

**Notes on western Palaearctic species of the *Tipula* (*Yamatotipula*) *lateralis* group,
with the description of a new species from Turkey (Diptera: Tipulidae)**

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**Tipulidae, *Tipula* (*Yamatotipula*) *lateralis* group, *T. (Y.) guentheri* sp. n., new synonymies, new
statuses, new combination**

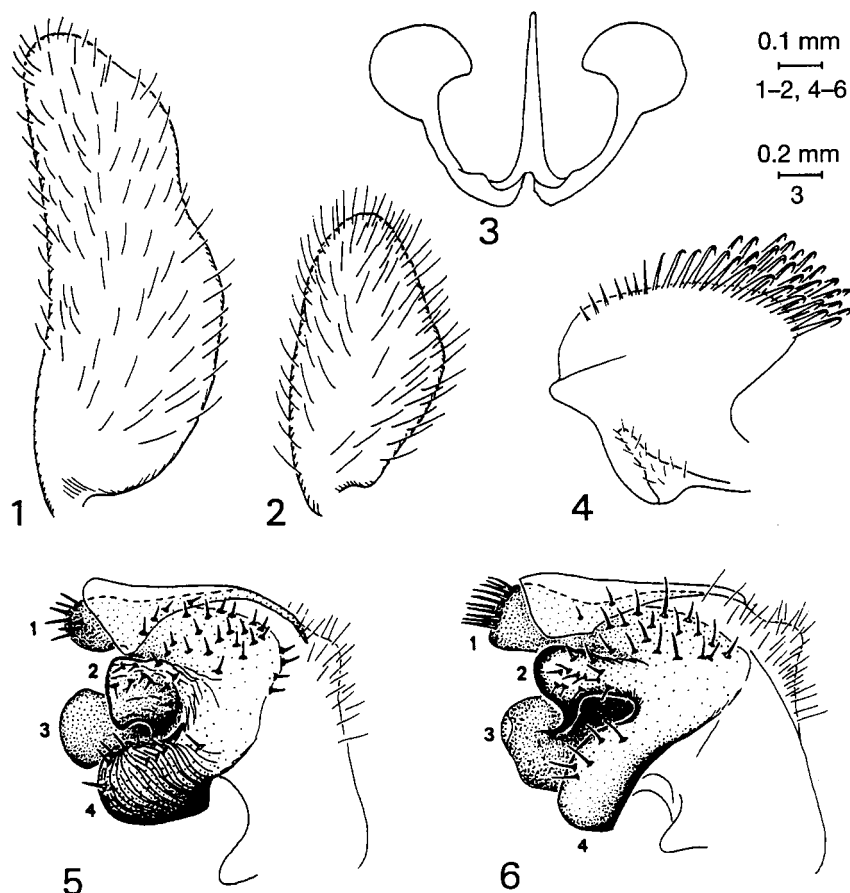
Abstract. A review is presented of the species included in the *Tipula* (*Yamatotipula*) *lateralis* group. One of these species, *T. (Y.) guentheri* sp. n. from eastern Turkey, is described. The subspecies previously recognized within *T. (Y.) lateralis* are given species rank, viz., *T. (Y.) lateralis* Meigen, *T. (Y.) barbarensis* Theowald & Oosterbroek, stat. n., and *T. (Y.) iranensis* Theowald, stat. n. The three subspecies of *T. (Y.) montium* are considered to belong to two species, viz., *T. (Y.) montium* Egger and *T. (Y.) afriberia* Theowald & Oosterbroek, stat. n., the latter with two subspecies, the nominotypical one and *T. (Y.) afriberia italia* Theowald, Dufour & Oosterbroek, comb. n. Examination of type-material revealed that *T. (Y.) lateralis intermedia* Eiroa and *T. (Y.) subsolitaria* Theowald are junior synonyms of *lateralis* and *iranensis* respectively (new synonymies). Distributional data are given for the species and subspecies discussed. *T. (Y.) afriberia italia* is recorded here for the first time from Spain and Portugal.

INTRODUCTION

The *lateralis* group was established by Lackschewitz (1923) for a number of Palaearctic and apparently closely related species of the genus *Tipula* L. The group, assigned to the subgenus *Yamatotipula* Matsumura by Edwards (1931), originally included five species, *lateralis* Meigen, 1804 (west Palaearctic), *montium* Egger, 1863 (Palaearctic), *couckeii* Tonnoir, 1921 (Palaearctic), *pierrei* Tonnoir, 1921 (Palaearctic; = *solstitialis* Westhoff, 1897, preocc.), and *coerulescens* Lackschewitz, 1923 (west Palaearctic). Savchenko (1961) added two eastern Palaearctic species, *latemarginata* Alexander, 1921, and *solitaria* Savchenko, 1953.

Characters uniting these species are found in the inner dististyle and gonapophyses. The inner dististyle is divided into two; the anterior half is short and provided with erect, long setae that are strongly curved at their tips (Fig. 4); the posterior half consists of three to four parts (Figs 5–12, pars 1–4). The gonapophyses possess a slender, elongate stem, a conspicuously expanded apical blade, and are positioned in the same plane as the aedeagal guide (Fig. 3). On the basis of these characters, *submontium* Theowald & Oosterbroek, 1981 (west Palaearctic), *guentheri* sp. n. (west Palaearctic), *fulvilineata* Doane, 1912, *glendenningi* Alexander, 1943, and *nuntia* Alexander, 1946 (all three west Nearctic) are to be included in the *lateralis* group as well.

In the present paper the new species *Tipula* (*Yamatotipula*) *guentheri* from eastern Turkey is described and a discussion is presented on the subspecies recognized within the species *lateralis* Meigen and *montium* Egger. The study is based on material preserved in: Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn (ZFMK), Musée



Figs 1–6. Details of the hypopygium of *T. (Y.) guentheri* sp. n. and *T. (Y.) submontium* Theowald & Oosterbroek. 1 – *guentheri*, left outer dististyle, from outside; 2 – *submontium*, idem, 3 – *guentheri*, gonapophyses and aedeagal guide, dorsal view, 4 – *guentheri*, anterior part of inner dististyle, outside view, 5 – *guentheri*, posterior part of inner dististyle, outside view, 6 – *submontium*, idem. Drawings made after males from: Turkey, 5km NE Aksaray (*guentheri*, paratype), and Greece, Pindos, Timfi Mts (*submontium*).

d'Histoire Naturelle de la Ville de Neuchâtel (MHNN), and Zoölogisch Museum, Universiteit van Amsterdam (ZMAN).

Tipula (Yamatotipula) guentheri sp. n.

DESCRIPTION: Very similar to and of the same size as *submontium*, differing in details of the male hypopygium. Outer dististyle elongate, as in *montium*, but less broad [Fig. 1; outer dististyle in *submontium* small (Fig. 2), as in *lateralis*]. Posterior half of inner dististyle with pars 1–4 distinctly developed (Fig. 5), as in *submontium* (Fig. 6), but with

pars 2 more abbreviated and pars 4 distinctly ribbed and blackened, and more strongly curved toward pars 2.

MATERIAL EXAMINED: Holotype ♂, Türkiye, Hakkari, H. v. Oorschot, H. v.d. Brink/ W-side & E-side Suvarihalil Gecidi, 1900–2250 m, 14.vi.1985, st. 251 (ZMAN). Paratypes: 1♂, 2♀, paratopotypes (ZMAN); 1♂, Türkiye, Tunceli, H. & Th. v. Oorschot, W. de Prins & F. Coenen/ Env. Pülümür, 1500–1700 m, 14.vii.1987, st. 403 (ZMAN); 1♂, 1♀, Türkiye, Gümüşhane, H. & Th. v. Oorschot, W. de Prins & F. Coenen/ 5 km E Maden, 1600 m, 28.vii.1987, st. 427 (ZMAN); 1♂, Türkiye, Gümüşhane, H. & Th. v. Oorschot, W. de Prins & F. Coenen/ Kopdagi Gecidi, W side, 1900 m, 28.vii.1987, st. 428 (ZMAN); 3♂, Türkiye, Aksaray, H. & Th. v. Oorschot/ 5 km NE Aksaray, rd 300, 950 m, 2.v.1991, st. 686 (ZMAN); 1♂, 10. Orient Expedition, Dr Kumerloeve/ Türkei 1968, 10 km. o. Ercis, 3.vii, Mittendorf (ZFMK); 3♂, 1♀, idem, Van Gölü o. Tatvan, 10.vii. (ZFMK); 1♀, idem, o. Van, 2200 m, 17.vi. (ZFMK); 1♂, 1♀, Türkei 1964–65, Kumerloeve u. Mittendorf leg./ b. Tatvan, 1700 m, am Van Gölü, 27.v.65 (ZFMK).

DISCUSSION. *T. (Y.) guentheri* appears to be the sister-species of *submontium*. Both species are closely related to *lateralis*, *barbarensis*, and *iranensis*, the only other species in which pars 4 of the inner dististyle is distinctly developed. Apart from being larger, *guentheri* and *submontium* may be separated easily from these three species by the distribution of the erect and apically curved hairs on the anterior part of the inner dististyle. In *guentheri* and *submontium* the hairs are limited to the dorsal margin (Fig. 4), whereas in *lateralis*, *barbarensis*, and *iranensis* the hairs are more numerous and occupy the entire outer dorsal half of the anterior part of the inner dististyle.

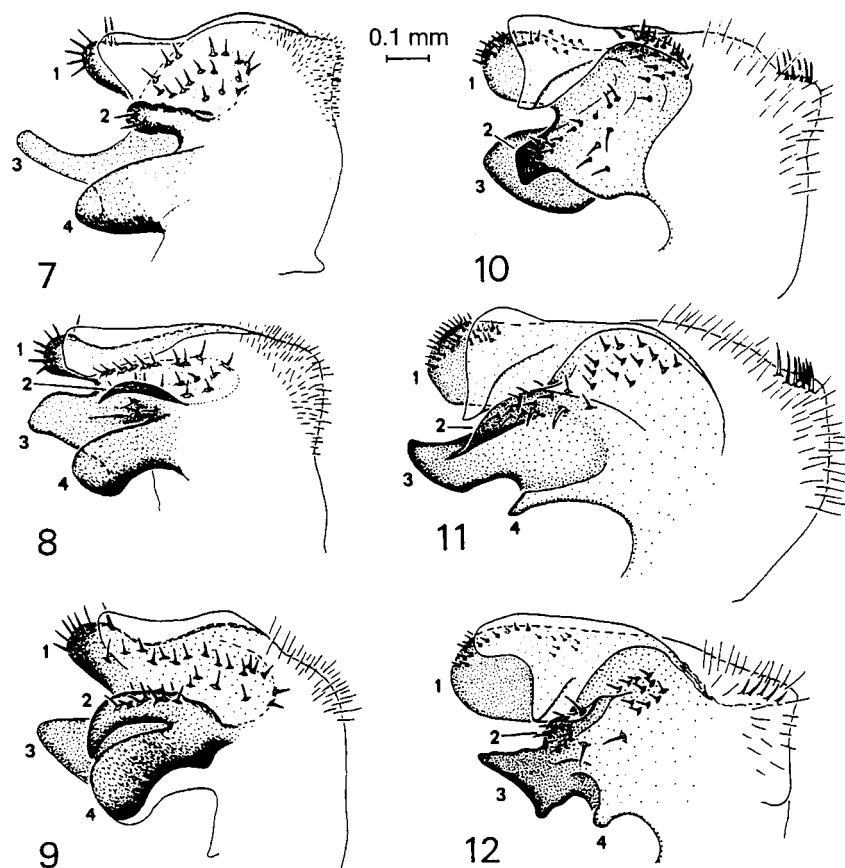
DISTRIBUTION: *T. (Y.) guentheri* is known from the eastern half of Turkey only, where it shows overlap with *submontium* (Fig. 13). The latter species is known from Andorra, France (Auvergne; Dufour & Brunhes, 1991), Switzerland, Austria, Czech Republic, Slovak Republic, former Yugoslavia (Slovenia, Montenegro; Simova-Tosic et al., 1990), Albania, Greece (ZMAN: Pindos, Florina), Turkey, and Iran (ZMAN: 70 km S Chalus). In Turkey both species are known from the provinces of Aksaray, Gümüşhane, and Hakkari. Furthermore, the species *submontium* is known from the provinces of Bursa, Adana, Giresun, and Rize, *guentheri* from Tunceli, Bitlis and Van. Savchenko (1961) reported the species *montium* from Georgia, Armenia, Azerbaidzhan, and Nakhichevan'. The accompanying illustration (Savchenko, 1961, Fig. 169) does not refer to *montium* but to either *submontium* or *guentheri*.

ETYMOLOGY: Named after Günther Theischinger (Engadine, Australia) in honour of his valuable contributions to crane-fly systematics.

Tipula (Yamatotipula) lateralis Meigen, 1804

Within *T. (Y.) lateralis* four subspecies have been recognized, viz., the nominotypic, *lateralis iranensis* Theowald, 1978, *lateralis barbarensis* Theowald & Oosterbroek, 1980, and *lateralis intermedia* Eiroa, 1990. Because of distributional overlap in eastern Turkey of *lateralis* and *iranensis*, these taxa are here given species rank. They differ less from each other than from *barbarensis*, therefore *barbarensis* is considered a species as well. The following species are thus recognized: *T. (Y.) lateralis* Meigen, 1804; *T. (Y.) iranensis* Theowald, 1978, stat. n.; *T. (Y.) barbarensis* Theowald & Oosterbroek, 1980, stat. n.

Reliable characters to separate the species are limited to the posterior portion of the inner dististyle. In *lateralis* (Fig. 7) pars 2 is distinctly developed and pars 3 is slender and



Figs 7–12. Posterior part of inner dististyle, outside view. 7 – *T. (Y.) lateralis* Meigen (from France, Pas de Calais), 8 – *T. (Y.) barbarentis* (from Spain, Sierra Nevada), 9 – *T. (Y.) iranensis* Theowald (from Iran, Elburz, NE Teheran), 10 – *T. (Y.) montium* Egger (from Andorra), 11 – *T. (Y.) afriberia italia* Theowald, Dufour & Oosterbroek (from Italy, Tuscany, near Bibbiena), 12 – *T. (Y.) afriberia afriberia* Theowald & Oosterbroek (paratype from Morocco, High Atlas, Oukaimeden).

situated at some distance from pars 1. In *barbarentis* (Fig. 8) pars 2 is present as a narrow ridge, whereas pars 3 is short and broad, and situated close to pars 1.

T. (Y.) lateralis is distributed throughout Europe (as far east as the Ural), Turkey, Syria, Lebanon, and Israel (Oosterbroek & Theowald, 1992). The species *barbarentis* was described from the High Atlas in Morocco and is known as well from Algeria, Tunisia, Libya (? *lateralis* Meigen sensu Bezzi, 1921, from Cyrenaica), and Spain (Fig. 14).

Material examined from the Spanish provinces of Gerona (ZMAN: Port Bou), Barcelona, Teruel, Cuenca, Albacete, Jaén, Granada, Málaga, Menorca, Mallorca, and Ibiza, all belongs to *barbarentis*, whereas material from La Coruña, Lugo, Pontevedra,

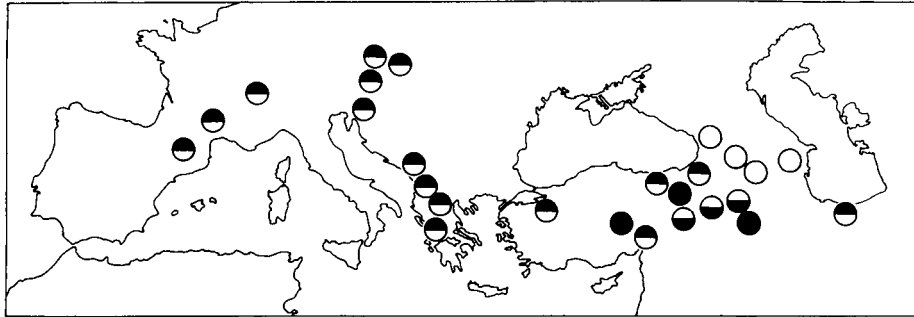


Fig. 13. Known records of *T. (Y.) guentheri* sp. n. (circles: lower half black or entirely black) and *T. (Y.) submontium* Theowald & Oosterbroek (circles: upper half black or entirely black). Transcaucasian records sensu *montium* in Savchenko (1961) indicated by open circles.

Orense, Santander, Palencia, Guipuzcoa, Huesca, Lérida, Gerona (MHNN: 6 km SW Puigcerdá), Madrid, Segovia, Avila, Toledo, and the Portuguese provinces of Guarda and Algarve belongs to *lateralis*. In the majority of the specimens from these last-mentioned provinces pars 3 is somewhat broader and shorter. Such material from northwestern Spain was described as subspecies *intermedia* by Eiroa (1990). However, in several instances, specimens from the same locality show variability in the expression of pars 3 (e.g., Palencia, Herrera de Pisuergra: 2♂ broad, 1♂ slender; Huesca, Sallent de Gallego: 1♂ broad, 1♂ slender; Avila, Sierra de Gredos: 30♂ broad, 18♂ slender). Because of this local variability, *intermedia* apparently cannot be maintained as a separate subspecies: *T. (Y.) lateralis* Meigen, 1804 = *T. (Y.) lateralis intermedia* Eiroa, 1990, syn. n. The subspecies *intermedia* was described by Eiroa (1990) on the basis of a large series of type-specimens from the provinces of La Coruña, Lugo, Orense, and Pontevedra. Material examined for the present study are the holotype ♂, labelled: "Sobrades dos Monxes (La Coruña) 19-6-84 E. Eiroa"/ "Holotypus Tipula (Yamatotipula) lateralis intermedia Eiroa des. 1988" (condition fair, left antenna missing, legs missing except for left hind leg, both outer dististyles missing; preserved at the Departamento de Biología Animal, Universidad de Santiago, Santiago de Compostela), and 9♂, 2♀ paratypes from Bentín (La Coruña), Pastor (La Coruña), Vidan (La Coruña), Casa do Rio (Lugo), Orense (Orense), and Puenteareas (Pontevedra), preserved in the ZMAN. One of these paratypes, a male from Bentín, also has pars 3 very slender.

In *iranensis* the posterior portion of the inner dististyle (Fig. 9) resembles *lateralis* but pars 2 is very prominent and pars 3 is short and triangular. Examination of type-material revealed that *T. (Y.) iranensis* Theowald, 1978 = *T. (Y.) subsolitaria* Theowald, 1978, syn. n. (page priority). Theowald described *subsolitaria* after 2♂ and 5♀ from near Kabul in Afghanistan; material examined were the holotype ♂, labelled: "Afghanistan-Exp. Karlsruhe 6.6.1966"/ "Kabulschlucht 1650 m 22 km östl. Kabul"/ "T. (Yamatotip.) subsolitaria n.sp. det. Theowald 1977"/ "Holotype Theowald 1977" (in good condition but legs missing except for left fore leg, posterior part of abdomen and hypopygium stored in microvial pinned under the holotype, preserved at the Staatliches Museum für Naturkunde

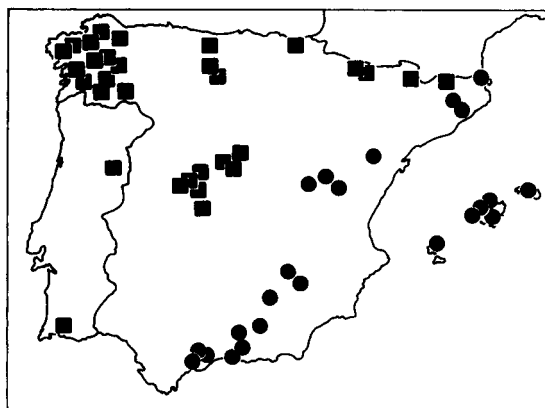


Fig. 14. Iberian records of *T. (Y.) lateralis* Meigen (rectangles) and *T. (Y.) barbarenae* Theowald & Oosterbroek (circles).

Karlsruhe), 1♂, 1♀ paratype, collecting labels as in the holotype, with date 11.vi.1966, and 1♀ paratype from Pol-i-Charchi, 1700 m, 18 km östl. Kabul, 26.vi.1966 (paratypes in ZMAN).

T. (Y.) iranensis is distributed in eastern Turkey (ZMAN material from the provinces of Bitlis and Hakkari; of *lateralis* from Bitlis and the surrounding provinces), Iran (as far south as Sangan in Baluchistan), Afghanistan (east of Kabul), and Turkmenistan (Kara Kala). Theowald & Oosterbroek (1987), mentioned *iranensis* from Syria. This record could not be confirmed, but most probably refers to *lateralis*.

Tipula (Yamatotipula) montium Egger, 1863

Three subspecies have been recognized within *montium*, viz., the nominotypic, *montium afriberia* Theowald & Oosterbroek, 1980, and *montium italia* Theowald, Dufour & Oosterbroek, 1982. As in *lateralis*, these taxa differ in details of the posterior portion of the inner dististyle only. In *montium* (Fig. 10) pars 2 is a distinct plate, lying in front of, and separated from, pars 3, the latter being very broad and triangular; pars 4 is not developed. In *italia* (Fig. 11) pars 2 is a distinct ridge, anteriorly fused with the lateral side of pars 3, which is less broad and acutely tipped. Pars 2 of *afriberia* (Fig. 12) is at most a continuation of the dorsal margin of pars 3, the latter being very acutely tipped, while carrying a smaller ventral tip. In *italia* and *afriberia* pars 4 is present but small. A distinct character separating *afriberia* is the anterior prolongation of the dorsal crest.

Along the southern part of its distribution, *montium* shows considerable overlap with *italia*. Therefore, *montium* is treated here as a species. *T. (Y.) afriberia* and *italia* share a number of characters (viz., pars 2 not present as a separate plate, pars 3 acute, and pars 4 slightly developed), and might be considered one species, *afriberia*, with two subspecies, *afriberia afriberia* and *afriberia italia*.

T. (Y.) montium Egger, 1863 is widespread in Europe, and distributed as far east as the Krasnoyarsk Region (Oosterbroek & Theowald, 1992). In Europe the range extends as far south as Andorra, the Spanish provinces Lérida (MHNN: Parc Nacional d'Agüestortes de

Sant Maurici), Navarra (ZFMK: near Burguete), and León (ZFMK: Riaño), northwest Italy (ZMAN: Cuneo), and the Durmitor Mountains in Monte Negro.

T. (Y.) afriberia afriberia Theowald & Oosterbroek, 1980, stat. n., is distributed in Morocco, Algeria, Tunisia and material was studied from the Spanish provinces of Málaga, Granada, Jaén, Cuenca, and Teruel. In the ZFMK collection there is furthermore one male collected between Madrid and Zaragoza.

T. (Y.) afriberia italia Theowald, Dufour & Oosterbroek, 1982, comb. n., is known from southeast Switzerland, the French Alps, Corsica, and throughout Italy including Sardinia and Sicily. Material examined does show that *T. (Y.) a. italia* is also distributed in the French Pyrenees, the Spanish provinces of Barcelona (ZMAN: Sierra de Montseny) and Avila (ZFMK: Sierra de Gredos), and central Portugal (ZFMK: Manteigas).

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