# *Platycheirus modestus* Ide, 1926 (Diptera, Syrphidae) new to the Palearctic region

Antti Haarto

*Platycheirus modestus* Ide, 1926 is reported as new to the Finnish fauna and also as new to the Palearctic region. Information about the determination of the species is presented.

Suomen Hyönteistieteellisen Seuran kesäretkellä 2008 Tornioon löytyi Suomelle ja Palearktiselle alueelle uusi kukkakärpäslaji *Platycheirus modestus* Ide, 1926. Laji kuuluu *P. clypeatus* -ryhmään, jonka lajeilla naama on litteä ja etusääri ja -nilkka ovat leventyneet. Lajilta puuttuu etureiden tyvestä valkoisten karvojen muodostama tupsu, jollainen on kaikilla muilla ryhmän luoteiseuroopalaisilla lajeilla paitsi lajilla *P. scambus*. Laji *P. modestus* erotetaan anepisternumin pitkien kiharaisten karvojen ja lähes kokonaan keltaisen takaruumin avulla lajista *P. scambus*. Kaikilla *clypeatus* -ryhmän lajeilla on etunilkan ensimmäisten jaokkeiden alapuolella erilainen kuviointi, jonka avulla ryhmän lajit voidaan tunnistaa.

Zoological Museum, Section of Biodiversity and Environmental Science, University of Turku, FI-20014 Turku, Finland. Email: ahaarto@gmail.com

#### Introduction

In 2008 the annual field trip organized by the Finnish Entomological Society was held in Tornio, northern Finland. Collecting trips were made to the surrounding areas. One of the best collecting places was a meadow in Kalkkimaa where the soil was calcareous. In this meadow 62 species of hoverflies were found by two dipterists during only a couple of hours. *Cryptopipiza notabila* (Violovitsh, 1985) was a surprising observation, but not even nearly as stunning an observation as *Platycheirus modestus* was, because it was new to the Finnish and to the Palearctic fauna. This species was earlier known only from the Nearctic.

## Material and methods

One male specimen of *Platycheirus modestus* was found from the private collection of Iiro Kakko. This male was collected by Iiro Kakko. This male was collected by Iiro Kakko from Finland: *Obb*: Tornio, Kalkkimaa, 4.7.2008 and the identification was made by Antti Haarto, confirmed by Tore R. Nielsen 2014. The private collection of Antti Haarto and collections of Finnish Museum of Natural History, Helsinki and Zoological Museum of the University of Turku were studied but no more specimens of *P. modestus* were found. The only Finnish specimen of *P. modestus* is deposited in the private collection of Iiro Kakko.

## Identification

Vockeroth (1990) divided the Holarctic species of the genus *Platycheirus* into five groups using the morphological characters of males. Three of these groups occur also in the Palaearctic area: the *granditarsis* group, the *albimanus* group and the *ambiguus* group. Vockeroth divided the *albimanus* group into subgroups and five



**Fig. 1.** The head of *Platycheirus modestus*. **Kuva 1.** Lajin *Platycheirus modestus* pää.

of these occur in the Palearctic: the manicatus subgroup, the *peltatus* subgroup, the *albimanus* subgroup, the *clypeatus* subgroup and the *scambus* subgroup. Bartsch et al. (2009) raised status of these subgroups to groups and included the *scambus* group into the *clypeatus* group.

*Platycheirus modestus* belongs to the *clypeatus* group the species which have a flat face, the face not protruding forward and without a dis-



**Fig. 2.** *Platycheirus modestus*. A) The front tibia and tarsus in ventral view and B) the front femur in dorsal view.

**Kuva 2.** *Platycheirus modestus*. A) Etusääri ja –nilkka alta ja B) etureisi päältä.

tinct facial tubercle (Fig. 1). They have also a modified front tibia and front tarsus (Fig. 2A). Earlier, altogether 13 species of the *clypeatus* group were known in the northwestern Europe (Bartsch et al. 2009; Haarto & Kerppola 2007). *Platycheirus modestus* is differentiated from all the other northwestern species but *Platycheirus scambus* (Staeger, 1843) by a lack of posterior



**Fig. 3.** *Platycheirus modestus*. A) The anepisternum with long curly piles and B) the abdomen in dorsal view. **Kuva 3.** *Platycheirus modestus*. A) Anepisternumin pitkät kiharat karvat ja B) takaruumis päältä.

white tuft of piles at the base of the front femur (Fig. 2B). Patterns on the ventral side of first tarsomeres of the fore tarsus are unique for males of each the *clypeatus* group species. So the male of *P. modestus* can be determined by using the patterns shown in Fig. 2A. The male of *P. modestus* can be differentiated from *P. scambus* by the anepisternum with has long curly piles (Fig. 3A) and by the dorsally nearly entirely yellow abdomen (Fig. 3B).

The female of *P. modestus* has not been described (Ide 1926) but it can also be differentiated from all the other species but *Platycheirus scambus* (Staeger, 1843) by the lack of short white tuft of piles at the base of the front femur. The female of *P. modestus* could probably be differentiated from *P. scambus* by its likely nearly entirely yellow abdomen.

## Discussion

The Finnish male specimen of *P. modestus* is in good condition and very likely belongs to the local fauna. Recently, some other hoverfly species so far only known from eastern Russia, Magadan and Amur areas, have been found from northwestern Europe. For example Platycheirus magadanensis Mutin, 1999, Sphaerophoria pallidula Mutin, 1999, and Brachyopa zhelochovtsevi Mutin, 1998 are such species (Haarto & Kerppola 2007; Haarto & Kerppola 2009). It is likely that the record of *P. modestus* follows similar faunistic pattern to these species. Alaska is not much further from Finland than the Russian Far East. Probably there are more species that occur widely in northern Russia but have not yet been noticed in Finland.

#### Acknowledgements

The author wants to give special thanks for Tore R. Nielsen, who confirmed the determination of *P. modestus*. The author thanks Iiro Kakko for

the possibility to use his personal collection in this work. Thanks also for Kaj Winqvist, who checked the language used in this article.

### References

- Bartsch, H., Binkiewicz, E., Rådén, A. & Nasibov, E. 2009: Nationalnyckeln till Sveriges flora och fauna. Tvåvingar: Blomflugor: Syrphinae. Diptera: Syrphidae: Syrphinae. ArtDatabanken, SLU, Uppsala.
- Haarto, A. & Kerppola, S. 2007: Suomen kukkakärpäset ja lähialueiden lajeja – Finnish Hoverflies and some species in adjacent countries. Ympäristöministeriö, Otavan kirjapaino Oy, Keuruu, 647 pp.
- Haarto, A. & Kerppola, S. 2009: Brachyopa zhelochovtsevi Mutin, 1998 Euroopasta ja muita lisäyksiä Suomen kukkakärpäsfaunaan (Diptera, Syrphidae). w-album (7) 2009: 3–11.
- Ide, F. P. 1926: Descriptions of two new species of *Platycheirus* (Syrphidae, Diptera). Canadian Entomologist 58: 155–156.
- Vockeroth, J. R. 1990: A revision of the Nearctic species of *Platycheirus* (Diptera, Syrphidae). Canadian Entomologist 122: 659–766.