

# BULLETIN

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## **TIPULA (LUNATIPULA) TRANSMARMARENSIS, A NEW SPECIES OF TIPULIDAE FROM TURKEY (DIPTERA)**

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Key words: Diptera, Tipulidae, *Lunatipula*, new species, Turkey.

### ABSTRACT

A description is given of *Tipula (Lunatipula) transmarmarensis* sp. n. from European and Asiatic Turkey. The new species belongs to the *fascipennis* group and is the first representative of this species group in Turkey. *T. (L.) transmarmarensis* is closely related to *T. (L.) fascipennis* Meigen. A comparison between the two species is presented.

### INTRODUCTION

The species of Tipulidae described here for the first time, *Tipula (Lunatipula) transmarmarensis* sp. n., was collected in three provinces in Northwest Turkey. By the end of May 1995, P. Oosterbroek and C. Hartveld collected material along rivers and rice fields near Ormanli in the province of Istanbul in the European part of Turkey. Among this material was one species new to science, belonging to the *fascipennis* group.

This small species group of the subgenus *Lunatipula* is known from the Westpalearctic and from the Russian Far East, but was not yet known from Turkey (Oosterbroek & Theowald, 1992; Theowald & Oosterbroek, 1986, 1987, 1990). Material collected by Hasan Koç in Asiatic Turkey in the provinces of Bolu and Kastamonu also included a new species of the *fascipennis* group. Exchange of information between Koç and Oosterbroek revealed that the specimens from the provinces Bolu, Kastamonu, and Istanbul belong to the same species, described below.

*Tipula (Lunatipula) transmarmarensis* sp. n. (figs 1-5)

### Type material

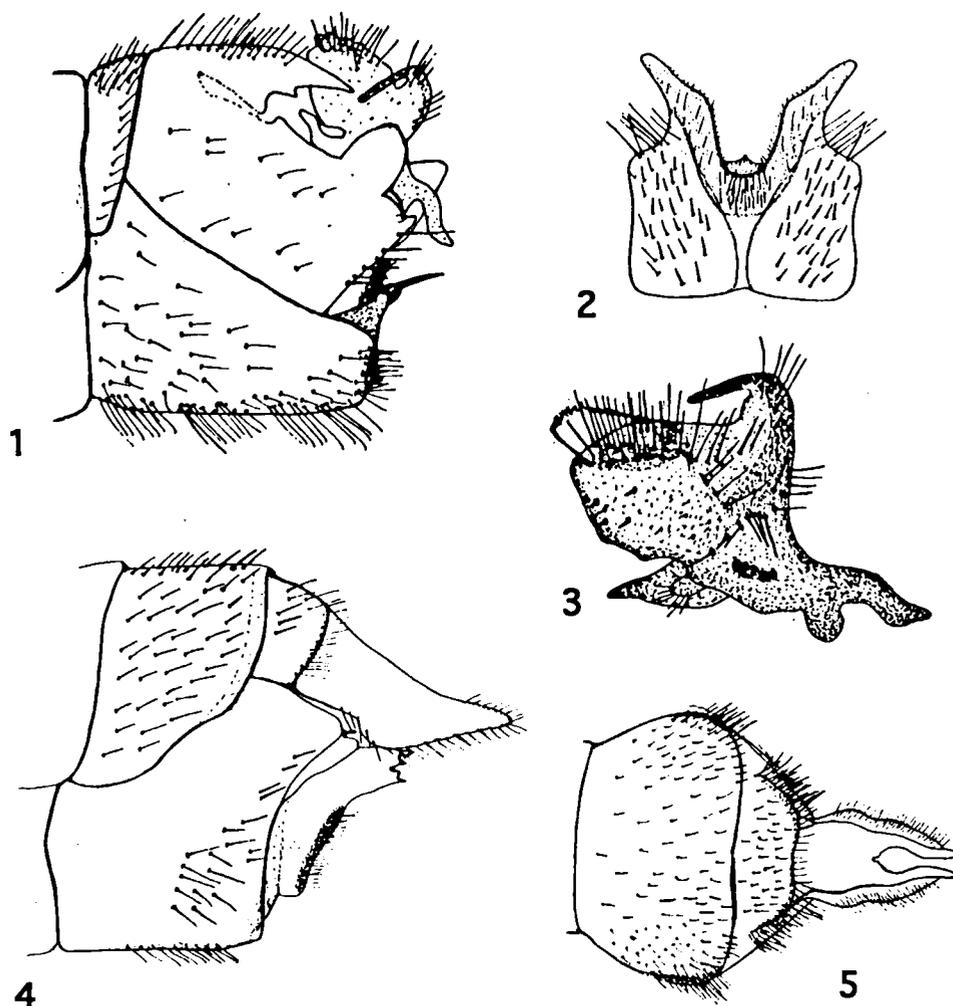
Holotype ♂, Bolu, Gerece, Yeniçağa, 2.VII.1995, 1100 m. Para-

types: 2 ♂♂, 1 ♀, same data as holotype; 2 ♂♂, same locality as holotype, date 27.VI.1995; 1 ♀, same locality as holotype, date 18.VII.1995; 1 ♂, Bolu, Gölcük, 18.VII.1995, 1100-1160 m; 2 ♂♂, Istanbul, Ormanli, 23.V.1995, 100 m, along rivers and rice fields; 1 ♂, 2 ♀♀, Kastamonu, Toprakköprü, 720 m, 8.VI.1996 (Holotype and paratypes from Bolu and Kastamonu in Zoological Museum, Faculty of Natural Sciences and Arts, Universtat Gazi, Ankara; paratypes from Istanbul in Zoological Museum, University of Amsterdam).

### DESCRIPTION

**Male.** Head. Head and rostrum brownish yellow, palps ranging from basally yellowish to apically dark brown. Nasus distinct, short. Antenna with 13 segments, scape and pedicel yellow, flagellar segments brown; first flagellar segment cylindrical, other flagellar segments somewhat reniform; verticils longer than segments.

**Thorax.** Dorsal and lateral sides largely brownish grey, scutellum yellowish. Pterostigma of wing distinct, brown. Veins m1 and m2 petiolate. Lunula distinct and crossing discal cell. Squama with bristles. Stem of halter yellowish, knob largely blackened. Coxae basally darkened, apically yellowish. Trochanters yellow. Femora yellowish, slightly darkened at apices. Tibiae brown; tibial formula 1.2.2. Tarsi brown to dark brown. Claws with distinct secondary tooth.



Figs. 1-5. *Tipula (Lunatipula) transmarmarensis* sp. n.: 1, hypopygium, lateral view; 2, tergite 10, dorsal view; 3, inner gonostylus, outside view; 4, cerci and hypogynial valves, lateral view; 5, cerci, dorsal view.

Abdomen. Yellowish brown, lateral sides with a darkened stripe on tergites 3 to 7. Tergite 8 and hypopygium (Fig. 1) blackened and shining. Lateral sides of tergite 10 elongate and outcurved, central part broadly U-shaped (Fig. 2). Posterior margin of sternite 8 medially with a tongue-like appendage provided with lightbrown pubescent bristles; posterior margin on each side of the medial appendage with a somewhat triangular socket bearing two fine, long and incurved bristle. Outer gonostylus very small and closely associated with inner gonostylus. The latter provided with a long upcurved posterior part and with a crest on the anterior part (Fig. 3).

Female. Resembling the male in colouration. Antennal segments distinctly shorter. Squamal bristles somewhat longer. Claws without secondary tooth. Abdomen with a narrow light brown dorsal stripe. Ovipositor (Figs. 4, 5) distinctly shortened, hypogynial valves with an irregularly dentated apex.

Size. Male: 16.5 - 18.0 mm, antenna 5.0 - 5.5 mm, wing 18.5 - 20.0 mm. Female: 17.0 - 18.0 mm, antenna 3.0

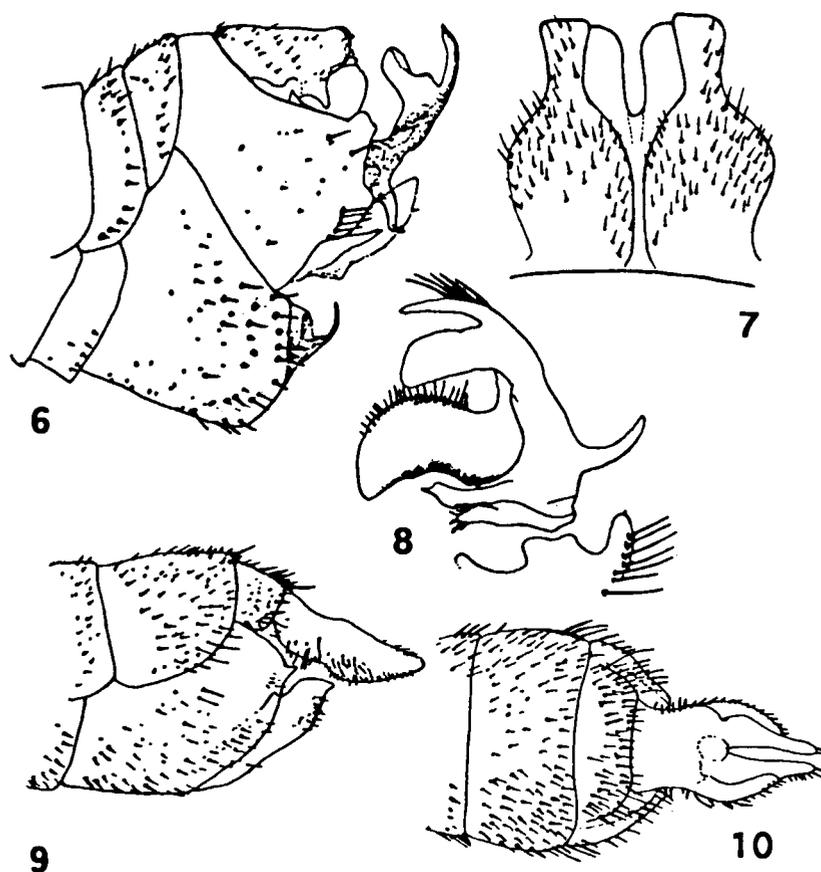
- 3.5 mm, wing 19.0 - 19.5 mm.

#### Etymology

Named after the distribution on both sides of the Sea of Marmara.

#### COMPARISON

The *fascipennis* group of the subgenus *Lunatipula* until now includes the species *fascipennis* Meigen, 1818 (widely distributed in Europe and the Transcaucasus), *cerva* Mannheims and Theowald, 1959 (known from Corsica, Italy and Croatia (KrK)), *cervula* Mannheims and Theowald, 1959 (southern Italy), *chloris* Savchenko, 1972 and *pallidicornis* Savchenko, 1954 (both from the Primorsky Region). *T. (L.) transmarmarensis* is the first member of the *fascipennis* group recorded from Turkey. It is most similar to *fascipennis* Meigen, from which it differs in the following characters of the male and female genitalia: Lateral corners of tergite 10 extended (Fig. 1), abbre-



Figs. 6-10. *Tipula (Lunatipula) fascipennis* Meigen (after Mannheims, 1966): 6, hypopygium, lateral view; 7, tergite 10, dorsal view; 8, inner gonostylus, outside view; 9, cerci and hypogynial valves, lateral view; 10, cerci, dorsal view.

viated in *fascipennis* (Fig. 7). Anterior part of inner gonostylus with crest (Fig. 3), without crest in *fascipennis* (Fig. 8). Upcurved posterior part of inner gonostylus not divided (Fig. 3), in *fascipennis* divided in two (Fig. 8). Hypogynial valve with an irregularly dentated apex (Fig. 4), regular and acute in *fascipennis* (Fig. 9).

#### REFERENCES

- MANNHEIMS, B., 1966. 15. Tipulidae (Wespalaearktische Arten). - *Fliegen Palaearkt. Reg.*, 3(5): 221-225.
- OOSTERBROEK, P. & Br. THEOWALD, 1992. Family Tipulidae. - *Cat. Palaeartic Diptera*, 1: 56-178.
- THEOWALD, Br. & P. OOSTERBROEK, 1986. Zur Zoogeographie der westpalaearktischen Tipuliden. VII. Die Tipuliden der Balkanhalbinsel (Diptera, Tipulidae). - *Tijdschr. Ent.*, 129: 1-13.
- THEOWALD, Br. & P. OOSTERBROEK, 1987. The zoogeography of the western Palaeartic Tipulidae (Diptera). VIII. Tipulidae of Israel and adjacent regions. - *Isr. J. Ent.*, 20: 71-83.
- THEOWALD, Br. & P. OOSTERBROEK, 1990. Zur Zoogeographie der westpalaearktischen Tipuliden. IX. Die Tipuliden des Vorderen Orients (Diptera, Tipulidae). - *Tijdschr. Ent.*, 133: 85-95.

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