TANYTARSUS (DIPTERA: CHIRONOMIDAE) FROM EGYPT WITH DESCRIPTION OF A NEW SPECIES

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Tanytarsus (Diptera: Chironomidae) from Egypt with Description of a New Species

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ABSTRACT

Three species of the genus *Tanytarsus* van der Wulp were captured during a survey of chironomid midges (Diptera: Chironomidae), conducted from September 1997 to October 1999, of all major geographical zones in Egypt. *Tanytarsus spadiceonotatus* Freeman is recorded from Egypt for the first time, whereas *T. itsae* sp. nov. is described for the first time from male imagines. *Tanytarsus nocticola* Kieffer, which had been recorded by Kieffer from Egypt (Aswan) in 1911 (Freeman 1958), was not found at the sampled localities. A key to the male imagines of *Tanytarsus* in Egypt is presented. New distributional data for the three collected species are provided.

Key Words: Taxonomy, distribution, keys, *Tanytarsus itsae* sp. nov., *Tanytarsus formosanus*, *Tanytarsus spadiceonotatus*.

RESULTS

*Tanytarsus formosanus* Kieffer, 1912


Materials and Methods

The description of the new species is based on specimens that were mounted on slides. The preparation of slides followed the method of Pinder (1989). Identifications were based on adult males. The morphological terms, ratios, and abbreviations used are those recommended by Sæther (1980), and adopted by Pinder (1989), with the additions and corrections of Sæther (1990). Slide-mounted specimens were photographed at 100-1000× magnifications with a microscope-mounted camera. The resulting 35 mm positive slides (Kodak, USA100 Tungsten, positive exposures) were digitally scanned (Polaroid, Sprintscan 4000 plus) and processed for the best available resolution, printed on a glossy paper, and subsequently traced with ink pens.

All specimens used in this study were collected by the first author and preserved in 70% alcohol. Authorship of the new species is attributed to the first author. The holotype of the new species is deposited at the Museum of Entomology, Florida State Collection of Arthropods, Gainesville, Florida, USA.

*Tanytarsus itsae* Ghonaim, sp. nov. (Figs. 2-7)


Diagnostic characters. *Tanytarsus itsae* sp. nov. is yellowish to dark brown species with distinct color pattern of thorax and abdominal tergites; it is separable from other species of *Tanytarsus* by its relatively smaller size, short anal point, with lateral and ventroapical setae, short median volsella, and relatively large inferior volsella with apicomemial projection. Superior volsella without digitus.

Etymology. *Tanytarsus itsae* is named after the type locality.

Description. MALE (Figs. 2-7, n = 2 unless otherwise stated). Total length 1.75-1.77 mm. Wing length 1.16-1.19 mm. Total length/wing length 1.49-1.51. Wing length/length of profemur 2.03-2.09.

Coloration. Yellowish to dark brown species, head brown, thorax yellowish brown with darker stripes, legs faint brown, abdominal tergites with dark brown incisures.

Head (Fig. 2). AR 1.09. Thirteenth flagellomere 410-435 μm long. Longest antennal seta 410-420 μm long. Eyes with moderate dorsoapical extension; distance between eyes 125-182 μm. Frontal

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Fig. 1. Map of Egypt showing collection locations of *Tanytarsus*.
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Thorax (Fig. 3). Dorsoceentrals 6, acrostichals 7-9, prealars 0-3, scutellars 5. Halteres with 3-4 fine setae.

Wing. VR 1.11-1.15. Brachiolum with 1 seta, Sc bare, R with 9-12 setae, R, 18-24, R, 26-30, M bare, M, 24-39, M, 18-20, Cu 6-8, Cu, 16-19, A, 4-14. Cells r, with about 64-77 setae, m, 35-42, m, 15-16, an 3-4. Setae denser towards wing tip.

Legs. Spur of front tibiae 17-19 µm long, of mid tibiae 15-17 µm and 23-24 µm long, of hind tibia 29-32 µm and 30-31 µm long. Combs of mid tibia 23-24 µm and 30-31 µm long, of hind tibia 23 µm and 35-38 µm long. Apical width of fore tibia 40-
41 µm, of mid tibia 41 µm, of hind tibia 47-49 µm. Pulvilli present, subequal to claws, of front legs lost, of mid legs 15-17 µm long, of hind legs 17-18 µm. Lengths (in µm) and ratios of legs:

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Hypopygium (Figs. 4-7). Anal tergite 83-112 µm long with 2-5 median setae. Apical margin with one shoulder. Anal tergite bands smoothly curved, separated posteronderally, not connected to anal crests. Anal point very short, 10-35 µm long, 4-8 µm wide apically, about 7-12 ventroapical and lateral, curved, separated posteromedially, not connected to anal crests (Fig. 4). Fine microtrichiae scattered between anal crests. Anal point very short, 10-35 µm. Microtrichiae present on anal tergite, with a microtrichia free area around the base of anal point. Transverse sternapodeme 63-65 µm long, phallapodeme 36-42 µm long. Gonocoxite 67-68 µm long. Gonostyles 90-112 µm long, with fine medial setae. Superior volsella (Fig. 5) bare, 39-40 µm long, 22-23 µm wide, with 3 apicomedian and 3 lateral setae; digitus absent. Median volsella (Fig. 6) 17-28 µm long, 5-6 µm wide, with one foliate lamella and about 12 simple lamellae, 15-26 µm long. Inferior volsella (Fig. 7) relatively large, 58-86 µm long, 14-30 µm wide at apex, with apicomedia projection and approximately 20-24 apical long setae. HR 0.61-0.74; HV 1.56-1.97.

**Tanytarsus nocticola** Kieffer, 1911

Distribution. ASWAN: Aswan, 1 ♂, 1-I-1923 (Hirst) [Freeman 1958].

**Tanytarsus spadiceonotatus** Freeman, 1958


**DISCUSSION AND CONCLUSION**

**Tanytarsus itsae** Ghonaim, sp. nov. fits well in the *gregarius* group of species by the well developed pulvilli, the presence of a large microtrichia-free area around the base of the anal point, and the absence of the digitus of superior volsella. *T. itsae* Ghonaim, sp. nov. does not fit any species in the key provided in Ekrem’s reviews (2001, 2002) of Afrotropical *Tanytarsus* and South and East Asian *Tanytarsus*, or the key provided by Reiss & Fittkau (1971) for the European *Tanytarsus*. Its small size (about 1.77 mm) and noticeably short anal point, with ventroapical and lateral setae (Fig. 4) make it a distinct species, easily separated from other Afrotropical and Palaeartctic *Tanytarsus* species. *T. itsae* Ghonaim, sp. nov. is close to *T. formosanus* Kieffer in the shape and section of volsellae. However, *T. itsae* is much smaller in size, its wing length does not exceed 1.20 mm (in *T. formosanus* Kieffer, not less than 1.35 mm long), the pvulli of legs are well developed, the digitus of superior volsella is absent, and the cubitus is setose.

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