

## Plecoptera (Insecta) species from Middle Anatolia<sup>1)</sup>

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(With 10 figures)

### Abstract

In this paper, two new species *Brachyptera sislii* and *Protonemura karabagi* from the Middle Anatolia are described and twenty five species are given from various localities.

*Brachyptera sislii* sp.nov. (Figs 1-4)

Antennae yellow, darker at the tips. Head dark brown, back of the lateral ocelli and surroundings of the eyes yellow. Prothorax light brown with dark brown spots. Wings transparent, veins light brown. Mesothorax and metathorax dark brown. Legs yellowish-brown.

♂ (Holotype): Abdominal vesicle round, without stalk (Fig. 1). The long subgenital plate curved towards dorsal side. Subgenital plate folded at the back forming two projections (Fig. 2). Cerci skinlike and basal parts short and not curved (Fig. 3). Epiproct broadens in the middle, its tip plate has a wide indentation in the middle with two finger-like projections at the sides (Fig.4). Base of epiproct quite large. Penis located at the indentation of the epiproct. Three sepiat threads at the tip of the penis.

Body length: ♂ 9 mm (Holotype): Length of front wing: ♂ 10 mm (Holotype).

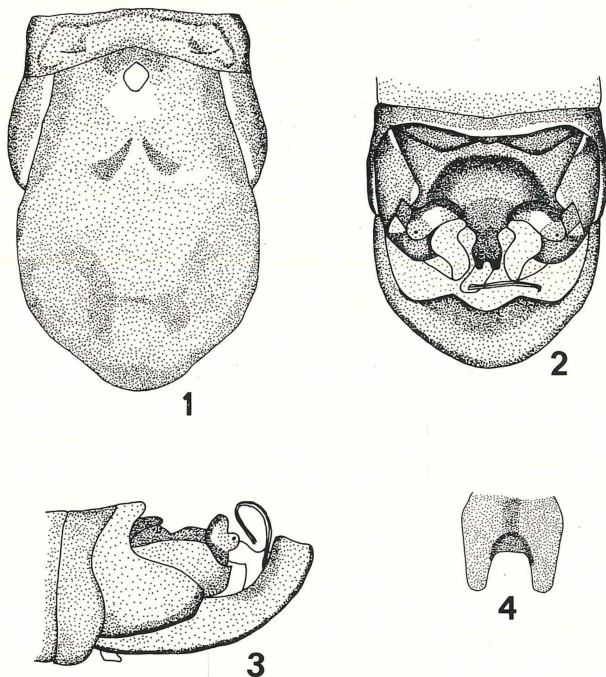
Material: Eskişehir: İlören, 19.2.1979, 1 ♂ (Holotype), deposited in the Department of Zoology, Hacettepe University, Beytepe - Ankara, Turkey.

I take the honour of dedicating this species to Prof. Dr. N. ŞİŞLİ.

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I wish to express my thanks to Dr. PETER ZWICK (Schlitz) for double-checking to see that two species are new for science.



Figs 1-4: *Brachyptera sislii* sp. nov., abdominal tip of male: 1 ventrally, 2 dorsally, 3 laterally, 4 tip plate of epiproct.

*Brachyptera zwicki* BRAASCH and JOOST, 1971

Material: Bolu: Çamtur, 3.5.1981, 1 ♀; Bolu: Abant, 29.5.1981, 4♀♀; Bolu: Yedigöller, 6.6.1981, 3♀♀ (1 ♀ Coll. Zoologisches Museum Hamburg).

*Amphinemura trialetica* ZHILITZOVA, 1957

Material: Bolu: Abant, 29.5.1981, 2♀♀; Bolu: Yedigöller, 6.6.1981, 1 ♀.

*Nemoura cinerea cinerea* (RETZIUS, 1783)

Material: Ankara: Çamlıdere, 2.6.1978, 2♂♂, 3♀♀; Eskişehir: Seyitgazi, 6.5.1979, 3♀♀; Bolu: Kıbrısçık, 30.6.1979, 3♂♂; Çankırı: Çerkeş, 21.6.1980, 1 ♀; Yozgat: Boğazköy, 28.6.1980, 1 ♂, 7♀♀; Ankara: Çankoru, 4.7.1980, 4♂♂, 8♀♀ (2♂♂ Coll. Zoologisches Museum, Hamburg).

*Nemoura cinerea turcica* ZWICK, 1972

Material: Ankara: Çankoru, 4.7.1980, 2♂♂; Yozgat: Boğazköy, 26.6.1980, 6♂♂, 15♀♀.

*Nemoura flexuosa* AUBERT, 1949

Material: Bolu: Abant, 3.5.1981, 1 ♂; Yedigöller, 6.6.1981, 2♂♂.

*Nemoura martynovia* CLAASSEN, 1936

Material: Bolu: Yünlü Yaylası, 20.6.1980, 2♂♂; Ankara: Kalecik, 11.6.1980, 1 ♂.

*Nemoura taurica* ZHILTZOVA, 1967

Material: Ankara: Çankoru, 25.5.1979, 11♂♂; Bolu: Akyarma Geçidi, 20.6.1980, 5♂♂, 3♀♀; Ankara: Uruş, 1.5.1981, 7♂♂, 10♀♀, (2♂♂, 2♀♀, Coll. Zoologisches Museum Hamburg).

*Protonemura bacurianica* ZHILTZOVA, 1957

Material: Ankara: Ayaş, 23.5.1980, 1 ♀ (leg.ÇAKIN); Yozgat, Hattuşaş 28.6.1980, 1 ♀; Ankara: Bala, 4.6.1980, 1 ♀; Bolu: Abant, 29.5.1981, 2♀♀.

*Protonemura bithynica* AUBERT, 1964

Material: Ankara: Bala, 4.6.1980, 1 ♂; Bolu: Çamtur, 4.7.1980, 1 ♂; Bolu: Çamtur, 26.5.1981, 4♂♂ (4♂♂ Coll. Zoologisches Museum Hamburg).

*Protonemura karabagi* sp.nov. (Figs 5-10)

Antennae and head black. Gills fine and brown. Prothorax dark brown with black spots. Mesothorax and metathorax dark brown. Wings pale brown with light spots and thin brown veins. Legs brown. Abdomen reddish-brown.

♂ (Holotype): Subgenital plate wide, ending in long stalk. Ventral lobe elongated. Paraproct long. Subanal plate wide at the base and become narrower at the apex. Chitinized rod has 3 apical spines (Fig. 8). External appendix long, its tip curved towards dorsal side and has 1 spine at the tip (Fig. 5). Apical part of external appendix sclerotized (Fig. 9). Tergite 8, 9 and 10 with spicules (Fig. 6). Epiproct long and little finger-like structure at the tip (Fig. 7). Epiproct thickened in lateral view and its hairy protuberance quite high (Fig. 10).

Body length: ♂ 9 mm (Holotype), 6,5-9 mm; Length of front wing: ♂ 9 mm (Holotype), 8,5-9 mm.

Material: Bolu: Yedigöller-Büyükgöl, 21.10.1980, 1 ♂ (Holotype); Bolu: Yedigöller-Şelale-Nazlıgöl, 21.10.1980, 3♂♂ (Paratypes). Deposited in the Department of Zoology, Hacettepe University, Beytepe - Ankara, Turkey.

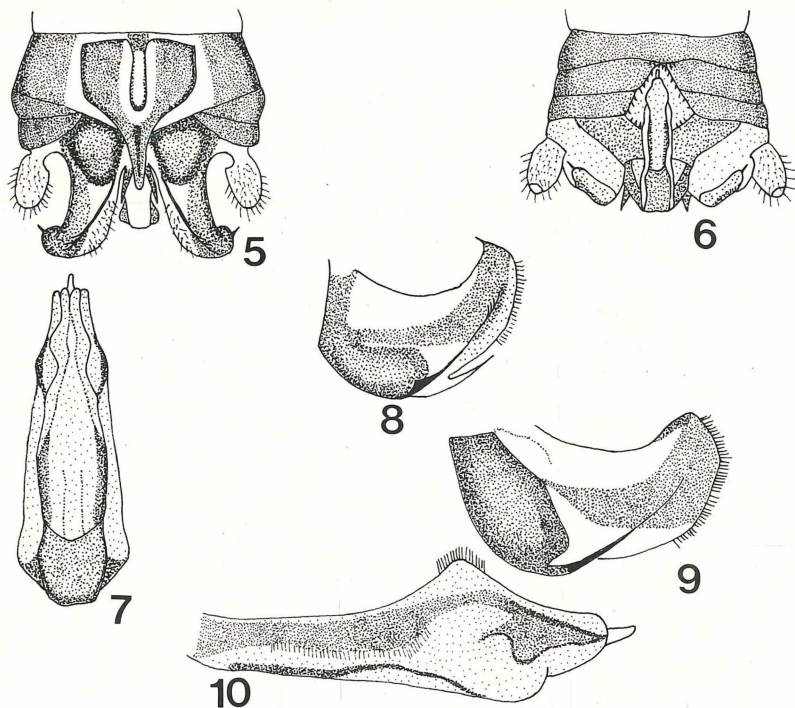
I take the honour of dedicating this species to Prof. Dr. T. KARABAĞ.

*Leuctra collaris* MARTYNOV, 1928

Material: Bolu: Yedigöller 21.10.1980, 3♂♂.

*Leuctra furcatella* MARTYNOV, 1928

Material: Bolu: Abant, 29.5.1981, 5♂♂; Bolu: Yedigöller, 6.6.1981, 4♂♂.



Figs 5-10: *Protonemura karabagi* sp. nov., abdominal tip of male: 5 ventrally, 6 dorsally, 7 dorsal view of epiproct, 8 ventral view of paraproct, 9 lateral view of paraproct, 10 lateral view of epiproct.

*Leuctra hippopus* KEMPNY, 1899

Material: Ankara: Çubuk, 28.5.1981, 1 ♀,

*Leuctra minuta* ZHILTZOVA, 1960

Material: Bolu: Abant, 29.5.1981, 2♂♂, Bolu: Yedigöller, 6.6.1981, 2♂♂, 1 ♀.

*Capnia sevanica* ZHILTZOVA, 1964

Material: Bolu: Çamtur, 21.4.1981, 2♂♂, 1 ♀.

*Capnia arensi* ZHILTZOVA, 1964

Material: Ankara: Çeltikçi, 13.4.1979, 1 ♀.

*Capnia tuberculata* ZHILTZOVA, 1964

Material: Ankara: Çeltikçi, 11.8.1981, 7♂♂, (leg.ÇAKIN): Ankara: Çamkoru, 21.4.1981, 1 ♂, 6♀♀.

*Perlodes microcephala* (PICTET, 1833)

Material: Ankara: Çeltikçi, 13.4.1979, 13♂♂; Ankara: Kızılcahamam 13.4.1979, 20♂♂, 25♀♀ (2♂♂, 2♀♀ Coll. Zoologisches Museum Hamburg); Ankara: Güdül, 9.4.1980, 4♂♂, 4♀♀.

*Isoperla armeniaca* ZHILTOVA, 1961

Material: Eskişehir: Seyitgazi, 6.5.1979, 2♂♂.

*Isoperla bithynica* (KEMPNY, 1908)

Material: Ankara: Kızılcahamam, 25.5.1979, 3♂♂, 3♀♀; Bolu: Gerede 20.6.1980, 3♂♂, 6♀♀.

*Isoperla rhododendri* ZHILTOVA, 1956

Material: Ankara: Kızılcahamam, 25.5.1979, 3♂♂, 3♀♀; Bolu: Gerede, 20.6.1980, 3♂♂, 6♀♀.

*Marthamea vitripennis* (BURMEISTER, 1842)

Material: Ankara: Ayaş, 27.5.1978, 2♂♂; Ankara: Ayaş, 11.5.1979, 8♂♂, 4♀♀; Yozgat: Yerköy, 6.6.1979, 1♂.

*Perla illiesi*, BRAASCH an JOOST, 1973

Material: Bolu: Abant, 29.5.1981, 1♂.

*Perla marginata* (PANZER, 1799)

Material: Bolu: Çamtur, 4.7.1980, 6♂♂; Kütahya, 6.7.1980, 1♂.

*Phasganophora wernerii* (KEMPNY, 1908)

Material: Ankara: Delice, 30.6.1978, 1♂; Ankara: Kırıkkale, 2♂♂, 2♀♀; Eskişehir, 23.7.1980, 1♂.

*Pontoperla teberdinica* (BALINSKY, 1950)

Material: Ankara: Kızılcahamam, 26.4.1981, 1♂; Bolu: Abant, 29.5.1981, 2♂♂.

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