethynium*, *Polynemula*, *Porcepicus and Stethynium* are still unknown so they are not included in this key; males of some of these genera are known from other regions.

1 Wings short, not extending beyond posterior apex of mesosoma, or wings absent 2

- Wings fully developed, extending at least to apex of gaster 3

2(1) Wings extremely micropterous (apparently absent); flagellum 10-segmented . . . . *Notomymar* **Doutt & Yoshimoto (part)**

- Wings distinctly present but not extending past posterior apex of gaster; flagellum 11-segmented . . . . *Cremnomymar* **Ogloblin (part)**

3(1) Tarsi 5-segmented. 4

- Tarsi 4-segmented. 22

4(3) Fore wing venation (to apex of stigma) at most about 0.4× wing length; marginal vein absent so parastigma joined directly to stigmal vein at distal macrochaeta; postmarginal vein absent 5

- Fore wing venation (to apex of stigma) at least 0.6× wing length (Fig. 42); marginal vein present and about as long as or longer than parastigma so stigmal vein joined to apex of marginal vein distal to distal macrochaeta (Fig. 42); postmarginal vein usually present. 21

5(4) Fore wing at most 4.5× as long as wide and usually almost completely covered beyond venation with many rows of microtrichia (Fig. 95); fl_2 about same length as fl_1 or fl_3, not ring-like; face almost always with subantennal sulcus extending from torulus to mouth margin (Fig. 93a). 6

- Fore wing at least 8.0× as long as wide rarely completely covered with microtrichia but if so these arranged only in 1 or a few rows (Fig. 57); fl_2 and sometimes fl_4 often much shorter than fl_3, ring-like; face without subantennal sulci (Figs 14a, 55a)…14

6(5) Propodeum with diamond-like pattern of carinae (Fig. 234) . . . . *Ooctonus* **Haliday**

- Propodeum without diamond-like pattern of carinae, either with two longitudinal submedian carinae or smooth; metasoma in lateral view with gt_1 about as long as gt_2 (Fig. 96) 7

7(6) Malar sulcus absent; propodeum almost entirely covered with numerous small deep pits (Fig. 353); petiole almost as long as gaster. . . . . *Yoshimotoana* **Huber**

- Malar sulcus present (Fig. 93a); propodeum without small deep pits except sometimes a few submedially; petiole at most about one-third length of gaster, usually much shorter 8

8(7) Back of head with transoccipital sulcus (Figs 136b, 141b) 9

Back of head without transoccipital sulcus 10

9(8) Dorsellum with posterior margin evenly convex (Fig. 144); propodeum with two or three fine longitudinal carinae between submedian carinae when these present (Fig. 144); propodeal spiracle sometimes huge, almost as long as dorsellum (Fig. 144), distinctly larger than mesothoracic spiracle . . . . *Gastrogonatocerus* **Ogloblin**

- Dorsellum with posterior margin slightly sinuate, with obtuse median projection (Fig. 139); propodeum with submedian carinae close together for most of their length then anteriorly abruptly separating and extending towards spiracle, following contour of posterior margin of metanotum (Fig. 139) but separated from it by depression so propodeum apparently separated from metanotum by a gap; propodeal spiracle not larger than mesothoracic spiracle (Fig. 139). . . . . *Gahanopsis* **Ogloblin**

10(8) Ocellar triangle with 2 setae between lateral ocelli; pronotum with lateral lobes abutting medially, not separated by a median rectangular and usually less sclerotized area; propodeum with straight or curved submedian carina either extending to anterior margin or not, rarely the carinae converging or short 11

- Ocellar triangle with 3 or 4 setae between lateral ocelli (Fig. 181b); pronotum with lateral lobes separated by a median, well defined and usually less sclerotized rectangular area (Figs 184, 328); propodeum with straight, fairly widely spaced, submedian lines or sulci dorsally slightly converging and extending to anterior margin of propodeum (Figs 184, 328) 13

11(10) Fore wing with 2 hypochaetae on wing margin anterior to parastigma; propodeum with median oval with raised flat-topped sides and a short median carina extending dorsally from anterior apex of oval . . . . *Krateriske* **Huber**

- Fore wing with 1 hypochaeta on wing margin anterior to parastigma; propodeum without median oval or carina as described above but with or without submedian carinae 12

12(11) Fore wing often slightly wider (often less than 3.7× as long as wide) and apex less convexly rounded (often slightly truncate) than below, either without microtrichia posterior to venation (Fig. 95) or, if some microtrichia present, these almost always not as dense as microtrichia distal to venation; propodeum with usually distinct, straight and parallel or curved converging or diverging submedian carinae (Fig. 96) . . . . ***Cosmocomoidea* Howard**

\- Fore wing slightly narrower (at least 3.7× as long as wide) and apex more convexly rounded than above with numerous microtrichia posterior to venation (Fig. 149); propodeum without submedian carinae (Fig. 150), at most with faint submedian sulci . . . . ***Gonatocerus* Nees**

13(10) Dorsellum strap-like, with anterior and posterior margins parallel (Fig. 184) . . . . ***Lymaenon* Walker**

\- Dorsellum rhomboidal, with anterior and posterior margins diverging (Figs 324, 328) . . . . ***Tanyxiphium* Huber**

14(5) Petiole distinct (Figs 58–61b, 65), much narrower than apex of propodeum or base of gt_1 15

\- Petiole indistinct, almost as wide as apex of propodeum (Figs 17, 18, 53, 54) or, if narrow as described above (*Litus*), then not visible but hidden by base of gt_1 anteriorly encircling petiole dorsally, laterally and mostly also ventrally; gt_1 almost as long as remaining terga together 17

15(14) Propodeum with large vertical translucent reticulated structures submedially and laterally; petiole ventrally surrounded by translucent reticulated structure . . . . ***Stephanocampta* Mathot**

\- Propodeum without translucent reticulated structures submedially and laterally; petiole ventrally not surrounded by translucent reticulated structure 16

16(15) Fore wing slightly but usually distinctly curved near apex (posterior margin concave) (Fig. 57); fore wing membrane with only 1 or 2 rows of microtrichia; propodeum with indistinct reticulate sculpture and sometimes with spicules (Fig. 58) . . . . ***Camptoptera* Foerster**

\- Fore wing straight near apex, the posterior margin straight or almost so (Fig. 64); fore wing membrane almost entirely covered with microtrichia; propodeum with distinct reticulate sculpture . . . . ***Camptopteroides* Ogloblin**

17(14) Gaster compressed, oval, higher than wide, well sclerotized; gt_1 almost long as long as remaining terga together (Fig. 180a,b) . . . . ***Litus* Haliday**

\- Gaster slightly depressed, slightly triangular, wider than high, weakly sclerotized; gt_1 about same length as each remaining tergum (Figs 18, 54a, 118a) 18

18(17) Head in anterior view distinctly narrowing ventrally, appearing somewhat triangular; mandibles pointing ventrally and not crossing each other when closed, each with 1 long and 1 short tooth (Fig. 114a,b); fore wing extremely narrow beyond venation then widening distinctly to apex (Fig. 116) . . . . ***Dicopus* Enock**

\- Head in anterior view not narrowing ventrally, appearing somewhat quadrate; mandibles pointing inwardly and crossing each other when closed, each with 2 subequal teeth (Figs 50a, 109a,b); fore wing more even in width along its entire length (Figs 52, 111) 19

19(18) Fore wing with posterior margin behind venation distinctly notched (Fig. 16); flagellum 8-segmented . . . . ***Alaptus* Westwood**

\- Fore wing with posterior margin behind venation not or barely notched; flagellum 10-segmented (including minute ring segment) 20

20(19) Back of head without median vertical coronal line or sulcus extending from dorsal margin of occiput almost to foramen magnum and with transverse (horizontal) sulcus dorsal to foramen magnum extending only a short distance lateral to lateral margin of foramen . . . . ***Dicopomorpha* Ogloblin**

\- Back of head with median vertical coronal sulcus and with transverse trabecula extending laterally almost to each eye, separating occiput from gena (Fig. 50b) . . . . ***Callodicopus* Ogloblin**

21(4) Flagellar segments each at most about 3× as long as wide . . . . ***Arescon* Walker**

\- Flagellar segments each at least 5× as long as wide . . . . ***Chrysoctonus* Mathot**

22(3) Propodeum and gt_1 with translucent reticulate structures (Fig. 286); propodeal spiracle branched (Fig. 286) . . . . ***Ptilomymar* Annecke & Doutt**

\- Propodeum and gt_1 without translucent reticulate structures; propodeal spiracle not branched 23

23(22) Body at most about 250 µm long; hind wing anterior margin without fringe setae in basal 0.75× its length beyond hamuli (Fig. 337) . . . . ***Tinkerbella* Huber & Noyes**

\- Body more that 250 µm long; hind wing with fringe setae on anterior margin along at least 0.5× its length beyond hamuli, usually more 24

24(23) Mandibles directed ventrally, not capable of crossing medially (mandibular movement in anterior/posterior direction) (Figs 19a,b, 24) . . . . ***Anagroidea* Girault**

\- Mandibles directed medially, meeting and usually crossing when closed (mandibular movement in lateral/medial direction); but sometimes (*Erythmelus*) just minute stubs with their apices widely separated (Fig. 130a) and functionally replaced by elongated maxillae (Fig. 130b) 25

25(24) Petiole in dorsal view shorter than wide, often scarcely visible 26

\- Petiole in dorsal view at least as long as wide but usually much longer, clearly visible 35

26(25) Scape inner surface with at least a few thickened, peg-like setae either near base or evenly scattered over entire surface, or transversely striate (Fig. 227) and/or head in anterior view with gena sometimes visible, not hidden by eye (Fig. 225) . . . . ***Omyomymar* Schauff**

\- Scape inner surface without setae or, if setae present, these thin and head in anterior view with gena hidden by eye 27

27(26) Frenum completely divided medially by longitudinal sulcus into paramedial plates (Figs 28, 302) 28

\- Frenum entire or not divided medially by longitudinal sulcus 30

28(27) Frenum with each paramedial plate longer than wide . . . . ***Schizophragma* Ogloblin**

- Frenum with each paramedial plate as wide or wider than long 29

29(28) Flagellum with 9 flagellomeres (Fig. 173); mandible with dorsal tooth much longer than ventral teeth and with ventral margin serrated (Figs 170a, 171) . . . . ***Krokella*** **Huber**

- Flagellum usually with 11 flagellomeres, rarely with 10 flagellomeres; mandible with dorsal tooth same length as ventral teeth and with ventral margin not serrated (Fig. 25a) . . . . ***Anagrus*** **Haliday**

30(27) Fore wing with venation at least 0.5× wing length and with a distinct line of microtrichia extending from apex of venation obliquely towards posterior margin of wing (Fig. 47) . . . . ***Australomymar*** **Girault**

- Fore wing with venation at most 0.4× wing length and without such a line of microtrichia 31

31(30) Mandible a small stub without teeth (Fig. 130); maxillae together longer than wide (Fig. 130b); gena in lateral view narrow, almost absent (Fig. 135); dorsellum projecting slightly over propodeum (Fig. 135); genitalia often considerably extruded in dead specimens . . . . ***Erythmelus*** **Enock**

- Mandible not or only slightly reduced and with teeth; maxillae more quadrate, together as wide as long; gena in lateral view wider; dorsellum not projecting over propodeum; genitalia not or only slightly extruded in dead specimens 32

32(31) Face in lateral view angular and bulging anteriorly so head more or less triangular; all flagellomeres quadrate, as long as wide or only slightly rectangular (Figs 76, 82); propodeum without median sulcus (Figs 79, 84) 33

- Face in lateral view flat or only slightly curved, not bulging anterior so head more or less rectangular. 34

33(32) Fore wing parallel sided or almost so and without a distinct lobe behind apex of venation (Fig. 83); subantennal sulci about same colour as remainder of head (Fig. 81a) . . . . ***Cleruchus*** **Enock**

- Fore wing distinctly widening towards apex and with a distinct lobe behind apex of venation (Fig. 77); subantennal sulci dark brown, contrasting sharply with light coloured remainder of head (Fig. 78). . . . . ***Cleruchoides*** **Lin & Huber**

34(32) Occiput without transoccipital sulcus (Fig. 199b) . . . . ***Neostethynium*** **Ogloblin**

- Occiput with transoccipital sulcus (Fig. 215b). . . . . ***Notomymar*** **Doutt & Yoshimoto**

35(25) Toruli abutting transverse trabecula 36

- Toruli separated by about one-third their height from transverse trabecula 38

36(35) Scutellum divided medially by a longitudinal sulcus (Fig. 333); fore wing posterior to and just distal to venation with distinct basal lobe, then wing gradually and evenly widening towards its apex (wing membrane wide) (Fig. 332) . . . . ***Tetrapolynema*** **Ogloblin**

- Scutellum entire, not longitudinally divided medially (Fig. 191); fore wing posterior to venation without distinct basal lobe, uniformly narrow (wing membrane narrow or absent) for considerable distance towards wing apex before widening fairly abruptly into an oval apex (Fig. 190) 37

37(36) Hind wing filamentous, without membrane, its entire length consisting of venation only and without fringe setae except for apical one (Fig. 187). . . . . ***Mymar*** **Curtis**

- Hind wing with membrane and fringe setae along both anterior and posterior margins (Fig. 190). . . . . . ***Neomymar*** **Crawford**

38(35) Mesothoracic spiracle closer to anterior apex of notaulus than to tegula (Fig. 312); mesosoma smooth and shiny . . . . ***Stephanodes*** **Enock**

- Mesothoracic spiracle closer to tegula than to anterior apex of notaulus or midway between the two; mesosoma usually with at least some faint, usually engraved sculpture and dull 39

39(38) Propodeum with V-shaped carinae medially (Fig. 4); fore wing usually membrane with numerous slightly thickened microtrichia usually on the banded areas (Fig. 3). . . . . ***Acmopolynema*** **Ogloblin**

- Propodeum medially either smooth (Figs 10a, 90a, 107, 122, 127, 155, 209, 269a, 292) or with 1 thin or thick median carina (Fig. 343) or with 2 straight, curved or somewhat X-shaped submedian carinae (Figs 101, 255, 276, 348); fore wing membrane almost always without thickened microtrichia, the microtrichia thin except, rarely, thickened just distal to venation apex . . 40

40(39) Fore wing membrane without microtrichia for some distance distal to venation, thereafter with thickened microtrichia arranged in 2 or more rows or scattered among thin microtrichia (Fig. 126) . . . . ***Erdosiella*** **Soyka**

- Fore wing membrane with microtrichia at or just distal to venation, thereafter mainly with thin microtrichia uniformly and densely spaced 41

41(40) Propodeum with two straight or curved, sometimes faint or incomplete, submedian carinae, these sometimes close together posteriorly but usually wider apart, delimiting a rectangular, triangular or oval median area. 42

- Propodeum without carinae or with a median carina or rarely with a sulcus but without a median area bordered by 2 carinae 44

42(41) Fore wing with a narrow dark band extending obliquely from venation almost to posterior margin of wing (indicating position of basal vein) (Fig. 347); propodeum with semicircular submedian carinae meeting dorsally (Fig. 348) . . . . ***Xenopolynema*** **Ogloblin**

- Fore wing without dark band indicating basal vein; propodeum with straight submedian carinae 43

43(42) Face without a pit next to each torulus (Figs 98a, 103); propodeal seta on a distinct angular protuberance or tubercle near posterior margin (Fig. 101); propodeal carinae without a transverse carina connecting them but, if transverse carina apparently present, this located posteriorly, near nucha. . . . . ***Cremnomymar*** **Ogloblin** (part)

- Face with a pit next to each torulus (Fig. 252a); propodeal seta not on a protuberance; propodeal carinae with 1 or 2 transverse carinae connecting them more anteriorly (Fig. 255) . . . . ***Platyfrons*** **Yoshimoto**

44(41) Fore wing widening abruptly just distal to venation, oval or paddle-shaped (Fig. 106) 45

- Fore wing widening gradually distal to venation, somewhat triangular 46

45(44) Flagellum enormously long, with shortest flagellomere at least 5.4× as long as wide, the remainder much longer; scutellum with patch of minute pores posterior to each campaniform sensilla; propodeal seta on distinct posteriorly facing protuberance near posterior margin . . . . ***Nepolynema*** **Triapitsyn**

- Flagellum not unusually long, with each flagellomere no more than 4× as long as wide; scutellum without patch of minute pores posterior to each campaniform sensilla; propodeal seta on distinct posteriorly facing protuberance near posterior margin (Fig. 101). . . . . ***Cremnomymar*** **Ogloblin** (part)

46(44) Metatibia with conspicuous, usually fairly erect setae longer than width of tibia along tibia length (Fig. 91) but if setae shorter then fore wing with rather long, sparse setae not arranged in one or more rows (Fig. 89) . . . . ***Cnecomymar*** **Ogloblin**

- Metatibia with short, inconspicuous decumbent setae along its length; fore wing with setae variable, usually dense, sometimes in one or more distinct rows 47

47(46) Face with distinct subantennal sulci ventral to toruli and converging to mouth margin (Figs 152a, 259) 48

- Face at most with faint, inconspicuous subantennal sulci 49

48(47) Mesosoma flattened, about 1.5× as wide as high as measured at level of tegulae. . . . . ***Platypolynema*** **Ogloblin**

- Mesosoma not flattened, about as wide as high as measured at level of tegulae . . . . ***Kalopolynema*** **Ogloblin**

49(47) Fore wing with dark band proximally (indicating basal vein) and venation about 0.3× fore wing length (Fig. 342) . . . . ***Vladimir*** **Triapitsyn**

- Fore wing without dark band proximally and venation shorter 50

50(49) Petiole joined to gs_1 51

- Petiole joined to gt_1. 52

51(50) Propleura abutting widely anterior to pronotum (Fig. 10b); fore wing with parastigma + stigma extremely short, as long as wide (Figs 8, 9) . . . . ***Agalmopolynema*** **Ogloblin**

- Propleura abutting narrowly anterior to pronotum (Fig. 291); fore wing with parastigma + stigma longer, about 2× as long as wide (Figs 293, 297). . . . . ***Quasipalaeoneura*** **Triapitsyn & Huber**

52(50) Fore wing membranes with mixture of long and short microtrichia on both surfaces (Fig. 121); hind wing strongly curved (Fig. 121). . . . . ***Entrichopteris*** **Yoshimoto**

- Fore wing with microtrichia all of fairly uniform length and none long; hind wing fairly straight. 53

53(52) Face with small pit medially next to each torulus . . . . ***Polynema*** **(*Doriclytus*) Foerster**

- Face without pit medially next to each torulus. 54

54(53) Propleura narrowly abutting medially anterior to prosternum, separating prosternum from head (the pronotum thus "closed" anteriorly) (Fig. 241) . . . . ***Palaeoneura*** **Waterhouse**

- Propleura not meeting medially anterior to prosternum, not separating prosternum from head (the pronotum thus "open" anteriorly) 55

55(54) Fore wing membrane without microtrichia behind apex of venation. . . . . ***Polynema*** **(*Dorypolynema* Hayat & Anis)**

- Fore wing membrane with microtrichia behind apex of venation . . . . ***Polynema*** **(*Polynema* Haliday)**

Catalogue of Mymaridae in the Neotropical region

A brief review of groups of genera is presented before cataloguing the genera and species instead of after cataloguing them, as was done in Huber *et al.* (2021). This is to avoid repetition of the genera in each species group catalogued below. The species from Mexico are excluded as these were treated elsewhere (Guzmán-Larralde *et al.* 2015); those found in Bermuda and the Caribbean islands are included.

Lin *et al.* (2007) proposed 12 informal groups of genera for the 46 valid genera recognized at the time for Australia. Huber *et al.* (2021) classified the Afrotropical genera in 11 informal groups of genera. These were intuitive groups that potentially could represent fairly well delimited tribes. However, the subfamilial and tribal classification of Mymaridae using morphological features has still not been resolved, at least not formally. The classification of subfamilies and tribes proposed in Annecke & Doutt (1961), the only world generic treatment, had some useful ideas but ultimately is rejected since it clearly contained polyphyletic family-group taxa. Many new genera have been proposed since then. Schauff (1984) provided the only phylogenetic analysis, based on morphology, of the 22 Holarctic genera recognized at the time but did not classify them formally into tribes and subfamilies. A molecular phylogeny (Cruaud *et al*. 2024) gives interesting ideas of relationships among the 20 included genera they sequenced. Only 11 genera were common to both analyses so they are not very comparable but they are generally congruent and match fairly well the groups of genera proposed below. A molecular phylogeny based on most of the valid world genera is nearing completion (K. Dominguez, University of California, Riverside, personal communication). It will be interesting to see how well any proposed groups of genera from her study will correspond with the 11 informal groups below, taking into account that the classification based on molecules will be on a world basis whereas classification proposed below is for the Western Hemisphere only. The only additional group would the *Eustochomorpha* Girault group of genera, which does not occur in the Western Hemisphere. The somewhat updated, informal grouping of genera given here for the 60 valid genera we recognize occurring in the Neotropical region would also include the genera in the Nearctic region, only two genera (*Eustochus* Haliday and

Macrocamptoptera Girault) of which do not occur in the Neotropical region. Those two genera are, respectively, in the *Polynema* group and *Camptoptera* group of genera, so they do not affect the groups of genera here. The only significant difference with the proposed groups of Afrotropical genera is the placement of *Chrysoctonus*, in the *Borneomymar* Huber group (Huber *et al.* 2021) *versus* the *Arescon* group (this paper).

Alaptus group—*Alaptus*, *Callodicopus*, *Dicopomorpha* and *Dicopus*.

Anagroidea group—*Anagroidea*.

Anagrus group—*Anagrus*, *Krokella*, *Neopolynemoidea*, *Neostethynium*, *Notomymar*, *Omyomymar*, *Paranaphoidea*, *Schizophragma* and *Stethynium*.

Anaphes group—*Anaphes* and *Erythmelus*.

Arescon group—*Arescon*, *Chrysoctonus*, *Kikiki* and *Tinkerbella*.

Australomymar group—*Australomymar*.

Camptoptera group—*Camptoptera*, *Camptopteroides*, *Litus*, *Porcepicus*, *Ptilomymar* and *Stephanocampta*.

Cleruchus group—*Cleruchoides*, *Cleruchus* and *Platystethynium*.

Gonatocerus group—*Cosmocomoidea, Gahanopsis*, *Gastrogonatocerus*, *Gonatocerus*, *Krateriske*, *Lymaenon*, *Tanyxiphium* and *Yoshimotoana*.

Ooctonus group—*Ooctonus.*

Polynema group—*Acmopolynema, Agalmopolynema*, *Cnecomymar*, *Cremnomymar*, *Entrichopteris*, *Erdosiella*, *Kalopolynema*, *Megamymar*, *Mymar*, *Neomymar*, *Nepolynema*, *Palaeoneura*, *Platyfrons*, *Platypolynema*, *Polynema*, *Polynemula*, *Quasipalaeoneura* gen. n., *Stephanodes*, *Tetrapolynema*, *Vladimir* and *Xenopolynema*.

ACMOPOLYNEMA **Ogloblin, 1946**

(Figs 1–5)

Acmopolynema Ogloblin, 1946: 286. Type species: *Stichothrix bifasciatipennis* Girault, 1908, by original designation. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Face without or with faint subantennal sulcus ventral to each torulus and without a pit medially next to each torulus (Fig. 1); toruli separated by at least their own height from transverse trabecula; propleura widely abutting each other anterior to prosternum; fore wing usually with one or two dark transverse band distal to venation, the bands usually with some discal setae with enlarged bases (Fig. 3); parastigma without a proximal macrochaeta but with a distal macrochaeta, and marginal vein absent; petiole attached posteriorly to gs_1; propodeum with V-shaped median carinae (Fig. 4).

Remarks. *Acmopolynema* belongs to the *Polynema* group of genera. *Acmopolynema* has a short transverse trabecula extending medially anterior to each lateral ocellus that appears to be unique. The V-shaped propodeal carinae (rarely very short) are also unique.

Neotropical hosts. Hemiptera: Cercopidae, Delphacidae, Membracidae.

Important references. Fidalgo (1989), Yoshimoto (1990).

Acmopolynema aberrans **Fidalgo, 1989**

Acmopolynema aberrans Fidalgo, 1989: 10; holotype ♂ (MLPA). **TL**: Argentina, Buenos Aires, Tigre. Fidalgo, 1989: 9 (key); De Santis & Fidalgo, 1994: 119 (catalogue); Berezovskiy & Triapitsyn, 2001: 6 (comparison with extralimital species); Loiácono *et al.*, 2005: 3 (type information); Luft Albarracin *et al.*, 2009: 3 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Acmopolynema albicoxa (Ashmead, 1900)

Polynema albicoxa Ashmead, 1900: 266; holotype ♀ (NHMUK). **TL:** St. Vincent. Ashmead, 1900: 349 (list). De Santis, 1979: 376 (catalogue, St. Vincent and the Grenadines); Yoshimoto, 1990: 83 (list).
Acmopolynema albicoxa: Aquino *et al.*, 2016: 582 (generic transfer, description, St. Vincent and the Grenadines).

Neotropical hosts. Unknown.
Distribution. St. Vincent & the Grenadines.

Acmopolynema brasiliense (Ashmead, 1904)

Polynema brasiliensis Ashmead, 1904: 521; holotype ♀ (USNM). **TL**: Brazil, Mato Grosso, Chapada.
Acmopolynema brasiliense: Ogloblin, 1946: 286 (generic transfer); De Santis, 1980: 149 (catalogue, Brazil); Fidalgo, 1989: 11 (description); Yoshimoto, 1990: 77 (list, species group placement).

Neotropical hosts. Unknown.
Distribution. Brazil.

Acmopolynema callopterum Fidalgo, 1989

Acmopolynema callopterum Fidalgo, 1989: 12; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Tigre. Fidalgo, 1989: 9 (key); De Santis & Fidalgo, 1994: 119 (catalogue); Loiácono *et al.*, 2005: 3 (type information); Luft Albarracin *et al.*, 2009: 3 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Acmopolynema carinatum Fidalgo, 1989

Acmopolynema carinatum Fidalgo, 1989: 14; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Fidalgo, 1989: 9 (key); De Santis & Fidalgo, 1994: 119 (catalogue); Loiácono *et al.*, 2005: 3 (type information); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Acmopolynema commune Fidalgo, 1989

Acmopolynema commune Fidalgo, 1989: 15; holotype ♀ (IFML). **TL**: Argentina, Tucumán, San Miguel de Tucumán. Fidalgo, 1989: 9 (key); De Santis & Fidalgo, 1994: 119 (catalogue, Brazil); Loiácono *et al.*, 2005: 3 (type information); Luft Albarracin *et al.*, 2009: 3 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.
Distribution. Argentina, Brazil.

Acmopolynema costaricense Soyka, 1956

Acmopolynema costaricensis Soyka, 1956b: 12; holotype ♂ (NHMW). **TL**: Costa Rica, Alajuela, Higuito, 900 m. Fidalgo, 1989: 9 (key), 18 (description).

Neotropical hosts. Unknown.

Distribution. Costa Rica.

Acmopolynema delphacivorum Fidalgo, 1989

Acmopolynema delphacivorum Fidalgo, 1989: 19; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Fidalgo, 1989: 10 (key); De Santis & Fidalgo, 1994: 119 (catalogue); Loiácono *et al.*, 2005: 3 (type information); Luft Albarracin *et al.*, 2009: 3 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Acmopolynema gracilicorne Fidalgo, 1989

Acmopolynema gracilicorne Fidalgo, 1989: 21; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Fidalgo, 1989: 10 (key); De Santis & Fidalgo, 1994: 119 (catalogue); Loiácono *et al.*, 2005: 4 (type information); Luft Albarracin *et al.*, 2009: 3 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Acmopolynema helavai Yoshimoto, 1990

Acmopolynema helavai: Yoshimoto, 1990: 104; holotype ♀ (CNC). **TL**: Panama, Cerro Campana, 8°40'N 19°50'W, 850 m. Yoshimoto, 1990: 78 (list, species group placement); De Santis & Fidalgo, 1994: 119 (catalogue, Costa Rica, Ecuador).

Neotropical hosts. Unknown.

Distribution. Costa Rica, Ecuador, Panama.

Acmopolynema hervali Gomes, 1948

Acmopolynema hervali: Gomes, 1948: 418; holotype ♀ (author's collection [depository unknown]). **TL**: Brazil, Rio de Janeiro, Campos, Lagôa de Cima. Costa Lima, 1962: 197 (host); Guagliumi, 1968: 37 (host [as *Mahanarva indicata*], biocontrol); Guagliumi, 1969: reference not seen (biocontrol); Guagliumi, 1970: 29 (mass rearing and release, Brazil); Guagliumi, 1971a: 366 (Brazil); Guagliumi, 1971b: 58, 102 (distribution, hosts, Brazil); Barbosa *et al.*, 1979: 6 (host, developmental time); De Santis, 1980: 419 (catalogue); Schauff, 1981: 445 (host family); Marques & Vilas Boas, 1985: 271 (recovery in Pernambuco, host); Cavichioli, 1987: 82 (host, percent parasitism); Fidalgo, 1989: 9 (key), 22 (description); Viggiani, 1989: 144 (male genitalia); Vilas Boas & Andrade, 1990: 308 (life cycle); Yoshimoto, 1990: 78 (list, species group placement unknown); De Santis & Fidalgo, 1994: 119 (catalogue); Berezovskiy & Triapitsyn, 2001: 6 (compared with extralimital species); Loiácono *et al.*, 2005: 4 (type information); Valério & Oliveira, 2005: 137 (host); Huber 2006: 396 (biocontrol).

Neotropical hosts. Cercopidae: *Kanaima fluvialis* (Lallemand), *Mahanarva*. *fimbriolata* (Stål), *M. liturata* (Le Peletier & Serville), *M. postica* (Stål), *M. rubicunda indentata* (Walker).

Distribution. Brazil.

Acmopolynema inaequale Fidalgo, 1989

Acmopolynema inaequale Fidalgo, 1989: 24; holotype ♀ (MLPA). **TL**: Argentina, Salta, Finca El Rey. Fidalgo, 1989: 10 (key); De Santis & Fidalgo, 1994: 119 (catalogue). Loiácono *et al.*, 2005: 4 (type information); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Acmopolynema infuscatum Fidalgo, 1989

Acmopolynema infuscatum Fidalgo, 1989: 25; holotype ♀ (IFML). **TL**: Argentina, Tucumán, Potrero de las Tablas. Fidalgo, 1989: 9 (key); De Santis & Fidalgo, 1994: 119 (catalogue); Luft Albarracin *et al.*, 2009: 3 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Acmopolynema kronidiphagum Fidalgo, 1989

Acmopolynema kronidiphagum Fidalgo, 1989: 26; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Apóstoles. Fidalgo, 1989: 10 (key); De Santis & Fidalgo, 1994: 119 (catalogue, host). Loiácono *et al.*, 2005: 4 (type information); Luft Albarracin *et al.*, 2009: 3 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical host. Membracidae: *Kronides incumbens* (Germar).

Distribution. Argentina.

Acmopolynema longicorne Fidalgo, 1989

Acmopolynema longicorne Fidalgo, 1989: 29; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Fidalgo, 1989: 10 (key); De Santis & Fidalgo, 1994: 119 (catalogue); Loiácono *et al.*, 2005: 4 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Acmopolynema mirabile Fidalgo, 1989

Acmopolynema mirabile Fidalgo, 1989: 30; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Fidalgo, 1989: 10 (key); De Santis & Fidalgo, 1994: 119 (catalogue); Loiácono *et al.*, 2005: 4 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Acmopolynema missionicum Fidalgo, 1989

Acmopolynema missionicum Fidalgo, 1989: 31; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Aristóbulo del Valle. Fidalgo, 1989: 10 (key); Loiácono *et al.*, 2005: 4 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Acmopolynema missionicus [*sic*]: De Santis & Fidalgo, 1994: 119 (catalogue).

Neotropical hosts. Unknown.

Distribution. Argentina.

Acmopolynema obscuricorne Fidalgo, 1989

Acmopolynema obscuricorne Fidalgo, 1989: 32; holotype ♀ (MLPA). **TL**: Argentina, La Rioja, La Rioja. Fidalgo, 1989: 10 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Loiácono *et al.*, 2005: 4 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Acmopolynema pecki Yoshimoto, 1990

Acmopolynema pecki Yoshimoto, 1990: 106; holotype ♀ (CNC). **TL**: Ecuador, Pichincha, 16 km SE Santo Domingo, Tinalandia. Yoshimoto, 1990: 78 (list, species group placement); De Santis & Fidalgo, 1994: 120 (catalogue).

Neotropical hosts. Unknown.
Distribution. Ecuador.

Acmopolynema perterebrator Fidalgo, 1989

Acmopolynema perterebrator Fidalgo, 1989: 34; holotype ♀ (IFML). **TL**: Argentina, Tucumán, Portrero de las Tablas. Fidalgo, 1989: 9 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Berezovskiy & Triapitsyn, 2001: 6; Loiácono *et al.*, 2005: 4 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Acmopolynema plaumanni Yoshimoto, 1990

Acmopolynema plaumanni Yoshimoto, 1990: 107; holotype ♀ (CNC). **TL**: Brazil, Santa Catarina, Nova Teutonia, 27°11'S 52°23'W, 300–500 m. Yoshimoto, 1990: 78 (list, species group placement); De Santis & Fidalgo, 1994: 120 (catalogue).

Neotropical hosts. Unknown.
Distribution. Brazil.

Acmopolynema poecilopterum Fidalgo, 1989

Acmopolynema poecilopterum Fidalgo, 1989: 35; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Tigre. Fidalgo, 1989: 9 (key); Loiácono *et al.*, 2005: 4 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).
Acmopolynema peocilopterum [*sic*]: De Santis & Fidalgo, 1994: 120 (catalogue).

Neotropical hosts. Unknown.
Distribution. Argentina.

Acmopolynema polyrrhiza Fidalgo, 1989

Acmopolynema polyrrhiza Fidalgo, 1989: 37; holotype ♀ (IFML). **TL**: Argentina, Misiones, Puerto Canoa, Cataratas del Iguazú. Fidalgo, 1989: 9 (key); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).
Acmopolynema polyrhiza [*sic*]: De Santis & Fidalgo, 1994: 120 (catalogue).

Neotropical hosts. Unknown.
Distribution. Argentina.

Acmopolynema scapulare Fidalgo, 1989

Acmopolynema scapulare Fidalgo, 1989: 38; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Fidalgo, 1989: 10 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Loiácono *et al.*, 2005: 5 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Acmopolynema uma Schauff, 1981

Acmopolynema uma Schauff, 1981, 451; holotype ♀ (USNM). **TL**: USA, Florida, Miami. Fidalgo, 1989: 9 (key), 40 (description, Argentina); De Santis & Fidalgo, 1994: 120 (catalogue, Argentina); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Acmopolynema vittatipenne (Dozier, 1932)

Polynema vittatipennis Dozier, 1932: 83; holotype ♀ (USNM). **TL**: Haiti, Port-au-Prince. Fidalgo, 1989: 9 (key), 42 (description); De Santis, 1979: 376 (catalogue, Haiti); Schauff, 1981: 454 (generic transfer, description).
Acmopolynema vittatipenne: Yoshimoto, 1990: 78 (list, species group placement).

Neotropical host. Delphacidae: *Copicerus irroratus* Swarz (Dozier 1932).
Distribution. Haiti.

AGALMOPOLYEMA Ogloblin, 1960
(Figs 6–13)

Agalmopolynema Ogloblin, 1960a: 2 (as subgenus of *Barypolynema* Ogloblin). Type species: *Barypolynema* (*Agalmopolynema*) *succineum* Ogloblin, 1960. Given generic status by Fidalgo, 1988: 43.

Diagnosis. Face without or with faint and incomplete subantennal sulcus ventral to each torulus (Fig. 6a); toruli separated by at least their own height from transverse trabecula (Fig. 6a); propleura widely abutting each other anterior to prosternum (Fig. 10b); fore wing without dark transverse band distal to venation (Figs 8, 9); parastigma with proximal and distal macrochaeta, and marginal vein absent; metapleuron not separated from propodeum by a suture (Fig. 11); petiole attached posteriorly to gs_1, in lateral view the junction in between gt_1 and gs_1 almost horizontal and well dorsal to petiole insertion (Fig. 13).
Neotropical hosts. Unknown.
Important reference. Fidalgo (1988).

Agalmopolynema australe Fidalgo, 1988

Agalmopolynema australe Fidalgo, 1988: 47; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 47 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Loiácono *et al.*, 2005: 5 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema ayra Fidalgo, 1988

Agalmopolynema ayra Fidalgo, 1988: 49; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 45 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Loiácono *et al.*, 2005: 5 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema aza Fidalgo, 1988

Agalmopolynema aza Fidalgo, 1988: 49; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 49 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Loiácono *et al.*, 2005: 5 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema bicoloricorne Fidalgo, 1988

Agalmopolynema bicoloricorne Fidalgo, 1988: 51; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 51 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Loiácono *et al.*, 2005: 5 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema calyptera Fidalgo, 1988

Agalmopolynema calyptera Fidalgo, 1988: 53; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 45 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Loiácono *et al.*, 2005: 5 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema caudatum Fidalgo, 1988

Agalmopolynema caudatum Fidalgo, 1988: 55; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 47 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Loiácono *et al.*, 2005: 5 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema chusqueanum Fidalgo, 1988

Agalmopolynema chusqueanum Fidalgo, 1988: 56; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 47 (key); Loiácono *et al.*, 2005: 5 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).
Agalmopolynema chusqueanus [*sic*]: De Santis & Fidalgo, 1994: 120 (catalogue).

Distribution. Argentina.

Agalmopolynema denticulatum **Fidalgo, 1988**

Agalmopolynema denticulatum Fidalgo, 1988: 57; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 47 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Loiácono *et al.*, 2005: 6 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema longisetosum **Fidalgo, 1988**

Agalmopolynema longisetosum Fidalgo, 1988: 57; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 47 (key); De Santis & Fidalgo, 1994: 120 (catalogue); Loiácono *et al.*, 2005: 6 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema mirabile **Fidalgo, 1988**

Agalmopolynema mirabile Fidalgo, 1988: 58; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 45 (key); De Santis & Fidalgo, 1994: 121 (catalogue); Loiácono *et al.*, 2005: 6 (type information); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema nantuense **Fidalgo, 1988**

Agalmopolynema nantuense Fidalgo, 1988: 59; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar, Isla Ñanté. Fidalgo, 1988: 47 (key); De Santis & Fidalgo, 1994: 121 (catalogue); Luft Albarracin *et al.*, 2009: 5 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).
Agalmopolynema ñantuense [*sic*]: Loiácono *et al.*, 2005: 6 (type information).

Distribution. Argentina.

Agalmopolynema nubeculatum **Fidalgo, 1988**

Agalmopolynema nubeculatum Fidalgo, 1988: 59; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 47 (key); De Santis & Fidalgo, 1994: 121 (catalogue); Loiácono *et al.*, 2005: 6 (type information); Luft Albarracin *et al.*, 2009: 4 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema ogloblini **Fidalgo, 1988**

Agalmopolynema ogloblini Fidalgo, 1988: 60; holotype ♀ (IFML). **TL**: Argentina, Neuquén, Pucará, Lago Lolog. Fidalgo, 1988: 45 (key); De Santis & Fidalgo, 1994: 121 (catalogue); Luft Albarracin *et al.*, 2009: 5 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema porteri (Brèthes, 1917)

Anagrus porteri Brèthes, 1917: 82; holotype ♀ (MACN). **TL**: Chile, San Bernardo [near Santiago]. De Santis, 1979: 361 (catalogue, Chile); Yoshimoto, 1990: 44 (list).
Barypolynema porteri: Ogloblin 1964a: 39 (generic transfer).
Polynema porteri: Triapitsyn, 1997: 11 (generic transfer).
Agalmopolynema porteri: Aquino *et al.*, 2016: 583 (generic transfer, description, Argentina).
Agalmopolynema shajovskoii Fidalgo, 1988: 62; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará Lago Lácar. Synonymy by Aquino *et al.*, 2016: 583. Fidalgo, 1988: 47 (key); De Santis & Fidalgo, 1994: 121 (catalogue); Loiácono *et al.*, 2005: 7 (type information); Luft Albarracin *et al.*, 2009: 5 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).
Agalmopolynema shajovskoyi [*sic*]: De Santis & Fidalgo, 1994: 121 (catalogue).

Distribution. Argentina, Chile.

Agalmopolynema rufithorax Fidalgo, 1988

Agalmopolynema rufithorax Fidalgo, 1988: 61; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Fidalgo, 1988: 45 (key); De Santis & Fidalgo, 1994: 121 (catalogue); Loiácono *et al.*, 2005: 7 (type information); Luft Albarracin *et al.*, 2009: 5 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Agalmopolynema succineum (Ogloblin, 1960)

Barypolynema (*Agalmopolynema*) *succineum* Ogloblin, 1960a: 2; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Lago Tromen. De Santis, 1967: 113 (catalogue, Argentina).
Agalmopolynema succineum: Fidalgo, 1988: 45, (key), 63 (generic transfer); Luft Albarracin *et al.*, 2009: 5 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).
Polynema succineum: Yoshimoto, 1990: 84 (generic transfer).
Barypolynema succineum: Loiácono *et al.*, 2005: 8 (type information).

Distribution. Argentina.

ALAPTUS Westwood, 1839
(Figs 14–18)

Alaptus Westwood, 1839: 79. Type species: *Alaptus minimus* Westwood, 1839, by monotypy. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Antenna with funicle 5-segmented (Fig. 15); supraorbital trabecula with alternating sclerotized and unsclerotized sections (Figs 14a, 17); mandible with 2 teeth; head posteriorly with curved horizontal sulcus medially dorsal to foramen (Fig. 14b); fore wing posterior margin with an abrupt, recurved notch behind venation and, thereafter, posterior margin almost straight and gradually diverging from anterior margin almost to wing apex (Fig. 16); petiole much wider than long and almost indistinguishable from propodeum or gt_1 (Figs 17, 18); mesophragma projecting into gaster; gt_1 longitudinally divided medially (Fig. 17). Male flagellum 8-segmented.

Remarks. *Alaptus* belongs to the *Alaptus* group of genera. Among these, *Alaptus* is the only genus with the funicle 5-segmented. Males have the flagellum 8-segmented (at least 9 segments in other genera of the group).

Neotropical hosts. Psocoidea: Caeciliusidae.

Important reference. Triapitsyn (2017).

Alaptus eriococci Girault, 1908

Alaptus eriococci Girault, 1908 [55]: 191; lectotype ♀ (USNM), designated by Triapitsyn, 2017: 12. **TL**: USA, California, Los Angeles Co., Los Angeles. De Santis, 1979: 362 (catalogue, Antilles, Peru); Yoshimoto, 1990: 23 (list); Triapitsyn, 2017: 8 (key), 12 (description, Bermuda, Brazil).

Neotropical hosts. Unknown.

Distribution. Bermuda, Brazil, Peru.

Alaptus globosicornis Girault, 1908

Alaptus globosicornis Girault, 1908 [55]: 188; lectotype ♀ (USNM), designated by Triapitsyn, 2017: 23. **TL**: USA, Florida, Orlando. Dozier, 1932: 89 (comparison with *A. minutus*); Fletchmann & Castelo, 1982: 489 (on dried fish); De Santis, 1983: 32 (catalogue, Brazil); Yoshimoto, 1990: 23 (list); Triapitsyn, 2017: 8 (key), 22 (description, Brazil).

Neotropical hosts. Unknown.

Distribution. Brazil.

Alaptus iceryae Riley, 1889

Alaptus iceryae Riley, 1889: 86; lectotype ♀ (USNM), designated by Triapitsyn, 2017: 28. **TL**: USA, California, no locality given. De Santis, 1979: 362 (catalogue, Antilles, Peru); Yoshimoto, 1990: 23 (list); Triapitsyn, 2017: 8 (key), 27 (description, Bermuda, Peru).

Neotropical hosts. Unknown.

Distribution. Bermuda, Peru.

Alaptus immaturus Perkins, 1905

Alaptus immaturus Perkins, 1905: 197; neotype ♀ (QM), designated by Triapitsyn, 2017: 3. **TL**: Australia, Queensland, Maroochy Research Station. Triapitsyn, 2017: 8 (key), 32 (description, Bermuda, Peru).

Alaptus antillanus Cheke & Turner, 1974: 281; holotype ♀ (NHMUK). **TL**: Jamaica, St. Andrew Parish, Kingston. Synonymy by Triapitsyn, 2017: 32.

Alaptus caecilii Girault, 1908 [55]: 189; lectotype ♀ (USNM), designated by Triapitsyn, 2017: 34. **TL**: USA, Florida, Orange Co., Orlando. Synonymy by Triapitsyn, 2017: 32. Wolcott, 1951: 771 (mention, Puerto Rico); De Santis, 1979: 362 (catalogue, Argentina, Puerto Rico); Yoshimoto, 1990: 23 (list); Luft Albarracin *et al.*, 2009: 5 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Alaptus caecillii [*sic*]: Wolcott, 1936: 519 (host, catalogue).

Neotropical host. Caeciliusidae: *Valenzuela caribensis* (Mockford).

Distribution. Argentina, Bermuda, Jamaica, Puerto Rico.

Alaptus minimus Westwood, 1839

Alaptus minimus Westwood, 1839: 79; lectotype ♀ (NMID), designated by Hincks, 1959: 41. **TL**: Unknown, most likely England, locality not specified. Triapitsyn, 2017: 8 (key), 42 (description, Argentina).

Alaptus borinquensis Dozier, 1932: 90; lectotype ♀ (USNM), designated by Triapitsyn, 2017: 45. **TL**: Puerto Rico Rio Piedras [now in San Juan]. Synonymy by Triapitsyn, 2017: 43. Wolcott, 1936: 519 (host, catalogue, Puerto Rico); Wolcott, 1951: 771 (description); Thompson, 1958: 565 (host, Puerto Rico); De Santis, 1979: 362 (catalogue, Puerto Rico), Yoshimoto, 1990: 23 (list).

Neotropical hosts. Unknown.

Distribution. Argentina, Jamaica, Puerto Rico.

Alaptus minutus Dozier, 1932

Alaptus minutus Dozier, 1932: 89; holotype ♂ (USNM). **TL*:*** Haiti, Port-au-Prince. De Santis, 1979: 362 (catalogue, Haiti); Yoshimoto, 1990: 23 (list); Triapitsyn, 2017: 84 (description, Argentina?).

Neotropical hosts. Unknown.

Distribution. Puerto Rico, Argentina?

Alaptus pygidialis Ogloblin, 1959

Alaptus pygidialis Ogloblin, 1959a: 44; holotype ♀ (MLPA). **TL**: Ecuador, Esmeraldas, San Mateo. De Santis, 1979: 362 (catalogue, Ecuador); Yoshimoto, 1990: 24 (list); Loiácono *et al.*, 2005: 7 (type information); Triapitsyn, 2017: 87 (description).

Neotropical hosts. Unknown.

Distribution. Ecuador.

ANAGROIDEA Girault, 1915
(Figs 19–24)

Anagroidea Girault, 1915 [228]: 164. Type species: *Eustochus dubius* Girault, 1913, by original designation. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Head and mesosoma with distinctly raised, reticulate sculpture (Figs 19, 22); head in lateral view with face angular (Fig. 24); mandibles directed ventrally, not crossing medially when closed (Fig. 19a), operating in an anterior/posterior direction; antenna double geniculate (Fig. 20); hind wing often with membrane extending narrowly to base of venation, wing width near apex as wide as at level of hamuli, and with widely rounded apex (Fig. 21); foretibial spur comb-like.

Remarks. *Anagroidea* appears to be closely related to *Cleruchus* group of genera. It is placed in its own group because of the mandibles that move in an anteroposterior direction, unlike any other genus of Mymaridae in the Western Hemisphere but as in *Eubroncus* Yoshimoto, Kozlov & Trjapitzin, the sister genus to *Anagroidea*, and *Ceratanaphes* Noyes & Valentine, and Old World genus in the *Cleruchus* group.

Neotropical hosts. Unknown.

Distribution. No species are described from the Neotropical Region but specimens have been collected from about 10 countries in Central and South America and the Caribbean islands (in CNC and UCRC).

Important reference. Huber *et al.* (2020).

ANAGRUS Haliday, 1833
(Figs 25–32)

Anagrus Haliday, 1833a: 268; 1833b: 346. Type species: *Ichneumon atomus* Linnaeus, 1767, by subsequent designation by Westwood, 1839: 78. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Face without subantennal sulcus ventral to each torulus (Fig. 25a); clava 1-segmented (Figs 26, 31), in lateral view often clearly asymmetrical, with dorsal margin usually strongly curved and ventral margin almost straight (Fig. 26); ocellar triangle delineated by a stemmaticum, visible as pale lines (Fig. 28); frenum completely longitudinally divided by a narrow or wide sulcus into paramedial plates, each plate at most not much longer than wide (Fig. 28). Species of *Anagrus* (*Anagrus*) (Figs 25–29) with fu_1 distinctly shorter than pedicel (Fig. 26); species of *Anagrus* (*Paranagrus*) (Figs 30–32) with fu_1 as long as pedicel (Fig. 31).

Remarks. *Anagrus* belongs to the *Anagrus* group of genera. *Anagrus* is the only genus with clava 1-segmented. Females of the other genera in the group have the clava 2- or 3-segmented. The Neotropical region has species in the three subgenera, *A*. (*Anagrus*), *A*. (*Anagrella*) and *A*. (*Paranagrus*) but by far the most speciose is *A*. (*Anagrus*).

Neotropical hosts. Hemiptera, Lepidoptera (needs confirmation), Odonata.
Important references. Triapitsyn (2002a, 2015a).

Anagrus (*Anagrus*) *amazonensis* Triapitsyn, Querino & Feitosa, 2008

Anagrus (*Anagrus*) *amazonensis* Triapitsyn *et al*., 2008: 682; holotype ♀ (INPA). **TL**: Brazil, Amazonas, Presidente Figueirido, BR 174, km 123, Santa Cruz Creek. Triapitsyn, 2015a: 12 (key), 26 (description, Brazil), 41 (list); Feitosa *et al.* 2016: 68 (association with aquatic insects).

Neotropical hosts. Hemiptera, Lepidoptera, Odonata (Zygoptera).
Distribution. Brazil.

Anagrus (*Anagrus*) *armatus* (Ashmead)

Litus armatus Ashmead, 1887: 193; holotype ♀ (USNM). **TL**: USA, Florida, Jacksonville.
Anagrus armatus armatus: Rojas, 1965: 39 (misidentification); De Santis, 1979: 360 (catalogue, Jamaica, Chile misidentification); De Santis, 1983: 32 (catalogue, Argentina misidentification); Triapitsyn, 2002a: 215 (key), 219 (description, Puerto Rico).
Anagrus (*Anagrus*) *armatus*: Triapitsyn, 2015a: 10 (key), 27 (description, Costa Rica, Puerto Rico), 41 (list, synonyms).
Anagrus armatus: Wolcott, 1923: 64 (list, Puerto Rico); Wolcott, 1951: 771 (host, natural control, Puerto Rico); Yoshimoto, 1990: 44 (list).
Anagris [*sic*] *armatus*: Jones, 1914: 463 (host, Puerto Rico).

Neotropical hosts. Unknown.
Distribution. Costa Rica, Puerto Rico.

Anagrus (*Anagrus*) *atomus* (Linnaeus, 1767)

Ichneumon atomos Linné [Linnaeus]; 1767: 941; neotype ♀ (UUZM), designated by Chiappini & Triapitsyn, 2007: 2. **TL**: Sweden, Uppsala, Hågadalen.
Anagrus (*Anagrus*) *atomus*: Triapitsyn, 2000a: 214 (key), 214 (Argentina, Chile); Triapitsyn, 2002a: 215 (key); Triapitsyn, 2015a: 10 (key), 19 (description, Argentina, Chile), 41 (list, synonyms).
Anagrus atomus: Liljesthröm & Virla, 2004: 113 (selective oviposition); Luft Albarracin *et al.*, 2009: 5 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Amiune *et al.*, 2018: 53 (host, Argentina).
Anagrus (*Anagrus*) *erythroneurae* Triapitsyn & Chiappini, 1994: 137; holotype ♀ (USNM). **TL**: USA, California, Coachella. Synonymy by Triapitsyn *et al.*, 2020: 1743. Triapitsyn, 1997: 5 (hosts, Mexico); Triapitsyn, 2015a: 10 (key), 21 (description), 42 (list).
Anagrus erythroneurae: Triapitsyn, 1997: 2 (key).
Anagrus ustulatus Haliday, 1833: 347, lectotype ♂ (NMID), designated by Graham, 1982: 201. **TL**: England or Ireland. Synonymy by Triapitsyn *et al.*, 2020: 1743. Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).
Anagrus (*Anagrus*) *ustulatus*: Triapitsyn, 2000a: 214 (key, Argentina, Chile); Triapitsyn, 2002a: 215 (key); Triapitsyn, 2015a: 42 (*nomen dubium*).

Neotropical host. Cicadellidae: *Rabdotalebra flava* Catalano.
Distribution. Argentina, Chile [unverified in Jamaica, Puerto Rico, as *A. erythroneurae*].

Anagrus (*Anagrus*) *bakkendorfi* Soyka, 1946

Anagrus (*Anagrus*) *bakkendorfi* Soyka, 1946: 40; holotype ♀ (NHMW). **TL**: The Netherlands, Limburg, Valkenburg.
Anagrus avalae Soyka, 1956a: 24; lectotype (NHMW), effectively designated by Chiappini, 1989: 108; see Triaptsyn *et al.*, 2021: 595. **TL**: Serbia, near Belgrade, Mt. Avala. Synonymy by Triapitsyn *et al.*, 2021: 595.
Anagrus (*Anagrus*) *avalae*: Triapitsyn, 2015a: 12 (key), 27 (description, Chile [not confirmed]), 41 (list, synonyms).

Neotropical hosts. Unknown.
Distribution. Chile.

Anagrus (*Anagrus*) *brasiliensis* Triapitsyn, 1997

Anagrus (*Anagrus*) *brasiliensis* Triapitsyn, 1997: 3; holotype ♀ (NHMUK). **TL**: Brazil, Santa Catarina, Nova Teutonia. Triapitsyn, 2002a: 215 (key); Triapitsyn, 2015a: 10 (key), 27 (description, Brazil), 42 (list).
Anagrus brasiliensis: Triapitsyn, 1997: 2 (key); Triapitsyn, 2000a: 217 (comparison with *A. ogloblini* Triapitsyn); Triapitsyn *et al.*, 2008: 684 (comparison with *A. amazonensis*).

Neotropical hosts. Unknown.
Distribution. Brazil.

Anagrus (*Anagrus*) *empanadus* Triapitsyn, 2011

Anagrus (*Anagrus*) *empanadus* Triapitsyn in Triapitsyn *et al.*, 2011: 180; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, [Ingeniero] Otamendi. Triapitsyn *et al.*, 2011: 173 (key); Luft Albarracin *et al.*, 2014: 136 (list); Triapitsyn, 2015a: 10 (key), 30 (description, Argentina), 42 (list).

Neotropical host. Delphacidae: *Megamelus scutellaris* Berg.
Distribution. Argentina.

Anagrus (*Anagrus*) *empoascae* Dozier, 1932

Anagrus (*Anagrus*) *empoascae* Dozier, 1932: 86; lectotype ♀ (USNM), designated by Triapitsyn, 1997: 8. **TL:** Haiti, Damien. De Santis, 1979: 361 (catalogue, Cuba, Haiti, Venezuela); De Santis, 1989: 71 (catalogue, Lesser Antilles); Huber 1995: 347 (host); González & Cave, 1997: 50 (host, percent parasitism, Honduras); Triapitsyn, 1997: 8 (description, hosts, Brazil, Haiti, Honduras, Trinidad & Tobago); Triapitsyn, 2000a: 214 (key), 219 (Argentina, Brazil); Triapitsyn, 2002a: 215 (key), 220 (Venezuela); Huber, 2006: 396 (host); Triapitsyn, 2015a: 12 (key), 30 (description, Argentina, Brazil, Haiti, Honduras, Trinidad & Tobago, Venezuela), 42 (list).
Anagrus empoascae: Thompson, 1958: 567 (host, Haiti); King & Saunders, 1984: 121 (host, biological control); Yoshimoto, 1990: 44 (list); Triapitsyn, 1997: 2 (key); Triapitsyn, 1998: 95 (comparison with extralimital species).

Neotropical hosts. Cicadellidae: *Empoasca fabalis* DeLong; *E. kraemeri* Ross & Moore.
Distribution. Argentina, Brazil, Cuba, Haiti, Honduras, Trinidad & Tobago, Venezuela.

Anagrus (*Anagrus*) *flaveolus* Waterhouse, 1913

Anagrus flaveolus Waterhouse, 1913: 87; holotype ♀ (NHMUK). **TL**: Trinidad & Tobago, locality not specified. Guagliumi, 1953: 43 (hosts, description, Venezuela); Thompson, 1958: 567 (host, Haiti, Trinidad); Marín Acosta, 1964: 50 (effect of temperature, host); Metcalfe, 1971: 583 (host ecology, Jamaica); Frank, 1972: 492 (host, Jamaica); Metcalfe, 1972: 84 (percent parasitism, Jamaica); De Santis *et al.*, 1973: 42 (Brazil); De Santis, 1979: 361 (catalogue, Bahamas, Barbados, Cuba, Haiti, Jamaica, Puerto Rico, Venezuela); Pizzamiglio, 1979: 370 (host [likely misidentified], Brazil); De Santis, 1980: 146 (catalogue, Brazil); Naranjo Montes de Oca & O'Relly León, 1987: 38 (Cuba), 39 (illustration); Marín, 1987: 115 (host, percent parasitism, Peru); Yoshimoto, 1990: 44 (list); De Santis *et al.*, 1992: 20 (host, percent parasitism, Argentina); Triapitsyn, 1997: 2 (key); Triapitsyn, 1998: 82 (key), 98 (Argentina, Barbados, Grenada, Guadeloupe, Guyana, Trinidad); Triapitsyn, 2000a: 214 (key), 219 (Argentina); Liljesthröm & Virla, 2004: 109 (density-dependent parasitism); Triapitsyn & Virla, 2004: 384 (comparison with *A. miriamae* Triapitsyn & Virla); Virla, 2004: 138 (host, biology); Luft Albarracin *et al.*, 2005: 258 (host); Luft Albarracin *et al.*, 2006: 284 (host); Luft Albarracin *et al.*, 2009: 5 (list, distribution and hosts in Argentina); Moya-Raygoza *et al.*, 2012: 108 (percent parasitism, Argentina, Mexico); Virla *et al.*, 2013: 4 (distribution, percent parasitism, Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Luft Albarracin *et al.*, 2017: 671 (key), 673 (host, Argentina); Hill *et al.*, 2019: 43 (influence of host on biology); Meurgey & Ramage, 2020: 49 (list, Guadeloupe); Luft Albarracin *et al.*, 2021: 5 (host ovipositon site effect on parasitism level).

Anagrus flavescens [*sic*]: Dash, 2016: 39 (host, Barbados); Guagliumi, 1953: 43; Thompson, 1958: 567 (host, Barbados).

Anagrus (*Anagrus*) *flaveolus*: Triapitsyn, 1997: 10 (hosts, Argentina, Bahamas, Barbados, Brazil, Cuba, Grenada, Guadeloupe, Guyana, Haiti, Jamaica, Peru, Trinidad & Tobago, Venezuela); Triapitsyn, 2002a: 215 (key), 220 (host, Belize, Haiti, Jamaica, Venezuela); Triapitsyn *et al*., 2010: 16 (host, Argentina); Triapitsyn, 2015a: 14 (key), 32 (description, Argentina, Bahamas, Barbados, Belize, Brazil, Cuba, Grenada, Guadeloupe, Guyana, Haiti, Jamaica, Peru, Trinidad & Tobago, Venezuela), 42 (list, synonym).

Anagrus armatus [misidentification]: Dozier, 1932: 86 (hosts, Haiti); Wolcott, 1936: 518 (catalogue, hosts, Puerto Rico); Costa Lima, 1942: 44 (host); Guagliumi, 1953: 43; Thompson, 1958: 566 (host); De Santis *et al.*, 1988: 93 (hosts); De Santis & Fidalgo, 1994: 121 (catalogue, Puerto Rico). See Triapitsyn (1997).

Neotropical hosts. Delphacidae: *Aeneolamia flavilatera* (Urich), *A. lepidior* (Fowler), *A. reducta* (Lall.), *A. varia* (Fabricius), *Dalbulus maidis* DeLong, *Delphacodes haywardi* Muir, *D. kuscheli* Fennah, *Dicranotropis muiri* Kirkaldy, *Metadelphax propinqua* (Fieber), *Peregrinus maidis* (Ashmead), *Perkinsiella saccharicida* Kirkaldy, *Pissonotus* sp., *Saccharosydne saccharivora* (Westwood), *S. subandina* Marino de Remes Lenicov & Rossi Batiz, *Toya propinqua* (Fieber). In laboratory rearings, eggs of *Amplicephalus simpliciusculus* Linnavuori and *Exitianus obscuriventris* Stål were parasitized but adults emerged only from the former (De Santis *et al.* 1992).

Distribution. Argentina, Bahamas, Belize, Brazil, Cuba, Grenada, Guadeloupe, Guiana, Haiti, Jamaica, Peru, Puerto Rico, Trinidad & Tobago, Venezuela.

Anagrus (*Anagrus*) *frequens* Perkins, 1905

Anagrus frequens Perkins, 1905: 198; lectotype ♀ (BPBM), invalidly designated by Triapitsyn & Beardsley, 2000: 32, validated by Triapitsyn, 2001: 274. **TL**: Australia, Queensland, Bundaberg.

Anagrus (*Anagrus*) *frequens*: Triapitsyn, 1997: 2 (key), 5 (hosts, Colombia, Ecuador, Trinidad & Tobago); Triapitsyn, 2002a: 215 (key), 216 (St. Christopher & Nevis); Triapitsyn, 2015a: 10 (key), 22 (description, Colombia, Ecuador, St. Christopher & Nevis, Trinidad & Tobago), 42 (list, synonyms).

Neotropical host. Delphacidae: *Perkinsiella saccharicida* Kirkaldy.

Distribution. Colombia, Ecuador, St. Christopher & Nevis, Trinidad & Tobago.

Anagrus (*Anagrus*) *gonzalezae* Triapitsyn, 1997

Anagrus (*Anagrus*) *gonzalezae* Triapitsyn, 1997: 5; holotype ♀ (USNM). **TL**: Honduras, Morazán, San Antonio de Oriente, El Zamorano. González & Cave, 1997: 50 (host, percent parasitism, Honduras); Triapitsyn, 1997: 2 (key), 5 (host, Guiana, Panama, Trinidad & Tobago); Triapitsyn, 2002: 215 (key); Triapitsyn, 2015a: 12 (key), 32 (description, Guyana, Honduras, Panama, Trinidad & Tobago), 42 (list).

Neotropical hosts. Cicadellidae: *Empoasca kraemeri* Ross & Moore.

Distribution. Guyana, Honduras, Panama, Trinidad & Tobago.

Anagrus (*Anagrus*) *incarnatus* Haliday, 1833

Anagrus incarnatus Haliday, 1833b: 347; lectotype ♀ (NMID), designated by Graham, 1982: 200. **TL**: UK or Ireland. Ogloblin, 1952: 136 (Juan Fernández Is. [unverified]); De Santis, 1979: 361 (catalogue, Juan Fernandez Is.); Yoshimoto, 1990: 44 (list); Triapitsyn, 1997, 2 (key), 8 (Juan Fernández Is.?); Moya-Raygoza, 2016: 726 (effect of pest age on fecundity and attractiveness); Luft Albarracin *et al.*, 2017: 671 (key), 672 (host, Argentina); Moya-Raygoza & Triapitsyn, 2017: 694 (host, Mexico); Moya-Raygoza, 2020: 50 (host, abundance); Torres-Moreno & Moya-Raygoza, 2020: 3 (response to host density).

Anagrus columbi Perkins, 1905: 198; holotype ♀ (BPBM). **TL**: USA, Ohio, Columbus. Synonymy by Triapitsyn *et al*., 2018: 2802. Perkins, 1905: 194 (key); Moya-Raygoza & Becerra-Chiron, 2014: 929 (overwintering biology); Triapitsyn, 2015a: 42 (checklist); Moya-Raygoza, 2016: 726 (effect of pest age on fecundity and attractiveness); Moya-Raygoza *et al.*, 2017: 807 (host, Mexico); Moya-Raygoza & Triapitsyn, 2017: 694 (host, Mexico); Becerra-Chiron & Moya-Raygoza, 2018: 3 (parasitism differences with agroecosystem location and maize varieties); Beccera-Chiron *et al.*, 2020: 211 (effect of oviposition period and host age on parasitism).

Anagrus incarnatosimilis Soyka, 1956a: 25; lectotype ♀ (NHMW), designated by Triapitsyn, 2015b: 217. Synonymy by Triapitsyn *et al.*, 2018: 2802: **TL**: Austria, Hundsheim. D'Hervé *et al.*, 2017: 88 (host on apple, Argentina). Synonymy by Girault, 1930 [433]: 276.

Neotropical host. Delphacidae: *Neodelphax fuscoterminata* (Berg).

Distribution. Argentina, Chile? (Juan Fernández Islands?).

Anagrus (*Anagrus*) *lineolus* Triapitsyn, 2000

Anagrus (*Anagrus*) *lineolus* Triapitsyn, 2000a: 217; holotype ♀ (MLPA). **TL**: Argentina, Misiones Loreto. Triapitsyn, 2000a: 214 (key), 217 (Brazil); Triapitsyn, 2002a: 215 (key), 218 (Argentina, Brazil, Peru); Loiácono *et al.*, 2005: 7 (type information); Luft Albarracin *et al.*, 2009: 5 (list, distribution and hosts in Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Triapitsyn, 2015a: 12 (key), 34 (description, Argentina, Brazil, Peru), 43 (list).

Anagrus lineolus: Triapitsyn *et al.*, 2008: 683 (comparison with *A. amazonensis*).

Neotropical hosts. Cicadellidae: *Chlorotettix fraterculus* (Berg), *Plesiommata mollicella* (Fowler).

Distribution. Argentina, Brazil, Peru.

Anagrus (*Anagrus*) *miriamae* Triapitsyn & Virla, 2004

Anagrus sp. Triapitsyn, 2000a: 214 (key), 220 (description, Argentina).

Anagrus (*Anagrus*) *miriamae* Triapitsyn & Virla, 2004: 383; holotype ♀ (IFML). **TL**: Argentina, Tucumán, Las Talitas. Triapitsyn, 2015a: 14 (key), 34 (description, Argentina), 43 (list).

Anagrus miriamae: Huber, 2006: 396 (host); Luft Albarracin *et al.*, 2009: 5 (list, distribution and host in Argentina); Moya-Raygoza *et al*., 2012: 108 (percent parasitism, Argentina, Mexico); Luft Albarracin *et al.*, 2014: 136 (list); Luft Albarracin *et al.*, 2017: 671 (key), 673 (host, Argentina).

Neotropical host. Delphacidae: *Delphacodes sitarea* Remes Lenicov & Tesón.

Distribution. Argentina.

Anagrus (*Anagrus*) *nigriventris* Girault 1911

Litus armatus var. *nigriventris*: Girault, 1911 [96]: 291; lectotype ♀ (INHS), designated by Frison, 1927: 226. **TL**: USA: Illinois, Centralia.

Anagrus nigriventris: Yoshimoto, 1990: 44 (list); Triapitsyn, 1997: 2 (key); Luft Albarracin *et al.*, 2005: 259 (host, Argentina); Luft Albarracin *et al.*, 2006: 284 (host, parasitism rate, Argentina, Brazil, Chile, Peru, Trinidad & Tobago); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Luft Albarracin *et al.*, 2017: 671 (key), 673 (host, Argentina, Brazil, Chile, Peru, Trinidad & Tobago); Moya-Raygoza *et al.*, 2017: 807 (host, Mexico); Luft Albarracin *et al.*, 2021: 5 (host oviposition site effect on parasitism level).

Anagrus (*Anagrus*) *nigriventris*: Triapitsyn, 1997: 9 (decription, Trinidad & Tobago); Triapitsyn, 2000a: 214 (key), 219 (Argentina, Chile); Triapitsyn, 2002a: 215 (key), 222 (Brazil); Triapitsyn, 2015a: 14 (key), 35 (description, Argentina, Brazil, Chile, Peru, Trinidad & Tobago), 43 (list, synonyms).

Neotropical hosts. Cicadellidae: *Dalbulus maidis* (DeLong & Wolcott); Miridae: *Pycnoderes quadrimaculatus* Guérin-Méneville.

Distribution. Argentina, Brazil, Chile, Peru, Trinidad & Tobago.

Anagrus (*Anagrus*) *ogloblini* Triapitsyn, 2000

Anagrus (*Anagrus*) *ogloblini* Triapitsyn, 2000a: 216; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Triapitsyn, 2000a: 214 (key); Triapitsyn, 2002a: 215 (key).

Anagrus ogloblini: Loiácono *et al.*, 2005: 7 (type information); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Triapitsyn, 2015a: 10 (key), 36 (description, Argentina), 43 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

***Anagrus* (*Paranagrus*) *optabilis* (Perkins, 1905)**

Paranagrus optabilis Perkins, 1905: 199; lectotype ♀ (BPBM), invalid designation by Triapitsyn & Beardsley, 2000: 28; validated by Triapitsyn, 2001: 274. **TL**: Australia, Queensland, Bundaberg. Liljesthröm & Virla, 2004: 113 (host, mention).
Anagrus optabilis: De Santis & Fidalgo, 1994: 122 (catalogue, host, Ecuador); Triapitsyn, 1997: 2 (key).
Anagrus (*Paranagrus*) *optabilis*: Trjapitzin, 1995: 105 (key), 106 (comparison with *A. perforator*); Triapitsyn, 1997: 3 (host, Ecuador); Triapitsyn, 2015a: 8 (key), 17 (description, Ecuador [needs confirmation]), 43 (list, synonyms).

Neotropical hosts. Delphacidae: *Dicranotropis muiri* Kirkaldy, *Peregrinus maidis* (Ashmead), *Perkinsiella saccharicida* Kirkaldy.

Distribution. Ecuador [needs confirmation].

***Anagrus* (*Paranagrus*) *perforator* (Perkins, 1905)**

Paranagrus perforator Perkins, 1905: 199; syntypes ♀ (BPBM, lost?). **TL**: Fiji. Acuña *et al.*, 1959: 19 (host, Cuba); Gómez Sousa & Meneses Carbonell, 1978: 28 (host, percent parasitism, Cuba); Gómez Sousa *et al.,* 1979: 4 (host, life span); De Santis, 1983: 32 (catalogue, host, Cuba); Hernández *et al.*, 1989, 42 (Cuba, behaviour of resistant varieties of rice).
Anagrus (*Paranagrus*) *perforator*: Trjapitzin, 1995: 105 (key), 106 (comparison with *A. optabilis*); Triapitsyn, 2015a: 8 (key), 18 (description, Cuba [needs confirmation]), 43 (list, synonym).

Neotropical host. Cicadellidae: *Sogatodes orizicola* (Muir).

Distribution. Cuba?

***Anagrus* (*Anagrus*) *raygilli* Triapitsyn, 2000**

Anagrus (*Anagrus*) *raygilli* Triapitsyn, 2000b: 90; holotype ♀ (USNM). **TL**: Guatemala, Sacatépequez, Chyllá. Triapitsyn, 2002: 215 (key), 220 (host, Dominican Republic, Guatemala, Venezuela); Triapitsyn, 2015a: 12 (key), 37 (description, host, Dominican Republic), 44 (list).

Neotropical host. Cicadellidae: *Idona minuenda* (Ball).

Distribution. Dominican Republic, Guatemala, Venezuela.

***Anagrus* (*Anagrus*) *saltensis* (Ogloblin, 1949)**

Schizophragma saltensis Ogloblin, 1949: 352; holotype ♀ (MLPA). **TL**: Argentina, Salta, Yariguarenda. De Santis, 1967: 110 (catalogue); Huber, 1987: 840 (description, generic placement wrong, Trinidad & Tobago); Yoshimoto, 1990: 55 (list); De Santis & Fidalgo, 1994: 126 (catalogue); Loiácono *et al.*, 2005: 16 (type information); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 138 (list).
Anagrus (*Anagrus*) *saltensis*: Triapitsyn, 2018c: 782 (key), 783 (generic transfer, male description, Panama, Peru).

Neotropical hosts. Unknown.

Distribution. Argentina, Panama, Peru, Trinidad & Tobago.

***Anagrus* (*Anagrus*) *stethynioides* Triapitsyn, 2002**

Anagrus (*Anagrus*) *stethynioides* Triapitsyn, 2002: 216; holotype ♀ (USNM). **TL:** Guatemala, Sacatepéquez, Chyllá, 6877 feet. Triapitsyn, 2002a: 215 (key); Triapitsyn, 2015a: 8 (key), 18 (description, Argentina, Guatemala, Trinidad & Tobago), 44 (list); Triapitsyn, 2018c: 781 (key).

Anagrus stethynioides: Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.
Distribution. Argentina, Guatemala, Trinidad & Tobago.

Anagrus (*Anagrus*) *subfuscus* Foerster, 1847

Anagrus subfuscus Foerster, 1847: 214; neotype ♀ (RBINS), designated by Chiappini, 1989: 109. **TL**: Belgium, Egenhoven. Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).
Anagrus (*Anagrus*) *subfuscus sensu* Debauche 1948: Triapitsyn, 2000a: 214 (key), 220 (Argentina); Triapitsyn, 2002a: 215 (key); Triapitsyn, 2015a: 14 (key), 37 (description, Argentina), 44 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Anagrus urichi Pickles, 1932

Anagrus urichi, Pickles, 1932: 204; syntypes ♀, ♂? (unknown), lost. **TL**: Trinidad & Tobago, Trinidad Island, several different sugarcane estates and localities listed. Pickles, 1933: 222 (phenology); Costa Lima, 1942: 77 (host, Trinidad); Thompson, 1958: 567 (host, Trinidad); De Santis, 1979: 361 (catalogue, hosts, Trinidad, Brazil); Yoshimoto, 1990: 44 (list); Triapitsyn, 1997: 11 (*nomen dubium*, Trinidad & Tobago); Valério & Oliveira, 2005: 137 (host); Huber 2006: 396 (mention); Triapitsyn *et al.*, 2008: 683 (comparison with *A. amazonensis*).
Anagrus (*Anagrus*) *urichi*: Triapitsyn, 2002: 215 (key), 217 (description, hosts, Brazil, Guyana); Triapitsyn, 2015a: 12 (key), 38 (description, host, Brazil, Guyana, Trinidad & Tobago, Venezuela), 44 (list).

Neotropical hosts. Cercopidae: *Aeneolamia flavilatera* (Urich) [from soil containing this host], *A. varia* (Fabricius), *A. varia saccharina* (Distant), *Deois flavopicta* (Stål), *Mahanarva fimbriolata* (Stål), *Notozulia entreriana* (Berg), *Tomaspis liturata* (Lepeletier & Serville), *Tomaspis* sp.
Distribution. Brazil, Guyana, Trinidad & Tobago, Venezuela.

Anagrus unilinearis Soyka, 1950

Anagrus unilinearis Soyka, 1950: 124; holotype ♀ (PPDD), lost. **TL**: Egypt, Shareh El-Haram. Triapitsyn, 1997: 2 (key).
Anagrus (*Paranagrus*) *unilinearis*: Triapitsyn, 1997: 3 (comparison with *A. optabilis*, Trinidad & Tobago); Triapitsyn, 2015a: 8 (key), 18 (description, Trinidad & Tobago, Venezuela), 44 (list).

Neotropical hosts. Unknown.
Distribution. Trinidad & Tobago, Venezuela.

Anagrus (*Anagrus*) *vatrjapitzini* Triapitsyn, 2018

Anagrus (*Anagrus*) *vatrjapitzini* Triapitsyn, 2018c: 786; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Reserva de Vida Silvestre Urugua-í. Triapitsyn, 2018c: 782 (key).

Neotropical hosts. Unknown.
Distribution. Argentina.

Anagrus (*Anagrus*) *virginiae* Triapitsyn & Puttler, 2006

Anagrus (*Anagrus*) *virginiae* Triapitsyn & Puttler in Puttler & Triapitsyn, 2006: 26; holotype ♀ (UCRC). **TL**: USA, Missouri, Boone Co., Columbia, University of Missouri Campus. Uemura-Lima, 2017: 89 (hosts, percent parasitism, Brazil); Fazolin *et al.*, 2020: 25 (host, Brazil).

Neotropical hosts. Tingidae: *Vatiga illudens* (Drake), *V. manihotae* (Drake).

Distribution. Brazil.

Anagrus (*Anagrus*) *virlai* Triapitsyn, 2019

Anagrus (*Anagrus*) *virlai* Triapitsyn in Triapitsyn *et al.*, 2019: 91; holotype ♀ (UCRC). **TL**: Mexico, Jalisco, Zapopan. Luft Albarracin *et al.*, 2021: 4 (host ovipositon site effect on parasitism level); Hill *et al.*, 2023: 132 (hosts, host specificity and performance, parasitism rates).

Anagrus virlai: Becerra-Chiron *et al.*, 2020: 210 (effect of host age and oviposition period on parasitism); Hill *et al.*, 2019: 75 (effects of host species and host age); Hill *et al.*, 2020: 579 (adult diet influence); Coll-Aráoz *et al.*, 2020: 907 (attraction to host plant volatiles); Moya-Raygoza, 2020: 50 (host, abundance); Moya-Raygoza & Figueroa-Bautista, 2021: 451 (suitability of hybrid maize plants as hosts); Torres-Moreno & Moya-Raygoza, 2020: 3 (response to host density); Torres-Moreno & Moya-Raygoza, 2021: 1090 (parasitism by parasitic wasps on maize); Moya-Raygoza & Figueroa-Bautista, 2021: 752 (suitability of hybrid and landrace maize as hosts); Hill *et al.*, 2023: 132 (host specificity and performance on different leafhopper species); Hill *et al.*, 2024: 88 (plant volatile consequences); Moya-Raygoza, 2024: 2 (effect of host egg microfilaments against parasitoids).

Anagrus breviphragma Soyka, 1956a: 25; lectotype ♀ (NHMW), effectively designated by Chiappini, 1989: 105; see Triaptsyn & Berezovskiy, 2002a: 15. **TL**: country and locality not given. Synonymy by Triapitsyn, 2015b: 216.

Anagrus breviphragma [misidentification]: Triapitsyn, 1997: 2 (key); Oliveira & Spotti López, 2000: 266 (host, percent parasitism, Brazil); Virla, 2001: 240 (biology); Virla, 2004: 138 (mention, host); Luft Albarracin *et al.*, 2005: 258 (host); Luft Albarracin *et al.*, 2006: 284 (host); Luft Albarracin *et al.*, 2009: 5 (list, distribution and hosts in Argentina); Moya-Raygoza *et al.*, 2012: 107 (percent parasitism, Argentina, Mexico); Foieri *et al.*, 2013: 70 (percent parasitism, host, Argentina); Virla *et al.*, 2013: 4 (distribution, percent parasitism, Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Moya-Raygoza *et al.*, 2014: 310 (hosts, Mexico); Luft Albarracin *et al.*, 2017: 673 (synonymy mentioned); Moya-Raygoza *et al.*, 2017: 807 (host, Mexico); Meurgey & Ramage, 2020: 49 (list, Guadeloupe).

Anagrus (*Anagrus*) *breviphragma* [misidentification]: Triapitsyn, 1997: 6 (host, Argentina, Brazil, Guadeloupe, Guiana); Triapitsyn, 2000a: 214 (key, Argentina, Brazil); Triapitsyn, 2002a: 215 (key), 217 (host, Colombia); Moya-Raygoza *et al.*, 2012: 107 (percent parasitism, Argentina, Mexico); Triapitsyn, 2015a 12 (key), 27 (description, Argentina, Brazil, Colombia, Guadeloupe, Guyana), 42 (list, synonyms).

Anagrus (*Anagrus*) *incarnatus* [misidentification]: Triapitsyn, 1997: 7 (hosts, distribution, Juan Fernández Islands?); De Santis, 1989: 71 (Antilles); Triapitsyn, 2015a: 12 (key), 33 (description, Guyana, Honduras, Panama, Trinidad & Tobago, 42 (list, synonyms).

Neotropical hosts. Cicadellidae: *Agalliana ensigera* Oman, *Chlorotettix fraterculus* (Berg), *Ciminius platensis* (Berg), *Dalbulus elimatus* (Ball), *D. maidis* (DeLong & Wolcott), *Dechacona missionum* (Berg), *Exitianus obscurinervis* (Stål), *Hortensia similis* (DeLong & Wolcott), *Xeroploea viridis* (Fabricius). Delphacidae: *Delphacodes kuscheli* Fennah, *Peregrinus maidis* (Ashmead).

Distribution. Argentina, Brazil, Colombia, Guadeloupe, Guyana, Honduras, Panama, Trinidad & Tobago.

Anagrus (*Anagrus*) *yawi* Fullaway, 1944

Anagrus yawi Fullaway, 1944: 57; lectotype ♀ (BPBM), designated by Triapitsyn & Beardsley, 2000: 36. **TL**: Mexico, Sinaloa, Los Mochis. De Santis, 1979: 361 (catalogue, Mexico); King & Saunders, 1984: 133 (host); Yoshimoto, 1990: 44 (list); González & Cave, 1997: 50 (host, percent parasitism, Honduras); Triapitsyn, 1997: 2 (key); Luft Albarracin *et al.*, 2009: 6 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Anagrus (*Anagrus*) *yawi*: Triapitsyn, 1997: 8 (Honduras); Triapitsyn, 2000a: 214 (key), 216 (Argentina); Triapitsyn, 2002: 215 (key), 217 (host, Argentina, Haiti, Honduras); Triapitsyn, 2015a: 12 (key), 39 (description, Argentina, Haiti, Honduras), 44 (list).

Neotropical hosts. Miridae: *Pycnoderes quadrimaculatus* Guérin-Méneville [= *P. incurvus* (Distant)], *Tenthecoris bicolor* Scott.

Distribution. Argentina, Haiti, Honduras.

Anagrus spp.

Bastidas, 1996: 16 (host: *Tagosodes orizicolus* (Muir) [Delphacidae] (some insecticides cause 100% parasitoid mortality in rice fields).
Caballero & Andrews, 1985: 151 (host: *Empoasca* spp. percent parasitism) [Cicadellidae] in Honduras).
Cuevas Medina, 1993: 32 (host: *Tagosodes* sp. [Delphacidae] in Colombia).
Gómez & Schoonhoven, 1977: 29 (host: *Empoasca kraemeri* Ross & Moore [Cicadellidae] in Colombia).
Gladstone *et al.*, 1994: 145 (host: *Dalbulus maidis* (DeLong & Wolcott) [Cicadellidae]).
Guagliumi, 1962: 514 (host: *Aeneolamia lepidior* Fowler [Cercopidae]).
Guagliumi, 1971b: 103 (host: *Aeneolamia selecta* (Walker), *Deois terrea* (Germar) [Cercopidae]).
Huber, 2006: 396 (host: *Tagosodes orizicolus* Muir [Delphacidae]).
Marino de Remes Lenicov & Virla, 1993: 218 (host: *Delphacodes haywardi* Muir [(Delphacidae)].
Moreno *et al.*, 1994: 14 (host: *Tagosodes orizicola* Muir [(Delphacidae)].
Pires *et al.*, 1993: 412 (host: *Deois flavopicta* (Stål) [Cercopidae]).
Thompson, 1958: 566 (host: *Tomaspis saccharina* Distant [Cercopidae] in Trinidad and Tobago).
Williams, 1921: 66 (host: *Tomaspis* sp. near *saccharina* Distant [Cercopidae] in Panama).
Wilde *et al.*, 1976: 444 (host: *Empoasca kraemeri* Ross & Moore [Cicadellidae]).

ANAPHES Haliday, 1833

(Figs 33–39)

Anaphes Haliday, 1833a: 268, 1833b: 346. Type species: *Anaphes fuscipennis* Haliday, 1833, by designation under the plenary powers of the International Commission on Zoological Nomenclature, 2017: 122 (ICZN 2017). See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Body almost always uniformly black or dark brown; face without subantennal sulci and toruli less than their height from transverse trabecula (Fig. 33a); antenna with fu_1 shorter than each remaining segment and clava 1- (Fig. 34) or 2-segmented; fore wing with posterior margin straight to distinctly concave, with apex slightly asymmetrical, the anterior margin usually more curved than posterior margin (Fig. 35), almost always uniformly covered with microtrichia except for two more or less distinct bare areas, the marginal and medial spaces, separated by an oblique row of microtrichia extending from just behind apex of stigmal vein towards wing apex (Fig. 35); retinaculum with a socketed seta near apex (Fig. 35); propodeum with median longitudinal sulcus (Fig. 36); petiole short, not visible (Fig. 36); gt_1 a thin, narrow and almost vertical panel longitudinally divided by a median sulcus (Figs 36–38); ovipositor base enclosed in a membranous gastral sac sometimes projecting anteriorly ventral to mesosoma (Figs 37, 39).

Remarks. *Anaphes* belongs to the *Anaphes* group of genera, a rather poorly defined group containing one other genus, *Erythmelus*. It differs from *Erythmelus* in having mandibles with 3 distinct teeth that cross over each other when closed. The most well-known species of fairyfly in the Neotropical region is probably *Anaphes nitens* (Girault). Before even being identified to genus and species, *A. nitens* was imported from South Africa into Argentina (Marelli 1928) and Brazil (Ribeiro *et al.* 2023) to control an introduced *Gonipterus* sp. (Curculionidae) on *Eucalyptus* spp. From there it spread to other countries in South America. An additional Australian species of *Anaphes, A. tasmania* Huber & Prinsloo, was released but so far failed to become established (Ide *et al.* 2013a) and *A. inexpectatus* Huber & Prinsloo was being considered for introduction into Brazil (Wilcken *et al.* 2018) and was introduced into Colombia (Cardeño, 2019). Whether it is successfully established is unknown but it is included here in case its introduction is eventually shown to be successful. Gavio *et al.* (2024) recorded specimens of an unidntified species from an unknown host in the thalli of a red alga in the marine intertidal zone of a mangrove forest.

Neotropical hosts. Coleoptera: Curculionidae.

Important reference. Huber & Thuróczy (2018).

Anaphes (*Anaphes*) *amplipennis* Ogloblin, 1962

Anaphes (*Austranaphes*) *amplipennis* Ogloblin, 1962: 49; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Ogloblin, 1962: 56 (key); De Santis, 1967: 108 (catalogue); Yoshimoto, 1990: 53 (list).

Anaphes amplipennis: Loiácono *et al.*, 2005: 17 (type incorrectly? presumed lost); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.,* 2014: 136 (list).
Anaphes (*Anaphes*) *amplipennis* Huber & Thuróczy, 2018: 24 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Anaphes (*Patasson*) *atomarius* Brèthes, 1913

Anaphoidea atomaria Brèthes, 1913: 100; holotype ♀ (MACN). **TL**: Argentina, Buenos Aires, General Urquiza.
Patasson atomarius: Ogloblin, 1964a: 39 (generic transfer); De Santis, 1967: 109 (catalogue); Ahmad, 1977: 150 (host, Argentina); Ahmad, 1978: 162 (host).
Patasson atomaria: Simmonds, 1967: 81 (host); De Santis, 1979: 371 (catalogue).
Anaphes (*Patasson*) *atomarius*: Yoshimoto, 1990: 53 (list).
Anaphes atomarius: Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Huber, 2015b: 24 (generic transfer, description, host, Brazil).
Anaphes (*Patasson*) *atomarius*: Huber & Thuróczy, 2018: 24 (subgeneric placement, list).

Neotropical host. Curculionidae: *Listronotus bonariensis* (Kuschel).
Distribution. Argentina, Brazil, Chile, Uruguay.

Anaphes (*Patasson*) *conotracheli* Girault, 1905

Anaphes conotracheli Girault, 1905 [13]: 220; holotype ♀ (USNM). **TL**: USA: Maryland, Arundel. Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Anaphes (*Patasson*) *inexpectatus* Huber & Prinsloo, 1990

Anaphes inexpectatus Huber & Prinsloo, 1990: 340; holotype ♀ (ANIC). **TL**: Australia, Tasmania, Hobart and Fingal (laboratory stock originating from these two localities). Wilcken *et al.* 2018: 186 (proposed introduction into Brazil); Cardeño, 2019: 310 (introduction into Colombia).

Neotropical host. Curculionidae: *Gonipterus* is the target genus.
Distribution. Brazil (assuming it is released and becomes established).

Anaphes (*Patasson*) *nitens* (Girault, 1928)

Anaphoidea nitens Girault, 1928 [420]: 262; lectotype ♀ (NHMUK), designated by Huber & Prinsloo, 1990: 336. **TL**: Australia, Victoria, Ferntree Gully. Thompson, 1958: 569 (host).
Yungaburra nitens: Ogloblin, 1939a: 143 (generic placement); Quintana, 1963: 2 (biocontrol); De Santis, 1967: 110 (catalogue).
Patasson (*Yungaburra*) *nitens*: De Santis, 1979: 371 (catalogue); De Santis, 1983: 33 (catalogue, Brazil).
Anaphes (*Patasson*) *nitens*: Yoshimoto, 1990: 54 (list).
Anaphes nitens: Luft Albarracin *et al.*, 2009: 6 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Souza, 2016: 40 (sex ratio, percent parasitism); Barbosa *et al.*, 2019: 308 (life cycle, biological control); Cardeño, 2019: 310 (introduction into Colombia); Silva *et al.*, 2022: 572 (effect of bird predation); Ribeiro *et al.*, 2023a: 184 (symbiotic bacteria); Ribeiro *et al.*, 2023b: 1 (presence in Minas Gerais, Brazil); Salazar-Basurto *et al.*, 2023: 6 (Ecuador).
Anaphes (*Anaphes*) *nitens*: Huber & Thuróczy, 2018: 28 (list), 45 (key).
Anaphoidea gonipteri Ferrière, 1930: 38; lectotype ♀ (NHMUK), designated by Huber & Prinsloo, 1990: 336. **TL**: South Africa, Transvaal, Pretoria (from material originating in Australia). Synonymy by Girault, 1930 [433]: 276. Marelli, 1930a:

21 (importation from South Africa into Argentina, laboratory rearing); Marelli, 1930b: 8 (second generation laboratory rearing); Marelli, 1930c: 8 (third generation laboratory rearing).

Neotropical hosts. Curculionidae: *Gonipterus gibberus* Boisduval, *G. suturalis* Gyllenhal (Mossop 1929); *G. platensis*? *Gonipterus* is a complex of species so those parasitized by *Anaphes* are uncertain.

Distribution. Argentina, Brazil, Chile, Colombia?, Ecuador, Uruguay.

Anaphes (*Anaphes*) *nunezi* Ogloblin, 1962

Anaphes (*Austranaphes*) *nunezi* Ogloblin, 1962: 51; holotype ♀ (MLPA). **TL**: Argentina, Tierra del Fuego, Bahía Aguirre. Ogloblin, 1962: 56 (key); De Santis, 1967: 109 (catalogue). Yoshimoto, 1990: 53 (list).
Anaphes nuñezi [*sic*]: Loiácono *et al.*, 2005: 7 (type information).
Anaphes nunezi: Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).
Anaphes (*Anaphes*) *nunezi*: Huber & Thuróczy, 2018: 24 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Anaphes (*Anaphes*) *pucarobius* Ogloblin, 1962

Anaphes (*Austranaphes*) *pucarobius* Ogloblin, 1962: 52; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Ogloblin, 1962: 56 (key); De Santis, 1967: 109 (catalogue); Yoshimoto, 1990: 53 (list).
Anaphes pucarobius: Loiácono *et al.*, 2005: 7 (type information); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Huber & Thuróczy, 2018: 24 (list).
Anaphes (Austranaphes) neuquenensis Ogloblin, 1962: 54; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Synonymy by Huber, 1992: 53. Ogloblin, 1962: 56 (key); De Santis, 1967: 109 (catalogue); Yoshimoto, 1990: 53 (list).
Anaphes neuquenensis: Loiácono *et al.*, 2005: 7 (type information); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Anaphes spp.

Gavio *et al.*, 2024: in press (host: unknown insect in thalli of red alga).
Salas Araiza, 2018: 718 [host: *Helicoverpa zea* (Boddie) (Noctuidae)]. Record almost certainly incorrect.

ARESCON Walker, 1846
(Figs 40–44)

Arescon Walker, 1846: 50. Type species: *Mymar dimidiatus* Curtis, 1832, by monotypy. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Funicle 5-segmented (Fig. 41); vertex with pale lines surrounding ocelli rectangular and also connected by pale lines extending from each corner of stemmaticum to supraorbital trabeculae (Fig. 40b); mandible with 4 teeth (Fig. 40a); dorsellum diamond-shaped, the anterior and posterior margins not parallel (Fig. 43); fore wing with venation extending at least 0.7× wing length (Fig. 42); marginal vein 2× as long as submarginal vein more than 2× as long as parastigma and with 2 distal macrochaeta, the second one at about midpoint of marginal vein length; postmarginal vein apparently absent (Fig. 42); tarsi 5-segmented.

Remarks. *Arescon* belongs to the *Arescon* group of genera. These are the only genera with a fore wing venation at least 0.6× wing length (in *Chrysoctonus*, only males have wings). *Arescon* is most similar to *Tinkerbella*, which differs by the hind wing without setae along most of its anterior margin, frenum with a faint longitudinal median sulcus, and tarsi 4-segmented.

Neotropical hosts. Hemiptera: Membracidae?

Important reference. Ogloblin (1957c) [as *Xenomymar* Crawford].

Arescon dallasi (Ogloblin, 1938)

Xenomymar Dallasi [*sic*] Ogloblin, 1938b: 97; syntypes 3♀, 4♂ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1938b: 100 (key). Ogloblin, 1957c: 43 (key), Ogloblin, 1959a: 46 (mention, Ecuador); Costa Lima, 1962: 197 (host); Loiácono *et al.*, 2005: 16 (type information).

Arescon dallasi: Annecke & Doutt, 1961: 44 (generic transfer, comparison with extralimital species); De Santis, 1967: 102 (catalogue, Argentina); De Santis, 1979: 363 (catalogue, Ecuador); De Santis, 1980: 146 (catalogue, Brazil); Yoshimoto, 1990: 30 (list); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Yoshimoto, 1990: 30 (list).

Neotropical hosts. Membracidae (Costa Lima 1962) but this is uncertain.

Distribution. Argentina, Brazil, Ecuador.

Arescon elongatus (Ogloblin, 1957)

Xenomymar elongatus Ogloblin, 1957c: 37; holotype ♂ (MLPA). **TL**: Argentina, San Ignacio, Yabebirí [ranch]. Ogloblin, 1957c: 43 (key); Loiácono *et al.*, 2005: 16 (type information).

Arescon elongatus: De Santis, 1967: 102 (generic transfer, catalogue, Argentina); Yoshimoto, 1990: 30 (list); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Yoshimoto, 1990: 30 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Arescon maculipennis (Ogloblin, 1957)

Xenomymar maculipennis Ogloblin, 1957c: 37; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1957c: 43 (key); Loiácono *et al.*, 2005: 16 (type information).

Arescon maculipennis: Annecke & Doutt, 1961: 44 (generic transfer); De Santis, 1967: 102 (generic transfer, catalogue, Argentina); Yoshimoto, 1990: 30 (list); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Arescon platensis (Ogloblin, 1957)

Xenomymar platensis Ogloblin, 1957c: 42; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Paraná de las Palmas Island. Ogloblin, 1957c: 43 (key); Loiácono *et al.*, 2005: 16 (type information).

Arescon platensis: De Santis, 1967: 102 (generic transfer, catalogue, Argentina); Yoshimoto, 1990: 30 (list); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list); Yoshimoto, 1990: 30 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Arescon pusillus (Ogloblin, 1957)

Xenomymar pusillus Ogloblin, 1957c: 40; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1957c: 43 (key); Loiácono *et al.*, 2005: 16 (type information).
Arescon pusillus: De Santis, 1967: 102 (generic transfer, catalogue, Argentina); Yoshimoto, 1990: 30 (list); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Arescon urichi (Crawford, 1913)

Xenomymar urichi Crawford, 1913: 349; syntypes 10♀, 2♂ (USNM). **TL**: Trinidad & Tobago, Trinidad I. Verdant Vale.
Arescon Urichi [*sic*]: Ogloblin, 1938b: 100 (key).
Arescon urichi: Annecke & Doutt, 1961: 71 (generic transfer); Yoshimoto, 1990: 30 (list).

Neotropical hosts. Unknown.
Distribution. Trinidad & Tobago.

AUSTRALOMYMAR Girault, 1929
(Figs 45–49)

Australomymar Girault, 1929 [431]: 343. Type species: *Australomymar aurigerum* Girault, 1929, by monotypy.
Nesetaerus Doutt, 1955: 12. Type species: *Nesetaerus gressitti* Doutt, 1955, by monotypy. Synonymy by Lin *et al*., 2007: 25.

Diagnosis. Fore wing (when present) with a diagonal fold and line of microtrichia extending from apex of venation to posteroapical margin of wing (Fig. 47); propodeum with widely spaced submedian carinae in anterior half, and plica and costula delimiting large areoles (Fig. 48); venation extending slightly more than 0.5× wing length; marginal vein much longer than parastigma and with 2 macrochaetae, postmarginal vein apparently absent (Fig. 47); metasoma usually strongly compressed, with ovipositor forming large basal loop (Fig. 49b) and strongly exserted, with several setae along length of exserted part of each ovipositor sheath (Figs 49a).

Remarks. *Australomymar* belongs to the *Australomymar* group of genera. *Australomymar* is similar to several genera from the Australian region, particularly those from New Zealand (Noyes & Valentine 1989). The ovipositor sheath with several setae along its length is unique among the Neotropical genera.

Neotropical hosts. Orthoptera.

Distribution. No named species in the Neotropical region. Specimens are from Argentina (Luft Albarracin *et al.* 2014), and other countries as far north as Cuba (CNC, UCRC).

Important reference. Lin *et al*. (2007).

CALLODICOPUS Ogloblin, 1955
(Figs 50–54)

Callodicopus Ogloblin, 1955c: 377. Type species: *Callodicopus crassula* Ogloblin, 1955, by original designation. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Funicle 7-segmented (Fig. 51), with fu_2 sometimes much shorter than fu_1 or fu_3; mandibles with 2 equal teeth and crossing when closed (Fig. 50a); occiput separated from gena/postgena by transverse vertexal trabecula just dorsal to foramen magnum (Fig. 50b); mesophragma projecting slightly into gaster; fore wing gradually widening towards apex, with posterior margin straight (Fig. 52); gt_1 about same length as each following tergum (Fig. 54a).

Remarks. *Callodicopus* is placed in the *Alaptus* group of genera due to its wide propodeal foramen with the mesophragma projecting slightly through it into the gaster but the back of the head with a faint median (vertical) coronal line closely resembles members of the *Camptoptera* group of genera. The length of fu_2 varies; in some cases it is so short that the antenna appears to have only 6 funicle segments. Males flagellum 10-segmented with fl_2 ring-like. Huber & Lin (1999) had also included *Callodicopus* in *Camptoptera* group but, on balance of features, particularly the mesophagma projecting into the gaster, *Callodicopus* fits better in the *Alaptus* group rather than the *Camptoptera* group in which the mesophragma does not project through the petiole into the gaster.

Neotropical hosts. Unknown.

Important references. Ogloblin (1955c), Huber & Lin (1999).

Callodicopus crassula Ogloblin, 1955

Callodicopus crassula Ogloblin, 1955c: 378; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1955c: 397 (key); De Santis, 1967: 101 (catalogue, Argentina); Yoshimoto, 1990: 26 (list); De Santis & Fidalgo, 1994: 123 (catalogue); Loiácono *et al.*, 2005: 9 (type information); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina, Brazil.

Callodicopus cursor Ogloblin, 1955

Callodicopus cursor Ogloblin, 1955c: 384; holotype ♀ (MLPA). **TL**: Argentina, Misiones, San Ignacio, Yabebirí [ranch]. Ogloblin, 1955c: 397 (key); De Santis, 1967: 101 (catalogue, Argentina); Yoshimoto, 1990: 26 (list); Loiácono *et al.*, 2005: 9 (type information); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Callodicopus longicornis Ogloblin, 1955

Callodicopus longicornis Ogloblin, 1955c: 381; holotype ♂ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1955c: 397 (key); De Santis, 1967: 101 (catalogue, Argentina); Yoshimoto, 1990: 26 (list); Loiácono *et al.*, 2005: 9 (type information); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

Callodicopus silvestriana Ogloblin, 1955

Callodicopus silvestriana Ogloblin, 1955c: 383; holotype ♀ (MLPA). **TL**: Argentina, Misiones, San Ignacio, Yabebirí [ranch]. Ogloblin, 1955c: 397 (key); De Santis, 1967: 101 (catalogue, Argentina); Yoshimoto, 1990: 26 (list); Loiácono *et al.*, 2005: 17 (type incorrectly presumed lost); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

CAMPTOPTERA Foerster, 1856
(Figs 55–61)

Camptoptera Foerster, 1856: 116, 119. Type species: *Camptoptera papaveris* Foerster, 1856, by monotypy. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Funicle 7-segmented with fu_2 ring-like, much shorter than fu_1 or fu_3 (Fig. 56); mandible with 1 tooth (Fig. 55a); head posteriorly with median coronal sulcus extending from vertexal suture to postorbital sulcus, and transoccipital sulcus extending from above foramen laterally to below eye (Fig. 55b); fore wing narrow, with posterior margin concave and wing apex slightly but usually distinctly curved (Fig. 57), usually with one longitudinal row of microtrichia; petiole narrow and slightly longer than wide (Figs 58–61), sometimes with a laterally projecting lamella at about midpoint; metasoma in dorsal view sometimes cone-shaped (Fig. 59a).

Remarks. *Camptoptera* belongs to the *Camptoptera* group of genera. The curved fore wing with concave posterior margin is unique.

Neotropical hosts. Unknown. Extralimital confirmed hosts are Coleoptera.

Important reference. Ogloblin & Annecke (1961), Huber & Lin (1999).

Camptoptera angustipennis Ogloblin, 1947

Camptoptera angustipennis Ogloblin, 1947: 504; holotype ♂ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1947: 507 (key); Loiácono *et al.*, 2005: 9 (type information); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Camptoptera (*Camptoptera*) *angustipennis*: De Santis, 1967: 107 (subgeneric placement, catalogue); Yoshimoto, 1990: 34 (list).

Distribution. Argentina.

Camptoptera loretoensis Ogloblin, 1947

Camptoptera loretoensis Ogloblin, 1947: 495; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1947: 507 (key); De Santis, 1979: 368 (catalogue, Brazil); Loiácono *et al.*, 2005: 9 (type information); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Camptoptera (*Camptoptera*) *loretoensis*: De Santis, 1967: 107 (subgeneric placement, catalogue); Yoshimoto, 1990: 34 (list).

Distribution. Argentina, Brazil.

Camptoptera minutissima Dozier, 1932

Camptoptera minutissima Dozier, 1932: 89; holotype ♀ (USNM). **TL**: Haiti, Petionville. Thompson, 1958: 569 (host, Haiti); Dozier, 1933: 97 (comparison with extralimital species); De Santis, 1979: 368 (catalogue, Haiti); Triapitsyn, 2014c: 29, 31 (diagnosis, member of the *minutissima* species group).

Camptoptera (*Camptoptera*) *minutissima*: Yoshimoto, 1990: 34 (list).

Neotropical host. Cicadellidae: *Idona minuenda* (Ball) [certainly wrong].

Distribution. Haiti.

Camptoptera missionica Ogloblin, 1947

Camptoptera missionica Ogloblin, 1947: 499; holotype ♂ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1947: 507 (key); Loiácono *et al.*, 2005: 9 (type information); Luft Albarracin *et al.*, 2009: 6 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Camptoptera (*Camptoptera*) *missionica*: De Santis, 1967: 107 (subgeneric placement, catalogue); Yoshimoto, 1990: 34 (list).

Distribution. Argentina.

Camptoptera papaveris Foerster, 1856

Camptoptera Papaveris [*sic*] Foerster, 1856: 119; lectotype ♀ (NHMW) designated by Triapitsyn, 2014: 50. **TL**: Germany, locality not specified but almost certainly Aachen or environs.

Camptoptera pulla Girault, 1909 [57]: 27; lectotype ♀ (INHS), designated by Frison, 1927: 227. **TL**: USA, Illinois, Urbana. Synonymy by Triapitsyn, 2014c: 48. Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Camptoptera (*Camptoptera*) *pulla*: Ogloblin & Annecke, 1961: 296 (South America); De Santis, 1967: 107 (subgeneric placement, catalogue); Yoshimoto, 1990: 34 (list).

Distribution. Argentina.

Camptoptera reticulata Ogloblin, 1947

Camptoptera reticulata Ogloblin, 1947: 501; holotype ♂ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1947: 507 (key); Loiácono *et al.*, 2005: 9 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Camptoptera (*Camptoptera*) *reticulata*: De Santis, 1967: 107 (subgeneric placement, catalogue); Yoshimoto, 1990: 34 (list).

Distribution. Argentina, Brazil.

Camptoptera semialbata Ogloblin, 1947

Camptoptera (*Zemicamptoptera*) *semialbata* Ogloblin & Annecke, 1961: 302; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 107 (subgeneric placement, catalogue); Yoshimoto, 1990: 34 (list).

Camptoptera semialbata: Loiácono *et al.*, 2005: 9 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 136 (list).

Distribution. Argentina.

CAMPTOPTEROIDES Viggiani, 1974
(Figs 62–67)

Camptopteroides Viggiani, 1974: 3. Type species: *Camptopteroides armata* Viggiani, 1974, by original designation. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Funicle 7-segmented with fu_2 ring-like, much shorter than fu_1 or fu_3 and sometimes almost fused to fu_3 (Fig. 63); clava as long as scape, longer than funicle + pedicel; mandible with 2 teeth (Fig. 62a); head posteriorly with median vertical coronal sulcus extending from vertexal suture to meet transoccipital sulcus and transoccipital sulcus short, extending from dorsal to foramen laterally towards ventral margin of eye (Fig. 62b); head and, especially, frenum, metanotum and propodeum with distinct reticulate sculpture (Figs 62, 65, 66); fore wing usually with transverse brown bands separated subapically by a small hyaline area (Fig. 64); petiole ring-like, much shorter than wide (Fig. 65), barely or not visible in lateral view (Figs 66, 67).

Remarks. *Camptopteroides* belongs to the *Camptoptera* group of genera. It is the only genus in the group with distinctly patterned wings and includes the largest species among any in the *Camptoptera* group of genera.

Neotropical hosts. Unknown.

Distribution. No named species in the Neotropical region. Luft Albarracin *et al.* (2014) recorded the genus from Argentina. Specimens examined are from about 10 other countries in Central and South America and the Caribbean islands (CNC, UCRC).

Important reference. Huber & Lin (1999).

CHRYSOCTONUS Mathot, 1966
(Figs 68–74)

Chrysoctonus Mathot, 1966: 224. Type species: *Chrysoctonus apterus* Mathot, 1966, by monotypy. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Female wingless (Figs, 71, 73, 74); ocelli absent (Figs 68, 73, 74); funicle variable (Figs 69, 70), with 4–7 segments; mesosoma short, higher than wide, with pronotum, mesoscutum and scutellum all about equal in length (Figs 71, 73, 74); petiole shorter than wide, barely visible (Figs 72a,b). Male fully winged, with venation extending almost 0.6× fore wing length; flagellum 11-segmented, with each funicle segment several times as long as wide.

Remarks. Huber *et al.* (2021) placed *Chrysoctonus* in the *Borneomymar* group of genera but this is probably wrong. It is tentatively placed here in the *Arescon* group of genera because the males have a long venation, resembling that of *Arescon*. The flagellar segments are narrower and longer than in *Arescon* males. *Chrysoctonus* is the only genus of the group with wingless females. Males differ from those in the other genera in the group in having the mandible with 3 teeth instead of 4 teeth. *Chrysoctonus* could perhaps also be placed in the *Ooctonus* group of genera because of the large gt_1 and mandible with 3 teeth.

Neotropical hosts. Unknown.

Distribution. No named species in the Neotropical region. Luft Albarracin *et al.* (2014) recorded the genus from Argentina. Specimens examined are from at least 15 countries in Central and South America and the Caribbean islands (CNC, UCRC).

Important references. Huber & Triapitsyn (2015), Huber *et al*. (2020).

CLERUCHOIDES Lin & Huber, 2007

(Figs 75–80)

Cleruchoides Lin & Huber in Lin *et al*., 2007: 53. Type species: *Cleruchoides noackae* Lin & Huber, 2007, by original designation.

Diagnosis. Face light coloured, with distinct black bar extending obliquely from each torulus to mouth margin (Fig. 78); mandibles short, directed ventrally, apparently with only one short tooth and not meeting when closed (Figs 75a,b); funicle segments longer than wide, clava 1-segmented (Fig. 76); fore wing widening towards apex and with a distinct lobe behind venation and with a distinct constriction between the apex of the parastigma and base of the stigmal vein (Fig. 77); metasoma with slightly crenulate transverse row of sculpture near posterior margin of each tergum (Fig. 80a).

Remarks. *Cleruchoides* belongs to the *Cleruchus* group of genera. The fore wing is wider than in *Cleruchus*, with a distinct lobe posterior to apex of venation. The black line ventral to each torulus is diagnostic, at least for the only known species (introduced from the Old World) in the Neotropical region.

Neotropical hosts. Hemiptera: Thaumastocoridae.

Important reference. Lin *et al*. (2007).

Cleruchoides noackae Lin & Huber, 2007

(Figs 75–80)

Cleruchoides noackae Lin & Huber in Lin *et al*., 2007: 54; holotype ♀ (ANIC). **TL**: Australia, Tasmania, Devonport. Wilcken *et al*., 2010: 204 (mention); Ide *et al*., 2013b: 99 (quarantine, mass rearing and release in Chile); Barbosa *et al*., 2014: 416 (mass rearing); Martínez *et al*., 2014: 325 (biological control); Wilcken *et al*., 2014: 325 (biological control); Barbosa *et al*., 2016: 11 (mass rearing); Souza *et al*., 2016: 34 (longevity); Barbosa *et al*., 2017a: 11 (mass rearing); Barbosa *et al*., 2017b: 372 (percent parasitism, sex ratio, field establishment, Brazil); Martínez, 2017: 103 (biology, laboratory rearing), 120 (chemical cues for host location); Wilcken *et al*., 2017: 105 (biological control in Brazil); Barbosa *et al*., 2018: 193 (development on eggs on different substrate); Haas *et al*., 2018: 2 (oviposition behaviour); Martínez *et al*., 2018: 98 (rearing and release in Uruguay in 2013); Barbosa *et al*., 2019: 307 (life cycle); Becchi *et al*., 2019: 452 (temperature effect on flight); Haas *et al*., 2019: 1298 (toxicity of plant extracts); Becchi *et al*., 2020: 2 (oviposition behaviour); Domínguez *et al*., 2020: 1 (effect of mycoinsecticides); Stenger *et al*., 2021: 2 (selectivity of essential oil); Andorno *et al*., 2022: 474 (introduction and establishment in Argentina); Becchi *et al*., 2023: 2 (thermal requirements, fertility life table); Rodrigues *et al*., 2023: 781 (cold storage to improve mass rearing).

Neotropical host. Thaumastocoridae: *Thaumastocoris peregrinus* Carpintero & Dellapé.

Distribution. Argentina, Brazil, Uruguay.

CLERUCHUS Enock, 1909
(Figs 81–86)

Cleruchus Enock, 1909: 453. Type species: *Cleruchus pluteus* Enock, 1909, by monotypy. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Head more or less produced anteriorly, in lateral view almost triangular; face with faint subantennal sulci (Fig.81a); ocelli forming a low triangle with lateral ocelli close to posterolateral corners of vertex (Fig. 86); funicle segments often about as long as wide and clava 1-segmented (Fig. 82); fore wing narrow, parallel sided (Fig. 83); ovipositor short, usually originating in apical half or less of gaster (Fig. 85).

Remarks. *Cleruchus* belongs to the *Cleruchus* group of genera. It differs from *Cleruchoides* mainly in having the funicle segments often quadrate and a narrower fore wing. It differs from *Platystethynium* by the scutellum not longitudinally divided medially and the propodeum without Y-like submedian sulci. *Cleruchus* usually has the clava entire whereas *Platystethynium* has it 2-segmented (3-segmented in some extralimital species).

Neotropical hosts. Unknown.

Important reference. Huber & Triapitsyn (2017).

Cleruchus brevipennis Ogloblin, 1940

Cleruchus brevipennis Ogloblin, 1940: 597; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 109 (catalogue); Loiácono *et al.*, 2005: 9 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Cleruchus brevicornis [*sic*]: Yoshimoto, 1990: 56 (list, *lapsus* for *brevipennis*).

Distribution. Argentina, Brazil.

Cleruchus longicornis Ogloblin, 1955

Cleruchus longicornis Ogloblin, 1955a: 499; holotype ♀ (MLPA). **TL**: Argentina, Misiones, San Ignacio, Yabebirí [ranch]. De Santis, 1967: 109 (catalogue); Yoshimoto, 1990: 56 (list); Loiácono *et al.*, 2005: 9 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

Cleruchus neivai (Ogloblin, 1940)

Eucleruchus neivai Ogloblin, 1940: 601; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 109 (catalogue); Yoshimoto, 1990: 56 (list); Loiácono *et al.*, 2005: 11 (type information).
Cleruchus neivai: Luft Albarracin *et al.*, 2009: 3 (generic transfer), 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina, Brazil.

CNECOMYMAR Ogloblin, 1963
(Figs 87–92)

Cnecomymar Ogloblin, 1963a: 65. Type species: *Cnecomymar major* Ogloblin, 1963, by original designation.

Diagnosis. Body light brown or yellow; head and mesosoma often with blunt-tipped setae (Figs 87, 90a); face without subantennal sulcus ventral to each torulus and without a pit medially next to each torulus (Fig. 87a); toruli separated by their own height from transverse trabecula; propleura abutting each other anterior to prosternum (Fig. 90b); petiole attached posteriorly to gs_1; fore wing with microtrichia uniformly long, relatively sparse, absent distal to venation for about length of parastigma + stigma (Fig. 89); parastigma lengthened, with proximal and distal macrochaetae, and marginal vein absent, the entire venation slightly but distinctly separated from anterior margin of wing; metatibia often with conspicuous, suberect setae at least as long as width of tibia (Fig. 91); propodeum without median or submedian carinae (Fig. 90a); petiole attached to gs_1.

Remarks. *Cnecomymar* belongs to the *Polynema* group of genera.

Neotropical hosts. Unknown.

Important reference. Ogloblin (1963).

Cnecomymar bimaculatus Ogloblin, 1963

Cnecomymar bimaculatus Ogloblin, 1963a: 74; holotype ♀ (MLPA). **TL**: Argentina, 3 provinces listed, no locality listed. Ogloblin, 1963a: 79 (key); De Santis, 1967: 111 (catalogue, Argentina); Loiácono *et al.*, 2005: 10 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Köhler & Pezzini, 2020: 25 (Brazil).
Cnecomymar bimaculata [*sic*]: Yoshimoto, 1990: 71 (list).

Distribution. Argentina, Brazil.

Cnecomymar major Ogloblin, 1963

Cnecomymar major Ogloblin, 1963a: 65; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1963a: 78 (key); De Santis, 1967: 111 (catalogue, Argentina); Yoshimoto, 1990: 71 (list); Loiácono *et al.*, 2005: 10 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

Cnecomymar meridionalis Ogloblin, 1963

Cnecomymar meridionalis Ogloblin, 1963a: 67; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, no locality given. Ogloblin, 1963a: 78 (key); De Santis, 1967: 111 (catalogue, Argentina); Yoshimoto, 1990: 71 (list); Loiácono *et al.*, 2005: 17 (type incorrectly? presumed lost); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Köhler & Pezzini, 2020: 25 (Brazil).

Distribution. Argentina, Brazil.

Cnecomymar parvulus Ogloblin, 1963

Cnecomymar parvulus Ogloblin, 1963a: 73; holotype ♀ (MLPA). **TL**: Argentina, Misiones, San Ignacio, Yabebirí. Ogloblin, 1963a: 78 (key); De Santis, 1967: 111 (catalogue, Argentina); Yoshimoto, 1990: 71 (list); Loiácono *et al.*, 2005: 10 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

Cnecomymar pauperatus Ogloblin, 1963

Cnecomymar pauperatus Ogloblin, 1963a: 71; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Hurlingham. Ogloblin, 1963a: 78 (key); De Santis, 1967: 111 (catalogue, Argentina); Yoshimoto, 1990: 71 (list); Loiácono *et al.*, 2005: 10 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Köhler & Pezzini, 2020: 25 (Brazil).

Distribution. Argentina, Brazil.

Cnecomymar terebrator Ogloblin, 1963

Cnecomymar terebrator Ogloblin, 1963a: 77; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1963a: 79 (key); De Santis, 1967: 111 (catalogue, Argentina); Yoshimoto, 1990: 71 (list); Loiácono *et al.*, 2005: 10 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

COSMOCOMOIDEA Howard, 1908

(Figs 93–97)

Cosmocomoidea Howard, 1908: 68. Types species: *Cosmocomoidea morrilli* Howard, 1908, by monotypy.

Diagnosis. Face with subantennal sulci ventral to torulus and strongly converging to mouth margin (Fig. 93a); vertex with 2 setae between lateral ocelli; pronotum medially divided, with lateral lobes abutting (Fig. 96); dorsellum rhomboidal, usually distinctly so, with anterior and posterior margins not parallel (Fig. 96) but in a few species almost parallel; fore wing with microtrichia posterior to venation usually absent (Fig. 95) but if microtrichia rarely present then only on dorsal surface or microtrichia less dense than distal to venation; propodeum with 2 submedian carinae (Fig. 96).

Remarks. *Cosmocomoidea* belongs to the *Gonatocerus* group of genera, treated as Gonatocerini by Huber (2015a). *Cosmocomoidea* is at present the most speciose genus in the Neotropical region. Features such as the relatively large size of individuals, their often colourful bodies, and their abundance as parasitoids of Cicadellidae (particularly of Proconiini, some of which are economically important pests) means that *Cosmocomoidea* spp. have been relatively more collected and studied compared to members of other genera of Mymaridae in the region. The species are most similar to those of *Gonatocerus*, but the fore wing is usually wider, usually has few or no microtrichia posterior to the venation, and usually has submedian carinae on the propodeum. Over 100 species of *Cosmocomoidea* may still be undescribed from the region.

Neotropical hosts. Hemiptera: Cicadellidae.

Important references. Triapitsyn *et al.* (2010), Huber (2015a).

Cosmocomoidea abbreviata (Ogloblin, 1953)

Lymaenon abbreviatus Ogloblin, 1953: 7; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 12 (type information, invalid syntype designation).

Gonatocerus (*Gonatocerus*) *abbreviatus*: De Santis in De Santis & Esquivel, 1967: 50, 101 (generic transfer, list); De Santis, 1967: 103 (generic transfer, catalogue, Argentina); De Santis, 1979: 364 (catalogue, Bolivia).

Gonatocerus abbreviatus: Yoshimoto, 1990: 39 (list); Luft Albarracin *et al.*, 2009: 8 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Gonatocerus (*Cosmocomoidea*) *abbreviatus*: Triapitsyn, 2006: 112 (= *G*. sp. 8); Triapitsyn *et al.*, 2010: 98 (key), 99 (corrected type information, description, species group placement, Brazil, Uruguay).

Cosmocomoidea abbreviata: Huber, 2015a: 17 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key); Virla *et al.*, 2019: 84 (spacial and seasonal distribution, host, Argentina); Virla *et al.*, 2020: 905 (host plant species and host egg clutch size).

Neotropical hosts. Cicadellidae: *Plesiommata mollicella* (Fowler), *Tapajosa rubromarginata* (Signoret).

Distribution. Argentina, Bolivia, Brazil, Uruguay.

Cosmocomoidea annulicornis Ogloblin, 1936

Lymaenon annulicornis Ogloblin, 1936: 41; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 104. **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 12 (type information).

Lymaenon (*Cosmocomoidea*) *annulicornis*: Ogloblin, 1959a: 50 (subgeneric placement).

Gonatocerus annulicornis: Yoshimoto, 1990: 39 (list); Triapitsyn, 2006: 112 (= *G*. sp. 4); Virla *et al.*, 2008: 59 (host, parasitism rate); Luft Albarracin *et al.*, 2009: 9 (list, distribution and hosts in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Bruzzone *et al.*, 2018: 115 (modelling of intra-host interspecific larval competition).
Gonatocerus (*Cosmocomoidea*) *annulicornis*: De Santis, 1967: 106 (generic transfer); De Santis, 1979: 367 (catalogue, Ecuador). Triapitsyn *et al.*, 2010: 97 (key), 103 (corrected type information, description, species group placement, Brazil, Uruguay).
Cosmocomoidea annulicornis: Huber, 2015a: 17 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key); Virla *et al.*, 2019: 84 (spacial and seasonal distribution, host); Manzano *et al.*, 2019: 30 (effect of host plant); Virla *et al.,* 2020: 905 (host plant species and host egg clutch size); Manzano *et al.*, 2021: 3 (biological traits); Manzano *et al.*, 2021: 229 (ovigeny strategy); Manzano *et al.*, 2022a: 651 (chemical ecology in host finding behaviour); Manzano *et al.*, 2022b: 28 (performance and host finding behavior).

Neotropical hosts. Cicadellidae: *Oncometopia tucumana* Schröder, *Tapajosa rubromarginata* (Signoret), *Tretogonia notatifrons* Melichar (from sentinel eggs).
Distribution. Argentina, Brazil, Ecuador, Uruguay.

Cosmocomoidea ashmeadi (Girault, 1915)

Gonatocerus dolichocerus var. *ashmeadi* Girault, 1915 [261]: 8; lectotype ♀ (USNM), designated by Huber, 1988: 53. **TL**: USA: Texas, no locality given.
Gonatocerus ashmeadi: Yoshimoto, 1990: 39 (list); De Santis & Fidalgo, 1994: 124 (catalogue, Venezuela); Triapitsyn *et al.*, 1998: 241 (distribution, hosts); Triapitsyn, 2013c: 293 (host, self introduced, Easter Island).
Gonatocerus (*Cosmocomoidea*) *ashmeadi*: Triapitsyn *et al.*, 2010: 98 (key), 103 (generic transfer, description, Easter Island, Venezuela).
Cosmocomoidea ashmeadi: Huber, 2015a: 17 (generic transfer, list).

Neotropical host. Cicadellidae: *Homalodisca vitripennis* (Germar).
Distribution. Easter Island, Venezuela.

Cosmocomoidea atriclava (Girault 1917)

Gonatocerus triguttatus atriclavus Girault, 1917 [316]: 19; lectotype ♀ (USNM), designated by Triapitsyn *et al.*, 2002: 35. **TL**: Trinidad and Tobago, Trinidad Island, Mitan. Huber, 1988: 57 (probably good species).
Gonatocerus (*Gonatocerus*) *triguttatus atriclavus* De Santis, 1979: 367 (catalogue).
Gonatocerus atriclavus: Luft Albarracin *et al.*, 2009: 9 (list, distribution and hosts in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *atriclavus*: Triapitsyn *et al.*, 2002: 35 (given species status); Triapitsyn *et al.*, 2010: 98 (key), 103 (description, species group placement, Costa Rica).
Cosmocomoidea atriclava: Huber, 2015a: 17 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key).

Neotropical hosts. Cicadellidae: *Homalodisca* sp., *Oncometopia clarior* (Walker), *Tapajosa rubromarginata* (Signoret).
Distribution. Argentina, Brazil, Costa Rica, Trinidad and Tobago.

Cosmocomoidea barbos (Triapitsyn, 2010)

Gonatocerus (*Cosmocomoidea*) *barbos* Triapitsyn *in* Triapitsyn *et al.*, 2010: 111; holotype ♀ (UCRC). **TL**: Mexico, Veracruz, Tuxpan. Triapitsyn *et al.*, 2010: 97 (key).
Cosmocomoidea barbos: Huber, 2015a: 17 (generic transfer, list).

Neotropical hosts. Cicadellidae: *Oncometopia clarior* (Walker), *Oncometopia* sp(p.).
Distribution. Costa Rica (Triapitsyn *et al.*, 2010).

Cosmocomoidea blefuscu (Triapitsyn, 2010)

Gonatocerus (*Cosmocomoidea*) *blefuscu* Triapitsyn *in* Triapitsyn *et al.*, 2010: 114; holotype ♀ (UCRC). **TL**: Costa Rica, Cartago, Parque Nacional Tapantí, 1290 m. Triapitsyn *et al.*, 2010: 97 (key).
Cosmocomoidea blefuscu: Huber, 2015a: 17 (generic transfer, list).

Neotropical host. Cicadellidae: *Quichira parallela* Rakitov & Godoy.
Distribution. Costa Rica.

Cosmocomoidea blesticus (Ogloblin, 1957)

Lymaenon blesticus Ogloblin, 1957a: 39; holotype ♀ (MLPA). **TL**: Argentina, Ro Negro, Lago Nahuel Huapí, Puerto Blest. Loiácono *et al.*, 2005: 13 (type information).
Gonatocerus blesticus: Yoshimoto, 1990: 39 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Gonatocerus*) *biesticus* [*sic*]: De Santis, 1967: 103 (generic transfer).
Gonatocerus (*Cosmocomoidea*) *blesticus*: Triapitsyn *et al.*, 2010: 96 (key), 116 (subgeneric transfer, description, species group placement, Chile).
Cosmocomoidea blesticus: Huber, 2015a: 17 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina, Chile.

Cosmocomoidea bonariensis (Brèthes, 1922)

Försterella [*sic*] *bonariensis* Brèthes, 1922: 129; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, General Urquiza.
Gonatocerus (*Gonatocerus*) *bonariensis*: De Santis, 1967: 103 (generic transfer).
Gonatocerus bonariensis: Yoshimoto, 1990: 39 (list) (as *bonarensis*); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *bonariensis*: Triapitsyn *et al.*, 2010: 96 (key), 118 (subgeneric transfer, description, species group placement, distribution).
Cosmocomoidea bonariensis: Huber, 2015a: 18 (generic transfer, list).
Lymaenon necator Ogloblin, 1939b: 241; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 118. **TL**: Argentina, Buenos Aires, José C. Paz. Synonymy by Triapitsyn *et al.*, 2010: 118. Loiácono *et al.*, 2005: 17 (potential type information).
Gonatocerus (*Gonatocerus*) *necator*: De Santis in De Santis & Esquivel, 1967: 50, 99 (generic transfer, list); De Santis, 1967: 104 (generic transfer).
Gonatocerus necator: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina).
Cosmocomoidea necator: Huber, 2015a: 18 (generic transfer, list).

Neotropical hosts. Cicadellidae: undetermined genus.
Distribution. Argentina.

Cosmocomoidea brachyurus (Ogloblin, 1939)

Lymaenon brachyurus Ogloblin, 1938c: 32; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Tigre. Loiácono *et al.*, 2005: 13 (type information).
Gonatocerus (*Gonatocerus*) *brachyurus*: De Santis, 1967: 103 (generic transfer).
Gonatocerus brachyurus: Yoshimoto, 1990: 39 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *brachyurus*: Triapitsyn *et al.*, 2010: 98 (key), 122 (subgeneric transfer, description, host, species group placement, distribution).
Cosmocomoidea brachyura [*sic*]: Huber, 2015a: 18 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key).

Neotropical host. Cicadellidae: *Tapajosa rubromarginata* (Signoret).
Distribution. Argentina, Brazil.

Cosmocomoidea carahuensis (Ogloblin, 1939)

Lymaenon carahuensis Ogloblin, 1957a: 36; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Loiácono *et al.*, 2005: 13 (type information).
Gonatocerus (*Gonatocerus*) *carahuensis*: De Santis, 1967: 104 (generic transfer).
Gonatocerus carahuensis: Yoshimoto, 1990: 39 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *carahuensis*: Triapitsyn *et al.*, 2010: 96 (key), 127 (subgeneric transfer, description, factitious host, distribution).
Cosmocomoidea carahuensis: Huber, 2015a: 18 (generic transfer, list).

Neotropical host. Cicadellidae: *Tapajosa rubromarginata* (Signoret).
Distribution. Argentina, Chile.

Cosmocomoidea caudata (Ogloblin, 1939)

Gonatocerus caudatus Ogloblin, 1935c: 74; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 131. **TL**: Argentina, Misiones, Loreto. Yoshimoto, 1990: 39 (list); Loiácono *et al.*, 2005: 11 (type information); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Lymaenon caudatus: Ogloblin, 1953: 1 (generic transfer, description).
Gonatocerus (*Gonatocerus*) *caudatus*: De Santis, 1967: 104 (generic transfer).
Gonatocerus (*Cosmocomoidea*) *caudatus*: Triapitsyn *et al.*, 2010: 97 (key), 131 (subgeneric transfer, species group placement, description, Brazil, Paraguay).
Cosmocomoidea caudata: Huber, 2015a: 18 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil), 135 (key).

Neotropical hosts. Unknown.
Distribution. Argentina, Brazil, Paraguay.

Cosmocomoidea chusqueicola (Ogloblin, 1957)

Lymaenon chusqueicolus Ogloblin, 1957a: 33; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lacar. Loiácono *et al.*, 2005: 13 (type information).
Gonatocerus (*Gonatocerus*) *chusqueicolus*: De Santis, 1967: 104 (generic transfer).
Gonatocerus chusqueicolus: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *chusqueicolus*: Triapitsyn *et al.*, 2010: 96 (key), 135 (subgeneric transfer, species group placement, description, Chile).
Cosmocomoidea chusqueicola: Huber, 2015a: 18 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina, Chile.

Cosmocomoidea concinna (Ogloblin, 1936)

Lymaenon concinnus Ogloblin, 1936: 46; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 138. **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 13 (type information).
Gonatocerus (*Gonatocerus*) *concinnus*: De Santis, 1967: 104 (generic transfer, catalogue, Argentina).
Gonatocerus concinnus: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Gonatocerus (*Cosmocomoidea*) *concinnus*: Triapitsyn *et al.*, 2010: 98 (key), 137 (subgeneric transfer, species group placement, description, distribution).
Cosmocomoidea concinna: Huber, 2015a: 18 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Cosmcomoidea coxalis (Ogloblin, 1959)

Lymaenon (*Cosmocomoidea*) *coxalis* Ogloblin, 1959a: 51; holotype/paratype ♀ (MLPA). **TL**: Ecuador, Esmeraldas, San Mateo.
Gonatocerus (*Gonatocerus*) *coxalis*: De Santis, 1979: 367 (generic transfer, catalogue).
Gonatocerus coxalis: Yoshimoto, 1990: 40 (list, species group placement).
Lymaenon coxalis: Loiácono *et al.*, 2005: 17 (type incorrectly presumed lost).
Gonatocerus (*Cosmocomoidea*) *coxalis*: Triapitsyn *et al.*, 2010: 97 (key), 139 (subgeneric transfer, species group placement, description, distribution).
Cosmocomoidea coxalis: Huber, 2015a: 18 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key).

Neotropical hosts. Unknown.
Distribution. Brazil, Ecuador.

Cosmcomoidea cuscus (Triapitsyn, 2010)

Gonatocerus (*Cosmocomoidea*) *cuscus* Triapitsyn *in* Triapitsyn *et al.*, 2010: 141; holotype ♀ (UCRC). **TL**: Peru, Cuzco, Picol, 3728 m.
Cosmocomoidea cuscus: Huber, 2015a: 18 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Peru.

Cosmocomoidea deleoni (Triapitsyn, Logarzo & Virla, 2008)

Gonatocerus tuberculifemur clade 2: León *et al.*, 2006: 40 (genetic characterization); additional references in Triapitsyn *et al.*, 2010: 143. Logarzo *et al.*, 2006: 881 (host, Chile); Virla *et al.*, 2008: 59 (host, parasitism rate).
Gonatocerus deleoni Triapitsyn, Logarzo & Virla in Triapitsyn *et al.*, 2008: 5; holotype ♀ (MLPA). **TL**: Argentina, Mendoza, San Rafael. Luft Albarracin *et al.*, 2009: 9 (list, distribution and host in Argentina); Lytle *et al.*, 2011: 62 (biology, host specificity); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *deleoni*: Triapitsyn *et al.*, 2010: 99 (key), 143 (description, factitious host, distribution).
Cosmocomoidea deleoni: Huber, 2015a: 18 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution) , 135 (key).

Neotropical hosts. Cicadellidae: *Anacuerna centrolinea* (Melichar), *Tapajosa rubromarginata* (Signoret) [factitious host].
Distribution. Argentina, Brazil.

Cosmocomoidea flagellaris (Ogloblin 1959a)

Lymaenon flagellaris Ogloblin, 1959a: 61; holotype ♂ (MLPA). **TL**: Ecuador, Pichincha, Quito. Loiácono *et al.*, 2005: 13 (type information).
Gonatocerus (*Gonatocerus*) *flagellaris*: De Santis, 1979: 365 (generic transfer, catalogue, Ecuador).
Gonatocerus flagellaris: Yoshimoto, 1990: 40 (list).

Gonaotcerus (*Cosmocomoidea*) *flagellaris*: Triapitsyn *et al.*, 2010: 147 (subgeneric transfer, species group placement, description, distribution).
Cosmocomoidea flagellaris: Huber, 2015a: 19 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Ecuador.

Cosmocomoidea garchamp (Triapitsyn, 2010)

Gonatocerus (*Cosmocomoidea*) *garchamp* Triapitsyn *in* Triapitsyn *et al.*, 2010: 150; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Triapitsyn *et al.*, 2010: 98 (key).
Cosmocomoidea garchamp: Huber, 2015a: 19 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Cosmocomoidea gracilicornis (Ogloblin, 1936)

Lymaenon gracilicornis Ogloblin, 1936: 50; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 154. **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 16 (potential type information).
Gonatocerus (*Gonatocerus*) *gracilicornis*: De Santis, 1967: 104 (generic transfer).
Gonatocerus gracilicornis: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list)
Gonatocerus (*Cosmocomoidea*) *gracilicornis*: Triapitsyn *et al.*, 2010: 98 (key), 154 (subgeneric transfer, species group placement, description, distribution).
Cosmocomoidea gracilicornis: Huber, 2015a: 19 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key).

Neotropical hosts. Unknown.
Distribution. Argentina, Brazil.

Cosmocomoidea grandis (Ogloblin, 1936)

Lymaenon grandis Ogloblin, 1936: 38; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 157. **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 17 (potential type information).
Gonatocerus (*Gonatocerus*) *grandis*: De Santis, 1967: 104 (generic transfer).
Gonatocerus grandis: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *grandis*: Triapitsyn *et al.*, 2010: 97 (key), 157 (subgeneric transfer, species group placement, description, Brazil).
Cosmocomoidea grandis: Huber, 2015a: 19 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution).

Neotropical hosts. Unknown.
Distribution. Argentina, Brazil.

Cosmocomoidea granulosus (Ogloblin, 1959), comb. n.

Lymaenon (*Lymaenon*) *granulosus* Ogloblin, 1959b: 189; holotype ♂ (MLPA). **TL**: Argentina, Misiones, 25 de Mayo.
Lymaenon granulosus: Loiácono *et al.*, 2005: 14 (type information).
Gonatocerus (*Gonatocerus*) *granulosus*: De Santis, 1967: 104 (generic transfer); Triapitsyn *et al.*, 2010: 14 (key, but in wrong subgenus); 28 (description, distribution).
Gonatocerus granulosus: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft

Albarracin *et al.*, 2014: 137 (list); Huber, 2015a: 31 (generic transfer, list); Rauber *et al.*, 2016: 130 (abundance in organic tobacco fields, Brazil, distribution), 135 (key).

Neotropical hosts. Unknown.

Distribution. Argentina, Brazil.

Comment. Figures 31–39 in Triapitsyn *et al.* (2010) indicated clearly that this species belongs in *Cosmocomoidea*, particularly because fig. 32 shows uneven sizes and different distributions of mps on fl_3 and fl_4, and figs 33 and 39 show a relatively sparser distribution of microtrichia behind the venation, both features fairly diagnostic for *Cosmocomoidea*.

Cosmocomoidea helavai (Yoshimoto, 1990)

Gonatocerus helavai Yoshimoto, 1990: 87; holotype ♂ (CNC). **TL**: Panama, Cerro Campana, 850 m. Yoshimoto, 1990: 40 (list, species group placement); De Santis & Fidalgo, 1994: 124. (catalogue).

Gonatocerus (*Cosmocomoidea*) *helavai*: Triapitsyn *et al.*, 2010: 97 (key), 160 (subgeneric transfer, description, species group placement, Costa Rica, Venezuela).

Cosmocomoidea hevalai: Huber, 2015a: 19 (generic transfer, list).

Neotropical hosts. Unknown.

Distribution. Costa Rica, Panama, Venezuela.

Cosmocomoidea inaudita (Ogloblin, 1936)

Lymaenon inauditus Ogloblin, 1936: 36; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 166. **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 14 (type information).

Gonatocerus (*Gonatocerus*) *inauditus*: De Santis, 1967: 104 (generic transfer).

Gonatocerus inauditus: De Santis, 1983: 32 (catalogue, Brazil); Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Gonatocerus (*Cosmocomoidea*) *inauditus*: Triapitsyn *et al.*, 2010: 96 (key), 166 (subgeneric transfer, description, Uruguay).

Cosmocomoidea inaudita: Huber, 2015a: 19 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key).

Neotropical hosts. Unknown.

Distribution. Argentina, Brazil, Uruguay.

Cosmocomoidea inflatiscapus Huber, 1988

Gonatocerus inflatiscapus Huber, 1988: 70; holotype ♀ (USNM). **TL**: USA, California, Barton Flats, Hathaway Creek. Yoshimoto, 1990: 40 (list). Yoshimoto, 1990: 40 (list, species group placement); De Santis & Fidalgo, 1994: 125 (catalogue).

Gonatocerus (*Cosmocomoidea*) *inflatiscapus*: Triapitsyn *et al.*, 2010: 98 (key), 170 (subgeneric transfer, description, species group placement, Colombia, Costa Rica, Guatemala).

Cosmocomoidea inflatiscapus: Huber, 2015a: 19 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key).

Neotropical hosts. Unknown.

Distribution. Brazil, Colombia, Costa Rica, Guatemala.

Cosmocomoidea kiskis (Triapitsyn, 2010)

Gonatocerus sp. 1: Triapitsyn, 2006b: 112; Triapitsyn, 2007: 59 (undescribed species).

Gonatocerus (*Cosmocomoidea*) *kiskis* Triapitsyn *in* Triapitsyn *et al.*, 2010: 172; holotype ♀ (MLPA). **TL**: Argentina, Tucumán, Tafí Viejo. Triapitsyn *et al.*, 2010: 98 (key).

Gonatocerus kiskis: Luft Albarracin *et al.*, 2014: 137 (list).

Cosmocomoidea kiskis: Huber, 2015a: 20 (generic transfer, list); Virla *et al.*, 2019: 84 (spacial and seasonal distribution, host, Argentina).

Neotropical host. Cicadellidae: *Tapajosa rubromarginata* (Signoret).
Distribution. Argentina.

Cosmocomoidea logarzoi (Triapitsyn, 2010)

Gonatocerus sp. 12: Triapitsyn, 2007: 59 (undescribed species, in part).
Gonatocerus (*Cosmocomoidea*) *logarzoi* Triapitsyn *in* Triapitsyn *et al.*, 2010: 174; holotype ♀ (MLPA). **TL**: Argentina, Corrientes, 20 km E. Corrientes, Centro Nacional de Actividades Agrícolas. Triapitsyn *et al.*, 2010: 98 (key).
Gonatocerus logarzoi: Luft Albarracin *et al.*, 2014: 137 (list).
Cosmocomoidea logarzoi: Huber, 2015a: 20 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Cosmocomoidea maculipennis (Ashmead, 1900)

Litus maculipennis Ashmead, 1900: 265; holotype ♂ (NHMUK). **TL**: St. Vincent and the Grenadines, St. Vincent Island. Ashmead, 1900: 349 (list). De Santis, 1979: 362 (catalogue, doubtful generic placement, St. Vincent).
Gonatocerus (*Cosmocomoidea*) *maculipennis*: Triapitsyn *et al.*, 2010: 176 (generic transfer, list).
Cosmocomoidea maculipennis: Huber, 2015a: 20 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. St. Vincent and the Grenadines.

Cosmocomoidea metanotalis (Ogloblin, 1938)

Lymaenon metanotalis Ogloblin, 1938c: 35; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 179. **TL**: Argentina, Misiones, Puerto Rico. Loiácono *et al.*, 2005: 14 (type information).
Gonatocerus (*Gonatocerus*) *metanotalis*: De Santis, 1967: 104 (generic transfer).
Gonatocerus metanotalis: Yoshimoto, 1990: 40 (list); Virla *et al.*, 2008: 59 (host, parasitism rate); Luft Albarracin *et al.*, 2009: 9 (list, hosts, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *metanotalis*: Triapitsyn *et al.*, 2010: 98 (key), 179 (subgeneric transfer, description, Brazil, Paraguay).
Cosmocomoidea metanotalis: Logarzo *et al.*, 2004: 486 (distribution in Argentina); Huber, 2015a: 20 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key); Virla *et al.*, 2019: 84 (spacial and seasonal distribution, host, Argentina); Virla *et al*., 2020: 905 (host plant species and host egg clutch size).

Neotropical hosts. Cicadellidae: *Oncometopia tucumana* Schröder, *Plesiommata mollicella* (Fowler), *Tapajosa rubromarginata* (Signoret), *Scopogonalia subolivacea* (Stål).
Distribution. Argentina, Brazil, Paraguay.

Cosmocomoidea morrilli Howard, 1908

Cosmocomoidea morrilli Howard, 1908: 69; lectotype ♀ (USNM), designated by Huber, 1988: 52. **TL**: USA, Florida, Orlando. Huber, 2015a: 20 (list).
Ooctonus morrilli: Girault, 1929 [428]: 21 (generic transfer).
Lymaenon (*Cosmocomoidea*) *morrili* [*sic*]: Ogloblin, 1959a: 44 (generic transfer, Mexico, Central America).
Gonatocerus morrilli: Bouček & Graham, 1972: 127 (generic transfer); Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *morrilli*: De Santis, 1979: 367 (subgeneric placement); Triapitsyn & Hanson, 2012: 47 (host,

Costa Rica).

Neotropical host. Cicadellidae: *Oncometopia* sp.

Distribution. Costa Rica.

Cosmocomoidea mumu (Triapitsyn, 2010)

Gonatocerus (*Cosmocomoidea*) *mumu* Triapitsyn *in* Triapitsyn *et al.*, 2010: 185; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto, Ruinas Jesuíticas.
Gonatocerus mumu: Luft Albarracin *et al.*, 2014: 137 (list).
Cosmocomoidea mumu: Huber, 2015a: 20 (generic transfer, list).

Neotropical host. Cicadellidae: *Tapajosa rubromarginata* (Signoret).

Distribution. Argentina.

Cosmocomoidea nasuta (Ogloblin, 1939)

Lymaenon nasutus Ogloblin, 1939b: 244; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 187. **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 17 (incorrectly presumed lost).
Gonatocerus (*Gonatocerus*) *nasutus*: De Santis, 1967: 104 (generic transfer).
Gonatocerus (*Cosmocomoidea*) *nasutus*: Triapitsyn *et al.*, 2010: 96 (key), 187 (subgeneric transfer, description, distribution).
Gonatocerus nasutus: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Cosmocomoidea nasuta: Huber, 2015a: 20 (generic transfer, list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Cosmocomoidea nigriflagellum (Girault, 1914)

Ooctonus nigriflagellum Girault, 1914 [195]: 150; holotype ♀ (ZMHB). **TL**: Paraguay, San Bernardino.
Lymaenon nigriflagellum: Mendonça Filho, 1972: 39; De Santis, 1980: 148 (catalogue, Brazil).
Gonatocerus nigriflagellum: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *nigriflagellum*: Triapitsyn *et al.*, 2010: 96 (key), 189 (description, distribution).
Cosmocomoidea nigriflagellum: Huber 2015: 20 (generic transfer, list).
Lymaenon H-luteum Ogloblin, 1938c: 29; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 189. **TL**: Argentina, Buenos Aires, Villa Ballester. Synonymy by Triapitsyn *et al.*, 2010: 189.
Lymaenon h-luteum: Loiácono *et al.*, 2005: 14 (type information).
Gonatocerus (*Gonatocerus*) *h-luteum*: De Santis, 1967: 104 (generic transfer, catalogue); De Santis, 1979: 365 (catalogue, Brazil).
Gonatoceros [*sic*] *h-luteum*: De Santis, 1983: 32 (catalogue, Brazil)
Gonatocerus H-luteum [*sic*]: De Santis & Díaz, 1975: 194 (distribution, Brazil); De Santis, 1989: 72 (catalogue, incorrectly from Uruguay); Yoshimoto, 1990: 40 (list).
Gonatocerus h-luteum: Huber, 1988: 15 (mention); Luft Albarracin *et al.*, 2009: 9 (list, hosts, distribution in Argentina).
Cosmocomoidea h-lutea: Huber 2015: 21 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key).

Neotropical hosts. Unknown.

Distribution. Argentina, Brazil, Paraguay.

Cosmocomoidea nigrithorax (Ogloblin, 1953)

Gonatocerus caudatus [misidentification, male only]: Ogloblin, 1935c: 77.
Gonatocerus sp. 2: see Triapitsyn *et al.* (2010) for references.
Lymaenon nigrithorax Ogloblin, 1953: 2; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 195. **TL**: Argentina, Misiones, Monte Carlo.
Gonatocerus (*Gonatocerus*) *nigrithorax*: De Santis, 1967: 104 (generic transfer, catalogue, Argentina).
Gonatocerus nigrithorax: Yoshimoto, 1990: 41 (list); Luft Albarracin *et al.*, 2009: 10 (list, hosts, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *nigrithorax*: Triapitsyn *et al.*, 2010: 97 (key), 194 (subgeneric transfer, description, distribution, species group placement, Bolivia, Brazil, Uruguay).
Cosmocomoidea nigrithorax: Huber 2015a: 21 (list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil), 135 (key); Virla *et al.*, 2019: 84 (spacial and seasonal distribution, host, Argentina); Virla *et al.*, 2020: 905 (effect of host plant species and host egg clutch size).

Neotropical hosts. Unknown.
Distribution. Argentina, Bolivia, Brazil, Uruguay.

Cosmocomoidea novifasciata (Girault, 1911)

Lymaenon novifasciata Girault, 1911 [96]: 266; holotype ♀ (USNM). **TL**: USA: Tennessee, no locality given.
Gonatocerus novifasciatus: Yoshimoto, 1990: 41 (list); De Santis & Fidalgo, 1994: 125 (catalogue, Venezuela).
Gonatocerus (*Cosmocomoidea*) *novifasciata*: Triapitsyn *et al.*, 2010: 98 (key), 199 (description, species group placement, Colombia, Guatemala).
Cosmocomoidea novifasciata: Huber 2015a: 21 (list).

Neotropical hosts. Unknown.
Distribution. Colombia, Guatemala, Honduras, Venezuela.

Cosmocomoidea parcepilosa (Ogloblin, 1957)

Lymaenon parcepilosus Ogloblin, 1957a: 35; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Loiácono *et al.*, 2005: 14 (type information).
Gonatocerus (*Gonatocerus*) *parcepilosus*: De Santis, 1967: 105 (generic transfer, catalogue, Argentina).
Gonatocerus (*Cosmocomoidea*) *parcepilosus*: Triapitsyn *et al.*, 2010: 96 (key), 202 (subgeneric transfer, description, species group placement, Chile).
Gonatocerus parcepilosus: Luft Albarracin *et al.*, 2009: 10 (list, hosts, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Cosmocomoidea parcepilosa: Huber 2015: 21 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina, Chile.

Cosmocomoidea portoricensis (Dozier, 1937)

Gonatocerus portoricensis Dozier, 1937: 131; holotype ♀ (USNM). **TL**: Puerto Rico, Isabela. Wolcott, 1951: 772 (distribution in Puerto Rico); Yoshimoto, 1990: 41 (list).
Gonatocerus (*Gonatocerus*) *portoricensis*: De Santis, 1979: 366 (subgeneric placement, catalogue, Puerto Rico).
Gonatocerus (*Cosmocomoidea*) *portoricensis*: Triapitsyn *et al.*, 2010: 98 (key), 176 (subgeneric transfer, description, species group placement, Bahamas, Cuba, Dominican Republic).
Cosmocomoidea portoricensis: Huber, 2015a: 21 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Bahamas, Cuba, Dominican Republic, Puerto Rico.

Cosmocomoidea quadrivittata (Dozier, 1932)

Gonatocerus quadrivittatus Dozier, 1932: 81; holotype ♀ (USNM). **TL**: Haiti, Port-au-Prince. Yoshimoto, 1990: 41 (list).
Gonatocerus (*Gonatocerus*) *quadrivittatus*: De Santis, 1979: 366 (subgeneric placement, catalogue, Haiti).
Gonatocerus (*Cosmocomoidea*) *quadrivittatus*: Triapitsyn *et al.*, 2010: 96 (key), 207 (subgeneric transfer, description, species group placement, distribution).
Cosmocomoidea quadrivittatus: Huber, 2015a: 21 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Haiti.

Cosmocomoidea quirogai (Ogloblin, 1936)

Lymaenon quirogai Ogloblin, 1936: 44; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Teyú Cuaré, near San Ignacio. Loiácono *et al.*, 2005: 17 (type, incorrectly presumed lost).
Lymaenon (*Cosmocomoidea*) *quirogai*: Ogloblin, 1959a: 50 (subgeneric placement, Ecuador).
Gonatocerus quirogai: Yoshimoto, 1990: 41 (generic transfer, species group placement, list); Luft Albarracin *et al.*, 2009: 10 (list, hosts, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Cosmocomoidea*) *quirogai*: De Santis, 1967: 106 (catalogue); De Santis, 1979: 368 (generic transfer, catalogue). Triapitsyn *et al.*, 2010: 97 (key), 209 (description, species group placement, distribution).
Cosmocomoidea quirogai: Huber, 2015a: 21 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina, Ecuador.

Cosmocomoidea rakitovi (Triapitsyn, 2010)

Gonatocerus (*Cosmocomoidea*) *rakitovi* Triapitsyn *in* Triapitsyn *et al.*, 2010: 212; holotype ♀ (UCRC). **TL**: Costa Rica, Cartago, Parque Nacional Tapantí, 1290 m. Triapitsyn *et al.*, 2010: 97 (key).
Cosmocomoidea rakitovi: Huber, 2015a: 21 (generic transfer, list).

Neotropical host. Cicadellidae: *Quichira parallela* Rakitov & Godoy.
Distribution. Costa Rica.

Cosmocomoidea rufescens (Ashmead, 1904)

Polynema rufescens Ashmead, 1904: 521; holotype ♂ (USNM). **TL**: Brazil, Pernambuco, no locality given but Bonito written on holotype label. Girault, 1911 [96]: 322 (description).
Lymaenon rufescens: Ogloblin, 1946: 286 (generic transfer); De Santis, 1980: 148 (catalogue, Brazil).
Gonatocerus rufescens: Yoshimoto, 1990: 41 (generic transfer, list).
Acmopolynema rufescens: Yoshimoto, 1990: 78 (inadvertent generic transfer; species removed in separate page of errata).
Gonatocerus (*Cosmocomoidea*) *rufescens*: Triapitsyn in Triapitsyn *et al.*, 2010: 212 (generic transfer, description, species group placement, distribution).
Cosmocomoidea rufescens: Huber, 2015a: 21 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil).

Neotropical hosts. Unknown.
Distribution. Brazil.

Cosmocomoidea schajovskoii (Ogloblin, 1957)

Lymaenon schajovskoii Ogloblin, 1957a: 37; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Loiácono *et al.*, 2005: 14 (type information).

Gonatocerus (*Gonatocerus*) *schajovskoii*: De Santis, 1967: 105 (generic transfer, catalogue, Argentina).
Gonatocerus (*Cosmocomoidea*) *schajovskoii*: Triapitsyn *et al.*, 2010: 96 (key), 215 (subgeneric transfer, description, Chile).
Gonatocerus schajovskoii: Yoshimoto, 1990: 41 (list); Luft Albarracin *et al.*, 2009: 10 (list, hosts, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Cosmocomoidea schajovskoii: Huber, 2015a: 21 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina, Chile.

Cosmocomoidea seminigra (Ogloblin, 1959)

Lymaenon (*Cosmocomoidea*) *seminiger* Ogloblin, 1959a: 53; holotype ♀ (MLPA). **TL**: Ecuador, Esmeraldas, San Mateo.
Gonatocerus (*Cosmocomoidea*) *seminiger*: De Santis, 1979: 368 (generic transfer, catalogue, Ecuador).
Gonatocerus seminiger: Yoshimoto, 1990: 41 (list).
Lymaenon seminiger: Loiácono *et al.*, 2005: 17 (list, type incorrectly presumed lost).
Gonatocerus (*Cosmocomoidea*) *seminiger*: Triapitsyn *et al.*, 2010: 97 (key), 219 (description, distribution).
Cosmocomoidea seminigra: Huber, 2015a: 21 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Ecuador.

Cosmocomoidea triangulifer (Ogloblin, 1959)

Lymaenon triangulifer Ogloblin, 1959a: 56; holotype ♀ (MLPA). **TL**: Ecuador, Esmeraldas, San Mateo. Loiácono *et al.*, 2005: 17 (type incorrectly presumed lost).
Gonatocerus (*Gonatocerus*) *triangulifer*: De Santis, 1979: 367 (generic transfer, catalogue, Ecuador).
Gonatocerus triangulafer [*sic*]: Yoshimoto, 1990: 41 (list, species group placement).
Gonatocerus (*Cosmocomoidea*) *triangulifer*: Triapitsyn *et al.*, 2010: 98 (key), 222 (subgeneric transfer, description, distribution).
Cosmocomoidea triangulifer: Huber, 2015a: 22 (list).

Neotropical hosts. Unknown.
Distribution. Ecuador.

Cosmocomoidea triguttata (Girault, 1916)

Gonatocerus triguttatus Girault, 1916 [287]: 297; lectotype ♀ (USNM), designated by Huber, 1988: 55. **TL**: Trinidad and Tobago, Trinidad Island, Caroni. Yoshimoto, 1990: 41 (list); De Santis & Fidalgo, 1994: 125 (catalogue); Logarzo *et al.*, 2004: 486 (distribution, hosts; Triapitsyn, 2006: 22 (description, hosts).
Gonatocerus (*Gonatocerus*) *triguttatus atriclavus*: De Santis, 1979: 367 (subgeneric placement, catalogue, Trinidad).
Gonatocerus (*Gonatocerus*) *triguttatus triguttatus*: De Santis, 1979: 367 (catalogue, Trinidad).
Gonatocerus (*Cosmocomoidea*) *triguttatus*: Triapitsyn *et al.*, 2010: 98 (key), 222 (subgeneric transfer, description, species group placement, Trinidad & Tobago); Triapitsyn & Hanson, 2012: 47 (host, Costa Rica).
Cosmocomoidea triguttatus: Huber, 2015a: 22 (generic transfer, list).

Neotropical host. Cicadellidae: *Oncometopia* sp.
Distribution. Costa Rica, Ecuador, Nicaragua, Peru, Trinidad and Tobago.

Cosmocomoidea tuberculifemur (Ogloblin, 1957)

Lymaenon tuberculifemur Ogloblin, 1957a: 38; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Pucará, Lago Lácar. Loiácono *et al.*, 2005: 17 (type incorrectly? presumed lost).
Gonatocerus (*Gonatocerus*) *tuberculifemur*: De Santis, 1967: 105 (generic transfer, catalogue, Argentina).

Gonatocerus tuberculifemur: Yoshimoto, 1990: 41 (list); Virla *et al.*, 2005: 68 (host, biology); Huber, 2006: 396 (control); Luft Albarracin *et al.*, 2009: 10 (list, hosts, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Gonatocerus (*Cosmocomoidea*) *tuberculifemur*: Triapitsyn *et al.*, 2010: 99 (key), 225 (subgeneric transfer, description, species group placement, distribution).

Cosmocomoidea tuberculifemur: Huber, 2015a: 22 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 135 (key).

Cosmocomoidea tuberculifemur 'clade l': Virla *et al*., 2020: 905 (host plant species and host egg clutch size).

Cosmocomoidea sp. near *tuberculifemur*: Virla *et al.*, 2020: 905 (host plant species and host egg clutch size).

Neotropical host. Cicadellidae: *Tapajosa rubromarginata* (Signoret) [factitious host].

Distribution. Argentina, Brazil.

Cosmocomoidea uat (Triapitsyn, 2006)

Gonatocerus sp. near *ashmeadi*: Logarzo *et al.*, 2004: 486 (hosts in Argentina and Peru).

Gonatocerus uat: Triapitsyn in Triapitsyn *et al.*, 2006: 58; holotype ♀ (UCRC). **TL**: Mexico, San Luis Potosí, Ciudad Valles.

Gonatocerus (*Cosmocomoidea*) *uat*: Triapitsyn, 2006: 27 (description, hosts); Luft Albarracin *et al.*, 2009: 10 (list, hosts, distribution in Argentina); Triapitsyn *et al.*, 2010: 98 (key), 227 (description, species group placement, Brazil, Costa Rica); Luft Albarracin *et al.*, 2014: 137 (list).

Cosmocomoidea uat: Huber, 2015a: 22 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution); Virla *et al.*, 2019: 84 (spacial and seasonal distribution, host, Argentina).

Neotropical hosts. Cicadellidae: *Oncometopia* sp., *Pseudometopia amblardii* (Signoret), *P. phalaesia* (Distant), *Tapajosa rubromarginata* (Signoret).

Distribution. Argentina, Brazil, Costa Rica, Peru.

Cosmocomoidea virlai (Triapitsyn, Logarzo & de León, 2007)

Gonatocerus virlai Triapitsyn, Logarzo & de León *in* Triapitsyn *et al.*, 2007: 62; holotype ♀ (MLPA). **TL**: Argentina, Tucumán, Tafí Viejo. Triapitsyn *et al.*, 2008: 5, 62 (molecular data); Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Bruzzone *et al.*, 2018: 115 (modelling of intra-host interspecific larval competition).

Gonatocerus (*Cosmocomoidea*) *virlai*: Triapitsyn *et al.*, 2010: 97 (key), 229 (description, species group placement, distribution, hosts).

Cosmocomoidea virlai: Huber, 2015a: 22 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil), 135 (key); Virla *et al.*, 2019: 84 (spacial and seasonal distribution, host, Argentina); Virla *et al.*, 2020: 905 (effect of host plant species and host egg clutch size).

Neotropical hosts. Cicadellidae: *Ciminius platensis* (Berg), *Dechacona missionum* (Berg), *Molomea consolida* Schröder, *Plesiommata mollicella* (Fowler). Also laboratory and apparently unnatural hosts: *Oncometopia tucumana* Schröder, *Tapajosa similis* (Melichar), *Tretogonia notatifrons* Melichar.

Distribution. Argentina. Brazil.

Cosmocomoidea walkerjonesi (Triapitsyn, 2006)

Gonatocerus walkerjonesi Triapitsyn, 2006: 15; holotype ♀ (UCRC). **TL**: USA, California, Ventura Co., Fillmore.

Gonatocerus (*Cosmocomoidea*) *walkerjonesi* Triapitsyn *et al.*, 2010: 97 (key), 231 (literature, description, species group placement).

Neotropical hosts. Unknown.

Distribution. Nicaragua (Triapitsyn 2006).

Cosmocomoidea sp. [= *C. virlai*?]

Gonatocerus sp. near *tuberculifemur* 'Clade 1' Logarzo *et al.*, 2012: 37 (hosts in no-choice laboratory tests: *Molomea consolida* Schröder *Oncometopia tucumana* Schröder, *Pseudometopia amblardii* Signoret, *Tapajosa rubromarginata* (Signoret), *T. similis* (Melichar), *Tretogonia notatifrons* Melichar; hosts in multiple-choice field tests with sentinel eggs: *Dechacona missionum* (Berg); *Hortensia similis* (Walker), *Molomea consolida* Schröder, *Syncharina punctatissisma* (Signoret), *T. rubromarginata* (Signoret) [all Cicadellidae]).

Lymaenon sp. [misidentification]: Costilla *et al.*, 1971: 51. This is perhaps the first published record of a species of Mymaridae on the serious pest, *Tapajosa rufomarginata*, in South America. Almost certainly it is a species of *Cosmocomoidea*.

CREMNOMYMAR Ogloblin, 1952

(Figs 98–108)

Cremnomymar Ogloblin, 1952: 120. Type species: *Cremnomymar fernandezi* Ogloblin, 1952, by original designation. Annecke & Doutt, 1961: 6 (key), 31 (discussion); De Santis, 1979: 374 (catalogue); Fidalgo, 1982: 98 (comparison with *Parapolynema*); Yoshimoto, 1990: 14, 20 (key), 67 (distribution, diagnosis, species list); Huber, 2013: 57 (synonyms, discussion); Triapitsyn, 2024: 27 (description, distribution).

Nesopolynema Ogloblin, 1952: 132. Type species: *Nesopolynema caudatum* Ogloblin, 1952, by original designation. Synonymy by Huber, 2013a: 57. Annecke & Doutt, 1961: 6 (key), 30 (comments); De Santis, 1979: 374 (catalogue); Yoshimoto, 1990: 13 (key), 65 (distribution, diagnosis, species list).

Scolopsopteron Ogloblin, 1952: 127. Type species: *Scolopsopteron kuscheli* Ogloblin, 1952, by original designation. Synonymy by Huber, 2013a: 57. Annecke & Doutt, 1961: 6 (key), 30 (comments); De Santis, 1979: 373 (catalogue); Yoshimoto, 1990: 20 (key), 65 (distribution, diagnosis, species list).

Oncomymar Ogloblin, 1957b: 414. Type species: *Oncomymar dipteron* Ogloblin, 1957, by original designation. Synonymy by Huber, 2013a: 57. Annecke & Doutt, 1961: 6 (key), 30 (comments); De Santis, 1979: 373 (catalogue); Yoshimoto, 1990: 64 (distribution, diagnosis, species list).

Oncomyar [*sic*]: Yoshimoto, 1990: 20 (key).

Parapolynema Fidalgo, 1982: 97. Type species: *Parapolynema sagittifer* Fidalgo, 1982, by original designation. Synonymy by Triapitsyn, 2024: 27. De Santis, 1989: 73 (catalogue); Yoshimoto, 1990: 14, 20 (key), 67 (distribution, diagnosis, species list); Fidalgo, 1991: 152 (discussion); Luft Albarracin *et al.*, 2009: 11 (list); 14 (key); Huber, 2013: 65 (discussion); Luft Albarracin *et al.*, 2014: 132 (key).

Diagnosis. Face without faint subantennal sulcus ventral to each torulus and without a pit medially next to each torulus (Figs 98, 103); toruli separated by well over height of torulus from transverse trabecula; propleura abutting each other anterior to prosternum; fore wing with (Figs 100, 106) or without dark bands, with venation less than 0.2× wing length (Figs 100, 106) and marginal vein absent (105); propodeum with submedian carinae, either more widely separated from each other anteriorly (Fig. 101) or the carinae sometimes united posteriorly into a single carina, or only a single median carina present, sometimes only posteriorly (Fig. 107) or apparently entirely absent; propodeal seta on posteriorly facing tubercle near posterior margin of propodeum (Figs 101, 107, 108); petiole apparently attached posteriorly to gt_1 (Figs 102, 108).

Remarks. *Cremnomymar* belongs to the *Polynema* group of genera. *Cremnomymar* species occur mainly on the Juan Fernández Islands. Those on Robinson Crusoe Islands (Masatierra Island) have diversified into very different looking species—a Hawaiian-*Drososphila*-like radiation though with far fewer species or, more appropriate for the Neotropical region, a Darwin's finches radiation, writ small. The only feature uniting the *Cremnomymar* species is the propodeal seta on a distinct tubercle. The propodeal carina(e) character is variable. Head shape, body colour, wing length and shape are also diverse so it is understandable why Ogloblin classified the species in four genera and Fidalgo proposed another genus (*Parapolynema*) for species on mainland South America. Until a better understanding of the Juan Fernandez Islands *Cremnomymar* species is obtained we prefer not to treat the synonyms listed above as subgenera, partly also because Ogloblin based two of his genera on males, one on females and one (*Cremnomymar* itself) on both sexes.

Neotropical hosts. Unknown.

Important references. Huber (2013a), Triapitsyn (2024).

Cremnomymar alticola Ogloblin, 1957

Cremnomymar alticola Ogloblin, 1957b: 418; holotype ♀ (MEUC). **TL**: Chile, Juan Fernández Islands, Masafuera Island, 1300 m. De Santis, 1967: 374 (catalogue); Yoshimoto, 1990: 66 (list), Triapitsyn, 2024: 26 (list).

Distribution. Juan Fernández Islands.

Cremnomymar caudatum (Ogloblin, 1952)

Nesopolynema caudatum Ogloblin, 1952: 132; holotype ♀ (MEUC). **TL**: Chile, Juan Fernández Islands, Masatierra Island, Alto Inglés, 600 m. De Santis, 1967: 374 (catalogue); Yoshimoto, 1990: 66 (list).
Cremnomymar caudatum: Huber, 2013a: 58 (generic transfer); Triapitsyn, 2024: 26 (list).

Distribution. Juan Fernández Islands.

Cremnomymar dipteron (Ogloblin, 1957)

Oncomymar dipteron Ogloblin, 1957b: 414; holotype ♂ (MEUC). **TL**: Chile, Juan Fernández Islands, Masatierra Island, Alto Inglés, 600 m. De Santis, 1979: 373 (catalogue, Chile); Yoshimoto, 1990: 65 (list).
Cremnomymar dipteron: Huber, 2013a: 58 (generic transfer); Triapitsyn, 2024: 26 (list).

Distribution. Juan Fernández Islands.

Cremnomymar fernandezi Ogloblin, 1952

Cremnomymar fernandezi Ogloblin, 1952: 120; holotype ♂ (MEUC). **TL**: Chile, Juan Fernández Islands, Masatierra Island, Alto Inglés, 600 m. Ogloblin, 1952: 127 (key); De Santis, 1967: 374 (catalogue); Yoshimoto, 1990: 66 (list); Triapitsyn, 2024: 26 (list), 40 (description).

Distribution. Juan Fernández Islands.

Cremnomymar fidalgoi Triapitsyn, 2024

Parapolynema sp.: Huber, 2013: 65 (habitus illustration).
Cremnomymar fidalgoi Triapitsyn, 2024: 28; holotype ♀ (MLPA). **TL**: Argentina, Neuquén, Parque Nacional Lanín, Pucará, *ca* 100–200 m off S shore of Lago Lacár. Triapitsyn, 2024: 26 (list), 28 (key, description).

Distribution. Argentina, Chile.

Cremomymar imperfectum Ogloblin, 1952

Cremnomymar imperfectus Ogloblin, 1952: 124; holotype ♂ (MEUC). **TL**: Chile, Juan Fernández Islands, Masatierra Island, Cerro Yunque, 915 m. Ogloblin, 1952: 127 (key); De Santis, 1967: 374 (catalogue); Yoshimoto, 1990: 66 (list).
Cremnomymar imperfectum: Triapitsyn, 2024: 26 (list).

Distribution. Juan Fernández Islands.

Cremnomymar kuscheli (Ogloblin, 1952)

Scolopsopteron kuscheli Ogloblin, 1952: 128; holotype ♂ (MEUC). **TL**: Chile, Juan Fernández Islands, Masatierra Island, Alto Inglés, 600 m; De Santis, 1967: 373 (catalogue, Chile); Yoshimoto, 1990: 65 (list); Loiácono *et al.*, 2005: 17 (type incorrectly? presumed lost).
Cremnomymar kuscheli Huber, 2013a: 58 (generic transfer); Triapitsyn, 2024: 26 (list), 43 (description).

Distribution. Juan Fernández Islands.

Cremnomymar nahuelbutae Triapitsyn, 2024

Cremnomymar nahuelbutae Triapitsyn, 2024: 33; holotype ♀ (MNNC). **TL**: Chile, Araucanía, Parque Nacional Nahuelbuta, Centro de Infomationes. Triapitsyn, 2024: 26 (list), 28 (key).

Distribution. Chile.

Cremnomymar nigriclavus Ogloblin, 1957

Cremnomymar nigriclavus Ogloblin, 1957b: 420; holotype ♀ (MEUC). **TL**: Chile, Juan Fernández Islands, Masatierra Island, Corrales de Molina, 600–650 m. De Santis, 1967: 374 (catalogue); Yoshimoto, 1990: 66 (list); Triapitsyn, 2024: 26 (list).

Distribution. Juan Fernández Islands.

Cremnomymar sagittifer (Fidalgo, 1982)

Parapolynema sagittifer Fidalgo, 1982: 98; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, José C. Paz.
Cremnomymar sagittifer: Triapitsyn, 2024: 26 (generic transfer, list), 28 (key), 33 (description).

Distribution. Argentina, Brazil?

Cremnomymar tucumanum (Fidalgo, 1991)

Parapolynema tucumanum Fidalgo, 1991: 153; holotype ♀ (MLPA). **TL**: Argentina, La Rioja, Anillaco.
Cremnomymar tucumanum: Triapitsyn, 2024: 26 (generic transfer, list), 28 (key), 39 (description).

Distribution. Argentina.

DICOPOMORPHA Ogloblin, 1955
(Figs 109–113)

Dicopomorpha Ogloblin, 1955c: 387. Type species: *Dicopomorpha macrocephala* Ogloblin, 1955, by original designation. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Face with toruli separated by almost 2× their height from transverse trabecula (Fig. 109a); occiput without lines, sulci or carinae except for postorbital sulcus of variable length (Fig. 109b) just dorsal to foramen; mandibles when closed overlapping medially, each with 2 small apparently equal teeth (Fig. 109); funicle 7-segmented with fu_2 shorter than fu_1 or fu_3 (Fig. 110); fore wing behind venation with posterior margin forming a slight but distinct lobe (Fig. 111); genitalia greater than half metasoma length (Fig. 113b).

Remarks. *Dicopomorpha* belongs to the *Alaptus* group of genera. *Dicopomorpha* appears to be most similar to *Callodicopus* but the vertexal trabecula is absent. *Dicopomorpha* differs from *Dicopus* by the mandibles crossing medially when closed, the head ventral to lower eye margin not narrowing so appreciably, and the fore wing just distal to venation wider. Male flagellum 9-segmented.

Neotropical hosts. Unknown.

Important references. Ogloblin (1955c), Huber (2009).

Dicopomorpha macrocephala Ogloblin, 1955

Dicopomorpha macrocephala Ogloblin, 1955c: 387; holotype ♀ (MLPA). **TL**: Argentina, Misiones, San Ignacio. De Santis, 1967: 102 (catalogue, Argentina); Yoshimoto, 1990: 27 (list); Loiácono *et al.*, 2005: 10 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

Dicopomorpha pulchricornis (Ogloblin, 1955)

Chromodicopus pulchricornis Ogloblin, 1955c: 390; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Yabebirí [ranch]. De Santis, 1967: 101 (catalogue, Argentina); Loiácono *et al.*, 2005: 9 (type information).

Dicopomorpha pulchricornis: Yoshimoto, 1990: 27 (list, *de facto* generic transfer); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

Dicopomorpha stramineus (Ogloblin, 1955)

Dicopulus stramineus Ogloblin, 1955c: 394; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 102 (catalogue, Argentina).

Dicopomorpha stramineus: Yoshimoto, 1990: 27 (list, *de facto* generic transfer); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Dicopomorpha stamineus [*sic*]: Yoshimoto, 1990: 27 (list).

Dicopulus stramineus: Loiácono *et al.*, 2005: 10 (type information).

Distribution. Argentina.

DICOPUS Enock, 1909

(Figs 114–118)

Dicopus Enock, 1909: 455. Type species: *Dicopus minutissimus* Enock, 1909, by monotypy. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Face with toruli about their own height from transverse trabecula (Fig. 114a); vertex separated from occiput by a medially divided vertexal trabecula (Fig. 114b); mandibles when closed pointing ventrally, not overlapping medially (Fig. 114a), each with one short and one long tooth; funicle 7-segmented with fu_2 about equal to fu_1 or fu_3 (Fig. 115); fore wing extremely narrow, the posterior margin concave, with narrowest point about one venation length distal to venation, then distinctly widening to apex (Fig. 116); hind wing narrow for about 4 venation lengths beyond hamuli then becoming uniformly wider to apex (Fig. 116); metasoma with genitalia short, in about apical third.

Remarks. *Dicopus* belongs to the *Alaptus* group of genera. It is most similar to *Dicopomorpha* in having the funicle clearly 7-segmented, but the fore wing of *Dicopus* is narrower and the head shape and mandibles have one short and one long tooth and do not cross medially. Male flagellum 10-segmented.

Neotropical hosts. Psocodea.

Important reference. Huber *et al.* (2020).

Dicopus citri Mercet, 1912

Dicopus citri Mercet, 1912: 335; syntypes ♀♀ (MLPA. MNCN, USNM). **TL**: Spain, Valencia. De Santis, 1971: 203 (taxonomy, bionomics, Argentina); Yoshimoto, 1990: 25 (list); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list), Triapitsyn, 2015c: 8 (Argentina).

Distribution. Argentina.

ENTRICHOPTERIS YOSHIMOTO, 1990

(Figs 119–123)

Entrichopteris Yoshimoto, 1990: 62. Type species: *Entrichopteris eberhardi* Yoshimoto, 1990, by original designation.

Diagnosis. Face without subantennal sulcus ventral to each torulus and without a pit medially next to each torulus (Fig. 119a); toruli separated by just over their own height from transverse trabecula; propleura widely separated from each other anterior to prosternum; fore wing with two distinct, dark transverse bands and fairly long discal setae as well as long, straggly marginal setae (Fig. 121); entire venation very close to anterior margin of wing (costal cell extremely narrow), parastigma with short, inconspicuous proximal, and distal macrochetae and marginal vein absent (Fig. 121); hind wing strongly curved (Fig. 121); propodeum apparently without median carina except a short one just dorsal to petiole (Fig. 122); petiole attached posteriorly apparently to gt_1.

Remarks. *Entrichopteris* belongs to the *Polynema* group of genera. The fore wing with long, unkempt marginal setae, two wide transverse dark bands with fairly long suberect setae and strongly curved hind wing are unique.

Neotropical hosts. Unknown.

Distribution. Several countries in Central America and northern South America (CNC, UCRC).

Important reference. Yoshimoto (1990).

Entrichopteris eberhardi Yoshimoto, 1990

Entrichopteris eberhardi Yoshimoto, 1990: 99; ♀ (CNC). **TL**: Colombia, Valle, above Saladido, 6500 ft. Yoshimoto, 1990: 63 (list); De Santis & Fidalgo, 1994: 123 (catalogue);

Distribution. Colombia.

ERDOSIELLA Soyka, 1956

(Figs 124–129)

Erdösiella [*sic*] Soyka, 1956b: 16. Type species: *Erdosiella acarensis* Soyka, 1956, by original designation.

Tanaomymar Annecke & Doutt, 1961: 25. Type species: *Tanaomymar mirum* Annecke & Doutt, 1961, by original designation. Synonymy by Fidalgo, 1992: 75.

Stenomymar Ogloblin, 1967: 184. Type species: *Stenomymar decoratus* Ogloblin, 1967, by original designation. Synonymy by Fidalgo, 1992: 7. In a footnote, Fidalgo attributed the synonymy to Yoshimoto (1990) but his paper was still in press at the time so Fidalgo must take the credit.

Tanyostethium Yoshimoto, 1990: 74. Type species: *Tanyostethium elongatum*, 1990, by original designation. **Syn. nov.**

Diagnosis. Face without subantennal sulcus ventral to each torulus and without a pit medially next to each torulus (Fig. 124a); toruli separated by about their own height, or less than half their height (Fig. 124a) from transverse trabecula; antenna often with apical two funicle segments as wide as clava (Fig. 125); propleura widely abutting each other anterior to prosternum; fore wing with or without brown bands and some microtrichia arranged in distinct rows (Fig. 126); entire venation close to anterior margin of wing (costal cell extremely narrow except anterior to submarginal vein), parastigma with short, inconspicuous proximal macrochaeta, and distal macrochetae and marginal vein absent (Fig. 126); propodeum with a partial median carina or entirely without (Fig. 127); petiole attached posteriorly to gs_1, ovipositor and sheaths equally long and extending distinctly beyond apex of gaster (Fig. 128).

Remarks. *Erdosiella* belongs to the *Polynema* group of genera. The species with the apical two funicle segments greatly widened are easy to recognize; the others, e.g., *E. elongatum* and some undescribed species large in size, with or without a banded fore wing. The genus is variable with uncertain limits.

Neotropical hosts. Unknown.

Important reference. Fidalgo (1992).

Erdosiella acarensis Soyka, 1956

Erdösiella [*sic*] *acarensis* Soyka, 1956b: 17; holotype ♀ (NHMW). **TL**: Brazil, Pará, Rio Acará. Yoshimoto, 1990: 63 (list).
Erdoesiella [*sic*] *acarensis*: De Santis, 1980: 149 (catalogue, Brazil); Fidalgo, 1992: 77 (key).

Distribution. Brazil, Paraguay.

Erdosiella decorata (Ogloblin, 1967)

Stenomymar decoratus Ogloblin, 1967: 185; holotype ♂ (MLPA). **TL**: Argentina, Misiones, Dos de Mayo. Yoshimoto, 1990: 62 (list); Loiácono *et al.*, 2005: 16 (type information); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); De Santis, 1979: 372 (catalogue, Argentina).
Erdoesiella [*sic*] *decorata*: Fidalgo, 1992: 73 (generic transfer); 77 (key).

Distribution. Argentina.

Erdosiella elongata (Yoshimoto, 1990), comb. n.

Tanyostethium elongatum Yoshimoto, 1990: 103; holotype ♀ (CNC). **TL**: Brazil, Guanabara, Represa Rio Grande. Yoshimoto, 1990: 75 (list); De Santis & Fidalgo, 1994: 127 (catalogue). The species has all the features of *Erdosiella* hence the new combination proposed here.

Distribution. Brazil.

Erdosiella mirum (Annecke & Doutt, 1961)

Tanaomymar mirum Annecke & Doutt, 1961: 52; holotype ♀ (USNM). **TL**: Trinidad & Tobago, Trinidad Island, no locality given. Yoshimoto, 1990: 59 (list).
Erdoesiella [*sic*] *mirum*: Fidalgo, 1992: 73 (generic transfer); 77 (key).

Distribution. Trinidad and Tobago.

Erdosiella venezuelaensis (Yoshimoto, 1990), comb. n.

Tanaomymar venezuelaensis Yoshimoto, 1990: 97; holotype ♀ (CNC). **TL**: Venezuela, Merida, [Merida City], 1800 m. Yoshimoto, 1990: 59 (list); De Santis & Fidalgo, 1994: 127 (catalogue). Fidalgo (1992) failed to notice this species in Yoshimoto (1990) so did not transfer it to *Erdosiella*, hence the new combination proposed here.

Distribution. Venezuela.

ERYTHMELUS Enock, 1909
(Figs 130–135)

Erythmelus Enock, 1909: 454. Type species: *Erythmelus goochi* Enock, 1909, by monotypy.
Eurythmelus Ogloblin, 1934: 243 (*lapsus*). See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Head in lateral view with gena short (Fig. 135), almost absent, so head often appearing thin; face with toruli distinctly triangular (Fig. 130a); mandibles in both sexes reduced to small stubs, without teeth (Fig. 130a) and maxillae lengthened (Fig. 130b), presumably replacing the mandibles in function; antenna with 6 funicle segments (Fig. 131), rarely only 5; metanotum with dorsellum triangular (Fig. 133) and slightly overhanging propodeum (Fig. 135); propodeum medially with longitudinal sulcus (Fig. 133); gaster in lateral view with hypopygium long, extending posteriorly at least to apex of gaster (Fig. 135).

Remarks. *Erythmelus* belongs to the *Anaphes* group of genera, a rather poorly defined group (Lin *et al.* 2007) of two genera. The propodeum has a median sulcus in both genera. Other features, e.g., the greatly reduced mandibles, suggest perhaps a closer relationship to some taxa in the *Anagrus* group of genera.

Neotropical hosts. Hemiptera: Miridae, Tingidae.

Important references. Triapitsyn *et al.* (2007), Triapitsyn (2008), Guzmán-Larralde *et al.* (2015).

Erythmelus (*Erythmelus*) *angustatus* Ogloblin, 1934

Eurythmelus [*sic*] *angustatus* Ogloblin, 1934: 256; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1934: 245 (key); Loiácono *et al.*, 2005: 10 (type information).
Erythmelus angustatus: De Santis, 1967: 108 (catalogue); Yoshimoto, 1990: 46 (list); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Erythmelus (*Erythmelus*) *angustatus*: Triapitsyn *et al.*, 2007: 7 (key), 39 (description).

Neotropical hosts. Unknown.

Distribution. Argentina.

Erythmelus (*Erythmelus*) *brachialis* Ogloblin, 1934

Eurythmelus [*sic*] *brachialis* Ogloblin, 1934: 255; holotype ♀ (MLPA). **TL**: Argentina, Missiones, Loreto. Ogloblin, 1934: 245 (key); Loiácono *et al.*, 2005: 10 (type information).
Erythmelus brachialis: De Santis, 1967: 108 (catalogue); Yoshimoto, 1990: 46 (list); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Erythmelus (*Erythmelus*) *brachialis*: Triapitsyn *et al.*, 2007: 7 (key), 29 (description).
Eurythmelus [*sic*] *dentatus* Ogloblin, 1934: 258; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Synonymy by Triapitsyn *et al.*, 2007: 30. Ogloblin, 1934: 245 (key); Loiácono *et al.*, 2005: 11 (type information).
Erythmelus dentatus: De Santis, 1967: 108 (catalogue).

Neotropical hosts. Unknown.

Distribution. Argentina.

Erythmelus (*Erythmelus*) *cingulatus* Ogloblin, 1934

Eurythmelus [*sic*] *cingulatus* Ogloblin, 1934: 254; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1934: 245 (key); Loiácono *et al.*, 2005: 10 (type information).
Erythmelus cingulatus: De Santis, 1967: 108 (catalogue); Yoshimoto, 1990: 46 (list); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Erythmelus (*Erythmelus*) *cingulatus*: Triapitsyn *et al.*, 2007: 8 (key), 59 (description, Argentina).

Neotropical hosts. Unknown.

Distribution. Argentina.

***Erythmelus* (*Erythmelus*) *clavatus* Ogloblin, 1934**

Eurythmelus [*sic*] *clavatus* Ogloblin, 1934: 247; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1934: 244 (key); Loiácono *et al.*, 2005: 10 (type information).

Erythmelus clavatus: De Santis, 1967: 108 (catalogue); Yoshimoto, 1990: 46 (list); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Erythmelus (*Erythmelus*) *clavatus*: Triapitsyn *et al.*, 2007: 7 (key), 21 (description).

Neotropical hosts. Unknown.

Distribution. Argentina.

***Erythmelus* (*Erythmelus*) *coviellai* Triapitsyn, 2007**

Erythmelus (*Erythmelus*) *coviellai* Triapitsyn in Triapitsyn *et al.*, 2007: 13; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Bella Vista. Triapitsyn *et al.*, 2007: 6 (key); Luft Albarracin *et al.*, 2009: 8 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Neotropical host. Miridae: *Engytatus* sp.

Distribution. Argentina.

***Erythmelus* (*Erythmelus*) *fidalgoi* Triapitsyn, 2007**

Erythmelus (*Erythmelus*) *fidalgoi* Triapitsyn in Triapitsyn *et al.*, 2007: 46; holotype ♀ (MLPA). **TL**: Argentina, La Rioja, Santa [Vera] Cruz, 1700 m. Triapitsyn *et al.*, 2007: 7 (key); Luft Albarracin *et al.*, 2009: 8 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

***Erythmelus* (*Erythmelus*) *flavovarius* (Walker, 1846)**

Panthus flavovarius Walker, 1846: 52; lectotype ♀ (OUMNH), designated by Graham, 1982: 219. **TL:** putatively Ireland, locality unknown.

Erythmelus (*Erythmelus*) *flavovarius*: Triapitsyn *et al.*, 2007: 7 (key), 47 (description, Trinidad and Tobago); Triapitsyn, 2008: 47 (Argentina).

Neotropical hosts. Unknown.

Distribution. Argentina, Trinidad and Tobago.

***Erythmelus* (*Erythmelus*) *gak* Triapitsyn, 2007**

Erythmelus (*Erythmelus*) *gak* Triapitsyn in Triapitsyn *et al.*, 2007: 45; holotype ♀ (UCRC). **TL**: Chile, Región IX, Nahuelbuta National Park, 37°49'30"S 72°58'24"W, 1168 m. Triapitsyn *et al.*, 2007: 7 (key); Triapitsyn, 2008: 66 (Argentina); Luft Albarracin *et al.*, 2009: 8 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Neotropical hosts. Unknown.

Distribution. Argentina, Chile.

Erythmelus (*Erythmelus*) *hirtipennis* Ogloblin, 1934

Eurythmelus [*sic*] *hirtipennis* Ogloblin, 1934: 250; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1934: 245 (key); Loiácono *et al.*, 2005: 11 (type information).
Erythmelus hirtipennis: De Santis, 1967: 108 (catalogue); Yoshimoto, 1990: 46 (list); Luft Albarracin *et al.*, 2009: 8 (list, distribution in Argentina); Luft Albarracin e*t al.*, 2014: 137 (list).
Erythmelus (*Erythmelus*) *hirtipennis*: Triapitsyn *et al.*, 2007: 6 (key), 15 (description).

Neotropical hosts. Unknown.
Distribution. Argentina.

Erythmelus (*Erythmelus*) *logarzoi* Triapitsyn, 2007

Erythmelus (*Erythmelus*) *logarzoi* Triapitsyn in Triapitsyn *et al.*, 2007: 6; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Tigre. Triapitsyn *et al.*, 2007: 6 (key); Luft Albarracin *et al.*, 2009: 8 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Erythmelus (*Erythmelus*) *miridiphagus* Dozier, 1937

Erythmelus miridiphagus Dozier, 1937: 133; holotype ♀ (USNM). **TL**: Puerto Rico, Hormigueros. Wolcott, 1951: 772 (mention); De Santis, 1979: 369 (catalogue, Puerto Rico); Yoshimoto, 1990: 46 (list); Luft Albarracin *et al.*, 2009: 8 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Erythmelus (*Erythmelus*) *miridiphagus*: Triapitsyn *et al.*, 2007: 7 (key), 50 (description, Argentina, Venezuela).

Neotropical host. Miridae: *Lygus* sp.
Distribution. Argentina, Puerto Rico, Venezuela.

Erythmelus (*Erythmelus*) *mudrila* Triapitsyn, 2007

Erythmelus (*Erythmelus*) *mudrila* Triapitsyn in Triapitsyn *et al.*, 2007: 23; holotype ♀ (UCRC). **TL**: Mexico, Oaxaca, ruins of Yagul. Triapitsyn *et al.*, 2007: 7 (key); Triapitsyn, 2008: 66 (Guatemala), 68 (key).

Neotropical hosts. Unknown.
Distribution. Guatemala.

Erythmelus (*Erythmelus*) *nanus* Dozier, 1937

Erythmelus nanus Dozier, 1937: 134; holotype ♀ (USNM). **TL**: Puerto Rico, Las Vegas, 650 ft. Wolcott, 1951: 772 (mention); De Santis, 1979: 369 (catalogue).
Erythmelus (*Erythmelus*) *nanus*: Triapitsyn *et al.*, 2007: 7 (key), 40 (description, Trinidad and Tobago).

Neotropical hosts. Unknown.
Distribution. Puerto Rico, Trinidad and Tobago.

Erythmelus (*Erythmelus*) *noeli* (Dozier, 1932)

Anagrus noeli Dozier, 1932: 87; holotype ♀ (USNM). **TL**: Haiti, Port-au-Prince.

Erythmelus noeli: Dozier, 1936: 177 (generic transfer); De Santis, 1979: (catalogue, Haiti); Yoshimoto, 1990: 46 (list).
Erythmelus (*Erythmelus*) *noeli*: Triapitsyn *et al.*, 2007: 7 (key), 43 (description).
Erythmelus longicornis Dozier, 1937: 133; holotype ♀ (USNM). **TL**: Puerto Rico, Mani Beach near Mayagüez. Synonymy by Triapitsyn *et al.*, 2007: 44. De Santis, 1979: 369 (catalogue, Peru, Puerto Rico); Yoshimoto, 1990: 46 (list).

Neotropical host. Miridae: *Polymerus cuneatus* Distant.

Distribution. Haiti, Puerto Rico. The record from Peru is based on a misidentification (Triapitsyn *et al.* 2007).

***Erythmelus* (*Erythmelus*) *pastoralis* Ogloblin, 1934**

Eurythmelus [*sic*] *pastoralis* Ogloblin, 1934: 252; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1934: 245 (key); Loiácono *et al.*, 2005: 11 (type information).
Erythmelus pastoralis: De Santis, 1967: 108 (catalogue); Yoshimoto, 1990: 46 (list); Luft Albarracin *et al.*, 2009: 8 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Erythmelus (*Erythmelus*) *pastoralis*: Triapitsyn *et al.*, 2007: 8 (key), 60 (description, Argentina).

Neotropical hosts. Unknown. Possibly Miridae: *Lygus* sp.?

Distribution. Argentina.

***Erythmelus* (*Erythmelus*) *podaypodnos* Triapitsyn, 2007**

Erythmelus (*Erythmelus*) *podaypodnos* Triapitsyn in Triapitsyn *et al.,* 2007: 18; holotype ♀ (UCRC). **TL**: Bolivia, La Paz, 50 km N. Caranavi, 15.66°S 67.44°W, 1100 m. Triapitsyn *et al.*, 2007: 6 (key).

Neotropical hosts. Unknown.

Distribution. Bolivia.

***Erythmelus* (*Erythmelus*) *reductus* Triapitsyn 2003**

Erythmelus (*Erythmelus*) *reductus* Triapitsyn, 2003: 21; holotype ♀ (Humboldt University, Boyacá, Colombia). **TL**: Colombia, Amazonas, Parque Nacional Natural Amacayacu, 3.82°S 70.26°W. Triapitsyn *et al.*, 2007: 7 (key), 50 (description).

Neotropical hosts. Unknown.

Distribution. Colombia.

***Erythmelus* (*Parallelaptera*) *rex* (Girault 1911)**

Parallelaptera rex Girault, 1911 [90]: 185; holotype ♀ (USNM). **TL**: USA, Illinois, Urbana.
Erythmelus rex: Yoshimoto, 1990: 46 (list); Luft Albarracin *et al.*, 2009: 8 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Erythmelus (*Parallelaptera*) *rex*: Triapitsyn *et al.*, 2007: 6 (key), 9 (description, Argentina); Triapitsyn, 2008: 66 (Argentina).

Neotropical hosts. Unknown.

Distribution. Argentina.

***Erythmelus* (*Erythmelus*) *rosascostai* Ogloblin, 1934**

Eurythmelus [*sic*] *rosas costai* [*sic*] Ogloblin, 1934: 249; holotype ♀ (MLPA). **TL**: Argentina, [Buenos Aires], La Plata. Ogloblin, 1934: 245 (key, as *rosas-costai*).

Erythmelus rosascostai: De Santis, 1967: 108 (catalogue); Luft Albarracin *et al.*, 2009: 8 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Erythmelus rosas-costai [*sic*]: Yoshimoto, 1990: 46 (list); Loiácono *et al.*, 2005: 11 (type information).
Erythmelus (*Erythmelus*) *rosascostai*: Triapitsyn *et al.*, 2007: 7 (key), 19 (description, Argentina).

Neotropical hosts. Unknown.
Distribution. Argentina.

Erythmelus (*Erythmelus*) *tingitiphagus* (Soares, 1942)

Anaphes tingitiphagus Soares, 1942: 265; 3 syntypes: 1♀, 2♂ (Escola Nacional de Agronomia, Rio de Janeiro, Brazil). **TL**: Brazil, Rio de Janeiro, Copacabana. Kogan, 1960: 80 (host, percent parasitism, Brazil); De Santis, 1980: 149 (catalogue, Brazil).
Mymar [= *Anaphes*] *tingitiphagus*: Costa Lima, 1962: 197 (host).
Anaphes (*Anaphes*) *tingitiphagus*: Yoshimoto, 1990: 53 (list).
Erythmelus tingitiphagus: Costa *et al.*, 2003: 206 (host, percent parasitism, Brazil); Santos & Freitas, 2008: 572 (host, Brazil); Luft Albarracin *et al.*, 2009: 8 (list, distribution and host in Argentina); Santos & da Silva, 2013: 238 (population dynamics, Brazil); Santos, 2014: 351 (host on pesticide-treated rubber trees, Brazil); Luft Albarracin *et al.*, 2014: 137 (list); Uemura-Lima, 2017: 89 (hosts, percent parasitism, Brazil); Fazolin *et al.*, 2020: 25 (host, Brazil).
Erythmelus (*Erythmelus*) *tingitiphagus*: Triapitsyn *et al.*, 2007: 8 (key), 52 (description, Argentina, Brazil, Colombia, Venezuela).

Neotropical hosts. Tingidae: *Corythaica cyathicollis* (Costa), *C. monacha* (Stål), *Gargaphia lunulata* (Mayr), *Leptodicta tabida* (Herrich-Schaeffer), *Leptopharsa gibbicarina* Froeschner, *L. hevea* Drake & Poor; *Vatiga manihotae* Drake.
Distribution. Argentina, Brazil, Colombia, Venezuela.

Erythmelus (*Erythmelus*) *toreador* Triapitsyn, 2007

Erythmelus (*Erythmelus*) *toreador* Triapitsyn in Triapitsyn *et al.*, 2007: 25; holotype ♀ (MLPA). **TL**: Argentina, Córdoba, Los Reartes. Triapitsyn *et al.*, 2007: 7 (key); Luft Albarracin *et al.*, 2009: 8 (list, distribution and hosts in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Neotropical hosts. Tingidae: *Corythaica cucullata* (Berg), *Leptobyrsa* sp.
Distribution. Argentina.

Erythmelus (*Erythmelus*) *verticillatus* Ogloblin, 1934

Eurythmelus [*sic*] *verticillatus* Ogloblin, 1934: 245; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Ogloblin, 1934: 244 (key).
Erythmelus verticillatus: De Santis, 1967: 108 (catalogue); Yoshimoto, 1990: 46 (list); Luft Albarracin *et al.*, 2009: 8 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Eurythmelus verticilatus [*sic*]: Loiácono *et al.*, 2005: 11 (type information).
Erythmelus (*Erythmelus*) *verticillatus*: Triapitsyn *et al.*, 2007: 7 (key), 42 (description, host).

Neotropical hosts. Miridae: unidentified genus.
Distribution. Argentina.

Erythmelus (*Erythmelus*) *vladimir* Triapitsyn & Fidalgo, 2001

Erythmelus (*Parallelaptera*) *vladimir* S. Triapitsyn & Fidalgo, 2001: 163; holotype ♀ (IFML). **TL**: Brazil, Minas Gerais, Viçosa. Triapitsyn, 2003: 35 (diagnosis, host, Brazil).

Erythmelus (*Erythmelus*) *vladimir*: Triapitsyn *et al.*, 2007: 6 (key), 12 (subgeneric transfer, description).

Neotropical host. Tingidae: *Acanthocheila armigera* (Stål).
Distribution. Brazil.

Erythmelus (*Erythmelus*) *yuzhanin* Triapitsyn, 2008

Erythmelus (*Erythmelus*) *yuzhanin* Triapitsyn, 2008: 67; holotype ♀ (MLPA). **TL**: Argentina, Córdoba, Bialet-Massé. Triapitsyn, 2008: 68 (key); Luft Albarracin *et al.*, 2014: 137 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Erythmelus sp.

Huber, 2006: 396 (host: *Leptopharsa heveae* Drake & Poor [Tingidae]).

GAHANOPSIS Ogloblin, 1946
(Figs 136–140)

Gahanopsis Ogloblin, 1946: 286 (as subgenus of *Lymaenon*). Type species: *Lymaenon* (*Gahanopsis*) *deficiens* Ogloblin, 1946, by original designation. Synonymy under *Gonatocerus* by Triapitsyn *et al.*, 2010: 11 and treated as subgenus; given generic status by Huber, 2015a: 21.

Diagnosis. Occiput with transoccipital sulcus complete, extending from below each eye to dorsal margin of foramen (Fig. 136); propodeum divided medially by a vertical longitudinal sulcus then diverging laterally along posterior margin of metanotum and separating the two sclerites by a distinct gap almost as far as spiracle (Fig. 139); metasoma anteriorly usually closely appressed against mesosoma so petiole often hidden; ovipositor and sheaths projecting anteriorly in narrow gastral sac ventral to the mesosoma (Fig. 140b) almost as far as level of head.

Remarks. *Gahanopsis* belongs to the *Gonatocerus* group of genera. *Gastrogonatocerus* is the only other genus of Gonatocerini with the petiole projecting anteriorly under the mesosoma but the gastral sac is much slenderer in *Gahanopsis*. *Gahanopsis* has a distinctly different propodeal structure.

Neotropical hosts. Hemiptera.

Important references. Triapitsyn *et al.* (2010), Huber (2015a).

Gahanopsis acanophorae (Ogloblin, 1938)

Lymaenon (*Gastrogonatocerus*) *acanophorae* Ogloblin, 1938a: 97; lectotype ♀ (MLPA) designated by Triapitsyn *et al.*, 2010: 81. **TL**: Argentina, Misiones, Loreto. Ogloblin, 1938c: 29 (mention); Costa Lima, 1942: 59 (illustrations), 62 (host, Brazil).
Gonatocerus (*Gastrogonatocerus*) *acanophorae*: De Santis in De Santis & Esquivel, 1967: 50, 99 (generic transfer, list); De Santis, 1967: 105 (catalogue, Argentina); Huber, 1988: 33 (mention, possible new species group).
Gonatocerus (*Gahanopsis*) *acanophorae*: Triapitsyn *et al.*, 2010: 81 (key, description).
Lymaenon acanophorae: De Santis, 1980: 148 (catalogue, Brazil); Loiácono *et al.*, 2005: 12 (type information).
Gonatocerus acanophorae: Costa Lima, 1962: 196 (host); Yoshimoto, 1990: 39 (list, in *membraciphagus* group); Huber, 2006: 396 (control); Luft Albarracin *et al.*, 2009: 8 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gastrogonatocerus acanophorae: Huber 2015: 21 (generic transfer, list).
Gahanopsis acanophorae: Rauber *et al.*, 2016: 131 (distribution).

Neotropical hosts. Membracidae: *Calloconophora pungionata* (Germar) (Ogloblin 1938a [as *Acanophora*]), *Campylenchia hastata* (Fabricius).
Distribution. Argentina, Brazil.

Gahanopsis aethalionis (Ogloblin, 1938)

Lymaenon (*Gastrogonatocerus*) *aethalionis* Ogloblin, 1938a: 93; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 85. **TL**: Argentina, Misiones, Loreto. Ogloblin, 1938a: 106 (key); Ogloblin, 1938c: 29 (mention); Costa Lima, 1942: 61 (Brazil).
Gonatocerus (*Gastrogonatocerus*) *aethalionis*: De Santis in De Santis & Esquivel, 1967: 50, 100 (generic transfer, list); De Santis, 1967: 105 (catalogue, Argentina); Triapitsyn *et al.*, 2010: 81 (key), 83 (description, distribution).
Lymaenon aethalionis: De Santis, 1980: 148 (catalogue, Brazil); Loiácono *et al.*, 2005: 12 (type information).
Gonatocerus aethalionis: Costa Lima, 1962: 196 (host); Huber, 1988: 33 (mention, possible new species group); Yoshimoto, 1990: 39 (list, in *membraciphagus* group); Luft Albarracin *et al.*, 2009: 8 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gahanopsis aethalionis: Huber 2015: 21 (generic transfer, list); Rauber *et al.*, 2016: 131 (distribution).

Neotropical hosts. Aethalionidae: *Aethalion reticulatum* (L.), *Campylenchia hastata* (Fabricius).
Distribution. Argentina, Brazil.

Gahanopsis arkadak (Triapitsyn, 2010)

Gonatocerus (*Gahanopsis*) *arkadak* Triapitsyn in Triapitsyn *et al.*, 2010: 87; holotype ♀ (UCRC). **TL**: Colombia, Parque Nacional Natural Amacayacu, Matamata. Triapitsyn *et al.*, 2010: 80 (key), 86 (Ecuador).
Gahanopsis arkadak Huber, 2015a: 27 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Colombia, Ecuador.

Gahanopsis deficiens (Ogloblin, 1946)

Lymaenon (*Gahanopsis*) *deficiens* Ogloblin, 1946: 288; holotype ♀ (USNM). **TL**: Trinidad & Tobago, Trinidad Island, St. Augustine.
Gahanopsis deficiens: Annecke & Doutt, 1961: 13 (generic transfer); De Santis, 1979: 364 (catalogue); Luft Albarracin *et al.*, 2014: 137 (list); Huber, 2015a: 27 (list).
Gonatocerus deficiens: Huber, 1988: 33 (mention); Yoshimoto, 1990: 40 (list, in *membrachiphagus* group).
Gonatocerus (*Gahanopsis*) *deficiens*: Triapitsyn *et al.*, 2010: 80 (key), 88 (description, Costa Rica, Venezuela).

Neotropical host. Membracidae: *Tylopelta monstrosa* Fairmaire.
Distribution. Costa Rica, Trinidad and Tobago, Venezuela.

Gahanopsis pusilus (Ogloblin, 1935)

Gonatocerus (*Gastrogonatocerus*) *pusilus* Ogloblin, 1935c: 68; holotype ♀ (USNM). **TL**: Argentina, Misiones, Loreto. Huber, 1988: 33 (mention, possible new species group).
Lymaenon (*Gastrogonatocerus*) *pusillus* [*sic*]: Ogloblin, 1938a: 105 (generic transfer), 106 (key); Ogloblin, 1959a: 49 (mention, Ecuador), 50 (key).
Gonatocerus pusillus [*sic*]: Costa Lima, 1962: 196 (host).
Gonatocerus (*Gonatocerus*) *pusillus* [*sic*]: De Santis, 1979: 366 (subgeneric placement, catalogue, Argentina); Triapitsyn *et al.,* 2010: 81 (key), 90 (description, distribution).
Gonatocerus (*Gastrogonatocerus*) *pusillus* [*sic*]: De Santis in De Santis & Esquivel, 1967: 50, 100 (generic transfer, list, host); De Santis, 1967: 106 (catalogue).
Lymaenon pusillus [*sic*]: De Santis, 1980: 148 (catalogue, Brazil).
Gonatocerus pusilus: Yoshimoto, 1990: 41 (list, *membraciphagus* group); De Santis, 1979: 366 (catalogue); Loiácono *et al.*, 2005: 17 (list, incorrectly presumed lost); Luft Albarracin *et al.*, 2009: 10 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gahanopsis pusilus: Huber, 2015a: 28 (generic transfer, list). Rauber *et al.*, 2016: 131 (distribution).

Neotropical host. Membracidae: *Entylia carinata* (Germar) (Ogloblin, 1938a [as *E. gemmata* Germar]).

Distribution. Argentina, Brazil, Ecuador.

GASTROGONATOCERUS Ogloblin, 1935

(Figs 141–146)

Gastrogonatocerus Ogloblin, 1935c: 66 (as subgenus of *Gonatocerus*). Type species: *Gastrogonatocerus membraciphagus* Ogloblin, 1935, by original designation.

Diagnosis. Back of head with transorbital sulcus complete, extending from ventral margin of each eye to dorsal margin of foramen, thus separating occiput from gena (Fig. 141b); dorsellum rhomboidal, with posterior margin evenly convex (Fig. 144); fore wing with microtrichia mostly absent posterior to and just distal to venation (Fig. 143), thereafter fairly uniformly but often sparsely distributed; propodeum medially and submedially with 2 or 3 fine and faint longitudinal carinae between submedian carinae (when present) and propodeal spiracle often huge (Fig. 144); ovipositor and sheaths almost always extending anteriorly in wide gastral sac ventral to mesosoma (Fig. 145), exceptionally not extending anterior to gaster (Fig. 146b).

Remarks. *Gastrogonatocerus* belongs to the *Gonatocerus* group of genera. *Gastrogonatocerus* is most similar to *Gahanopsis*. Both have a complete transoccipital sulcus, and an anteriorly projecting gastral sac. The gastral sac is much narrower and usually projects farther anteriorly than in *Gahanopsis*, and the shape of the dorsellum and the propodeal carinae are different from *Gastrogonatocerus*.

Neotropical hosts. Hemiptera.

Important references. Triapitsyn *et al.* (2010), Huber (2015a).

Gastrogonatocerus anomocerus (Crawford, 1913)

Gonatocerus anomocerus Crawford, 1913: 350; lectotype ♀ (USNM), designated by Triapitsyn *et al.*, 2010: 58. **TL**: Trinidad and Tobago, Trinidad Island, Verdant Vale. Yoshimoto, 1990: 39 (list); Luft Albarracin *et al.*, 2009: 8 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Miranda, 2016: 1211 (host, Costa Rica).

Lymaenon anomocerus: Ogloblin, 1953: 5 (generic transfer, description, Argentina).

Gonatocerus (*Gonatocerus*) *anomocerus*: De Santis & Esquivel, 1967: 99 (list); De Santis, 1967: 103 (subgeneric placement, catalogue, Argentina); De Santis, 1979: 365 (catalogue, Trinidad and Tobago).

Gonatocerus (*Gastrogonatocerus*) *anomocerus*: Triapitsyn *et al.*, 2010: 58 (key, subgeneric transfer, description, distribution); Triapitsyn & Hanson, 2012: 47 (host, Costa Rica).

Gastrogonatocerus anomocerus: Huber, 2015a: 28 (generic transfer, list).

Neotropical hosts. Membracidae: *Acanophora* sp., *Ennya chrysura* (Fairmaire), *E. pacifica* (Fairmaire), *Horiola picta* (Stål).

Distribution. Argentina, Costa Rica, Trinidad and Tobago.

Gastrogonatocerus margiscutum (Girault, 1914)

Gonatocerus margiscutum Girault, 1914 [195]: 150; lectotype ♂ (ZMHB), designated by Triapitsyn *et al.*, 2010: 64. **TL**: Paraguay, San Bernardino. Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2014: 137 (list).

Gonatocerus (*Gonatocerus*) *margiscutum*: De Santis, 1979: 366 (catalogue).

Gonatocerus (*Gastrogonatocerus*) *margiscutum*: Triapitsyn *et al.*, 2010: 58 (key), 63 (description, Argentina).

Gastrogonatocerus margiscutum: Huber, 2015a: 28 (generic transfer, list); Rauber *et al.*, 2016: 132 (distribution).

Lymaenon (*Gastrogonatocerus*) *dimorphus* Ogloblin, 1938a: 101; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 65. **TL**: Argentina, Misiones, Apostoles. Synonymy by Triapitsyn *et al.*, 2010: 63. Ogloblin, 1938a: 106 (key); Ogloblin, 1938c: 29 (mention).

Gonatocerus (*Gastrogonatocerus*) *dimorphus*: De Santis in De Santis & Esquivel, 1967: 50, 100 (generic transfer, list, host).

Lymaenon dimorphus: De Santis *et al.*, 1973: 43 (Brazil); De Santis, 1980: 148 (catalogue, Brazil); Loiácono *et al.*, 2005: 13 (type information).

Gonatocerus dimorphus: Costa Lima, 1962: 196 (host); Yoshimoto, 1990: 40 (list, in *membraciphagus* species group); Luft Albarracin *et al.*, 2009: 8 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gastrogonatocerus dimorphus: Huber, 2015a: 28 (generic transfer, list).
Lymaenon (*Gastrogonatocerus*) *monrosi* Ogloblin, 1959b: 185; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Bella Vista. Synonymy by Triapitsyn *et al.*, 2010: 64.
Gonatocerus (*Gastrogonatocerus*) *monrosi*: De Santis & Esquivel, 1967: 106 (generic transfer, catalogue).
Lymaenon monrosi: Loiácono *et al.*, 2005: 17 (potential type information).
Gonatocerus monrosi: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 10 (list).
Gastrogonatocerus monrosi: Huber, 2015a: 28 (generic transfer, list).

Neotropical host. Membracidae: *Kronides incumbens* (Germar).
Distribution. Argentina, Brazil, Paraguay.

Gastrogonatocerus membraciphagus (Ogloblin, 1935)

Gonatocerus (*Gastrogonatucerus*) [*sic*] *membraciphagus* Ogloblin 1935c: 65; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 68. **TL**: Argentina, Misiones, Loreto.
Lymaenon (*Gastrogonatocerus*) *membrachiphagus* [*sic*] Ogloblin 1938a: 106 (generic transfer); Ogloblin 1959a: 50 (key).
Lymaenon membraciphagus: De Santis, 1980: 148 (catalogue, Brazil).
Gonatocerus membraciphagus: Costa Lima, 1962: 196 (host); Yoshimoto, 1990: 40 (list); Loiácono *et al.*, 2005: 11 (type information); Luft Albarracin *et al.*, 2009: 9 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gonatocerus (*Gastrogonatocerus*) *membraciphagus*: De Santis & Esquivel, 1967: 99 (list, host), 106 (catalogue); Triapitsyn *et al.*, 2010: 58 (key), 68 (description, Bolivia, Costa Rica, Ecuador).
Gastrogonatocerus membraciphagus: Huber, 2015a: 28 (generic transfer, list); Rauber *et al.*, 2016: 132 (distribution).
Lymaenon (*Gastrogonatocerus*) *dorsiniger* Ogloblin, 1959a: 48; holotype ♂ (MLPA). **TL**: Ecuador, Esmeraldas, San Mateo. Synonymy by Triapitsyn *et al.*, 2019: 68. Ogloblin 1959a: 50 (key).
Gonatocerus (*Gonatocerus*) *dorsiniger*: De Santis, 1979: 365 (generic transfer, catalogue, Ecuador).
Gonatocerus dorsiniger: Yoshimoto, 1990: 39 (list).
Lymaenon dorsiniger: Loiácono *et al.*, 2005: 17 (list, correctly presumed lost).
Gonatocerus (*Gastrogonatocerus*) *dorsiniger*: Triapitsyn *et al.*, 2010: 71 (subgeneric transfer, explanation for synonymy).
Gastrogonatocerus dorsiniger Huber, 2015a: 28 (generic transfer, list).
Lymaenon (*Gastrogonatocerus*) *setulosus* Ogloblin 1959a: 46; holotype ♀ (MLPA). **TL**: Ecuador. Esmeraldas, San Mateo. Synonymy by Triapitsyn *et al.*, 2010: 68. Ogloblin 1959a: 50 (key).
Gonatocerus (*Gonatocerus*) *setulosus*: De Santis, 1979: 366 (generic transfer, catalogue, Ecuador).
Gonatocerus setulosus: Yoshimoto, 1990: 41 (list).
Lymaenon setulosus: Loiácono *et al.*, 2005: 17 (list, incorrectly presumed lost).
Gonatocerus (*Gastrogonatocerus*) *setulosus*: Triapitsyn *et al.*, 2010: 71 (subgeneric transfer, explanation for synonymy).
Gastrogonatocerus setulosus: Huber, 2015a: 28 (generic transfer, list).

Neotropical host. Membracidae: *Bolbonota pictipennis* Fairmaire.
Distribution. Argentina, Bolivia, Brazil, Costa Rica, Ecuador.

Gastrogonatocerus nigriceps (Ogloblin, 1955)

Lymaenon (*Gastrogonatocerus*) *nigriceps* Ogloblin 1955b: 19; holotype ♀ (MLPA). **TL**: Argentina, Jujuy, Bella Vista, Piquete.
Gonatocerus (*Gastrogonatocerus*) *nigriceps*: De Santis & Esquivel, 1967: 10, 106 (generic transfer, catalogue, Argentina); Triapitsyn *et al.*, 2010: 72 (description).
Gonatocerus nigriceps: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.,* 2009: 10 (list); Luft Albarracin *et al.*, 2014: 137 (list, distribution in Argentina).
Lymaenon nigriceps: Loiácono *et al.*, 2005: 17 (list, incorrectly presumed lost).
Gastrogonatocerus nigriceps: Huber, 2015a: 28 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Gastrogonatocerus piriformis (Ogloblin, 1955)

Lymaenon (*Gastrogonatocerus*) *piriformis* Ogloblin 1955b: 17; holotype ♀ (MLPA). **TL**: Argentina, Misiones, San Ignacio, Yabebirí ranch. Huber, 2015a: 28 (list).
Gonatocerus (*Gastrogonatocerus*) *pyriformis* De Santis, 1967: 106 (generic transfer, catalogue, Argentina); Triapitsyn *et al.*, 2010: 74 (description).
Gonatocerus piriformes [*sic*]: Yoshimoto, 1990: 41 (list, in *membraciphagus* species group).
Lymaenon piriformis: Loiácono *et al.*, 2005: 17 (list, incorrectly presumed lost).
Gonatocerus piriformis: Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gastrogonatocerus piriformis: Huber, 2015a: 28 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Gastrogonatocerus spiracularis (Ogloblin, 1935)

Gonatocerus (*Gastrogonatocerus*) *spiracularis* Ogloblin 1935c: 70; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Triapitsyn *et al.*, 2010: 76 (description, Ecuador). De Santis, 1967: 106 (generic transfer, catalogue, Argentina).
Lymaenon (*Gastrogonatocerus*) *spiracularis*: Ogloblin, 1959a: 49 (mention, Ecuador), 50 (key).
Gonatocerus (*Gonatocerus*) *spiracularis*: De Santis, 1979: 367 (subgeneric transfer, catalogue, Argentina).
Gonatocerus spiraeularis [*sic*]: Yoshimoto, 1990: 41 (list, in *membraciphagus* group).
Gonatocerus spiracularis: Huber & Beardsley, 2000: 53 (description); Loiácono *et al.*, 2005: 17 (list, incorrectly presumed lost); Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gastrogonatocerus spiracularis: Huber, 2015a: 28 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina, Ecuador.

Gastrogonatocerus valentinae (Ogloblin, 1959)

Lymaenon (*Lymaenon*) *valentinae* Ogloblin, 1959b: 192; holotype ♂ (MLPA). **TL**: Argentina, Misiones, Oberá "Los Indios". Luft Albarracin *et al.*, 2014: 137 (list); Huber, 2015a: 29 (list).
Gonatocerus (*Gonatocerus*) *valentinae*: De Santis, 1967: 105 (generic transfer, catalogue, Argentina).
Gonatocerus (*Gastrogonatocerus*) *valentinae*: Triapitsyn *et al.*, 2010: 78 (subgeneric transfer, description, distribution).
Lymaenon valentinae: Loiácono *et al.*, 2005: 14 (type information).
Gonatocerus valentinae: Yoshimoto, 1990: 41 (list); Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Gastrogonatocerus valentinae: Huber, 2015a: 21 (generic transfer, list).

Neotropical hosts. Unknown.
Distribution. Argentina.

GONATOCERUS Nees, 1834
(Figs 147–151)

Gonatocerus Nees, 1834: 192. Type species: *Gonatocerus longicornis* Nees, 1834, by monotypy.

Diagnosis. *Gonatocerus* is distinguished by the following combination: vertex with 2 setae between lateral ocelli (Fig. 147b); mandibles of normal length, with 3 distinct, equal teeth and crossing when closed; pronotum divided medially by longitudinal suture and the lobes abutting medially (Fig. 150) except sometimes slightly separated dorsally; fore wing relatively narrow, with apex evenly rounded, and with microtrichia usually as dense posterior to venation as distal to venation (Fig. 149); stigmal vein with apex usually slightly oblique; dorsellum diamond-shaped (Fig. 150); propodeum with faint, converging sublateral lines, or lines absent (Fig. 150); pronotal spiracle about same size as propodeal spiracle (Fig. 150); ovipositor not produced anteriorly under mesosoma.

Remarks. *Gonatocerus* belongs to the *Gonatocerus* group of genera, treated formally as Gonatocerini by Huber (2015a). *Gonatocerus* appears to be most similar to *Cosmocomoidea*. Useful features that help distinguish *Gonatocerus* species are: fu_2 and fu_3 usually slightly the longest funicle segments and apex of fu_2 often oblique. The dorsellum margins are sometimes lighter in colour than the rest of the dorsellum. Otherwise, *Gonatocerus* is more difficult to characterize than the other genera in Gonatocerini.

Neotropical hosts. Hemiptera.

Important references. Triapitsyn *et al.* (2010), Huber (2015a).

Gonatocerus aequatorianus (Ogloblin, 1959)

Lymaenon aequatorianus Ogloblin, 1959a: 58; holotype ♂ (MLPA). **TL**: Ecuador, Esmeraldas, San Mateo. Loiácono *et al.*, 2005: 12 (type information).

Gonatocerus (*Gonatocerus*) *aequatorianus*: De Santis, 1979: 364 (generic transfer, catalogue, Ecuador); Triapitsyn *et al.*, 2010: 15 (description, distribution).

Gonatocerus aequatorianus: Yoshimoto, 1990: 39 (list); Huber, 2015a: 30 (list).

Neotropical hosts. Unknown.

Distribution. Ecuador.

Gonatocerus antillensis Dozier, 1937

Gonatocerus antillensis Dozier, 1937: 132; holotype ♀ (USNM). **TL**: Puerto Rico, near Mayagüez, 1000 feet. Wolcott, 1951: 772 (mention); Yoshimoto, 1990: 39 (list); Huber, 2015a: 30 (list).

Gonatocerus (*Gonatocerus*) *antillensis*: De Santis, 1979: 365 (catalogue, Cuba, Puerto Rico); Triapitsyn *et al.*, 2010: 14 (key), 16 (description, distribution).

Neotropical hosts. Unknown.

Distribution. Cuba, Puerto Rico.

Gonatocerus appendiculatus (Ogloblin, 1939)

Lymaenon appendiculatus Ogloblin, 1939b: 239; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 18. **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 12 (type information); Luft Albarracin *et al.*, 2014: 137 (list).

Gonatocerus (*Gonatocerus*) *appendiculatus*: De Santis, 1967: 103 (generic transfer, catalogue); Triapitsyn *et al.*, 2010: 14, (key), 18 (description, distribution).

Gonatocerus appendiculatus: Yoshimoto, 1990: 39 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Huber, 2015a: 30 (list); Rauber *et al.*, 2016: 131 (distribution), 134 (key).

Neotropical hosts. Unknown.

Distribution. Argentina, Brazil, Uruguay.

Gonatocerus bonaerensis (Ogloblin, 1939)

Lymaenon bonaerensis Ogloblin, 1939b: 246; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 20. **TL**: Argentina, Buenos Aires, José C. Paz. Loiácono *et al.*, 2005: 13 (type information).

Gonatocerus (*Gonatocerus*) *bonaerensis*: Triapitsyn *et al.*, 2010: 14 (key), 20 (generic transfer, description, Uruguay).

Gonatocerus bonariensis: Yoshimoto, 1990: 39 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Huber, 2015a: 30 (list).

Gonatocerus (*Gonatocerus*) *ogloblini*: De Santis, 1967: 105 (generic transfer and unnecessary replacement name [junior secondary homonym] for *G. bonaerensis* (Ogloblin, 1939), not *Cosmocomoidea bonariensis* (Brèthes, 1922).

Neotropical hosts. Unknown.

Distribution. Argentina, Uruguay.

Gonatocerus californicus (Girault, 1911)

Gonatocerus californicus Girault, 1911 [96]: 271; holotype ♀ (USNM), lost. **TL**: USA, California, Siskiyou Co., no locality given. Yoshimoto, 1990: 39 (list); De Santis & Fidalgo, 1994: 124 (catalogue); Luft Albarracin & Triapitsyn, 2012: 298 (hosts, percent parasitism, Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Huber, 2015a: 17 (list); Rauber *et al.*, 2016: 130 (abundance in organic tobacco fields, Brazil), 134 (key).

Gonatocerus (*Gonatocerus*) *californicus*: Triapitsyn *et al.*, 2010: 14 (key), 22 (description, Argentina, Colombia).

Neotropical hosts. Cicadellidae: *Exitianus obscurinervus* (Stål), *Spanbergiella vulnerata lacerdae* Signoret.

Distribution. Argentina, Brazil, Colombia.

Gonatocerus excisus (Ogloblin, 1936)

Lymaenon excisus Ogloblin, 1936: 53; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 25. **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 13 (type information).

Gonatocerus (*Gonatocerus*) *excisus*: De Santis, 1967: 10, 104 (generic transfer); Triapitsyn *et al.*, 2010: 14 (key), 25 (description, Brazil, Uruguay).

Gonatocerus excisus: Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Huber, 2015a: 30 (list); Rauber *et al.*, 2016: 132 (distribution).

Neotropical hosts. Unknown.

Distribution. Argentina, Brazil, Uruguay.

Gonatocerus mexicanus Perkins, 1912

Gonatocerus mexicanus Perkins, 1912: 22; lectotype ♀ (BPBM), designated by Huber, 1988: 42. **TL**: Mexico, Distrito Federal, Chapultepec. Yoshimoto, 1990: 40 (list); Luft Albarracin *et al.*, 2009: 9 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Huber, 2015a: 17 (list).

Lymaenon mexicanus: Ogloblin, 1955b: 20 (generic transfer, description, Argentina).

Gonatocerus (*Gonatocerus*) *mexicanus*: De Santis, 1967: 104 (subgeneric transfer); De Santis, 1979: 366 (catalogue, Cuba); Triapitsyn *et al.*, 2010: 14 (key), 31 (description, Costa Rica, Honduras, Panama).

Neotropical hosts. Unknown.

Distribution. Argentina, Costa Rica, Cuba, Honduras. Panama.

Gonatocerus rivalis Girault, 1911

Gonatocerus rivalis Girault, 1911 [96]: 257; holotype ♀ (USNM). **TL**: USA, Illinois, Montgomery Co., Butler. Huber, 1988 : 39 (Guatemala, Venezuela); De Santis & Fidalgo, 1994: 125 (catalogue, Venezuela).

Gonatocerus (*Gonatocerus*) *rivalis*: De Santis, 1979: 366 (catalogue); Triapitsyn *et al.*, 2010: 14 (key), 36 (description, Guatemala).

Gonatocerus rivalis: Yoshimoto, 1990: 40 (list); Huber, 2015a: 32 (list).

Neotropical hosts. Unknown.

Distribution. Guatemala, Venezuela.

Gonatocerus stenopterus (Ogloblin, 1936)

Lymaenon stenopterus Ogloblin, 1936: 33; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 37. **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 17 (potential type information).

Gonatocerus (*Gonatocerus*) *stenopterus*: De Santis, 1967: 105 (generic transfer, catalogue, Argentina); Triapitsyn *et al.*, 2010: 14 (key), 37 (description, distribution).

Gonatocerus stenopterus: Yoshimoto, 1990: 41 (list); Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Huber 2015a: 32 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Gonatocerus urocerus Ogloblin, 1935

Gonatocerus urocerus Ogloblin, 1935c: 72; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 40. **TL**: Argentina, Buenos Aires, La Plata. De Santis, 1989: 72 (catalogue, Uruguay); Yoshimoto, 1990: 40 (list); Loiácono *et al.*, 2005: 17 (type incorrectly? presumed lost); Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Huber, 2015a: 17 (list).
Gonatocerus (*Gonatocerus*) *urocerus* De Santis, 1967: 105 (catalogue, Argentina); Triapitsyn *et al.*, 2010: 14 (key), 40 (description, distribution).

Neotropical hosts. Unknown.
Distribution. Argentina, Uruguay.

KALOPOLYNEMA Ogloblin, 1960
(Figs 152–157)

Kalopolynema Ogloblin, 1960a: 3. Type species: *Kalopolynema discrepans* Ogloblin, 1960. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Face with subantennal sulcus ventral to each torulus, without a pit medially next to each torulus and toruli separated from transverse trabecula by about height of a torulus (Fig. 152a); propleura widely separated from each other anterior to prosternum; fore wing narrow (Fig. 154), with venation about 0.25 wing length and marginal vein absent; propodeum without carinae (Fig. 155); petiole attached posteriorly to gt_1, (Figs 156, 157); ovipositor with fairly large basal loop and strongly exserted (Fig. 156).

Remarks. *Kalopolynema* belongs to the *Polynema* group of genera. It is distinguished most easily from the other genera by the combination of a strongly exserted and somewhat upcurved ovipositor with a large basal loop and a narrow fore wing. The petiole in lateral view is relatively short with a sharp ventral tooth.

Neotropical hosts. Hemiptera: Delphacidae.

Important reference. Triapitsyn & Berezovskiy (2002).

Kalopolynema discrepans Ogloblin, 1960

Kalopolynema discrepans Ogloblin, 1960a: 6; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Tigre. De Santis, 1967: 113 (catalogue); Yoshimoto, 1990: 73 (list); Loiácono *et al.*, 2005: 17 (type incorrectly? presumed lost); Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Kalopolynema (*Kalopolynema*) *discrepans*: Triapitsyn & Berezovskiy, 2002: 612 (key), 613 (description, distribution).

Neotropical hosts. Unknown.
Distribution. Argentina.

Kalopolynema (*Kalopolynema*) *poema* Triapitsyn & Berezovskiy, 2002

Kalopolynema (*Kalopolynema*) *poema* Triapitsyn & Berezovskiy, 2002: 614; holotype ♀ (CNC). **TL**: Argentina, Buenos Aires, Hurlingham. Triapitsyn & Berezovskiy, 2002: 612 (key); Triapitsyn *et al.*, 2011: 173 (key), 183 (description, host).
Kalopolynema poema: Luft Albarracin *et al.*, 2009: 10 (list, distribution and host in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Neotropical host. Delphacidae: *Megamelus scutellaris* Berg.

Distribution. Argentina.

KIKIKI Huber & Beardsley, 2000

(Figs 158–162)

Kikiki Huber & Beardsley, 2000: 66. Type species: *Kikiki huna* Huber, 2000, by original designation.

Diagnosis. Back of head with transoccipital sulcus (Fig. 158b); funicle 4-segmented, clava 2-segmented (Fig. 159); mandible with 4 teeth (Fig. 158a); scutellum apparently without campaniform sensilla (Fig. 161); fore wing with venation 0.7 × wing length; hind wing without fringe setae along anterior margin (Fig. 160); tarsi 3-segmented.

Remarks. *Kikiki* belongs to the *Arescon* group of genera. *Kikiki* is distinguished by the unique combination of funicle 4-segmented and tarsi 3-segmented. It is the only known genus of Mymaridae with 3-segmented tarsi.

Neotropical hosts. Unknown.

Important references. Triapitsyn (2013a), Huber & Noyes (2013).

Kikiki huna Huber, 2000

Kikiki sp. Luft Albarracin *et al.*, 2009: 10 (Argentina).

Kikiki huna Huber in Huber & Beardsley, 2000: 67; holotype ♀ (BPBM). **TL**: Hawaiian Islands, Moloka‘i Island, Mapulehu Valley near Ili‘Ili‘opae heiau. Huber & Noyes, 2013: 30 (description, Costa Rica, Trinidad and Tobago); Triapitsyn, 2013a: 130 (description, Argentina).

Distribution. Argentina, Costa Rica, Trinidad & Tobago.

KRATERISKE Huber, 2015

(Figs 163–169)

Krateriske Huber, 2015a: 38. Type species: *Krateriske guianensis* Huber, by original designation.

Diagnosis. Face with subantennal sulci meeting at or just dorsal to mouth margin and continuing to mouth as short median sulcus (Figs 163, 164); clava with numerous short oblique mps (Fig. 165); parastigma with 2 or 3 hypochaetae midway between proximal and distal macrochaetae (Fig. 166); propodeum with median, oval crater-like depression and median carina extending from its anterior margin almost to dorsellum (Fig. 167).

Remarks. *Krateriske* is the only genus in the *Gonatocerus* group of genera (Gonatocerini) whose fore wing has 2 or 3 hypochaetae. The female clava and propodeum with curved submedian carinae are also characteristic.

Neotropical hosts. Unknown.

Important reference. Huber (2015a).

Krateriske ecuadorensis Huber, 2015

Krateriske ecuadorensis Huber, 2015a: 40; holotype ♀ (CNC). **TL**: Ecuador, Napo, Yasuni Biological Research Station. Huber, 2015a: 39 (key).

Distribution. Ecuador.

Krateriske guianensis Huber, 2015

Krateriske guianensis Huber, 2015a: 39; holotype ♀ (CNC). **TL**: French Guiana, 7 km N and 3 km SE Saül. Huber, 2015a: 39 (key).

Distribution. French Guiana.

Krateriske peruensis Huber, 2015

Krateriske peruensis Huber, 2015a: 40; holotype ♀ (CNC). **TL**: Peru, Huanaco, Río Llullapichis. Huber, 2015a: 39 (key)

Distribution. Peru.

KROKELLA Huber, 1993

(Figs 170–175)

Krokella Huber, 1993: 349. Type species: *Krokella fera* Huber, 1993, by original designation.

Diagnosis. Face without subantennal sulcus ventral to each torulus and toruli abutting transverse trabecula (Fig. 170a) ; mandibles in female minute, with a wide gap between them when closed, mandibles in male massive, with a long ventrally serrate dorsal tooth, strongly overlapping when closed (Fig. 171); funicle 5- or 6-segmented, with clava 3-segmented; frenum longitudinally divided by median sulcus and paramedial plates about as wide as long (Fig. 174); fore wing with venation greater than half wing length (Fig. 172); ovipositor distinctly exserted beyond apex of gaster. Male flagellum 9-segmented, with junction between apical two segments wide (Fig. 173).

Remarks. *Krokella* belongs to the *Anagrus* group of genera. It is one of two genera in the group with venation greater than half the wing length; the other is *Neopolynemoidea*. *Krokella* differs in having the fore wing wide, with a somewhat truncated apex (Fig. 172).

Neotropical hosts. Unknown.

Important reference. Huber (1993).

Krokella bella Huber, 1993

Krokella bella Huber, 1993: 357; holotype ♀ (NHMUK). **TL**: Costa Rica, Guanacaste, Guanacaste National Park, Pitilla. Huber, 1993: 355 (key).

Distribution. Costa Rica.

Krokella fera Huber, 1993

Krokella fera Huber, 1993: 356; holotype ♀ (CNC). **TL**: USA, Florida, Dade Co., Everglades National Park, Long Pine Key. Huber, 1993: 355 (key).

Distribution. Belize, Brazil, Costa Rica, Venezuela.

LITUS Haliday, 1833

(Figs 176–180)

Litus Haliday 1833a: 269; 1833b: 345. Type species: *Litus cynipseus* Haliday, 1833, by monotypy.
Congolia Ghesquière, 1942: 320. Type species: *Congolia sycophila* Ghesquière, 1942, by monotypy. Synonymy by Debauche,

1949: 17. This genus and its type species were accidentally omitted from the list of generic synonyms in Huber *et al.* (2021).

Diagnosis. Funicle 6-segmented (Fig. 177); mandibles crossing or barely meeting when closed, each with 2 subequal teeth (Fig. 176a); ocelli forming an obtuse triangle with the lateral ocellus at posterolateral angle of vertex; head posteriorly without evident sulci, the occiput separated from gena/postgena by slight change in sculpture lateral to dorsal margin of foramen (Fig. 176b); fore wing narrow, only slightly widening towards apex (Fig. 178); mesophragma projecting into gaster; propodeum posteriorly with a short but wide ring-like nucha (neck) separated from rest of propodeum by a distinct narrowing (Fig. 180a); petiole (not visible unless metasoma detached) short and narrow; metasoma smooth, laterally compressed, cynipoid-like, with gt_1 the largest tergum (Fig. 180a).

Remarks. Huber *et al*. (2020) had placed *Litus* in the *Alaptus* group but this is incorrect. *Litus* apparently belongs to the *Camptoptera* group of genera because of its narrow petiole (usually completely hidden so removal of the metasoma is needed to see it). The most similar genus is probably *Ptilomymar*. The strongly sculptured head and mesosoma contrasting with the smooth and shiny metasoma helps separate the species of *Litus* from other genera in the group.

Neotropical hosts. Unknown.

Important reference. Ogloblin (1935).

Litus argentinus (Ogloblin, 1935)

Neolitus argentinus Ogloblin, 1935a: 60; syntypes, 2 ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 101 (catalogue, Argentina); Yoshimoto, 1990: 25 (list); Loiácono *et al.*, 2005: 14 (type information).

Litus argentinus: Triapitsyn & Berezovskiy, 2004b: 3 (generic transfer); Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina, Brazil, Peru.

Litus missionicus (Ogloblin, 1935)

Litus missionicus Ogloblin, 1955a: 495; holotype ♀ (MLPA). **TL**: Argentina, Misiones, San Ignacio, Yabebirí [ranch]. De Santis, 1967: 100 (catalogue, Argentina); Yoshimoto, 1990: 24 (list); Loiácono *et al.*, 2005: 12 (type information); Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

Litus neotropicus (Ogloblin, 1955)

Litus neotropicus Ogloblin, 1955a: 492; holotype ♀ (MLPA). **TL**: Argentina, Misiones, San Ignacio, Yabebirí [ranch]. De Santis, 1967: 100 (catalogue, Argentina). Yoshimoto, 1990: 24 (list); Loiácono *et al.*, 2005: 12 (type information); Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

LYMAENON Walker, 1846
(Figs 181–185)

Lymaenon Walker, 1846: 49. Type species: *Lymaenon acuminatus* Walker, 1846, by subsequent designation by Gahan & Fagan, 1923: 82. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. *Lymaenon* is distinguished from the other genera of Gonatocerini by the following combination: ocellar triangle with 3 or, rarely, 4 setae between lateral ocelli (Fig. 181b); pronotal lobes separated by a usually membranous gap (Fig. 184); mesothoracic spiracle much larger than propodeal spiracle (Fig. 184); dorsellum strap-like, with anterior and posterior margins parallel (Fig. 184); stigmal vein with apex truncate (Fig. 183); propodeum with parallel or slightly converging submedian lines (Fig. 184), often with spicules between them.

Remarks. *Lymaenon* belongs to the *Gonatocerus* group of genera, treated formally as Gonatocerini (Huber 2015a). The metanotum with straight and parallel anterior and posterior margins is characteristic though a few species of *Cosmocomoidea* have the metanotum narrow, with almost parallel anterior and posterior margins.

Neotropical hosts. Unknown.

Important references. Huber (2015a), Triapitsyn *et al.* (2015).

Lymaenon aureus (Girault, 1911)

Gonatocerus aureus Girault, 1911 [96]: 263; neotype ♀ (USNM), designated by Triapitsyn, 2013d: 48. **TL**: USA, Illinois, Champaign Co., Urbana. Luft Albarracin *et al.*, 2014: 137 (list, Argentina).
Lymaenon aureus: Huber, 2015a: 43 (generic transfer, list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil), 134 (key).
Gonatocerus chrysis Debauche, 1948: 99; holotype ♀ (RBINS). **TL**: Belgium, Flemish Brabant, Heverlee. Synonymy by Triapitsyn, 2013d: 47. Huber, 2015a: 43 (list).
Gonatocerus (*Lymaenon*) *chrysis*: Triapitsyn *et al.*, 2015: 42 (key), 43 (description, Argentina, Bermuda, Brazil, Chile).
Lymaenon chrysis: Huber, 2015a: 43 (list).

Distribution. Argentina, Bermuda, Brazil, Chile.

Lymaenon cubensis (Dozier, 1932)

Gonatocerus cubensis Dozier, 1932: 83; holotype ♀ (USNM). **TL**: Cuba, near Havana. Thompson, 1958: 570 (host [likely incorrect], Haiti [likely incorrect]); Yoshimoto, 1990: 40 (list); Huber, 2015a: 30 (list).
Gonatocerus (*Gonatocerus*) *cubensis*: De Santis, 1979: 365 (catalogue); Triapitsyn *et al.*, 2010: 42 (key), 46 (description, distribution).

Distribution. Cuba. The species was reared in Haiti from a shipment of citrus foliage received from Cuba (Dozier 1932) so if that foliage was not destroyed a slight possibility exists that *L. cubensis* could accidentally have been introduced into Haiti.

Lymaenon flaviventris (Dozier, 1932)

Gonatocerus flaviventris Dozier, 1932: 82; holotype ♀ (USNM). **TL**: Haiti, Sarthe. Yoshimoto, 1990: 40 (list).
Gonatocerus (*Gonatocerus*) *flaviventris*: De Santis, 1979: 365 (catalogue, Haiti).
Gonatocerus (*Lymaenon*) *flaviventris*: Triapitsyn *et al.*, 2010: 42 (key); 47 (subgeneric transfer; description, distribution).
Lymaenon flaviventris: Huber, 2015a: 30 (list).

Distribution. Haiti.

Lymaenon litoralis (Haliday, 1833)

Ooctonus litoralis Haliday, 1833b: 342, 344; lectotype ♀ (OUMNH), designated by Graham, 1982: 223. **TL**: UK, Northern Ireland, Co. Down, near Holywood.
Gonatocerus (*Lymaenon*) *litoralis*: Triapitsyn *et al.*, 2010: 42 (key), 48 (description, distribution).
Gonatocerus litoralis: Luft Albarracin *et al.*, 2014: 137 (list).
Lymaenon litoralis: Huber, 2015a: 47 (list); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil).

Distribution. Argentina, Bahamas, Brazil, Chile.

Lymaenon pratensis Ogloblin, 1936

Lymaenon pratensis Ogloblin, 1936: 48; lectotype ♀ (MLPA), designated by Triapitsyn *et al.*, 2010: 53. **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 17 (potential type information); Huber 2015a: 49 (generic transfer, list).
Gonatocerus (*Gonatocerus*) *pratensis*: De Santis, 1967: 10, 105 (generic transfer, catalogue, Argentina).
Gonatocerus (*Lymaenon*) *pratensis*: Triapitsyn *et al.*, 2010: 42 (key), 53 (subgeneric transfer, description, Argentina, Uruguay).
Gonatocerus pratensis: Yoshimoto, 1990: 41 (list); Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list); Rauber *et al.*, 2016: 131 (distribution), 134 (key).

Distribution. Argentina, Brazil, Uruguay.

MEGAMYMAR Huber, 2022
(Fig. 186)

Megamymar Huber in Huber & Read, 2022: 3. Type species: *Megamymar waorani* Huber, 2022, by original designation.

Diagnosis. *Megamymar* is placed is the *Polynema* group of genera. It differs from the superficially somewhat similar *Australomymar* (in a different group of genera) by the much shorter fore wing venation, by the much shorter length of the ovipositor sheaths, which are not exserted beyond the apex of the gaster, and by gt_1, which extends anteriorly, dorsal to the propodeum (Fig. 186).

Remarks. At just over 4.5 mm long, individuals of *Megamymar* are by far the longest Mymaridae in the Neotropical region, exceeding the length of *Erdosiella mirum* (about 3.8 mm long) by about 800 micrometers and individuals of some long *Australomymar* species by even more.

Neotropical hosts. Unknown.

Important reference. Huber & Read (2022).

Megamymar waorani Huber, 2022

Megamymar waorani Huber in Huber & Read, 2022: 5; holotype ♀ (USNM). **TL**: Ecuador, Napo, Reserva Ethnica Waorani, 1 km S. Onkone Gare Camp.

Distribution. Ecuador.

Remarks. The scale bar of the holotype in Huber (2022, fig. 1) is wrong. It should be 5000 µm (5 mm), NOT 500 µm (0.5 mm). Individual of this species are at present the third longest in the world.

MYMAR Curtis, 1829
(Figs 187)

Mymar Curtis, 1829: 112. Type species: *Mymar pulchellum* Curtis, 1832, by designation under the plenary powers of the International Commission on Zoological Nomenclature, 1965: 82 (ICZN 1965). See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Face without subantennal sulcus ventral to each torulus and without pit medial to each torulus; toruli abutting transverse trabecula; scape, especially in female, unusually long and slightly constricted medially (Fig. 187); fore wing extremely narrow for about 0.6× its length (Fig. 187), hind wing filamentous (Fig. 187); propodeum without median carina except perhaps a very short one; petiole attached to gt_1.

Remarks. *Mymar* belongs to the *Polynema* group of genera. *Mymar*, *Neomymar* and *Tetrapolynema* are the only genera of the group that have the toruli in contact with the transverse trabecula. *Mymar* is most easily distinguished by the combination of mostly narrow fore wing with a distinct dark apical spot in the enlarged apical section, and the hind wing without membrane but consisting only of venation.

Neotropical hosts. Unknown.

Important reference. Triapitsyn (2018a) [includes a world key to *Mymar* species].

Mymar taprobanicum Ward, 1875

Mymar taprobanicum Ward 1875: 197; lectotype (NHMUK?), lost. **TL**: Sri Lanka, locality not specified. De Santis, 1967: 373 (catalogue, Puerto Rico); Triapitsyn & Berezovskiy, 2001, 7 (key), 11 (Costa Rica); Triapitsyn, 2018a: 150 (key).
Mymar taprobanicus [*sic*]: Navarro Morales, 2014: 145 (Dominican Republic).
Mymar antillanum Dozier, 1937: 130; holotype ♀ (USNM). **TL**: Puerto Rico, near Boquerón. Synonymy by Annecke, 1961: 547. Wolcott, 1951: 771 (distribution).

Distribution. Colombia, Costa Rica, Dominica Republic, Puerto Rico.

NEOMYMAR Crawford, 1913
(Figs 188–192)

Neomymar Crawford, 1913: 351. Type species: *Neomymar vierecki* Crawford, 1913, by original designation. See Huber *et al.* (2020) for the generic synonym and its type species.

Diagnosis. Face without subantennal sulcus ventral to each torulus, without a pit medially next to each torulus and toruli abutting transverse trabecula (Fig. 188a); upper orbit of eye with long, thick, apically blunt seta next to break between anterior and posterior sections of supraorbital trabecula; funicle segments usually with dark base and light apex (Fig. 189); propleura abutting each other anterior to prosternum; fore wing narrow for half its length before distinctly widening (Fig. 190), the widened part usually with an apical brown spot and sometimes also a basal one; propodeum without carinae (Fig. 191); petiole attached posteriorly to gs_1.

Remarks. *Neomymar* belongs to the *Polynema* group of genera. *Mymar*, *Neomymar* and *Tetrapolynema* are the only genera of the group that have the toruli in contact with the transverse trabecula. *Neomymar* is distinguished most easily by the combination of a narrow fore wing that suddenly widens distally and often with a apical brown spot, funicle segments usually with dark base and light apex and body colour often yellow. The strong, blunt setae dorsally on the head and mesosoma are also fairly characteristic. Three described species have the apical funicle segment enlarged, as wide as clava.

Neotropical hosts. Unknown.

Important references. Fidalgo (1992), Triapitsyn *et al.* (2006).

Neomymar gusar Triapitsyn, Berezovskiy & Huber, 2006

Neomymar gusar Triapitsyn, Berezovskiy & Huber, 2006: 10; holotype ♀ (NHMUK). **TL**: Costa Rica, Guanacaste, Guanacaste National Park Headquarters, 300 m.

Distribution. Belize, Costa Rica, El Salvador, Panama.

Neomymar korsar Triapitsyn, Berezovskiy & Huber, 2006

Neomymar korsar Triapitsyn, Berezovskiy & Huber, 2006: 7; holotype ♀ (NHMUK). **TL**: USA, Louisiana, East Baton Rouge, Baton Rouge. Triapitsyn *et al.*, 2006: 4 (key).

Distribution. Cuba.

Neomymar mirabilicorne (Ogloblin, 1939)

Bruchomymar mirabilicornis Ogloblin, 1939c: 218; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 111 (catalogue, Argentina); Yoshimoto, 1990: 59 (list); Loiácono *et al.*, 2005: 8 (type information).
Neomymar mirabilicorne: Fidalgo, 1992: 263 (diagnosis, distribution); Triapitsyn *et al.*, 2006: 9 (generic transfer, description, distribution, Argentina, Brazil, Colombia, Costa Rica, Panama); Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina, Bolivia, Brazil, Colombia, Costa Rica, Ecuador, Panama, Peru.

Neomymar soror (Ogloblin, 1939)

Bruchomymar soror Ogloblin, 1939c: 223; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 111 (catalogue, Argentina); Yoshimoto, 1990: 59 (list); Fidalgo, 1991: 264 (diagnosis, distribution); Loiácono *et al.*, 2005: 9 (type information).
Neomymar soror: Triapitsyn *et al.*, 2006: 10 (generic transfer, description, distribution, Brazil, Colombia, Ecuador); Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina, Brazil, Colombia, Ecuador.

NEOPOLYNEMOIDEA Huber, 2022
(Figs 193–198)

Neopolynemoidea Huber, 2022: 6. Type species: *Neopolynemoidea chilensis* Huber, 2022, by original designation.

Diagnosis. Face with toruli almost abutting transverse trabecula (Fig. 193a); scape about 10× as long as wide; funicle 6-segmented, clava 3-segmented (Fig. 194); fore wing venation almost 0.7× wing length (Fig. 195); frenum entire (Fig. 196a); ovipositor exserted beyond apex of gaster by almost length of gaster (Fig. 198).

Remarks. *Neopolynemoidea* belongs to the *Anagrus* group of genera. It has a combination of features shared by one or other of the remaining genera in the group: the strongly exserted ovipositor with *Omyomymar* (*Caenomymar*), the entire (undivided) frenum with *Notomymar* and *Omyomymar*, and the 3-segmented clava with *Krokella*, *Neostethynium* and *Stethynium*. The combination of these features in *Neopolynemoidea* is unique.

Neotropical hosts. Unknown.

Important reference. Huber & Read (2022).

Neopolynemoidea chilensis Huber, 2022

Neopolynemoidea chilensis Huber in Huber & Read, 2022: 8; holotype ♀ (USNM). **TL**: Chile, Cautín, Conguillio National Park.

Distribution. Chile.

NEOSTETHYNIUM Ogloblin, 1964
(Figs 199–205)

Stethynium (*Neostethynium*) Ogloblin, 1964b: 106. Type species: *Neostethynium stenopterum* Ogloblin, 1964, by original designation.

Diagnosis. Head in lateral view with vertex flat and at a right angle with face and with occiput (Fig. 204); face with faint subantennal sulcus ventral to each torulus (Fig. 199a); toruli separated by about their own height from transverse trabecula (Fig. 199a); mandibles small, not meeting when closed, each with at least 1 small tooth (Fig.

199a); funicle 6-segmented, clava 3-segmented with the divisions between segments transverse (Fig. 200); frenum entire (Fig. 202); fore wing narrow with rounded apex (Fig. 201).

Remarks. *Neostethynium* belongs to the *Anagrus* group of genera. It has a 3-segmented clava as in *Krokella*, *Neopolynemoidea*, *Notomymar*, *Paranaphoidea* and *Stethynium*. See under *Notomymar*, the most similar genus, for differences between the two genera.

Neotropical hosts. Unknown.

Important references. Ogloblin (1964b), Huber *et al.* (2020).

Neostethynium stenopterum (Ogloblin, 1964)

Stethynium (*Neostethynium*) *stenopterum* Ogloblin, 1964b: 107; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 100 (catalogue, Argentina).

Neostethynium stenopterum: Huber, 1987: 827 (generic transfer); Yoshimoto, 1990: 45 (list); Loiácono *et al.*, 2005: 17 (potential type information); Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

NEPOLYNEMA Triapitsyn, 2014
(Figs 206–210)

Nepolynema Triapitsyn, 2014a: 171. Type species: *Barypolynema grandis* Taguchi, by original designation.

Diagnosis. Face without subantennal sulcus ventral to each torulus, without pit medially next to each torulus and toruli separated by their own height from transverse trabecula (Fig. 206a); propleura abutting each other anterior to prosternum; mesoscutum along each torulus and posteriorly on lateral lobe, and scutellum posterior to each campaniform sensillum with minute pits (likely glandular openings) (Fig. 209); frenum extremely narrow, not separated from scutellum by row of punctures (Fig. 209); fore wing with relatively long venation and parastigma distinct, together with stigma vein almost as long as submarginal vein (Fig. 208); metasoma apparently attached to gt_1; propodeum without carinae (Fig. 209). Male with flagellum over 2.5× as long as entire body, by far the longest of any species of Mymaridae.

Remarks. *Nepolynema* belongs to the *Polynema* group of genera. Its species occur at fairly high altitude (above 1000 m) in Central America. The minute pores on the mesoscutum and scutellum appear to be unique among New World Mymaridae. They also occur in the Old World genus *Boudiennyia* Girault but in a different configuration and on the scutellum only.

Neotropical hosts. Unknown.

Important reference. Triapitsyn (2014a).

Nepolynema shatenka Triapitsyn, 2014

Nepolynema shatenka Triapitsyn, 2014a: 179; holotype ♀ (UCRC). **TL**: Costa Rica, Puntarenas, Las Cruces Biological Station, 8.80°N 82.97°W, 1200 m.

Distribution. Costa Rica, Guatemala.

NOTOMYMAR Doutt & Yoshimoto, 1970
(Figs 211–217)

Notomymar Doutt & Yoshimoto, 1970: 293. Type species: *Notomymar aptenosoma* Doutt & Yoshimoto, 1970, by original designation.

Diagnosis. Face with faint subantennal sulcus ventral to each torulus (Fig. 215a); toruli separated by their own height from transverse trabecula; mandibles each with 2 teeth, the dorsal one wide and apically serrated, the teeth overlapping medially when mandibles closed (Fig. 215a); funicle 6-segmented; clava 3-segmented (Figs 212, 216); both sexes apparently apterous (Fig. 213), brachypterous or macropterous (Fig. 217). Male flagellum 9-segmented, with the apical two segments widely joined.

Remarks. *Notomymar* belongs to the *Anagrus* group of genera. The other genera in the group with a 3-segmented clava are *Krokella*, *Neopolynemoidea*, *Neostethynium*, *Paranaphoidea* (*Idiocentrus*) and *Stethynium*. Two species are illustrated: the apparently wingless species from South Georgia Island, and a fully winged species from mainland South America. At high elevations (4000 m) in Ecuador another, almost wingless, described species (Yoshimoto 1990) has a similar mandible to the type species. Macropterous specimens of *Notomymar* appear to be most similar to species of *Neostethynium* so *Notomymar* may eventually be shown to be a synonym of *Neostethynium*. The only differences that distinguish *Neostethynium* from *Notomymar* (either winged or wingless) appear to be the size and position of the ocelli, the head shape in lateral view, and the presence or absence of a transoccipital sulcus. In *Neostethynium* the ocelli are large and close together and the vertex is flat and at right angle to face, and there is no transoccipital sulcus, whereas in *Notomymar* the ocelli are small and far apart (Figs 211, 215b), the vertex is more convex and not at a sharp right angle with the face, and there is a distinct transoccipital sulcus (Fig. 215b). The generic limits are unclear, partly because it is so difficult to determine relationships of macropterous species, with their various reductions in the mesosoma.

Neotropical hosts. Unknown.

Important reference. Doutt & Yoshimoto (1970).

Notomymar aptenosoma Doutt & Yoshimoto, 1970

Notomymar aptenosoma Doutt & Yoshimoto, 1970: 293; holotype ♀ (BPBM). **TL**: South Georgia, Bird Island, North Valley. De Santis, 1983: 33 (catalogue); Vogel *et al.*, 1984: 105 (effects of reindeer); Yoshimoto, 1990: 47 (list); De Santis & Fidalgo, 1994: 126 (catalogue, Ecuador [likely misidentified], Venezuela [likely misidentified]); Luft Albarracin *et al.*, 2009: 11 (list, distribution); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. South Georgia Islands.

Notomymar masneri Yoshimoto, 1990

Notomymar masneri Yoshimoto, 1990: 92; holotype ♀ (CNC). **TL**: Ecuador, Napo, Quito-Baeza road, 4100 m. Yoshimoto, 1990: 47 (list).

Distribution. Ecuador.

OMYOMYMAR Schauff, 1983
(Figs 218–230)

Omyomymar Schauff, 1983: 544. Type species: *Paranaphoidea silvana* Ogloblin, 1935, by original designation. See Huber *et al.* (2020) for the generic synonym and its type species.

Diagnosis. Face with faint or without subantennal sulcus ventral to each torulus and a median sulcus extending ventrally from transverse trabecula to about dorsal margin of a torulus; torulus about 1.4× its own height from transverse trabecula (Figs 218a, 224a); mandibles short, their apices not or barely extending to each other when closed (Figs 218a, 224a); gena in lateral view short; clava 2-segmented, the apical segment with a nipple-like projection in *O.* (*Omyomymar*) (Fig. 219) or with a slight apical constriction in *O.* (*Caenomymar*) (Fig. 226); ovipositor usually distinctly exserted beyond apex of gaster (Figs 223, 229), basally forming a huge loop inside gaster of *O.* (*Caenomymar*) (Fig. 230). Male flagellum 11-segmented (Fig. 227); mandibles large, crossing when closed, with 2 distinct ventral teeth of equal size and a wide, apically serrate dorsal tooth (Fig. 225); scape with inner surface with a few to many spine-like projections in *O*. (*Omyomymar*) or transversely striate in *O*. (*Caenomymar*) (Fig. 225).

Remarks. *Omyomymar* belongs to the *Anagrus* group of genera. The strongly dimorphic head also occurs in *Krokella*; in both genera the mandibles are very different between the sexes. *Caenomymar* is at present a synonym of *Omyomymar* but its species could perhaps best be classified informally in a separate species group from those in *O*. (*Omyomymar*); *O*. (*Caenomymar*) species are larger than those in *O*. (*Omyomymar*) and the clava does not have a distinct apical nipple.

Neotropical hosts. Unknown.

Important reference. Huber *et al.* (2020).

Omyomymar (*Omyomymar*) *clavatum* (Ogloblin, 1935)

Paranaphoidea clavata Ogloblin, 1935b: 152; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 111 (catalogue, Argentina); Loiácono *et al.*, 2005: 14 (type information).
Omyomymar clavata: Yoshimoto, 1990: 48 (list).
Omyomymar clavatum: Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina, Trinidad and Tobago.

Omyomymar (*Omyomymar*) *silvanum* (Ogloblin, 1935)

Paranaphoidea silvana Ogloblin, 1935b: 149; lectotype ♀ (MLPA), designated by Schauff, 1983: 547. **TL**: Argentina, Misiones Loreto. De Santis, 1967: 111 (catalogue, Argentina); Loiácono *et al.*, 2005: 14 (type information).
Patasson silvanus: De Santis, 1979: 371 (catalogue).
Omyomymar silvana: Yoshimoto, 1990: 48 (list).
Anaphes (*Patasson*) *silvanus*: Yoshimoto, 1990: 54 (list).
Omyomymar silvanum: Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina, Brazil, Venezuela.

Omyomymar (*Omyomymar*) *howdeni* (Yoshimoto, 1990)

Caenomymar howdeni Yoshimoto, 1990: 91; holotype ♀ (CNC). **TL**: Panama, Chiriqui, 15 km NW Hato del Volcán, 1200 m. Yoshimoto, 1990: 50 (list); De Santis & Fidalgo, 1994: 123 (catalogue);
Omyomymar howdeni: Aquino *et al.*, 2016: 588 (generic transfer).

Distribution. Panama.

OOCTONUS **Haliday, 1833**
(Figs 231–235)

Ooctonus Haliday, 1833a: 268, 1833b: 343. Type species: *Ooctonus insignis* Haliday, 1833, by subsequent designation by Westwood, 1839: 78. See Huber *et al.* (2020) for the generic synonym and its type species.

Diagnosis. Face without subantennal sulcus ventral to each torulus (Fig. 231a); funicle 8-segmented (Fig. 232); pronotum entire (Fig. 234); fore wing with hypochaeta next to proximal macrochaeta (Fig. 233); propodeum with diamond-like pattern of carinae, the incomplete median carina, costulae and plicae, defining a central pentagonal areole and, sublaterally, several (usually 4) submedian areoles (Fig. 234); petiole distinctly longer than wide (Fig. 235a,b).

Remarks. *Ooctonus* belongs to the *Ooctonus* group of genera. In the Neotropical region it is the only genus in the group. Although *Ooctonus* was traditionally placed near the *Gonatocerus* group of genera it superficially resembles several genera in the *Polynema* group except for the obvious difference in number of funicle and tarsal segments (Huber 2013b). The position of the hypochaeta—close to the proximal macrochaeta—is more similar to members of the *Polynema* group than to members of the *Gonatocerus* group. The combination of 8-segmented funicle in females and presence of plicae and costulae on the propodeum are unique.

Neotropical hosts. Unknown.

Important reference. Huber (2013b).

Ooctonus costaricensis Huber, 2013

Ooctonus costaricensis Huber, 2013b: 3; holotype ♀ (UCRC). **TL**: Costa Rica, San José, Zurquí de Moravia, 10.05°N 84.02°W, 1600 m. Huber, 2013b: 2 (key).

Distribution. Costa Rica.

PALAEONEURA Waterhouse, 1915
(Figs 236–246)

Palaeoneura Waterhouse, 1915: 537. Type species: *Palaeoneura interrupta* Waterhouse, 1919, by subsequent designation by Gahan & Fagan, 1923: 103. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Face without subantennal sulcus ventral to each torulus and without a small pit medially next to each torulus (Fig. 240); toruli separated by at least their own height from transverse trabecula; propleura narrowly abutting each other anterior to prosternum (Figs 241, 243); fore wing slight to distinct narrowing beyond apex of venation, the posterior margin of wing thus slightly to distinctly lobed (Fig. 239); petiole attached posteriorly to gs_1 (Fig. 237).

Remarks. *Palaeoneura* belongs to the *Polynema* group of genera. *Palaeoneura* is identified first by elimination from most of the other genera in the group, then by features used to distinguish it from specimens of two of the three subgenera of *Polynema* that occur in the Neotropical region. *Palaeoneura* is distinguished from *P*. (*Polynema*) by the propleura abutting medially, sometimes only narrowly, anterior to prosternum whereas in *P*. (*Polynema*) the propleura are separate from each other anteriorly. *Palaeoneura* is distinguished from *Polynema* (*Doriclytus* Foerster) in not having pits between the toruli whereas *P.* (*Doriclytus*) has pits between the toruli. *Palaeoneura* is distinguished from *Polynema* (*Dorypolynema* Hayat & Anis) by the ovipositor not exserted beyond the apex of the gaster.

Neotropical hosts. Hemiptera: Cicadellidae.

Important references. Triapitsyn & Aquino (2010), Triapitsyn (2018).

Palaeoneura saga (Girault, 1911)

Anagrus saga Girault, 1911 [96]: 296; holotype ♀ (USNM). **TL**: USA, District of Columbia, Washington.
Polynema saga: Girault, 1929 [428]: 17 (key, generic transfer); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Moya-Raygoza *et al*., 2012: 108 (percent parasitism, Argentina, Mexico); Moya-Raygoza *et al.*, 2014: 310 (hosts, Mexico); Moya-Raygoza *et al*., 2017: 807 (host, Mexico).
Barypolynema saga: Ogloblin, 1946: 285 (generic transfer); Yoshimoto, 1990: 83 (generic transfer, list).
Barypolynema (*Tarphypolynema*) *saga*: Ogloblin, 1960b: 79 (subgeneric placement); De Santis, 1967: 112 (catalogue).
Polynema (*Polynema*) *saga*: Triapitsyn & Fidalgo, 2006: 60 (subgeneric transfer).
Palaeoneura saga: Triapitsyn, 2018b: 37 (key), 41 (generic transfer).

Neotropical host. Cicadellidae: *Opsius stactogalus* Fieber.

Distribution. Argentina, Bermuda.

PARANAPHOIDEA (*IDIOCENTRUS* Gahan, 1927)

(Figs 247–251)

Paranaphoidea Girault, 1913 [165]: 115. Type species: *Paranaphoidea egregia* Girault, 1913, by original designation.
Idiocentrus Gahan, 1927: 36. Type species: *Idiocentrus mirus* Gahan, 1927, by original designation. Synonymy by Lin *et al*., 2007: 43.

Diagnosis. Face with subantennal sulcus ventral to each torulus; toruli about their own height from transverse trabecula; occiput with curved transoccipital sulcus extending from eye to eye dorsal to foramen (Figs 247, 251); mandibles with 3 blunt teeth, crossing when closed; funicle 6-segmented, clava 3-segmented; gaster with ovipositor extending anteriorly in narrow gastral sac ventral to mesosoma as far as or slightly anterior to head (Figs 247, 251).

Remarks. *Paranaphoidea* is represented only by *P.* (*Idiocentrus*) in the Neotropical region; no species of *P.* (*Paranaphoidea*), which have a 2-segmented clava, have yet been recorded from the region. The genus belongs to the group of genera with 2- or 3-segmented clava in females. *Paranaphoidea* is the only genus in the group with the ovipositor extending anteriorly ventral to the mesosoma. The slide-mounted specimen photographed is from New Zealand because only a single point-mounted specimen representing the genus in the Neotropical region (from Uruguay) is in the CNC.

Neotropical hosts. Unknown.

Distribution. No species is described from the Neotropical region. Only two specimens are known, one (USNM) from Chile (Yoshimoto 1990, as *Idiocentrus*) and one from Uruguay (CNC).

Important reference. Huber & Triapitsyn (2017).

PLATYFRONS Yoshimoto, 1990

(Figs 252–256)

Platyfrons Yoshimoto, 1990: 79. Type species: *Platyfrons helavai* Yoshimoto, 1990, by original designation.

Diagnosis. Face without subantennal sulcus ventral to each torulus and with a pit medially next to each torulus (Fig. 252a); toruli separated by about 2× their own height from transverse trabecula (Fig. 252a); propleura narrowly abutting each other anterior to prosternum; scutellum anteriorly with a deep sulcus at level of each notaulus extending from transscutal articulation posteriorly for a short distance (Fig. 255); fore wing usually with a wide dark band beyond venation (Fig. 254); propodeum with widely spaced and diverging submedian carina dorsoanteriorly, separated posteriorly by a transverse carina from the more closely spaced and parallel ventroposterior submedian carinae (Fig. 255); the two sets of carinae form a distinct angle at their junction (best seen in lateral view), petiole apparently attached posteriorly to gt_1 (Fig. 256).

Remarks. *Platyfrons* belongs to the *Polynema* group of genera. The only similar genus in configuration of the propodeal carina is *Polynemula*, which differs in the ovipositor projecting distinctly anteriorly ventral to the mesosoma. The short, deep sulcus on the scutellum posterior to each notaulus does not occur in *Polynemula*, which suggests that *Platyfrons* is generically distinct from *Polynemula*.

Neotropical hosts. Unknown.

Important reference. Yoshimoto (1990).

Platyfrons helavai Yoshimoto, 1990

Platyfrons helavai Yoshimoto, 1990: 108; holotype ♀ (CNC). **TL**: Colombia, Caldas, 5°15'N 76°25'W, 3300–3500 m. Yoshimoto, 1990: 80 (list); De Santis & Fidalgo, 1994: 126 (catalogue, Ecuador).

Distribution. Colombia, Ecuador.

PLATYPOLYNEMA Ogloblin, 1960
(Figs 257–262)

Platypolynema Ogloblin, 1960a: 7. Type species: *Platypolynema cautum* Ogloblin, 1960, by original designation. Ogloblin, 1967: 192 (further diagnosis); Triapitsyn & Berezovskiy, 2002: 618 (diagnosis), 619 (key).

Diagnosis. Face with subantennal sulcus ventral to each torulus and without pit medially to each torulus (Fig. 259); toruli separated by at least their own height from transverse trabecula (Fig. 259); propleura abutting each other anterior to prosternum; mesosoma depressed (Fig. 258), 1.67× as wide as high (as measured at level of hind wing insertion on one card-mounted specimen); fore wing with distinct narrowing just distal to venation (Fig. 260); venation with parastigma long, so proximal macrochaeta well separated from distal macrochaeta; petiole in dorsal view quadrate (Fig. 262), attached probably to gt_1 (attachment point not clear); ovipositor strongly produced anteriorly ventral to mesosoma and slightly but distinctly exserted beyond apex of gaster (Fig. 258).

Remarks. *Platypolynema* belongs to the *Polynema* group of genera. *Platypolynema* appears to be most similar to *Kalopolynema* in having distinct subantennal sulci (Triapitsyn & Berezovskiy 2002). It is also similar to *Polynemula* in having the ovipositor extending anteriorly ventral to the mesosoma. That may just be a convergence that occurs in unrelated genera with very long ovipositors that often parasitize eggs laid deep in plant tissue, such as in the aerenchyma of water plants. The apparent absence of propodeal carinae (Fig. 262) distinguish *Platypolynema* from *Polynemula*. The absence of pits between the toruli also distinguishes *Platypolynema* from *Polynemula*.

Neotropical hosts. Unknown. The only known *Platypolynema* species appears to be associated with plants in or near water.

Important references. Ogloblin (1960), Triapitsyn & Berezovskiy (2002).

Platypolynema cautum Ogloblin, 1960

Platypolynema cautum Ogloblin, 1960a: 8; holotype ♂ (MLPA). **TL**: Argentina, Misiones, San Ignacio, Yabebirí ranch. De Santis, 1967: 113 (catalogue); Ogloblin, 1967: 192 (female description); Yoshimoto, 1990: 73 (list); Triapitsyn & Berezovskiy, 2002: 619 (notes on holotype, distribution); Loiácono *et al.*, 2005: 17 (type incorrectly presumed lost); Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

PLATYSTETHYNIUM Ogloblin, 1946
(Figs 263–265)

Platystethynium Ogloblin, 1946: 290. Type species: *Platystethynium onomarchicidum* Ogloblin, 1946, by original designation.
Platypatasson Ogloblin, 1946: 293. Type species: *Platystethynium fransseni* Ogloblin, 1946, by original designation. Synonymy by Donev & Huber, 2002: 118.
Parastethynium Ogloblin, 1964b: 106. *Lapsus* for *Platystethynium*.
Pseudocleruchus Donev & Huber, 2002: 118. Type species: *Pseudocleruchus triclavatus* Donev & Huber, 2002, by original designation. Synonymy by Ortis *et al.*, 2020: 10.

Diagnosis. Body dorsoventrally flattened; face strongly produced anteriorly, in lateral view head almost triangular (Fig. 265); clava 2-segmented; funicle segments about as long as wide (Fig.265); fore wing narrow, parallel sided (Fig. 263); ovipositor short, originating in about apical half of gaster (Fig. 265).

Remarks. *Platystethynium* belongs to the *Cleruchus* group of genera. Huber *et al.* (2020) had placed *Platystethynium* in the *Anagrus* group because of the longitudinally divided frenum but on balance of features it seems better placed in the *Cleruchus* group. Both groups of genera are likely closely related. In *Platystethynium* (*Platystethynium*) the clava is 3-segmented but no species are yet known for certain from the Neotropical region, whereas in *Platystethynium* (*Platypatasson*) the clava is 2-segmented (Fig. 265). *Platystethynium* differs from *Cleruchus* and *Cleruchoides* in having the scutellum longitudinally divided medially and the propodeum with Y-like submedian sulci (Fig. 264).

Neotropical hosts. Unknown.

Important reference. Huber *et al*. (2020).

Platystethynium (*Platypatasson*) *terebrator* (Ogloblin, 1959)

Platypatasson terebrator Ogloblin, 1959c: 71; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Bella Vista. Ogloblin, 1959c: 75 (key); De Santis, 1967: 100 (catalogue, Argentina); Loiácono *et al.*, 2005: 15 (type information).
Cleruchus terebrator: Yoshimoto, 1990: 56 (list); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina).
Platystethynium terebrator: Triapitsyn, 2014b: 5 (generic transfer).
Platystethynium (*Platypatasson*) *terebrator*: Huber *et al.*, 2022: 20 (diagnosis).

Distribution. Argentina.

Platystethynium (*Platypatasson*) *vagatus* (Ogloblin, 1959)

Platypatasson vagatus Ogloblin, 1959c: 74; holotype ♀ (MLPA). **TL**: Argentina, Misiones, San Ignacio, Yabebirí [ranch]. Ogloblin, 1959c: 75 (key); De Santis, 1967: 100 (catalogue, Argentina); Loiácono *et al.*, 2005: 15 (type information).
Cleruchus vagatus: Yoshimoto, 1990: 56 (list); Luft Albarracin *et al.*, 2009: 7 (list, distribution in Argentina).

Distribution. Argentina.

POLYNEMA Haliday, 1833
(Figs 266–270)

Polynema Haliday, 1833a: 268; 1833b: 347. Type species: *Ichneumon flavipes* Walker, 1846, by subsequent designation by Huber & Bouček, 2001: 281. See Huber *et al.* (2020) for generic synonyms and their type species.
Polynema (*Polynema*) Haliday, 1833. First use of nominate subgenus by Triapitsyn & Fidalgo, 2006: 57 (key).

Diagnosis. Face without subantennal sulcus ventral to each torulus, with or without pit medial to torulus (depending on subgenus) and toruli separated by up to 2× their own height from transverse trabecula (Fig. 266a); vertex usually without pits outside ocelli; fore wing without lobe posteriorly (Fig. 268) so wing not or barely narrowing beyond venation, its posterior margin straight or almost so; propodeum with median carina of varying length or without one; petiole attached posteriorly to gt_1.

Remarks. *Polynema* belongs to the *Polynema* group of genera. *Polynema* is identified by elimination, i.e., in not having the features of the other genera in the group. The only genera it is easily confused with are *Agalmopolynema*, *Palaeoneura* (itself not well defined) and *Quasipalaeoneura*. All three subgenera of *Polynema* occur in the region: *Polynema* (*Doriclytus*), *Polynema* (*Dorypolynema*), and *P*. (*Polynema*). Triapitsyn & Fidalgo (2006) keyed and discussed the three subgenera they accepted at the time and indicated that the distinction between *Polynema* (*Dorypolynema*) and *P*. (*Polynema*) was not as clear as between *P*. (*Doriclytus*) and *P*. (*Polynema*).

Neotropical hosts. Hemiptera: Cicadellidae.

Important references. Fidalgo (1989), Triapitsyn & Fidalgo (2006), Triapitsyn & Aquino (2010).

Polynema (*Doriclytus*) *carbonelli* Ogloblin, 1963

Barypolynema (*Barypolynema*) *carbonelli* Ogloblin, 1963b: 5; holotype ♀ (MLPA). **TL**: Uruguay, Soriano, Arroya Cololó. De Santis, 1979: 375 (catalogue, Uruguay).
Polynema carbonelli: Yoshimoto, 1990: 83 (generic transfer, list).
Barypolynema carbonelli: Loiácono *et al.*, 2005: 8 (type information).

Neotropical hosts. Unknown.

Distribution. Uruguay.

Polynema (*Polynema*) *fuscipes* Haliday, 1833

Polynema fuscipes Haliday, 1833b: 348; lectotype ♀ (NMID), designated by Hincks, 1950 : 197. **TL**: unknown, probably Ireland or England. Ogloblin, 1952: 135 (Juan Fernandez Islands); De Santis, 1979: 376 (catalogue, Chile).

Neotropical hosts. Unknown.

Distribution. Chile (Juan Fernandez Islands, Masafuera Island).

Polynema (*Polynema*) *haitianum* Dozier, 1932

Polynema haitiana Dozier, 1932: 85; holotype ♀ (USNM). **TL**: Haiti, Fond-des-Negres. De Santis, 1979: 376 (catalogue); Yoshimoto, 1990: 83 (list).
Polynema haitianum: Luft Albarracin & Aquino, 2014: 188 (description, host, Argentina, Bolivia, Brazil, Chile, Peru).

Neotropical host. Cicadellidae: *Xerophloea viridis* (Fabricius).

Distribution. Argentina, Bolivia, Brazil, Chile, Haiti, Peru.

Polynema (*Doriclytus*) *howdeni* (Yoshimoto, 1990)

Restisoma howdeni Yoshimoto, 1990: 102; holotype ♀ (CNC). **TL**: Panama, Chiriquí, 15 km NW Hato del Volcán, 1200 m. Yoshimoto, 1990: 70 (list); De Santis & Fidalgo, 1994: 126 (catalogue, Costa Rica).
Polynema (*Doriclytus*) *howdeni*: Triapitsyn & Fidalgo, 1994: 59 (generic transfer).

Neotropical hosts. Unknown.

Distribution. Costa Rica, Panama.

Polynema (*Doriclytus*) *luteolum* (Ogloblin, 1960)

Barypolynema (*Barypolynema*) *luteolum* Ogloblin, 1960b: 73; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto.
Polynema luteolum: Yoshimoto, 1990: 83 (generic transfer, list); Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Barypolynema luteolum: Loiácono *et al.*, 2005: 8 (type information).

Neotropical hosts. Unknown.

Distribution. Argentina.

Polynema (*Dorypolynema*) *magniceps* (Ashmead, 1900)

Polynema magniceps: Ashmead, 1900: 265; holotype ♂ (NHMUK). **TL**: St. Vincent Island. Ashmead, 1900: 349 (list); De Santis, 1979: 376 (catalogue); Yoshimoto, 1990: 83 (generic transfer, list); Aquino *et al.*, 2016: 587 (subgeneric placement, description, Argentina, Brazil, Chile, Costa Rica, Ecuador, Grenada, Peru).
Polynema (*Dorypolynema*) *gaucho* Triapitsyn & Aquino, 2010: 63; holotype ♀ (MLPA). **TL**: Argentina, Formosa, 25 km N. Formosa, Estancia Guaycolec, 185 m. Synonymy by Aquino *et al.*, 2016: 587; Triapitsyn & Aquino, 2010: 67 (female key, distribution), 68 (male key); Luft Albarracin *et al.*, 2014: 137 (list).
Polynema grenadensis: Ashmead, 1900: 266; holotype ♀ (NHMUK). **TL**: Grenada, Mirabeau Estate (windward side). Synonymy by Aquino *et al.*, 2016: 587. Ashmead, 1900: 349 (list). De Santis, 1979: 376 (catalogue); Yoshimoto, 1990: 83 (list).
Polynema (*Dorypolynema*) *magniceps*: Aquino *et al.*, 2016: 587 (distribution, redescription).

Neotropical hosts. Unknown.

Distribution. Argentina, Brazil, Chile, Costa Rica, Ecuador, Grenada, Peru, St. Vincent and The Grenadines.

Polynema (*Doriclytus*) *nupogodi* Triapitsyn & Aquino, 2008

Polynema (*Doriclytus*) *nupogodi* Triapitsyn & Aquino, 2008: 62; holotype ♀ (MLPA). **TL**: Argentina, La Rioja, Santa [Vera] Cruz, 1700 m. Triapitsyn & Aquino, 2008: 60 (key); Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Polynema (*Doriclytus*) *pallidiventre* (Ogloblin, 1960)

Barypolynema (*Notopolynema*) *pallidiventre* Ogloblin, 1960b: 77; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 112 (catalogue).
Polynema pallidiventris: Yoshimoto, 1990: 83 (generic transfer, list); Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Barypolynema pallidiventre: Loiácono *et al.*, 2005: 8 (type information).
Polynema (*Doriclytus*) *pallidiventre*: Triapitsyn & Fidalgo, 2006: 59 (Brazil); Triapitsyn & Aquino, 2008: 60 (key, description, Brazil).

Neotropical hosts. Unknown.

Distribution. Argentina, Brazil.

Polynema (*Polynema*) *phaseoli* Dozier, 1932

Polynema phaseoli Dozier, 1932: 84; holotype ♀ (USNM). **TL**: Haiti, Damien. De Santis, 1979: 376 (catalogue); Yoshimoto, 1990: 83 (generic transfer, list).

Neotropical hosts. Unknown.

Distribution. Haiti.

Polynema (*Doriclytus*) *platense* (Brèthes, 1913)

Stichothrix platensis Brèthes, 1913: 100; holotype ♀ (MACN). **TL**: Argentina, Buenos Aires, General Urquiza. Annecke & Doutt, 1961: 16 (generic placement uncertain).
Barypolynema platensis: Ogloblin, 1964a: 39 (generic transfer).
Barypolynema (*Barypolnema*) [*sic*] *pla*tensis: De Santis, 1967: 112 (subgeneric placement, catalogue).
Polynema platense: Luft Albarracin *et al.*, 2009: 11 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Polynema (*Doriclytus*) *polychromum* (Ogloblin, 1960)

Barypolynema (*Barypolnema*) *polychromum*: Ogloblin, 1960b: 71; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. De Santis, 1967: 112 (catalogue).
Polynema polychromum: Yoshimoto, 1990: 83 (generic transfer, list); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Barypolynema polychromum: Loiácono *et al.*, 2005: 8 (type information).
Polynema (*Doriclytus*) *polychromum*: Triapitsyn & Fidalgo, 2006: 59 (subgenus placement); Triapitsyn & Aquino, 2008: 60 (species group).

Neotropical hosts. Unknown.

Distribution. Argentina.

***Polynema* (*Doriclytus*) *reticulatum* (Ogloblin, 1946)**

Barypolynema reticulatum Ogloblin, 1946: 282; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Loiácono *et al.*, 2005: 8 (type information).
Barypolynema (*Barypolynema*) *reticulatum*: De Santis, 1967: 112 (catalogue).
Polynema reticulatum: Yoshimoto, 1990: 83 (generic transfer, list); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).
Polynema (*Doriclytus*) *reticulatum*: Triapitsyn & Aquino, 2008: 60 (subgenus placement).

Neotropical hosts. Unknown.
Distribution. Argentina.

***Polynema* (*Doriclytus*) *uruguayensis* Özdikmen, 2011**

Barypolynema orientalis Ogloblin, 1963b: 8; holotype ♀ (MLPA). **TL**: Uruguay, Soriano, Arroyo Cololó. De Santis, 1979: 375 (catalogue, Uruguay).
Polynema orientalis: Yoshimoto, 1990: 83 (generic transfer, list).
Barypolynema orientalis: Loiácono *et al.*, 2005: 8 (type information).
Polynema uruguayensis Özdikmen, 2011: 841. Replacement name for *P. orientalis* (Ogloblin) not *P. orientalis* Girault, 1917.

Neotropical hosts. Unknown.
Distribution. Uruguay.

***Polynema* (*Doriclytus*) *venezuelaense* (Yoshimoto, 1990)**

Formicomymar venezuelaensis Yoshimoto, 1990: 110; holotype ♀ (CNC). **TL**: Venezuela, Merida, Laguna Negra, 4000 m. Yoshimoto, 1990: 81 (list).
Formicomymar venezuelensis [*sic*]: De Santis & Fidalgo, 1994: 124 (catalogue).
Polynema (*Doriclytus*) *venezuelaense*: Triapitsyn & Fidalgo, 2006: 59 (subgenus placement).

Neotropical hosts. Unknown.
Distribution. Argentina.

***Polynema* spp.**

Luft Albarracin *et al.*, 2017: 675 (host: *Dalbulus maidis* (DeLong & Wolcott) [Cicadellidae]). *Polynema* (*Doriclytus*) sp. A.
Luft Albarracin *et al.*, 2017: 675 (host: *Dalbulus maidis* (DeLong & Wolcott) [Cicadellidae]). *Polynema* (*Doriclytus*) sp. B.
Moreno *et al.*, 1994: 13. (host: larva of *Hydrellia wirthi* Korytkowski [Ephydridae]). This host record needs to be confirmed as Mymaridae are almost always egg parasitoids.
Virla *et al*., 2013: 4 (host: *Dalbulus maidis* DeLong [Cicadellidae]).

***POLYNEMULA* Ogloblin, 1967**
(Figs 271–276)

Polynemula Ogloblin, 1967: 190. Type species: *Polynemula rufosignata* Ogloblin, 1967, by original designation.

Diagnosis. Face without subantennal sulcus ventral to each torulus, with pit medially next to medial margin of each torulus and toruli separated by about 2× their own height from transverse trabecula (Fig. 272); propleura abutting each other anterior to prosternum; propodeum with 2 parallel submedian carinae diverging anteriorly (best seen in lateral view) and joined by a weaker transverse carina near anterior margin of propodeum (Fig. 276); petiole apparently attached to gt_1 (Fig. 275); ovipositor enclosed in gastral sac and strongly extending anteriorly to level of midpoint of mesosoma and also projecting posteriorly distinctly beyond apex of gaster (Fig. 275).

Remarks. *Polynemula* belongs to the *Polynema* group of genera. It is most similar to *Kalopolynema* in having subantennal sulci (Triapitsyn & Berezovskiy 2002) and to *Platypolynema* in having the ovipositor extending anteriorly ventral to the mesosoma. The combination of absent subantennal sulci and anteriorly extending ovipositor distinguishes *Polynemula* from *Kalopolynema* and *Platypolynema*. It also shares with *Platyfrons* a similar set of submedian carinae joined by a transverse carina.

Neotropical hosts. Unknown.

Important reference. Triapitsyn & Aquino (2008).

Polynemula rufosignata Ogloblin, 1967

Polynemula rufosignata Ogloblin, 1967: 190; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, José C. Paz. De Santis, 1979: 376 (catalogue); Yoshimoto, 1990: 68 (list); Loiácono *et al.*, 2005: 17 (type data, incorrectly presumed lost); Triapitsyn & Aquino, 2008: 58 (description); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Distribution. Argentina.

PORCEPICUS Huber, 2022
(Figs 277–282)

Porcepicus Huber in Huber & Read, 2022: 9. Type species: *Porcepicus herison* Huber, 2022, by original designation.

Diagnosis. Funicle 6-segmented, without a ring segment (Figs 278, 282); body somewhat dorsoventrally flattened; metasoma in dorsal view circular in outline and gt_1 planoconvex (Figs 281, 282); head, mesosoma, metasoma, legs and antennal segments with long, strong setae (Figs, 277a,b, 282).

Remarks. *Porcepicus* belongs to the *Camptoptera* group of genera. The occiput with a fine median vertical coronal sulcus and widely V-shaped sulcus dorsal to the foramen (Fig. 277b) place it clearly in the group. The long, thick setae laterally on the body and on the appendages are unique.

Neotropical hosts. Unknown.

Important reference. Huber & Read (2022).

Porcepicus herison Huber, 2022

Porcepicus herison Huber, 2022: 10; holotype ♀ (USNM). **TL**: Peru, Loreto, Teniente Lopez.

Distribution. Peru.

PTILOMYMAR Annecke & Doutt, 1961
(Figs 283–287)

Ptilomymar Annecke & Doutt, 1961: 24. Type species: *Ptilomymar rete* Annecke & Doutt, 1961, by original designation.

Diagnosis. Propodeum and gt_1 each with large vertical, translucent, reticulate lamina (Figs 286, 287a); propodeal seta large and branched with its base anterior to level of spiracle (Fig. 286).

Remarks. *Ptilomymar* belongs to the *Camptoptera* group of genera. In the Neotropical region, *Ptilomymar* is unique in having 4-segmented tarsi. Tarsomere 4 is about 2× as long as tarsomere 3, indicating that tarsomere 4 consists of a fusion of tarsomeres 4 and 5. The scutellum with oval, obliquely-oriented campaniform sensilla is also unique. The peculiar translucent structures ("fins") described above occur elsewhere only in *Stephanocampta* and some extralimital *Camptoptera* but in a different orientation, and the propodeal spiracle in those two genera is not branched. Specimens are almost always collected near water. We conjecture that their hosts are aquatic and adult females use their “fins” and branched propodeal spiracle to trap an air bubble before crawling down vegetation, thus giving them a source of air as they search underwater for host eggs. The absence of hind wing membrane at its junction with the venation apex is perhaps unique to the particular (unnamed) species illustrated; in other species there may be only a slight narrowing. Possibly, this narrowing allows for hind wing folding that may make it easier for the female to enter water.

Neotropical hosts. Unknown.

Distribution. No named species in the Neotropical region south of Mexico. Unidentified specimens examined (CNC, UCRC) are from at least 10 countries in Central and South America.

Important reference. Huber *et al.* (2020).

QUASIPALAEONEURA **Triapitsyn & Huber, gen. n.**

(Figs 288–298)

Type species: *Polynema mymaripennis* Dozier, 1933.

Diagnosis. While not a single morphological feature clearly defines *Quasipalaeoneura*, the combination of features is unique among the *Polynema* group of genera worldwide: face without pit next to each torulus (Fig. 290); propleura abutting anterior to prosternum (Fig. 291); propodeum smooth, without carinae (Fig. 292); fore wing peculiar in shape, at least wider at apex of venation than just beyond venation then widening distally towards wing apex (Figs 288, 293, 295, 297); marginal + stigmal vein elongate; and petiole attached to gs_1 (Fig. 294).

Description. FEMALE. Body length 600–1850 µm (dry- and slide-mounted specimens). Body and appendages yellow to light or dark brown. Face without subantennal sulcus ventral to each torulus and without a pit next to each torulus (Fig. 290). Mandible with 3 teeth. Ocelli each sometimes with small, shallow adjacent depression in some undescribed species. Antenna (Fig. 289) with scape usually smooth on both surfaces but with cross-ridges on the inner surface in at least one undescribed species; funicle 6-segmented, with all segments longer than wide and without mps (Fig. 289); clava entire, with 5, 6 or 7 mps. Mesosoma (Fig. 292) smooth or at most with a faint sculpture on mesoscutum; propleura abutting each other anteriorly along midline, the prosternum thus closed (Fig. 291); pronotum either entire or divided mediolongitudinally; mesoscutum with notauli wide (Fig. 292); axilla poorly differentiated and often with a long, blunt seta; scutellum with campaniform sensilla close to each other; frenum short, separated from scutellum by a row of frenal foveae; propodeum smooth, without carinae. Fore wing of peculiar shape, at least slightly narrower just beyond venation than at apex of venation before widening distally (Figs 293, 295, 297); marginal + stigmal vein with 2 short macrochaetae and 1 or 2 short setae; disc densely setose except behind and often just beyond apex of venation, with or without slightly infuscated areas or distinct dark bands, and usually without modified setae (but with modified setae on dark band(s) in a few undescribed species); fringe setae usually much longer than maximum fore wing width and usually fine, but slightly thickened on anterior margin in a few undescribed species. Hind wing (Figs 293, 297) narrow and much shorter than fore wing. Tarsi 4-segmented. Metasoma (Fig. 294) with petiole attached to gs_1, much longer than wide; ovipositor not projecting or slightly to distinctly projecting beyond apex of gaster (Figs 288, 294).

MALE. Body length 630–1320 µm (dry- and slide-mounted specimens). Similar to female except for regular sexually dimorphic features of antenna and genitalia and the following: antenna (Fig. 303) filiform, with flagellum 11-segmented; all flagellar segments much longer than wide and with several mps (Fig. 298). Fore wing (Fig. 295) often a little wider than in conspecific female. Genitalia (Fig. 296) with digiti straight and without hooks.

Etymology. A combination of the Latin “*quasi*” (resembling) and the generic name *Palaeoneura*, reflecting its superficial similarity to *Palaeoneura*. Gender: feminine.

Remarks *Quasipalaeoneura* is a New World genus superficially similar to *Palaeoneura*, which is native to the Old World and represented in the Western Hemisphere only by two self-introduced species, *P. markhoddlei* Triapitsyn (in California, USA) and *P. saga*. Triapitsyn & Aquino (2010) transferred the type species of *Quasipalaeoneura*, *Polynema mymaripennis*, to *Palaeoneura* based on the characteristically shaped fore wing and the prosternum “closed” by the propleura abutting anterior to it. In *Polynema* the prosternum is “open” because the propleura do not abut anterior to the prosternum. Triapitsyn & Aquino (2010) did not mention the petiole attachment to the gaster in either *Palaeoneura mymaripennis* or *P. durwest* Triapitsyn, the second described species included below in *Quasipalaeoneura*. In both these species, the petiole is attached to gs_1 whereas in all true *Palaeoneura* species it is attached to gt_1. Because the prosternum is "closed" and the petiole is attached to gs_1 in both *P. mymaripennis* and *P. durwest* as well as all the recognized undescribed species of *Quasipalaeoneura* in the Neotropical region, their placement in either *Palaeoneura* or *Polynema* unjustifiable; therefore they are placed in a new genus, *Quasipalaeoneura.*

Quasipalaeoneura is likely related to *Agalmopolynema* and *Stephanodes* based on the petiolar attachment, prothoracic structure and perhaps the presence of shallow depressions next to the ocelli in some undescribed species. *Quasipalaeoneura* differs from both these genera by the peculiar shape of the fore wing. In *Quasipalaeoneura* and *Agalmopolynema* the mesosoma in lateral view is more or less flat whereas in *Stephanodes* it is distinctly convex, suggesting perhaps that *Agalmopolynema* is the most closely related genus.

Distribution. New World (Nearctic and Neotropical regions). Both described species listed below occur in both Nearctic (USA) and Neotropical Regions (Triapitsyn & Aquino 2010), whereas all the undescribed species (at least 12) are from the Neotropics (specimens from the Dominical Republic, Central and South America in CNC, UCRC and other collections).

Neotropical hosts. Unknown.

***Quasipalaeoneura durwest* (Triaitsyn, 2010), comb. n.**

Palaeoneura durwest Triapitsyn & Aquino, 2010: 73; holotype ♀ (UCRC). **TL**: Guatemala, Sacatepéquez, Sumpango, Durwest farm, 5985 feet. Triapitsyn & Aquino, 2010: 76 (key); Triaitsyn, 3018b: 37 (key).

Distribution. Guatemala.

***Quasipalaeoneura mymaripennis* (Dozier, 1933), comb. n.**

Polynema mymaripennis Dozier, 1933: 96; holotype ♀ (USNM). **TL**: USA, Delaware, Newark.
Palaeoneura mymaripennis: Triapitsyn & Aquino, 2010: 69 (generic transfer, description, Guatemala, Honduras, Panama); Triapitsyn & Aquino, 2010: 76 (key); Triapitsyn, 2018b: 37 (key).

Distribution. Guatemala, Honduras, Panama.

***SCHIZOPHRAGMA* Ogloblin, 1949**
(Figs 299–303)

Schizophragma Ogloblin, 1949: 345. Type species: *Schizophragma basalis* Ogloblin, 1949, by original designation.
Schizophragrama [*sic*] Yoshimoto, 1990: 11 (*lapsus*).
†*Palaeopatasson* Witsack, 1986: 266. Type species: *Palaeopatasson grollei* Witsack, by monotypy. **Syn. n.**

Diagnosis. Face with subantennal sulcus ventral to each torulus (Fig. 299a); mandible with 4 or sometimes 5 teeth; antenna with inner surface of scape strongly ridged and clava 2-segmented (Fig. 300); frenum longitudinally divided, with each paramedial plate longer than wide (Fig. 302); second phragma with apex indented, often deeply notched; ovipositor not or barely exserted beyond apex of gaster (Fig. 303).

Remarks. *Schizophragma* belongs to the *Anagrus* group of genera. In the Neotropical region it is most similar to *Omyomymar* based on the 2-segmented clava. The Oligocene fossil genus *Palaeopatasson* from Dominican amber is placed here in synonymy under *Schizophragma* and its type (and only) species, *P. grollei* Witsack (holotype in ZMHB), is transferred to *Schizophragma* as *Schizophragma* †*grollei* (Witsack), **comb. n.** The longitudinally divided frenum "postscutellum: mit Mittelnaht", 2-segmented clava, and shape and setation of the fore wing support the synonymy proposed above.

Neotropical hosts. Hemiptera: Membracidae.

Important references. Huber (1987), Huber *et al.* (2020).

Schizophragma basalis Ogloblin, 1949

Schizophragma basalis Ogloblin, 1949: 347; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Costa Lima, 1962: 197 (host); De Santis & Esquivel, 1967: 99 (list, host); De Santis, 1967: 110 (catalogue, Argentina); Costa Lima, 1968: 100 (catalogue, hosts, Brazil); De Santis, 1980: 149 (catalogue); Huber, 1987: 834 (key), 387 (description, distribution); Loiácono *et al.*, 2005: 15 (type information); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Neotropical host. Membracidae: *Acanophora* sp.

Distribution. Argentina, Brazil.

Schizophragma bicolor (Dozier, 1932)

Anaphes bicolor Dozier, 1932: 88; lectotype ♀ (USNM), designated by Huber, 1987: 834. **TL**: Haiti, Damien. Thompson, 1958: 568 (host, Haiti).

Anaphes (*Anaphes*) *bicolor*: De Santis, 1979: 370 (catalogue, Haiti).

Schizophragma bicolor: Huber, 1987: 834 (generic transfer, key); Yoshimoto, 1990: 55 (list); De Santis & Fidalgo, 1994: 126 (catalogue, Costa Rica, Guatemala, Puerto Rico, Trinidad); Triapitsyn, 2021: 96 (key, Bermuda).

Neotropical hosts. Cicadellidae: *Empoasca fabalis* DeLong [needs confirmation]. Membracidae: *Acanophora* sp.

Distribution. Bermuda, Costa Rica, Guatemala, Haiti, Puerto Rico, St. Kitts and Nevis, Trinidad and Tobago.

Schizophragma latipennis (Crawford, 1913)

Anaphoidea latipennis Crawford, 1913: 350; lectotype (USNM), designated by Huber, 1987: 836. **TL**: Trinidad & Tobago, Trinidad, Verdant Vale. Costa Lima, 1942: 60 (illustration), 62 (host, Brazil); King & Saunders, 1984: 124 (host, biological control).

Schizophragma latipennis: Ogloblin, 1949: 350 (generic transfer); Chaverri, 1954: 280 (host, biological control); Costa Lima, 1962: 197 (hosts, Brazil); Costa Lima, 1968: 101, 103 (host, Brazil); King & Saunders, 1984: 124 (host?); Huber, 1987: 834 (key), 836 (description, hosts, distribution); Yoshimoto, 1990: 55 (list); De Santis & Fidalgo, 1994: 126 (catalogue, Panama).

Patasson (*Schizophragma*) *latipennis*: De Santis, 1979: 372 (generic transfer, catalogue, Costa Rica, Trinidad and Tobago).

Neotropical hosts. Membracidae: *Antianthe expansa* (Germar) (= *A. humilis* Fowler), *Campylenchia hastata* (Fabricius), *Horiola arcuata* (Fabricius), *H. picta* Coquebert, *Vanduzea* sp.

Distribution. Brazil, Costa Rica, Panama, Trinidad and Tobago.

Schizophragma parvula Ogloblin, 1949

Schizophragma parvula Ogloblin, 1949: 355; holotype ♀ (MLPA). **TL**: Argentina, Buenos Aires, Tigre. De Santis, 1967: 110 (catalogue, Argentina); Huber, 1987: 834 (key), 839 (description, distribution); Yoshimoto, 1990: 55 (list); Loiácono *et al.*, 2005: 16 (type information); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina), Luft Albarracin *et al.*, 2014: 138 (list).

Schizophragma nana Ogloblin, 1949: 356; holotype ♀ (MLPA). **TL**: Argentina, Loreto, Misiones. Synonymy by Huber, 1987: 839. De Santis, 1967: 110 (catalogue, Argentina); Loiácono *et al.*, 2005: 15 (type information); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Anaphes (*Anaphes*) *nana*: Yoshimoto, 1990: 53 (list).

Neotropical hosts. Unknown.

Distribution. Argentina.

Schizophragma peruana Ogloblin, 1949

Schizophragma peruana Ogloblin, 1949: 353; holotype ♀ (MLPA). **TL**: Peru, Lima, Miraflor. Huber, 1987: 834 (key), 838 (description); Yoshimoto, 1990: 55 (list); Loiácono *et al.*, 2005: 16 (type information).
Patasson (*Schizophragma*) *peruana*: De Santis, 1979: 372 (generic transfer, catalogue, Peru).

Neotropical hosts. Unknown.
Distribution. Peru.

Schizophragma squamosa Ogloblin, 1949

Schizophragma squamosa Ogloblin, 1949: 350; holotype ♀ (MLPA). **TL**: Argentina, Missiones, Loreto. De Santis, 1967: 110 (catalogue, Argentina); Huber, 1987: 834 (key), 838 (description, distribution); Yoshimoto, 1990: 55 (list); Loiácono *et al.*, 2005: 16 (type information); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 138 (list).

Neotropical hosts. Unknown.
Distribution. Argentina.

Schizophragma sp.

Miranda, 2016: 1211 (host: *Ennya chrysura* (Fairmaire) [Membracidae], Costa Rica).

STEPHANOCAMPTA Mathot, 1966
(Figs 304–308)

Stephanocampta Mathot, 1966: 219. Type species: *Stephanocampta yaosekoensis* Mathot, 1966, by original designation. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Fore wing relatively wide, with several rows of microtrichia (Fig. 306); propodeum with translucent reticulate lamina and unbranched propodeal seta lateral to spiracle (Fig. 307); gs_1 with striate-reticulate translucent collar laterally and ventrally, in lateral view concealing the petiole (Fig. 308a).

Remarks. *Stephanocampta* belongs to the *Camptoptera* group of genera. The peculiar translucent structures on the propodeum occur also in *Ptilomymar* and a few undescribed *Camptoptera* but the placement and configuration of these lamina are different.

Neotropical hosts. Unknown.

Important reference. Aquino & Triapitsyn (2014).

Stephanocampta chica Aquino & Triapitsyn, 2014

Stephanocampta chica Aquino & Triapitsyn, 2014: 447; holotype ♀ (MLPA). **TL**: Argentina, Misiones, Loreto. Aquino & Triapitsyn, 2014: 447 (key).

Distribution. Argentina.

Stephanocampta masoni (Yoshimoto, 1990)

Hadromymar masoni Yoshimoto, 1990: 86; holotype ♀ (CNC). **TL**: Costa Rica, Punta Arenas, Monteverde Reserve, 1500 m. Yoshimoto, 1990: 32 (list).

Stephanocampta masoni: Huber & Lin, 1999: 40 (generic transfer); Aquino & Triapitsyn, 2014: 447 (key), 448 (mixed type series, male description).

Distribution. Costa Rica, Panama.

STEPHANODES Enock, 1909

(Figs 309–313)

Stephanodes Enock, 1909: 457. Type species: *Stephanodes elegans* Enock, 1909, by monotypy. See Huber *et al.* (2020) for generic synonyms and their type species.

Diagnosis. Face with subantennal sulcus ventral to each torulus, with pit medial to and slightly above dorsal margin of each torulus and toruli separated by about 2× their own height from transverse trabecula (Fig. 309a); vertex with large depression outside ocellar triangle next to each ocellus (Fig. 309b); scape with inner surface rasp-like or with distinct transverse carinae; mesonotal spiracle much closer to anterior apex of notaulus than to dorsal apex of prepectus (Fig. 312); propleura abutting each other anterior to prosternum; petiole attached posteriorly to gs_1 (Fig. 313a); mesosoma and metasoma smooth and shiny.

Remarks. *Stephanodes* belongs to the *Polynema* group of genera. *Stephanodes* is unique in having the mesonotal spiracle advanced anteriorly, closer to the anterior apex of the notaulus than to the tegula or dorsal apex of the prepectus.

Neotropical hosts. Unknown.

Important references. Huber & Fidalgo (1997), Huber *et al.* (2020).

Stephanodes missionicus (Ogloblin, 1967)

Eustephanodes missionicus Ogloblin, 1967: 194; holotype ♀ (MLPA) **TL**: Argentina, Misiones, Aristóbulo del Valle. De Santis, 1979: 374 (catalogue, Argentina); Loiácono *et al.*, 2005: 11 (type information).

Stephanodes missionicus: Yoshimoto, 1990: 72 (list); Huber & Fidalgo, 1997: 37 (key), 44 (description); Luft Albarracin, 2014: 138 (list, Argentina).

Distribution. Argentina, Paraguay.

Stephanodes polynemoides (Yoshimoto, 1990)

Masonana polynemoides Yoshimoto, 1990: 100; holotype ♀ (CNC). **TL**: Panama, Chiriqui, 2 km W. Cerro Punta. Yoshimoto, 1990: 64 (list); De Santis & Fidalgo, 1994: 126 (catalogue, Ecuador, Venezuela).

Stephanodes polynemoides: Huber & Fidalgo, 1997: 37 (key), 43 (generic transfer, description, Costa Rica, Guatemala).

Distribution. Costa Rica, Ecuador, Guatemala, Panama, Venezuela.

Stephanodes reduvioli Perkins, 1905

Stephanodes reduvioli Perkins, 1905: 196; lectotype ♀ (NHMUK), designated by Huber & Fidalgo, 1997: 42. **TL**: Hawaiian Islands, no locality given. Huber & Fidalgo, 1997: 37 (key), 41 (description, Galapagos Islands, Peru).

Distribution. Ecuador (Galapagos Islands), Peru.

Stephanodes similis (Foerster, 1847)

Polynema similis Foerster, 1847: 218. Lectotype ♀ (NHMW), designated by Soyka, 1956b: 108, examined. **TL**: Germany, Aachen.

Stephanodes similis: Debauche, 1949: 205 (generic transfer implied); Huber & Fidalgo, 1997: 37 (key, description, Argentina); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 138 (list).

Distribution. Argentina.

STETHYNIUM Enock, 1909
(Figs 314–320)

Stethynium Enock, 1909: 452. Type species: *Stethynium triclavatum* Enock, 1909, by monotypy.

Diagnosis. Face with faint subantennal sulcus ventral to each torulus, a faint median sulcus (visible in micrographs only) extending ventrally from transverse trabecula almost to about dorsal margin of a torulus and toruli about 1.4× or more their own height from transverse trabecula (Fig. 314a); mandibles crossing each other when closed, with 4 teeth; clava 3-segmented, with the sutures between them strongly oblique (Fig. 315); frenum medially divided by a longitudinal sulcus and each paramedial plate longer than wide and light coloured (Fig. 317); ovipositor not or only slightly exserted posterior to apex of gaster (Fig. 318a,b). Male flagellum 11-segmented, with apical two segments widely joined (Fig. 319) and genitalia complex and somewhat asymmetrical (Fig. 320b), unique.

Remarks. *Stethynium* belongs to the *Anagrus* group of genera. The combination of 3-segmented clava with oblique sutures between them, longitudinally divided frenum with each paramedial plate longer than wide, ovipositor not exserted either anteriorly ventral to mesosoma or posteriorly beyond apex of gaster distinguishes *Stethynium* from other genera in the group. Only a single species is known (from Bermuda) so perhaps the genus should actually be excluded from the Neotropical region.

Neotropical hosts. Unknown.

Important reference. Yoshimoto (1990).

Stethynium triclavatum Enock, 1909

Stethynium triclavatum Enock, 1909: 452; lectotype ♀ (NHMUK), designated by Huber, 1987: 829. **TL**: England, Somerset, no locality specified. Triapitsyn, 2002b: 9 (Bermuda).

Distribution. Bermuda.

TANYXIPHIUM Huber, 2015
(Figs 321–329)

Tanyxiphium Huber, 2015a: 57. Type species: *Tanyxiphium seychellense* Huber, 2015, by original designation.

Diagnosis. *Tanyxiphium* is distinguished from the other genera of Gonatocerini by the following combination: mandible small, shorter than maxilla, with teeth minute (Fig. 321a); pronotum short, entire or apparently so (Fig. 324); dorsellum rhomboidal; ovipositor extending beyond gaster (Fig. 325a). Male head wider (Fig. 326a,b) and relatively narrower than in female (Fig. 321a,b); mandibles large, crossing when closed, each with 3 normal teeth (Fig. 326a); pronotum longer than in female, with lateral lobes apparently widely separated due to different colour of median area (Fig. 328).

Remarks. *Tanyxiphium* belongs to the *Gonatocerus* group of genera, treated formally as Gonatocerini in Huber (2015a). *Tanyxiphium* is the only genus of Gonatocerini that shows secondary sexual differences in structure of the head and mouthparts. *Tanyxiphium* is most similar to *Gonatocerus* but differs by the mandibles being sexually dimorphic (not so in *Gonatocerus*), the vertex with 4 setae between the lateral ocelli (2 in *Gonatocerus*), and the pronotum entire, though appearing divided, with widely separated lateral lobes (medially divided, with lateral lobes abutting at least ventrally in *Gonatocerus*). It also is similar to *Lymaenon*, which sometimes has the vertex with 4 setae between lateral ocelli, pronotum with widely separated lateral lobes though in *Lymaenon* the pronotum really is divided whereas in *Tanyxiphium* it appears to be entire because its posterior margin does not have any breaks.

Neotropical hosts. Unknown.

Important reference. Huber (2015a).

*Tanyxiphium brevioviposito*r Huber, 2015

*Tanyxiphium brevioviposito*r Huber 2015: 59; holotype ♀ (IAVH). **TL**: Colombia, Vichada, PNN Tuparro, Centro administrativo. Huber, 2015a: 59 (key).

Distribution. Colombia.

Tanyxiphium perforator (Ogloblin, 1953)

Lymaenon perforator Ogloblin, 1953: 4; holotype ♀ (MLPA). **TL**: Argentina, Misiones, San Ignacio district, Rio Yabebirí. Loiácono *et al.*, 2005: 13 (type wrongly listed as lost).

Gonatocerus (*Gonatocerus*) *perforator*: De Santis, 1967: 105 (generic transfer, catalogue, Argentina); Triapitsyn *et al.*, 2010: 14 (key), 34 (tentative subgeneric transfer, description, distribution).

Gonatocerus perforator: Yoshimoto, 1990: 41 (list); Luft Albarracin *et al.*, 2009: 10 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 137 (list).

Tanyxiphium perforator: Huber 2015: 58 (generic transfer, list), 59 (key); Rauber *et al.*, 2016: 131 (abundance in organic tobacco fields, Brazil, distribution), 134 (key).

Distribution. Argentina, Brazil.

TETRAPOLYEMA Ogloblin, 1946

(Figs 330–334)

Tetrapolynema Ogloblin, 1946: 279. Type species: *Tetrapolynema mexicanum*, Ogloblin, 1946, by original designation.

Diagnosis. Face without subantennal sulcus ventral to each torulus, without pits between toruli and toruli in contact with transverse trabecula or almost so (Fig. 330a); vertex with a pit lateral to and depression anterior to median ocellus, and a pit lateral/posterolateral to lateral ocellus (Fig. 330b); mesoscutum with each notaulus as wide as an ocellus (Fig. 333), the widest of any Neotropical genus; propleura abutting each other anterior to prosternum; scutellum medially with a wide shallow longitudinal sulcus (Fig. 333) or without one; petiole joined posteriorly to gs_1.

Remarks. *Tetrapolynema* belongs to the *Polynema* group of genera. *Mymar*, *Neomymar* and *Tetrapolynema* are the only genera of the group that have the toruli in contact with the transverse trabecula. *Tetrapolynema* has the widest notauli among these genera and is most similar to *Neomymar*. Most of the species of both genera are yellow-bodied. *Tetrapolynema* species often have more elongated head that those of *Neomymar*. Both have some fairly thick, apically blunt setae on the head and mesosoma.

Neotropical hosts. Unknown.

Important reference. Fidalgo (1991).

Tetrapolynema ogloblini Fidalgo, 1991

Tetrapolynema ogloblini Fidalgo, 1991: 133; holotype ♂ (MLPA). **TL**: Argentina, Misiones, San Ignacio, Yabebirí ranch. Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina).

Distribution. Argentina.

TINKERBELLA Huber & Noyes, 2013
(Figs 335–339)

Tinkerbella Huber & Noyes, 2013: 19. Type species: *Tinkerbella nana* Huber & Noyes, 2013, by original designation.

Diagnosis. Funicle 5-segmented, clava 1-segmented (Fig. 336); mandible with 4 teeth (Fig. 335a); fore wing with venation 0.7 × wing length (Fig. 337); hind wing without fringe seta along anterior margin (Fig. 337); tarsi 4-segmented.

Remarks. *Tinkerbella* belongs to the *Arescon* group of genera. *Tinkerbella* is distinguished from the other genera of the group by the following combination: funicle 5-segmented and tarsi 4-segmented; the remaining genera either have the tarsi 5-segmented or, in *Kikiki*, funicle 4-segmented and tarsi 3-segmented. *Tinkerbella* is closest to *Arescon* but differs in its minute size, striated inner surface of scape (Fig. 336), different shape of both wings and absence of setae along most of anterior margin of hind wing, and extremely narrow metanotum without differentiated dorsellum (Figs 338, 339a).

Neotropical hosts. Unknown.

Important reference. Huber & Noyes (2013).

Tinkerbella nana Huber & Noyes, 2013

Tinkerbella nana Huber & Noyes, 201: 22; holotype ♀ (INBio). **TL**: Costa Rica, Heredia, La Selva, 10°26'N 84°01'W, 75 m.

Distribution. Costa Rica.

VLADIMIR Triapitsyn, 2013
(Figs 340–344)

Vladimir Triapitsyn, 2013b: 223. Type species: *Vladimir alexandrovich* Triapitsyn, 2013, by original designation.

Diagnosis. Face without subantennal sulcus ventral to each torulus, without torular pit medially next to each torulus and toruli separated by 2× their own height from transverse trabecula (Fig. 340a); clava with short mps (Fig. 341); propleura separated from each other anterior to prosternum; fore wing with distinctly dark band or spot indicating position of basal vein (Fig. 342); venation at least 0.3× wing length, with marginal vein present, as long as parastigma, and with distinct stigmal vein (Fig. 342); propodeum with complete median carina (Fig. 343); petiole almost quadrate, attached posteriorly to gs_1 (Fig. 344).

Remarks. *Vladimir* belongs to the *Polynema* group of genera. *Vladimir* is distinguished from the other genera by its venation at least 0.3× the fore wing length.

Neotropical hosts. Unknown.

Important reference. Triapitsyn (2013).

Vladimir alexandrovich Triapitsyn, 2013

Vladimir alexandrovich Triapitsyn, 2013b: 225; holotype ♀ (UCRC). **TL**: Chile, Región X, Chiloé Islands, Lemuy Island, Puerto Haro. Triapitsyn, 2013b: 225 (key).

Distribution. Chile.

Vladimir vasilievich Triapitsyn, 2013

Vladimir vasilievich Triapitsyn, 2013b: 225; holotype ♀ (UCRC). **TL**: Chile, Región IX, Nahuelbuta National Park, 37°49'42"S 73°00'39"W, 1138 m. Triapitsyn, 2013b: 225 (key).

Distribution. Chile.

XENOPOLYNEMA Ogloblin, 1960
(Figs 345–349)

Xenopolynema Ogloblin, 1960a: 9. Type species: *Xenopolynema areolatum* Ogloblin, 1960, by original designation.

Diagnosis. Face without subantennal sulcus ventral to each torulus, with a pit medially next to each torulus and toruli separated by about their own height from transverse trabecula (Fig. 345a); propleura widely abutting medially anterior to prosternum; fore wing with a narrow dark transverse band posterior to venation; parastigma lengthened, slightly separated from anterior margin of wing, and marginal vein apparently absent (Fig. 347); propodeum submedially with 2 curved carina meeting dorsally, forming an oval median area (Fig. 348); petiole attached posteriorly to gs_1 (Fig. 349).

Remarks. *Xenopolynema* belongs to the *Polynema* group of genera. Among the Neotropical genera, *Xenopolynema* appears superficially to be most similar to *Vladimir* based on the more or less lengthened parastigma (+ marginal vein, when present) + stigmal veins and the dark transverse band posterior to these but instead is most similar to the Australasian genus *Boccacciomymar* Triapitsyn & Berezovskiy.

Neotropical hosts. Unknown.

Important reference. Ogloblin (1960a).

Xenopolynema areolatum Ogloblin, 1960

Xenopolynema areolatum Ogloblin, 1960a: 9; holotype ♀ (MLPA). **TL**: Argentina, Rio Negro, Lago Nahuel Huapí, Puerto Blest. De Santis, 1967: 113; Triapitsyn & Berezovskiy, 2007: 65 (diagnosis, distribution); Luft Albarracin *et al.*, 2009: 12 (list, distribution in Argentina); Luft Albarracin *et al.*, 2014: 138 (list).
Polynema areolatum: Yoshimoto, 1990: 83 (generic transfer, list).
Xenopolynema aerolatum [*sic*]: Loiácono *et al.*, 2005: 17 (type incorrectly presumed lost).

Distribution. Argentina, Chile.

YOSHIMOTOANA Huber, 2015
(Figs 350–356)

Yoshimotoana Huber, 2015: 61. Type species: *Gonatocerus masneri* Yoshimoto, 1990, by original designation.

Diagnosis. *Yoshimotoana* is distinguished from the other genera of Gonatocerini by the following combination: malar sulcus absent; pronotum entire; propodeum lateral to submedian carinae covered with numerous deep pits (Fig. 353).

Remarks. *Yoshimotoana* belongs to the *Gonatocerus* group of genera, treated elsewhere as Gonatocerini in Huber (2015a). *Yoshimotoana* is unique because of absence of a malar sulcus; it is placed in Gonatocerini because its fore wing structure is the same as in other genera of the tribe, with hypochaeta about midway between the proximal and distal macrochaetae (Fig. 352).

Neotropical hosts. Unknown.

Important reference. Huber (2015a).

Yoshimotoana masneri (Yoshimoto, 1990)

Gonatocerus masneri Yoshimoto, 1990: 88; holotype ♀ (CNC). **TL**: Dominican Republic, La Vega, El Rio. Yoshimoto, 1990: 40 (list, *masneri* species group); De Santis & Fidalgo, 1994: 125 (catalogue, incorrectly Dominica).
Gonatocerus (*Cosmocomoidea*) *masneri*: Triapitsyn *et al.*, 2010: 95 (key), 177 (description, distribution, species group placement).
Yoshimotoana masneri: Huber, 2015a: 62 (generic transfer, list).
Gonatocerus (*Cosmocomoidea*) *hispaniolus* Triapitsyn & Huber *in* Triapitsyn *et al.*, 2010: 164; holotype ♀ (CNC). **TL**: Dominican Republic, Pedernales, Sierra Bahoruco, Alcoa Road, km 25, 700 m. Synonymy by Huber, 2015a: 62.

Distribution. Dominican Republic.

Nomina nuda

Mymarilla agromyzae Brèthes in Marelli, 1926: 14; Costa Lima, 1962: 198.
Barypolynema (*Barypolnema*) *agromyzae*: Ogloblin, 1964a: 40; De Santis, 1967: 112 (unavailable name, catalogue).
Gonatocerus mancae Fidalgo & Virla, 1995: 63; Triapitsyn *et al.*, 2010: 233.

Mymaridae spp.

Neotropical hosts. Cicadellidae: *Tapajosa rubromarginata* (Signoret) (percent parasitism by 17 *Gonatocerus* [probably *Cosmocomoidea*] spp. and 1 *Polynema* sp.) (Logarzo *et al*. 2013). Membracidae: *Anobilia* sp., *Horiola picta* (Coquebert), *Leioscyta pulchella* Funkhouser, *Membracis tectigera* Olivier, *Phormophora maura* (Fabricius) [in cocoa plantations, Brazil] (Benassi *et al.*, 2016: 46).

Discussion and conclusions

Among the world biogeographical regions, the Neotropical fauna of Mymaridae is, to date, the most diverse in terms of genera and, after the fauna of the Australian region, also in terms of species. Australia has just over 300 nominal species but only 279 treated as valid (Lin *et al.* 2007) in 43 genera. This is compared to about 320 nominal species (297 treated here as valid) in 60 genera in the Neotropical region. The *Polynema* group of genera alone currently includes 20 genera, over one-third of the present generic fauna. The limits of those genera need better definition and several contain only one species each. The authors have specimens that may represent new genera but more material and study is needed to determine their status and describe them.

Most of the genera that occur in the Neotropical region occur on at least two continents or are cosmopolitan. At present, 18 genera appear to be endemic but future changes in generic concepts, more collecting in underexplored areas worldwide, and more intensive study of the Neotropical fauna will change this number. In general, the Neotropical fauna is most similar to that of the Afrotropical and Nearctic regions, though some genera from southern Argentina and southern Chile are related to or the same as some genera from New Zealand.

It is still too early to propose a formal family group classification that, one hopes, will remain fairly stable in terms of the generic contents of tribes and subfamilies. In the meantime, the 60 genera reported above for the Neotropical region are compared with others in the mainly informal groups of genera proposed for the faunas of New Zealand (Noyes & Valentine 1989), Australia (Lin *et al*. 2007), Nearctic (Huber *et al.* 2020) and Afrotropical faunas (Huber *et al.* 2021). While the generic content in these informal groups is subject to change as new groups are proposed or old ones rejected, such informal groups of genera help orient the user to which genera are similar to each other. Determining which genera are valid and properly circumscribing each of them will always be a work in progress. For example, Huber (2006) included 53 genera for the Neotropical region, which is close to the number reported in the present paper. But 10 of those listed in 2006 have been placed in synonymy and others described from other regions have been added because at least one specimen representing these additional genera has now been found to occur in the region.

Fewer literature references exist for Neotropical Mymaridae compared to the Nearctic region + Mexico.

However, that is changing as a result of much more research being published in the region, particularly for Argentina, Brazil and Chile, on biological control of major indigenous pests, e.g., *Peregrinus maidis*, *Saccharosydne* spp., and introduced pests, e.g., *Gonipterus platensi* and *Thaumastocoris peregrinus*. Several theses include chapters on biology and biocontrol, e.g., Souza (2016), Becchi (2017), Martínez (2017), Uemura-Lima (2017). The species fauna for the Neotropical region is extremely poorly known. Molecular information (DNA barcodes, etc.), in addition to morphological descriptions, may help clarify species limits. It will take decades to undertake the careful revisionary work needed to identify and describe only those species already in collections, let alone those not yet collected throughout the wide range of habitats in which they occur.

Acknowledgments

The curators of museums listed in Methods are thanked for giving us access to specimens or sending us material for study. Dr. L. Barbosa (Embrapa Forestas, Colombo, PR, Brazil) kindly sent the senior author his papers on *Clerucoides noackae* and checked some others for correct authorship. I greatly appreciate the thorough reviews provided by reviewers, who found and corrected numerous mistakes throughout the text.

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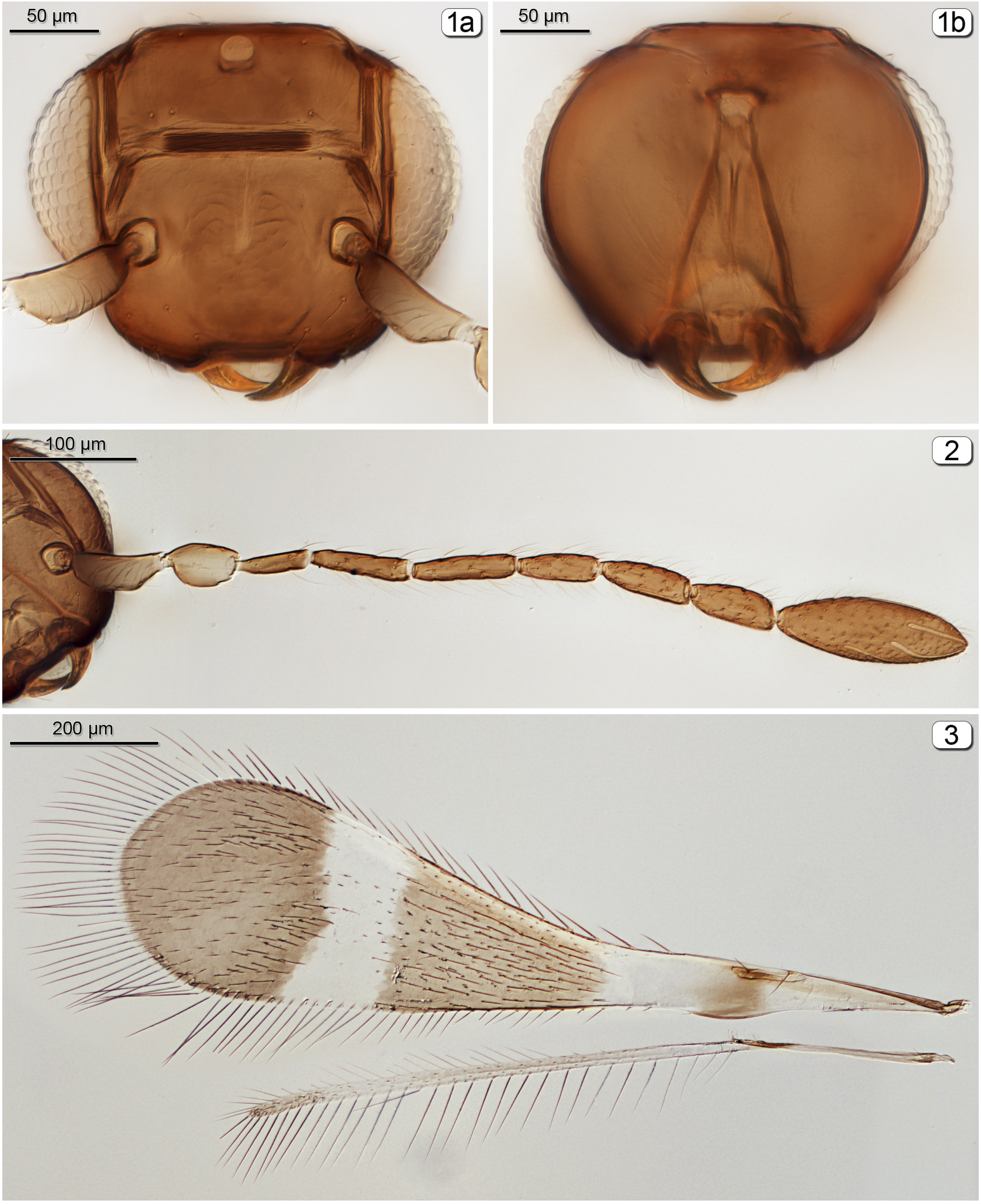
(*Notomymar*-D38, *Stephanodes*-D54b).

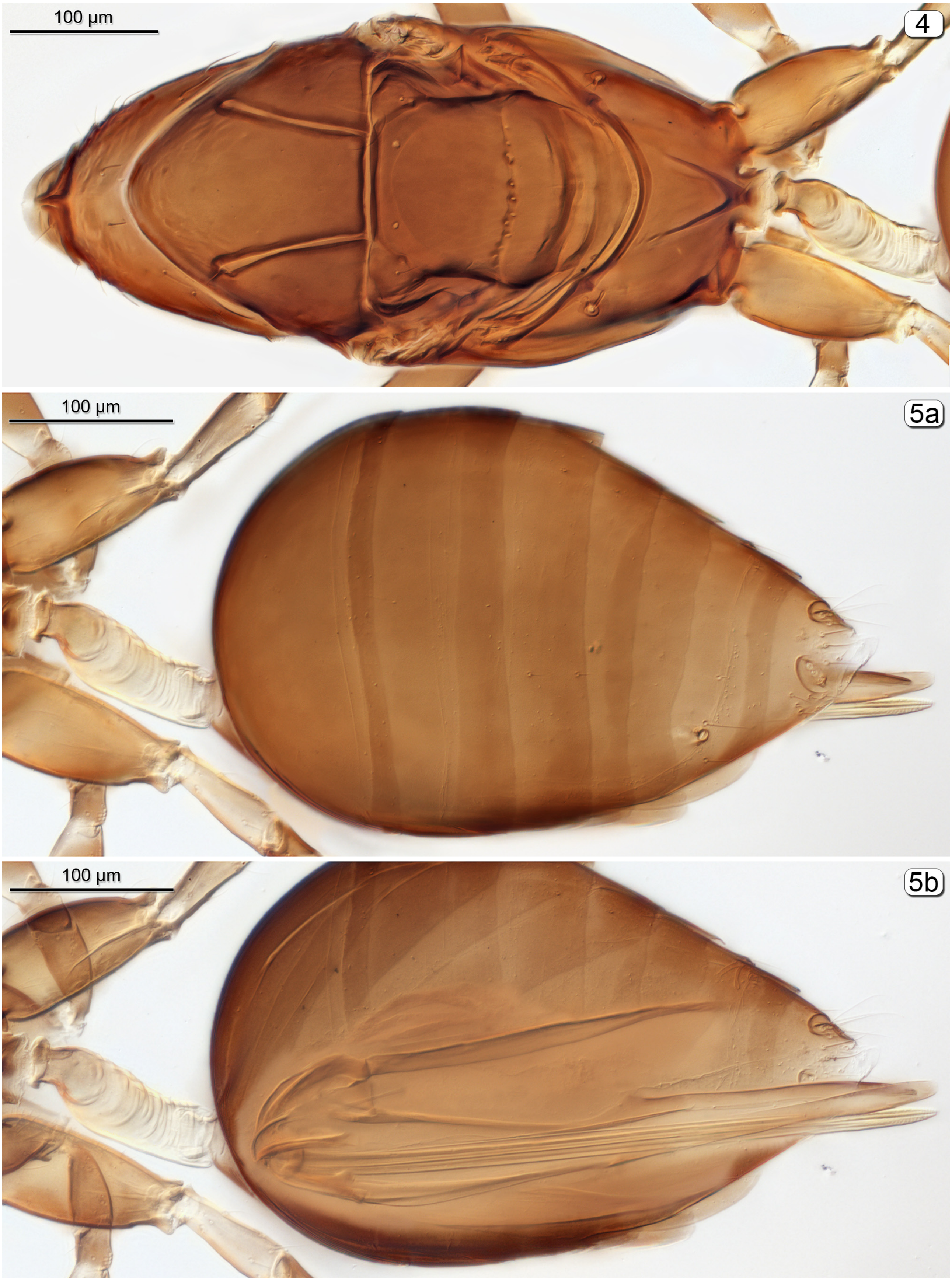
In females, tergum gt_7 is the **outer plate of the ovipositor = lateral and ventral area of** $\mathbf{gt_7}$. No female sternal sclerites correspond to male tergal sclerites gt_6 and gt_7.

APPENDIX

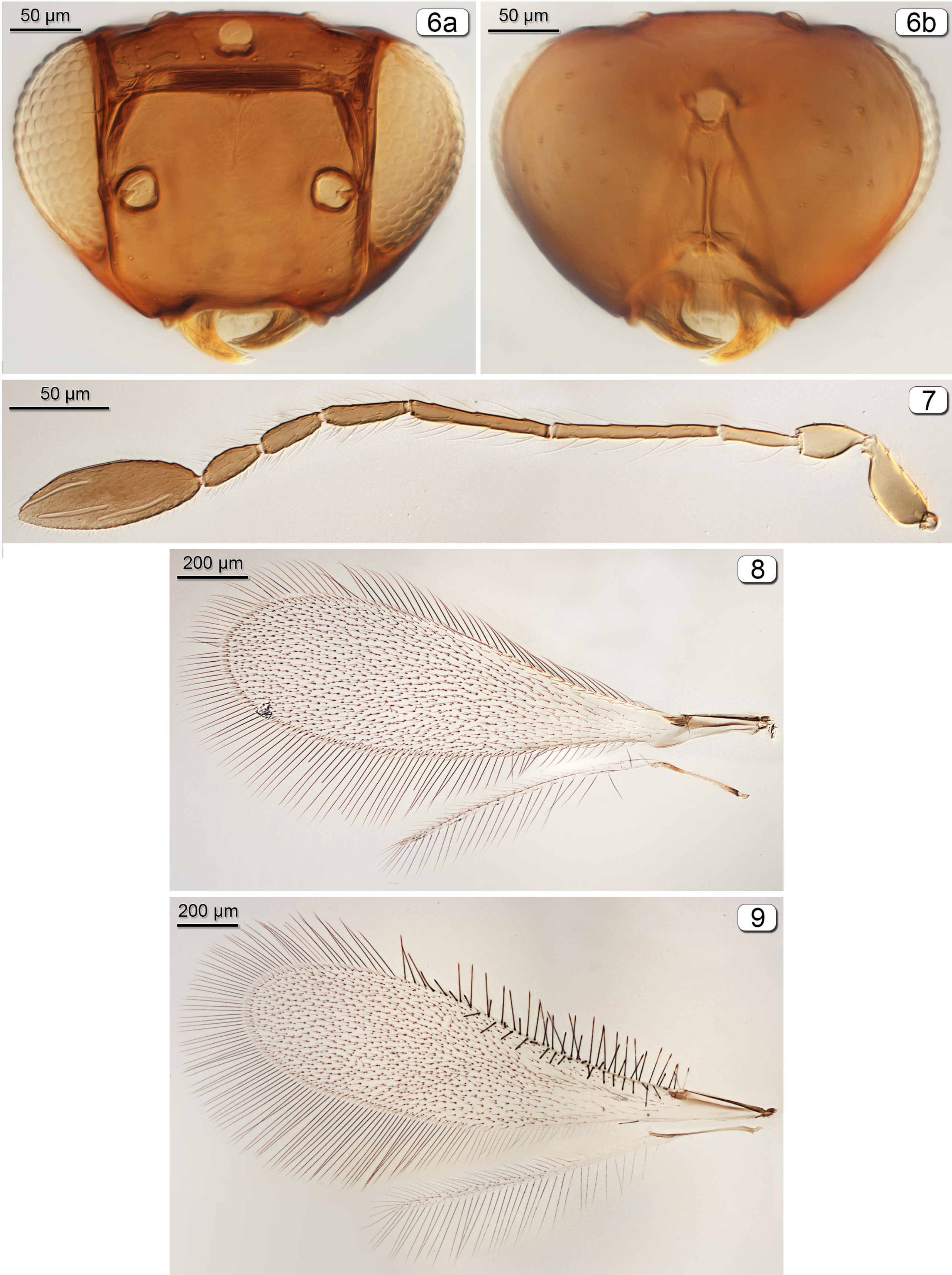
Guzmán-Larralde *et al.* (2016) recorded 35 currently valid extant species of Mymaridae from Mexico but, so far, not elsewhere in the Neotropical region so they are not reported in the present paper. Many of these species are North American and extend south of the USA only to northern Mexico or perhaps to southern Mexico but not further south. Undoubtedly, some of them will eventually be found further south but until they are formally published they are excluded from our Neotropical catalogue. They are: *Acmopolynema sema* Schauff, *Alaptus globosicornis* Girault, *A. psocidivorus* Gahan, *Anagrus oahuensis* Triapitsyn & Beardsley, *A. naulti* Triapitsyn & Moya-Raygoza, *A. tretiakovae* Triapitsyn, *Anaphes iole* Girault, *A. sinipennis* Girault, *Camptoptera papaveris* Foerster, *Cosmocomoidea bucculenta* (Huber), *C. capitata* (Gahan), *C. chula* (Triapitsyn & Bernal), *C. dolichocerus* (Ashmead), *C. flagellata* (Huber), *C. gerasim* (Triapitsyn), *C. latipennis* (Girault), *Erythmelus gracilis* Howard, *E. maya* Guzmán-Larralde & Triapitsyn, *E. picinus* Girault, *E. psallidis* Gahan, *E. tigres* Guzmán-Larralde & Triapitsyn, *Gastrogonatocerus juvator* (Perkins), *Gonatocerus koebeli* Perkins, *Litus cynipseus* Haliday, *Lymaenon anthonomi* (Girault), *L. pygmaeus* (Girault), *Neomymar komar* Triapitsyn, Berezovskiy & Huber, *N. vierecki* Crawford, *Ooctonus woolleyi* Huber, *O. zolnerowichi* Huber, *Palaeoneura saga* (Girault), *Polynema eutettixi* Girault, *Ptilomymar rete* Annecke & Doutt, *Stephanodes giraulti* (Perkins), *Tetrapolynema mexicanum* Ogloblin. Two extinct species are also known, only from Mexico: *Litus* †*mexicanus* Doutt and *Polynemoidea* †*mexicana* Doutt.



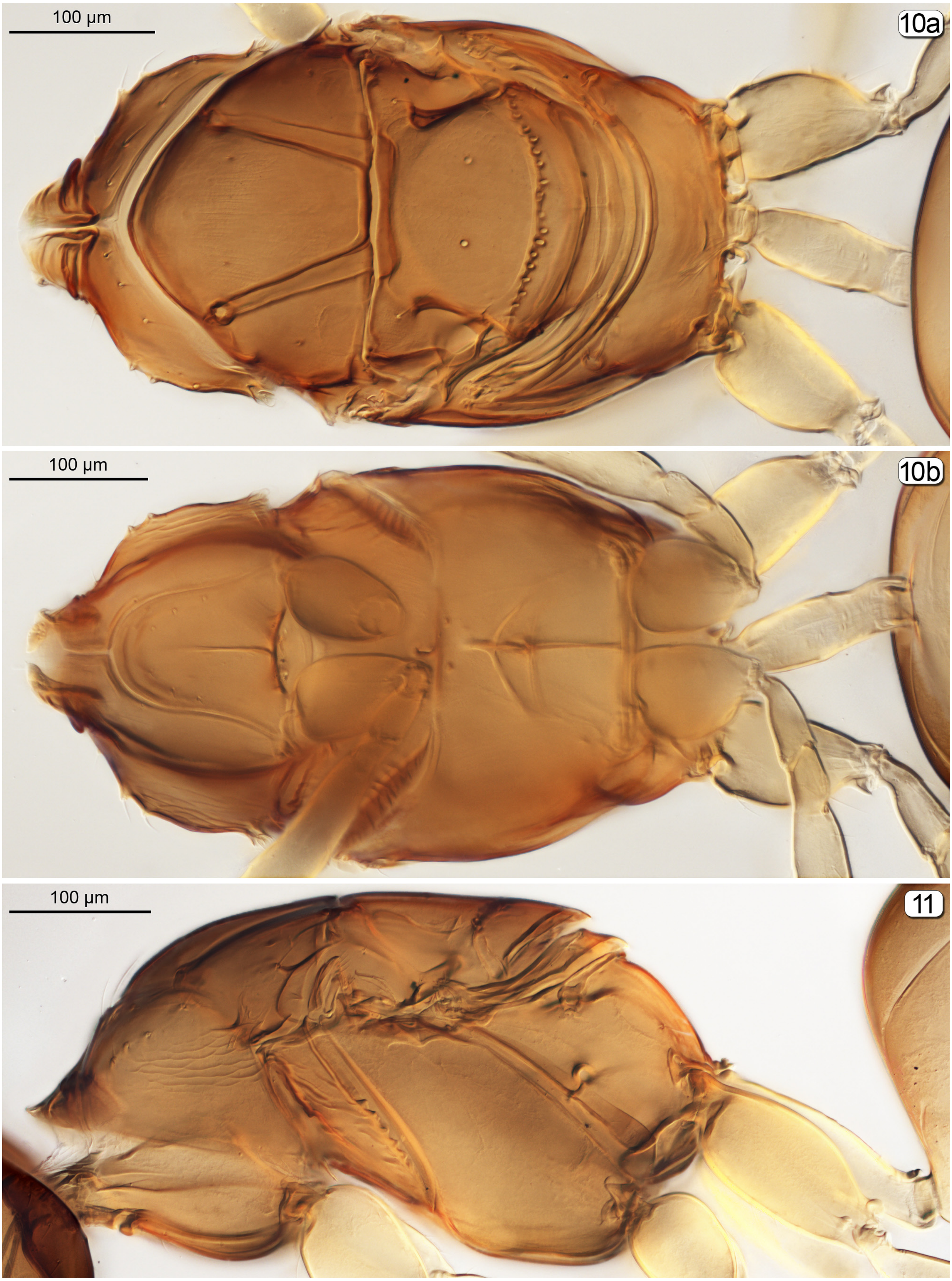
FIGURES 1–3. *Acmopolynema*. 1a, head, anterior; 1b, head, posterior; 2, antenna; 3, wings.



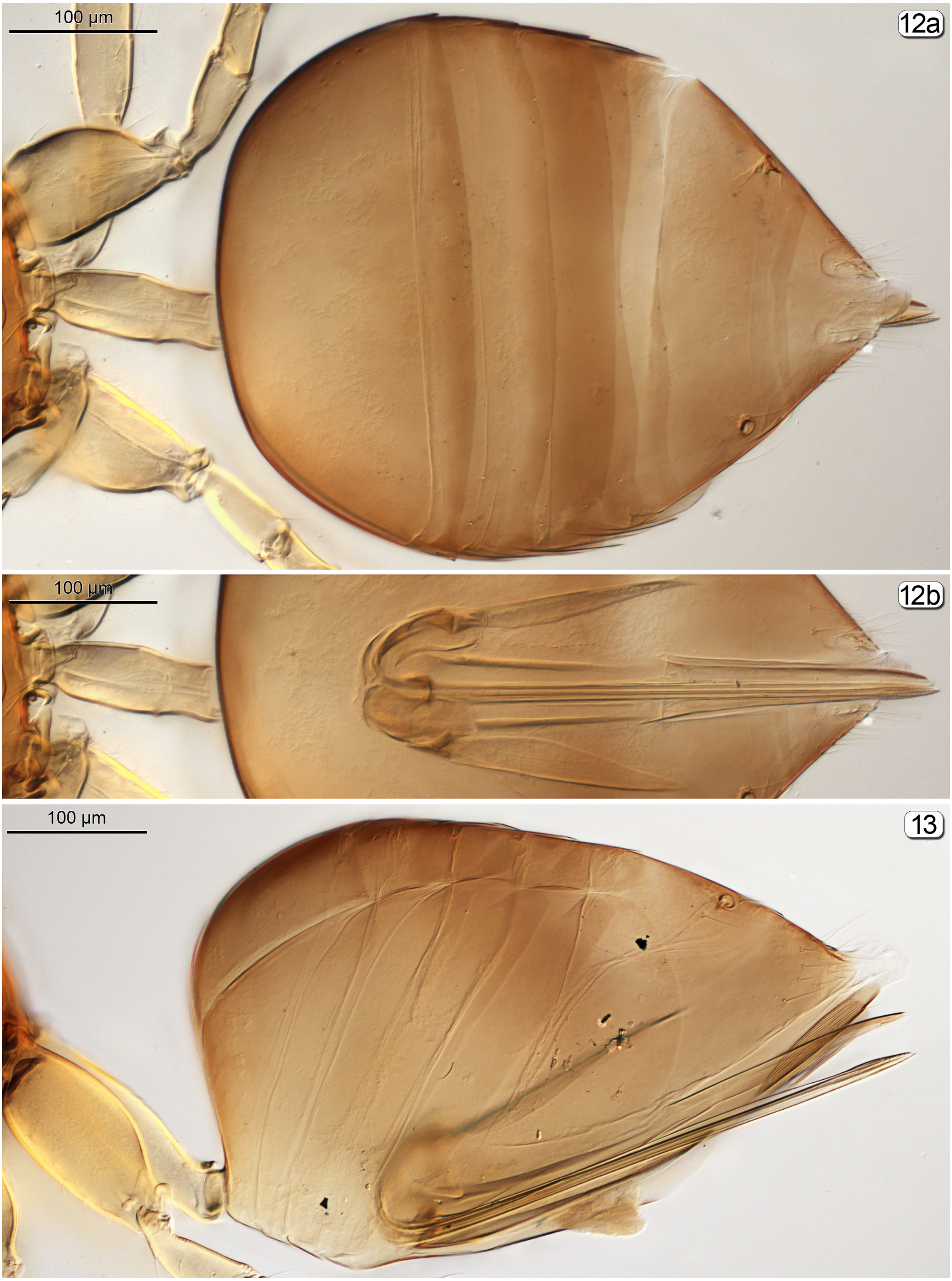
FIGURES 4, 5. *Acmopolynema*. 4, mesosoma, dorsal; 5a, metasoma, dorsal; 5b, metasoma, ventral.



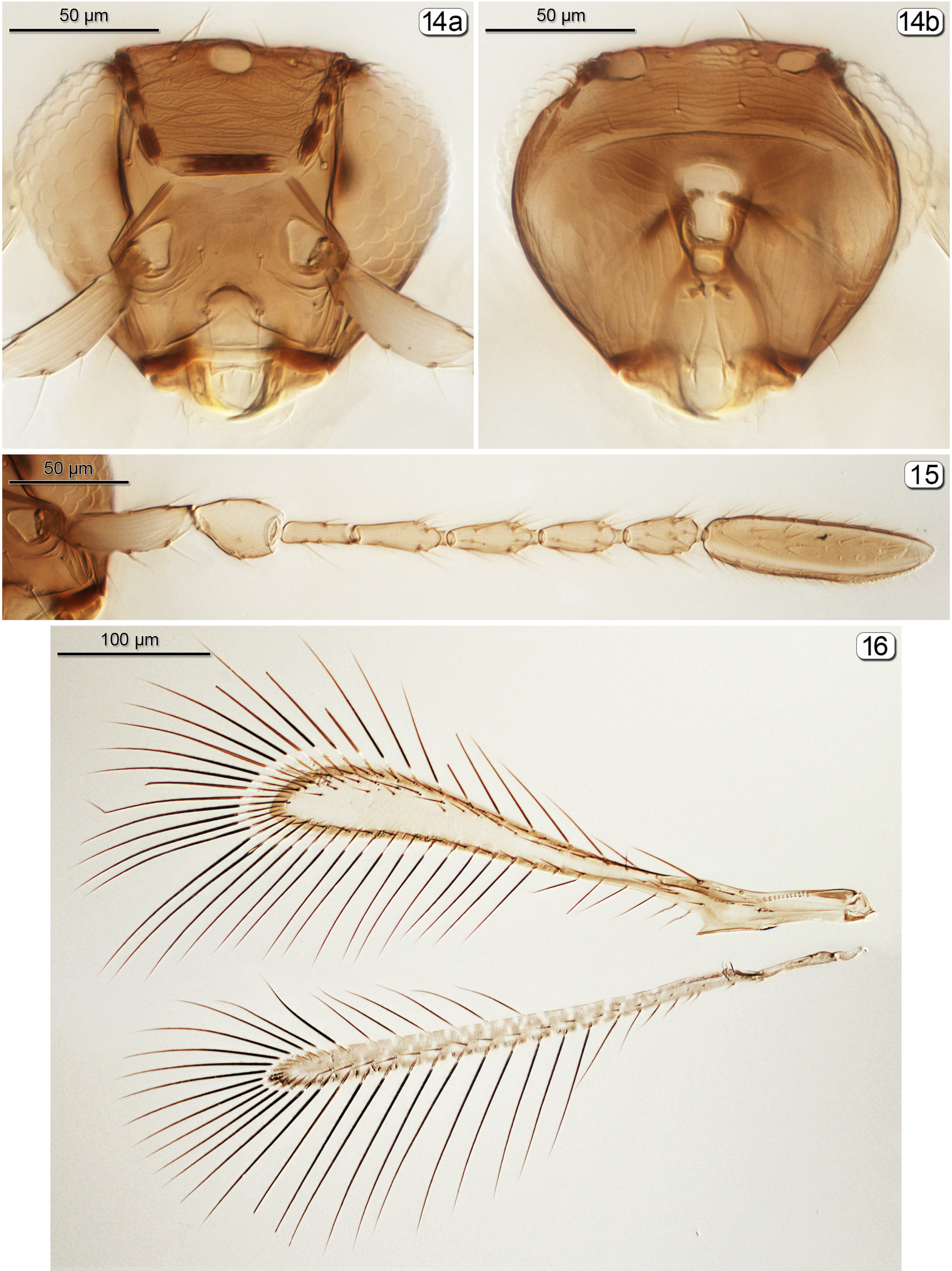
FIGURES 6–9. *Agalmopolynema*. 6a, head, anterior; 6b, head, posterior; 7, antenna; 8, wings; 9, wings of *A. calyptera* Fidalgo.



FIGURES 10, 11. *Agalmopolynema*. 10a, mesosoma, dorsal; 10b, mesosoma, ventral; 11, mesosoma, lateral.

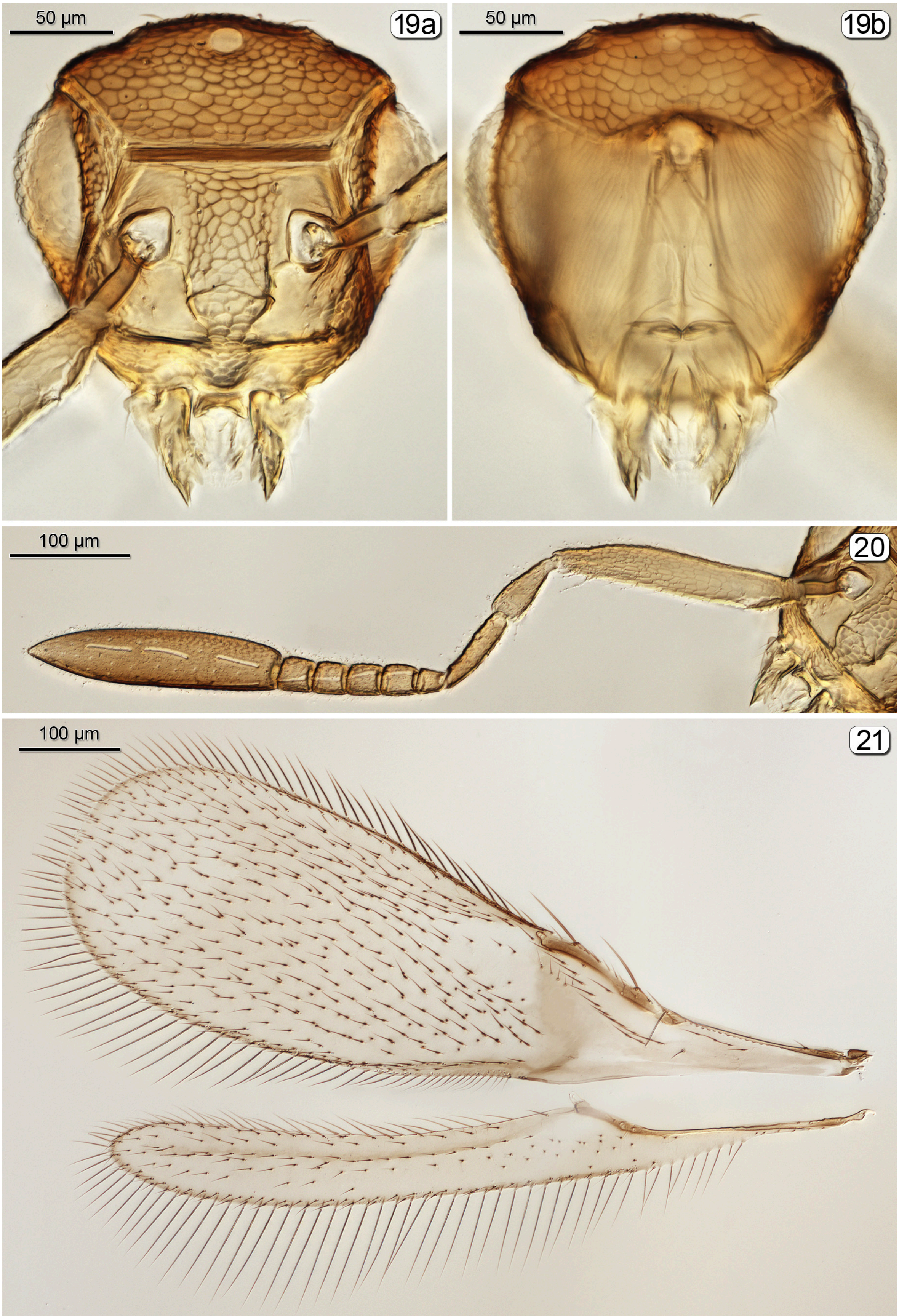


FIGURES 12, 13. *Agalmopolynema*. 12a, metasoma, dorsal; 12b, genitalia, ventral; 13, metasoma lateral.

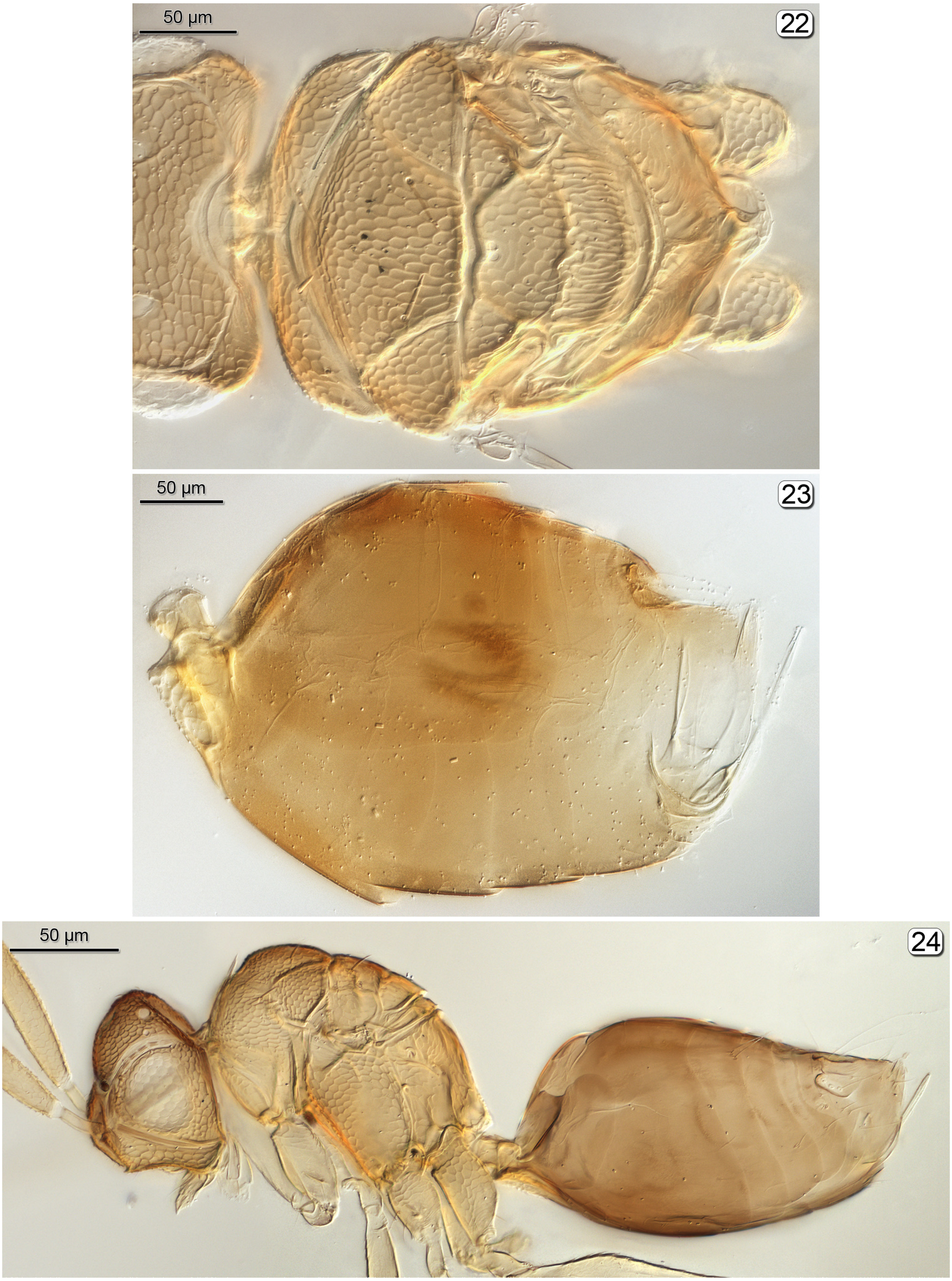


FIGURES 14–16. *Alaptus*. 14a, head, anterior; 14b, head, posterior; 15, antenna; 16, wings.

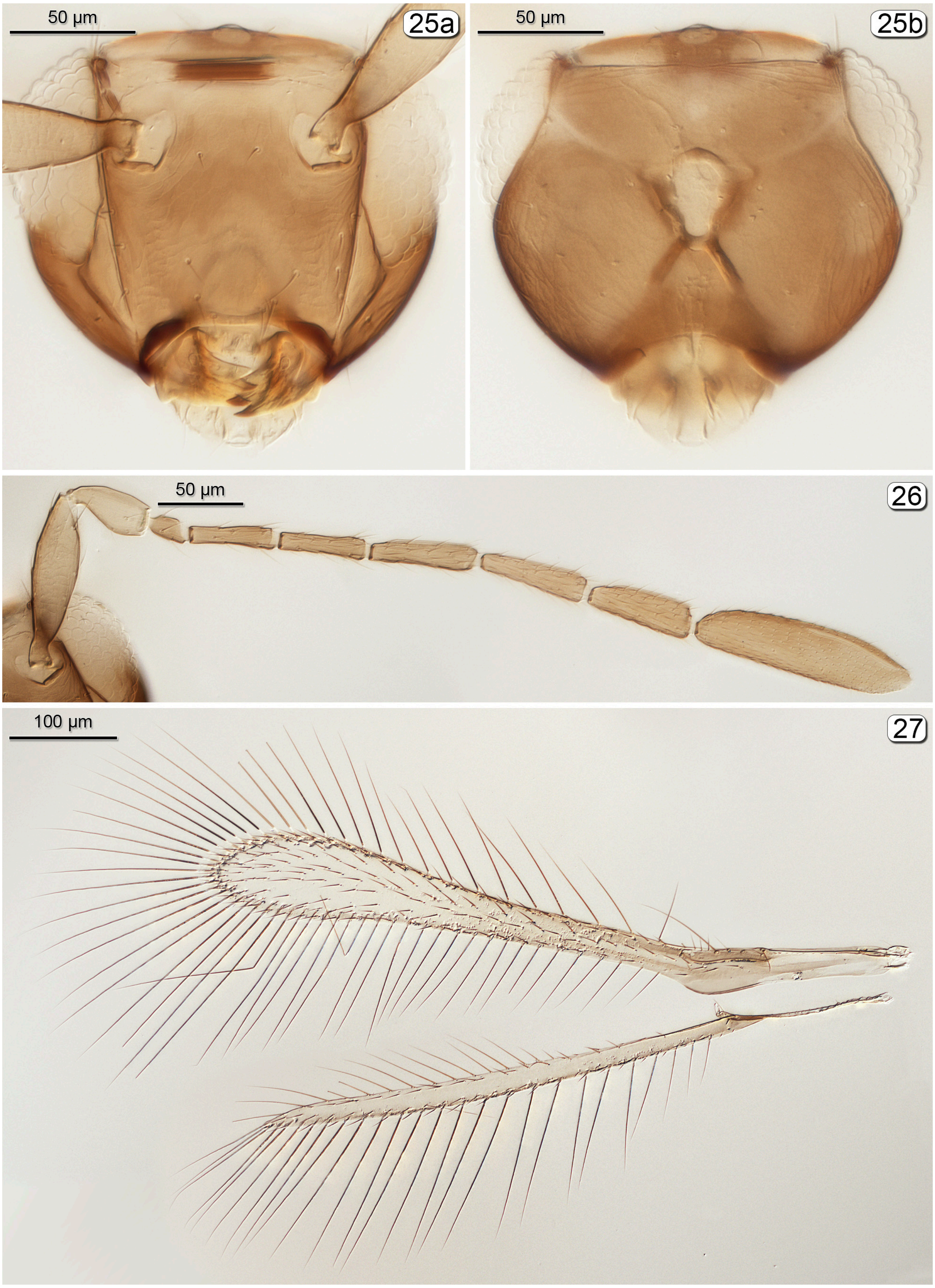
FIGURES 17, 18. *Alaptus*. 17, head + mesosoma, dorsal; 18, male metasoma, dorsal (inset: genitalia).



FIGURES 19–21. *Anagroidea.* 19a, head, anterior; 19b, head, posterior; 20, antenna; 21, wings.

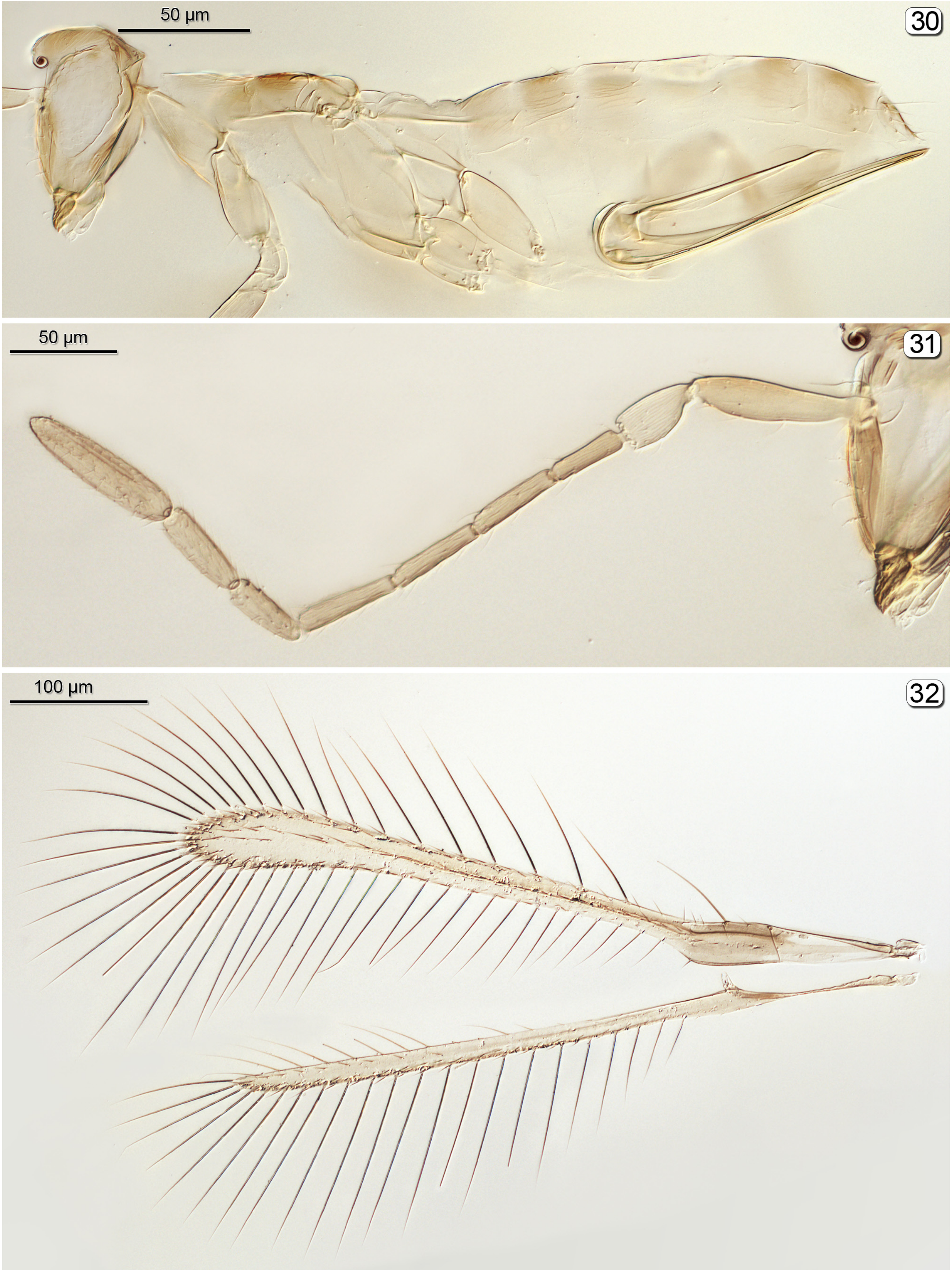


FIGURES 22–24. *Anagroidea*. 22, mesosoma, dorsal; 23, metasoma, lateral, 24, body, lateral.

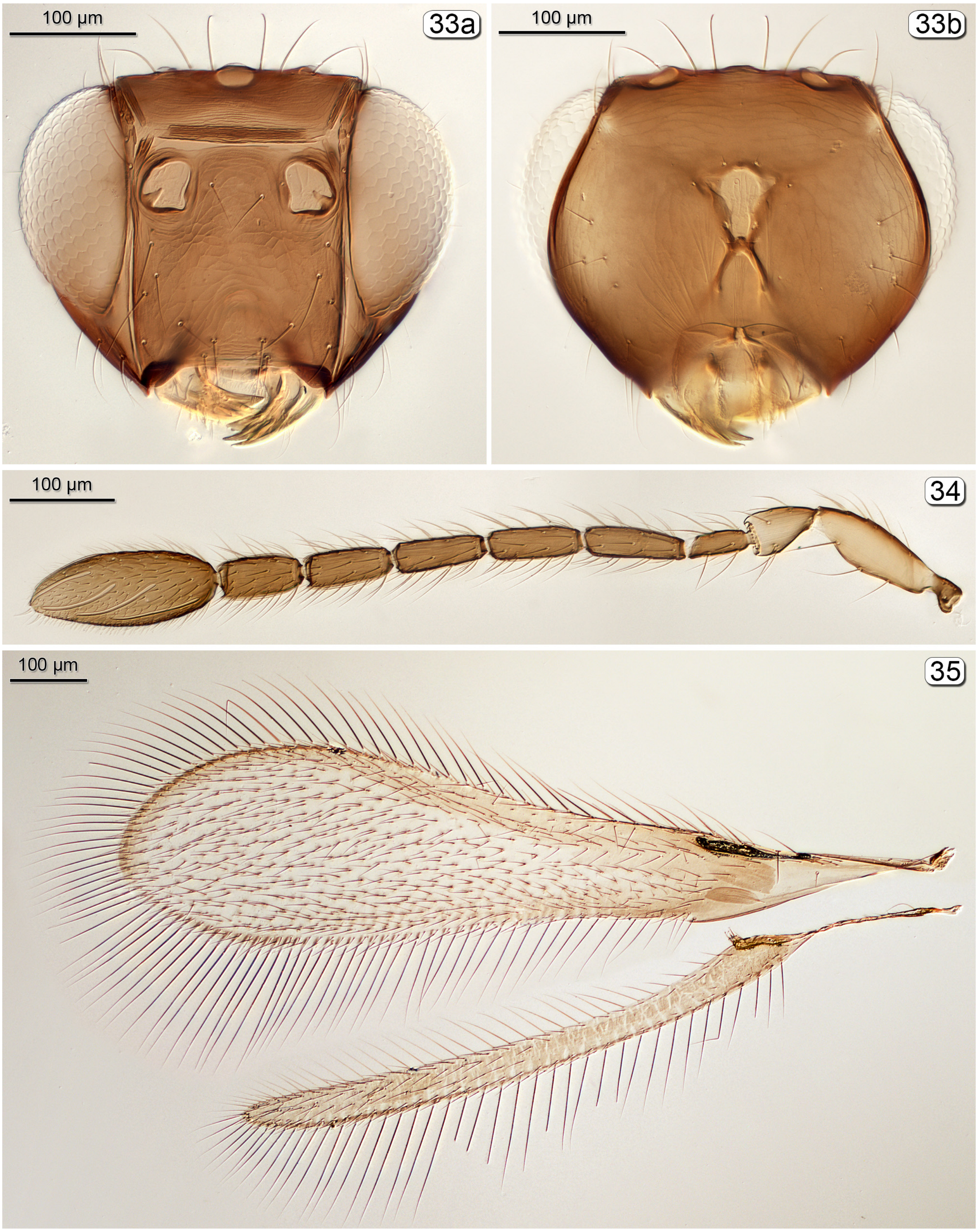


FIGURES 25–27. *Anagrus* (*Anagrus*). 25a, head, anterior; 25b, head, posterior; 26, antenna; 27, wings.

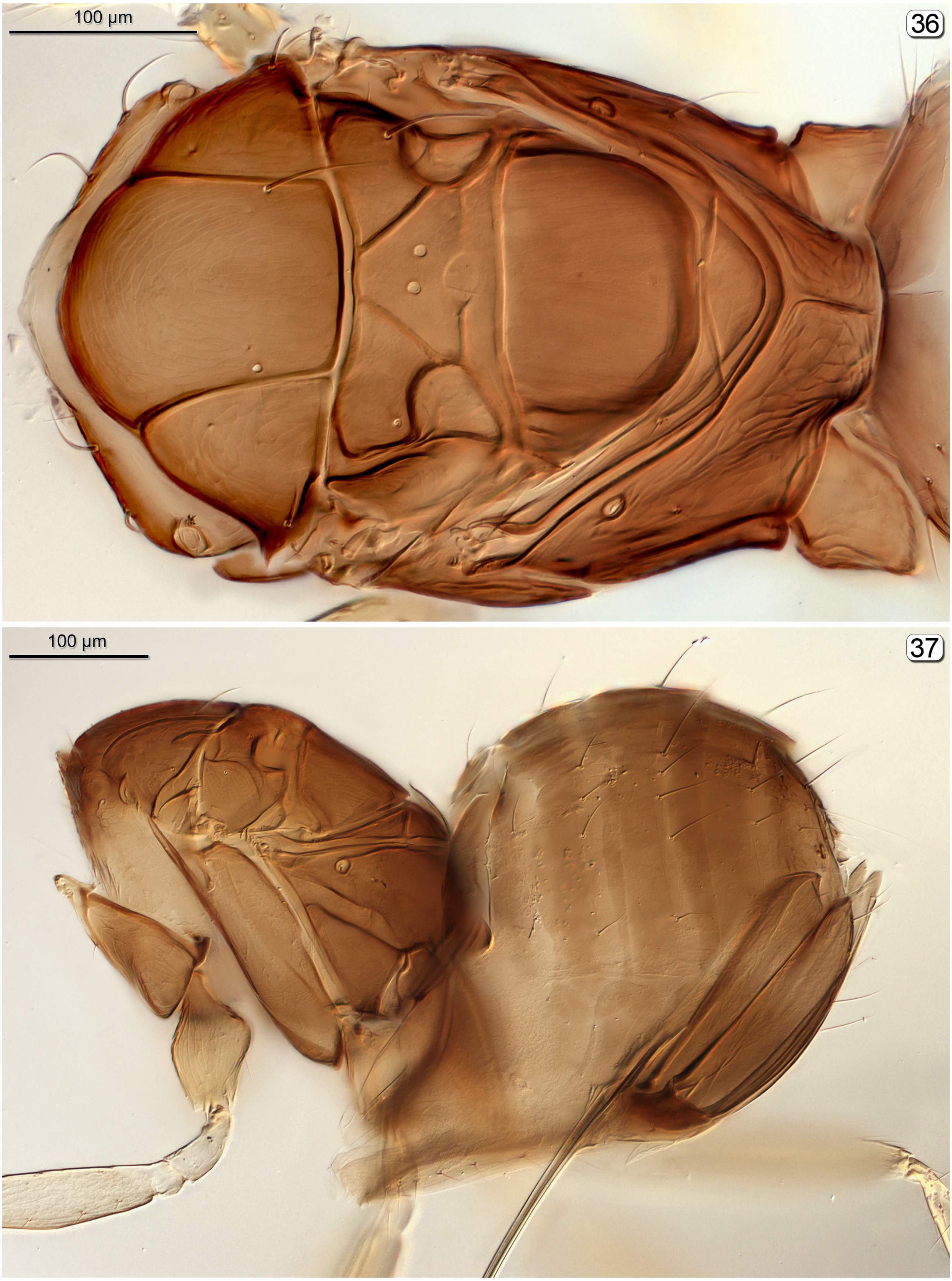
FIGURES 28, 29. *Anagrus* (*Anagrus*). 28, mesosoma, dorsal; 29a, metasoma, dorsal; 29b, metasoma, ventral.



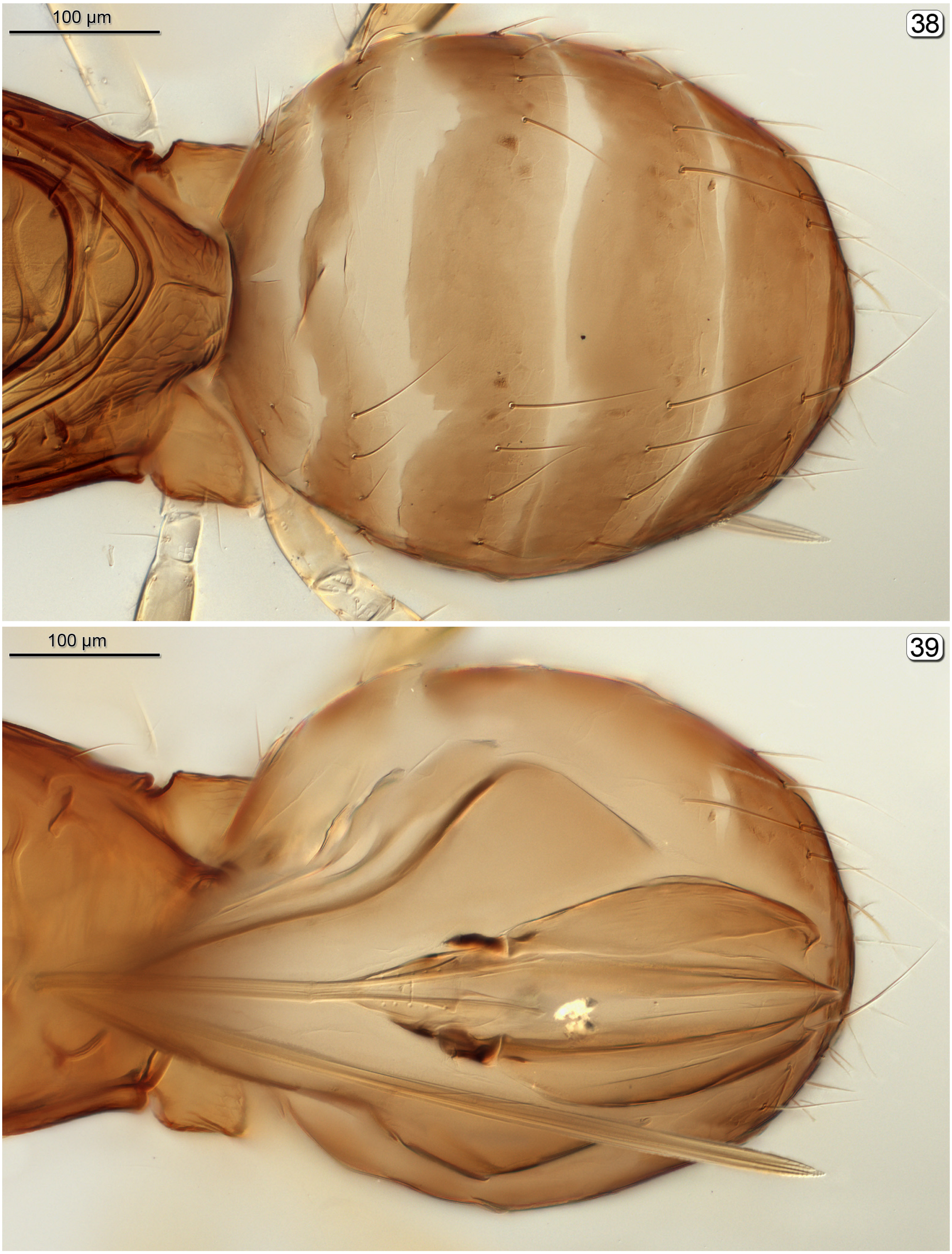
FIGURES 30–32. *Anagrus* (*Paranagrus*). 30, body, lateral; 31, antenna; 32, wings.



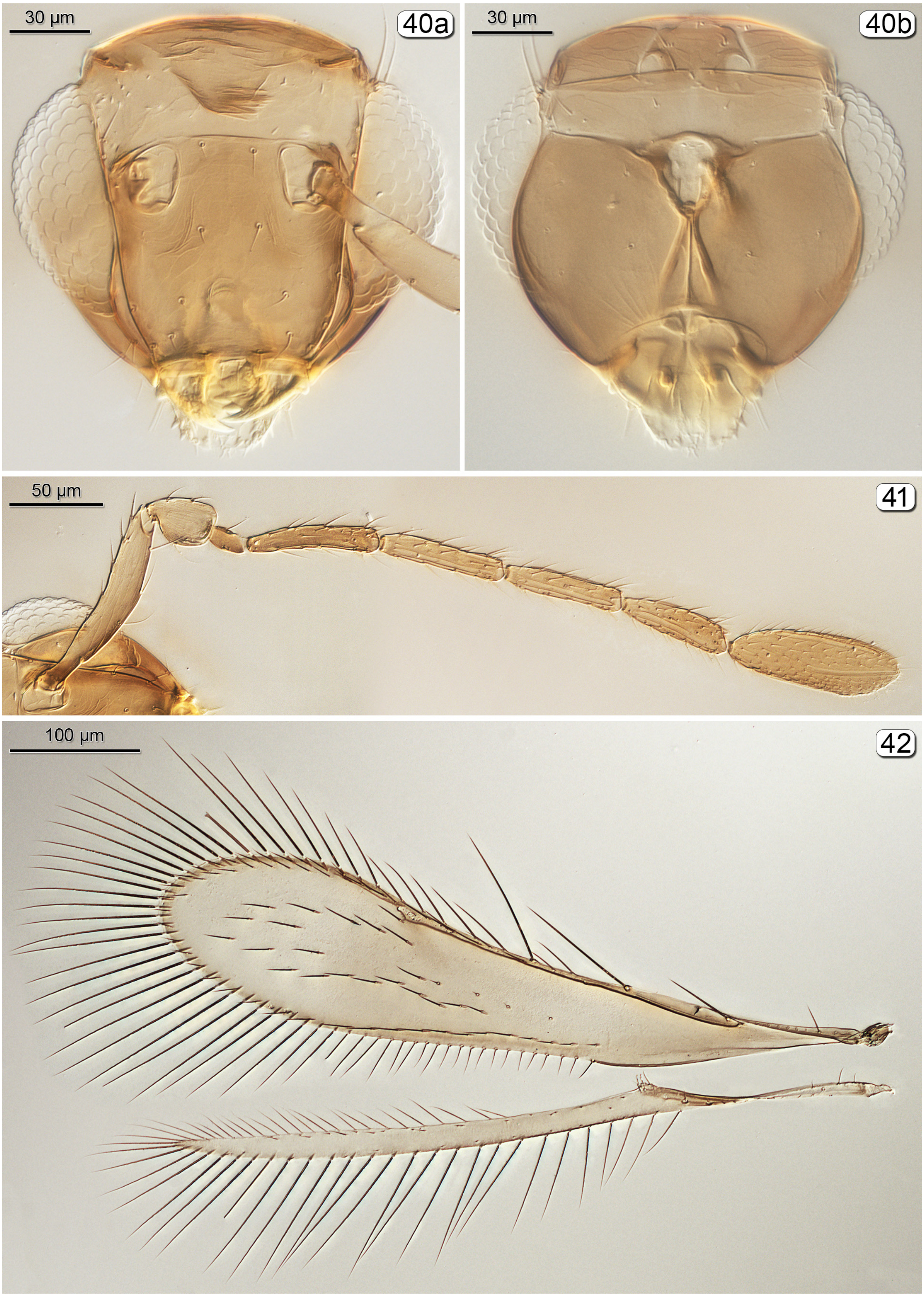
FIGURES 33–35. *Anaphes* (*Anaphes*). 33a, head, anterior; 33b, head, posterior; 34, antenna; 35, wings.



FIGURES 36, 37. *Anaphes* (*Anaphes*). 36, mesosoma, dorsal; 37, mesosoma + metasoma, lateral.

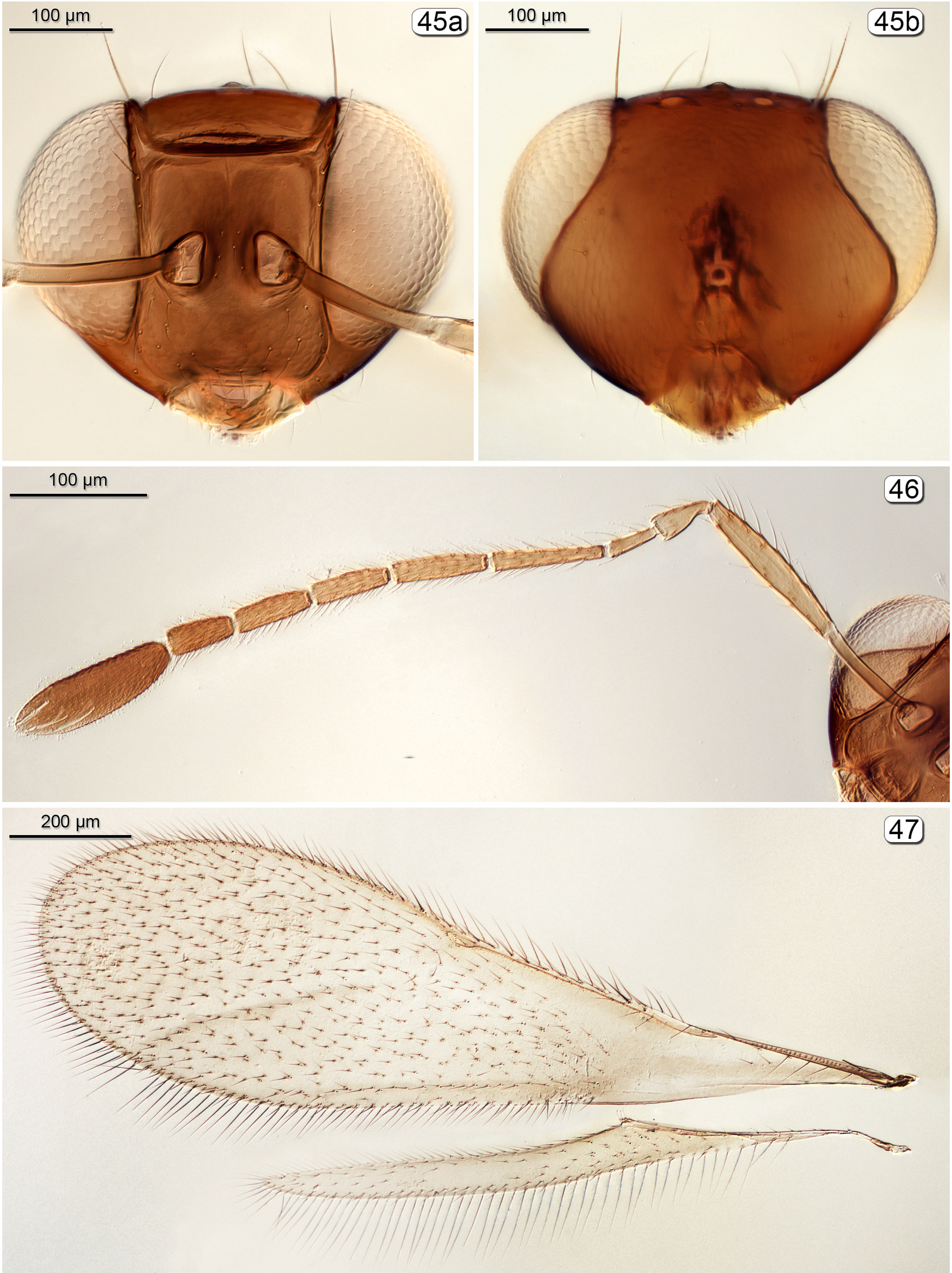


FIGURES 38, 39. *Anaphes* (*Anaphes*). 38, metasoma, dorsal; 39, metasoma, ventral.

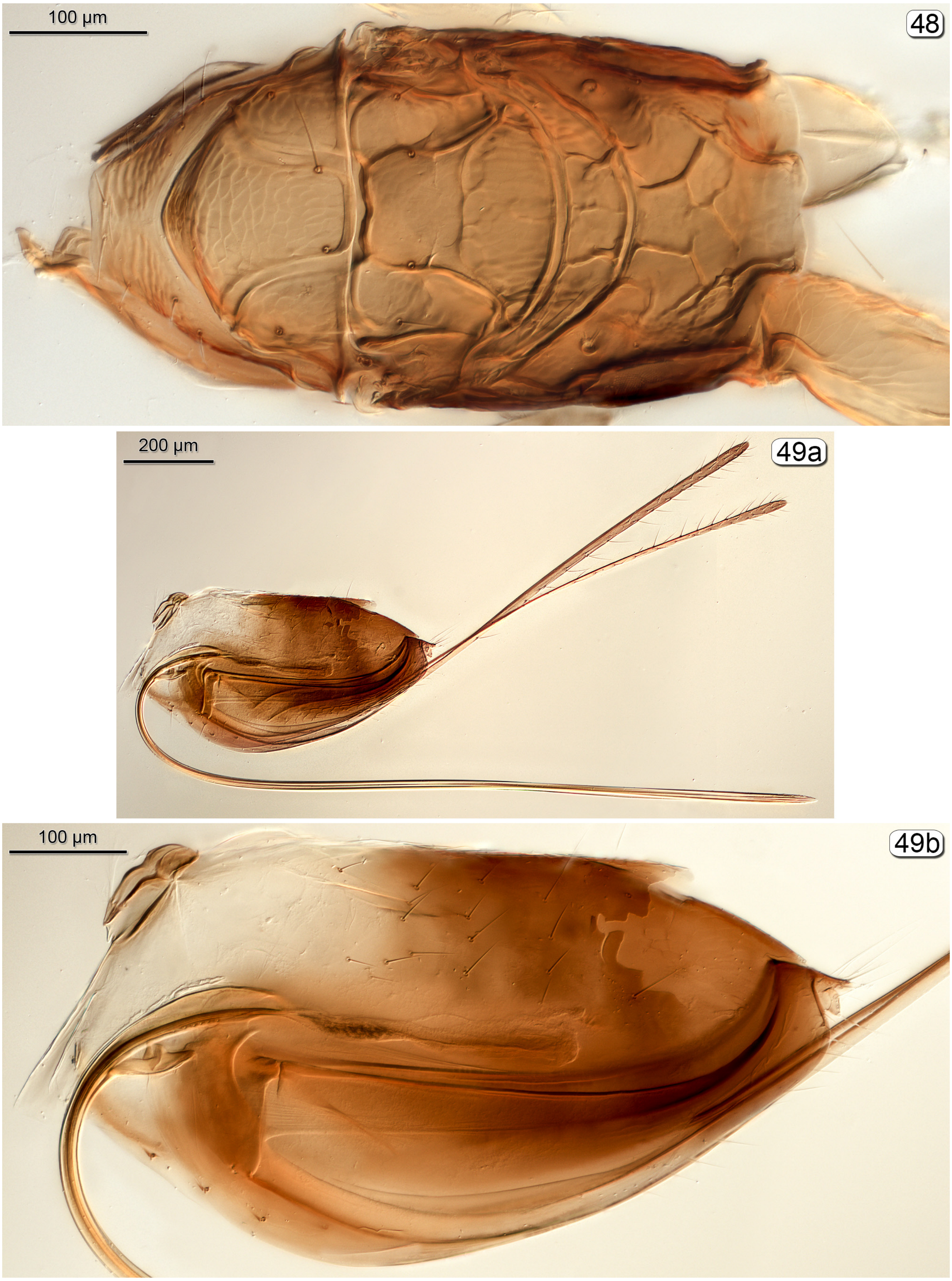


FIGURES 40–42. *Arescon*. 40a, head, anterior; 40b, head posterior; 41, antenna; 42, wings.

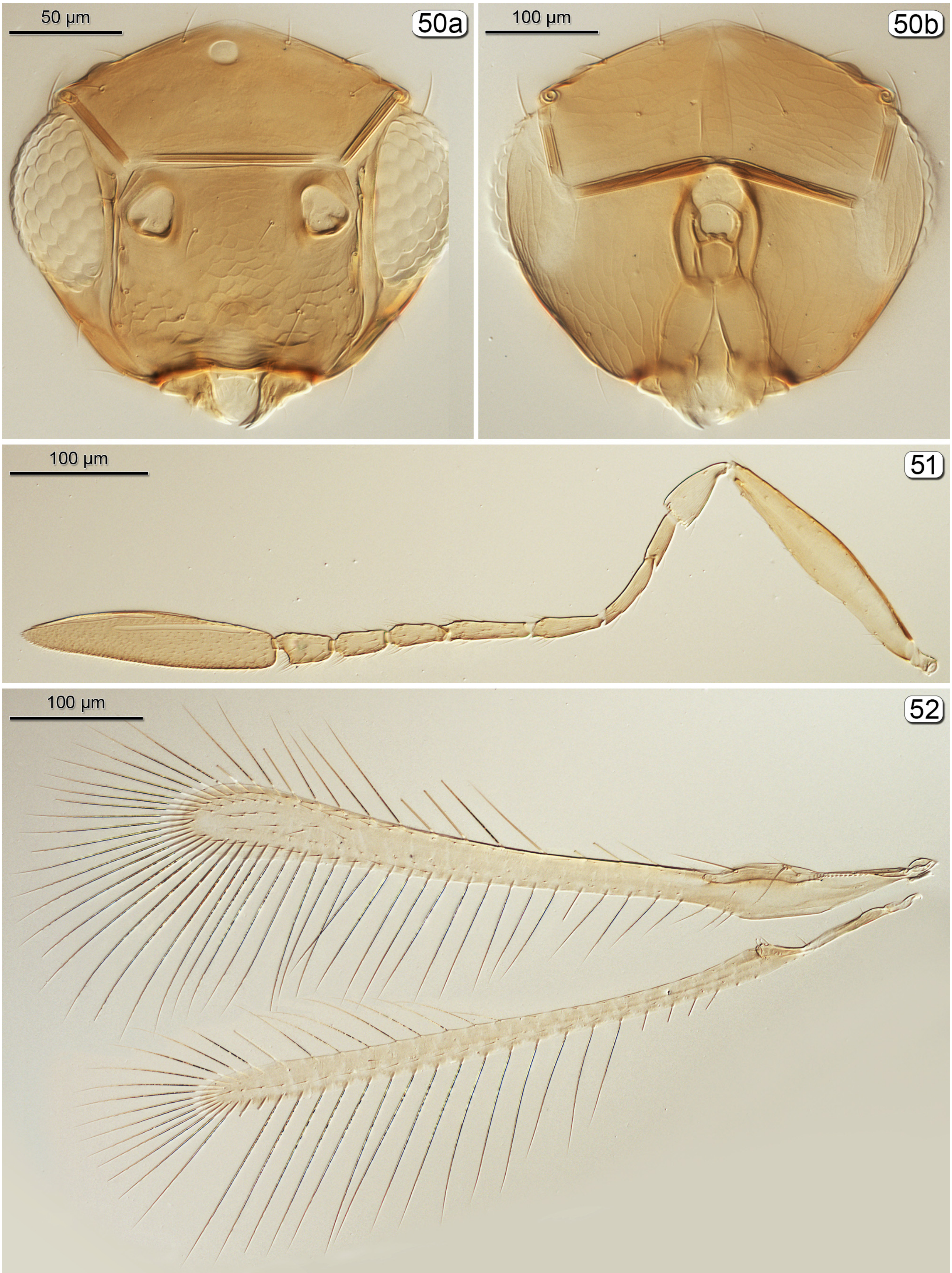
FIGURES 43, 44. *Arescon*. 43, mesosoma, dorsal; metasoma, lateral.



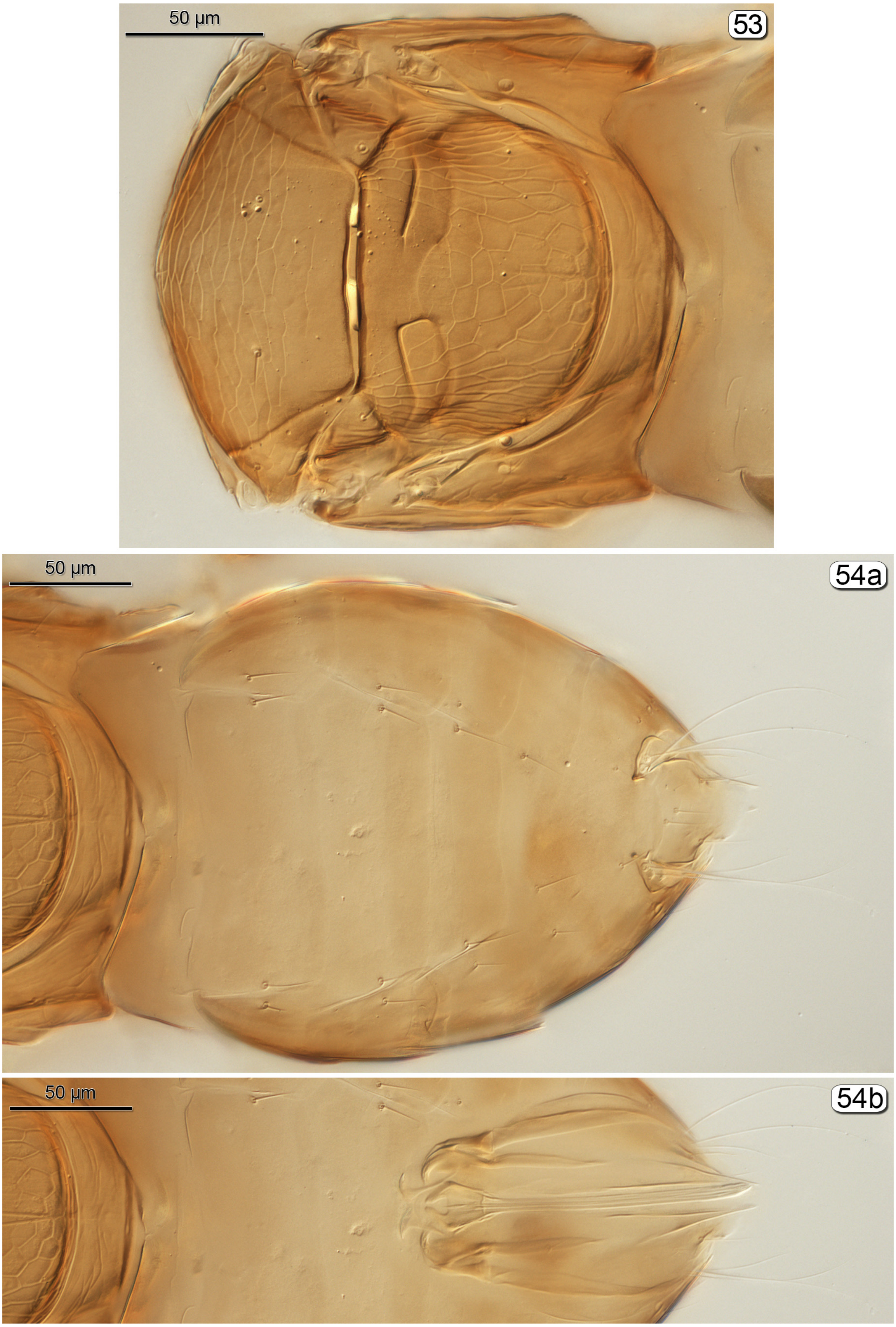
FIGURES 45–47. *Australomymar*. 45a, head, anterior; 45b, head posterior; 46, antenna; 47, wings.



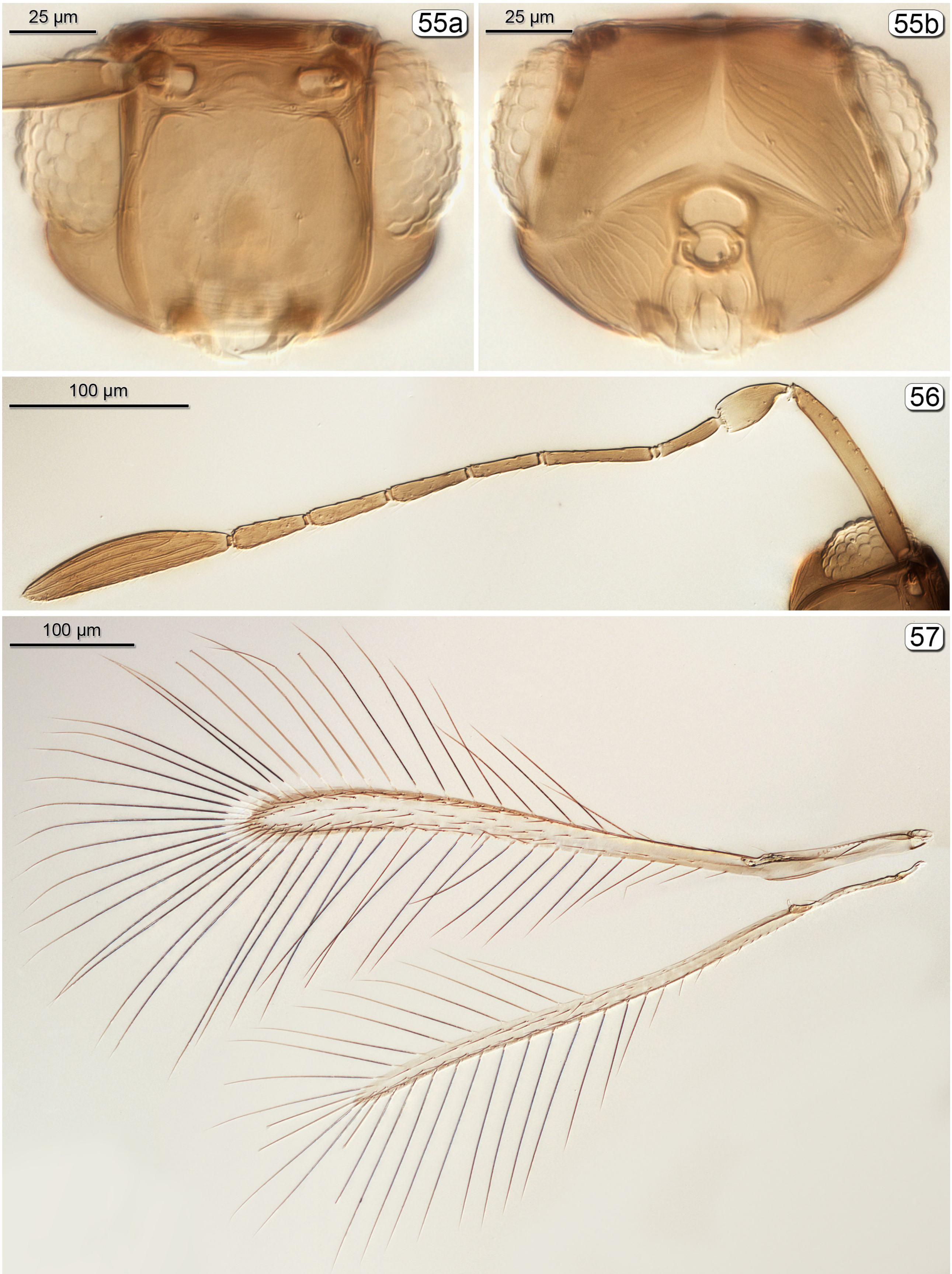
FIGURES 48, 49. *Australomymar*. 48, mesosoma, dorsal; 49a, metasoma, lateral; 49, metasoma, lateral enlarged.



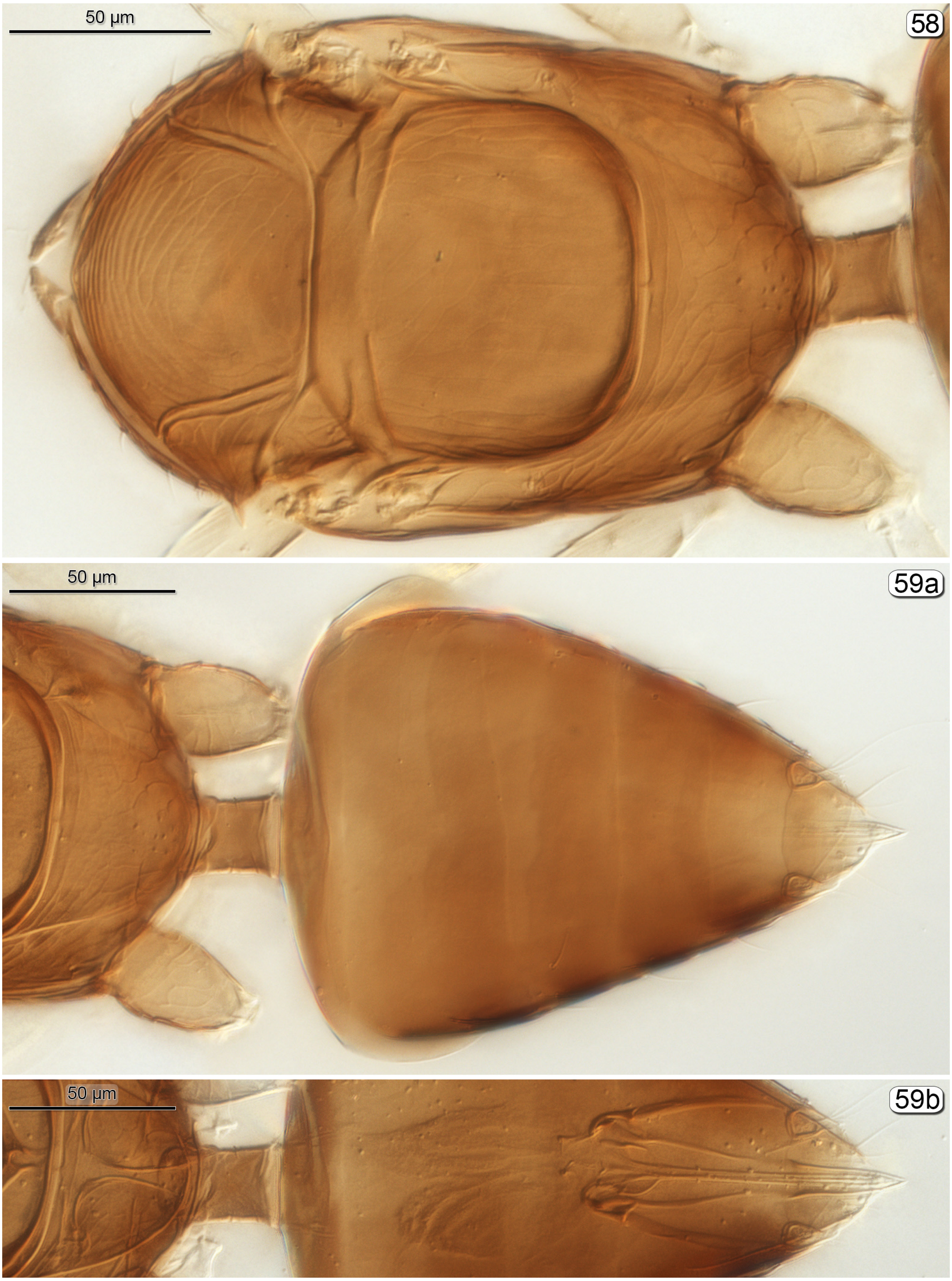
FIGURES 50–52. *Callodicopus*. 50a, head, anterior; 50b, head posterior; 51, antenna; 52, wings.



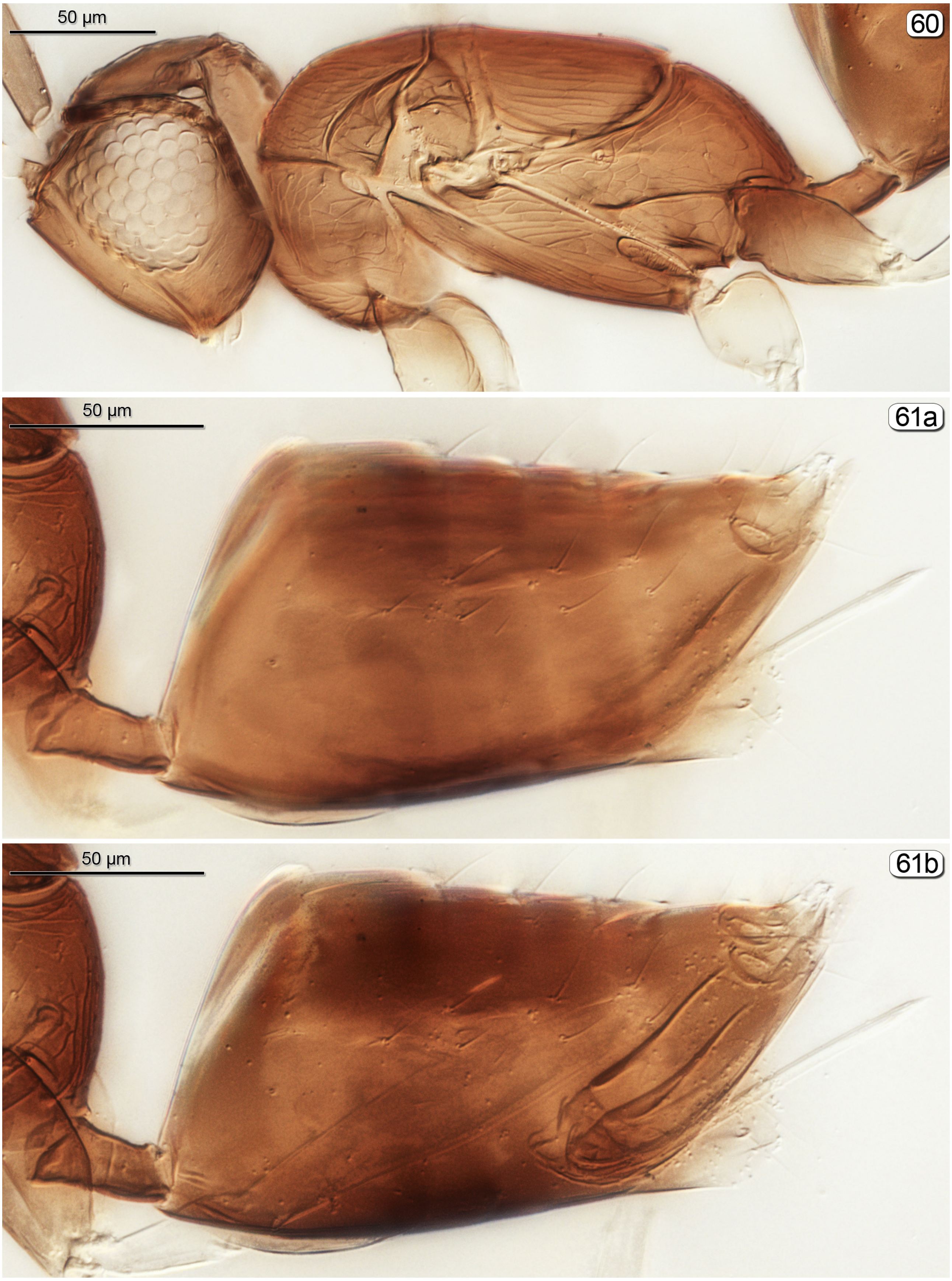
FIGURES 53, 54. *Callodicopus*. 53, mesosoma, dorsal; 54a, metasoma, dorsal; 54b, metasoma, ventral.



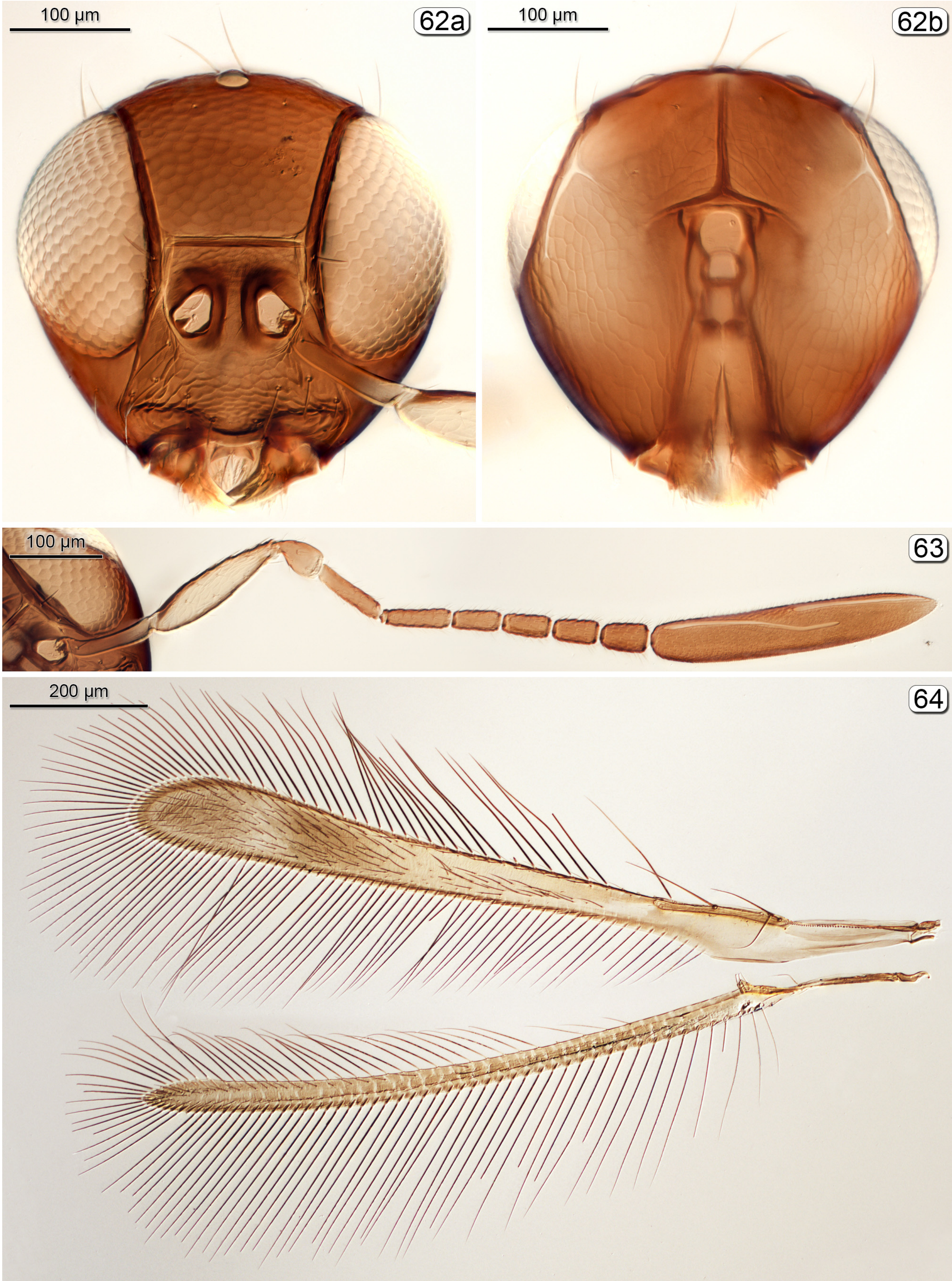
FIGURES 55–57. *Camptoptera*. 55a, head, anterior; 55b, head posterior; 56, antenna; 57, wings.



FIGURES 58, 59. *Camptoptera*. 58, mesosoma, dorsal; 59a, metasoma, dorsal; 59b, metasoma, ventral.



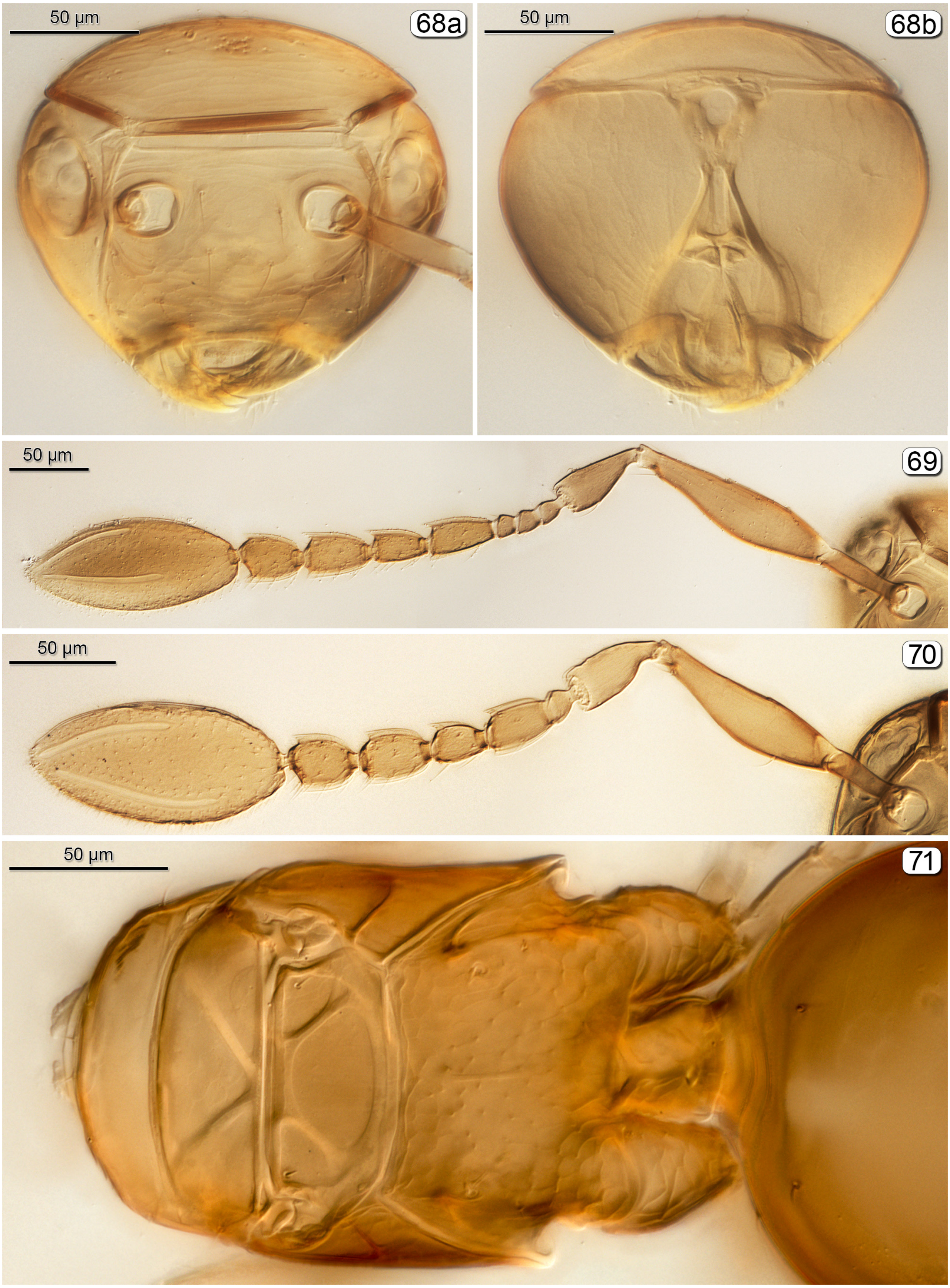
FIGURES 60, 61. *Camptoptera*. 60, head + mesosoma, lateral; 61a, metasoma, lateral. 61b, metasoma, lateral showing genitalia.



FIGURES 62–64. *Camptopteroides*. 62a; head, anterior; 62b, head posterior; 63, antenna; 64, wings

FIGURES 65, 66. *Camptopteroides*. 65, mesosoma, dorsal; 66, head + mesosoma, lateral.

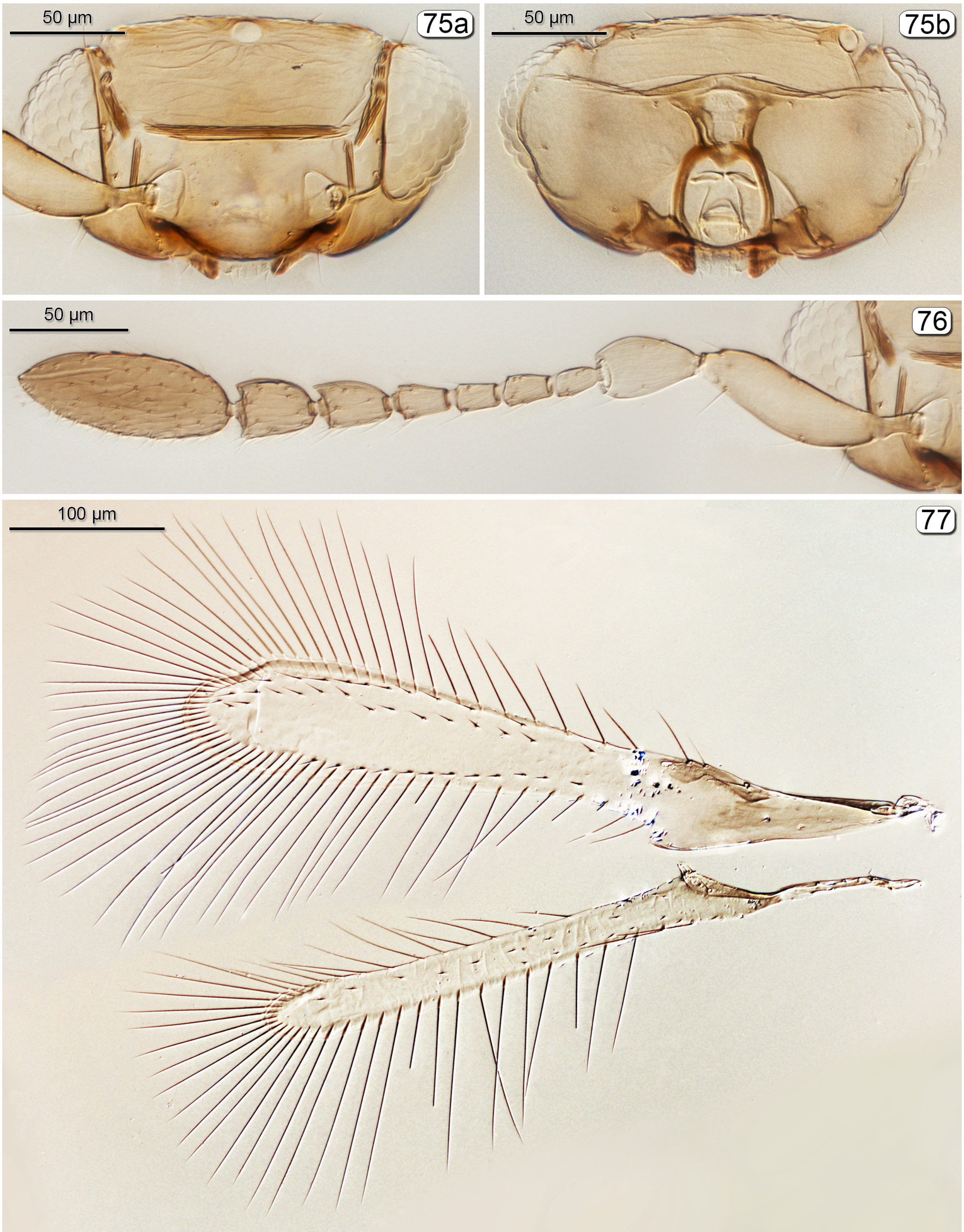
FIGURE 67. *Camptopteroides*. 67, metasoma, lateral.



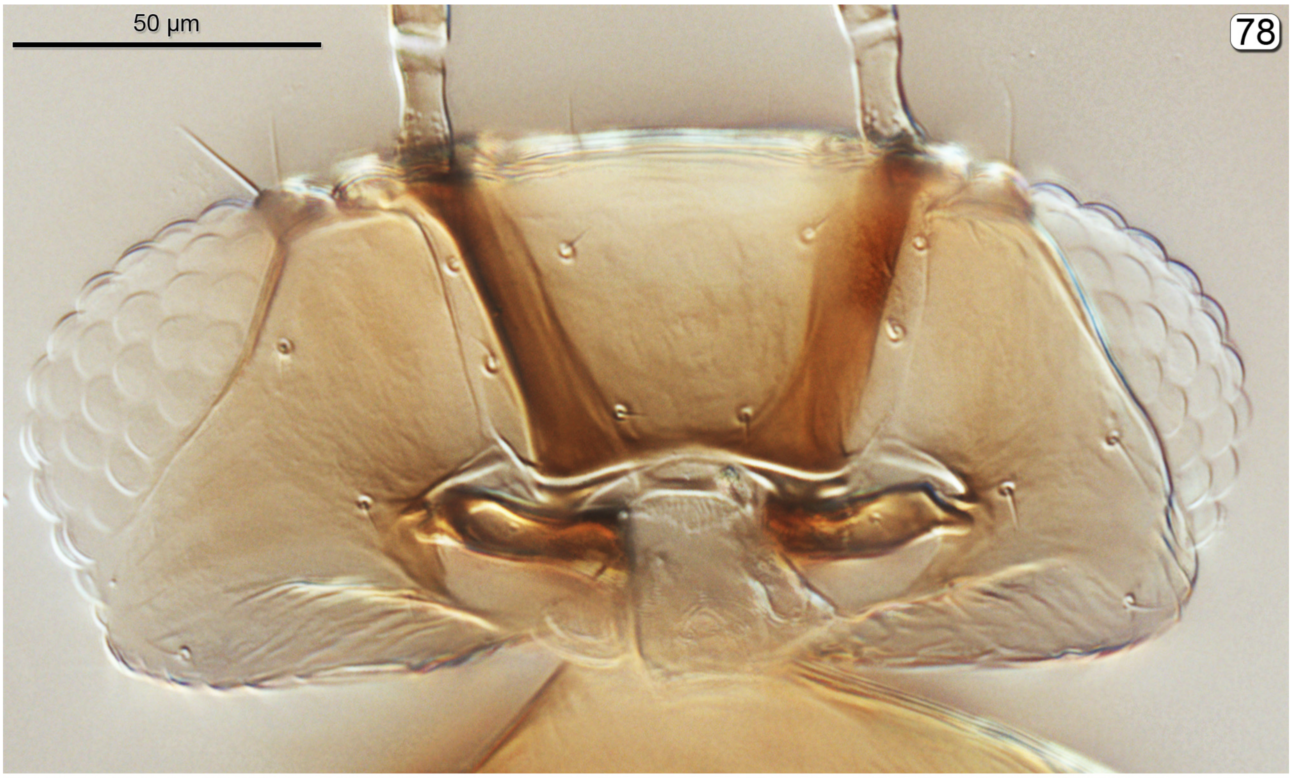
FIGURES 68–71. *Chrysoctonus.* 68a; head, anterior; 68b, head posterior; 69–70, antennae; 71, mesosoma, dorsal.

FIGURE 72. *Chrysoctonus*. 72a, metasoma, dorsal; 72b, metasoma, ventral.

FIGURES 73, 74. *Chrysoctonus*. 73, habitus, lateral; 74, head + mesosoma, lateral.



FIGURES 75–77. *Cleruchoides noackae* Lin & Huber. 75a, head, anterior; 75b, head posterior; 76, antenna; 77, wings. Specimen from Australia.



FIGURES 78, 79. *Cleruchoides noackae* Lin & Huber. 78, head, ventral; 79, mesosoma, dorsal. Specimen from Australia.

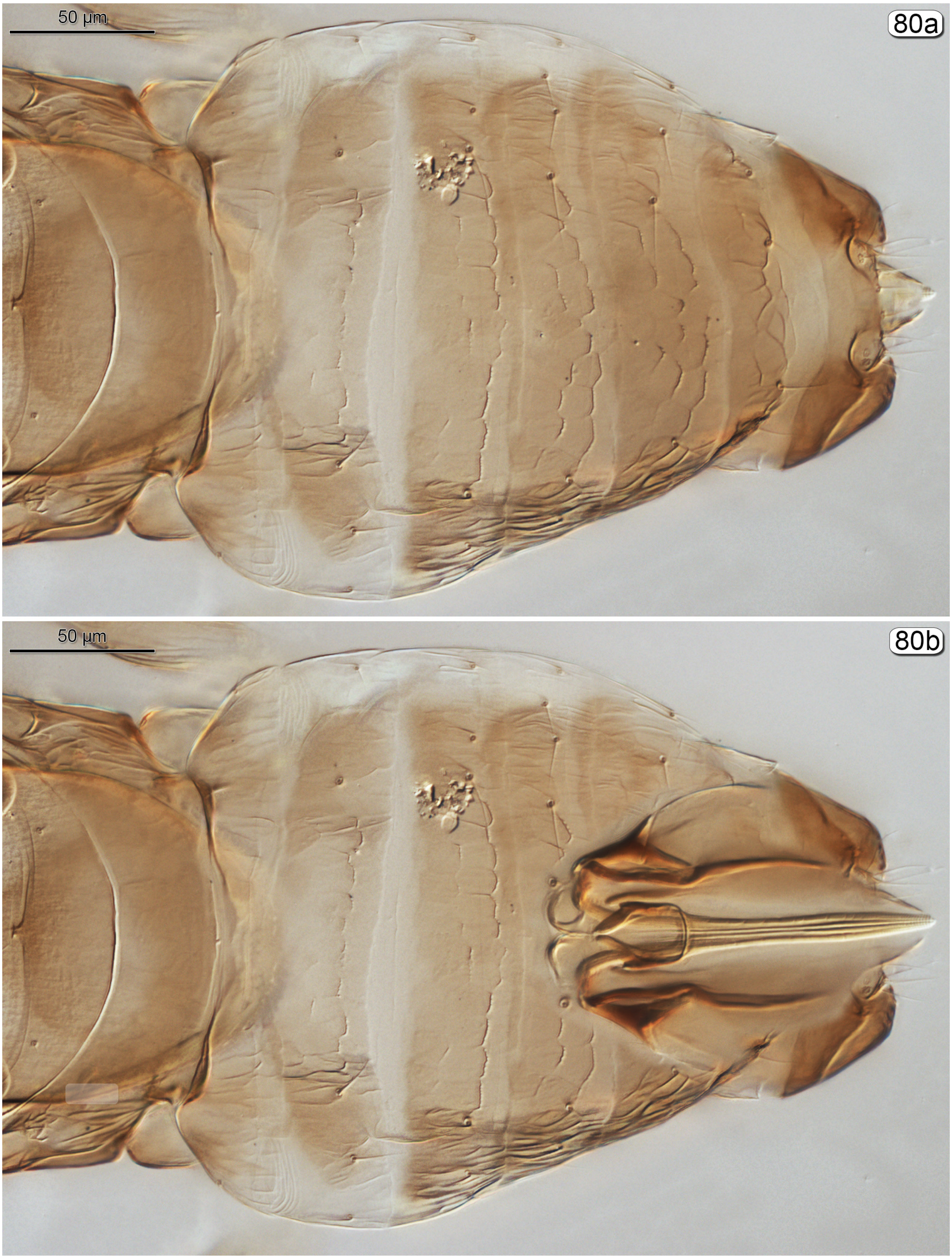
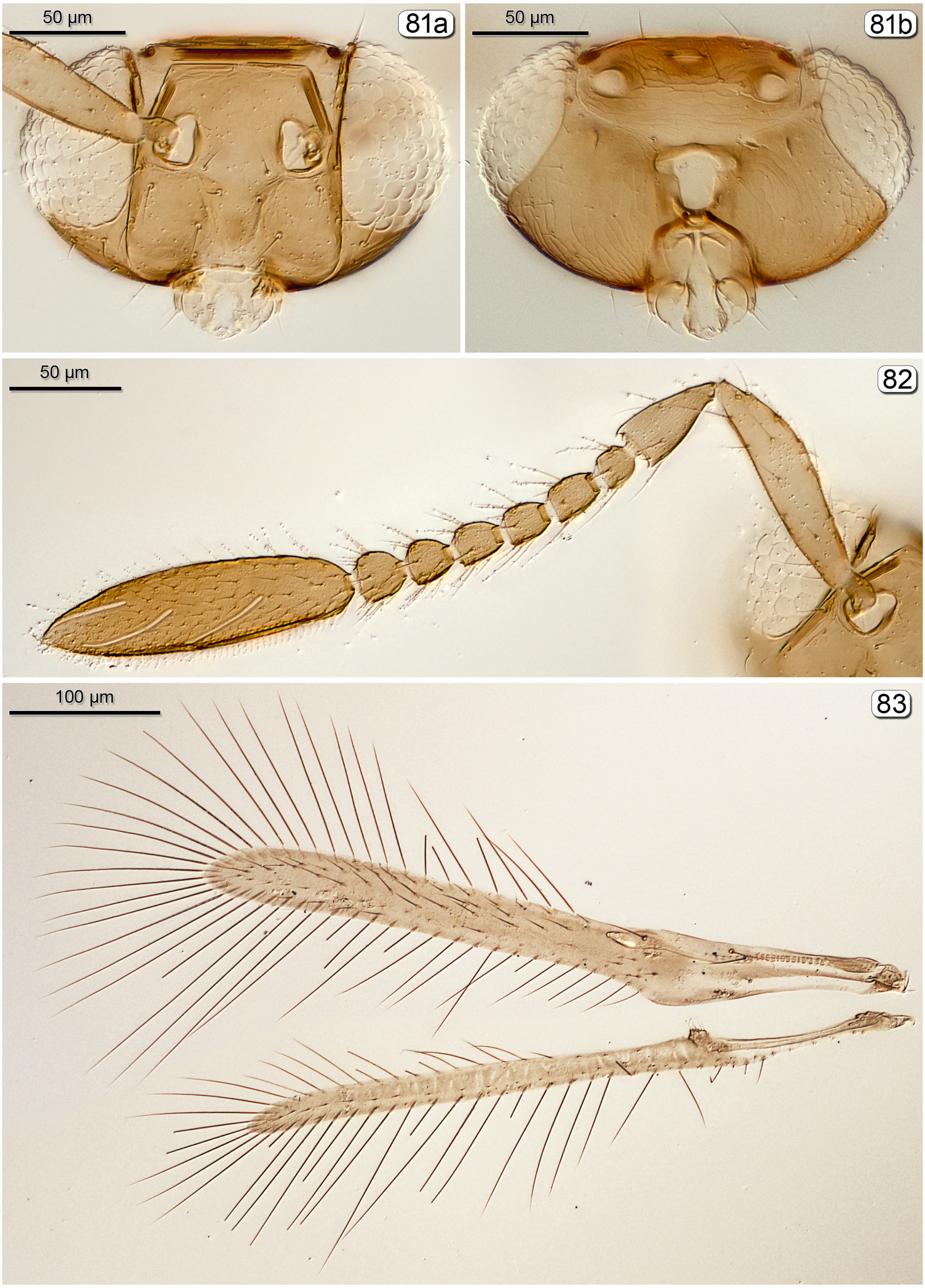
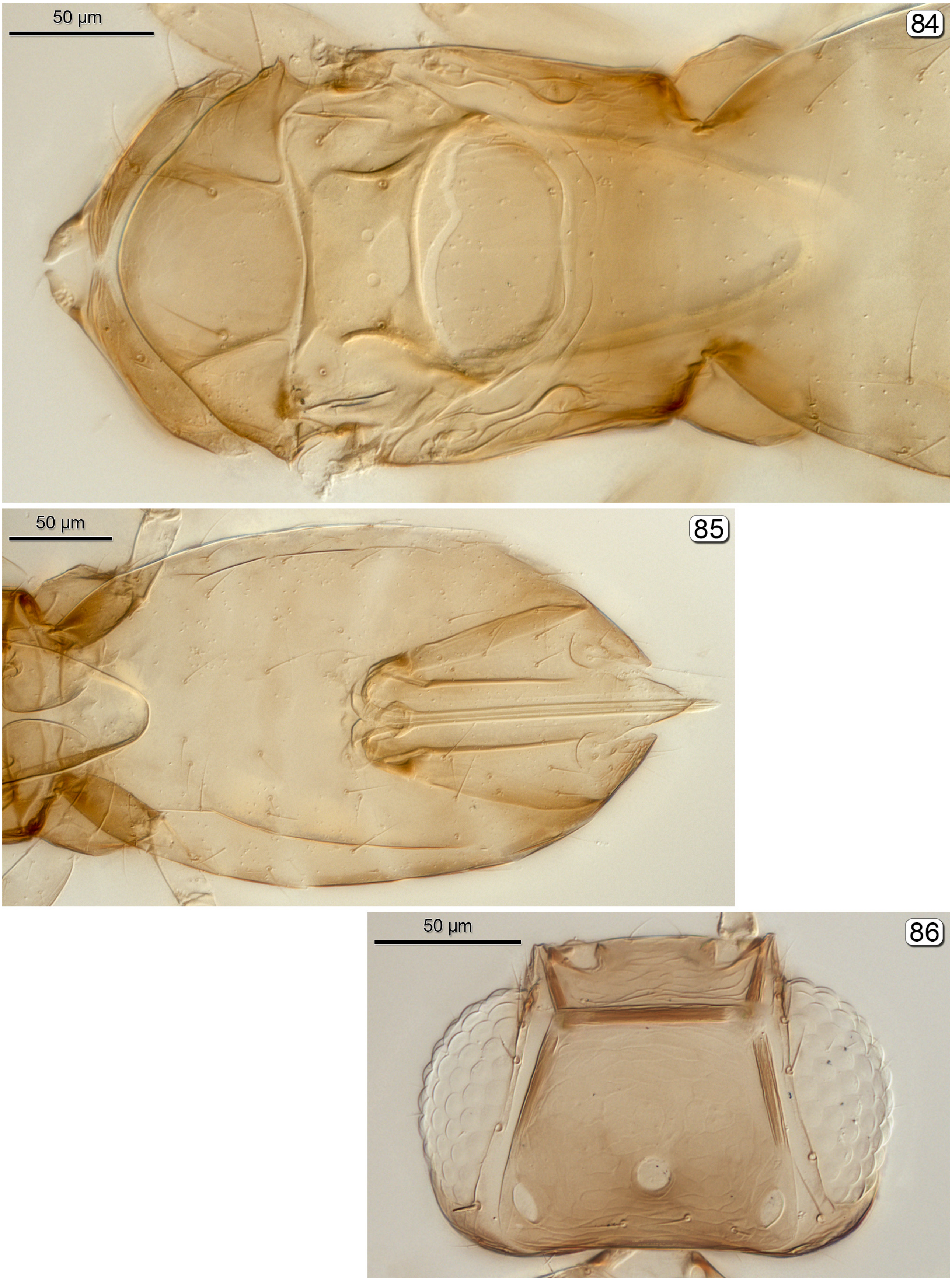


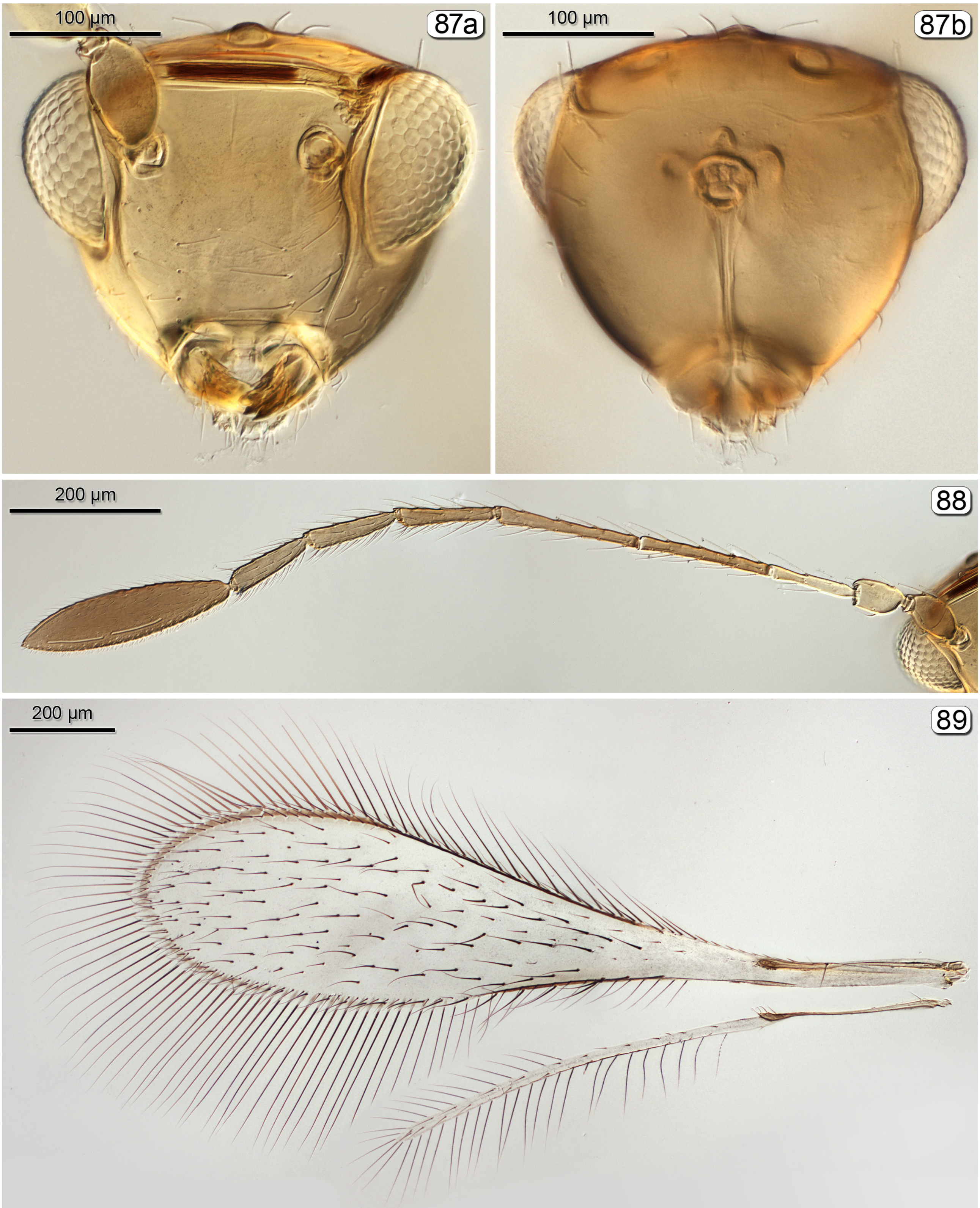
FIGURE 80. *Cleruchoides noackae* Lin & Huber. 80a, metasoma, dorsal; 80b, metasoma, ventral. Specimen from Australia.



FIGURES 81–83. *Cleruchus.* 81a, head, anterior; 81b, head, posterior; 82, antenna; 83, wings.



FIGURES 84–86. *Cleruchus.* 84, mesosoma, dorsal; 85, metasoma, ventral; 86, head, dorsal.



FIGURES 87–89. *Cnecomymar*: 87a, head, anterior; 87b, head, posterior; 88, antenna; 89, wings. From USA (Florida).

FIGURES 90, **91**. *Cnecomymar*. 90a, mesosoma, dorsal; 90b, mesosoma, ventral; 91, hind leg.

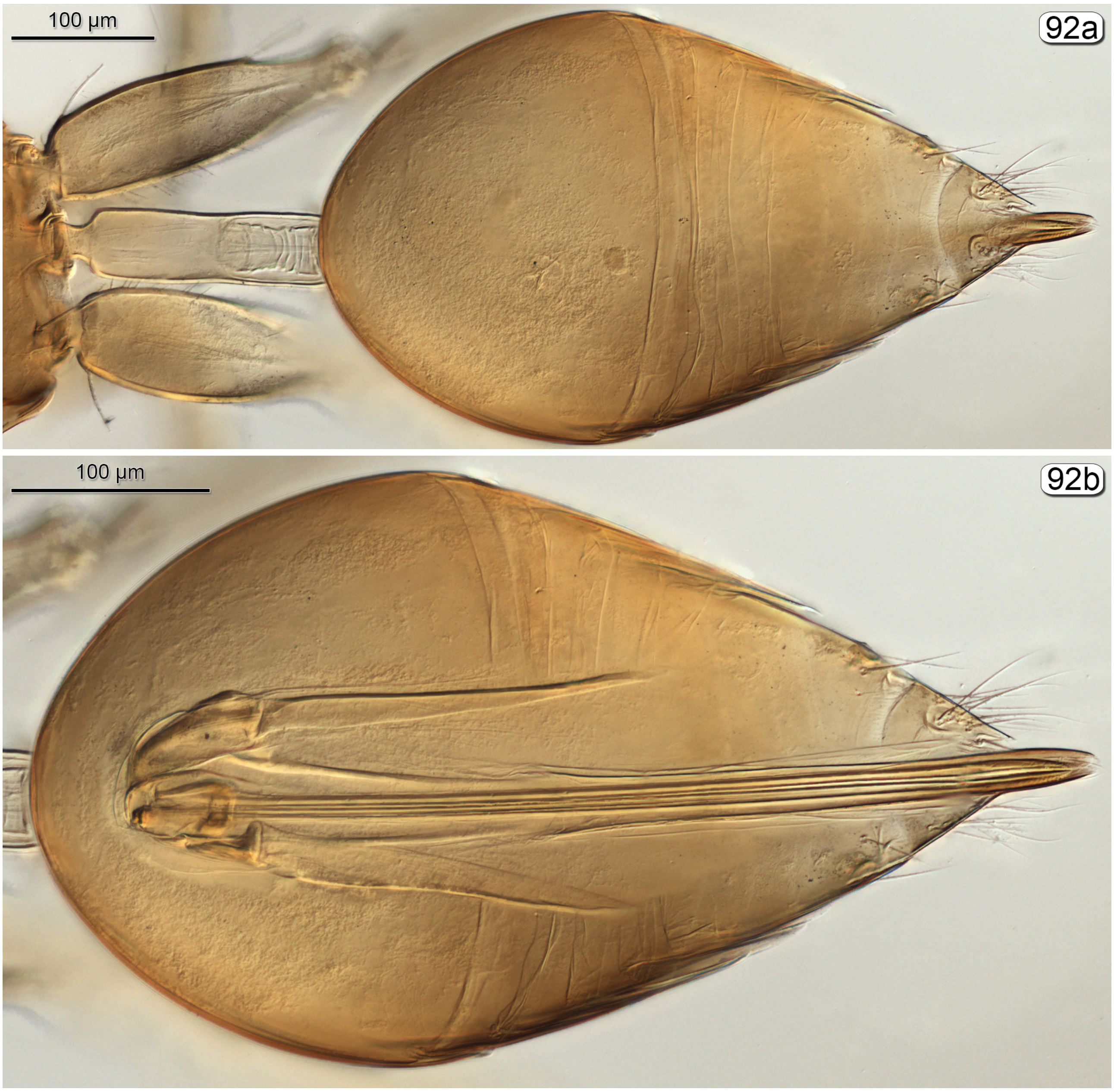
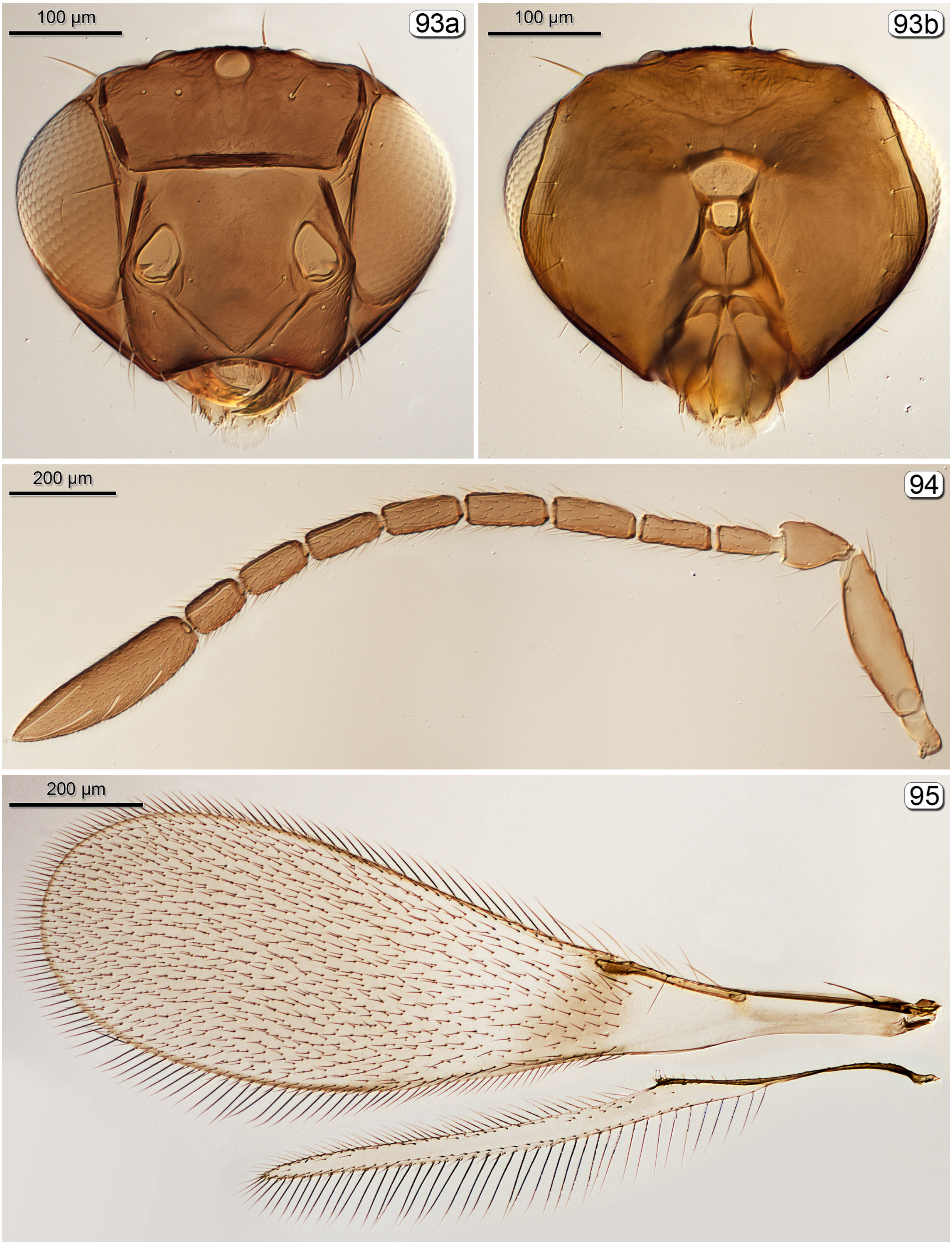
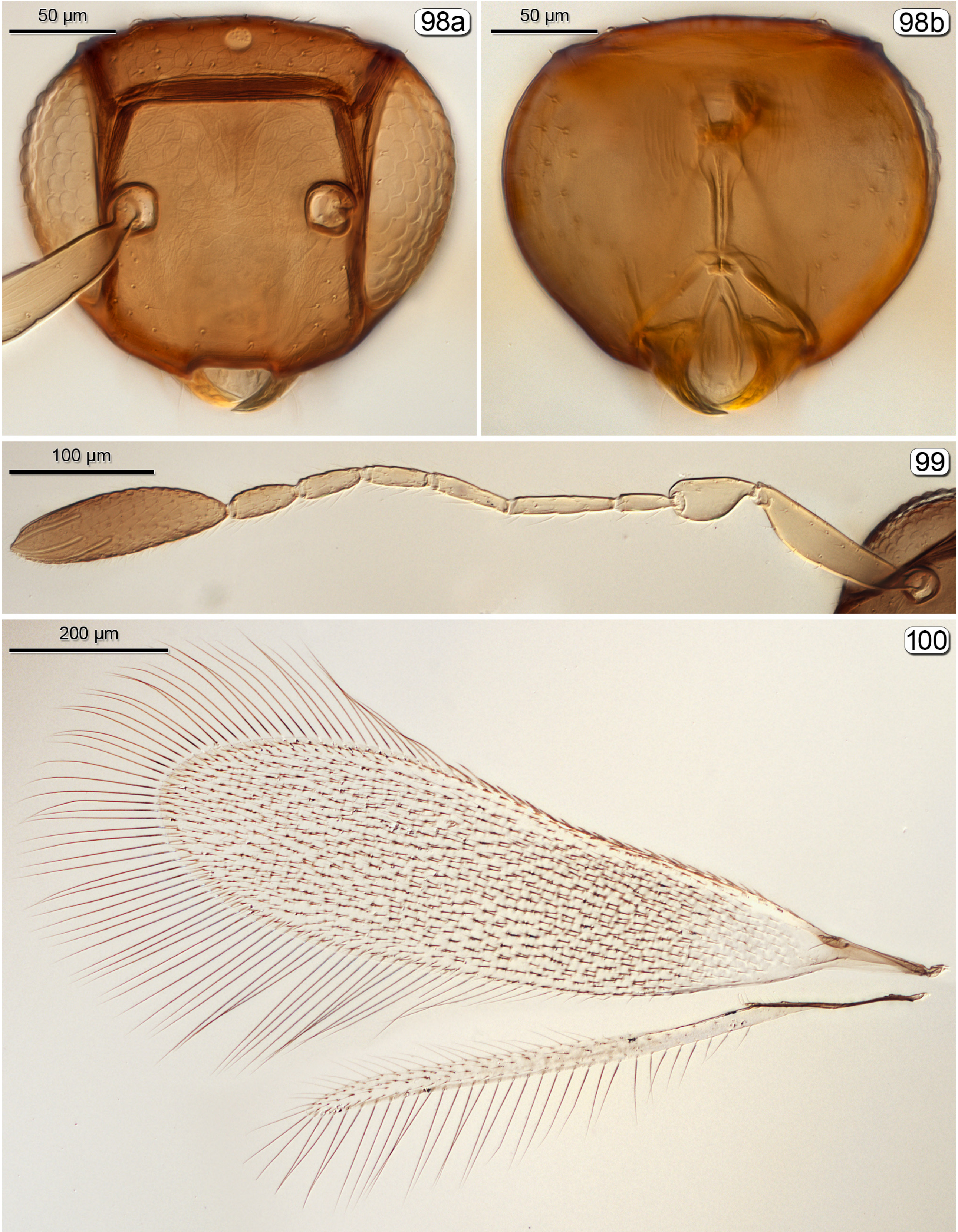


FIGURE 92. *Cnecomymar*. 92a, metasoma, dorsal; 92b, metasoma, ventral.

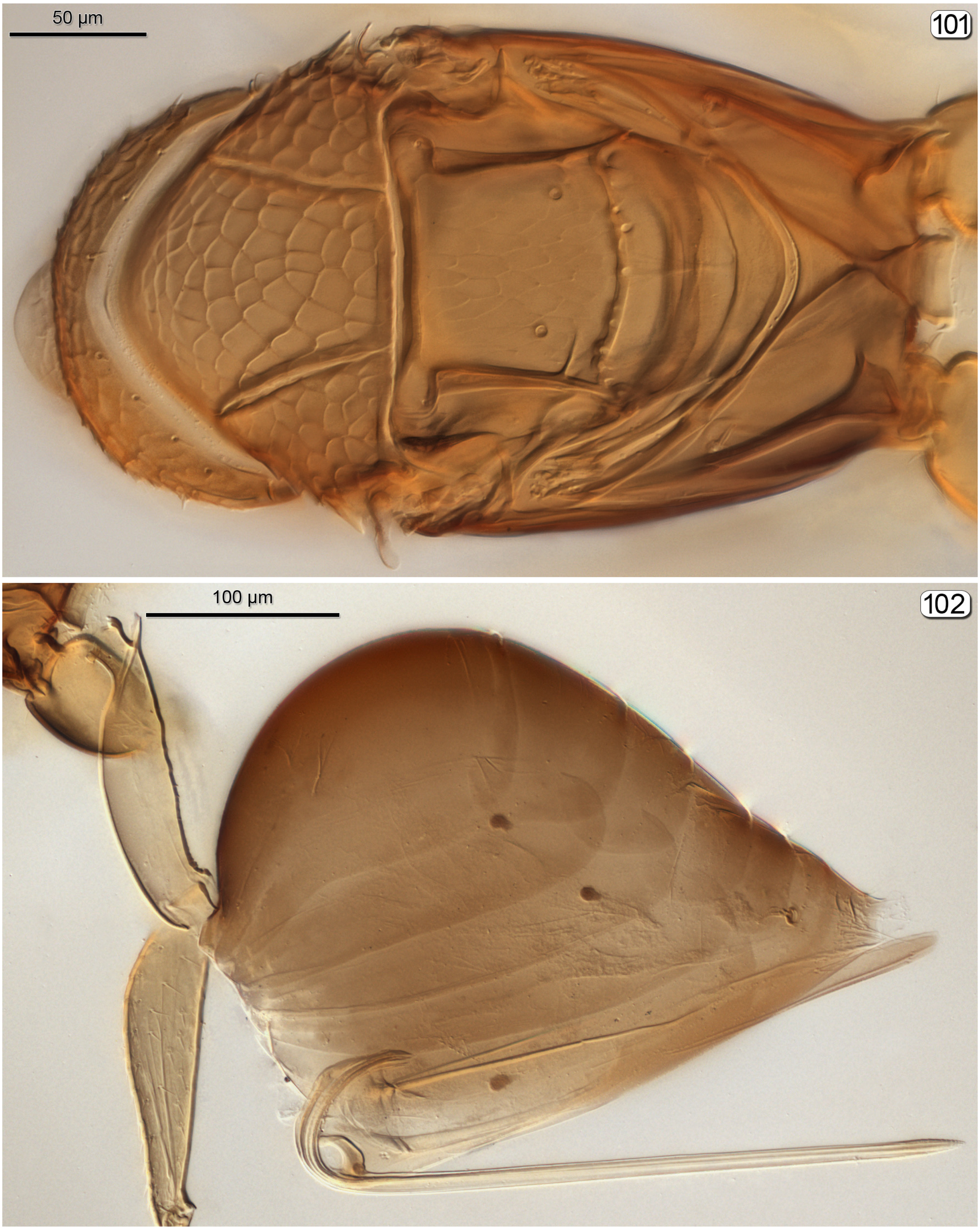


FIGURES 93–95. *Cosmocomoidea*. 93a, head, anterior; 93b, head, posterior; 94, antenna; 95, wings.

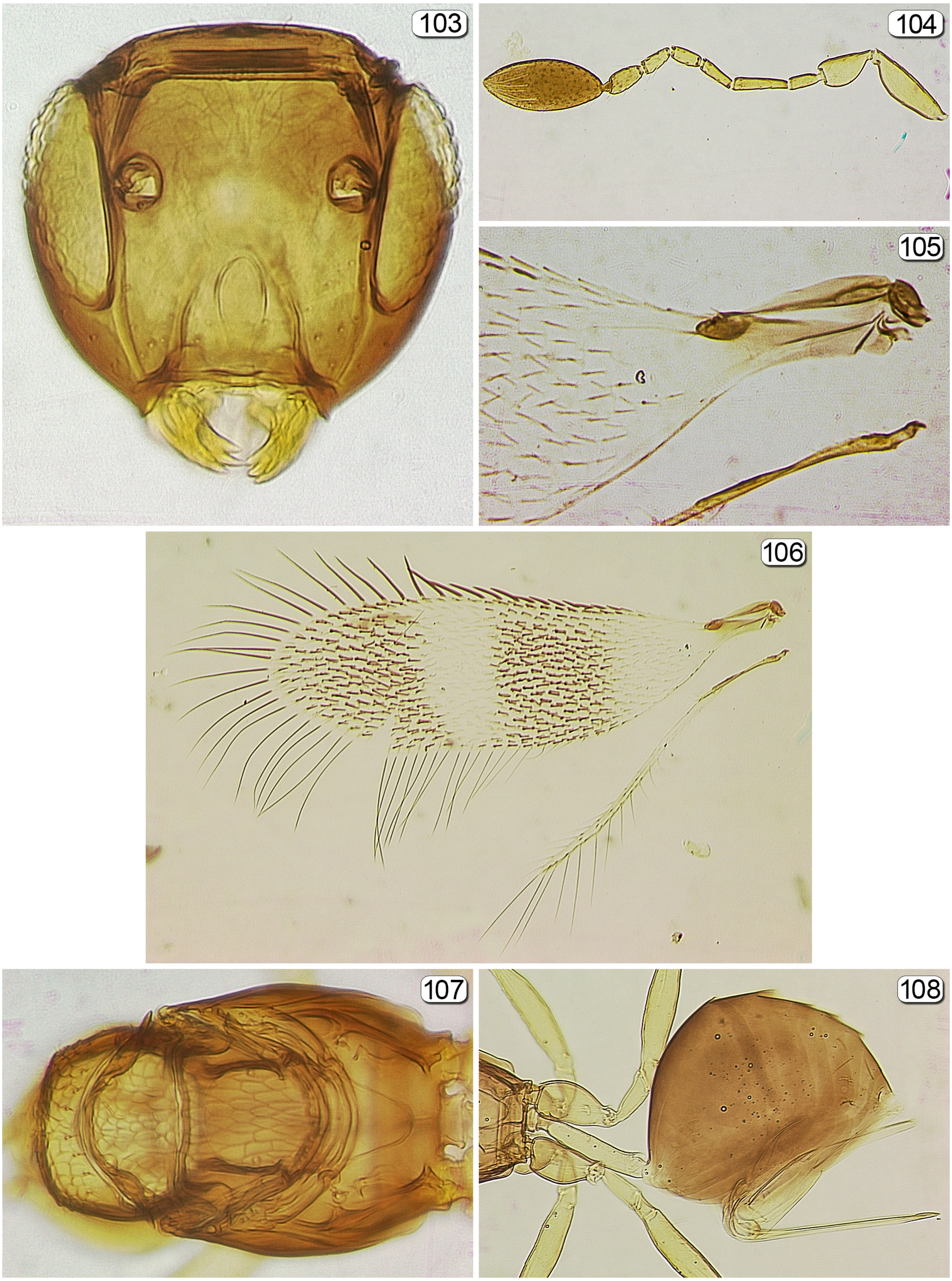
FIGURES 96, 97. *Cosmocomoidea*. 96, mesosoma, dorsal; 97a, metasoma, dorsal; 97b, metasoma, ventral.



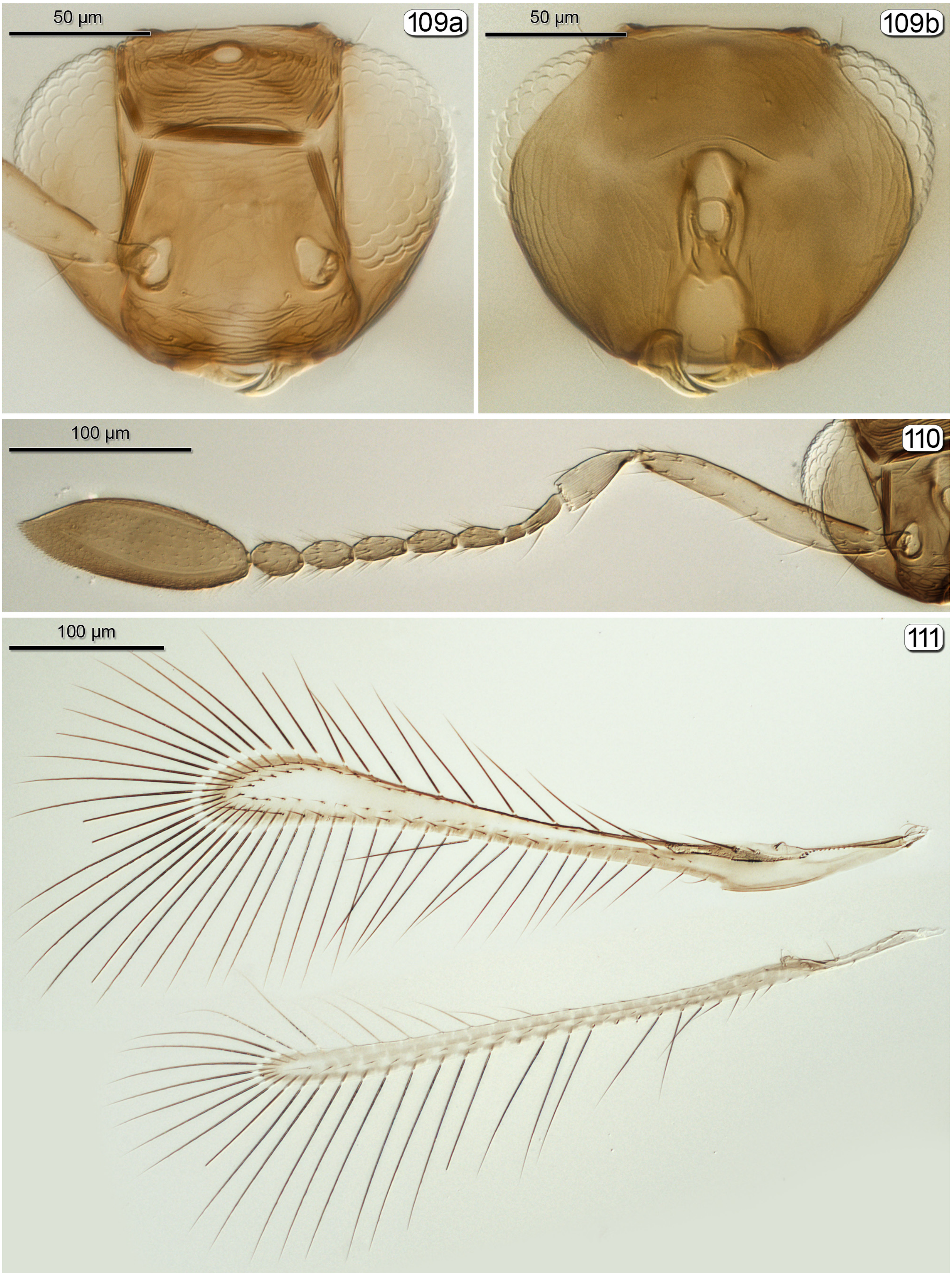
FIGURES 98–100. *Cremnomymar*. 98a, head, anterior; 98b, head, posterior; 99, antenna; 100, wings.



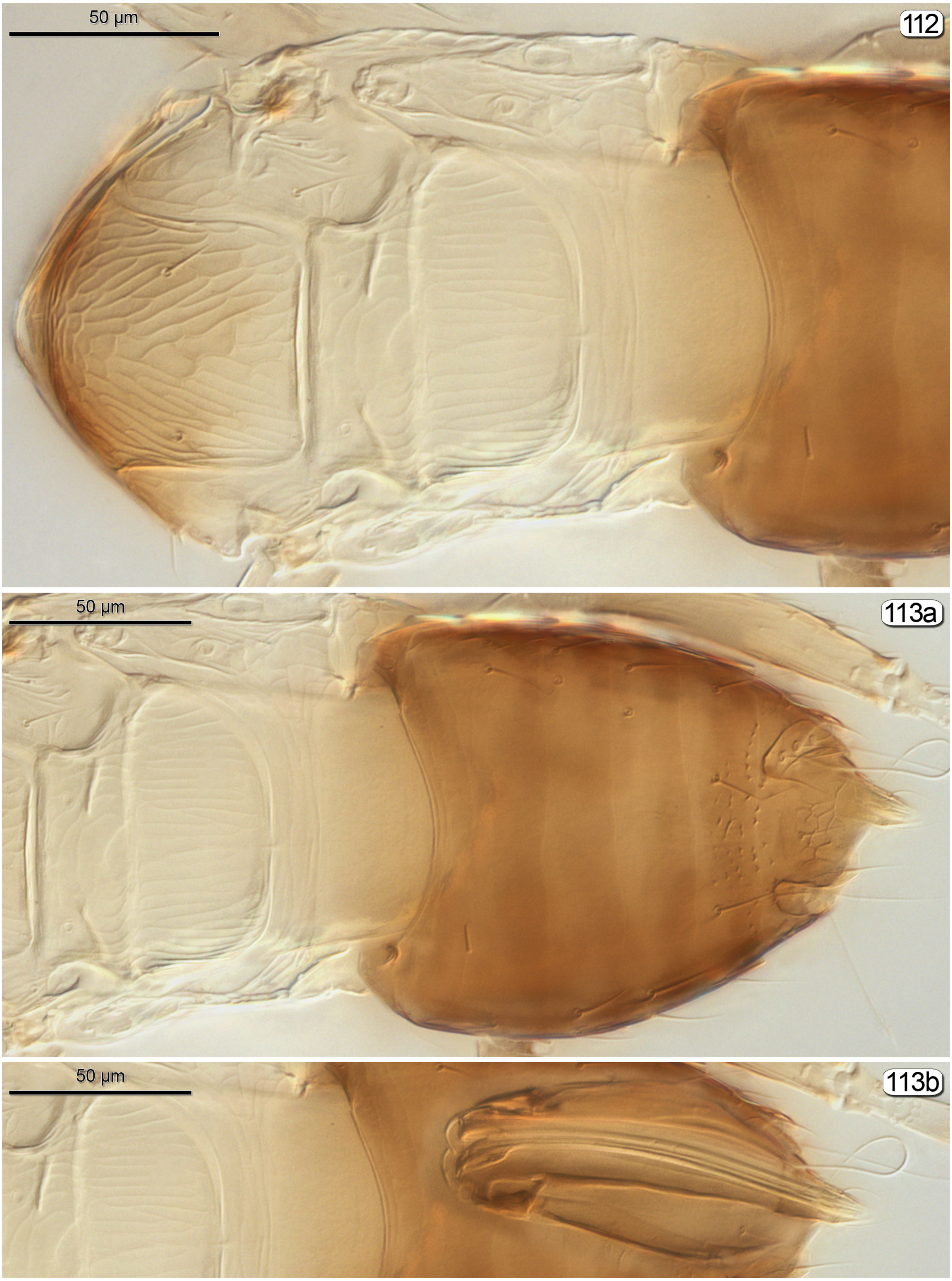
FIGURES 101, 102. *Cremnomymar*. 101, mesosoma, dorsal; 102, metasoma, lateral.



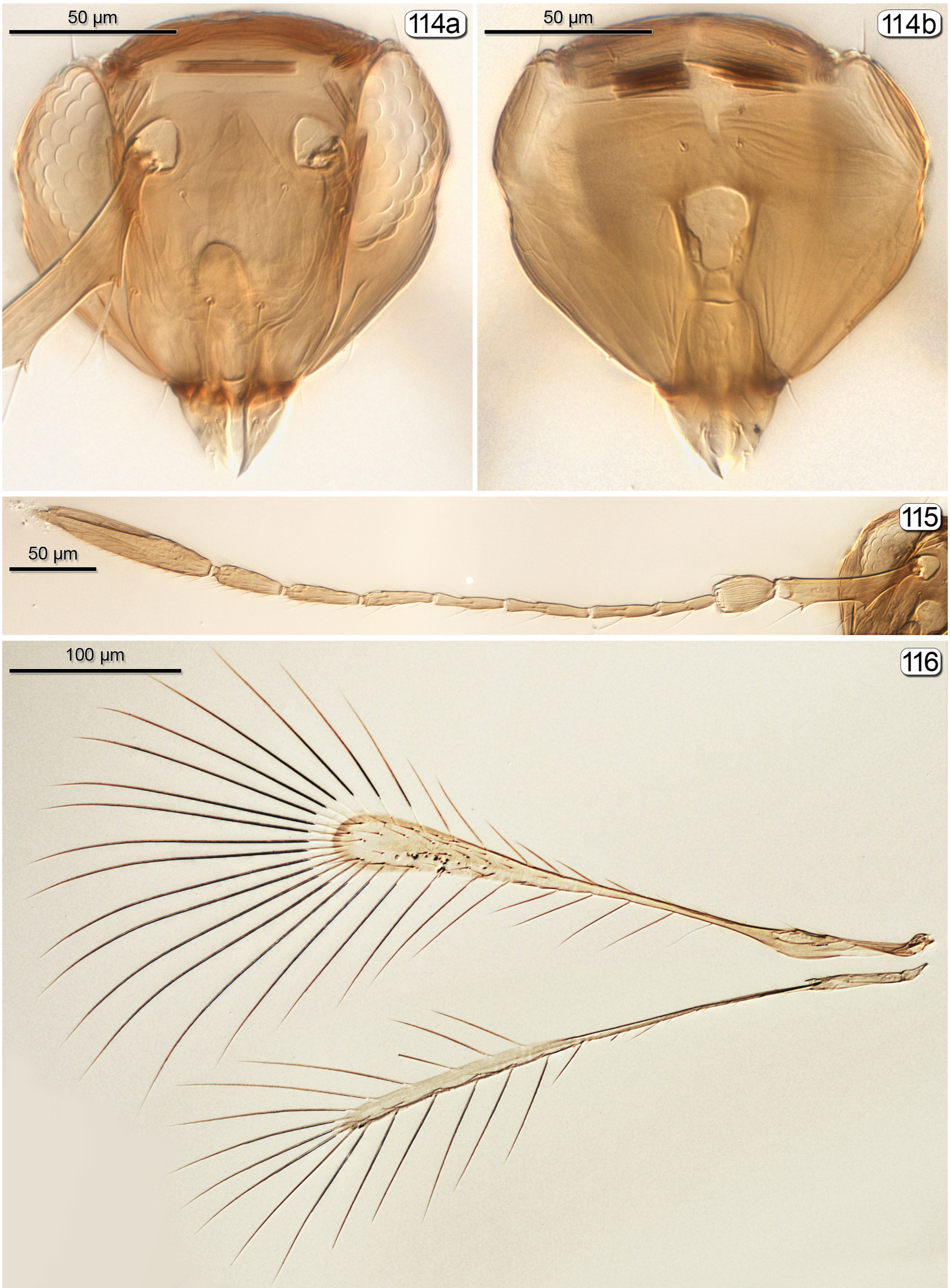
FIGURES 103–108. *Cremnomymar sagittifer* Fidalgo. 103, head, anterior; 104, antenna; 105, base of wing; 106, wings; 107, mesosoma, dorsal; 108, metasoma, lateral.



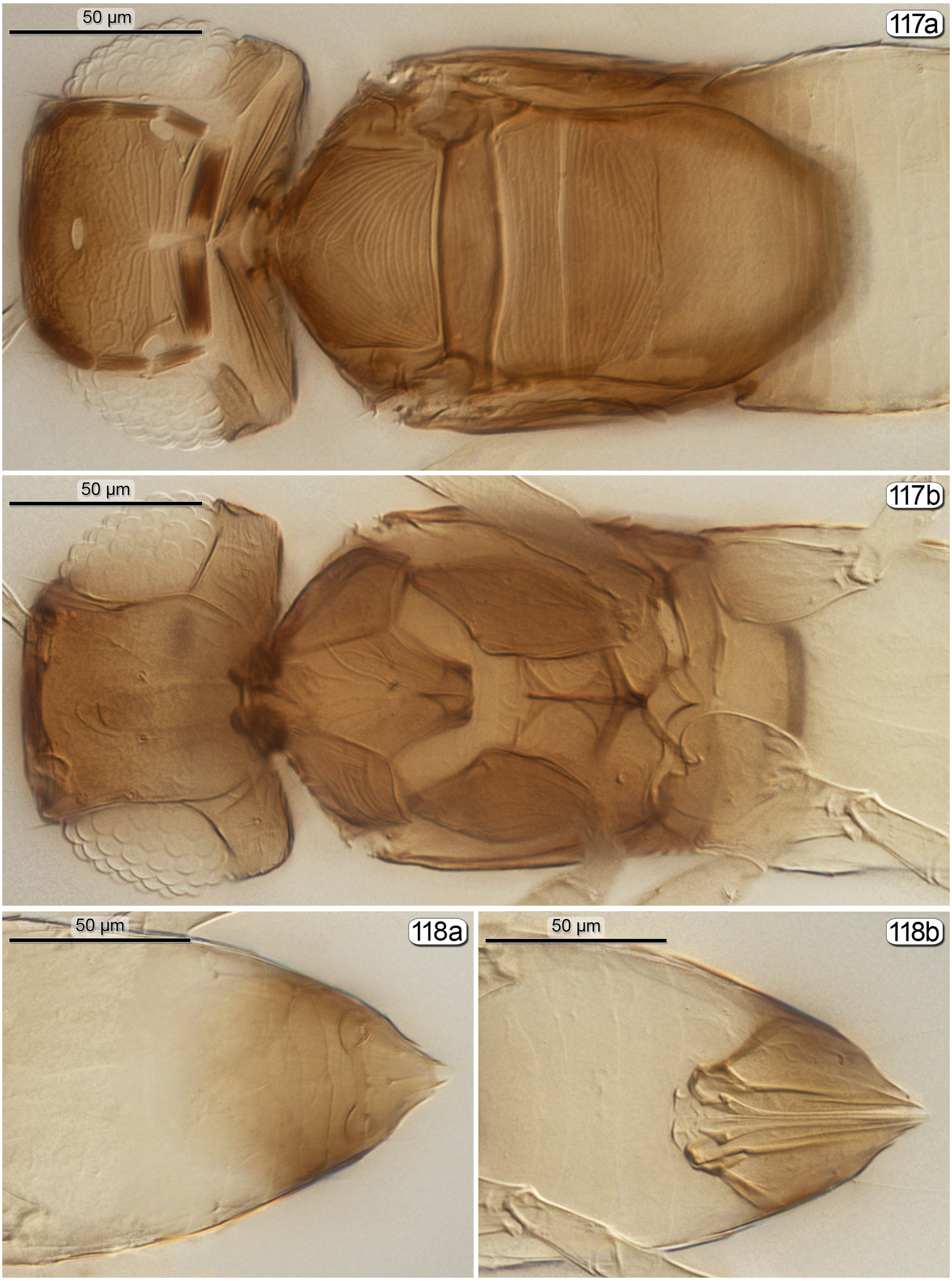
FIGURES 109–111. *Dicopomorpha*. 109a, head, anterior; 109b, head, posterior; 110, antenna; 111, wings.



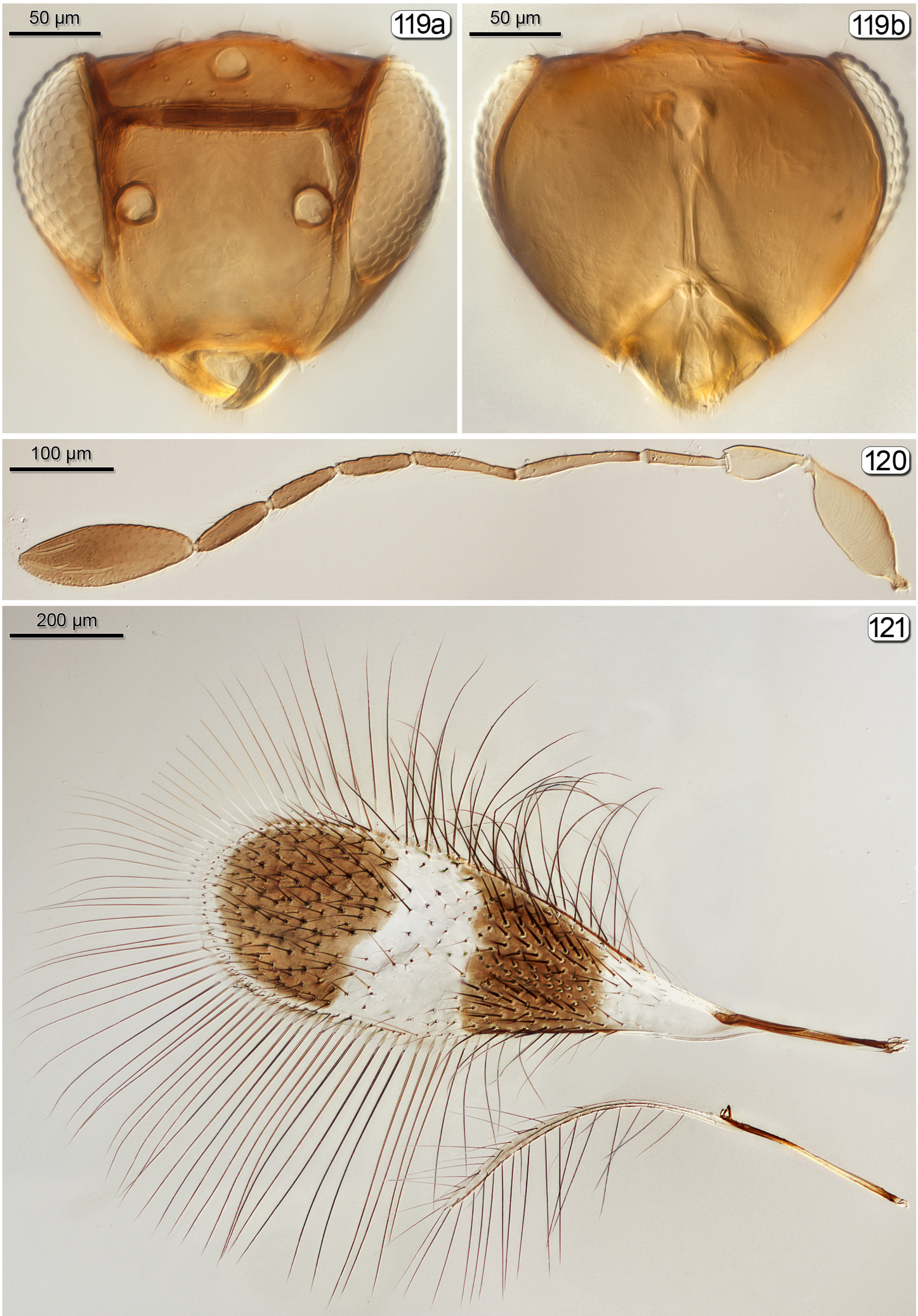
FIGURES 112, 113. *Dicopomorpha*. 112, mesosoma, dorsal; 113a, mesosoma + metasoma, dorsal; 113b, mesosoma + metasoma, ventral.



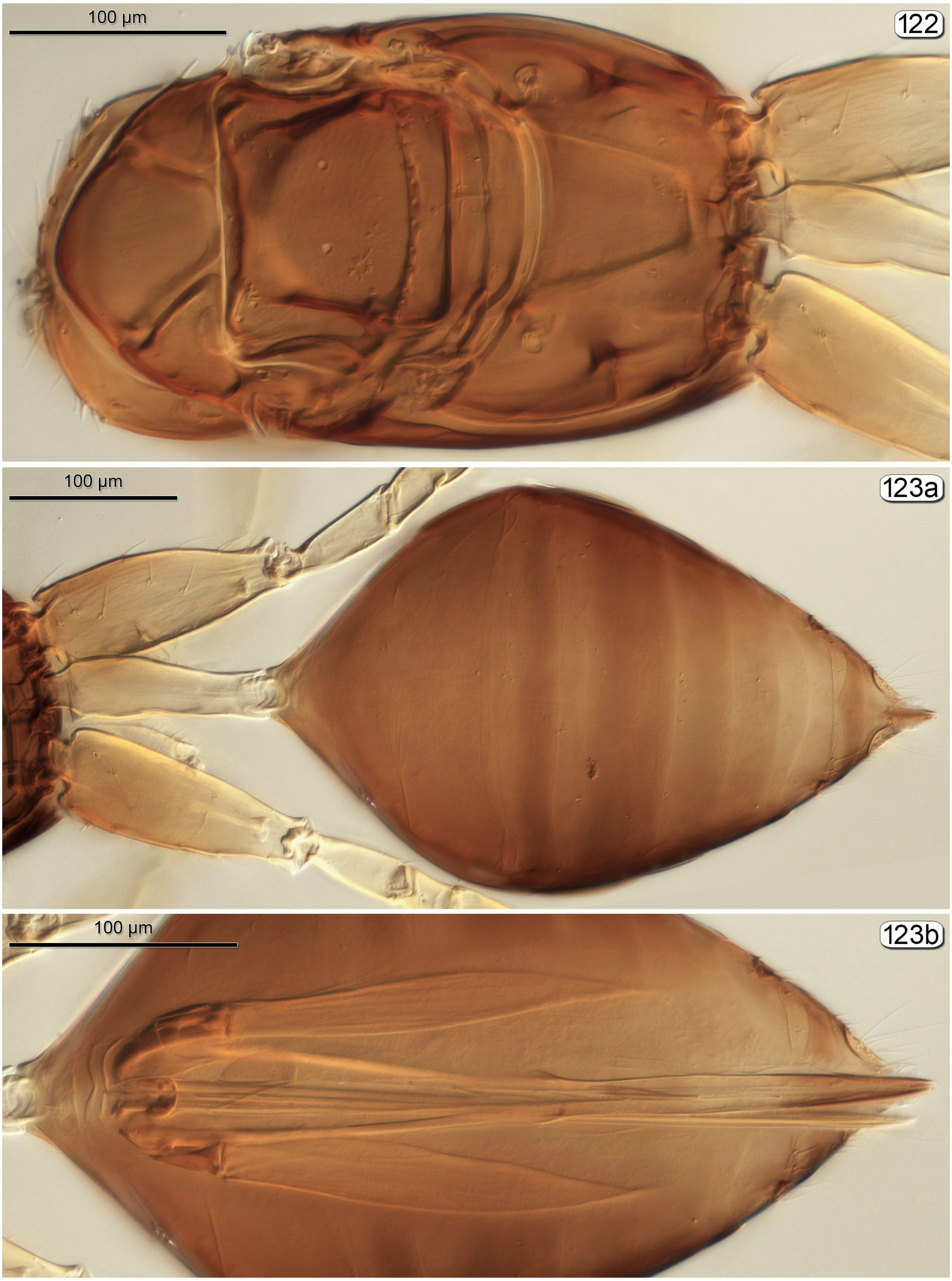
FIGURES 114–116. *Dicopus.* 114a, head, anterior; 114b, head, posterior; 115, antenna; 116, wings.



FIGURES 117, 118. *Dicopus*. 117a, head + mesosoma, dorsal; 117b, head + mesosoma, ventral; 118a, metasoma, dorsal; 118b, metasoma, ventral.

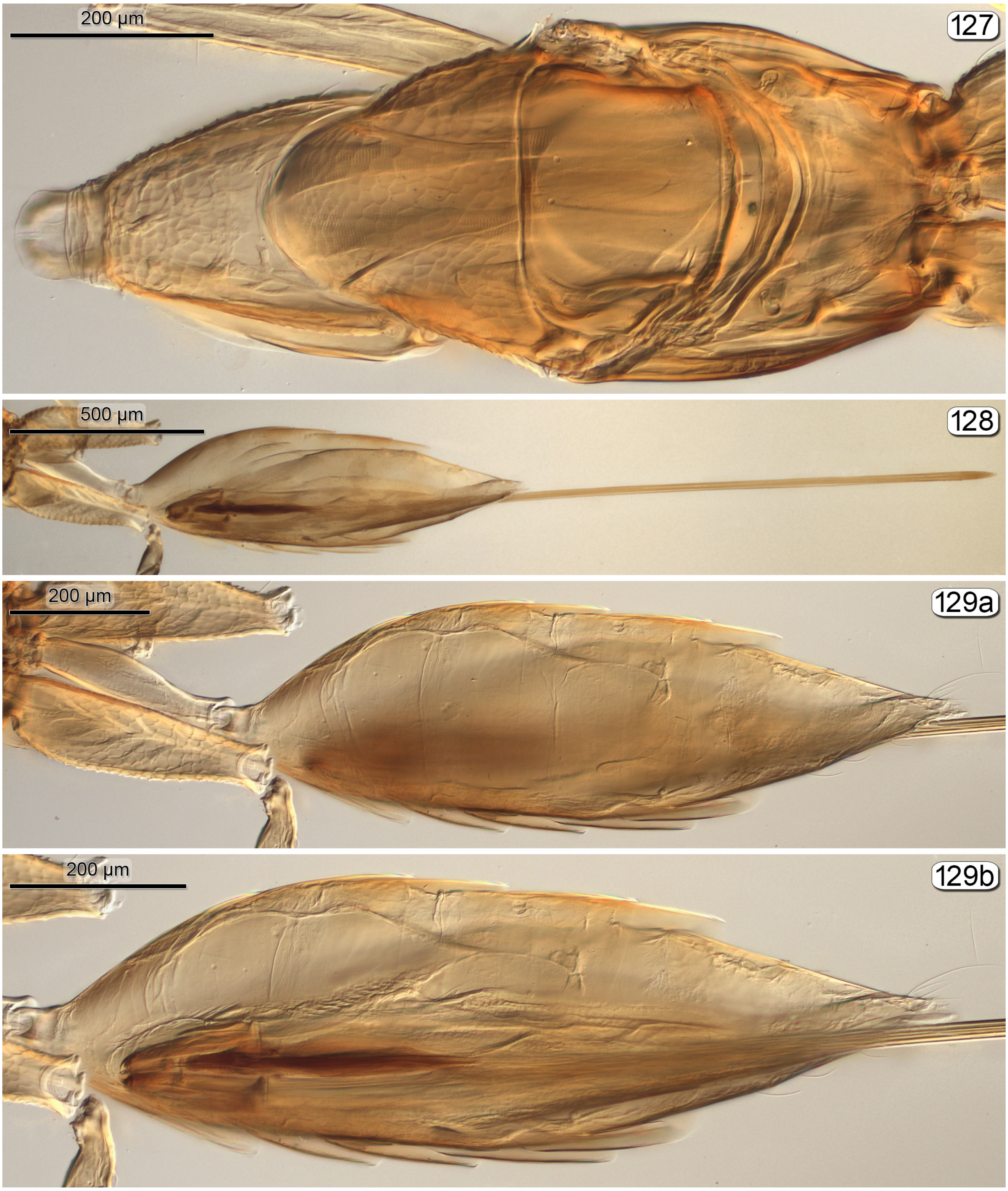


FIGURES 119–123. *Entrichopteris*. 119a, head, anterior; 119b, head, posterior; 120, antenna; 121, wings.

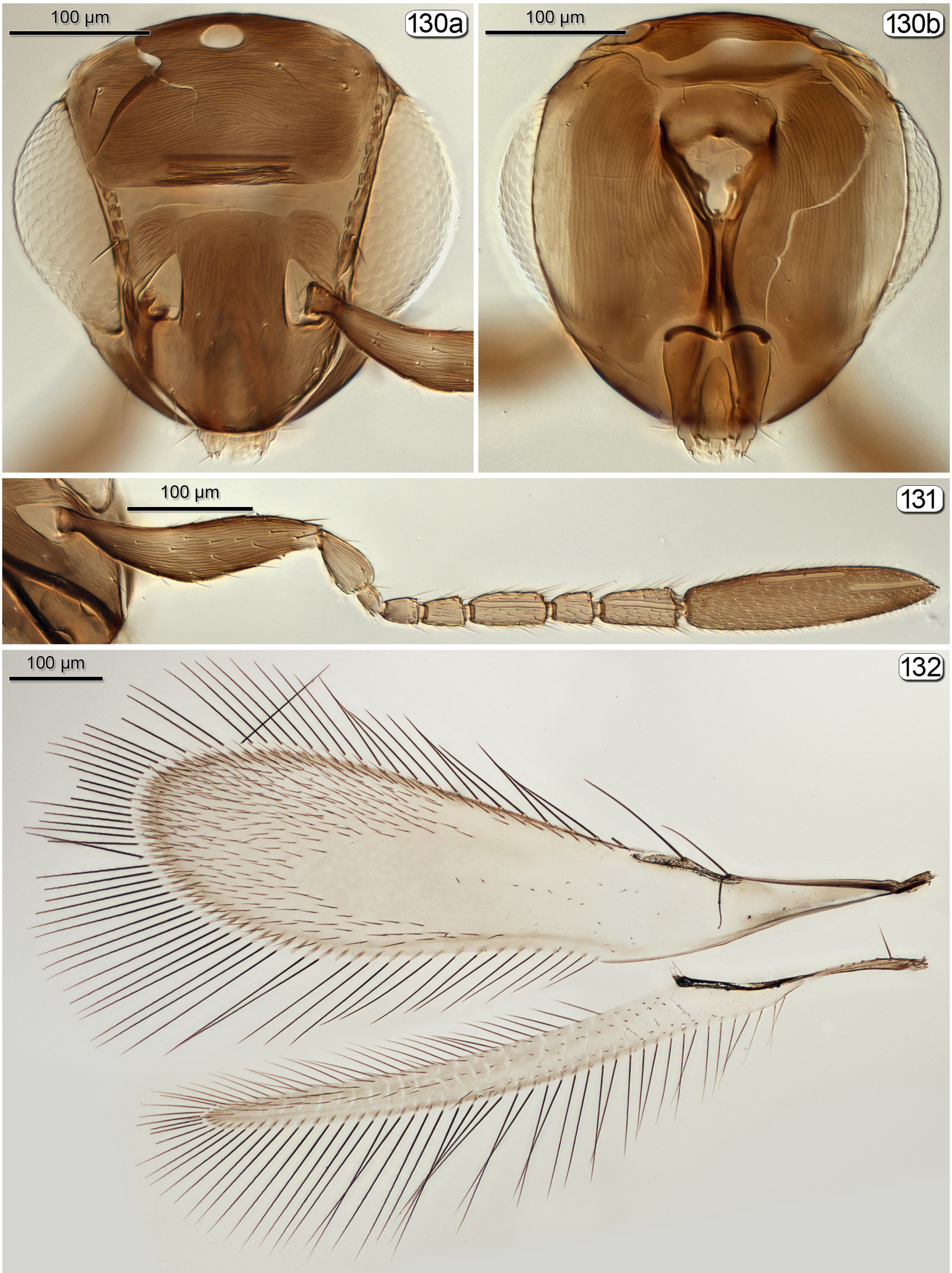


FIGURES 122, 123. *Entrichopteris*. 122, mesosoma, dorsal; 123a, metasoma, dorsal; 123b, gaster, ventral.

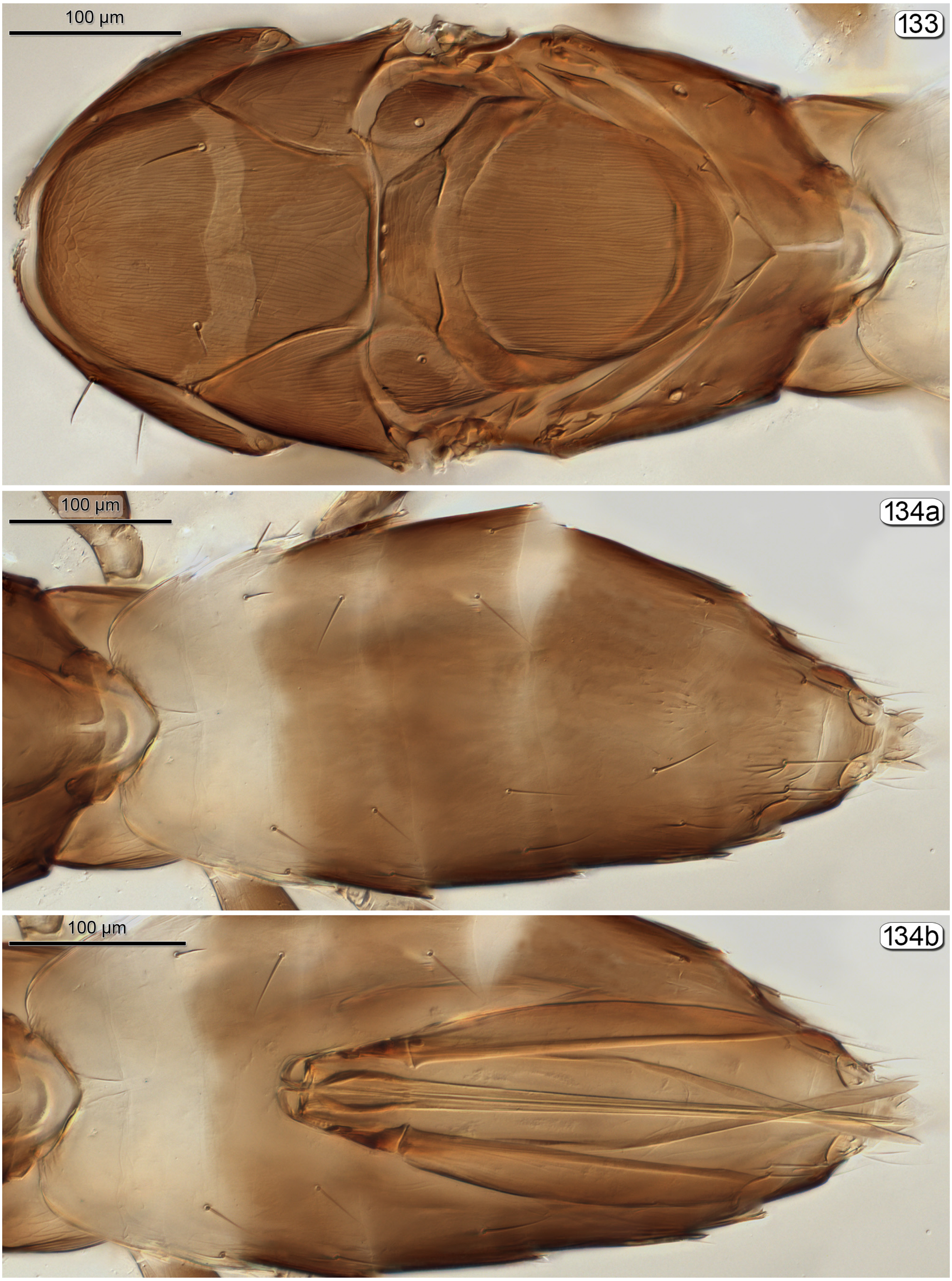
FIGURES 124–126. *Erdosiella*. 124a, head, anterior; 124b, head, posterior; 125, antenna; 126, wings.



FIGURES 127–129. *Erdosiella*. 127, mesosoma, dorsal; 128, metasoma + entire ovipositor; 129a, metasoma, dorsal; 129b, metasoma, ventral.

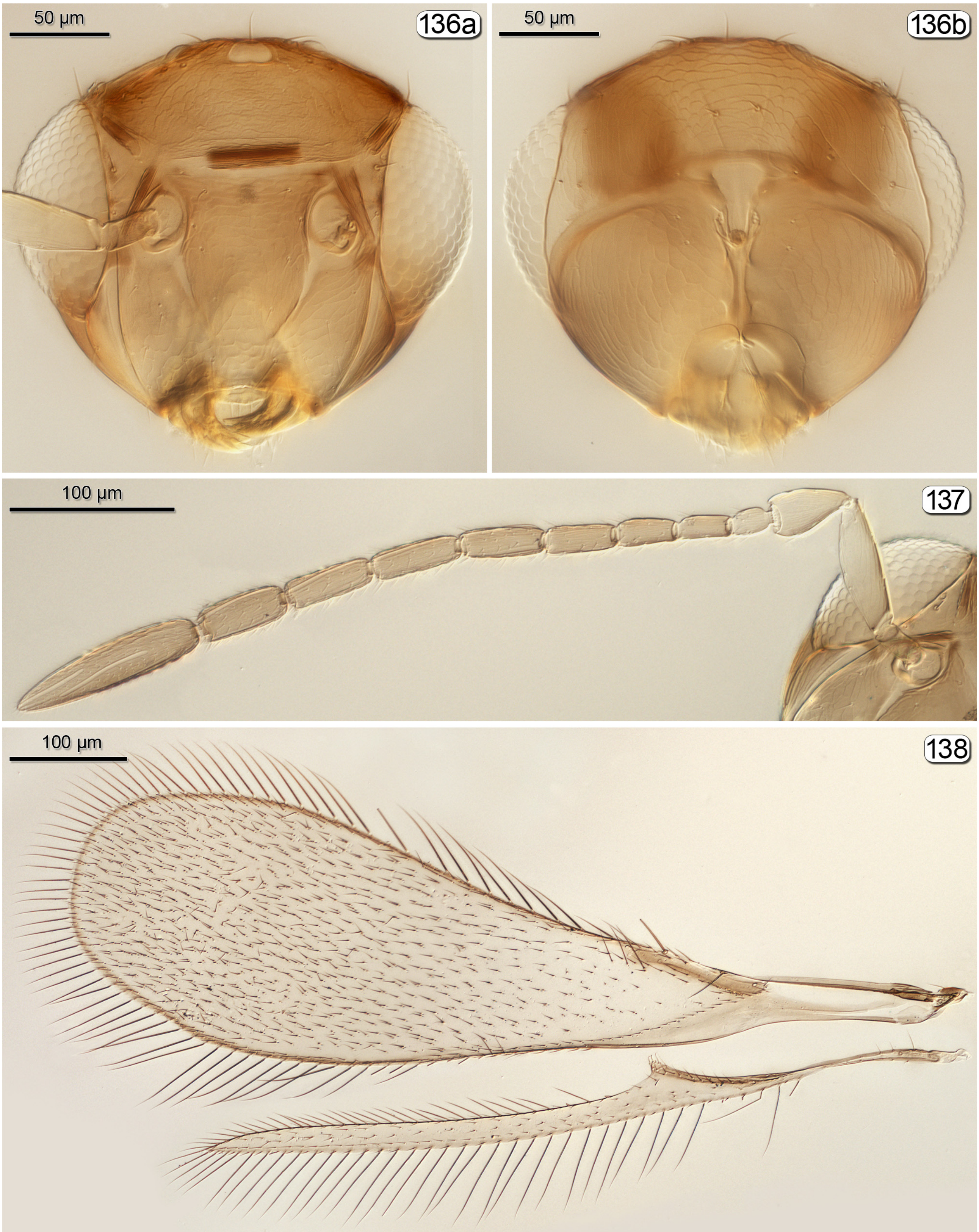


FIGURES 130–132. *Erythmelus*. 130a, head, anterior; 130b, head, posterior; 131, antenna; 132, wings.

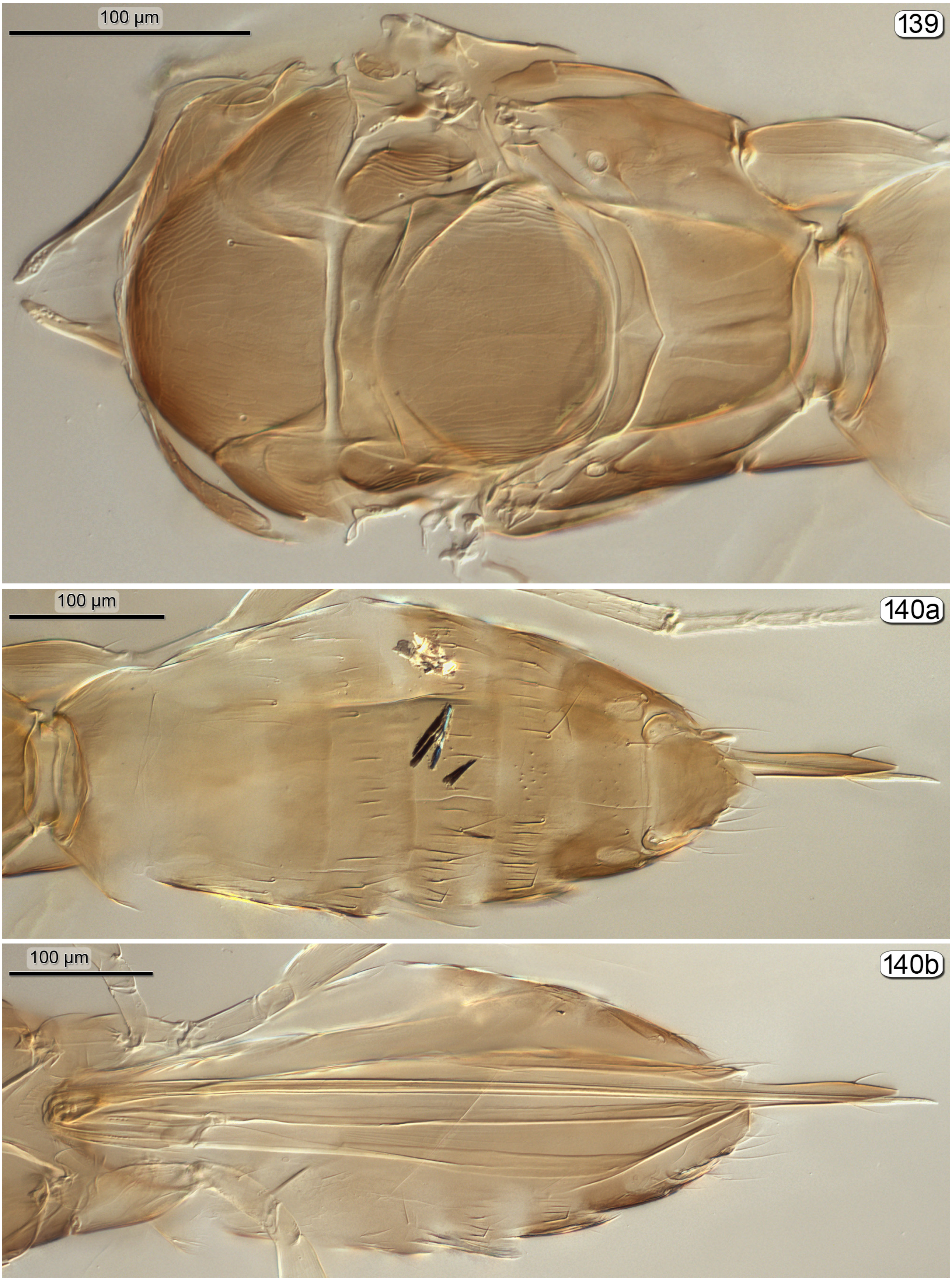


FIGURES 133, 134. *Erythmelus*. 133, mesosoma, dorsal; 134a, metasoma, dorsal; 134b, metasoma, ventral.

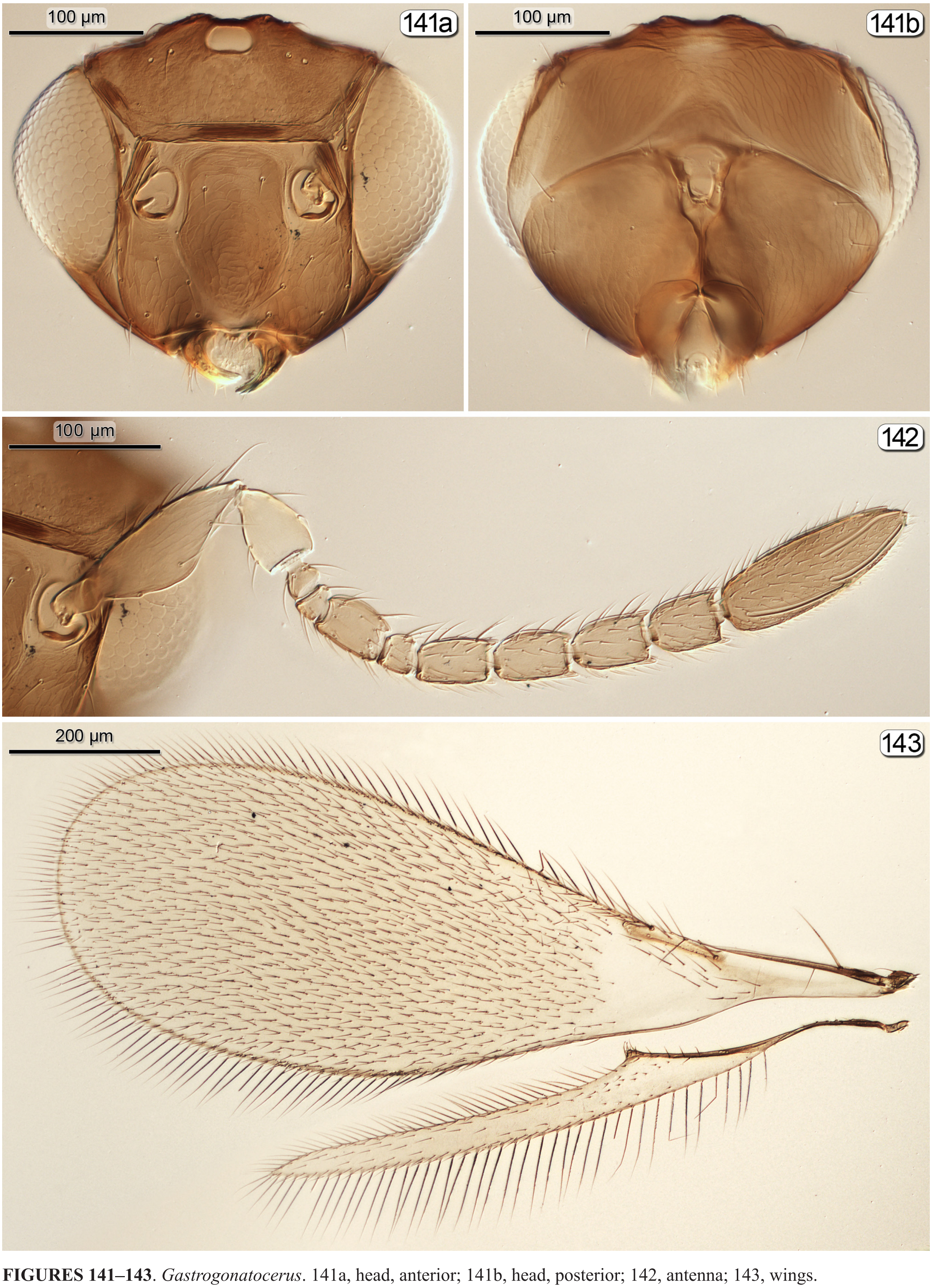
FIGURE 135. *Erythmelus*, entire body, antenna and legs, lateral.



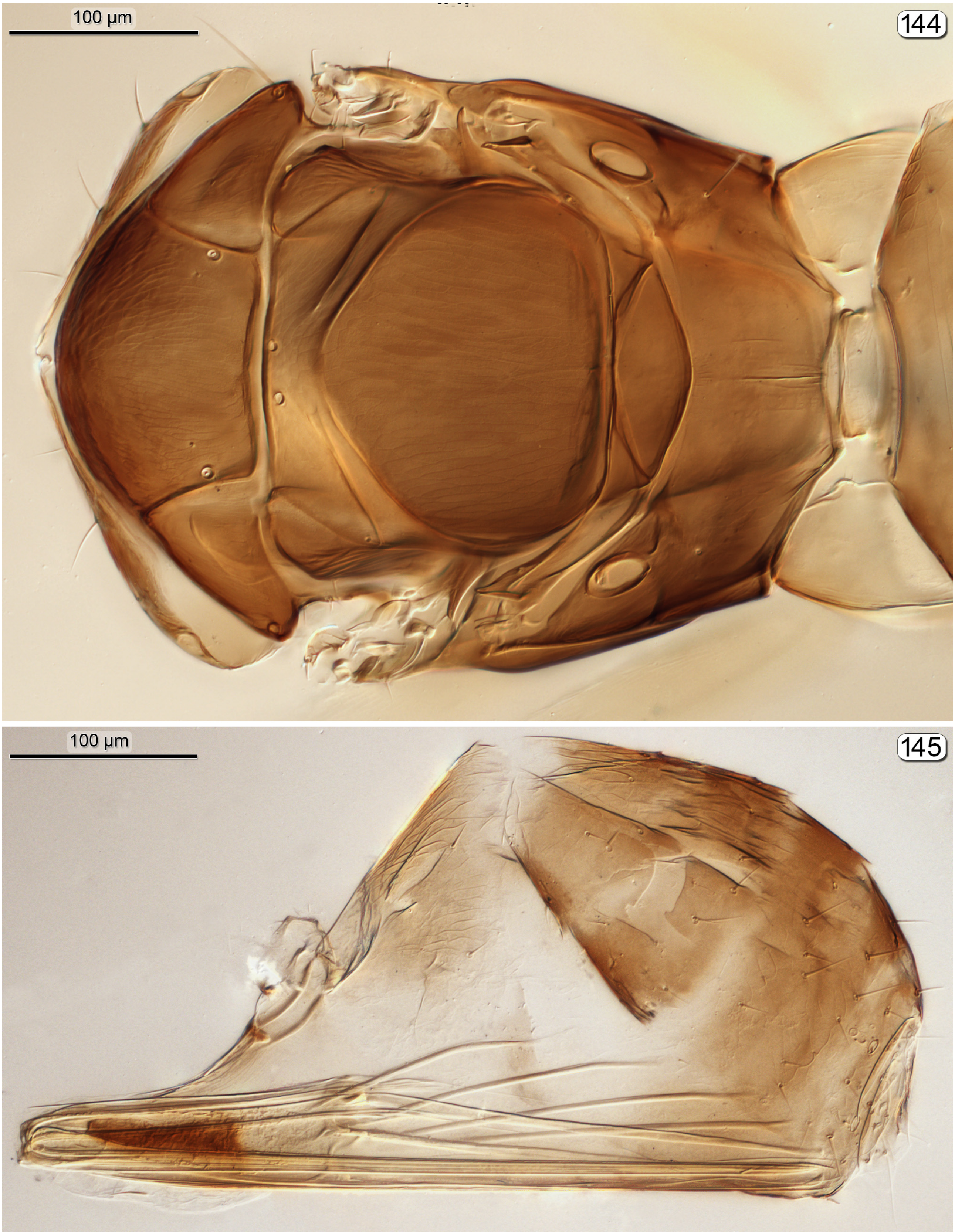
FIGURES 136–138. *Gahanopsis*. 136a, head, anterior; 136b, head, posterior; 137, antenna; 138, wings.



FIGURES 139, 140. *Gahanopsis*. 139, mesosoma, dorsal; 140a, metasoma, dorsal; 140b, metasoma, ventral.



FIGURES 141–143. *Gastrogonatocerus*. 141a, head, anterior; 141b, head, posterior; 142, antenna; 143, wings.



FIGURES 144, 145. *Gastrogonatocerus*. 144, mesosoma, dorsal; 145, metasoma, lateral.

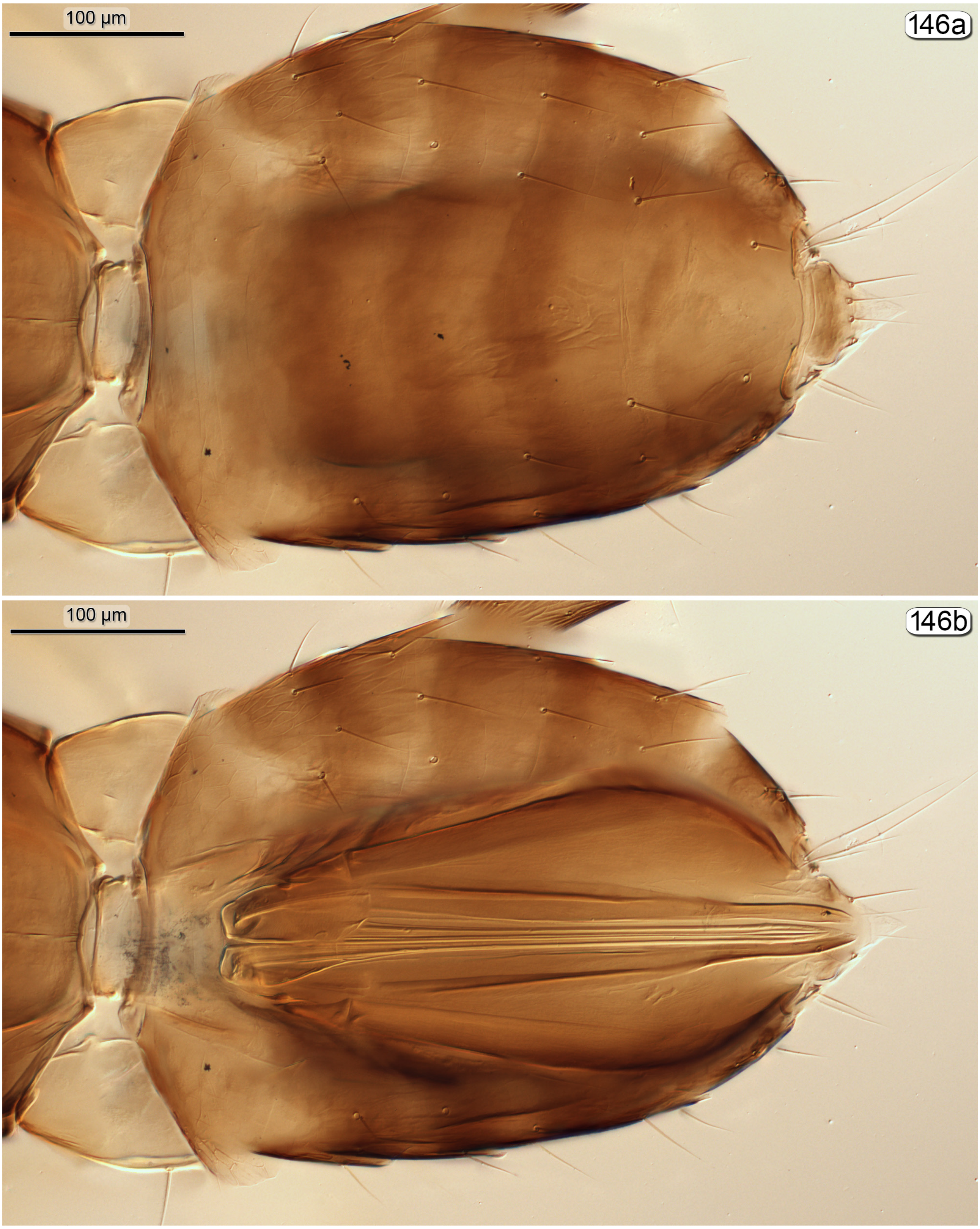
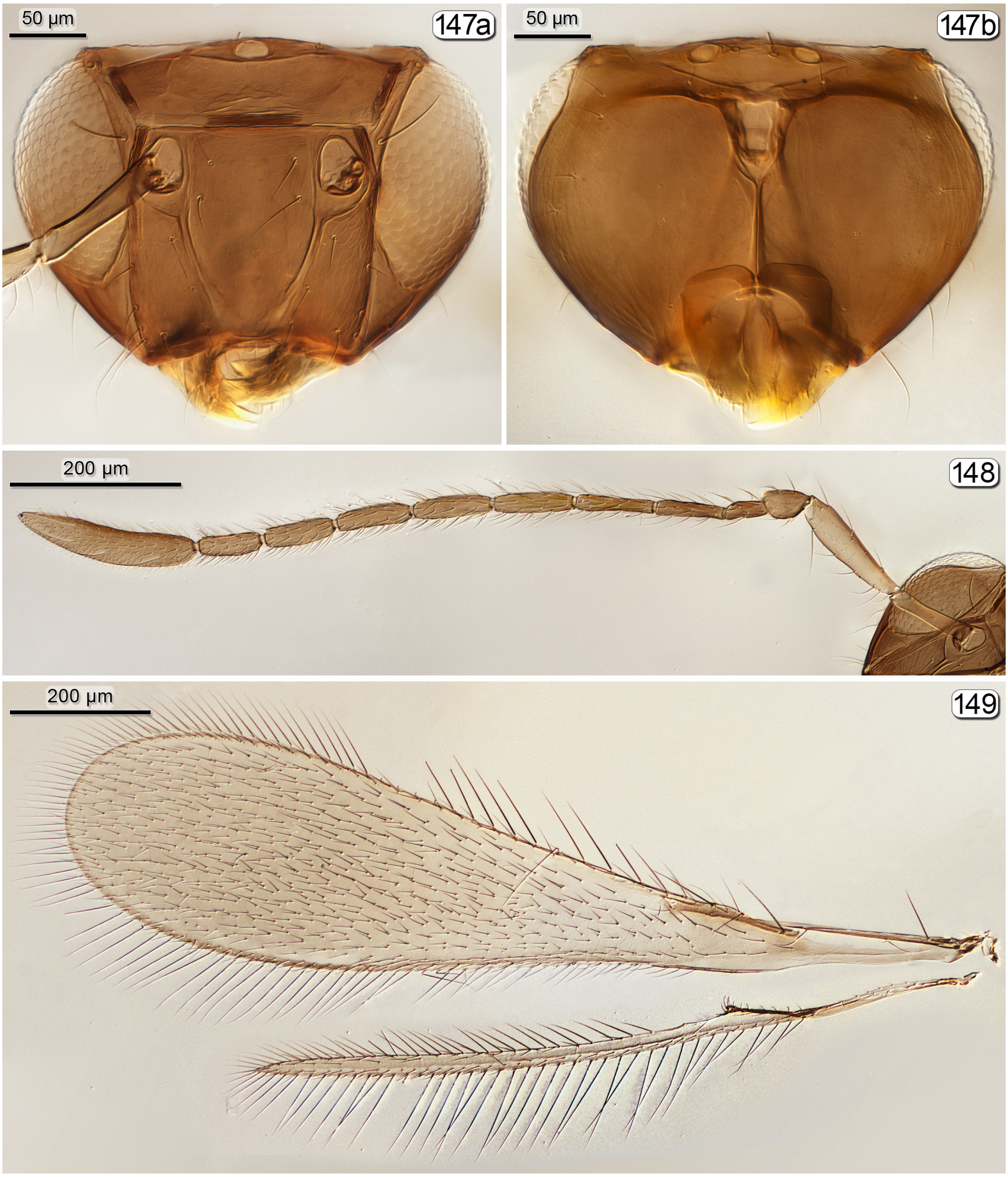
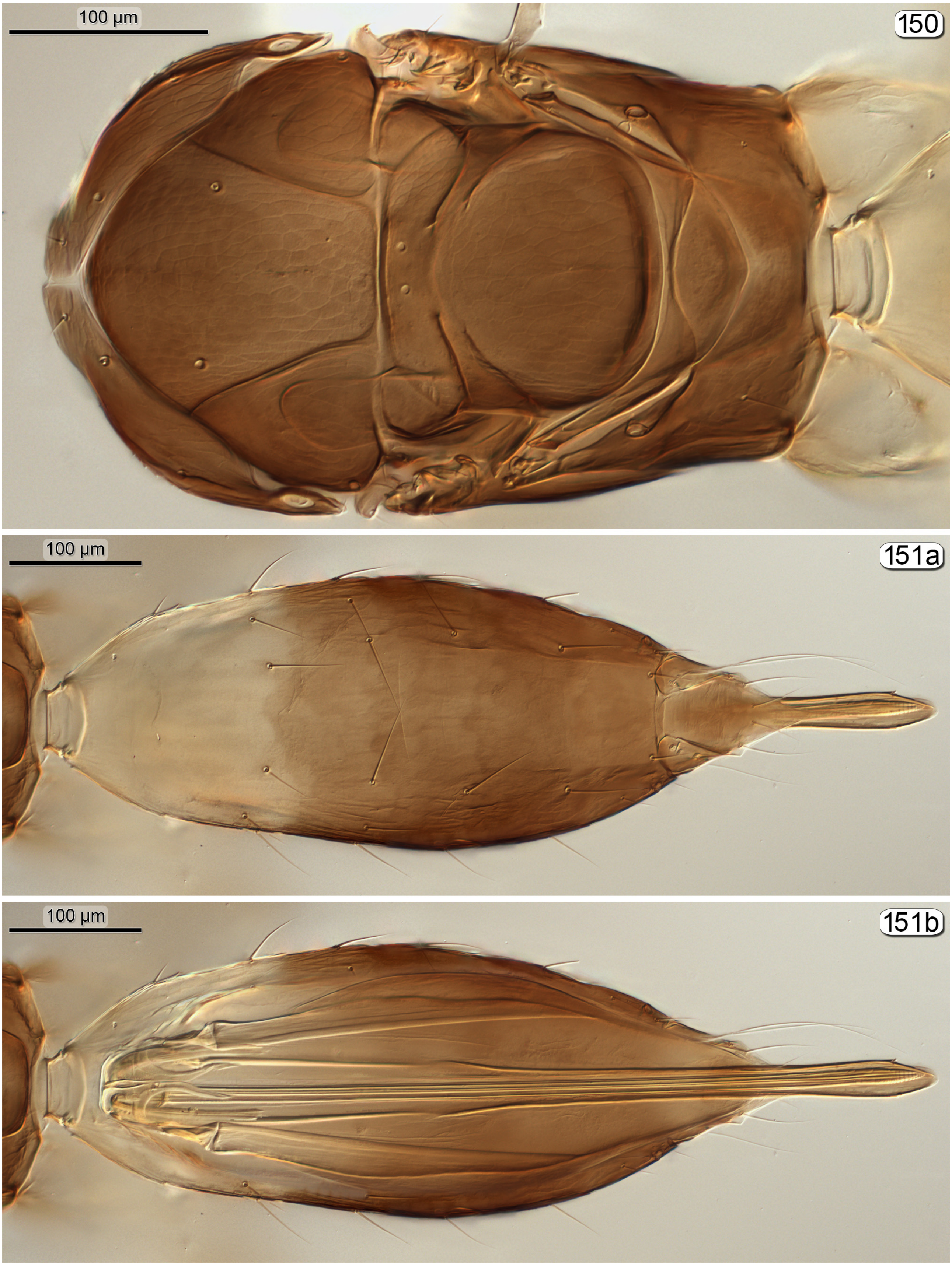


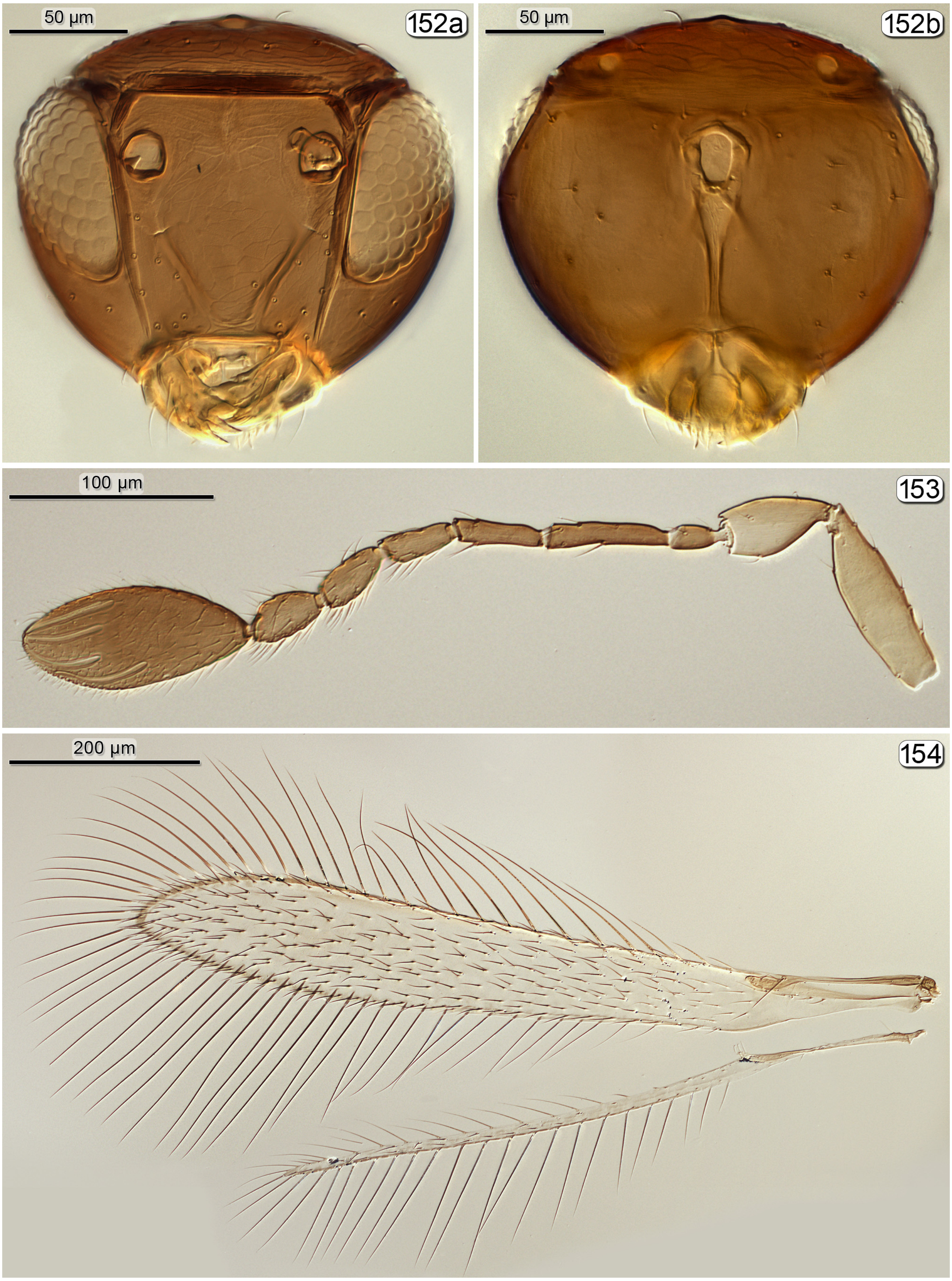
FIGURE 146. *Gastrogonatocerus*. 146a, metasoma, dorsal; 146b, metasoma, ventral.



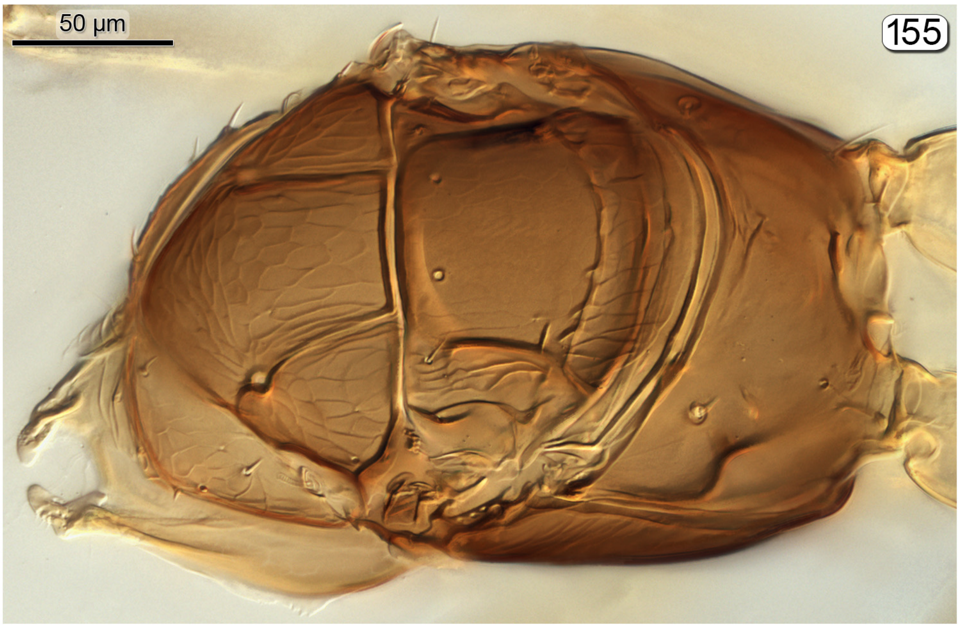
FIGURES 147–149. *Gonatocerus*. 147a, head, anterior; 147b, head, posterior; 148, antenna; 149, wings.

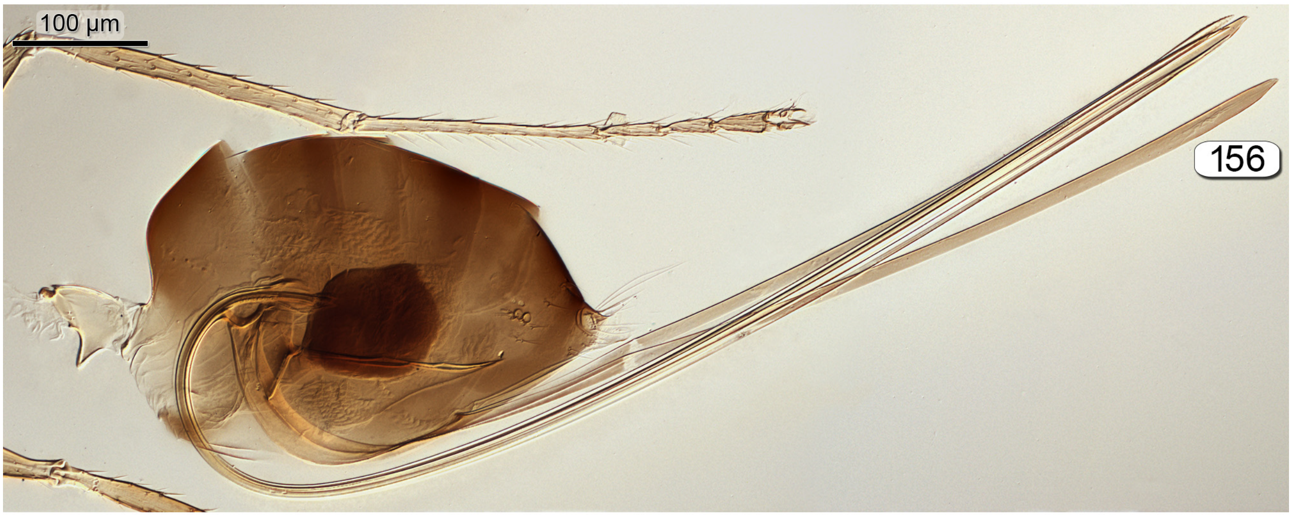


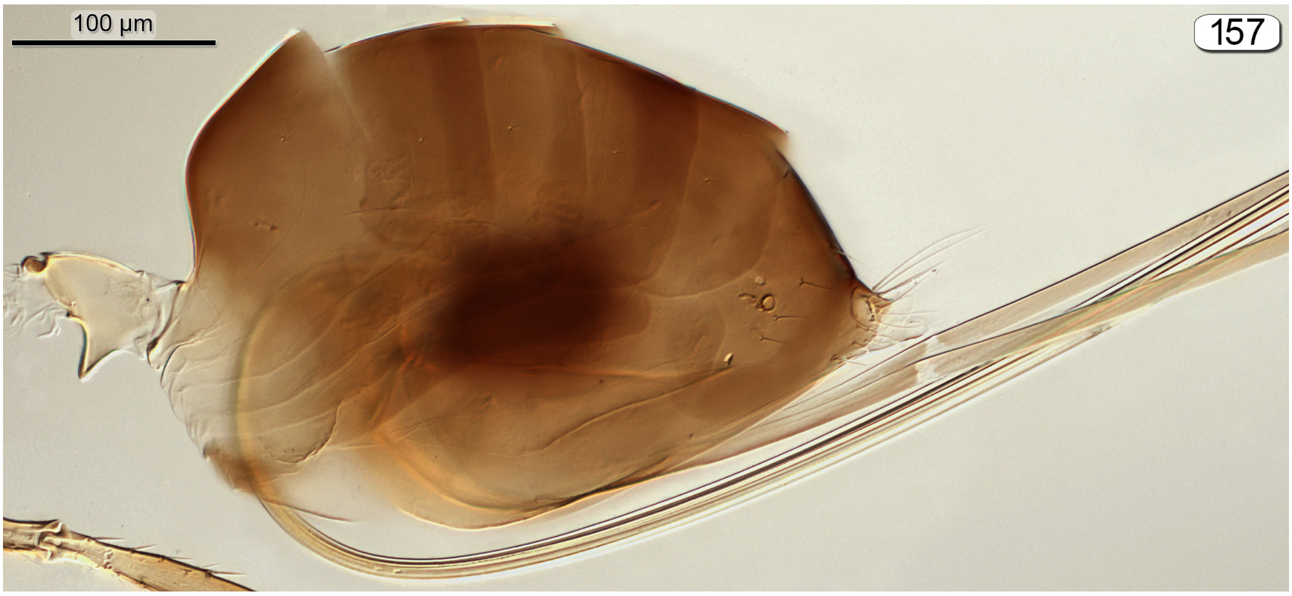
FIGURES 150, 151. *Gonatocerus*. 150, mesosoma, dorsal; 151a, metasoma, dorsal, 151b, metasoma, ventral.



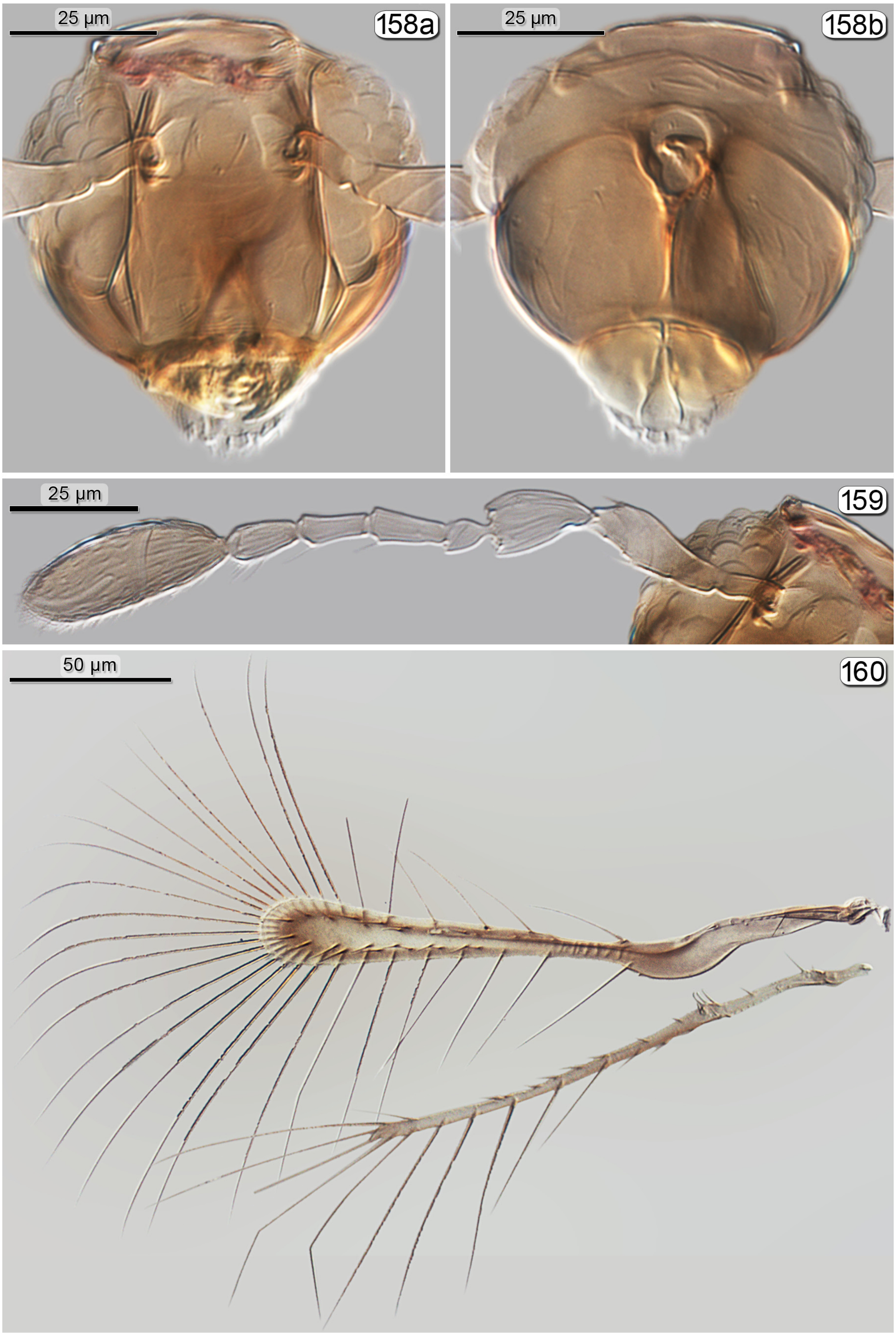
FIGURES 152–154. *Kalopolynema*. 152a, head, anterior; 152b, head, posterior; 153, antenna; 154, wings.





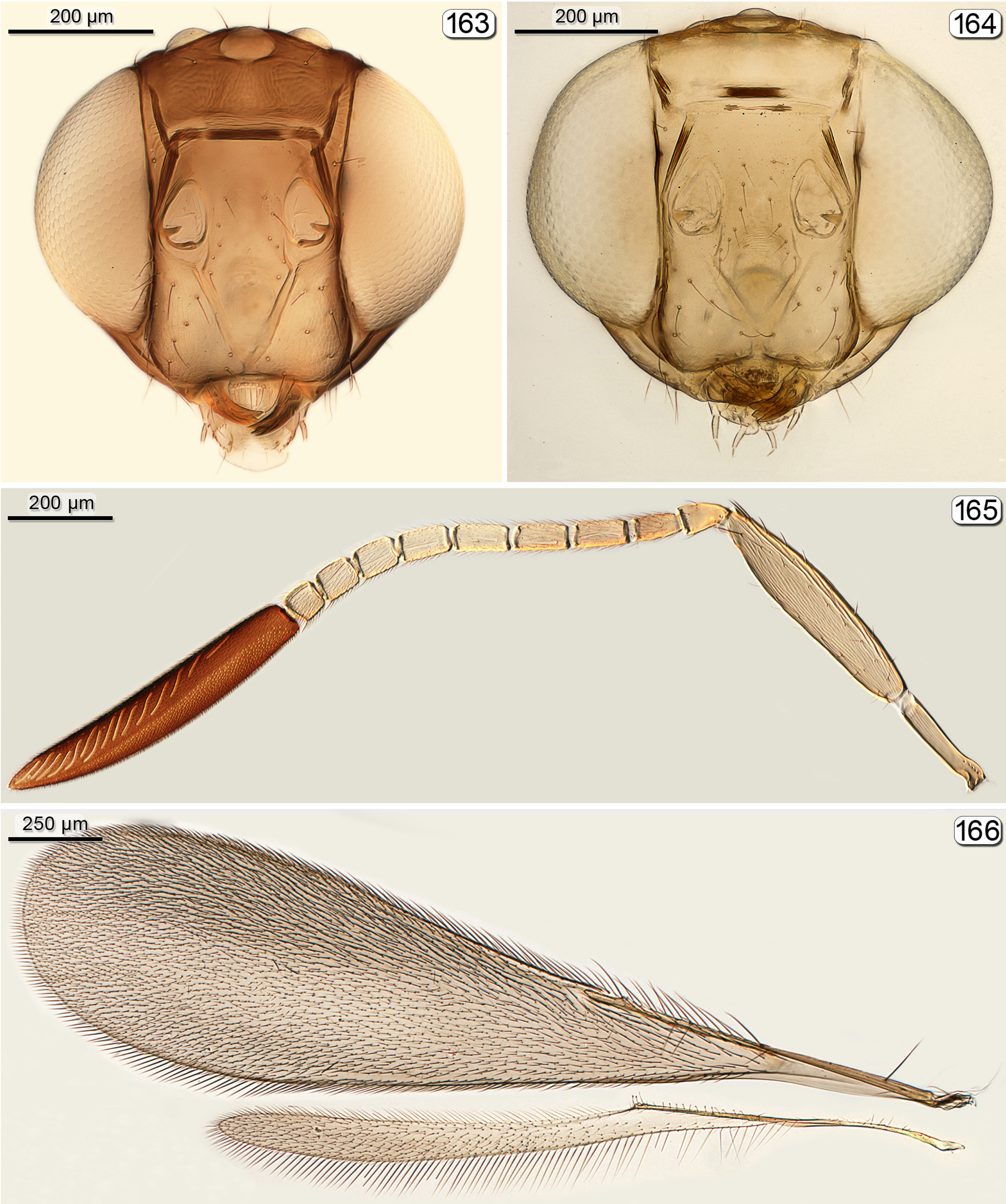


FIGURES 155–157. *Kalopolynema*. 155, mesosoma, dorsal; 156, metasoma, lateral; 157, metasoma, lateral enlarged.

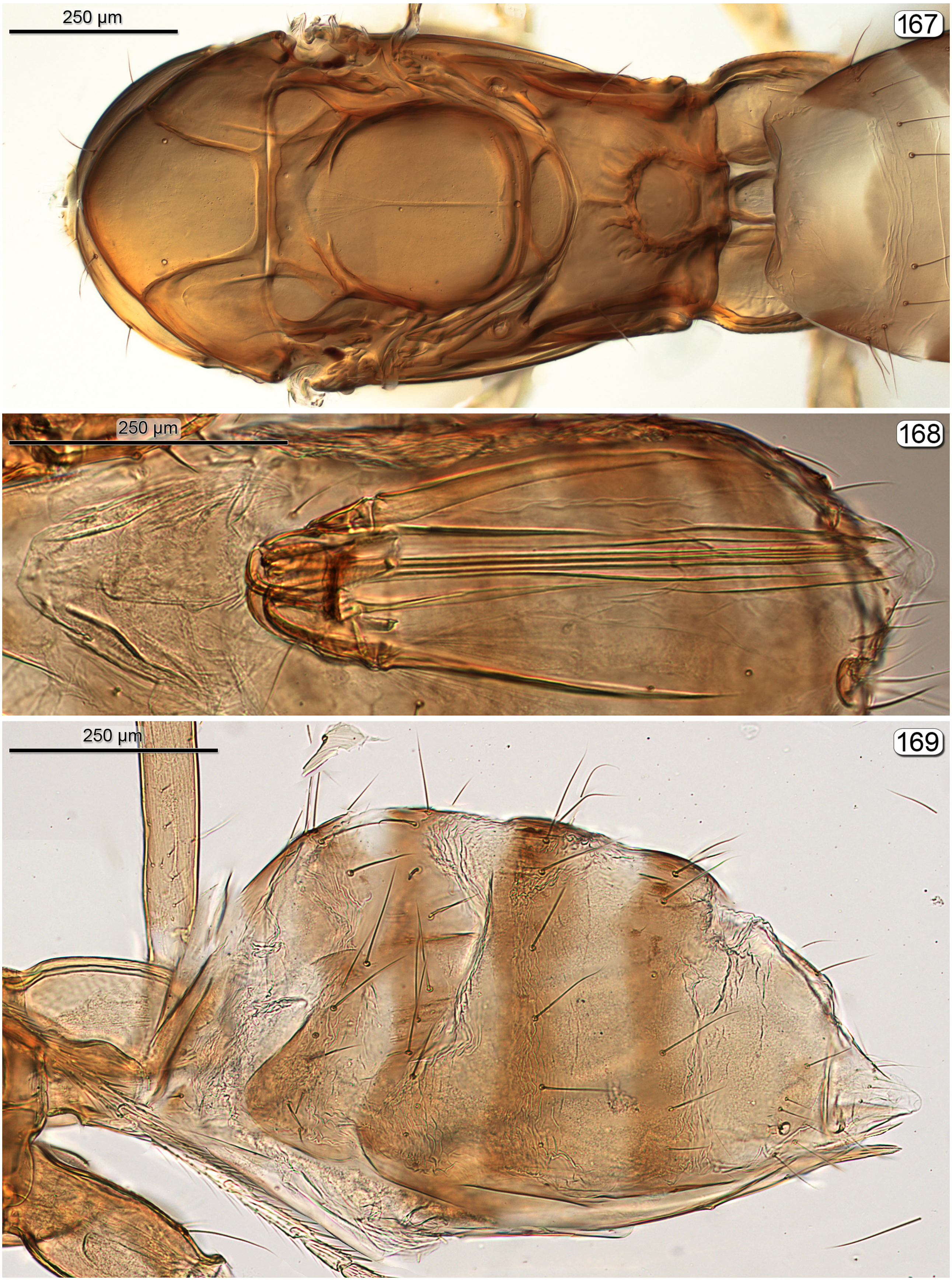


FIGURES 158–160. *Kikiki*. 158a, head, anterior; 158b, head, posterior; 159, antenna; 160, wings.

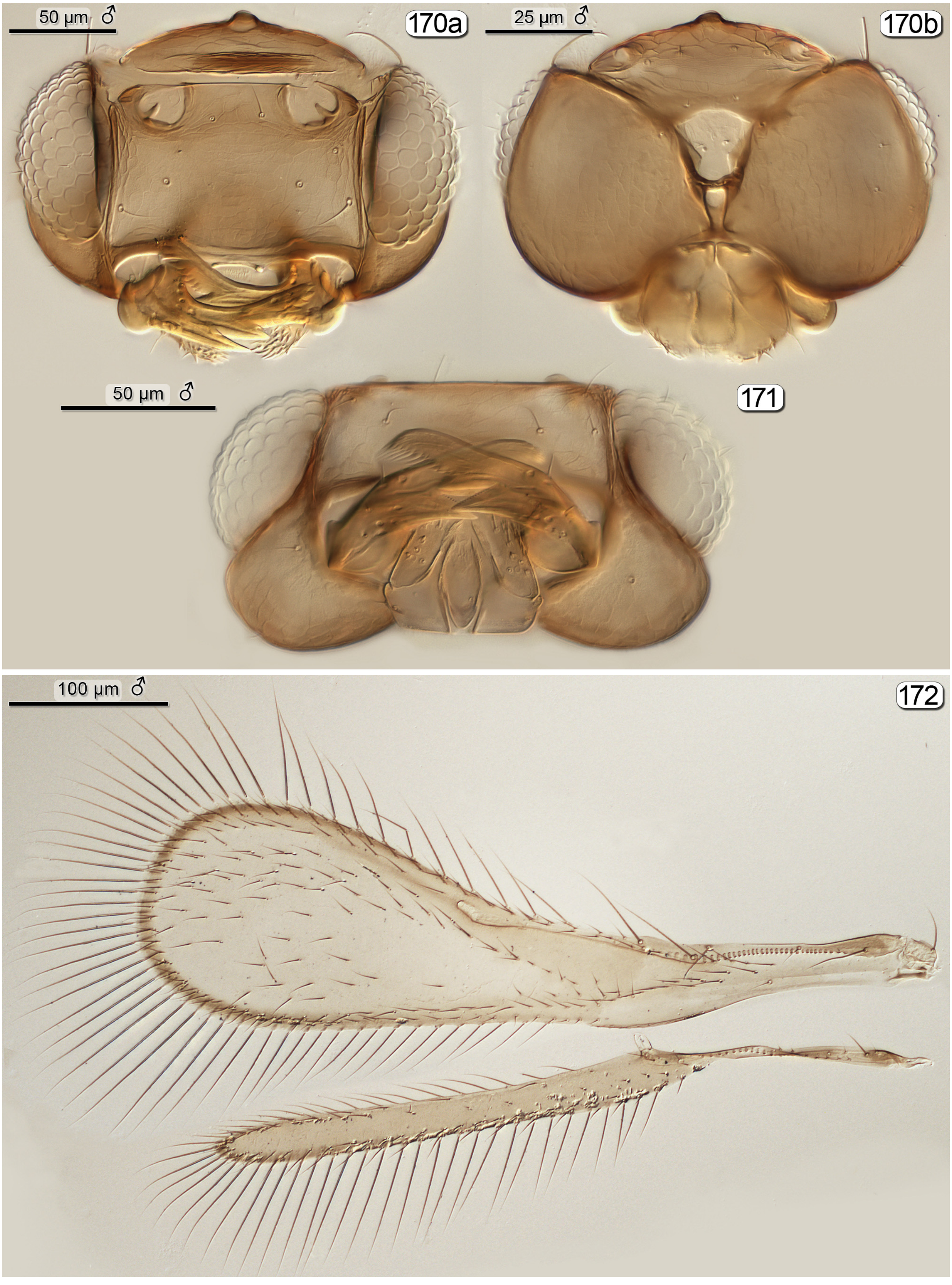
FIGURES 161, 162. *Kikiki*. 161, mesosoma, dorsal; 162a, metasoma, dorsal; 162b, metasoma, ventral.



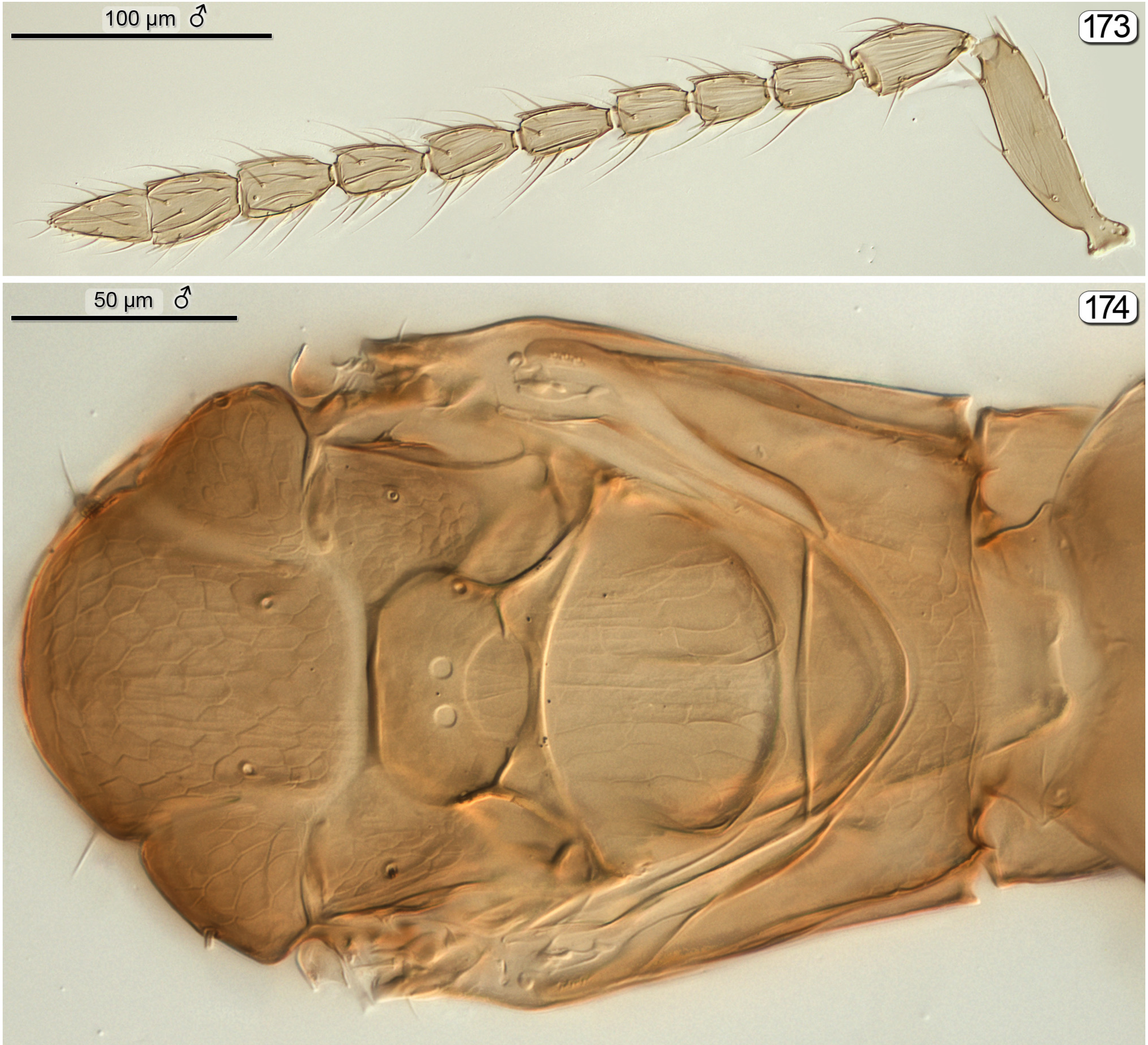
FIGURES 163–166. *Krateriske guianensis* Huber except 164 is *K. peruensis* Huber. 163, head, anterior; 164, head, anterior; 165, antenna; 166, wings.



FIGURES 167–168. *Krateriske guianensis* Huber. 167, mesosoma, dorsal; 168, genitalia; 169, metasoma, dorsolateral.

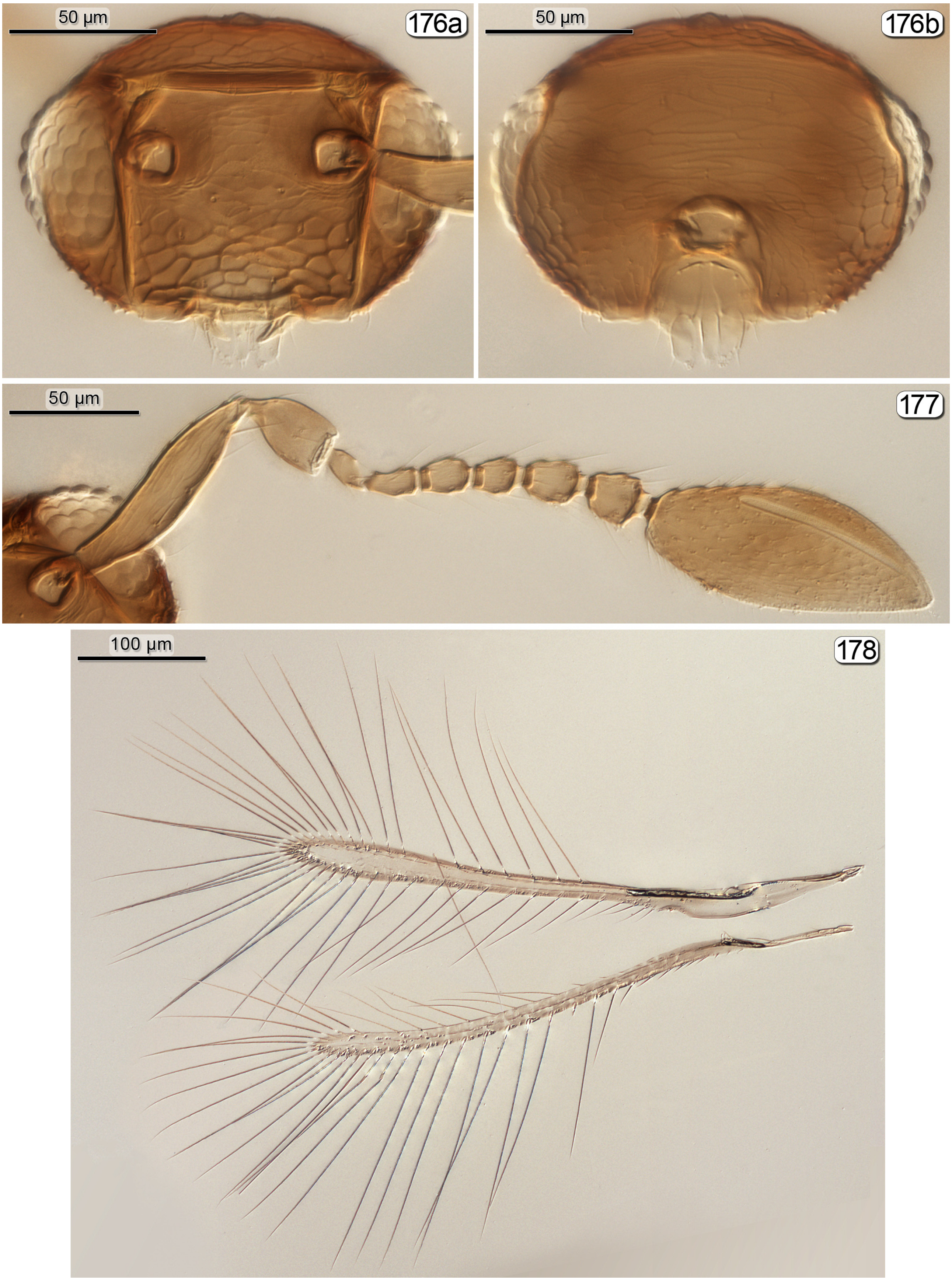


FIGURES 170–172. *Krokella* male. 170a, head, anterior; 170b, head, posterior; 171, head, ventral; 172, wings.

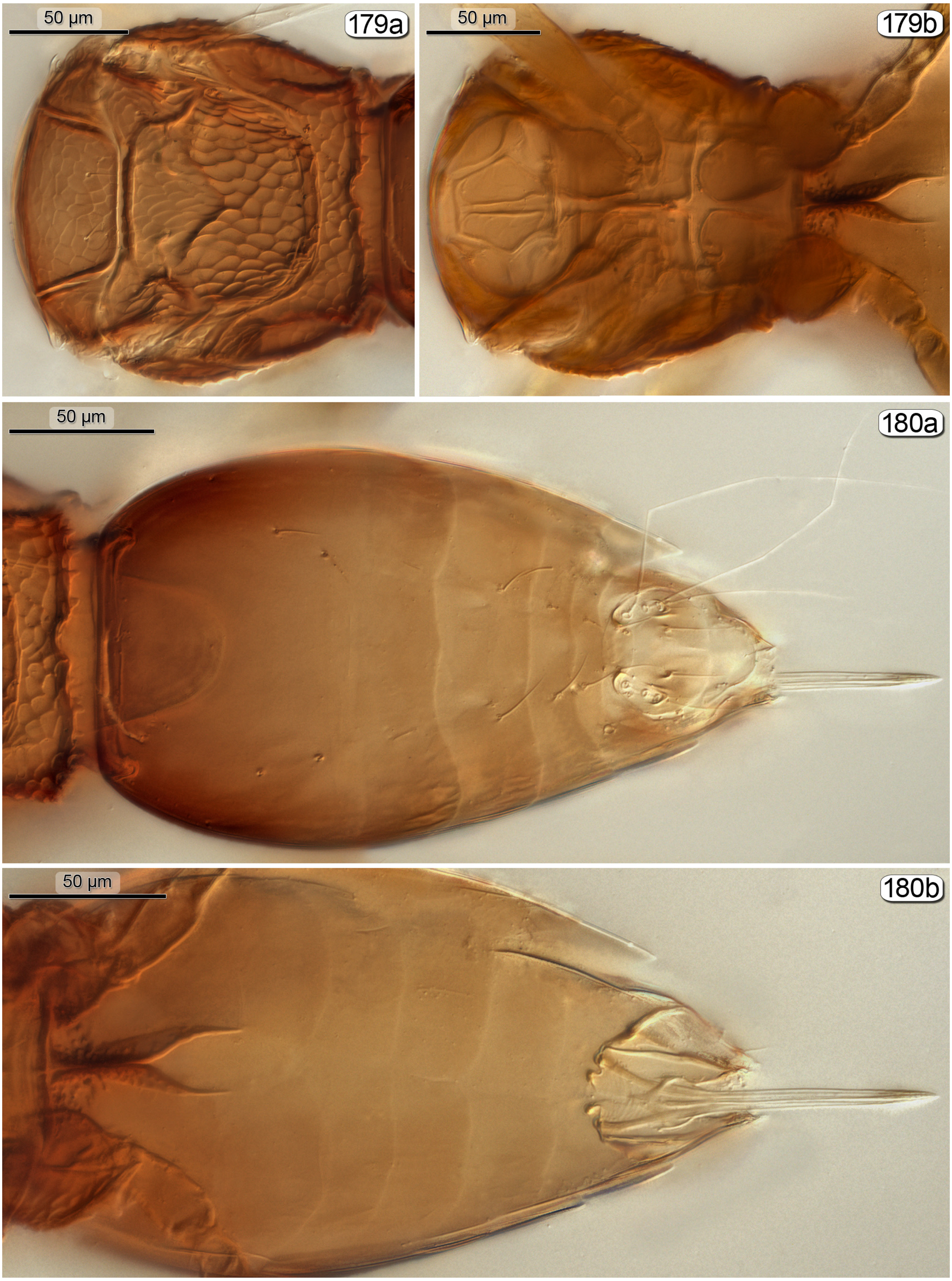


FIGURES 173, 174. *Krokella* male. 173, antenna; 174, mesosoma, dorsal.

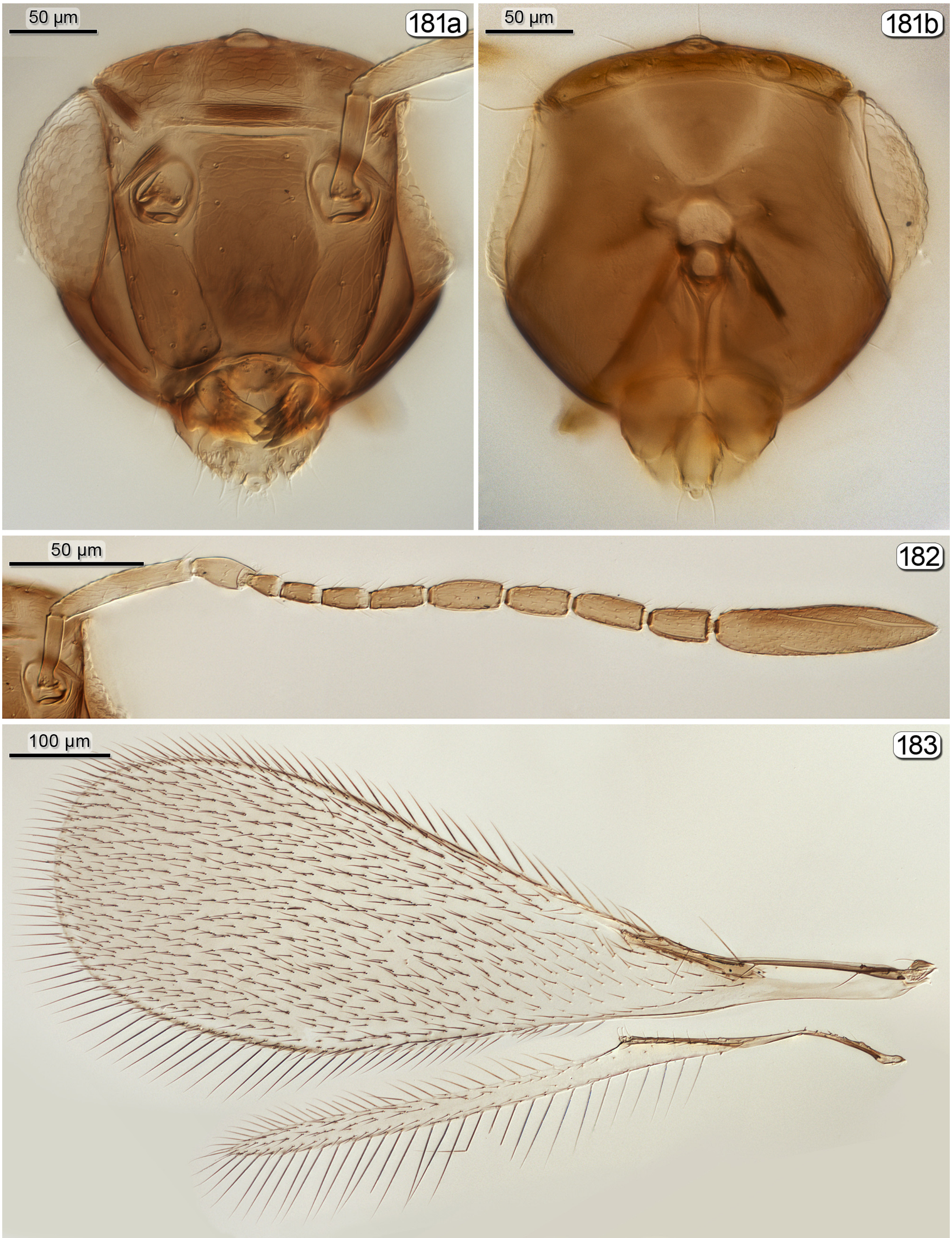
FIGURES 175. *Krokella* male. 175a, metasoma, dorsal; 175b, gastral apex + genitalia, dorsal.



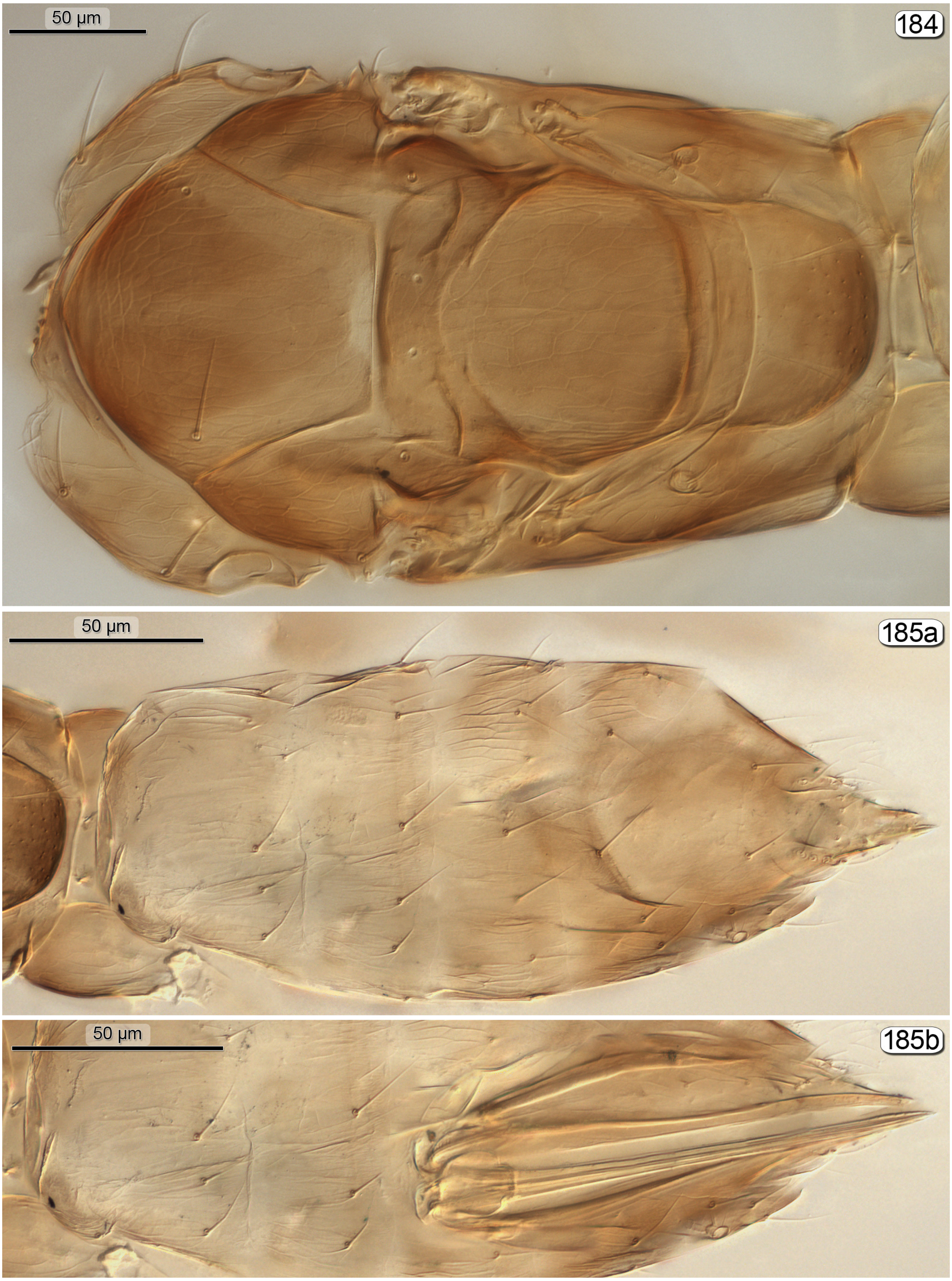
FIGURES 176–178. *Litus.* 176a, head, anterior; 176b, head, posterior; 177, antenna; 178, wings.



FIGURES 179, 180. *Litus*. 179a, mesosoma, dorsal; 179b, mesosoma, ventral; 180a, metasoma, dorsal; 180b, metasoma, ventral.



FIGURES 181–183. *Lymaenon.* 181a, head, anterior; 181b, head, posterior; 182, antenna; 183, wings.



FIGURES 184, 185. *Lymaenon*. 184, mesosoma, dorsal; 185a, metasoma, dorsal; 185b, metasoma, ventral.

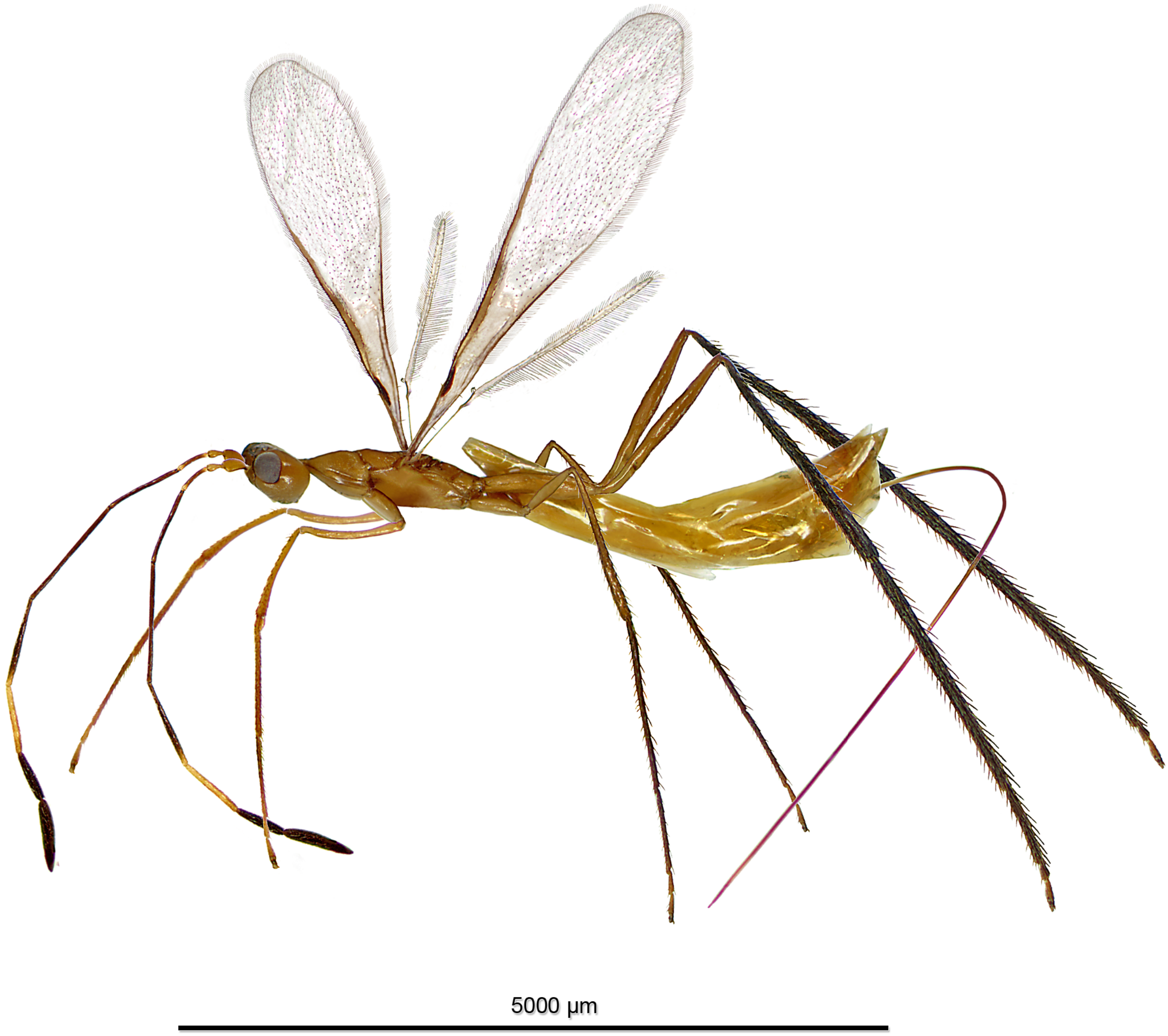


FIGURE 186. *Megamymar*, habitus.

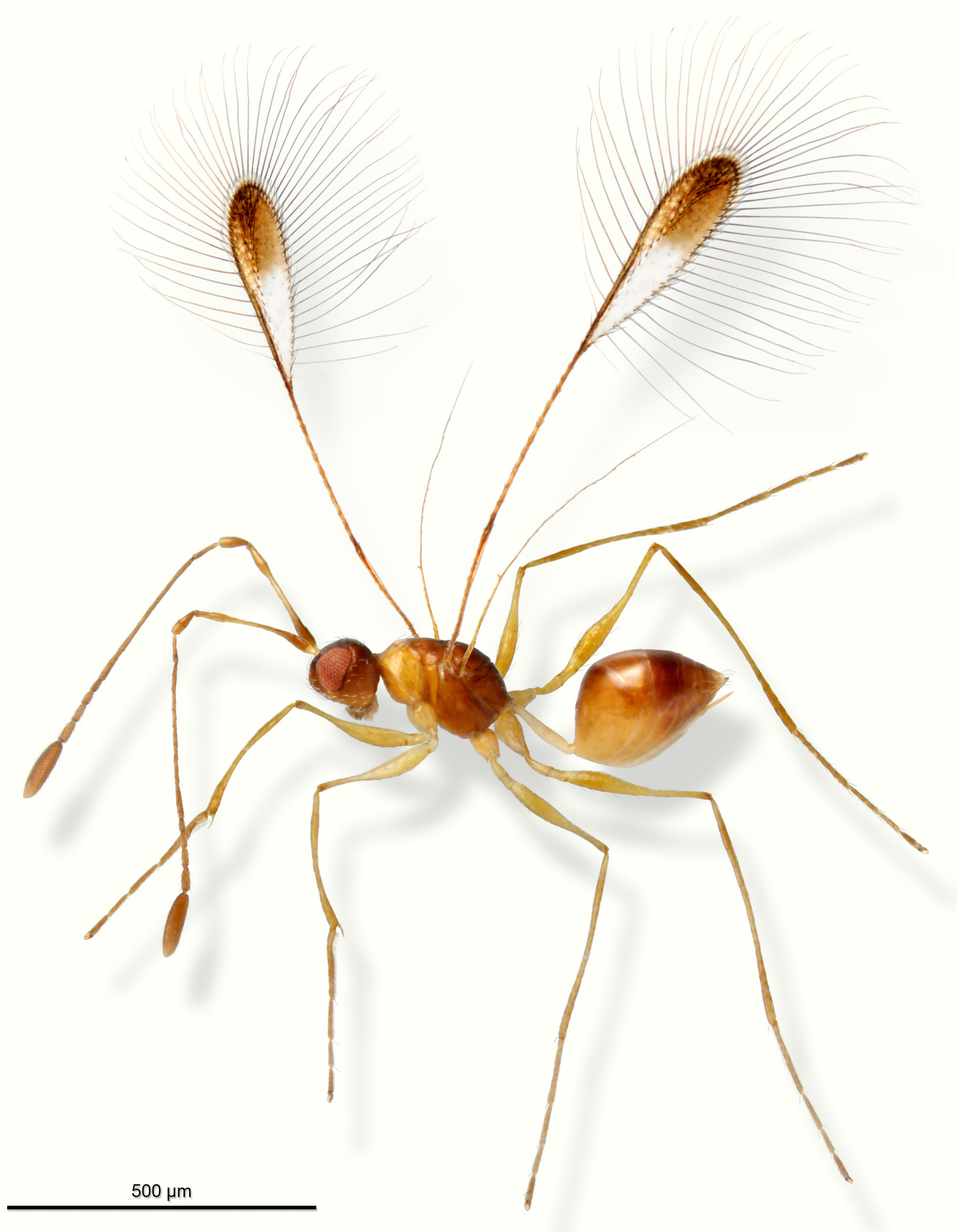
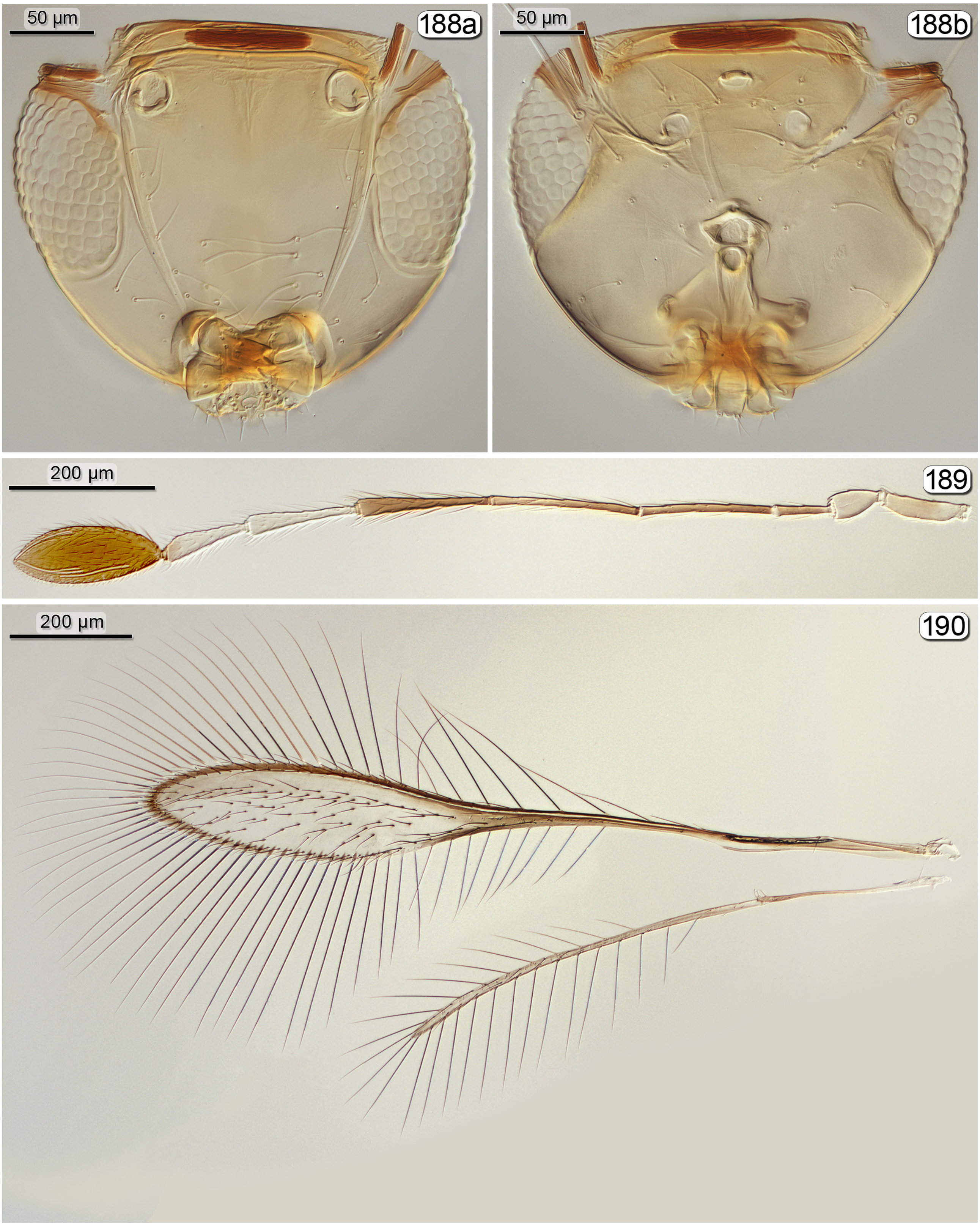
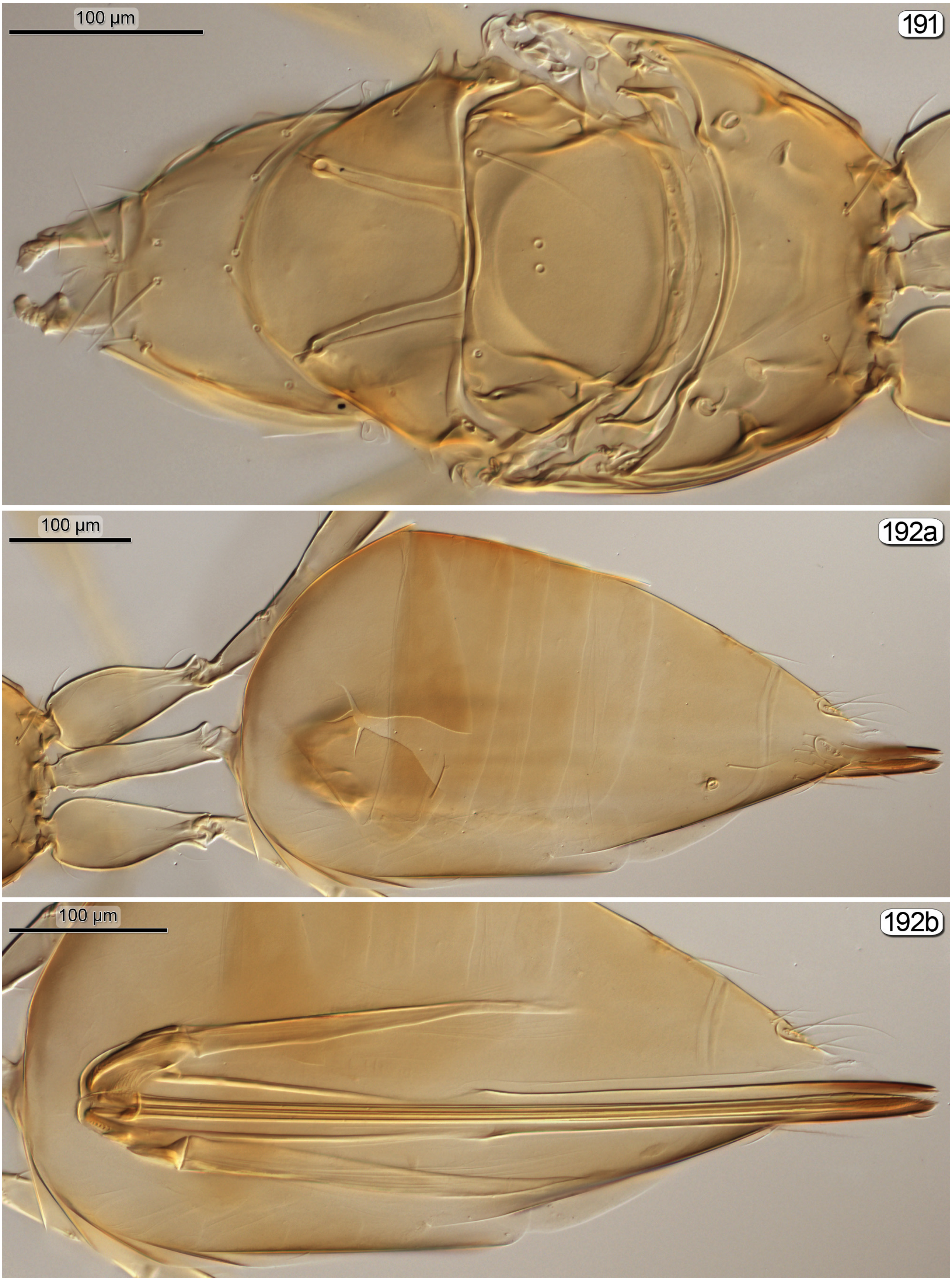


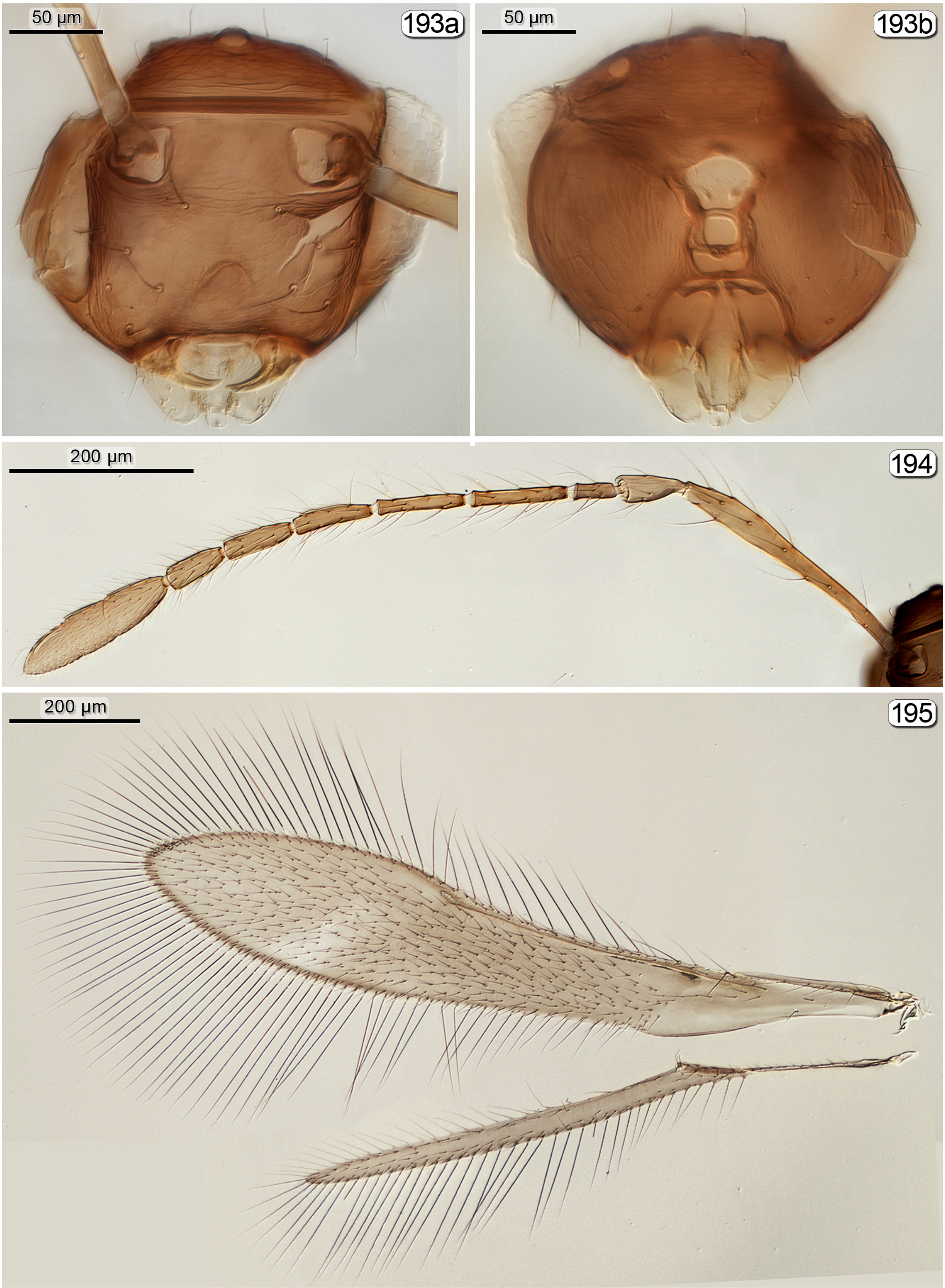
FIGURE 187. *Mymar*, habitus.



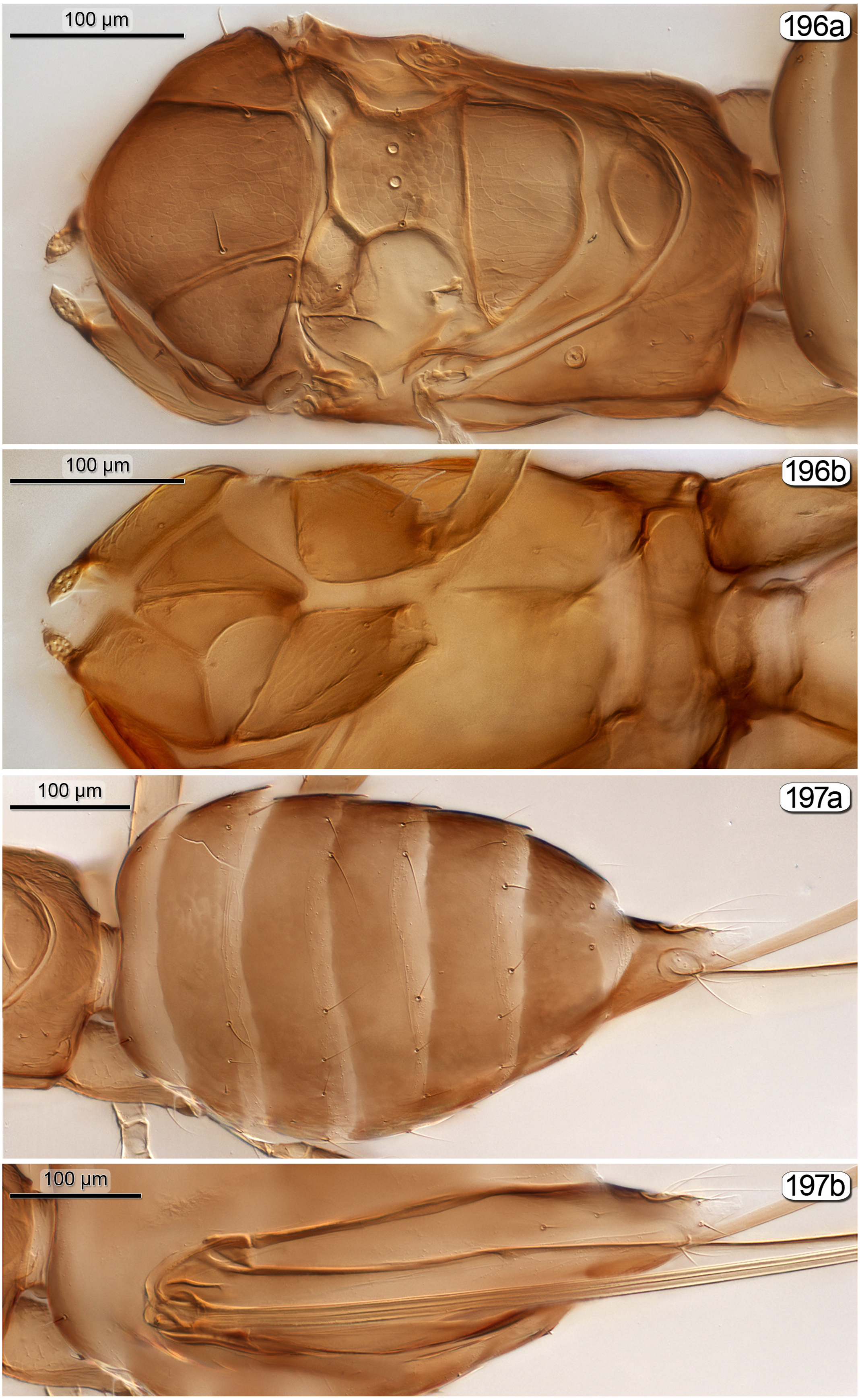
FIGURES 188–190. *Neomymar*. 188a, head, anterior; 188b, head, posterior; 189, antenna; 190, wings.



FIGURES 191, 192. *Neomymar*. 191; mesosoma, dorsal; 192a; metasoma, dorsal; 192b; metasoma, ventral.

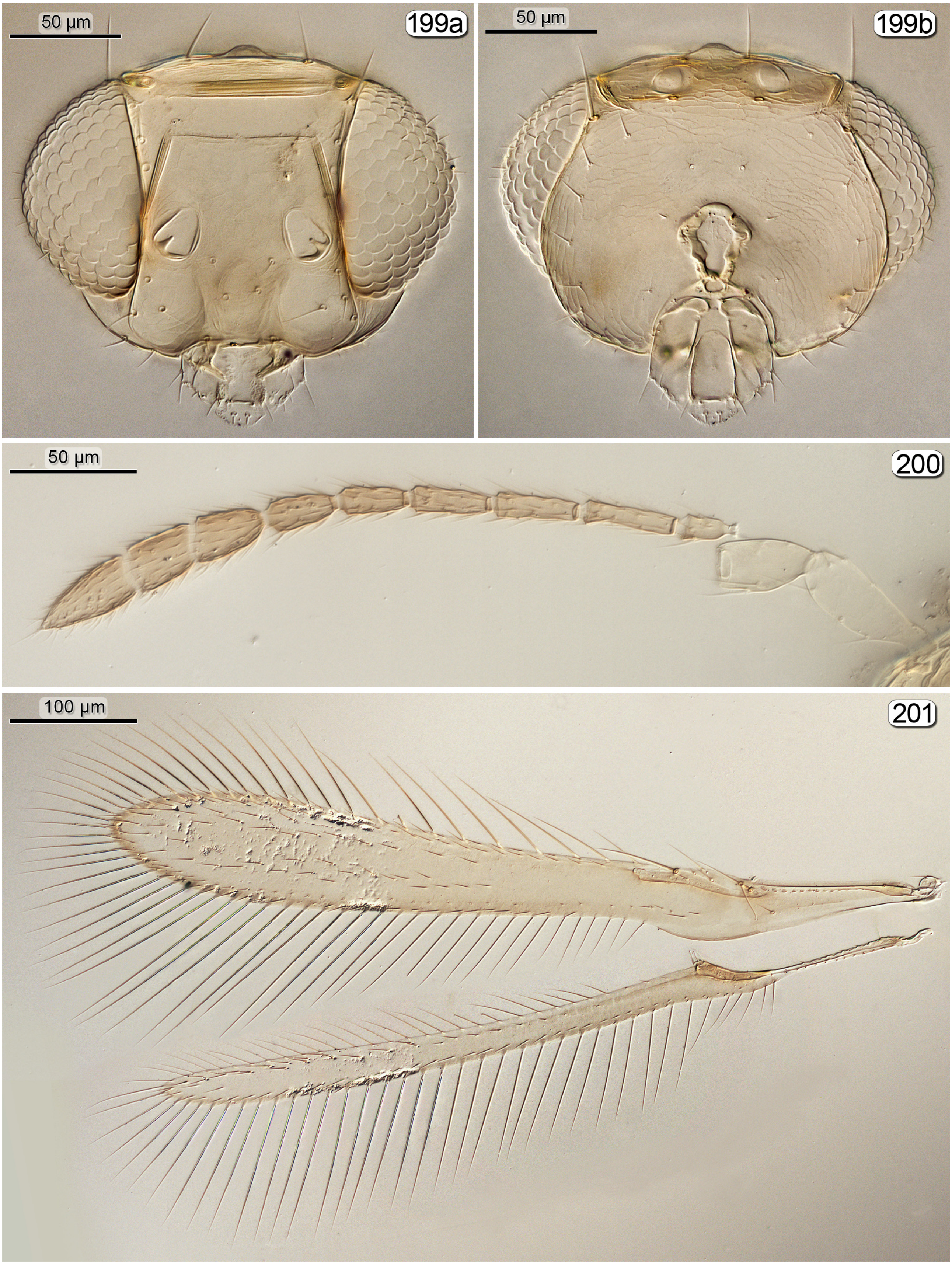


FIGURES 193–195. *Neopolynemoidea.* 193a, head, anterior; 193b, head, posterior; 194, antenna; 195, wings.

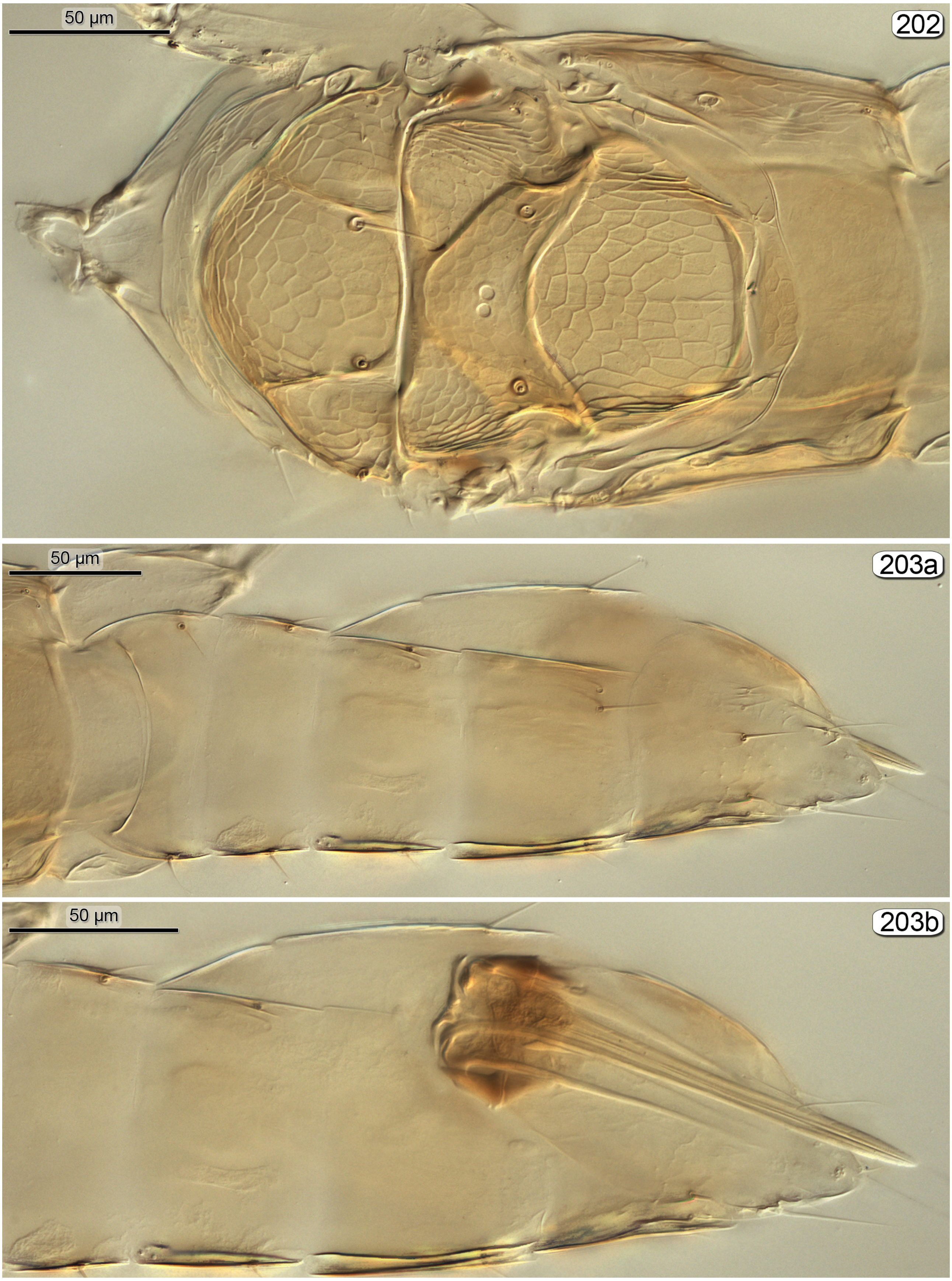


FIGURES 196, 197. *Neopolynemoidea*. 196a; mesosoma, dorsal; 196b; mesosoma, ventral; 197a, metasoma, dorsal; 197b, genitalia, ventral (ovipositor cut off).

FIGURE 198. *Neopolynemoidea*, habitus, dorsal (head and wings removed).

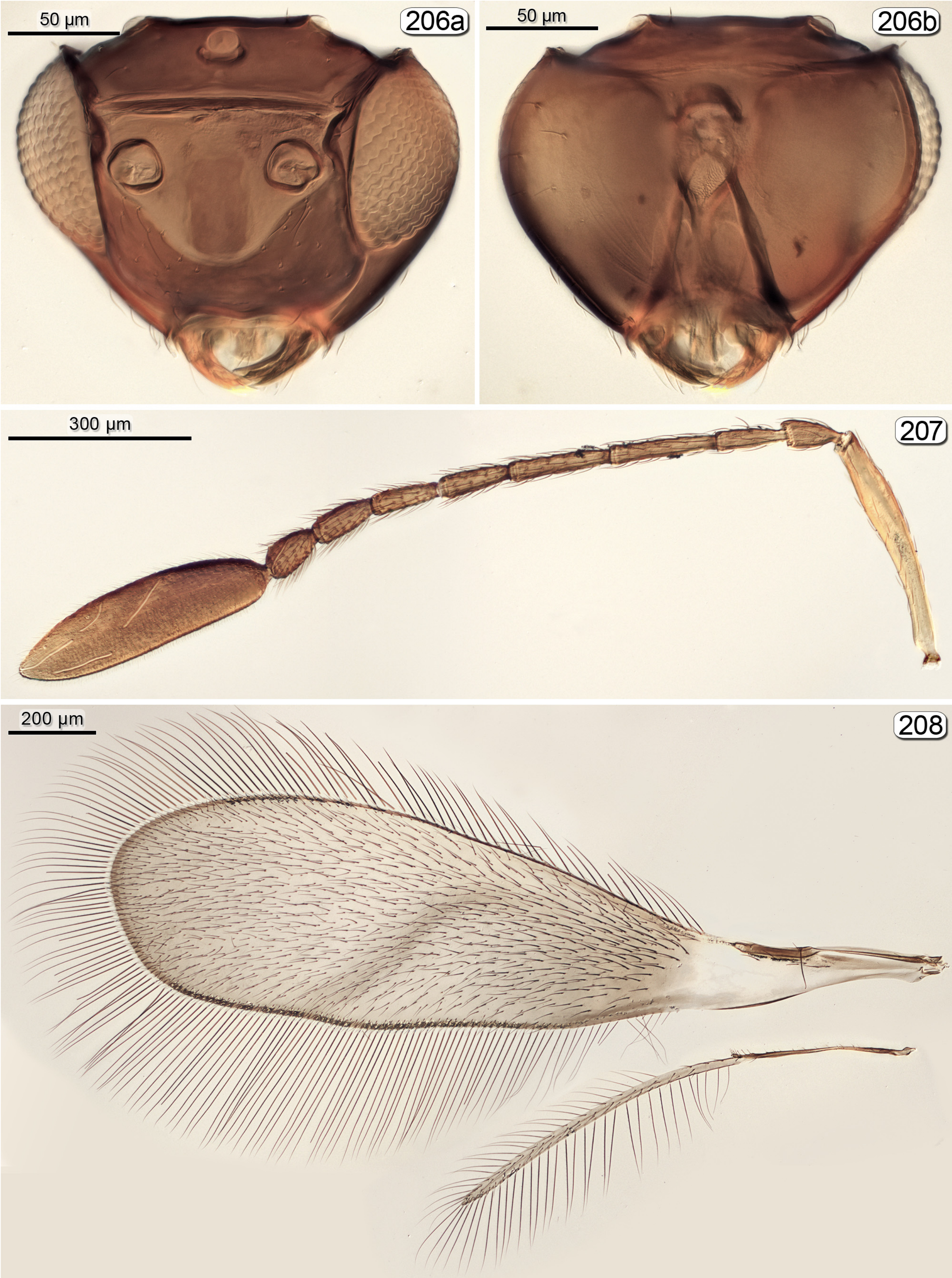


FIGURES 199–201. *Neostethynium*. 199a, head, anterior; 199b, head, posterior; 200, antenna; 201, wings.

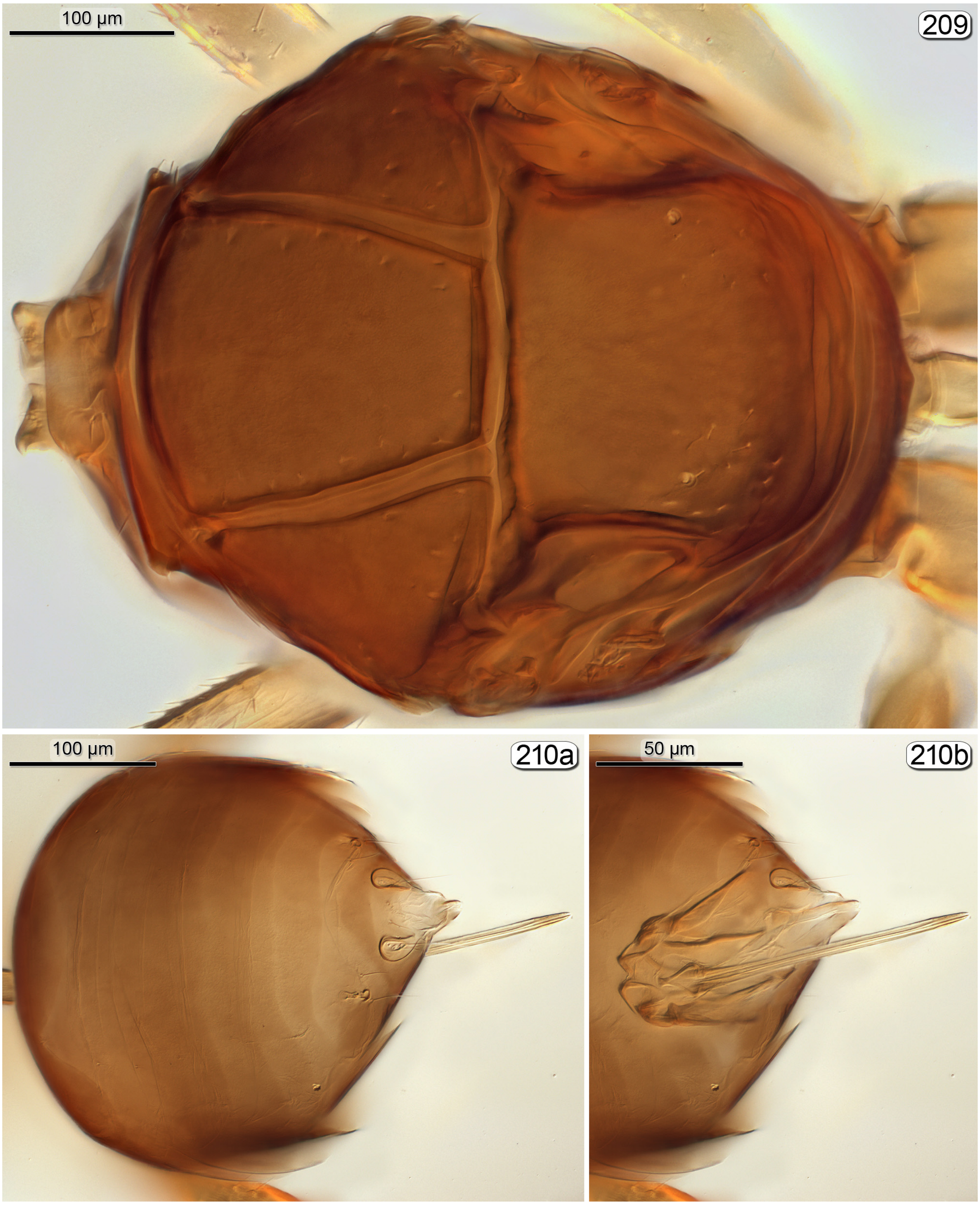


FIGURES 202, 203. *Neostethynium*. 202; mesosoma, dorsal; 203a, metasoma, dorsal; 203b, metasoma, ventral.

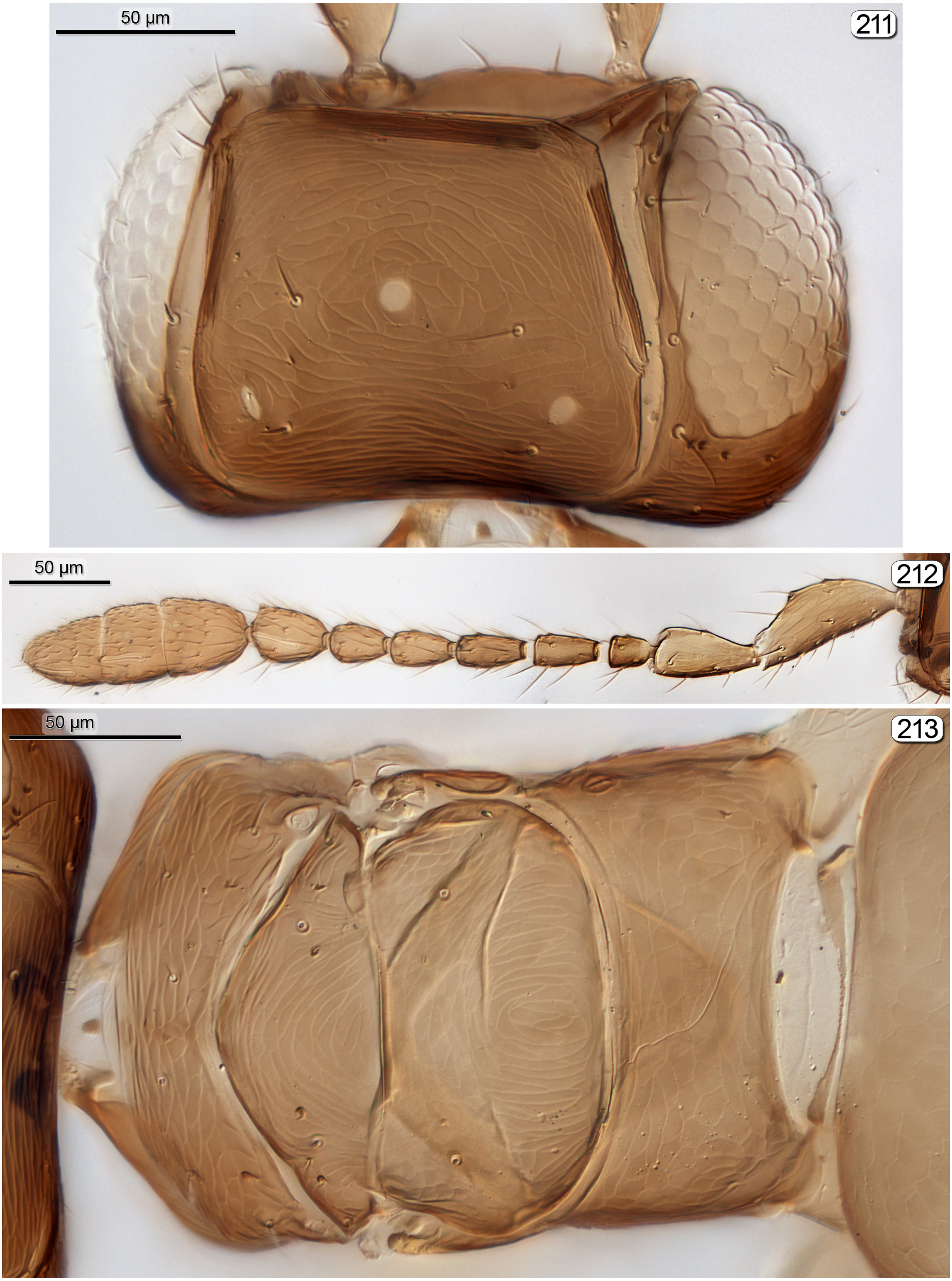
FIGURES 204, 205. *Neostethynium*. 204, head + mesosoma, lateral; 205, metasoma, lateral.



FIGURES 206–208. *Nepolynema*. 206a, head, anterior; 206b, head, posterior; 207, antenna; 208, wings.

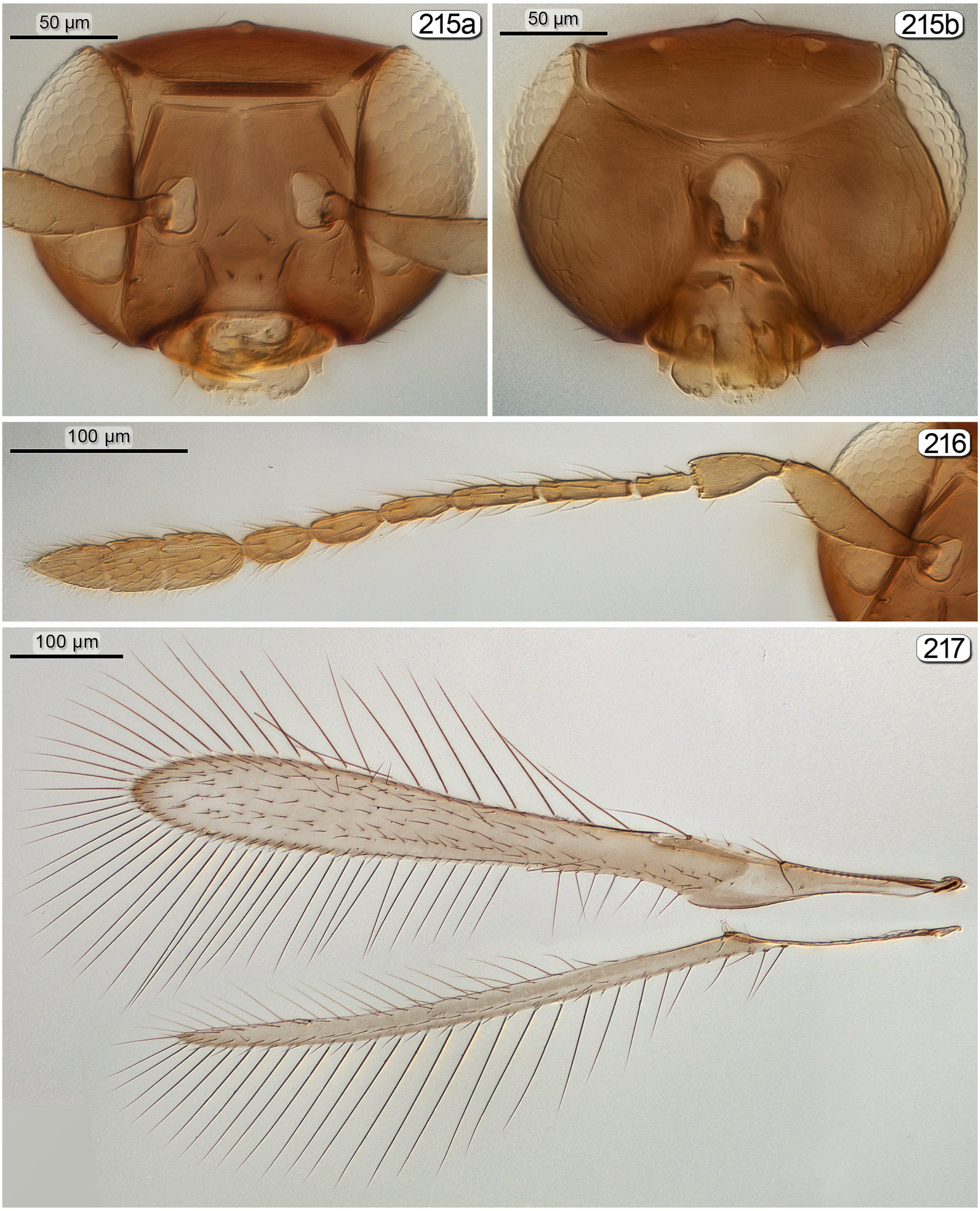


FIGURES 209, 210. *Nepolynema*. 209, mesosoma, dorsal; 210a, metasoma, dorsal; 210b, genitalia, ventral.

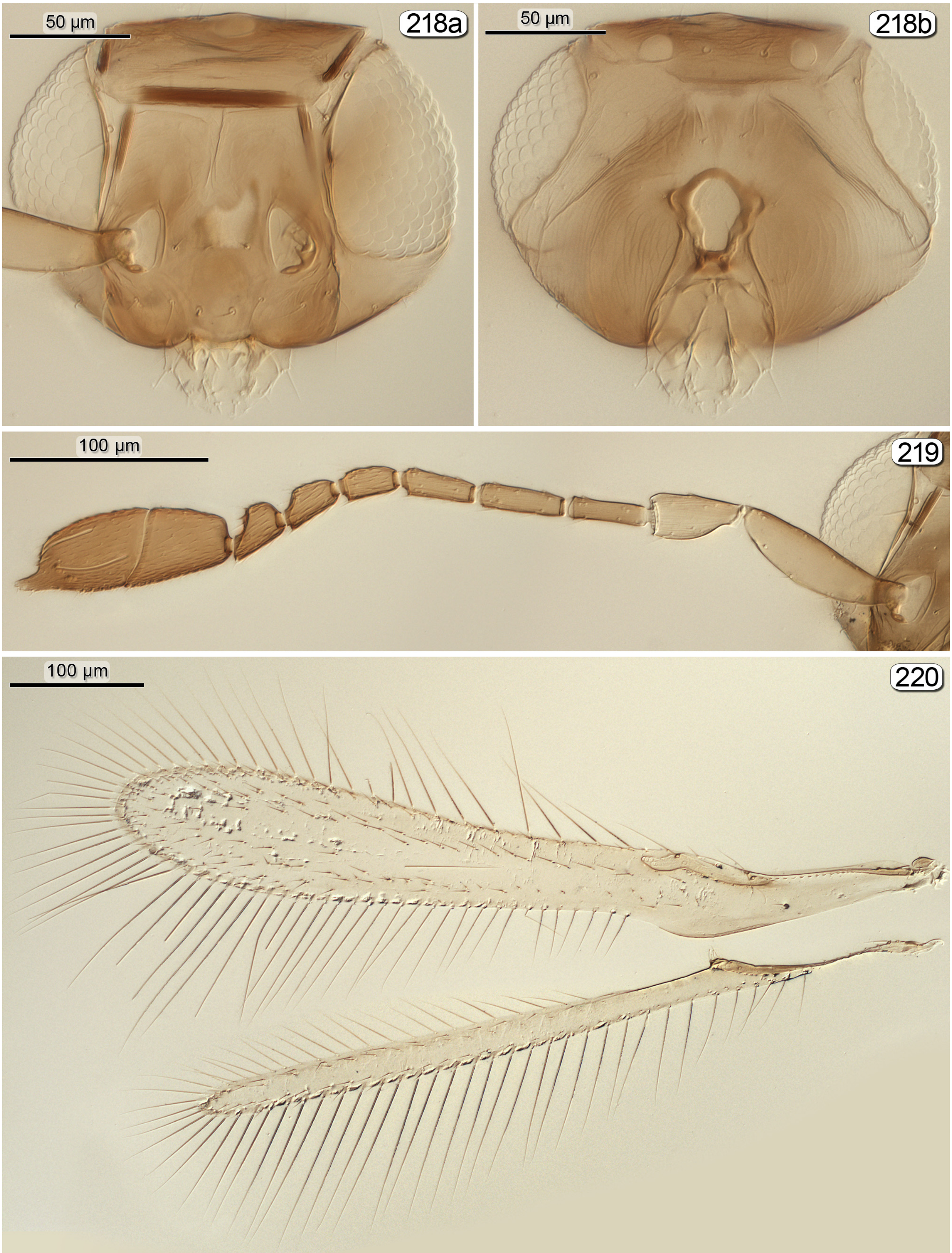


FIGURES 211–213. *Notomymar aptenosoma* Doutt & Yoshimoto. 211, head, dorsal; 212, antenna; 213, mesosoma, dorsal.

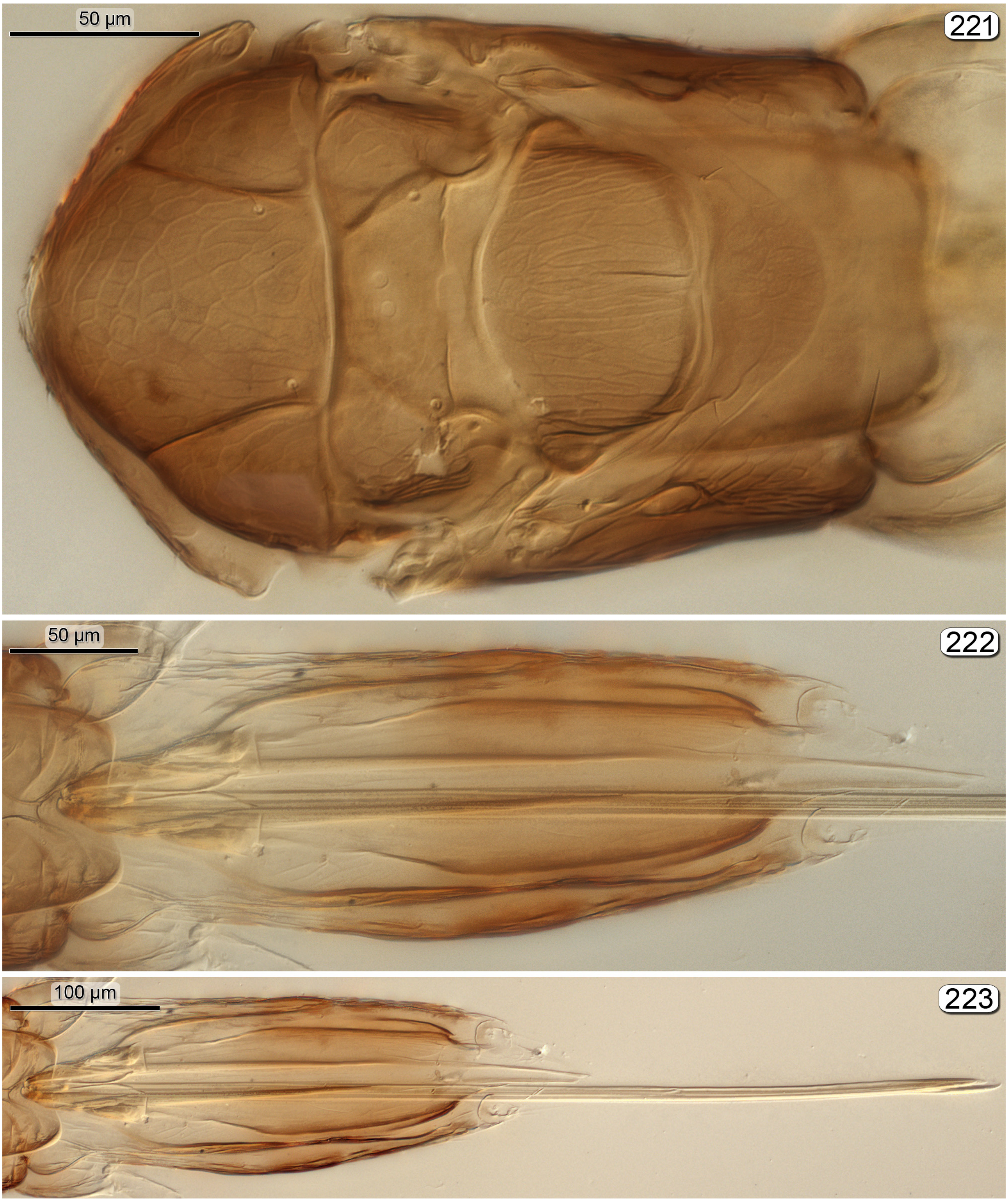
FIGURES 214. *Notomymar aptenosoma* (Doutt & Yoshimoto). 214a, mesosoma, dorsal; 214b, metasoma, ventral.



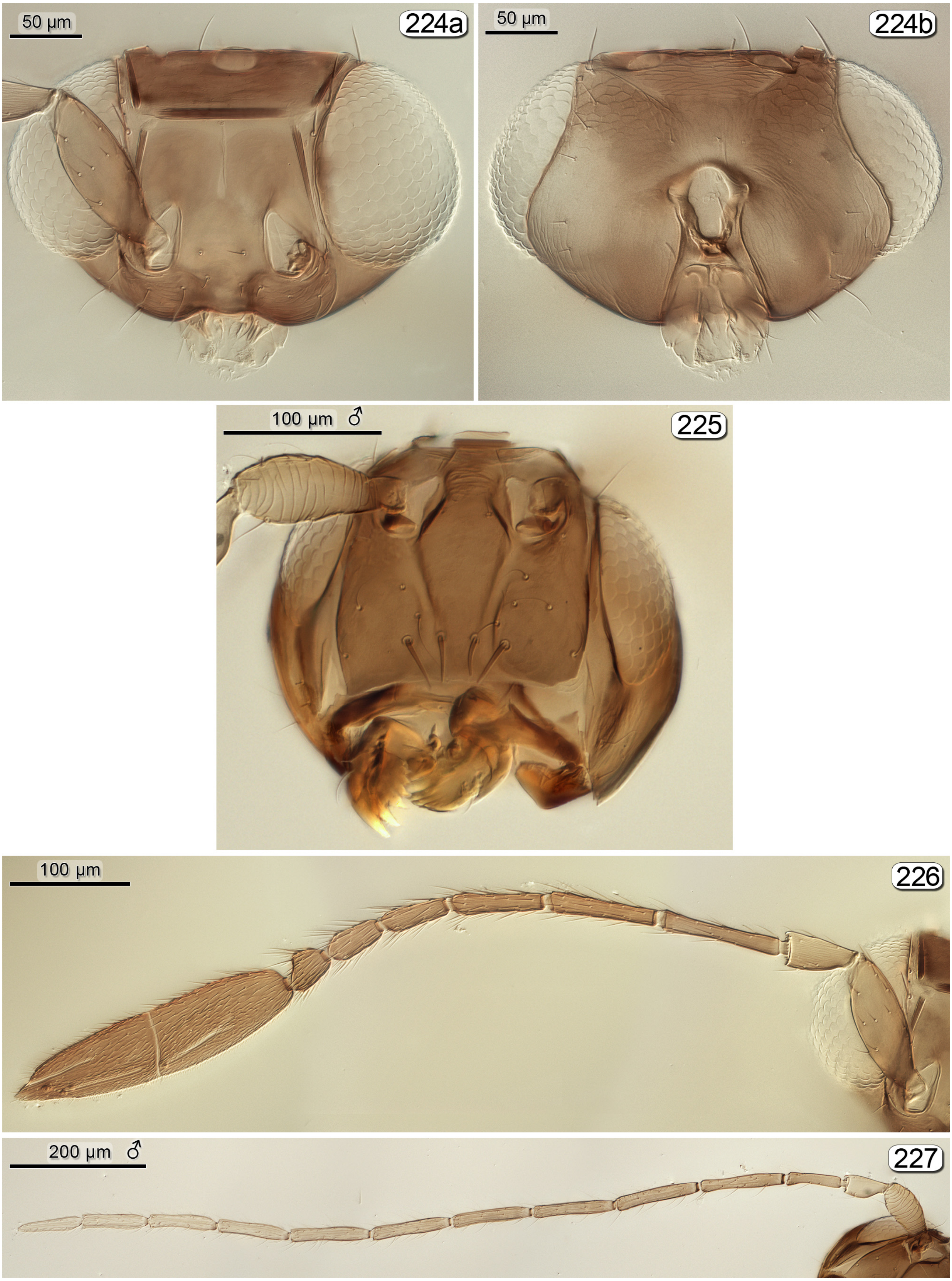
FIGURES 215–217. *Notomymar* sp. 215a, head, anterior; 215b, head, posterior; 216, antenna; 217, wings.



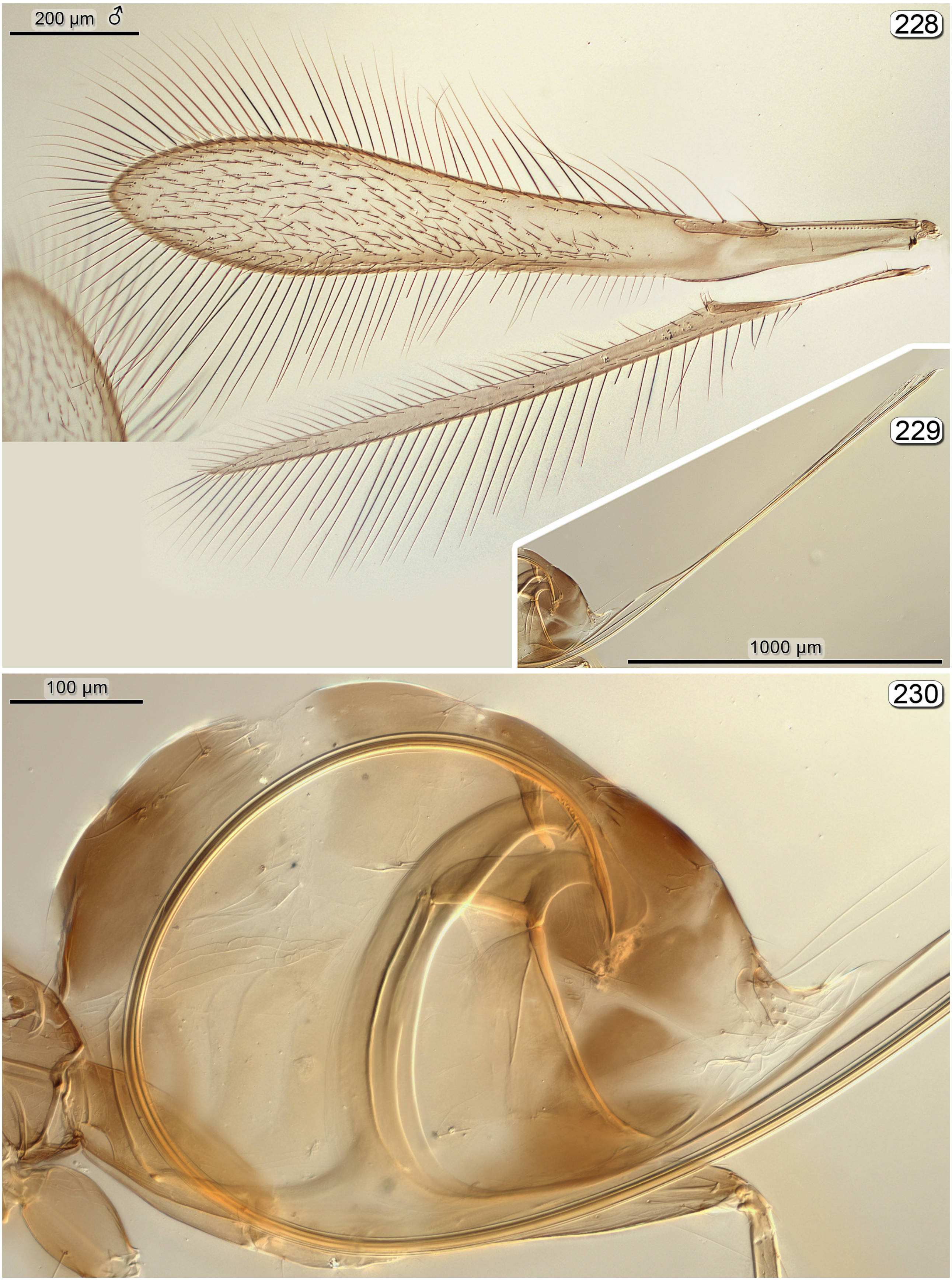
FIGURES 218–220. *Omyomymar* (*Omyomymar*). 218a, head, anterior; 218b, head, posterior; 219, antenna; 220, wings.



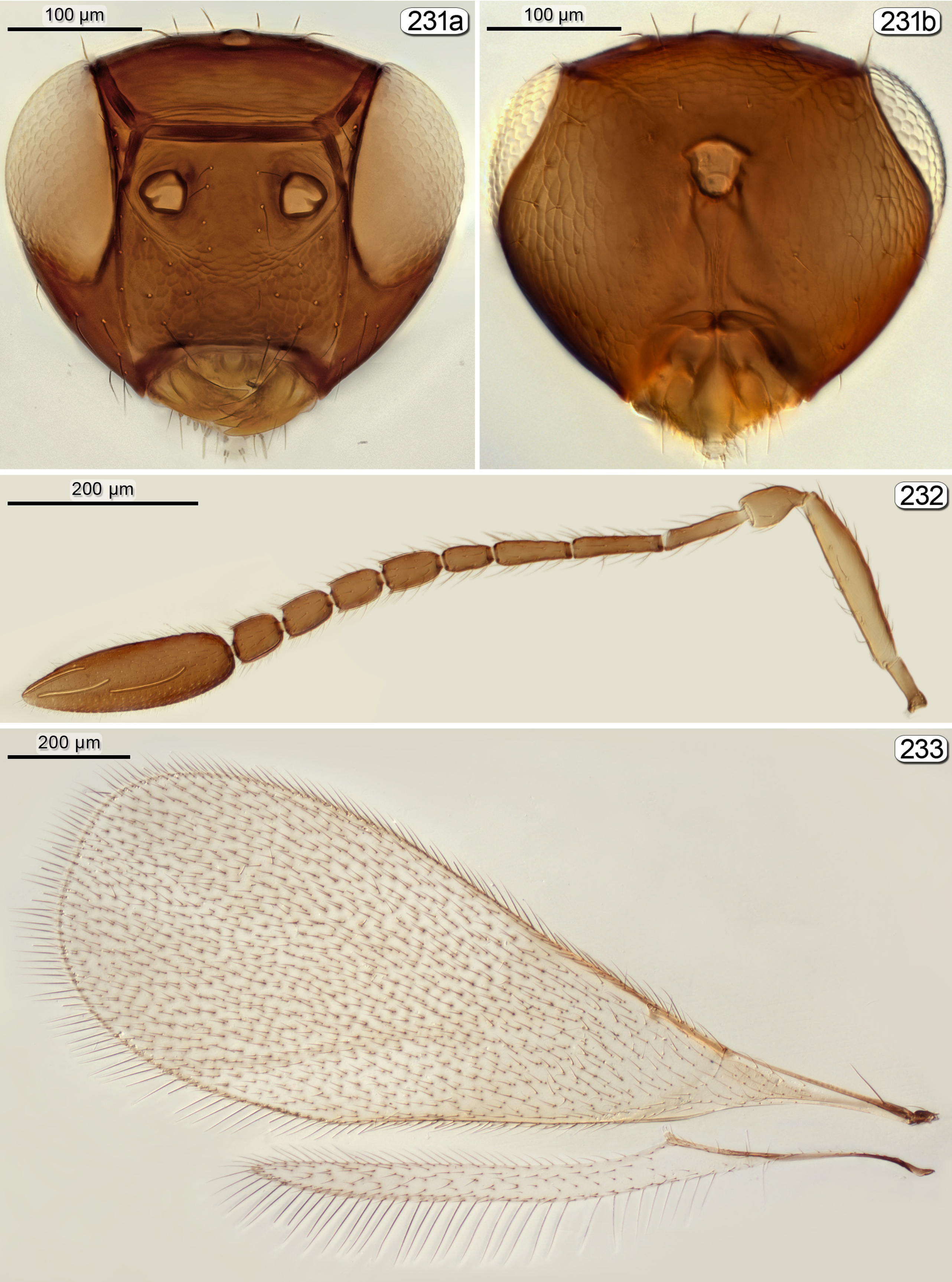
FIGURES 221–223. *Omyomymar* (*Omyomymar*). 221, mesosoma, ventral; 222, metasoma, ventral (ovipositor cut off); 223, metasoma, ventral + ovipositor.



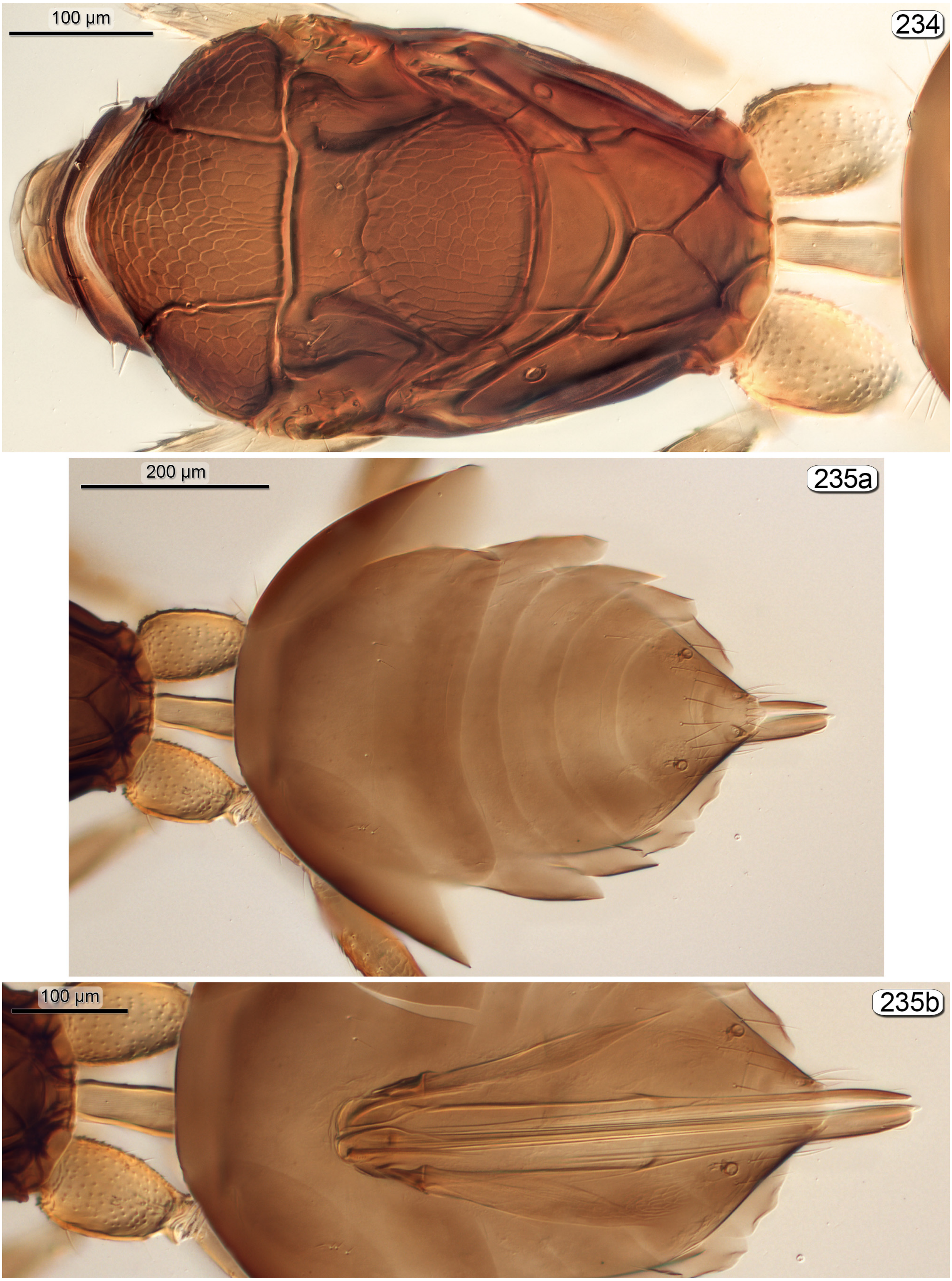
FIGURES 224–227. *Omyomymar* (*Caenomymar*). 224a, head, anterior; 224b, head, posterior; 225, head, anteroventral; 226, antenna; 227, male antenna.



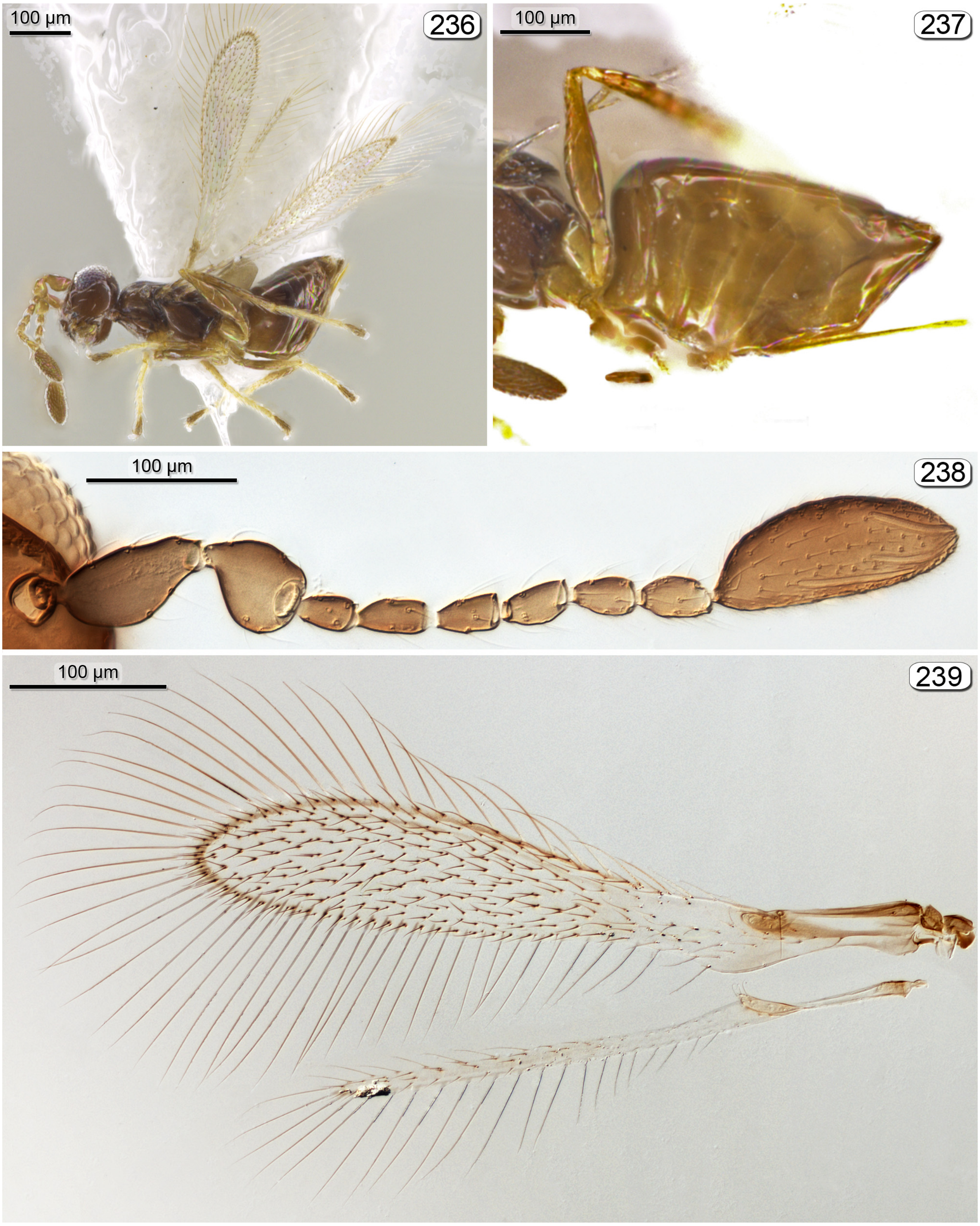
FIGURES 228–230. *Omyomymar* (*Caenomymar*). 228, wings; 229, genitalia; 230, metasoma, lateral, (ovipositor cut off).



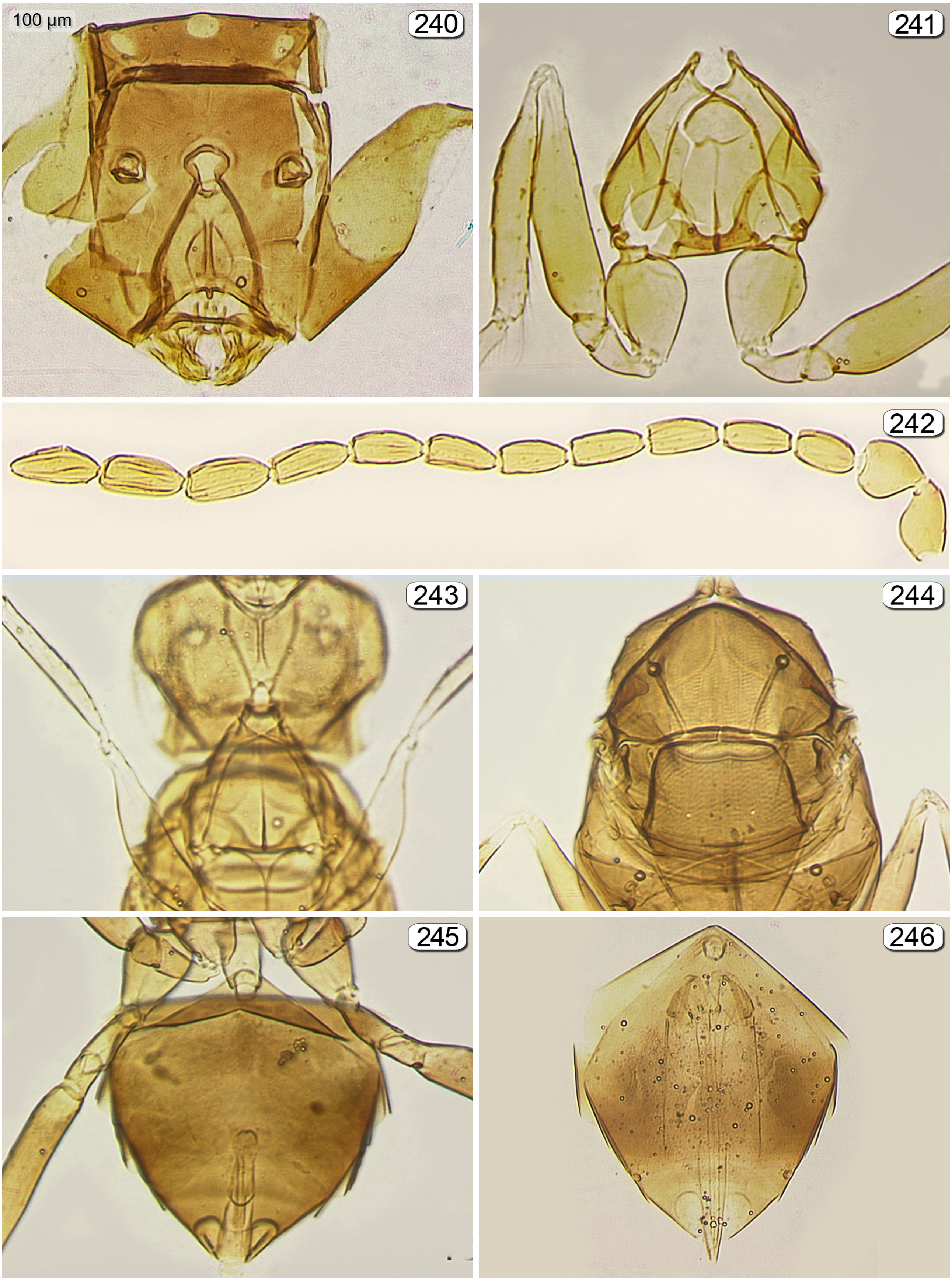
FIGURES 231–233. *Ooctonus zolnerowichi* (Huber). 231a, head, anterior; 231b, head, posterior; 232, antenna; 233, wings.



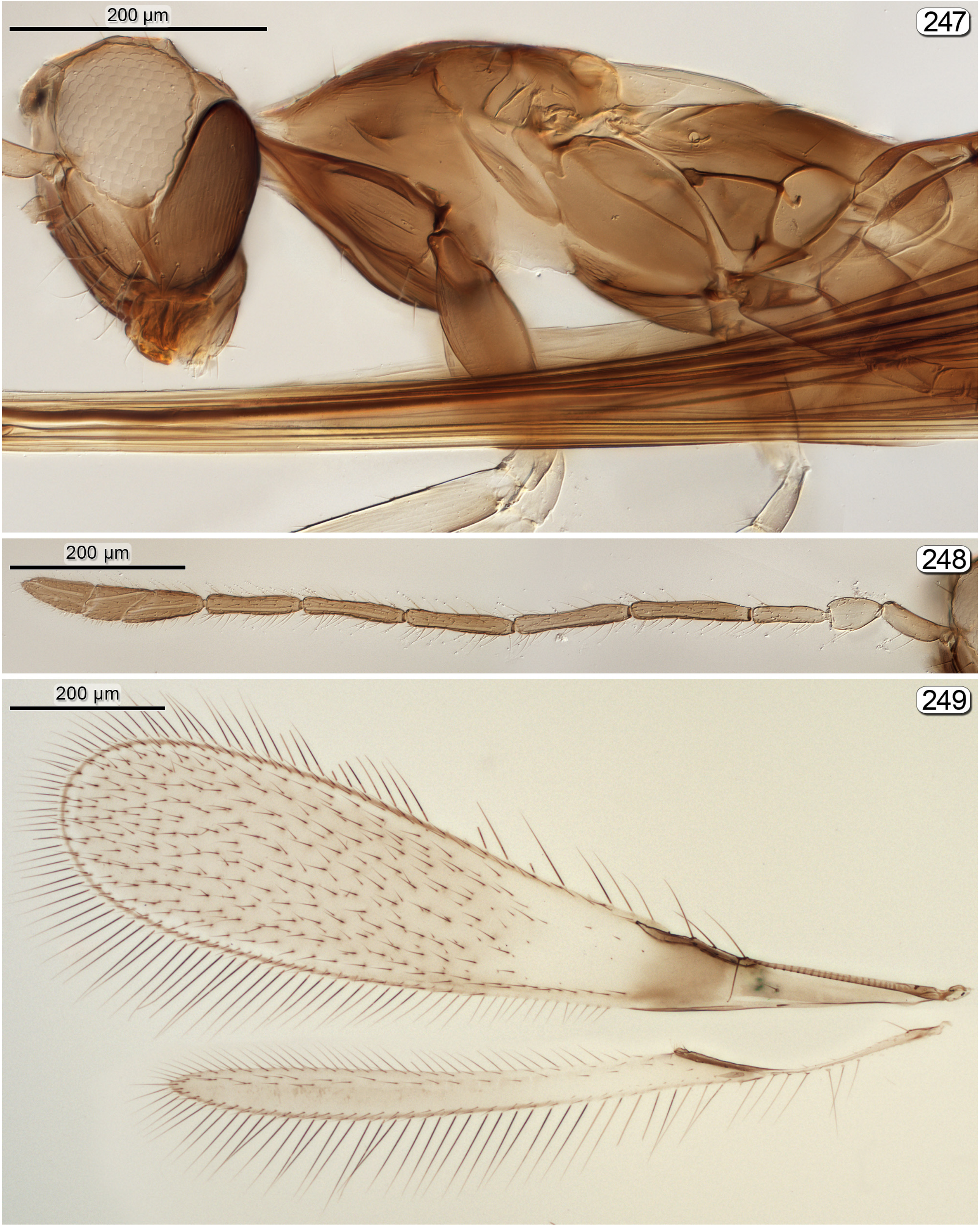
FIGURES 234, 235. *Ooctonus zolnerowichi* (Huber). 234, mesosoma, dorsal; 235a, metasoma, dorsal; 235b, metasoma, ventral.



FIGURES 236–239. *Palaeoneura saga* (Girault). 236, habitus; 237, metasoma, lateral; 238, antenna; 239, wings.

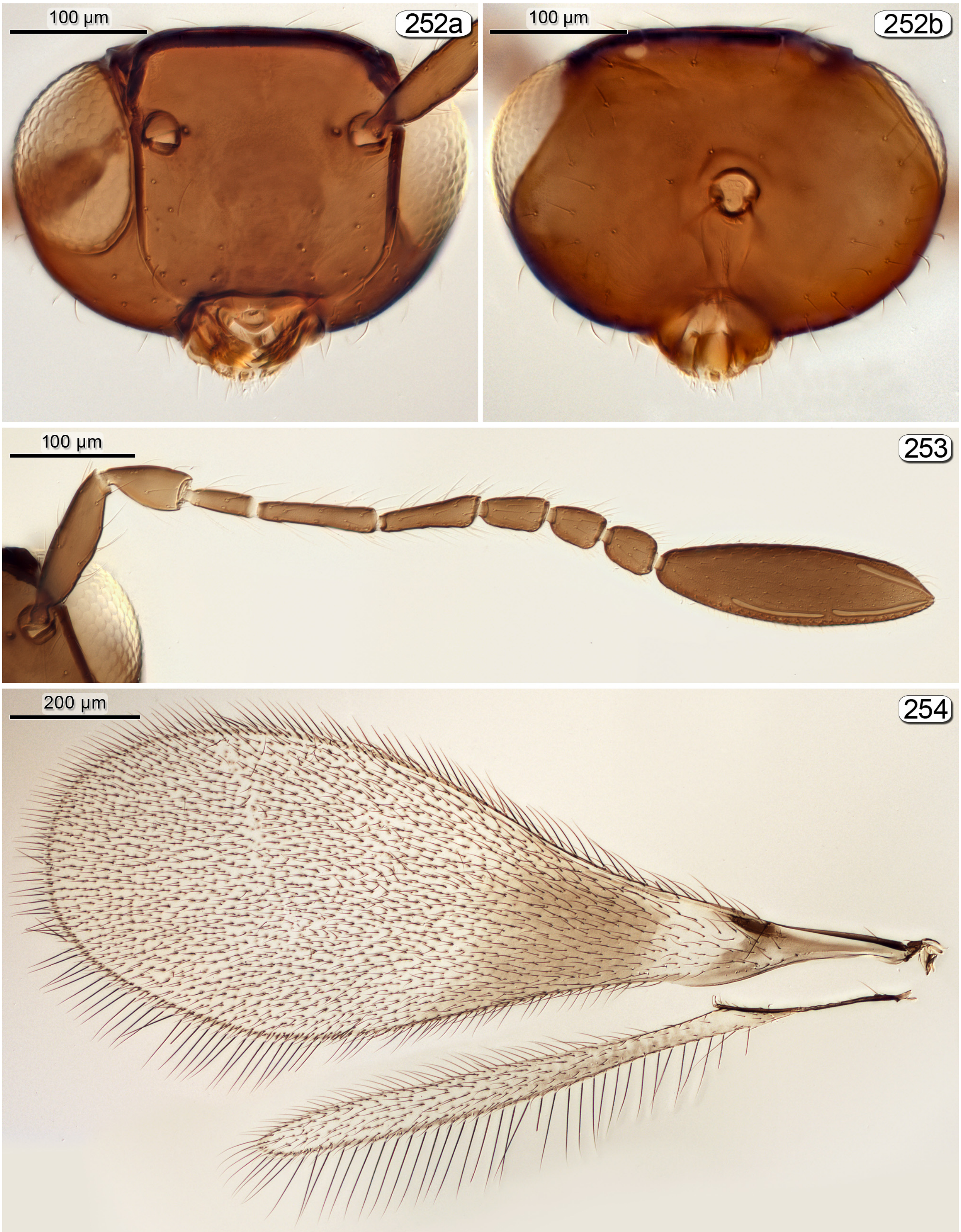


FIGURES 240–246. *Palaeoneura saga* (Girault). 240, head, anterior; 241, propleura + prosternum + procoxae–protibia, ventral; 242, male antenna; 243, head + prothorax, ventral; 244, mesosoma, dorsal; 245, male metasoma, dorsal; 246 female gaster, dorsal.



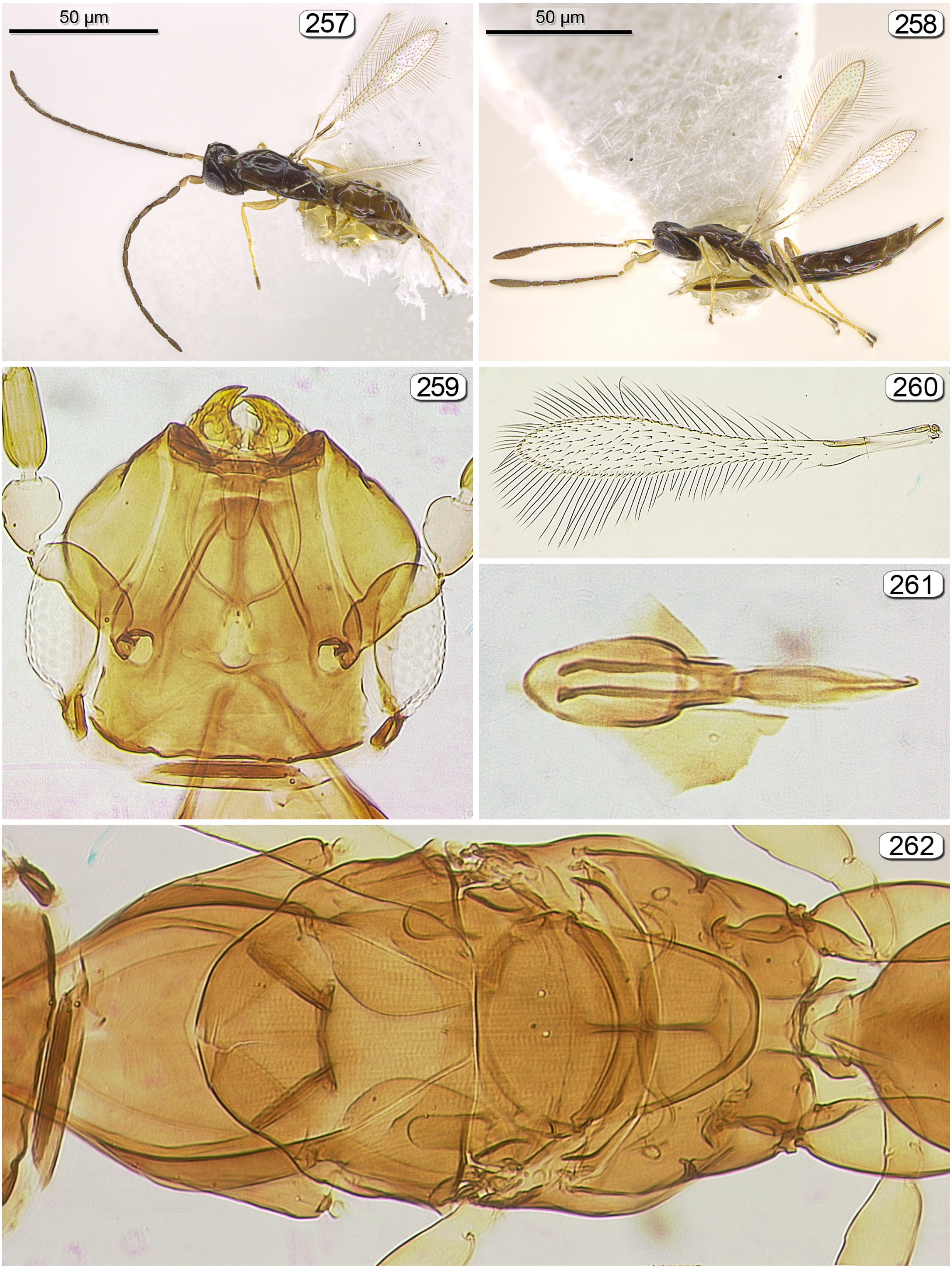
FIGURES 247–249. *Paranaphoidea* (*Idiocentrus*) *mirus* (Girault). 247, head + mesosoma + gastral sac with ovipositor inside it, lateral; 248, antenna; 249, wings. Specimen from New Zealand.

FIGURES 250, 251. *Paranaphoidea* (*Idiocentrus*) *mirus* (Girault). 250, metasoma, lateral; 251, body lateral. Specimen from New Zealand.

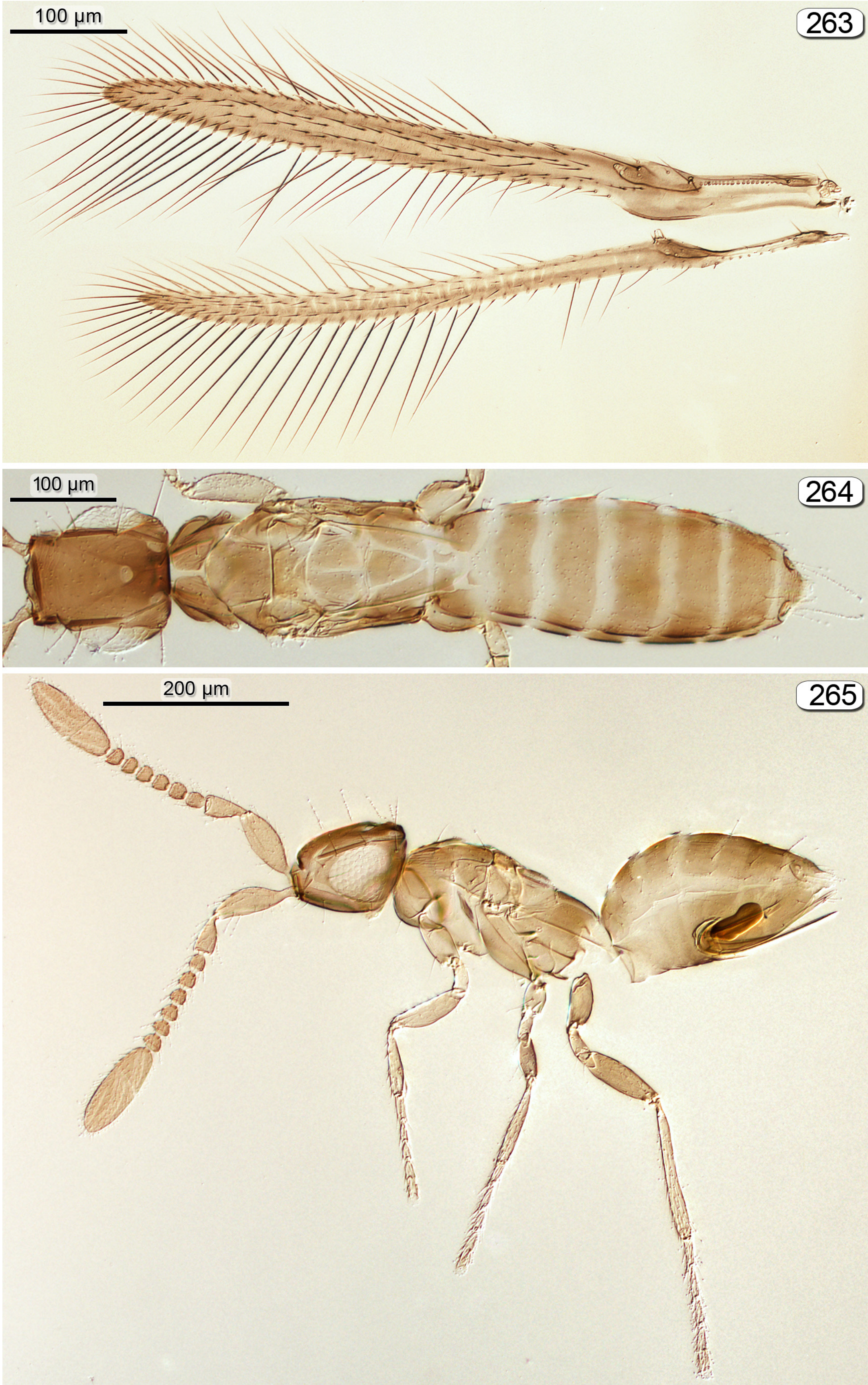


FIGURES 252–254. *Platyfrons*. 252a. head, anterior; 252b, head, posterior; 253, antenna; 254, wings.

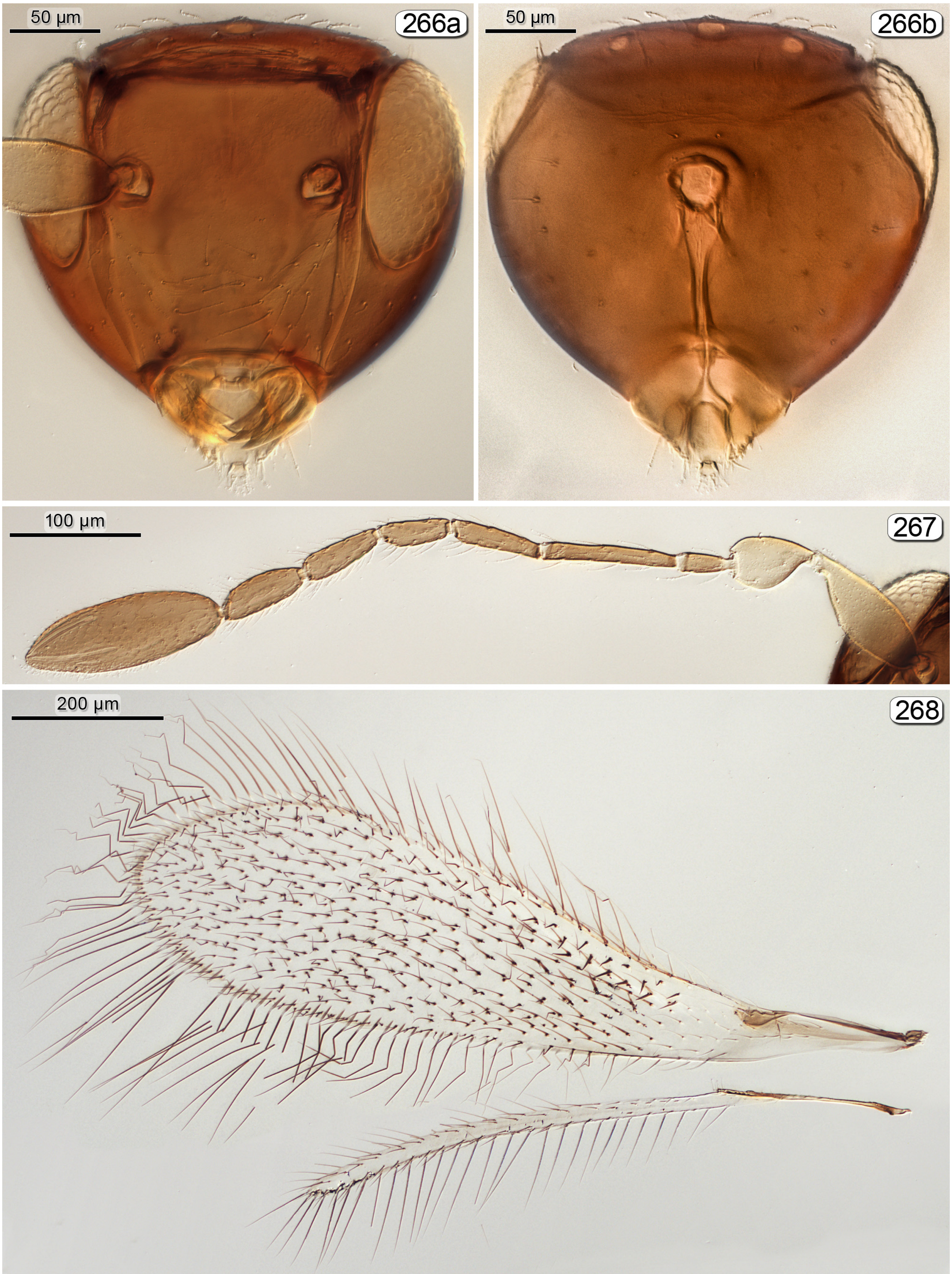
FIGURES 255, 256. *Platyfrons*.255, mesosoma, dorsal; 256, metasoma, lateral.



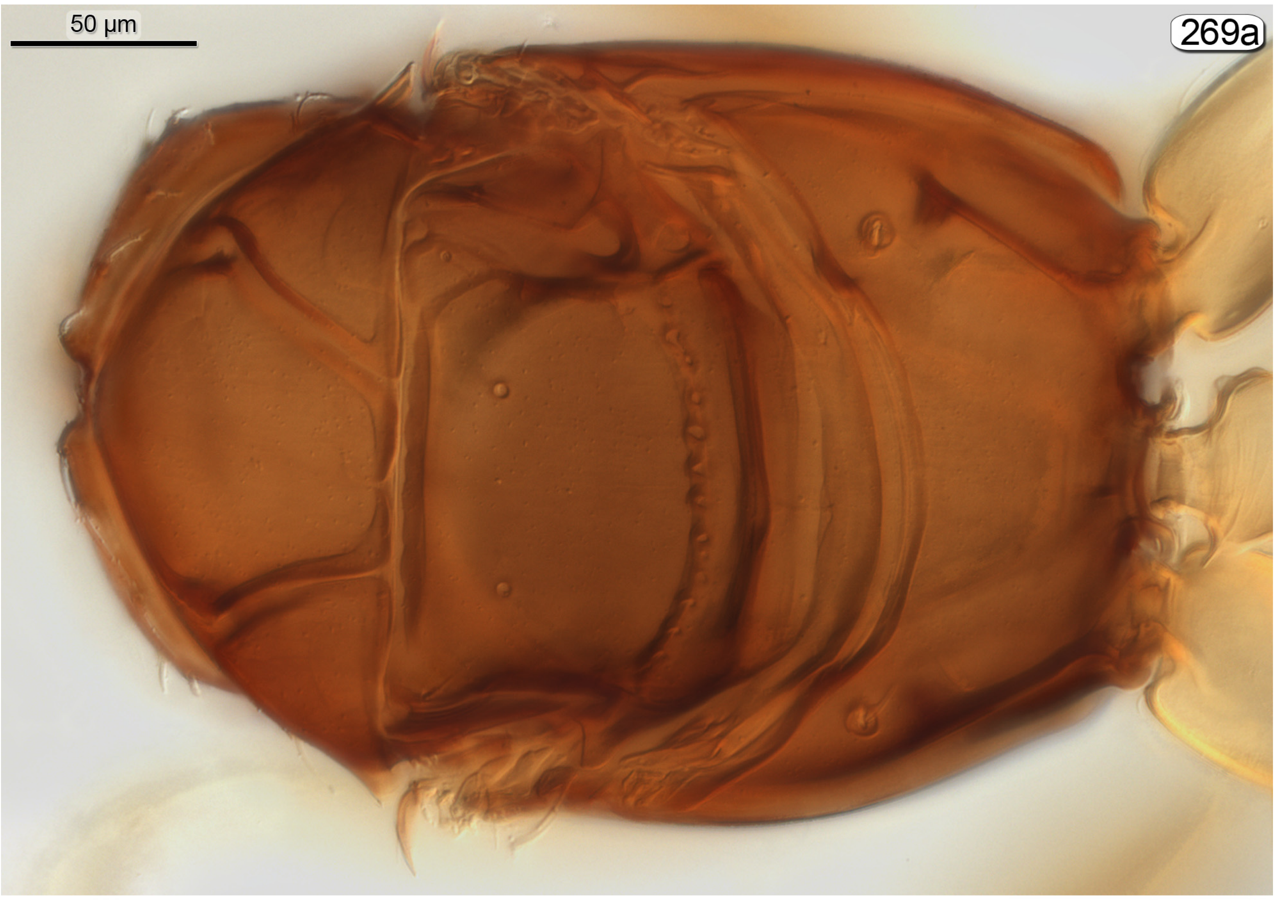
FIGURES 257–262. *Platypolynema cautum* Ogloblin. 257, habitus, male; 258, habitus, female; 259, head, anterior; 260, fore wing; 261, male genitalia; 262, mesosoma, dorsal.



FIGURES 263–265. *Platystethynium vagatum* (Ogloblin). 263, wings; 264, body, dorsal; 265, habitus (wings removed), lateral.



FIGURES 266–268. *Polynema*. 266a, head, anterior; 266b, head, posterior; 267, antenna; 268, wings.



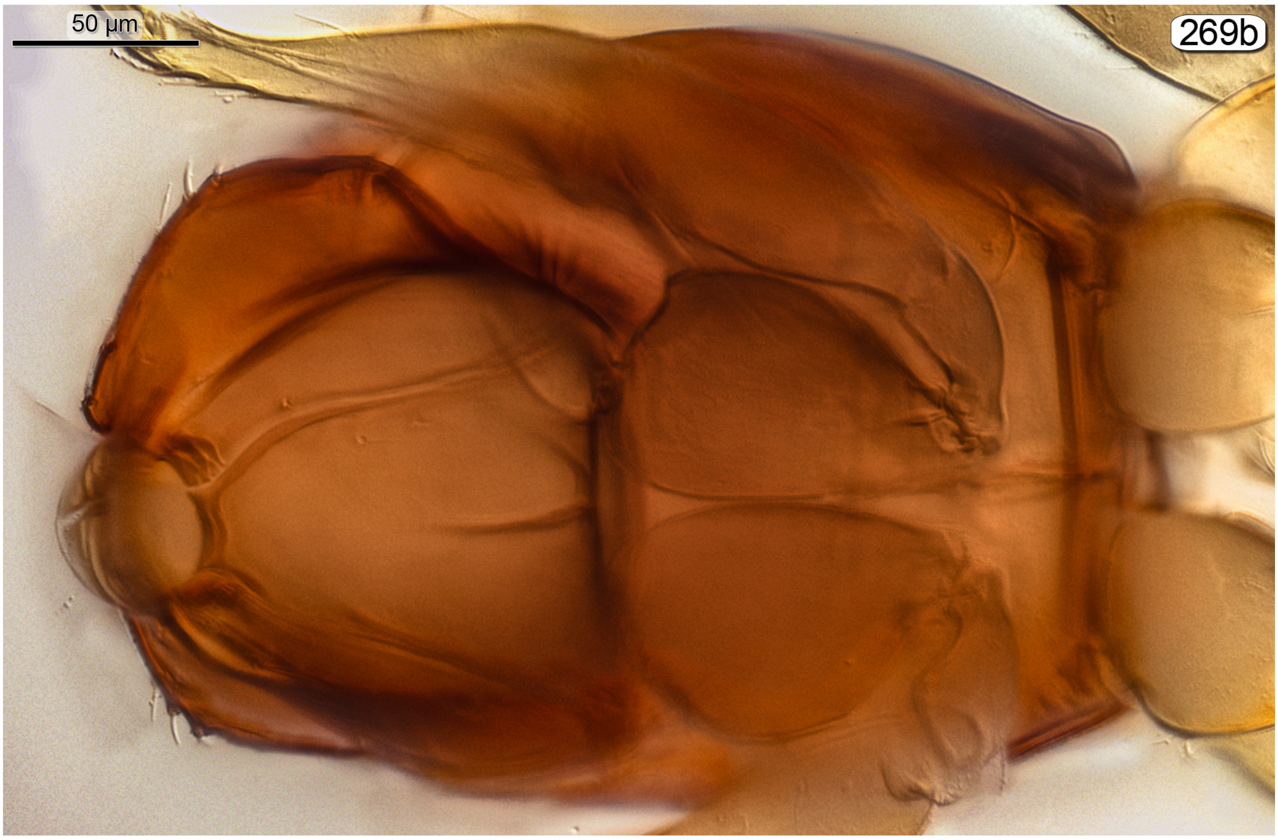
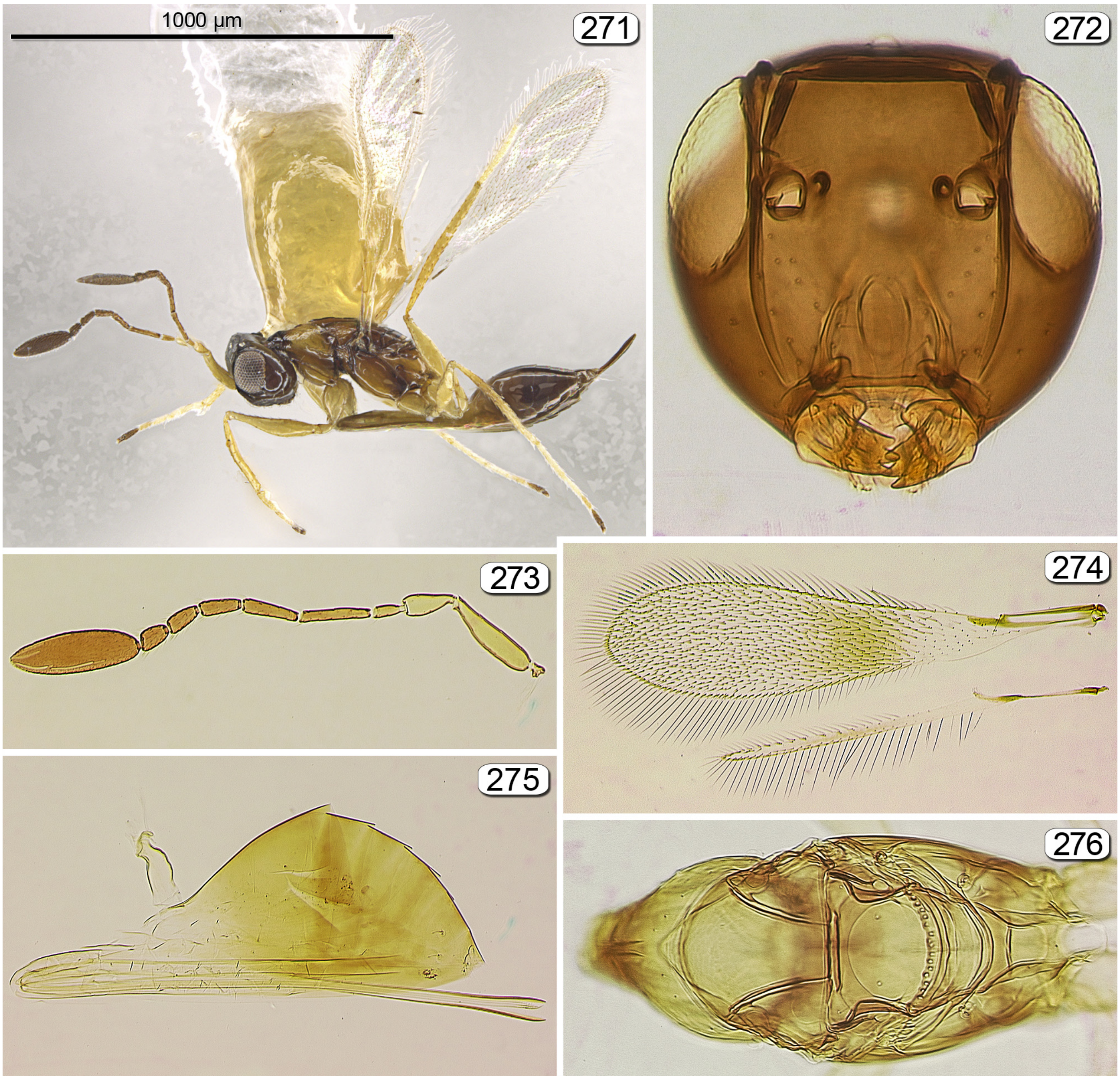
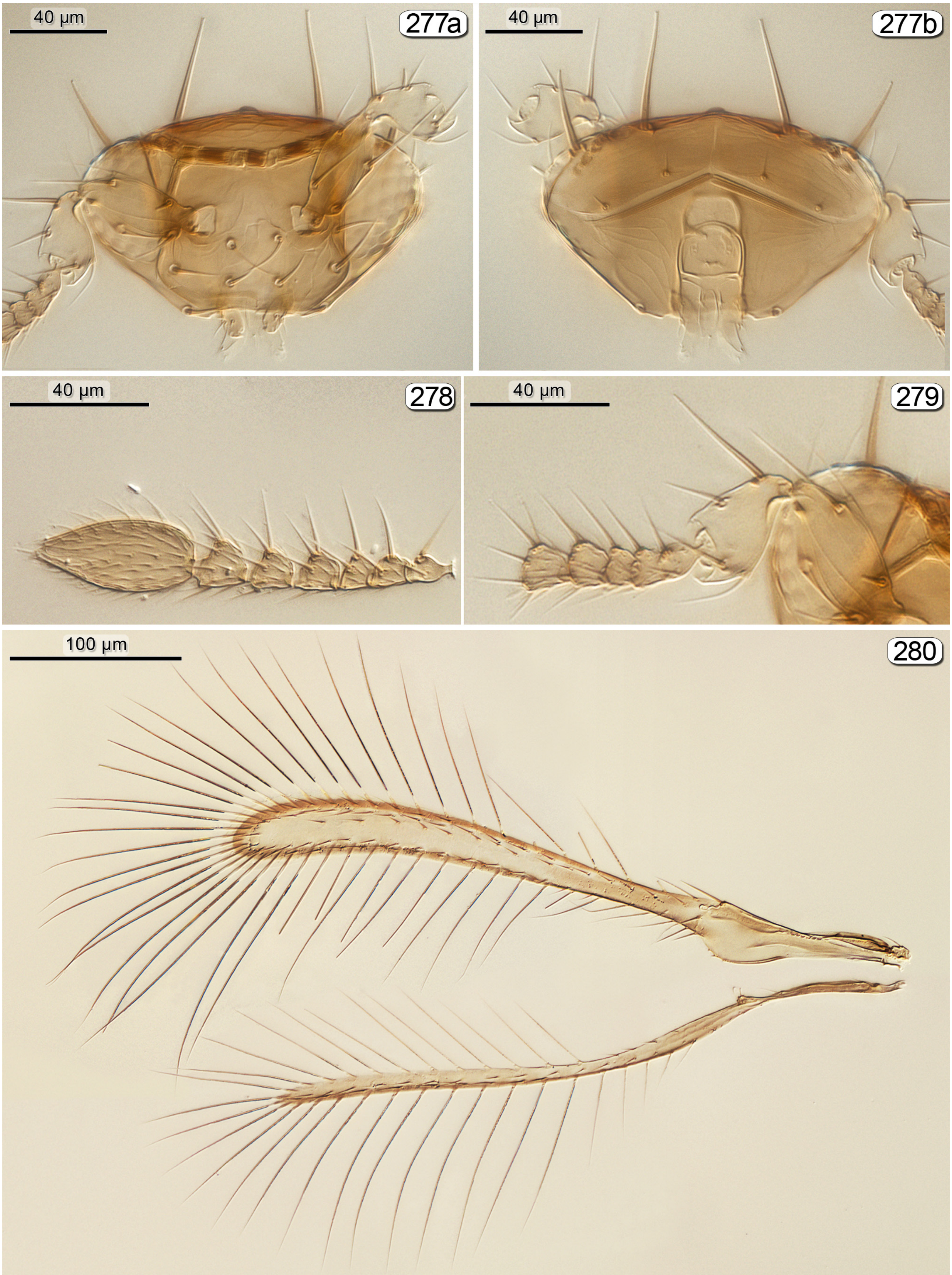


FIGURE 269. *Polynema*. 269a, mesosoma, dorsal; 269b, mesosoma, ventral.

FIGURE 270. *Polynema*. 270a, metasoma, dorsal; 270b, metasoma, ventral.

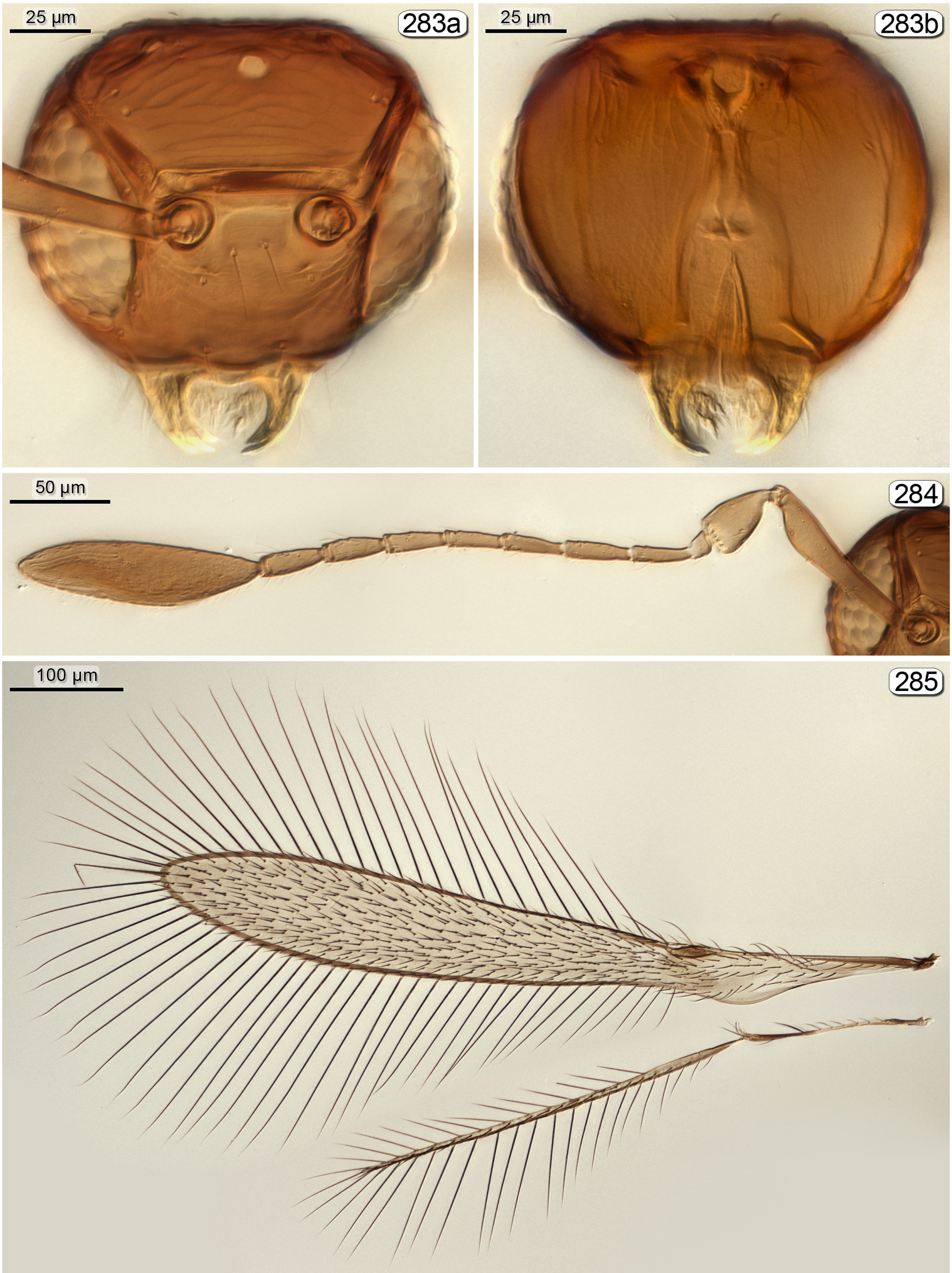


FIGURES 271–276. *Polynemula*. 271, habitus; 272, head, anterior; 273, antenna; 274, wings; 275, metasoma, lateral; 276, mesosoma, dorsal.

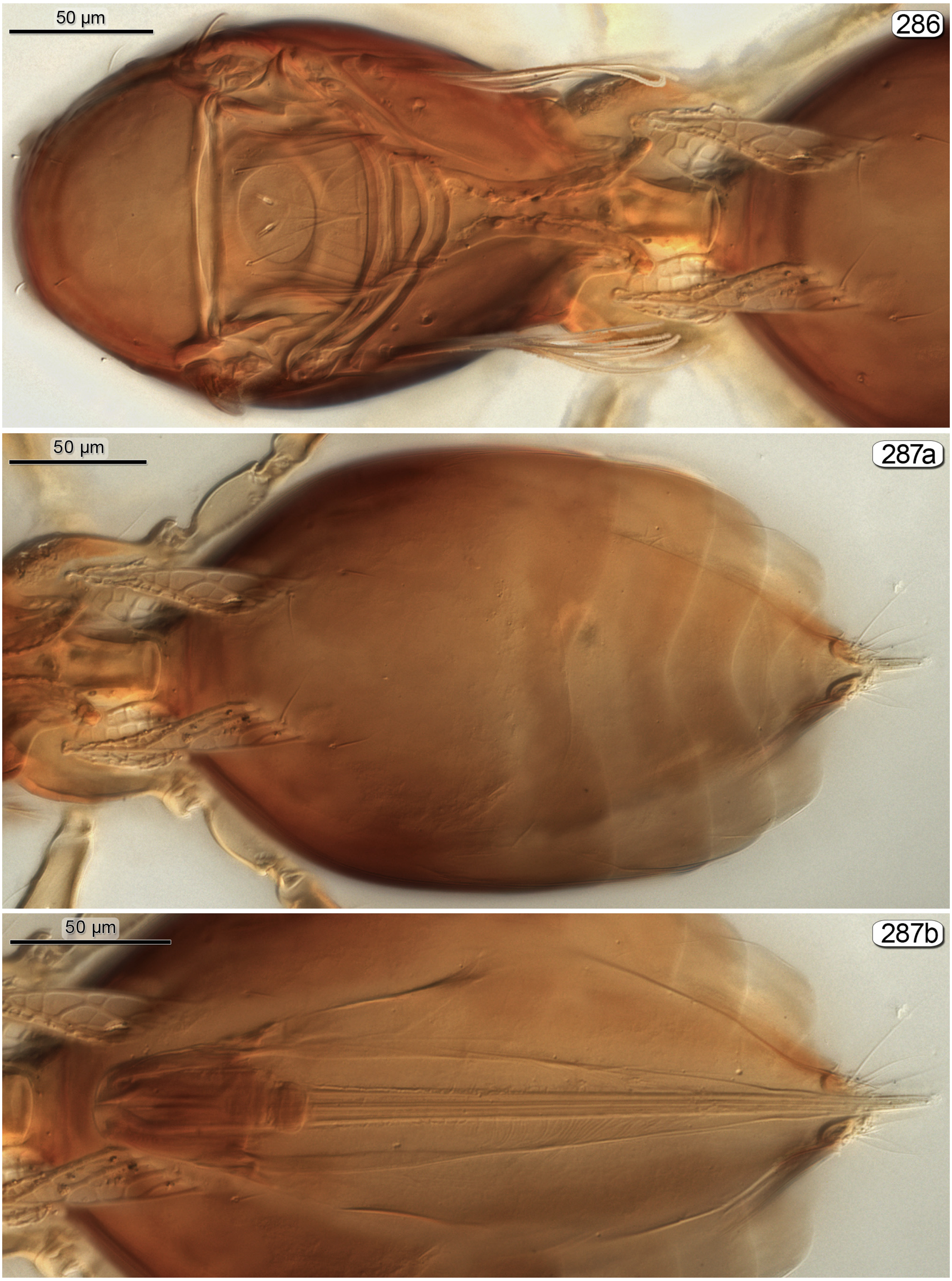


FIGURES 277–280. *Porcepicus*. 277a, head, anterior; 277b, head, posterior; 278, left antenna (fu_1–clava); 279, right antenna (scape–fu_5); 280, wings.

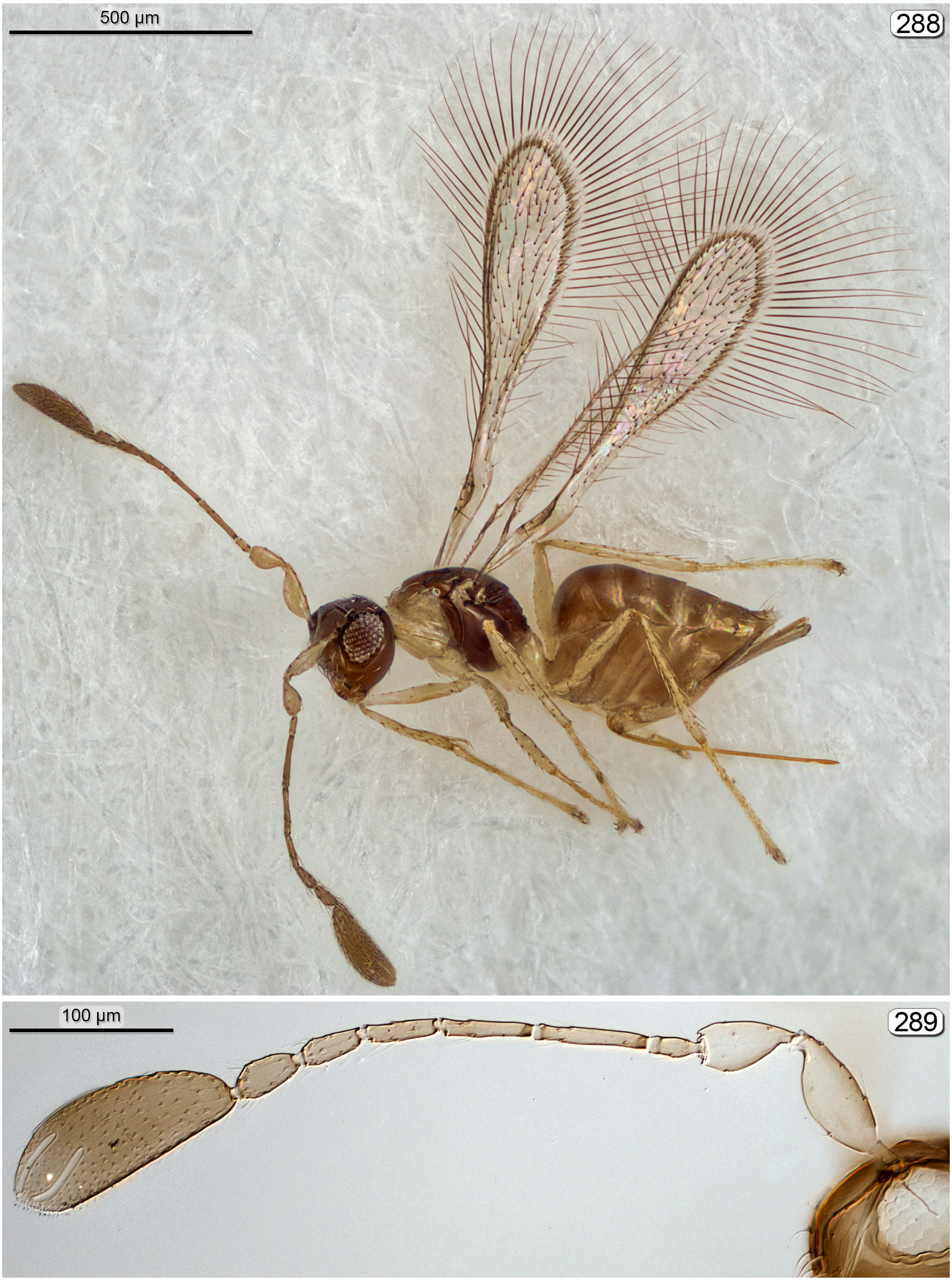
FIGURES 281, 282. *Porcepicus*. 281, mesosoma + metasoma, dorsal; 282, habitus, dorsal.



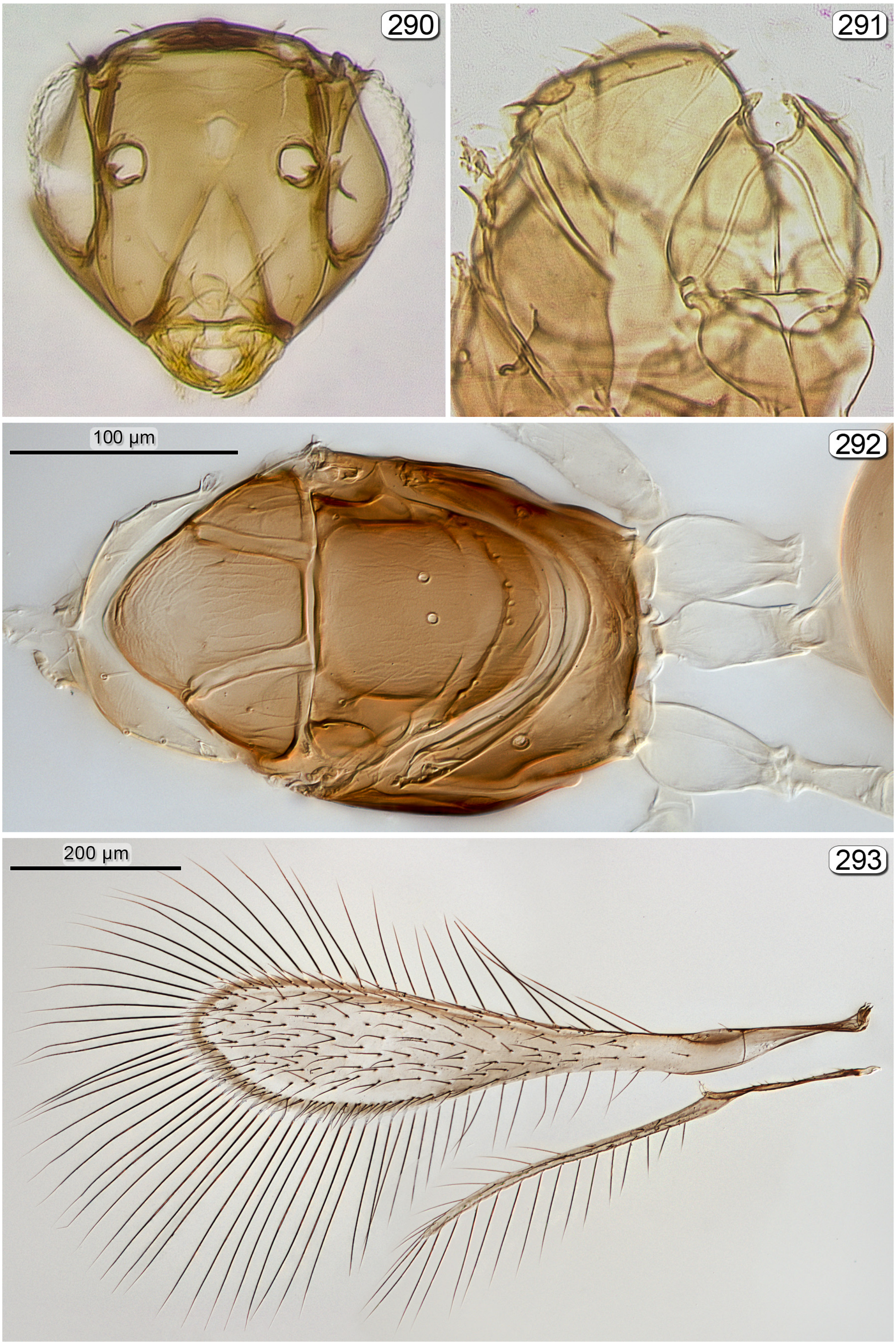
FIGURES 283–285. *Ptilomymar*.S 283a; head, anterior; 283b, head, posterior; 284, antenna; 285, wings.



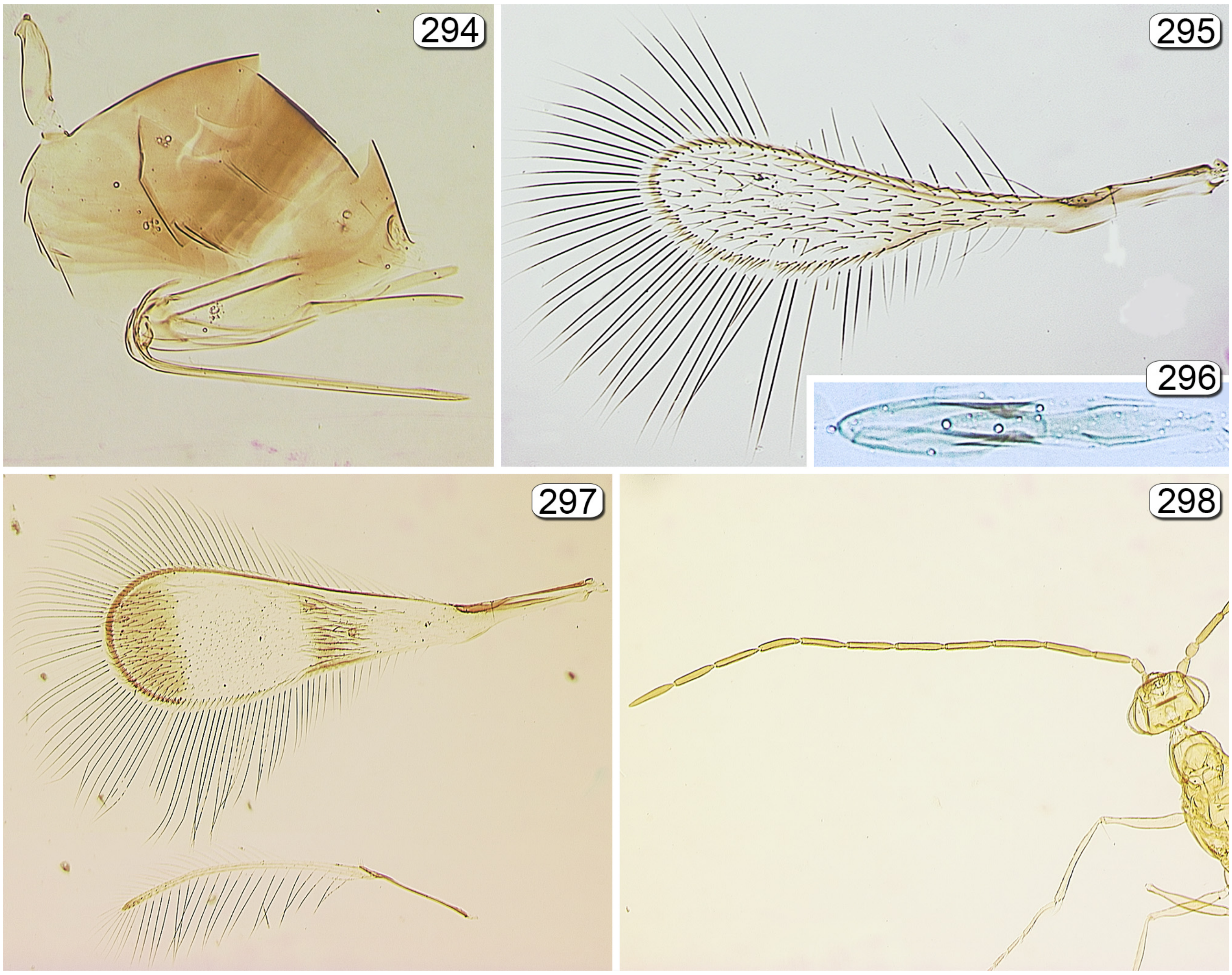
FIGURES 286, 287. *Ptilomymar*. 286, mesosoma, dorsal; 287a, metasoma, dorsal; 287b, metasoma, ventral.



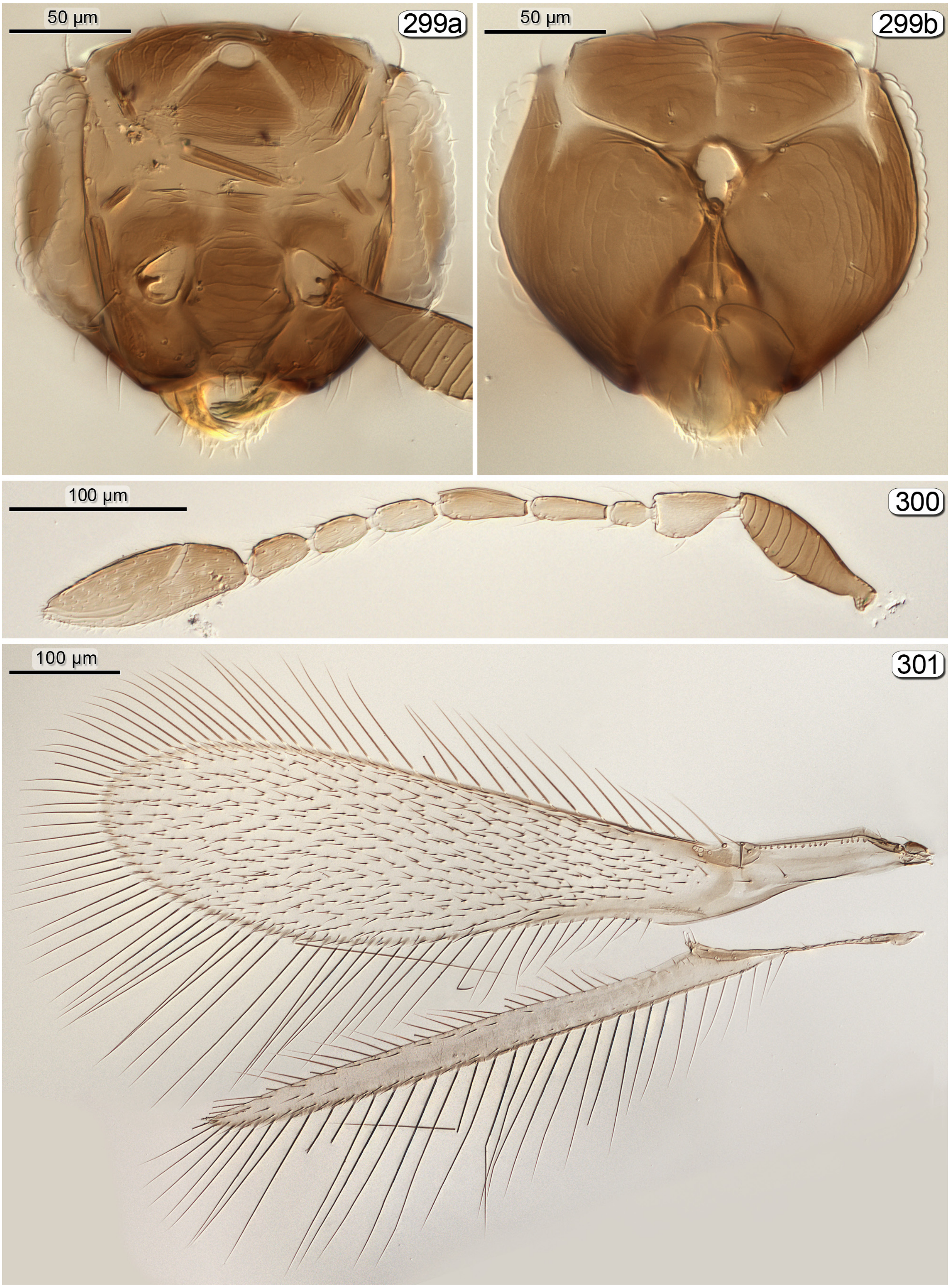
FIGURES 288, 289. *Quasipalaeoneura mymaripennis* (Dozier). 288, habitus; 289, antenna.



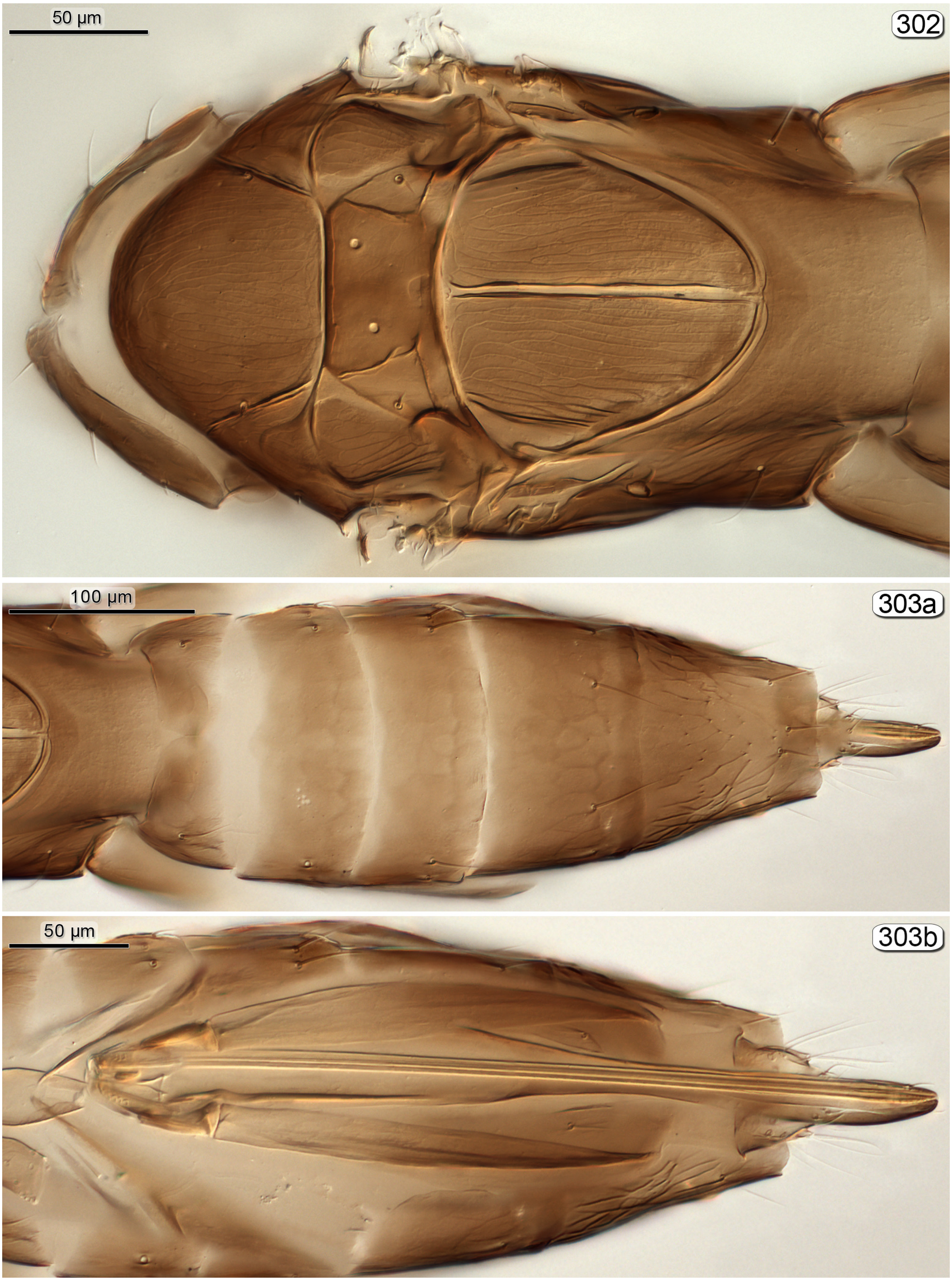
FIGURES 290–293. *Quasipalaeoneura mymaripennis* (Dozier). 290, head, anterior; 291, pronotum, especially prosternum and propleura, ventral; 292, mesosoma, dorsal; 293, wings.



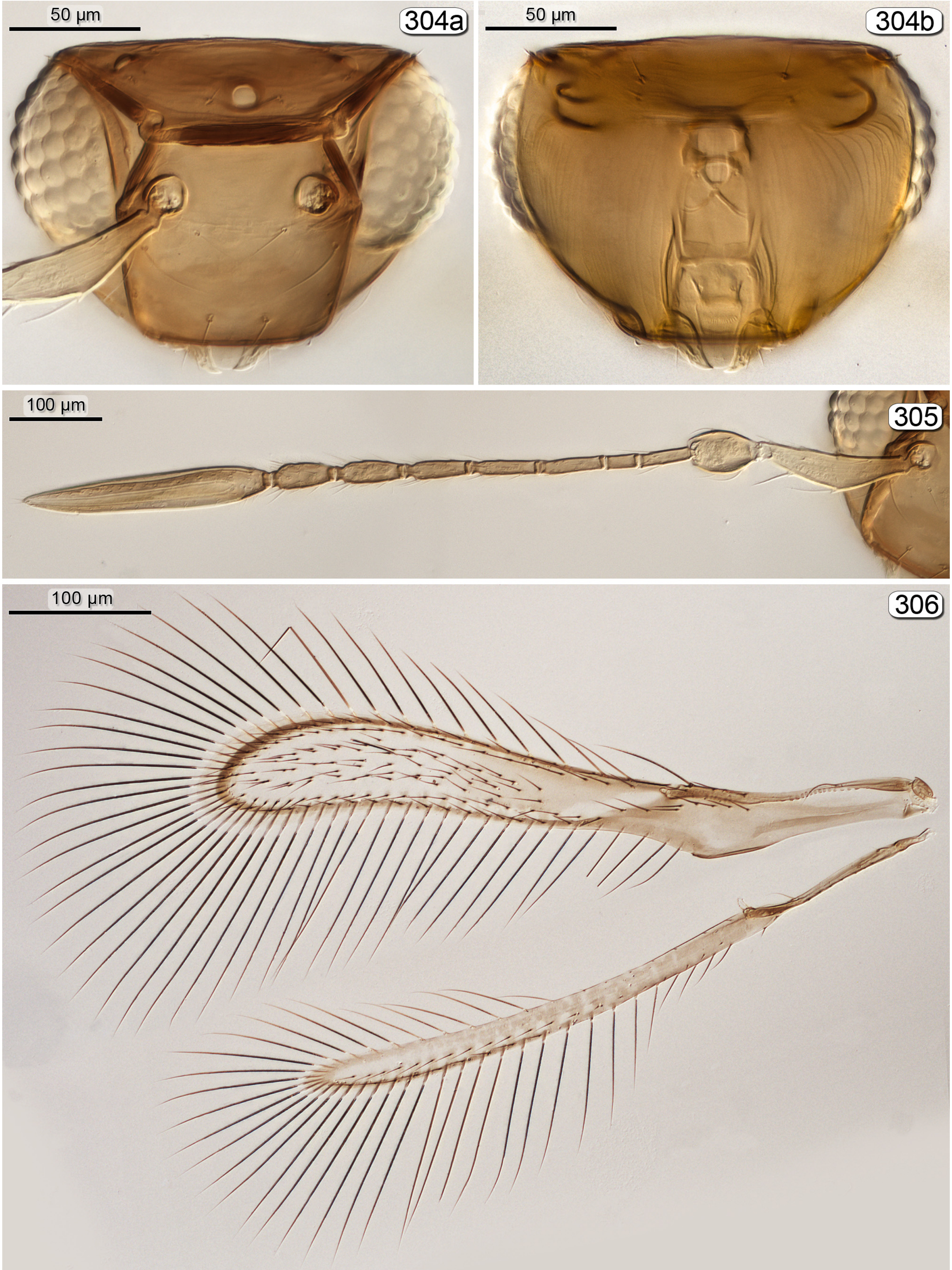
FIGURES 294–298. *Quasipalaeoneura*. 294–296, *Q. mymaripennis* (Dozier), metasoma, lateral; 295, fore wing; 296, male genitalia; 297–298, *Q*. sp., wings, undescribed sp.; 298, head + antenna, undescribed male.



FIGURES 299–301. *Schizophragma*. 299a; head, anterior; 299b, head, posterior; 300, antenna; 301, wings.



FIGURES 302, 303. *Schizophragma*. 302, mesosoma, dorsal; 303a, metasoma, dorsal; 303b, metasoma, ventral.



FIGURES 304–308. *Stephanocampta*. 304a, head, anterior; 304b, head, posterior; 305, antenna; 306, wings.

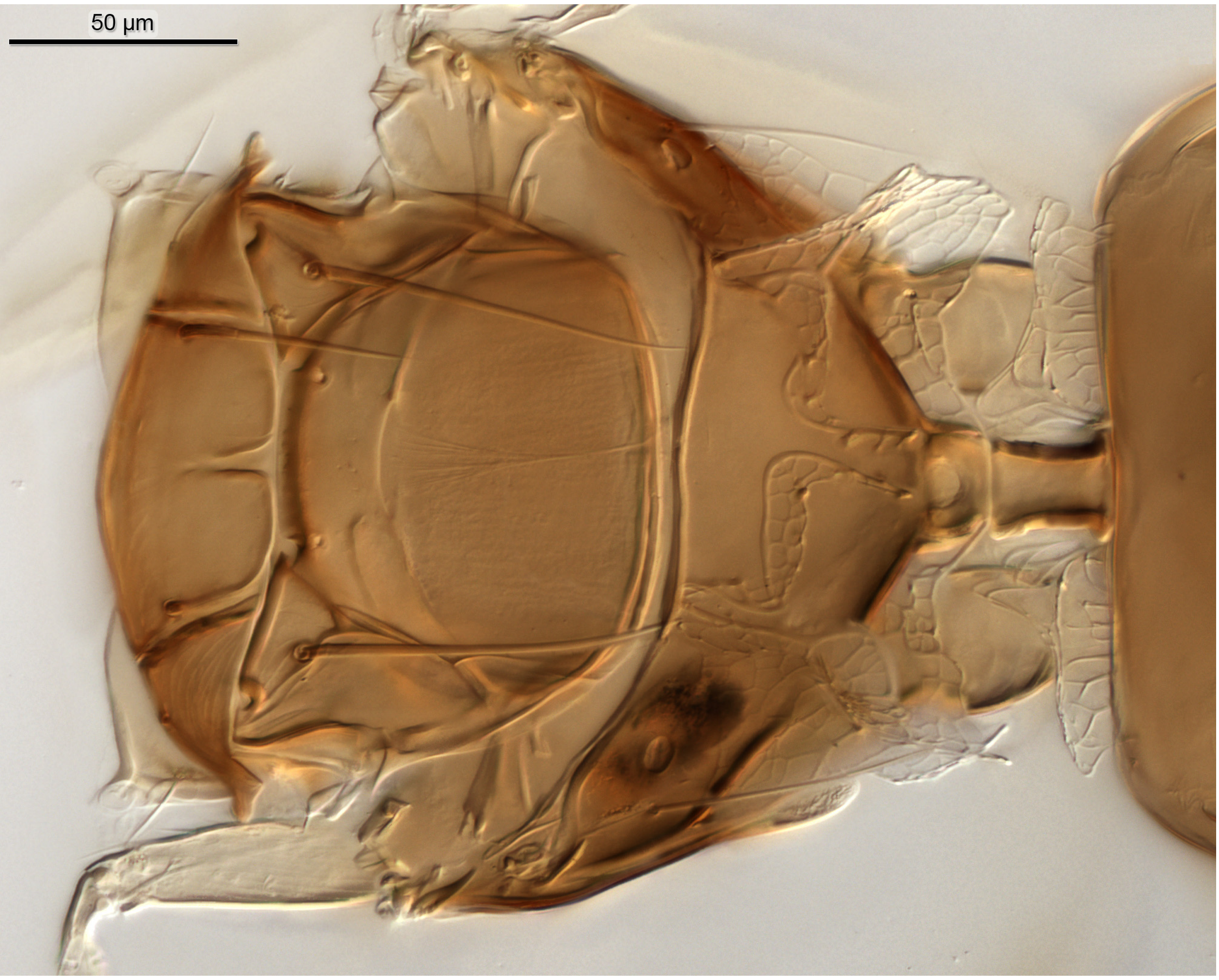


FIGURE 307. *Stephanocampta*. 307, mesosoma, dorsal.

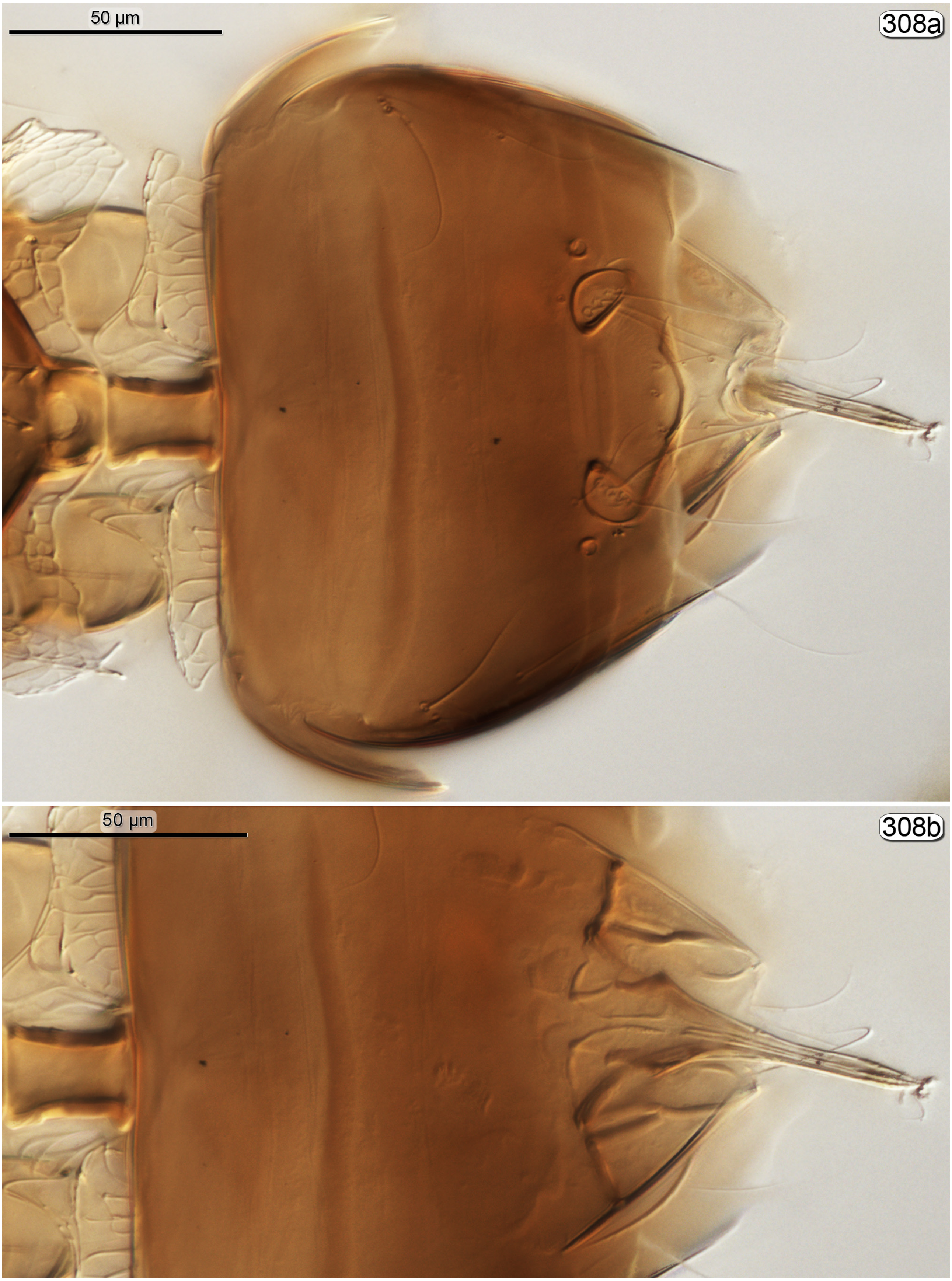
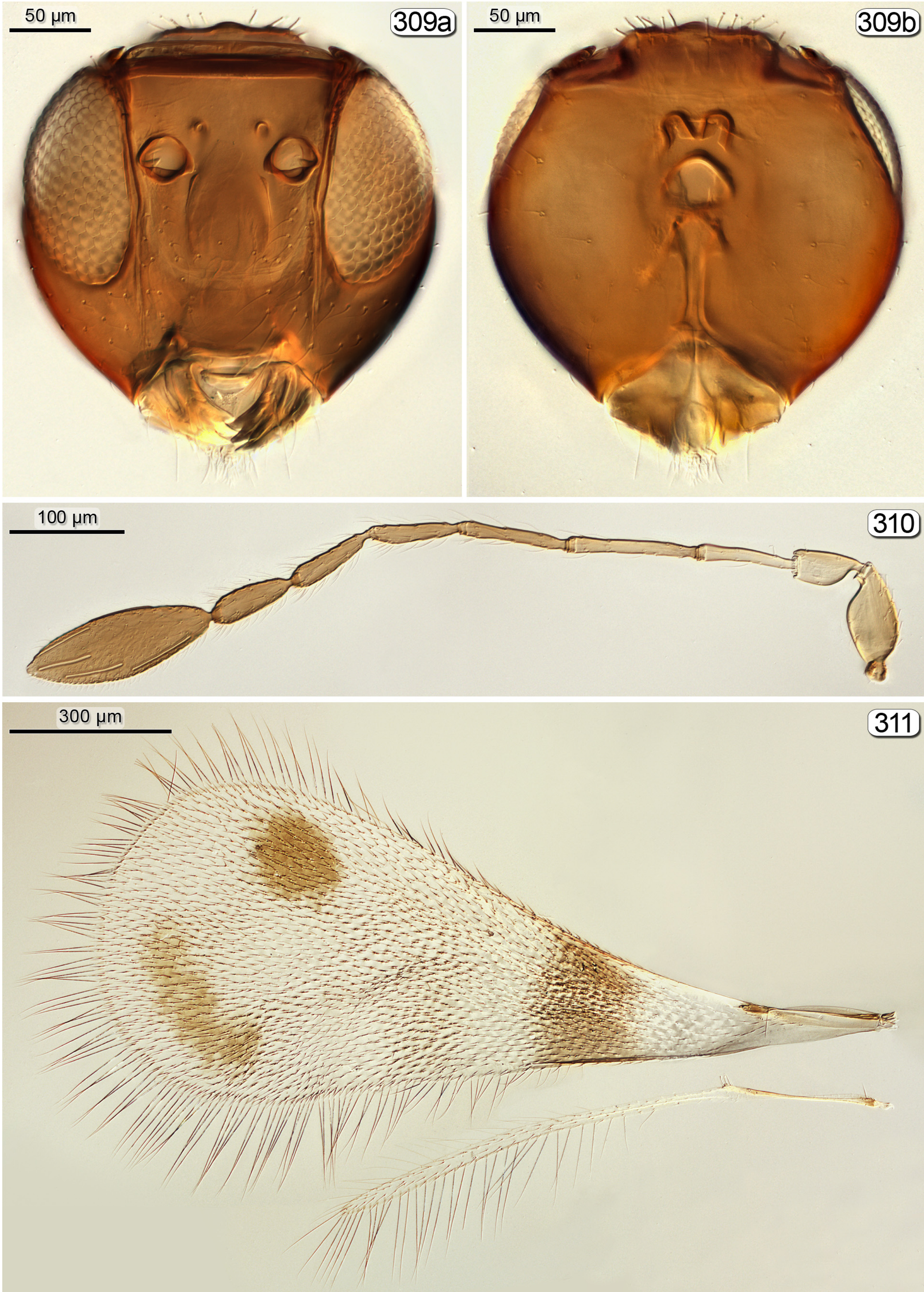


FIGURE 308. *Stephanocampta* 308a, metasoma, dorsal; 303b, metasoma, ventral.



FIGURES 309–311. *Stephanodes polynemoides* (Yoshimoto). 309a, head, anterior; 309b, head, posterior; 310, antenna; 311, wings.

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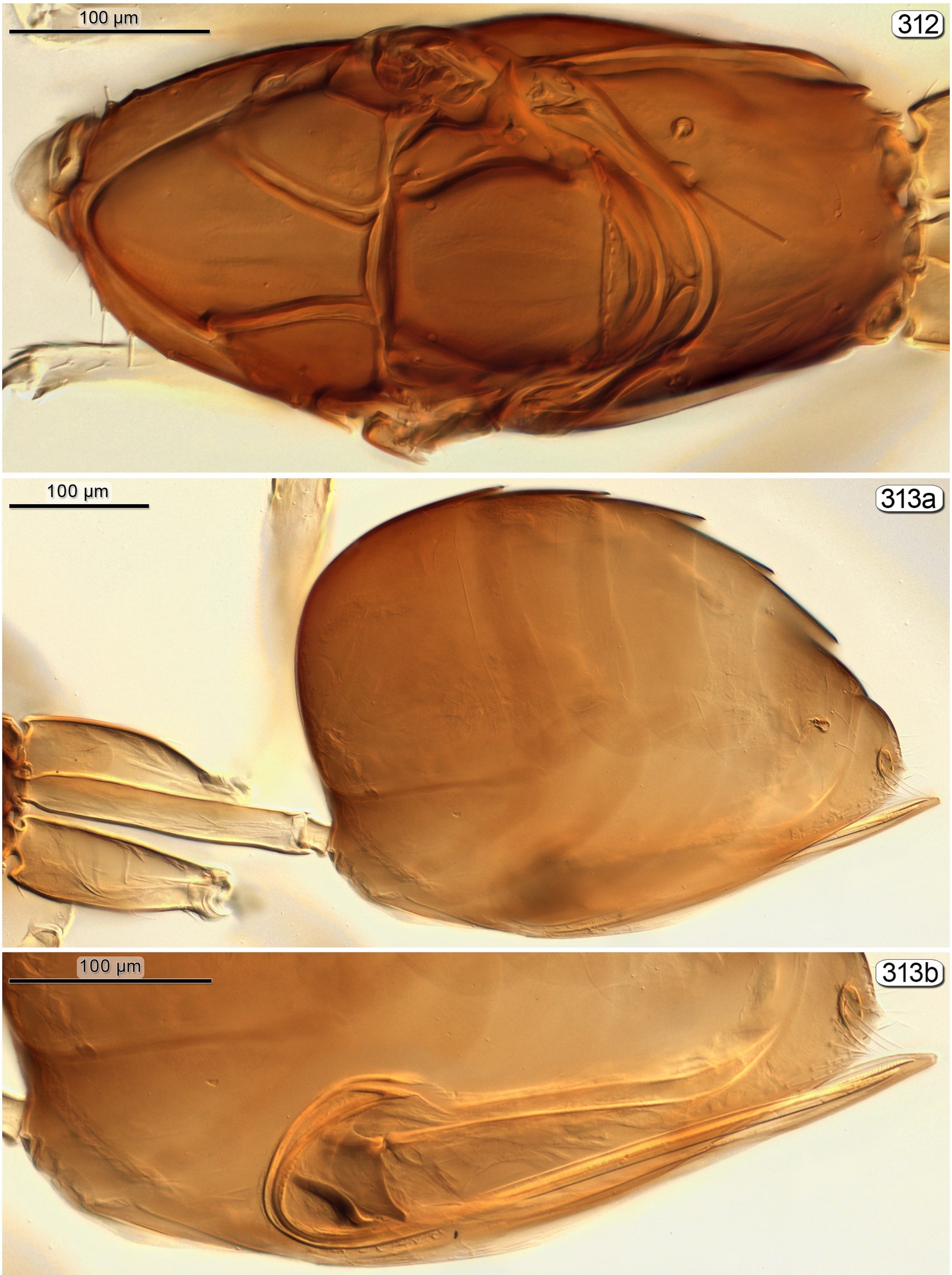
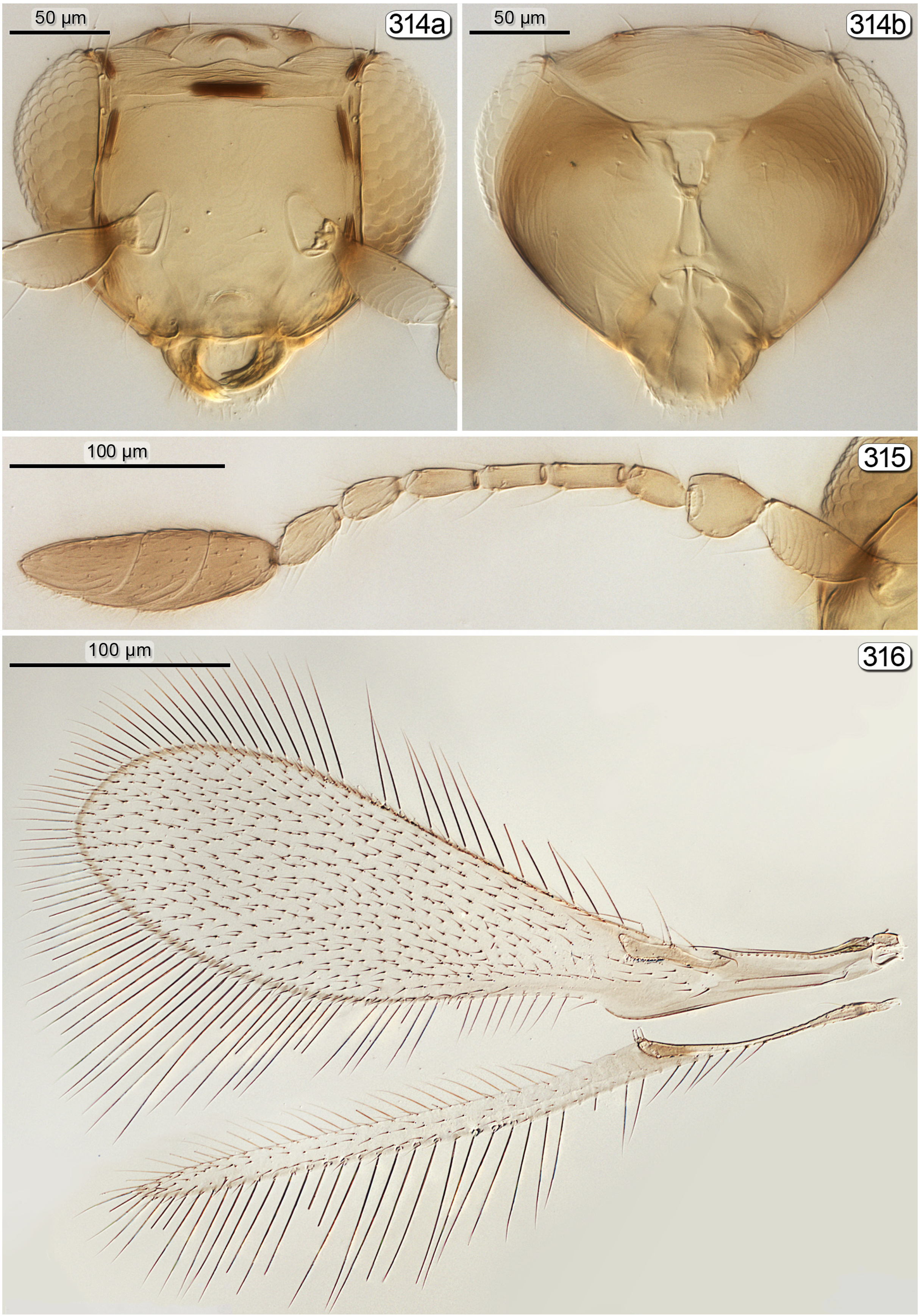
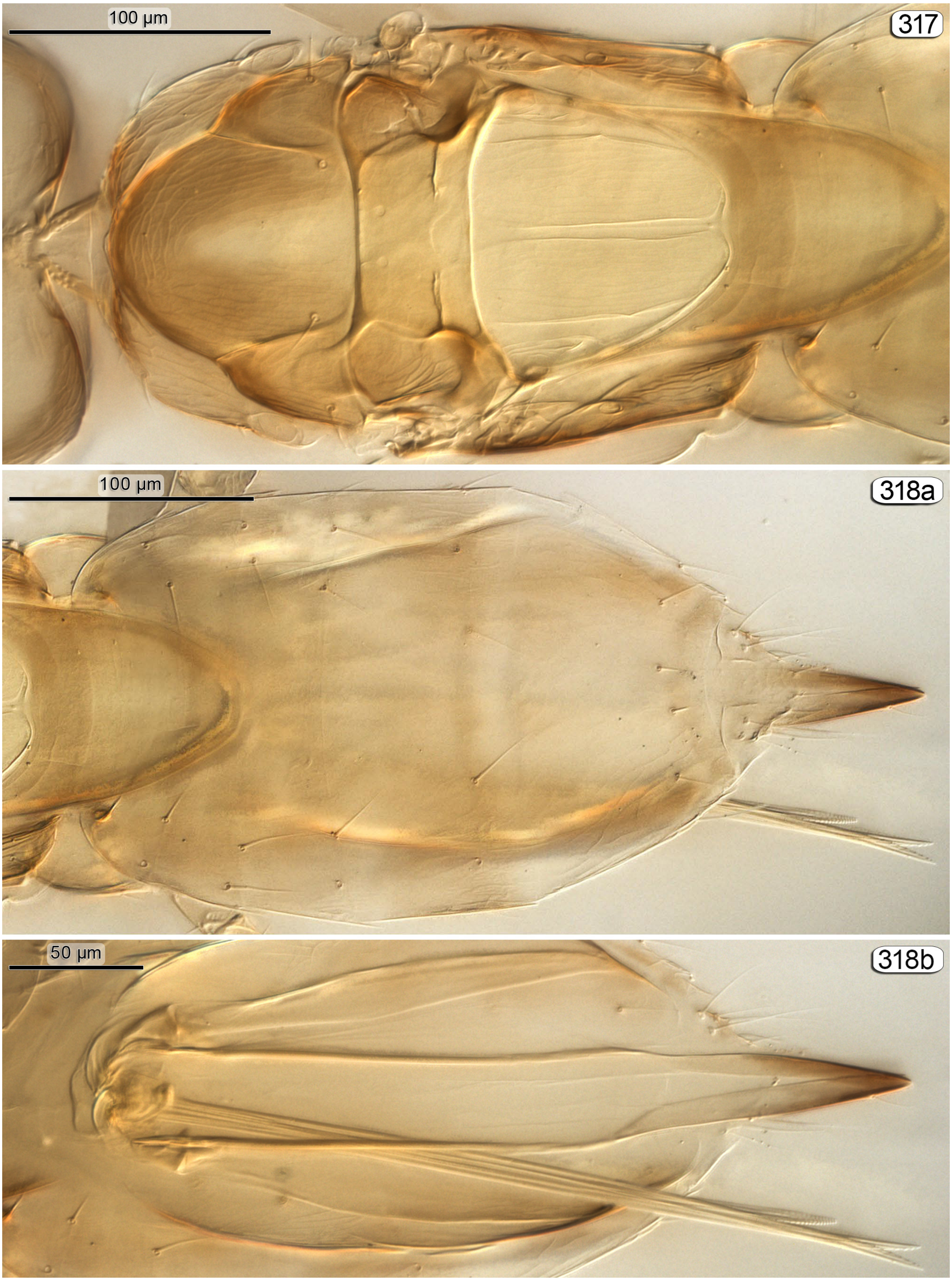


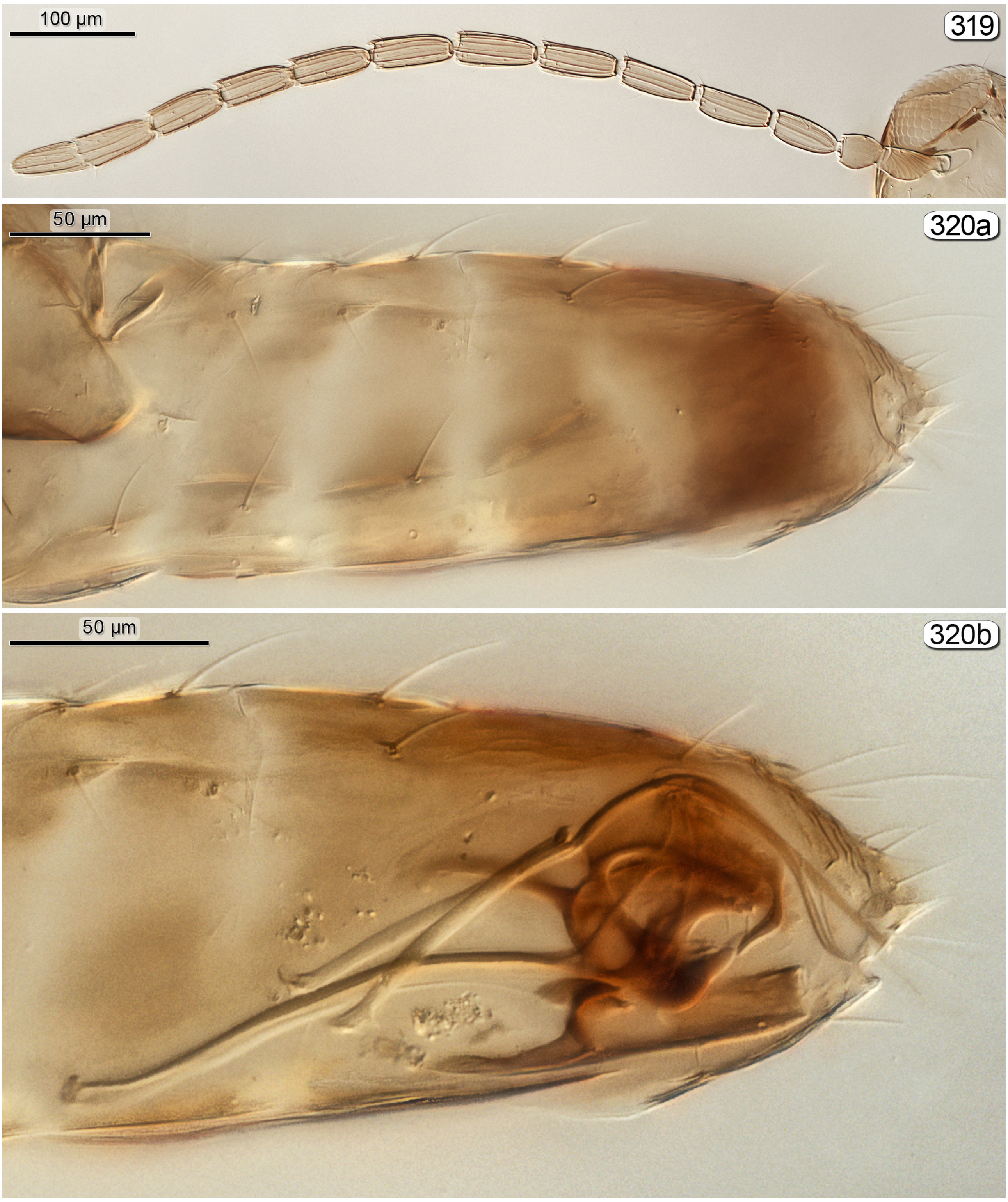
FIGURE 312, 313. *Stephanodes polynemoides* (Yoshimoto). 312, mesosoma, dorsal; 313a, metasoma, lateral; 313b, genitalia, lateral.



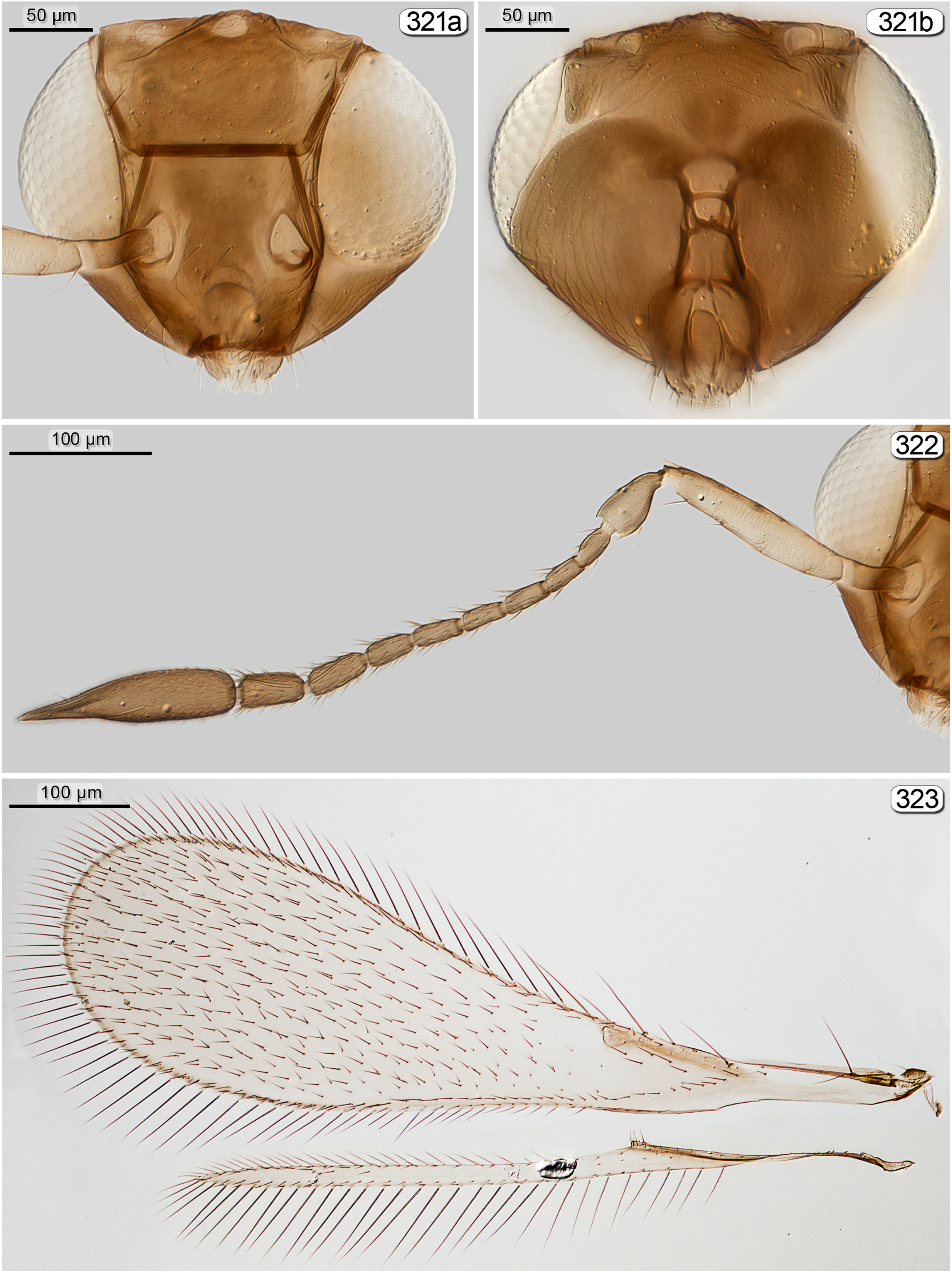
FIGURES 314–316. *Stethynium triclavatum* Enock, 314a, head, anterior; 314b, head, posterior; 315, antenna; 316, wings. Specimen from USA (Washington).



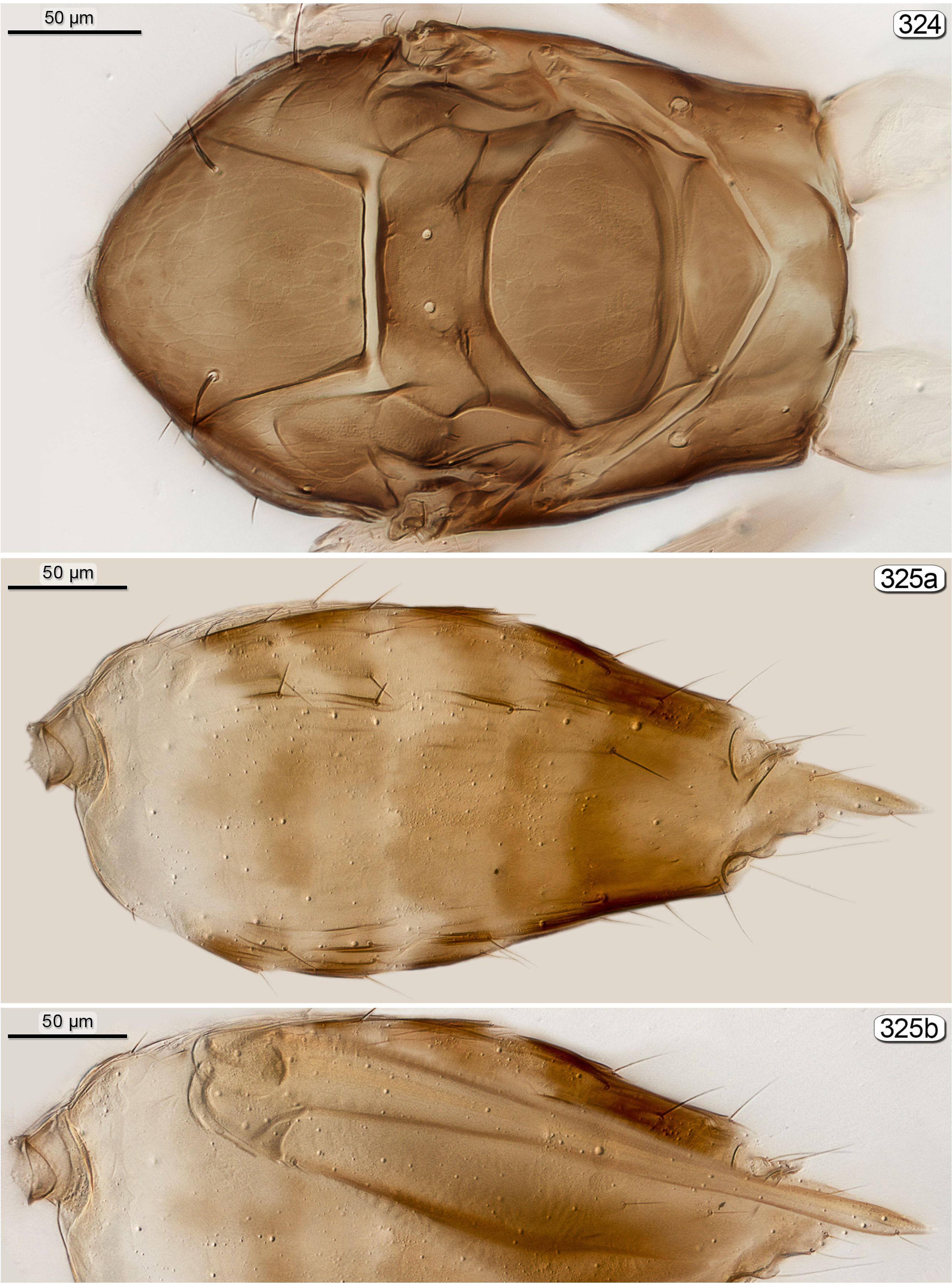
FIGURES 317, 318. *Stethynium triclavatum* Enock. 317, mesosoma, dorsal; 318a, metasoma, dorsal; 318b, metasoma, ventral. Specimen from USA (Washington).



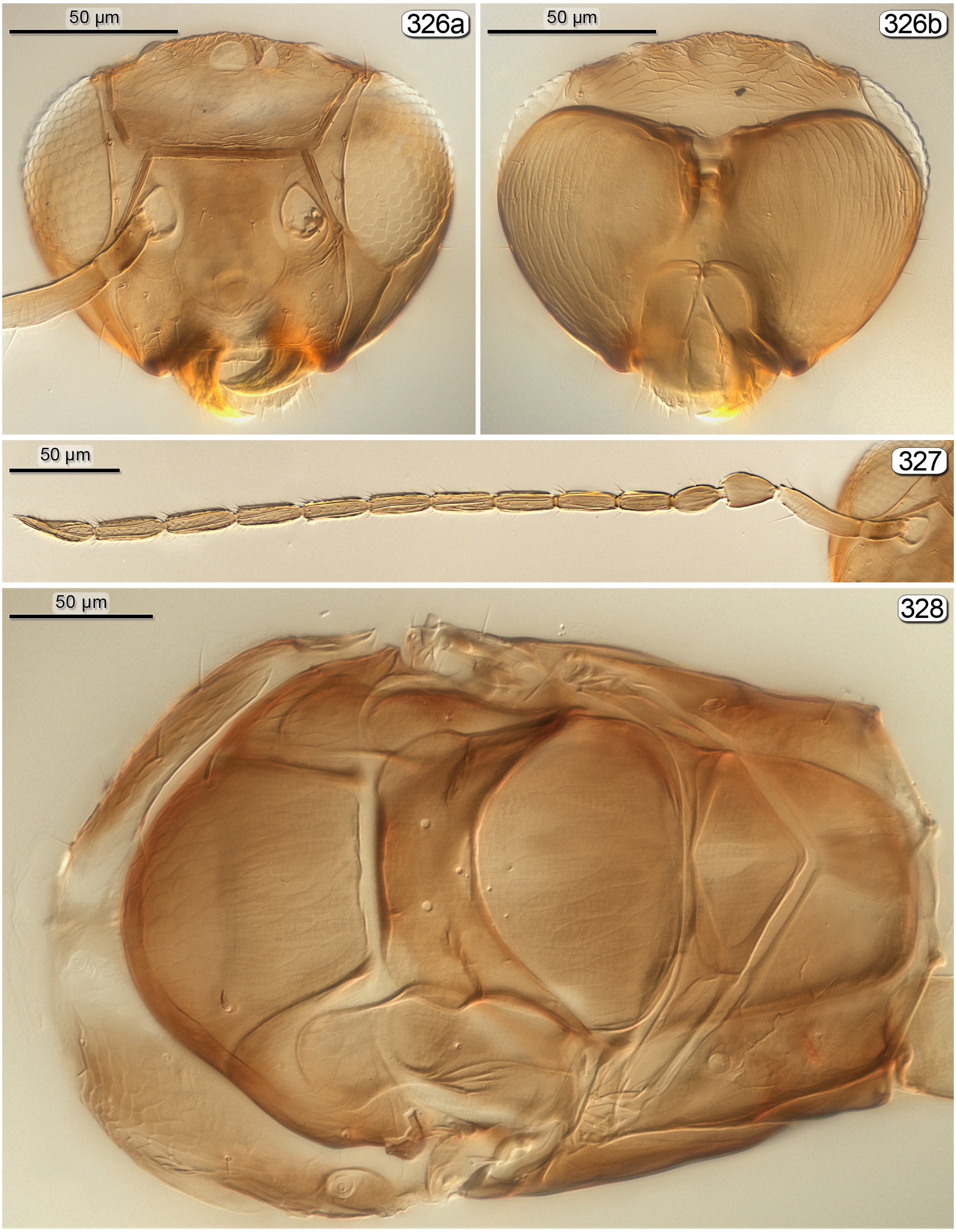
FIGURES 319, 320. *Stethynium triclavatum* Enock, male. 319, antenna; 320a, metasoma, dorsal; 320b, metasoma, lateral. Specimen from USA (Washington).



FIGURES 321–323. *Tanyxiphium*. 321a, head, anterior; 321b, head, posterior; 322, antenna; 323, wings.

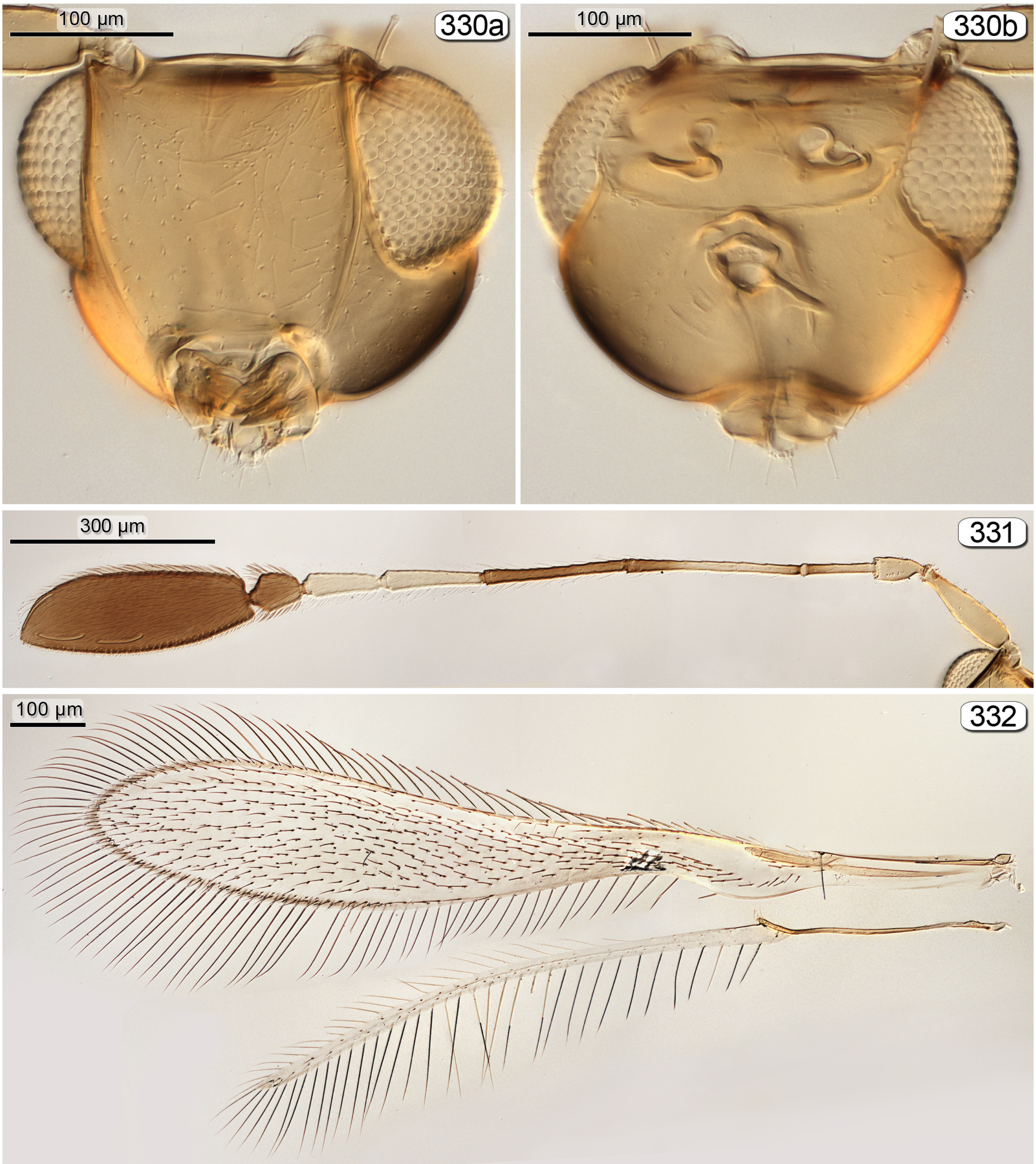


FIGURES 324, 325. *Tanyxiphium*. 324, mesosoma, dorsal; 325a, metasoma, dorsal; 325b, genitalia, ventral.

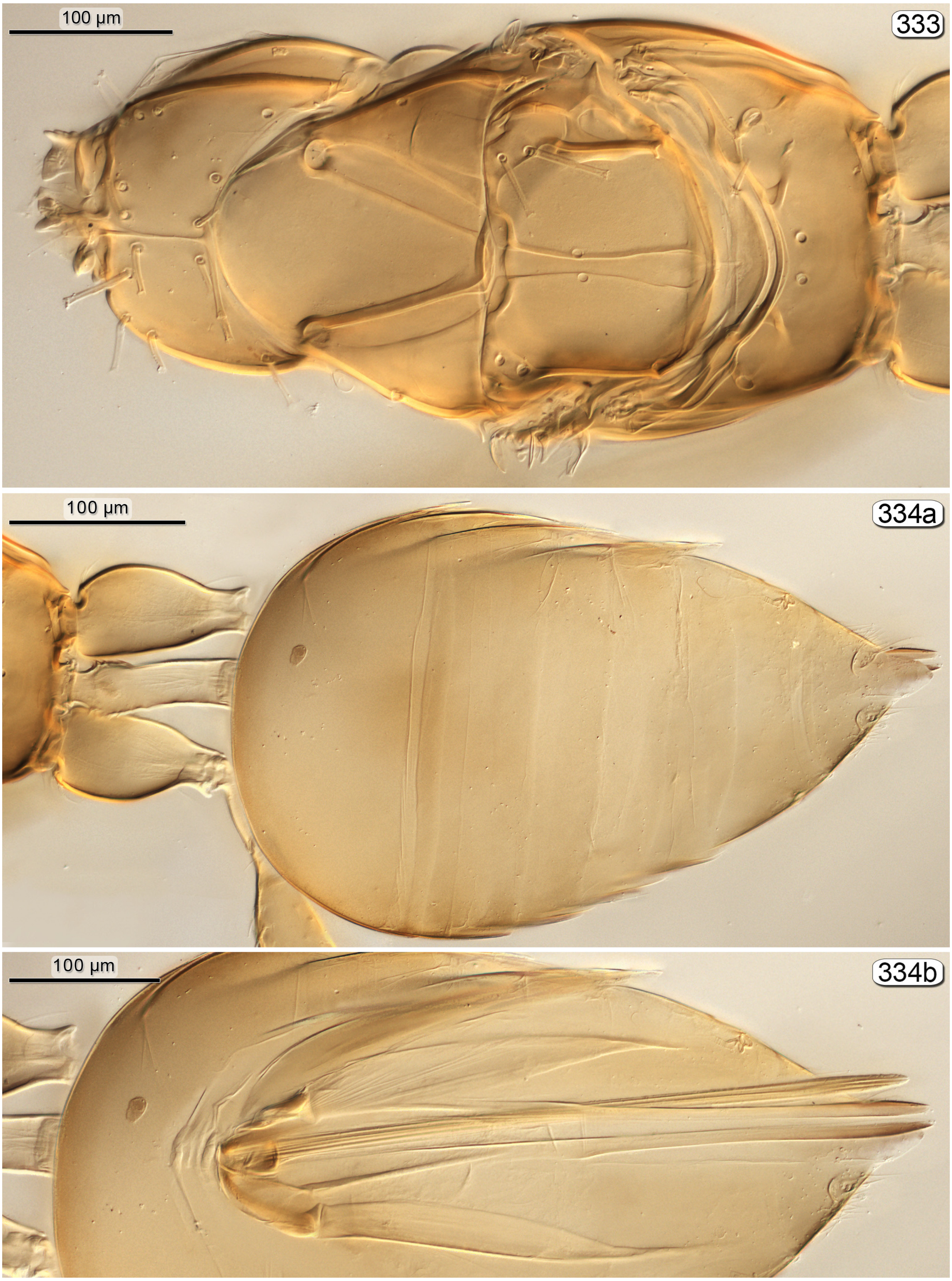


FIGURES 326–328. *Tanyxiphium* male. 326a, head, anterior; 326b, head, posterior; 327, antenna; 328, mesosoma, dorsal.

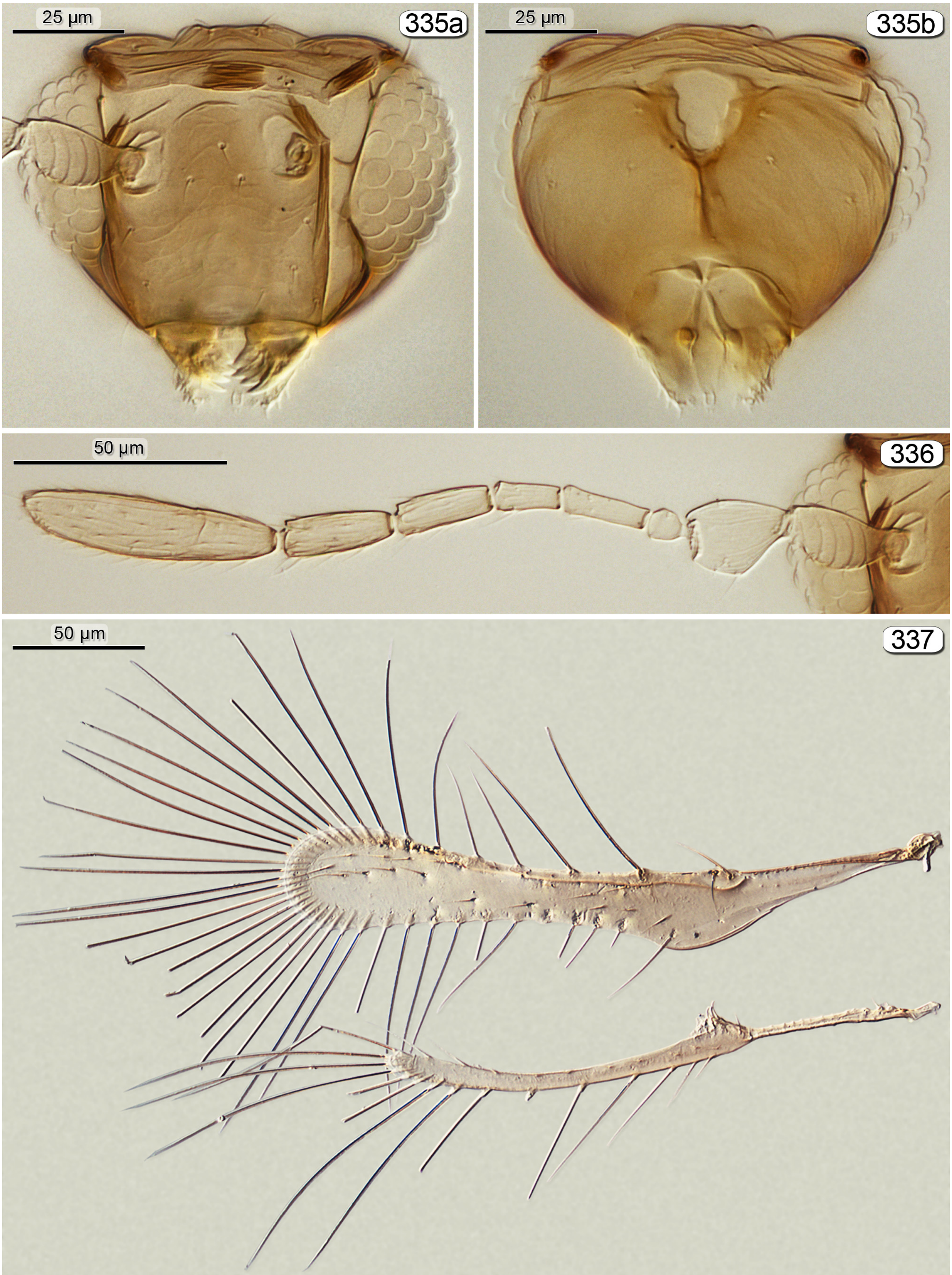
FIGURES 329. *Tanyxiphium* male. 329a, metasoma, dorsal; 329b, genitalia.



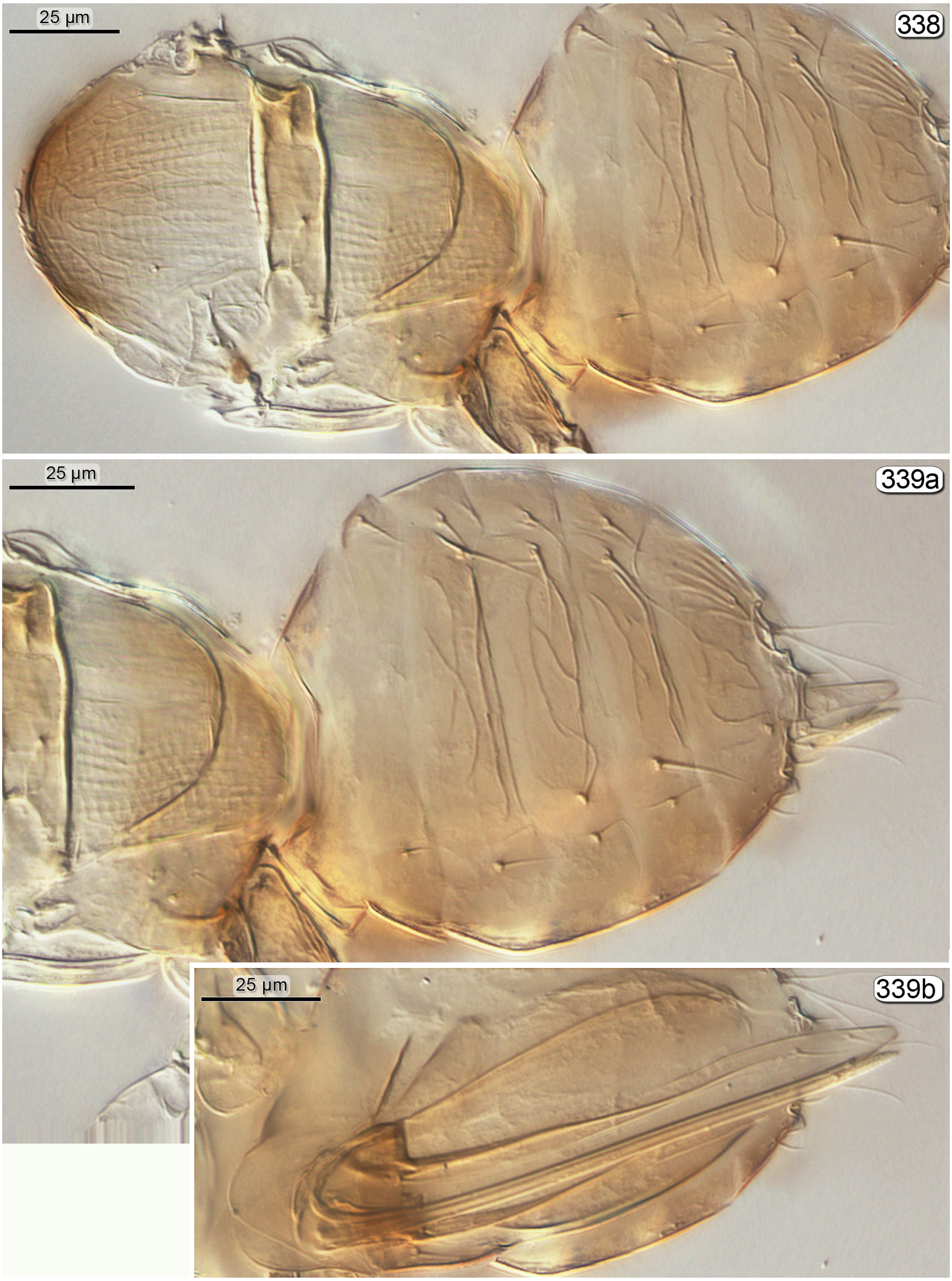
FIGURES 330–332. *Tetrapolynema*. 330a, head, anterior; 330b, head, posterior; 331, antenna; 332, wings.



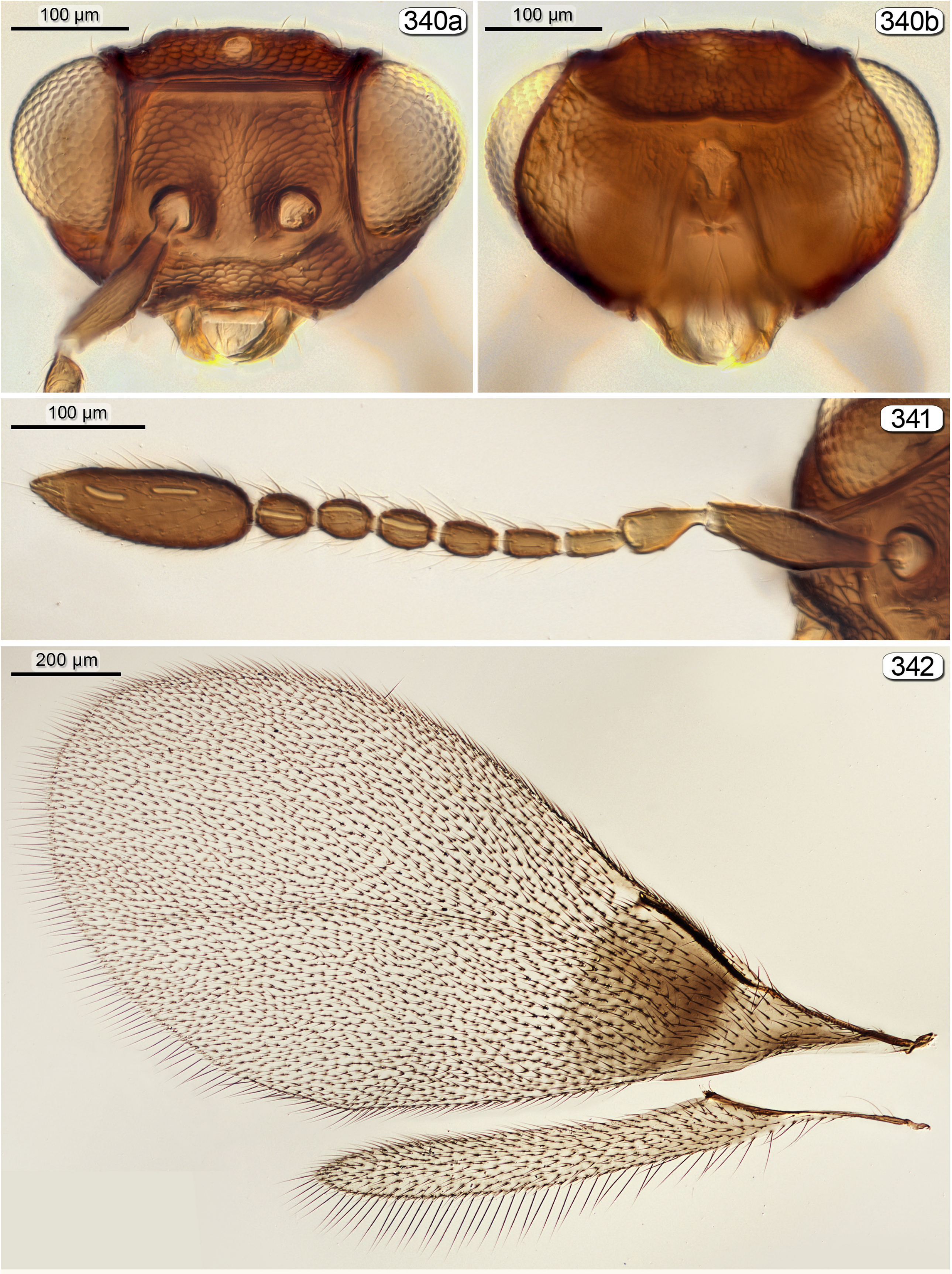
FIGURES 333, 334. *Tetrapolynema.* 333a, mesosoma, dorsal; 334a, metasoma, dorsal; 334b, genitalia.



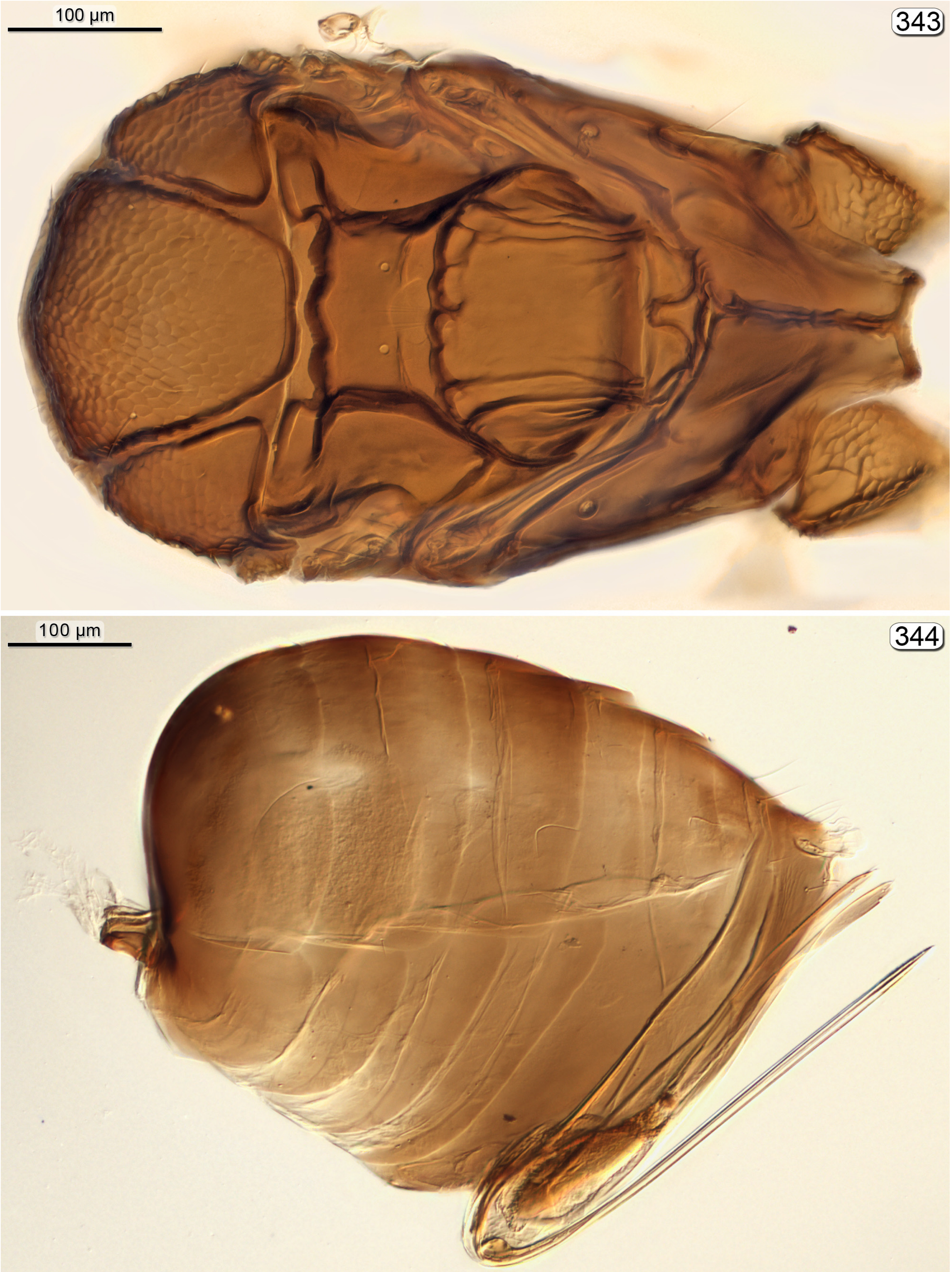
FIGURES 335–337. *Tinkerbella nana* Huber & Noyes. 335a, head, anterior; 335b, head, posterior; 336, antenna; 337, wings.



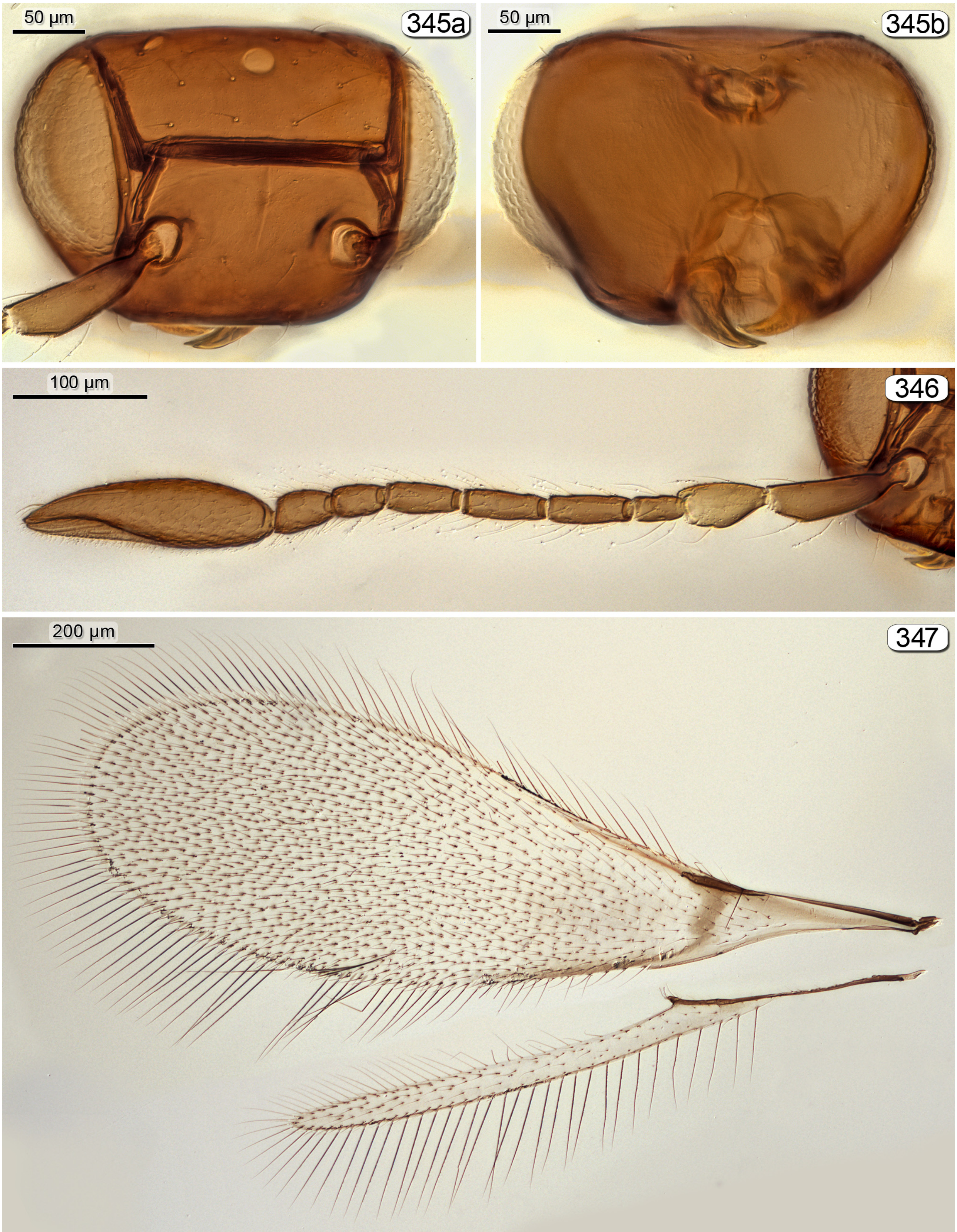
FIGURES 338, 339. *Tinkerbella nana* Huber & Noyes. 338, mesosoma + metasoma, dorsal; 339a, metasoma, dorsal; 399b, genitalia.



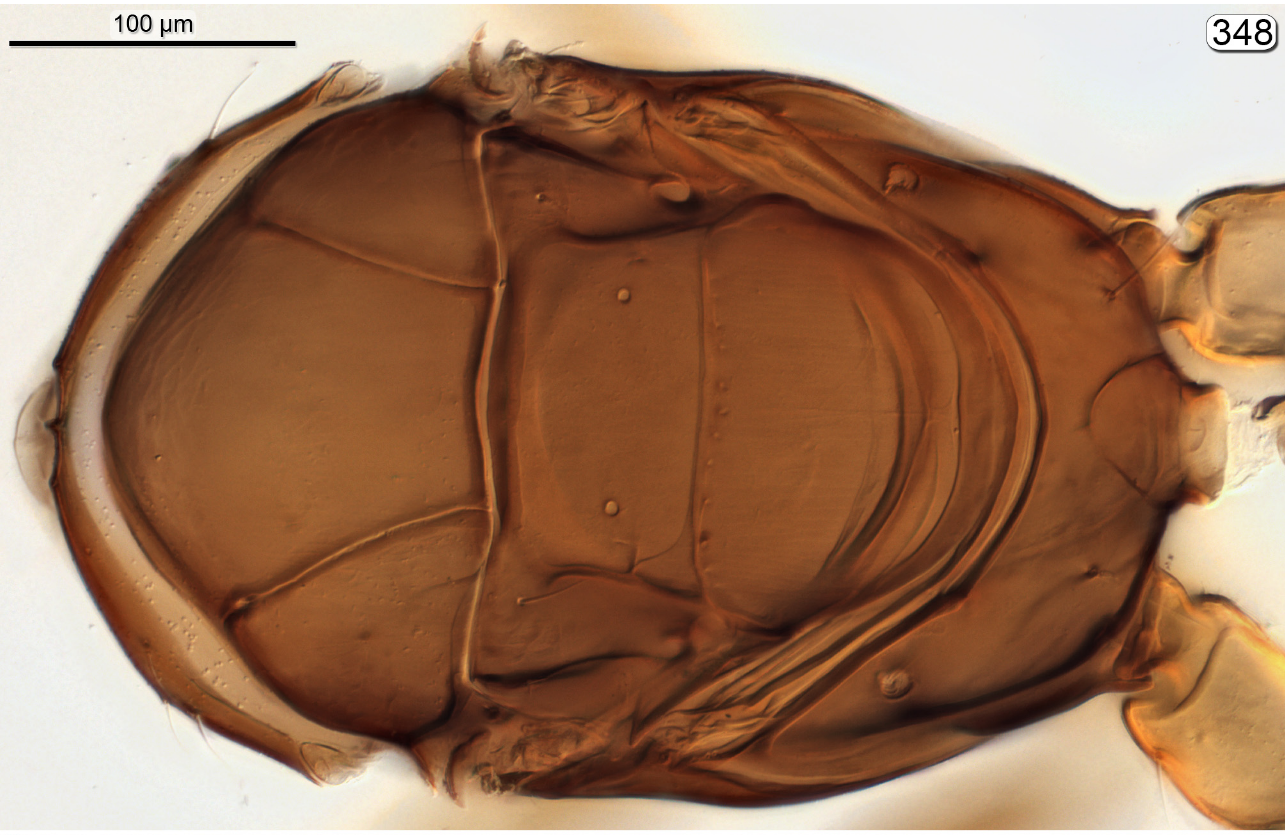
FIGURES 340–342. *Vladimir*. 340a, head, anterior; 340b, head, posterior; 341, antenna; 342, wings.

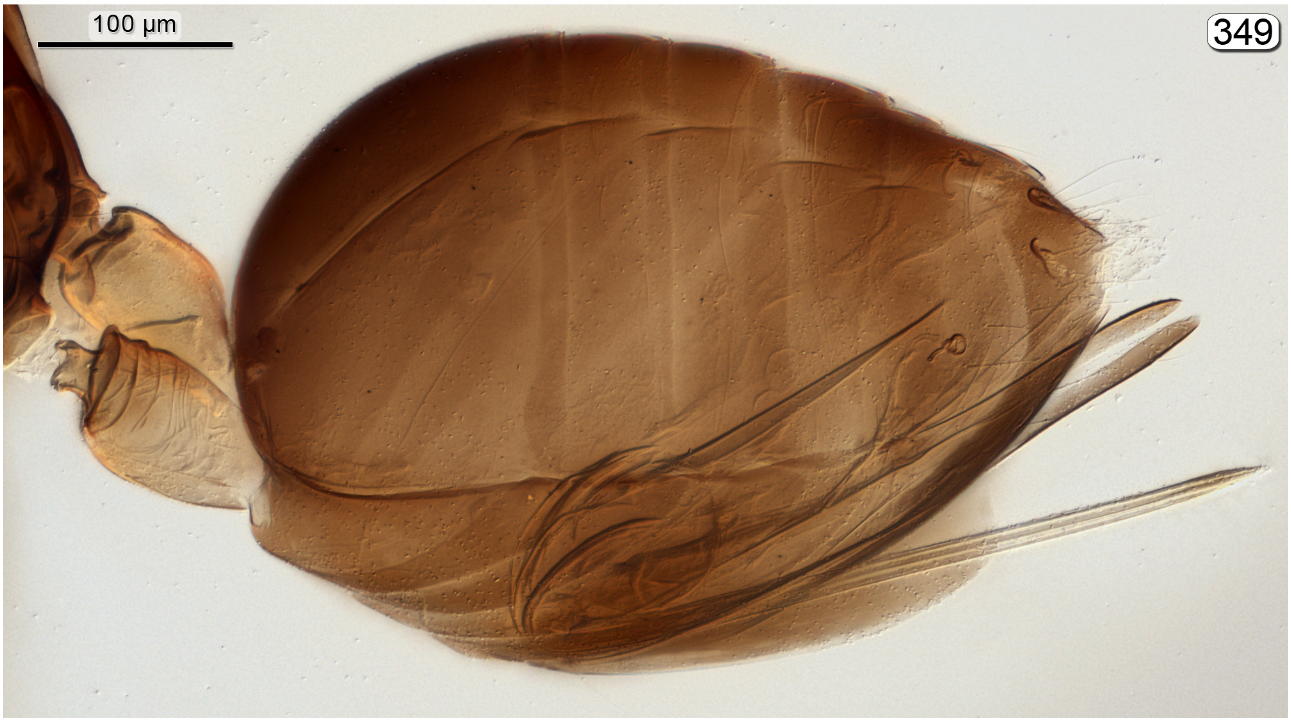


FIGURES 343, 344. *Vladimir*. 343, mesosoma, dorsal; 344, metasoma, lateral.



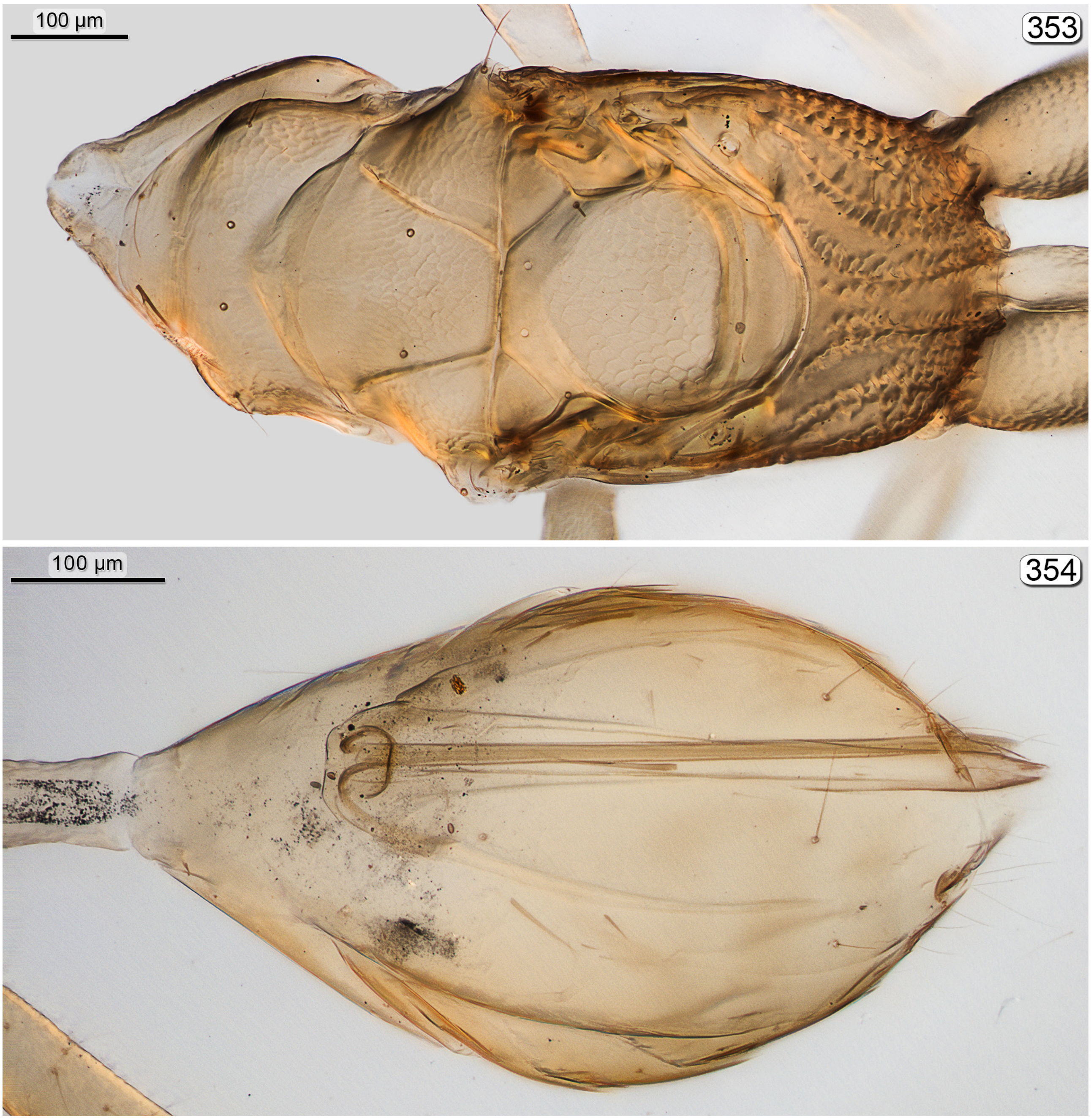
FIGURES 345–347. *Xenopolynema aereolatum* Ogloblin. 345a, head, anterior; 345b, head, posterior; 346, antenna; 347, wings.



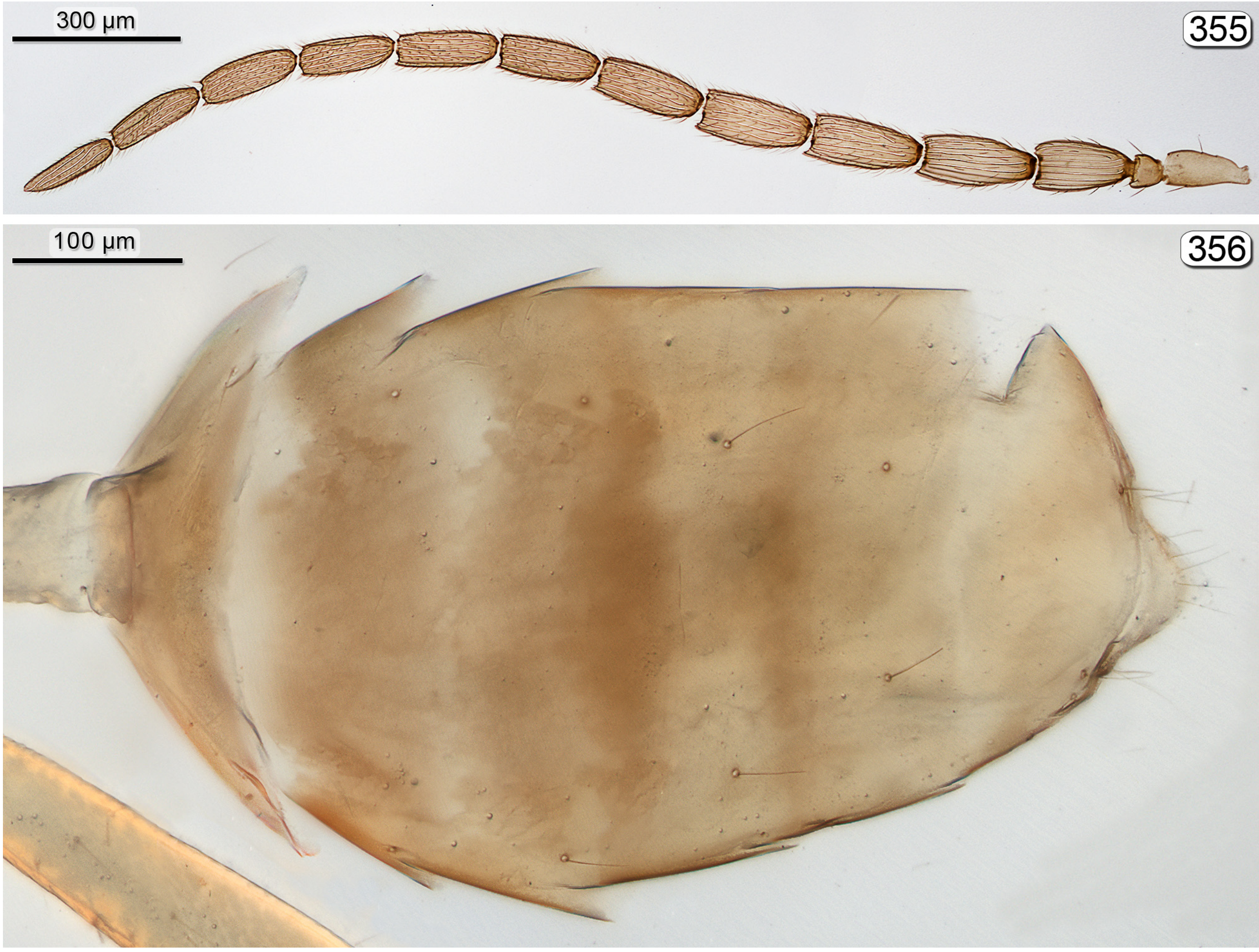


FIGURES 348, 349. *Xenopolynema aereolatum* Ogloblin. 348, mesosoma, dorsal; 349, metasoma, lateral.

FIGURES 350–352. *Yoshimotoana masneri* Huber. 350, head, anterior; 351, antenna; 352, wings.



FIGURES 353, 354. *Yoshimotoana masneri* Huber. 353, mesosoma, dorsal; 354, metasoma, ventral.



FIGURES 355, 356. *Yoshimotoana masneri* Huber, male. 355, antenna; 356, metasoma, dorsal (anterior part of petiole cut off).