

New species of Trichoptera from Turkey and the description of the unknown female of *Drusus ingriddae* SIPAHILER, 1993 (Rhyacophilidae, Polycentropodidae, Hydropsychidae, Limnephilidae)

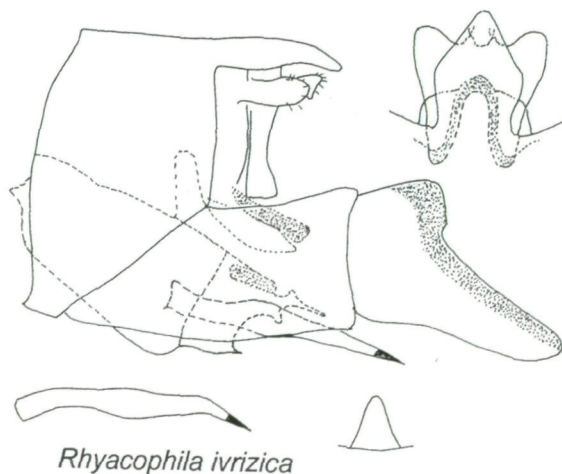
Füsün SIPAHILER

Abstract. The following new taxa from Turkey are described and illustrated: *Rhyacophila ivrizica* sp.n., *Plectrocnemia torosica* sp.n. and *Hydropsyche sultanensis* sp.n. The unknown female of *Drusus ingriddae* SIPAHILER, 1993 is also described and figured, new faunistic records for this species are given.

***Rhyacophila ivrizica* sp.n. (Rhyacophilidae)**

Rhyacophila fasciata HAGEN, 1859 is a widely distributed species in Europe, with five subspecies in the south, three of which are distributed in northern Turkey (MALICKY & SIPAHILER, 1993). A close related species, *R. isparta* SIPAHILER, 1996 occurs in the western Taurus Mountains in southern Turkey (SIPAHILER, 1996). The new species, *R. ivrizica* sp.n., is found in a cold stream, in the village of Ivriz, which is located on the northern slopes of the Taurus Mountains and ends in the arid part of the Konya basin. It seems that the new species occupies a limited area in the region, and is not found in the surrounding area. *R. ivrizica* ssp.n. (Figs. 1-4) differs from *R. fasciata* in the shape of several parts of the male genitalia. Namely, the second segment of the inferior appendages is long, and the dorsal lobe short; the dorsomedian lobe of segment 9 is broad, dilated in the middle of the side margins, narrowing towards the tip. The parameres are rather thin and dilated in the middle; ventral lobe of the aedeagus is long, narrowing towards the blunt tip. The ventral lobe of segment 10 is short; the side lobes are narrow. *R. ivrizica* sp.n. is closer to *R. f. aliena* MARTYNOV, 1916, found in north eastern Turkey and the Caucasus, in having longer a harpago and a shorter dorsal lobe of segment 10; the median lobe of the aedeagus, which is large and broad, is located medially in *R. f. aliena* whereas in the new species it is small and located dorsally. *R. f. aliena* has broad parameres, a broad dorsal lobe of segment 9 and a short ventral lobe on the aedeagus.

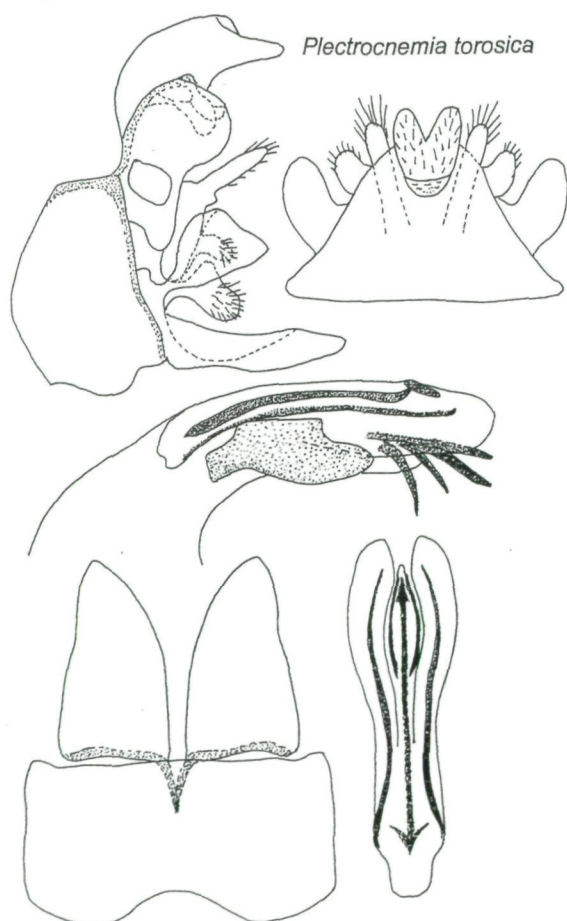
Holotype ♂ and paratypes 4 ♂♂ (pupae): Turkey, Konya, Ereğli, Ivriz, Ivriz Çayı, 1000 m, 37° 23 N, 34° 08 E, 31.7.2005, leg. and coll. Sipahiler.



The antennae, palps and legs are pale brown; the wings uniform brown; the head and thorax dorsally somewhat darker brown. The length of the anterior wing of males is 11-11,5 mm.

Male genitalia (Figs. 5-9): In lateral view, segment 9 is broad; the ventral part is dilated in the middle; segment 10 is long; in dorsal view, broadly trapezoidal; the apical part is excised medially, forming rounded lobes, which are slightly sclerotized and covered by short hairs; the base of the median lobes is membranous. The preanal appendages are broad; in lateral view, the dorsal edge is rather smooth; posterior edge is almost rounded; in dorsal view, the inner lobe between the outer lobe of the preanal appendage and the apical part of segment 10 is short, rounded at the tip, slightly curving inward; the apical margin of the inner lobe possesses longer hairs. The finger-shaped lobes beneath the phallic apparatus are long, with a small excision at the base. In lateral view, the dorsal part of the inferior appendages is large; the anterior margin is rounded; the posterior part is triangular; the ventral lobe, located on the ventral part of the inner margin, is broad; rounded, covered with short hairs; the small lobe on the dorsal corner of the inner margin is prominent; the ventral part of the inferior appendages is long and broad, narrowing towards the apex. The dorsal part of the phallic apparatus is enlarged in the apical portion, the apex is bilobed; the ventral part possesses four spines; two of which are almost smooth and somewhat longer than the others; the two spines are directed ventrally.

Holotype ♂ and paratypes (1 ♂, 2 ♂♂ pupae): Turkey, Konya, Hadim, Borini, 1700 m, 36°58 N, 32° 25 E, 27.6.2000, leg. and coll. Sipahiler.



Plectrocnemia torosica sp.n. is closely related to *P. renetta* MALICKY, 1975, (MALICKY, 1975), distributed in Greece (Ikaria and Samos) and Cyprus (MALICKY, 2005). In Turkey, it is also found in a limited area on Uludağ Mountain in Marmara region. The following differences are seen in the male genitalia: In *P. renetta*, the median part of segment 10 is simple, the apical margin is smooth, in *P. torosica* sp.n., the median part of segment 10 possesses a hairy area, which is bilobed apically, and covered by short and pale hairs. In *P. renetta* the inner lobe of the preanal appendages is short and triangular in shape, connecting to segment 10 at a right angle, while in *P. torosica* sp.n. the inner lobe is broad and rounded. In the new species, the ventral part of the inferior appendages is longer than that of *P. renetta*, and, in ventral view, the inner margin is almost rounded, narrowing towards the apex; in *P. renetta* the inner margin of the inferior appendages is smooth and the apex is broadly rounded. In *P. renetta* the side lobes of the phallic apparatus narrow towards the apex; in *P. torosica* sp.n., they are roundly dilated on the apical portion.

***Hydropsyche sultanensis* sp.n. (Hydropsychidae)**

The antennae, palps and legs are brown; the wings brown; the veins dark brown; the anterior wings slightly spotted on the apical margins; the head and thorax dark brown-blackish dorsally. The length of the anterior wing of the males is 10-10,5 mm, and of females 11-12 mm.

Male genitalia (Figs. 10-14): The dorsal keel of segment 9 is moderately broad; the apex is shortly excised medially. The sides of segment 9 are strongly sclerotized; dorsal cavity 9 is deep and small, located on the lateral part of the segment 9, and dorsal cavity 10 is deep. The dorsolateral stripes of segment 10 are broad; in dorsal view, the area between the dorsolateral stripes is large, narrowing at the base; in lateral view, the dorsal margin of segment 10 has a large and rounded lobe at the base, which possesses long hairs; the apical margin forms a large and rounded lobe on the dorsal

portion. The harpago of the inferior appendages is almost equal in breadth; distally rounded; pointed at the apex. In lateral view, the phallus is curved before the middle; the apex is rather broad and rounded; in ventral view, the apical part of the phallus is narrow and long; the lateral projections are small and thick, slightly protruding on the sides, but mainly developing ventrally.

Holotype ♂ and paratypes (1 ♂, 2 ♀♀): Turkey, Konya, Akşehir direction to Gelendost, Sultan Mountains, 1650 m, 38° 19' N, 31° 20' E, 19.5.2005, leg. & coll. Sipahiler.

Hydropsyche sultanensis sp.n., is dark in colour and belongs to the *instabilis*-group, but differs from the known species of the group (MALICKY, 2001; MALICKY, 2004; SIPAHILER 2004) with regard to several parts of the male genitalia. It is well characterized by the shape of the phallus, the apical part of which is long and narrow, possessing small and thick lateral projections, developing ventrally and the shape of segment 9 with a small dorsal cavity on the sides and segment 10 with large basal lobes. The close relationship is not evident.

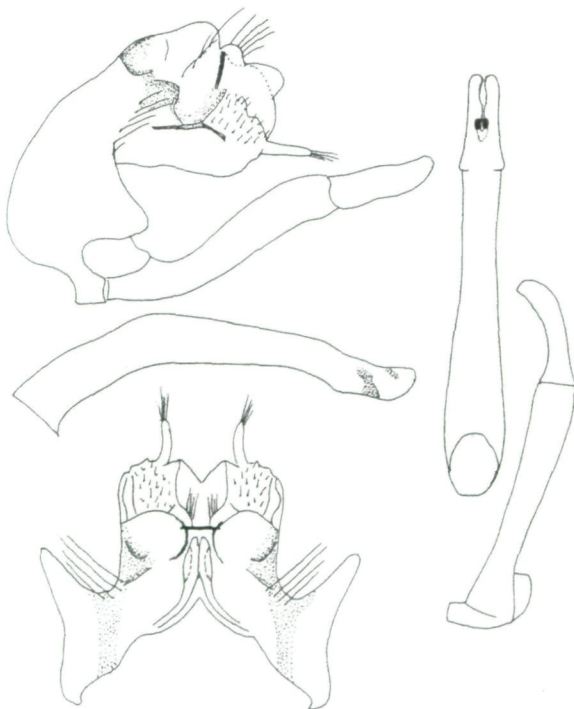
***Drusus ingridae* SIPAHILER, 1993 (Limnephilidae)**

Description of the female : The antennae, palps and legs pale brown-yellowish; the wings pale brown; the length of the anterior wing of the female is 13-13,5 mm.

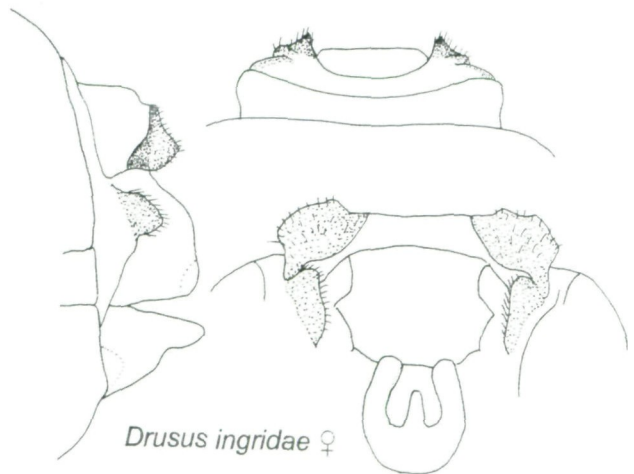
Female genitalia (Figs.15-17): In dorsal view, the tubular pieces of segment 10 are largely divided from each other; small, triangular with pointed apex, which are slightly curved on the sides; in lateral view, the tubular pieces are somewhat directed ventrally. In ventral view, the median lobe of the vulvar scale is short; the side lobes are broad and rounded at the tips.

D. ingridae SIPAHILER, 1993, described based on the material collected from Massif Central (SIPAHILER, 1993), seemingly occupies a larger area in southern France. New faunistic records from France:

Pyrenées-Orientales, Tech brook, 1600 m, 24.5.1994, 1 ♂, 1 ♀. - Pyrenées-Orientales, Albères Massif, Sorede brook, 1000 m, 15.10.1994, 2 ♂♂, 1 ♀. - Haute-Garonne, ruisseau affluent du Ger à Portillon, 1100 m, 21.5.1993, 1 ♂, all leg. Vinçon, coll. Sipahiler.



Hydropsyche sultanensis



Drusus ingridae ♀

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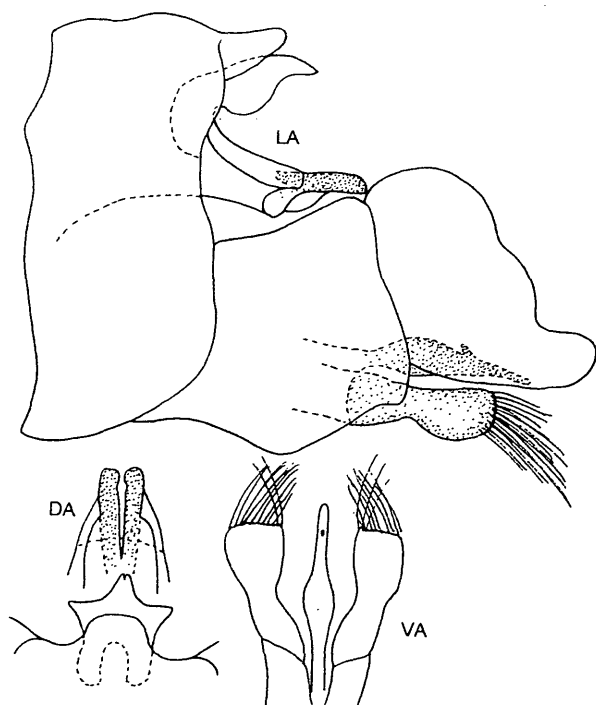
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Dr. Füsün Sipahiler
Hacettepe Üniversitesi
Eğitim Fakültesi
OFMA Bölümü
TR-06800 Beytepe, Ankara, Turkey
fusunsip@hacettepe.edu.tr



BRAUERIA (Lunz am See, Austria) 33:22 (2006)

A new brachypterous species of *Rhyacophila* (Trichoptera: Rhyacophilidae) from the Eastern Alps (Carinthia, Austria).

Wolfram GRAF

Rhyacophila ferox n. sp.

Body length 16 mm, fore wing length 8 mm, hind wing length 6 mm, brachypterous. Wings brown with pale spots, especially the fore wings. Head yellowish-brown, antennae yellow, distal parts of segments dark brown; legs yellow, femora of fore and middle legs with brown bands on anterior and posterior sides; tibiae of fore and middle legs proximally with dark markings; hind legs uniformly yellow. Abdomen yellowish-brown.

Male genitalia: Segment 9 in dorsal view short and rounded, its posterior and anterior margins in lateral view slightly curved, nearly parallel; dorso-apical lobe of segment 10 with lateral wing-like extensions in dorsal view, posterior end pointed with a median incision. Anal sclerites as in the figure. Aedeagus straight, broadened in the middle, with a small dorsal hook; apex bluntly pointed. Parameres dark brown and spherical with a dense spiral of apical spines. Proximal part of inferior appendages longer as distal part. Ventral part with a blunt, finger-like projection. Upper margin with two bulges, which are densely covered by fine setae.

The new species is isolated; according to the form of preanal appendages and anal sclerites as well as the aedeagus it may be distantly related to *Rhyacophila fasciata*. It was found near a springbrook where also some unknown larvae were collected which might belong to the same species.

Etymology: *ferox* = wild, untamed; the specimen was attacking me with its gonopods when I took it from the underside of a boulder.

Holotype: male, Austria, Saualpe, 15.5.2006, 46°50' N, 14°40' E, 1700 m, leg. Graf. The holotype is deposited in my collection.

Acknowledgement

This paper is part of the results of a project funded by the Austrian Science Fund (Project number P18073-B03; leadership: J. Waringer).

Author's adress:

Dr. Wolfram Graf
BOKU - University of Natural Resources and Applied Life Sciences, Department of Water, Atmosphere & Environment
Institute for Hydrobiology & Water Management
Working Group on Benthic Ecology and Ecological Status Assessment
Max Emanuel-Strasse 17,
A-1180 Vienna, Austria

Rhyacophila ferox

Abbreviations in the figure: LA lateral, DA dorsal, VA ventral

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Zeitschrift/Journal: [Braueria](#)

Jahr/Year: 2006

Band/Volume: [33](#)

Autor(en)/Author(s): Sipahiler Füsün

Artikel/Article: [New species of Trichoptera from Turkey and the description of the unknown female of *Drusus ingridae* SIPAHILER, 1993 \(Rhyacophilidae, Polycentropodidae, Hydropsychidae, Limnephilidae\) 20-22](#)