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Species of *Platypalpus* Macquart (Diptera: Hybotidae) from Uzbekistan, with descriptions of thirteen new species

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Abstract

The genus *Platypalpus* Macquart is studied from Uzbekistan for the first time. Thirteen species are described as new for science: *Platypalpus amankutanensis* sp. nov., *P. chimganensis* sp. nov., *P. commutatoides* sp. nov., *P. penesmirnovi* sp. nov., *P. sigma* sp. nov., *P. samarkandensis* sp. nov., *P. spatenkai* sp. nov., *P. subinfectus* sp. nov., *P. sublutescens* sp. nov., *P. tumidiarista* sp. nov., *P. uzbekistanicus* sp. nov., *P. virgatus* sp. nov., and *P. zeravshanensis* sp. nov. Eight additional probable new species remain unnamed due to insufficient material. *Platypalpus farabiensis* Shamshev, 1998, *P. kirtlingensis* Grootaert, 1986, and *P. longiseta* (Zetterstedt, 1842) are recorded from Uzbekistan for the first time. A key to species of *Platypalpus* known from Middle Asia is compiled.

Key words: Diptera, Hybotidae, *Platypalpus*, taxonomy, key, new species, Palaearctic

Introduction

Platypalpus Macquart, 1827 is a megadiverse genus of the family Hybotidae with more than 550 species described worldwide (Yang *et al.* 2007). The group has been most extensively studied from the Palaearctic where about 350 species are currently known, but the majority of them have been recorded from Europe, including the Mediterranean and some adjacent territories. Middle Asia (conventionally covering Afghanistan, Uzbekistan, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan) occupies a considerable part of the Palaearctic. However, there are only three publications dealing with *Platypalpus* from this region and includes only five species (Shamshev 1998, 1999a; Shamshev & Grootaert 2002).

Uzbekistan is one of the largest Middle Asian states. Most of the territory of Uzbekistan is covered with steppes, deserts and mountains (reaching 4643 m in altitude) with its climate varying from arid to semiarid. Subsequently, Uzbekistan has a specific biota with high species diversity.

The present paper is the first report on *Platypalpus* from Uzbekistan that is based on material collected by the senior author in the year 1989 during an expedition to Middle Asia.

Material and methods

The material studied is deposited in the following collections: CULSP (Czech university of life sciences in Prague) and ZIN (Zoological Institute of Russian Academy of Sciences, St. Petersburg). Acronyms are used further in the text.

Genitalia together with 2–3 pregenital segments were removed and macerated in potassium hydroxide solution (approx. 10 %) in small vials submerged in hot water for 1–2 hours. After neutralizing with 8 % acetic acid, the genitalia were dissected in glycerine and their parts photographed by means of an Olympus E-41 digital camera

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References

- Brunetti, E. (1913) New Indian Empididae. *Records of the Indian Museum*, 9, 11–45.
- Chvála, M. (1989) Monograph of northern and central European species of *Platypalpus* Macq. (Diptera, Hybotidae), with data on the occurrence in Czechoslovakia. *Acta Universitatis Carolinae Biologica*, 32 (1988), 209–376.
- Collin, J.E. (1941) Some Pipunculidae and Empididae from the Ussuri region on the far eastern border of the U.S.S.R. (Diptera). *Proceedings of the Entomological Society of London*, 10 (B), 218–248.
- Corti, E. (1907) Eine neue Art der Dipterengattung *Tachydromia* (Mg.) Lw. *Wiener Entomologische Zeitung*, 26, 101–102.
- Engel, E.O. (1939) 28. Empididae. In: Lindner, E. (Ed.), *Die Fliegen der palaearktischen Region*, 4, 41–104.
- Grootaert, P. (1986) A new *Platypalpus* species related to *P. pictitarsis* (Becker, 1902) (Diptera Empidoidea Hybotidae) from western Europe. *Bulletin et Annales de la Société royale belge d'Entomologie*, 122, 187–193.
- Grootaert, P. & Chvála, M. (1992) Monograph of the genus *Platypalpus* (Diptera: Empidoidea, Hybotidae) of the Mediterranean region and the Canary Islands. *Acta Universitatis Carolinae-Biologica*, 36, 3–226.
- International Commission on Zoological Nomenclature (1963) Opinion 678. The suppression under the plenary powers of the pamphlet published by Meigen, 1800. *Bulletin of Zoological Nomenclature*, 20, 339–342.
- Macquart, J. (1827) *Insectes diptères du nord de la France. Platypézines, dolichopodes, empides, hybotides*. Lille, 159 pp.
- Meigen, J.W. (1800) *Nouvelle classification des mouches à deux ailes (Diptera L.) d'après un plan tout nouveau*. Perronneau, Paris, 40 pp.
- Melander, A.L. (1928) Diptera, Fam. Empididae. In: Wytsman, P. (Ed.), *Genera Insectorum*, 185 (1927), 1–434.
- Merz, B. & Chvála, M. (1998) A remarkable finding of *Platypalpus* (Diptera, Hybotidae) in southern Switzerland with description of a new species from Switzerland and Czech Republic. *Studia dipterologica*, 5, 85–94.
- Merz, B. & Haenni, J.-P. (2000) Morphology and terminology of adult Diptera. In: Papp, L. & Darvas, B. (Eds.), *Contributions to a Manual of Palaearctic Diptera. Vol. 1*. Science Herald, Budapest, Hungary, pp. 21–51.
- Rondani, C. (1856) *Dipterologiae Italicae prodromus. Vol. 1. Genera Italica ordinis Dipterorum ordinatim disposita et distincta et in familias et stirpes aggregata*. A. Storschi, Parmae, 226 + 2 pp.
- Shamshev, I.V. (1998) Two new species of the genus *Platypalpus* Macquart (Diptera, Empidoidea: Hybotidae) from Middle Asia. *International Journal of Dipterological Research*, 9 (2), 123–126.
- Shamshev, I.V. (1999a) A new species of the genus *Platypalpus* Macquart (Diptera, Empidoidea: Hybotidae) from Turkmenistan. *Zoosystematica Rossica*, 8 (1), 171–173.
- Shamshev, I.V. (1999b) The genus *Platypalpus* Macquart ((Diptera, Empidoidea: Hybotidae) from Russia and neighbouring lands. 1. Five new species from the Kuril Islands. *Zoosystematica Rossica*, 8 (1), 175–182.
- Shamshev, I. & Grootaert, P. (2002) Notes on the *Platypalpus luteoloides* complex in Central Asia (Diptera Hybotidae): an example of latitudinal variation in the Palaearctic. *Belgian Journal of Entomology*, 4, 105–112.
- Sinclair, B.J. (2000) Morphology and terminology of Diptera male terminalia. In: Papp, L. & Darvas, B. (Eds.), *Contributions to a Manual of Palaearctic Diptera. Vol. 1*. Science Herald, Budapest, Hungary, pp. 53–84.
- Sinclair, B.J. & Cumming, J.M. (2006) The morphology, higher-level phylogeny and classification of the Empidoidea (Diptera). *Zootaxa*, 1180, 1–172.
- Westwood, J.O. (1840) Order XIII. Diptera Aristotle. (Antliata Fabricius. Halteriptera Clairv.). In: *An introduction to the modern classification of insects; founded on the natural habits and corresponding organisation of the different families. Synopsis of the genera of British insects*. Longman, Orme, Brown, Green and Longmans, London, pp. 125–154.
- Yang, D., Zhang, K., Yao, G. & Zhang, J. (2007) *World Catalog of Empididae (Insecta: Diptera)*. China Agricultural University Press, Beijing, 599 pp.
- Zetterstedt, J.W. (1842) *Diptera Scandinaviae disposita et descripta*. Tomus primus. Officina Lundbergiana, Lundae [= Lund], xvi + 440 pp.