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## New species of Trichoptera ( Hydroptilidae, Philopotamidae) from Turkey and the list of the species of Ordu and Giresun provinces in northeastern Anatolia<sup>1</sup>

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**A b s t r a c t :** In the present paper the following new species are described and illustrated: *Hydroptila mardinica* nov.sp. (Hydroptilidae) from southeastern Anatolia, and *Wormaldia malickyi* nov.sp. (Philopotamidae) and *Philopotamus giresunicus* nov.sp. (Philopotamidae), both from northeastern Anatolia. A faunistic list for Ordu and Giresun provinces, located in the western part of northeastern Turkey, is given. A sketch map of the localities is provided. In this region, 85 species are recorded, belonging to 19 families. Of these, 38 species (44.7 %) are known in the western part of Turkey. This area constitutes the boundary of the distribution of western species. Caucasian/Transcaucasian species are represented in this region by 25 species (29.4 %); the rate increases in the eastern provinces of northeastern Anatolia to 42.8 % (60 species). *Chaetopteryx bosniaca* MARINKOVIC, 1955 is a new record for the Turkish fauna.

**K e y   w o r d s :** Trichoptera, fauna, Ordu, Giresun, new species, northern Turkey.

### Introduction

The new species *Hydroptila mardinica* nov.sp. (Hydroptilidae), with asymmetrical genitalia, belongs to the *occulta* species group. In Turkey, most of the species of this group are found in southern Turkey. *H. mardinica* nov.sp. is the second species of this group to occur in southeastern Anatolia. The new species of the family Philopotamidae, *Wormaldia malickyi* nov.sp. and *Philopotamus giresunicus* nov.sp., are found in the same place in Giresun province, a small spring on the rising slopes of the mountain.

Prior to this study, the Trichoptera fauna of northeastern Turkey was represented by 140 species, most of which were recorded from the eastern part of the region, namely from Trabzon, Rize, Gümüşhane, and Artvin provinces (SIPAHİLER 2004, 2008). The fauna of the western part was poorly known; only 11 species listed for the northeastern Anatolia region were recorded from Ordu and Giresun provinces (SIPAHİLER & MALICKY 1987). After that only a few records were published from these provinces (MALICKY & KUMANSKI 1997, KUMANSKI & SIPAHİLER 2002).

In the present study, the Trichoptera fauna of two provinces in the northeastern Anatolia region, Ordu and Giresun provinces, are listed. The fauna of the northern area of the neighboring provinces Tokat and Sivas is also included. Most of the specimens were collected from the mountains. The mountains in this region become higher towards the south, reaching

<sup>1</sup> This paper is dedicated to Prof. Dr. Hans Malicky on the occasion of his 75<sup>th</sup> birthday.

3000 m near the borders of the neighboring provinces and ending at Kelkit valley in the south. In this area, 85 species were found belonging to 19 families. Among them *Chaetopteryx bosniaca* MARINKOVIC, 1955 is a new record for the Turkish fauna.

## Materials and Methods

Specimens were collected by hand net and light trap with a blacklight tube (6 W), which was set up near rivers and streams. The list of the species includes those collected in 2007 and 2008, formerly recorded and described species, and new species, which are described in this paper or will be published soon. The pupae and some known larvae are also included in the list. The species of the genus *Dinarthrum*, the species *Hydropsyche pellucidula*, and some species of the *H. instabilis* group, which need revision, are not listed. A sketch map of the distribution of the species is provided (Fig. 15). Unless otherwise stated, the specimens were collected by me and deposited in my collection in the Biology Education Department at Hacettepe University.

## Descriptions of the new species

### Hydroptilidae

#### *Hydroptila mardinica* nov.sp. (Figs 1-4)

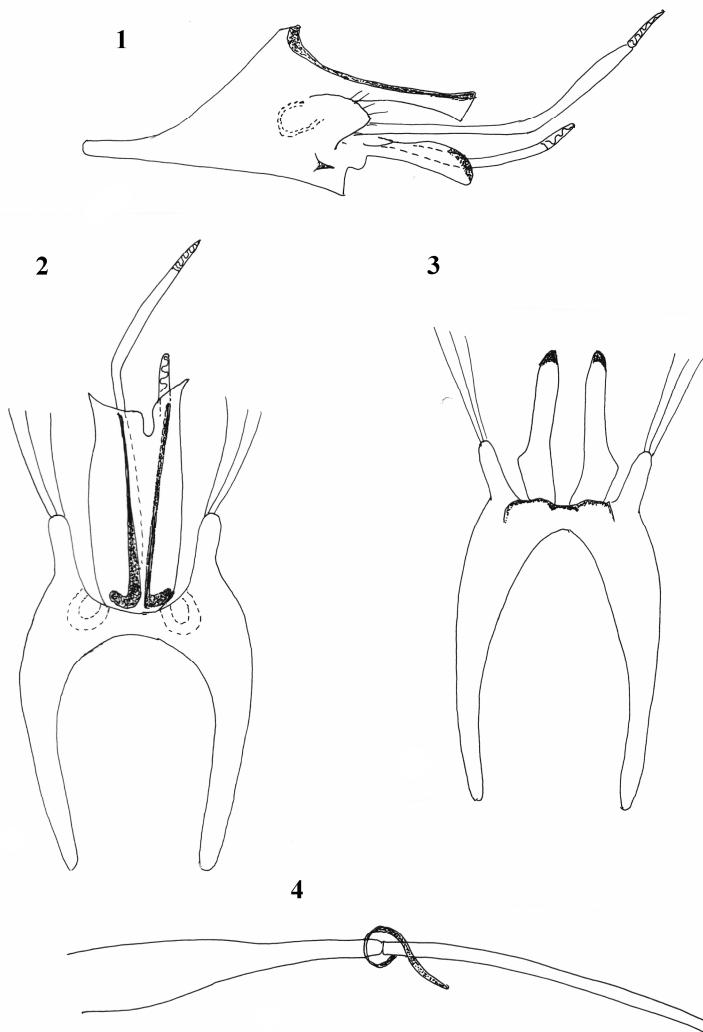
M a t e r i a l : Holotype ♂: Turkey, Mardin, Savur, 37°30'N/40°55'E, 19.6.2000, leg. and coll. Sipahiler.

Antennae with 30 segments; the length of the anterior wing of male is 1.5 mm.

Male genitalia (Figs 1-4): In lateral view, segment IX is long, triangular, the anterior margin elongated, forming a thin prolongation anteriorly; the posterior edge with a broad triangular lobe in the middle; segment X is long, asymmetrical in dorsal view, the right side is somewhat longer than the left side, the apical margin is roundly excised, with a small excision near the middle, the sides are pointed; there are two long sclerotized stripes located on each side of segment X. The lateral prolongations of segment X are thin and asymmetrical, the right prolongation is long, curved towards dorsal in the middle, and the left one is short, slightly longer than the half of the right prolongation, the apical parts of both prolongations are honeycombed. The inferior appendages are laterally as long as segment X, narrow at the base, gradually dilating towards the apex, ventral margin is smooth, dorsal margin roundly dilated.

The female is unknown.

*Hydroptila mardinica* nov.sp., which belongs to the *H. occulta* species-group, is closely related to *Hydroptila palaestinae* BOTOSANEANU & GASITH, 1971, (MALICKY 2004), which also has asymmetrical lateral prolongations, but differs from this species in the following features: In *H. palaestina*, segment IX laterally triangular, broadly ended anteriorly, in *H. mardinica* nov.sp., one fourth of segment IX is very thin; segment X of *H. palaestina* is symmetrical, the apical margin with two rounded lobes medially, while in the new species the apical margin is roundly excised, with a small excision, located asymmetrically. The right branch of the lateral prolongations of the related species is shorter than the left one, in *H. mardinica* nov.sp., the left branch is much shorter than the right one, which is very long, longer than that of the related species.



Figs 1-4: *Hydroptila mardinica* nov.sp. male genitalia: (1) lateral; (2) dorsal; (3) ventral; (4) aedeagus, lateral.

**Derivation nomenclatis:** This new species is named after the place where the specimen was collected.

### Philopotamidae

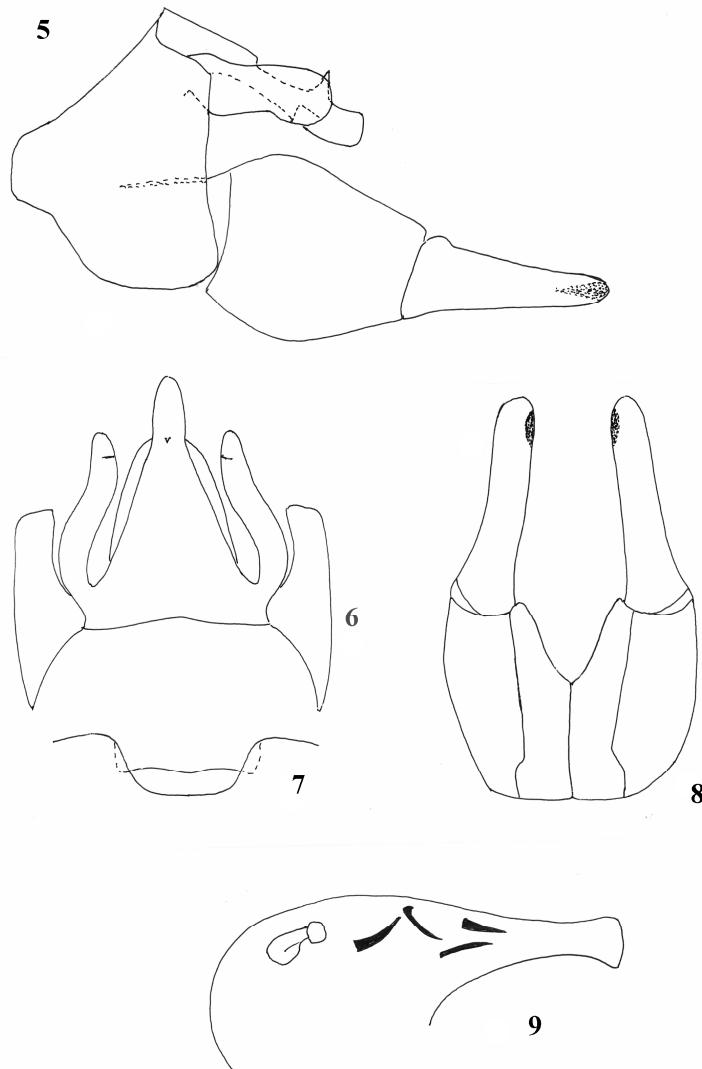
#### *Wormaldia malickyi* nov.sp. (Figs 5-9)

**Material:** Holotype ♂ and paratypes 2♂♂: Turkey, Giresun, Kümbet Yaylası, Çikrikkapı-Yağlıdere direction, 1340 m, spring, 17.8.2008, 40°32N/38°36E, leg. and coll. Sipahiler.

Antennae dark brown, yellowish annulated; maxillary palps dark brown, legs pale brown; the length of the anterior wing of male 5-5.5 mm.

Male genitalia (Figs 5-9). The posterior margin of tergite VIII is deeply and roundly excised in the middle. In lateral view, segment IX broad on the ventral part, apical edge produces broad

and rounded median lobe; the preanal appendage broad, almost quadrangular, apically rounded, the ventroapical edge is curved inward forming a triangle. In dorsal view, segment X is broad on the sides, in lateral view, the subapical projection is long, with a broad base. In lateral view, the harpago of the inferior appendage is large, dilating dorsally and ventrally; the coxopodite is rather smooth and rounded at the tip. The phallic apparatus possesses four spines, which are almost equal in length.



**Figs 5-9:** *Wormaldia malickyi* nov.sp. male genitalia: (5) lateral; (6) dorsal; (7) VIII. tergite dorsal; (8) ventral; (9) phallic apparatus, lateral.

*Wormaldia malickyi* nov.sp. is closely related to *W. ikizdere* SIPAHILER, 2000 (SIPAHILER 2000). The following differences are seen in the male genitalia: In *W. ikizdere* the apical excision of tergite VIII with two median lobes, anterior margin of segment IX laterally triangular, the preanal appendage is broadly oval, the coxopodite of the inferior appendage is somewhat narrower near the base; while in *W. malickyi* nov.sp. the apical excision of tergite VIII is deep, broadly U-shaped, anterior margin of segment IX with a broad median lobe, the preanal appendage is almost quadrangular with a small triangular projection curved inward,

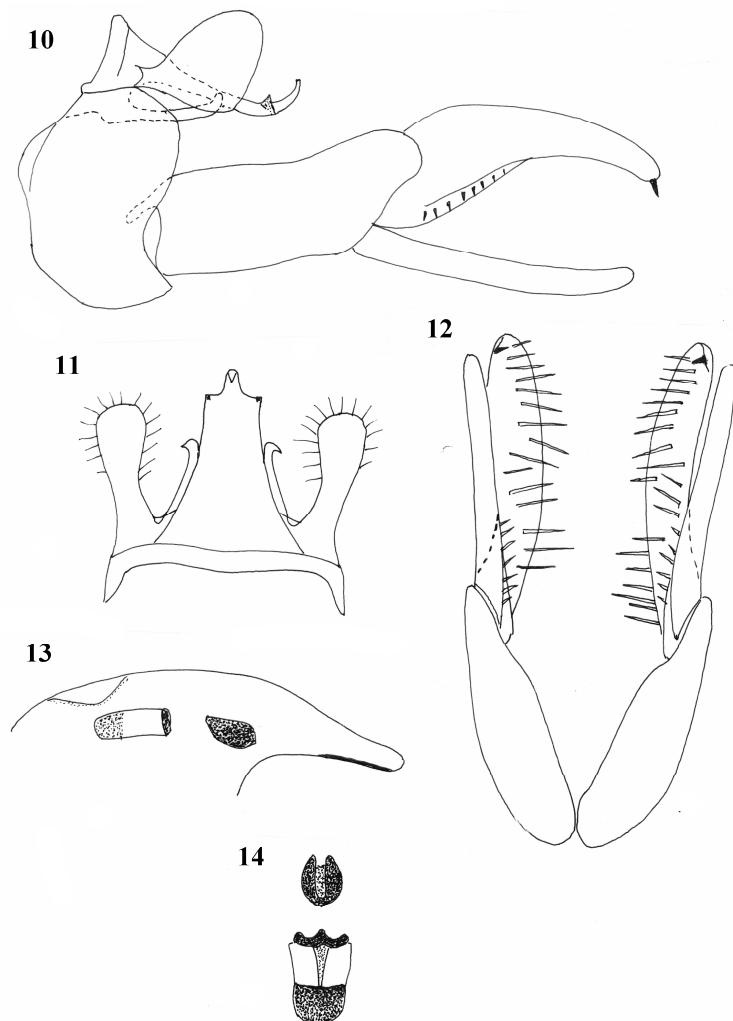
the coxopodite of the inferior appendage is smooth. In addition to these differences the spines of the phallic apparatus of both species are also different, namely *W. ikizdere* has five spines and *W. malickyi* nov.sp. four.

**D e r i v a t i o n o m i n i s :** This new species is dedicated to Univ-Prof. Dr. Hans Malicky in honor of his 75<sup>th</sup> birthday.

***Philopotamus giresunicus* nov.sp. (Figs 10-14)**

**M a t e r i a l :** Holotype ♂: Turkey, Giresun, Çırıkkapı, Yağlıdere direction, 1340 m, spring, 40°32N/38°36E, 10.7.2008, leg. and coll. Sipahiler.

Antennae and the maxillary palps are pale brown, coxa and femur of the legs brown, tibia pale brown, tarsal segments are dark brown; anterior wings are pale brown, with dark brown spots. The length of the anterior wing of the male is 9 mm.



**Figs 10-14:** *Philopotamus giresunicus* nov.sp. male genitalia: (10) lateral; (11) dorsal; (12) ventral; (13) phallic apparatus, lateral; (14) the sclerites of the phallic apparatus, dorsal.

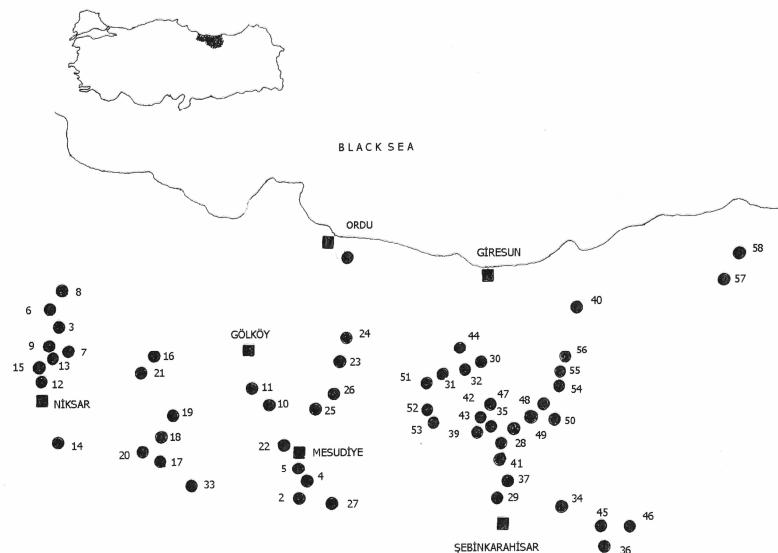
Male genitalia (Figs 10-14). In lateral view, the anterior margin of segment IX is somewhat dilated on the ventral portion; the preanal appendages are large and the dorsal edge is rounded; in dorsal view, segment X is long, almost trapezoidal, the apical margin straight on the subdistal portion, with a triangular projection on each corner, which are curved upwards; the median part of the apical margin produced a narrow lobe, which is also curved towards the dorsal part; in lateral view, the subdistal part appears triangular, the distal part is narrow, roundly curving dorsal. The lateral prolongations of segment X are short, equal in breadth, laterally straight, distal part with a blunt apex curved towards the dorsal part; in dorsal view, they are close to segment X, the apex bent on the sides. The ventrodistal sclerite of the phallic apparatus is short, straight and thin; in dorsal view, the inner sclerite is large almost rounded at the base, the posterior edge is U-shaped excised medially. The harpago of the inferior appendage is rather thin and long; the dorsal branch of the coxopodite is broad at the base and narrow on the apical portion; the apex possesses a black and short spine; the ventral branch is thin, slightly shorter than the upper branch and almost equal in breadth.

The female is unknown.

*Philopotamus giresunicus* nov.sp. is well characterized by the shape of segment X and the shape of the sclerites of the phallic apparatus. It is closely related to *P. variegatus* SCOPOLI, 1763 (MALICKY 2004), but the following differences are seen in the male genitalia: In *P. variegatus* segment X is triangular, the apex is broadly curved upwards; in *P. giresunicus* nov.sp. segment X is trapezoidal, with triangular projections on the corners; its median portion is as a narrow lobe; in *P. variegatus* the sclerites of the phallic apparatus are composed of a pair of spines found in the middle and a spine located subdistally and the ventral sclerite is long, rather thick (BOTOSANEANU 1960), while in *P. giresunicus* nov.sp., there is only one inner sclerite, which is large, almost rounded, possessing two apical projections; the ventral sclerite is thin and short.

**D e r i v a t i o n o m i n i s :** This new species is named after the place where the specimen was collected.

### List of the species of Trichoptera in Ordu and Giresun Provinces



**Fig. 15:** Map of Ordu and Giresun provinces showing the localities.

## Rhyacophilidae

### *Rhyacophila aberrans* MARTYNOV, 1913

Distribution: Caucasus, northeastern Turkey.

Localities: Giresun, Uzundere- Şebinkarahisar direction, before Tamdere, 1605 m, spring, 40°31N/38°21E, 10.8.2007, 1♂; same place, 2♂♂, 2♀♀, (39).

### *Rhyacophila fasciata aliena* MARTYNOV, 1916

Distribution: Caucasus, Iran, Turkey.

Localities: Sivas, Koyulhisar, Eğriçimen Yaylası, 40°21N/37°47E, 11.10.2007, 1♂, 2♀♀ pupae, 4.10.2008, 1♂, 2♀♀, (58); Giresun-Trabzon province boundary, Beşikdüzü, Şalpazarı, Sis Mountain direction, 700 m, 40°51N/39°08E, 11.7.2008, 1♀, 2♀♀ pupae, (57); Giresun, Kümbet Yaylası, 40°33N/38°23E, 1600 m, 2.10.2008, 1♂; same place, 2.10.2008, 1♀, (42); Giresun, Kümbet Yaylası, Uzundere, (light), 1.10.2008, 2♂♂, (38); Giresun, Uzundere- Şebinkarahisar direction, before Tamdere, 1600 m, spring, 40°31N/38°21E, same place, 1.10.2008, 1♂ (39); Giresun, Karagöl Yaylası direction, 1825 m, 1.10.2008, 1♂, (53).

### *Rhyacophila borcka* SIPAHILER, 1996

Distribution: Endemic to Turkey.

Localities: Giresun, Bektaş Yaylası, Kulakkaya direction, 12.10.2007, 3♂♂; Giresun, Bektaş Yaylası-Kulakkaya Yaylası direction, Çaltepe road, 40°41N/38°18E, 1530 m, 12.10.2007, 3♂♂; same place, 1516 m, 40°41N/38°21E, 1.10.2008, 2♂♂, (44); Ordu, Mesudeye- Ordu direction, Harçbeli Pass, 10 km south of Gölköy, 1260 m, 11.10.2007, 1♂, (11); Giresun, Kümbet Yaylası-Yağlıdere direction, Çıraklıkapi, 1786 m, 10.7.2008, 40°32N/38°30E, 1♂, (48); Giresun, Karagöl Yaylası direction, 1825 m, 40°41N/38°21E, 1.10.2008, 2♂♂, (53).

### *Rhyacophila clavalis* MARTYNOV, 1913

Distribution: Caucasus, Turkey.

Localities: Giresun Bektaş Yaylası direction, before Kulakkaya Yaylası, 6.7.2007, 1530 m, 40°41N/38°21E, 1♂; same place, 9.8.2007, 1♂, (30).

### *Rhyacophila forcipulata* MARTYNOV, 1926

Distribution: Caucasus, northeastern Turkey.

Localities: Giresun, Uzundere, Şebinkarahisar direction 1590 m, 40°31N/38°21E, 10.8.2007, 1♂ pupa (39); Giresun, Karagöl Yaylası, 2070 m, 40°32N/38°12E, 1♂ pupa, (52).

### *Rhyacophila kumanski turcica* SIPAHILER, 2007

Distribution: Armenia, northeastern Turkey.

Localities: Giresun, Şebinkarahisar, Eğribel Pass, 2000 m, 1.10.2008, 1♀ (28); Giresun, Karagöl Yaylası, Bektaş Yaylası direction, 1825 m, 1.10.2008, 2♀♀, 1♀, (53); Karagöl direction, 1.10.2008, 1♂, 1♀, (52).

### ***Rhyacophila nubila* (ZETTERSTEDT, 1840)**

Distribution: Europe, Caucasus, Iran, Israel, Turkey.

Localities: Ordu, Mesudiye direction, Baldırın stream, 40°23N/37°47E, 8.8.2007, 8.8.2007, 1♀, (5); Ordu, Niksar direction, Gökçebayır Village, Tifi stream, 914 m, 14.8.2008 (light), 1♀, (7); Giresun Şebinkarahisar direction, Kümbet Yaylası, Uzundere, 1400 m, 16.8.2008, (light), 40°33N/38°23E, 2♀♀, (38).

### ***Rhyacophila osellai* MALICKY, 1981**

Distribution: Endemic to Turkey.

Localities: Giresun, Koyulhisar-Mesudiye direction, Arpaalan, 1610 m, 5.7.2007, 40°21N/37°52E, 8.8.2007, 2♀♀, 1♀ pupae, (27); Sivas, Koyulhisar, Eğriçimen Yaylası, 8.8.2007, 1♀ (pupa); same place, 3.7.2007, 10♂♂, (2); Tokat, Niksar, Çamiçi Yaylası, source, 3.7.2007 1♀, (13).

### ***Rhyacophila spinulata* MARTYNOV, 1913**

Distribution: Caucasus, northeastern Turkey.

Localities: Giresun, Bektaş Yaylası direction, 1530 m, before Kulakkaya, 40°41N/38°21E, 6.7.2007, 1♂; same place, 9.8.2007, 1♀; same place, 12.10.2007, 1♂; same place, 16.8.2008, 2♂♂, (30); Giresun, Kümbet Yaylası-Yağlıdere direction, 1035 m, 40°36N/38°36E, 17.8.2008, 1♂; same place and date, 1341 m, 6♂♂; Giresun-Sivas province boundary, Koyulhisar, Eğriçimen Yaylası 1600 m, 15.8.2008, 40°21N/37°47E, 1♀, (58).

### ***Rhyacophila subovata* MARTYNOV, 1913**

Distribution: Caucasus, northeastern Turkey.

Localities: Giresun Bektaş Yaylası direction, before Kulakkaya Yaylası, 9.8.2007, 1530 m, 40°41N/38°21E, 1♀; same place, 9.7.2008, 1♂, (30); Giresun, Kümbet Yaylası, stream, 1600 m, 40°33N/38°27E, 17.8.2008, 1♂, (42); Giresun, Bektaş Yaylası- Kulakkaya Yaylası direction, Çaltepe road, 40°41N/38°18E, 1500m, 9.8.2007, 1♀ pupa, (44).

### ***Rhyacophila tamderensis* SIPAHILER, 2010**

Distribution: Endemic to Turkey.

Locality: Giresun, Şebinkarahisar, Tamdere, in direction of Dereli, 1605 m, 40°31N/38°21E, 9.7.2008, 1♂; same place, 16.8.2008, 1♂, 1♀ (pupa), (35).

### ***Rhyacophila zwickorum* MALICKY, 1972**

Distribution: Endemic to Turkey.

Localities: Giresun, Uzundere, Şebinkarahisar direction, 1590 m, 40°31N/38°21E, 10.8.2007, 4♂♂, 4♀♀, (40); Giresun, Bektaş Yaylası direction, 1530 m, 40°41N/38°21E, 9.8.2007, 1♂, (44); Ordu, 25 km south of Gölköy, Bayırköy, 11.10.2007, 1♂, (10); Giresun, Kümbet Yaylası-Yağlıdere direction, after HES dam, spring, 17.8.2008, 1035 m, 40°36N/38°36E, 2♂♂, 2♀♀, (54); Giresun, Kümbet Yaylası-Yağlıdere direction, 2 km north of Çıraklıkapı, 17.8.2008, 1341 m, 40°31N/38°36E, 6♂♂, (50).

## Glossosomatidae

### *Agapetus altineri* SIPAHILER, 1989

Distribution: Endemic to Turkey. New for northeastern Anatolia region.

Locality: Ordu, Mesudiye, 10 km south of Gölköy, Harçbeli Pass, 40°37N/37°37E, 1260 m, 5.7.2007, 9♂♂, 10♀♀, (11).

### *Synagapetus anatolicus* ÇAKIN, 1983

Distribution: Endemic to Turkey. New for northeastern Anatolia region.

Locations: Giresun, Koyulhisar-Mesudiye direction, Arpaalan, 1610m, 5.7.2007, 40°21N/37°52E, 1♂, 1♀; same place, 8.8.2007, 1♀, (27).

### *Glossosoma capitatum* MARTYNOV, 1913

Distribution: Caucasus, Bulgaria, Lebanon, northeastern, eastern and southern Turkey.

Locations: Sivas, Koyulhisar, Eğriçimen Yaylası, 1600 m, 5.7.2007, 2♀♀, (2); Ordu-Tokat province boundary, Yolbaşı, 995 m, 3.5.2007, 1♂, (15); Ordu, 25 km south of Gölköy, Bayırköy, 5.7.2007, 1♂, (10); Giresun, Kümbet Yaylası, Uzundere, (light), 9.8.2007, 2♀♀, 8♀♀, (38); Ordu, Gökçebayır, Tifi stream, (light), 914 m, 14.8.2008, 8♀♀, (7); Giresun, Kümbet Yaylası-Yağlıdere direction, Üçtepe, İspir Steam, 17.8.2008, 550 m, 40°42N/38°37 E, larvae and pupae, (56); Giresun, Kümbet Yaylası, 10.8.2007, 40°33N/38°23E, 1630 m, 2♂♂, (42); Ordu, Çambası Yaylası direction, 1430 m, 19.8.2008, 40°41N/37°56E, 1♂ pupa, (23).

## Hydroptilidae

### *Hydroptila aegyptia* ULMER, 1963

Distribution: North Africa, Greece, Egypt, Turkey.

Locality: Tokat, 16 km east of Reşadiye, Kelkit River, 3.8.2007, 3♂♂, (33).

### *Hydroptila angustata* MOSELY, 1939

Distribution: South eastern Europe, Turkey.

Locations: Tokat, 16 km east of Reşadiye, Kelkit River, 3.8.2007, 1♂, 83♀♀, (33).

### *Hydroptila armathai* SCHMID, 1959

Distribution: Iran, Turkey.

Locations: Ordu, Mesudiye, Köykent, 1060 m, 40°27N/37°44E, 8.8.2007, 3♂♂, 1♀, (22); Tokat, 16 km east of Reşadiye, Kelkit River, 3.8.2007, 1♀, (33).

### ***Hydroptila atargatis* MALICKY, 1997**

Distribution : Lebanon, Turkey.

Localities : Ordu, Mesudiye, Arpalan, Baldıran stream, 15.8.2008 (light), 13♂♂, 106♀♀ (5); Ordu, Niksar Ordu direction, Gökcabayır Village, Tifi stream, (light), 914 m, 14.8.2008, 1♂, (7); Tokat, Niksar, Kelkit River, (light), 40°33N/36°55E, 3.7.2007, 1♂, 6♀♀, (14); Tokat, 16 km east of Reşadiye, Kelkit River, 3.8.2007, 11♂♂, (33).

### ***Hydroptila occulta* (EATON, 1873)**

Distribution : Europe to Central Asia, Turkey.

Locality : Ordu, Mesudiye, Arpalan, Baldıran stream, 15.8.2008 (light), 3♂♂, 21♀♀, (5).

### ***Hydroptila tineoides* DALMAN, 1819**

Distribution : Europe, Northern Turkey.

Locality : Giresun, Alucra, Çamoluk direction, 7.7.2007, 1♂, (45).

### ***Hydroptila vectis* CURTIS, 1834**

Distribution : West Palaearctic region, Turkey.

Localities : Giresun, Bektaş Yaylası 2010 m, 6.7.2007, 1♂, (31); Tokat, Niksar, Çamiçi Yaylası, 1200 m, 2.7.2007, 1♂, (13).

### ***Ithyrichia lamellaris* EATON, 1874**

Distribution : Europe, Turkey.

Locality : Ordu, Mesudiye, Arpalan, Baldıran stream, 15.8.2008 (light), 3♂♂, 29♀♀, (5).

### ***Orthotrichia costalis* (CURTIS, 1834)**

Distribution : Europe-Iran, Levant, Turkey.

Localities : Reşadiye, Aybastı direction, Yolüstü, Zinav Lake, 900 m, 40°28N/37°16E, 4.7.2007, 5♂♂, 1♀, (20).

### ***Stactobiella celtikci* ÇAKIN, 1983**

Distribution : Endemic to Turkey.

Localities : Tokat, Niksar, Kelkit River, (light), 40°33N/36°55E, 3.7.2007, 8♂♂, 14♀♀ (14); Tokat, 16 km east of Reşadiye, Kelkit River, 3.8.2007, 19♂♂, 17♀♀, (33).

## Ptilocolepidae

### *Ptilocolepus colchicus* MARTYNOV, 1913

Distribution: Caucasus, Iran, northern Turkey.

Localities: Giresun, Bektaş Yaylası direction, before Kulakkaya Yaylası, 9.7.2008, 1530 m, 40°41N/38°21E, 10♂♂, 6♀♀, (44); Giresun, Bektaş Yaylası direction, 850 m, 9.8.2007, 1♂; Giresun, Kümbet Yaylası, Yağlıdere, Çırıktepe direction, 1786 m, 10.7.2008, 16♂♂, 3♀♀, (48); Giresun, Kümbet Yaylası, stream, 40°33N/38°23E, 9.7.2008, 4♂♂, 3♀♀, (42); Giresun, Yağlıdere, Dereköy direction, 280 m, 10.7.2008, 1♂, (40).

### *Ptilocolepus dilatatus* MARTYNOV, 1913

Distribution: Caucasus, northern Turkey.

Localities: Ordu, Aybastı, Perşembe Yaylası, 2 km north, 3.7.2007, 1♀, (16); Giresun, Bektaş Yaylası direction, 850 m, 6.7.2007, 2♀♀; Ordu, Mesudiye, Arpaalan, 8.8.2007, 1♀, 1♂, (27); Ordu, Esentepe, 5 km north, 3.7.2007, 2♀♀, (6); Ordu- Mesudiye direction, 25 km south of Gölköy, Bayırköy, 955 m, 5.7.2007, 40°34N/37°40E; 8.8.2007, 1♀, 1♂, (10); Giresun-Trabzon province boundary, Beşikdüzü, Şalpazarı, Sis Mountain direction, 500 m, Acısu, 11.7.2008, 1♀, (60); Ordu, Çambaşı Yaylası direction, 1430 m, 40°41N/37°56E, 19.9.2008, 5♀♀, (23).

## Philopotamidae

### *Philopotamus giresunicus* nov.sp.

Distribution: Endemic to Turkey.

Locality: Giresun, Kümbet, Çırıkkapı- Yağlıdere direction, 1400 m, 10.7.2008, 40°32N/38°36E, 1♂, (near 50).

### *Philopotamus variegatus* (SCOPOLI, 1763)

Distribution: Europe, Turkey.

Localities: Giresun, Dereli, Kümbet Yaylası direction, 45 km south of Giresun, 700 m, 6.7.2007, 1♂, (61); Giresun- Şebinkarahisar direction, after Eğribel Pass, 2110 m, 40°28N/38°23E, 9.7.2008, 1♂, 1♀, (29).

### *Wormaldia khourmai* SCHMID, 1959

Distribution: Iran, northern Turkey.

Locality: Giresun, Kümbet Yaylası, 1580 m, 40°33N/38°37E, 9.8.2007, 8♂♂, (42).

### *Wormaldia subnigra* McLACHLAN, 1865

Distribution: Europe, Lebanon, Turkey.

Localities: Sivas, Koyulhisar, Eğriçimen Yaylası, 1540 m, 15.8.2008, 4♂♂, 2♀♀, same place, 4.10.2008, 1♂, (2).

## ***Wormaldia ikizdere SIPAHILER, 2000***

Distribution: Endemic to Turkey.

Localities: Giresun, Bektaş Yaylası direction, 1530 m, 40°41N/38°21E, 6.7.2007, 4♂♂, 4♀♀; same place, 9.8.2007, 1♂; 9.7.2008, 2♂♂, 6♀♀; 16.8.2008, 3♂♂, 2♀♀, (30); Giresun, Bektaş Yaylası direction, 40°40N/38°18 E, 1320 m, a spring, 1500 m, 9.8.2007, 1♂, 1♀, (32).

## ***Wormaldia malickyi nov.sp.***

Distribution: Endemic to Turkey.

Localities: Giresun, Kümbet Yaylası, Çırkikkapı-Yağlıdere direction, 1340 m, source spring, 17.8.2008, 40°32N/38°36E, 3♂♂, (near 50).

## **Polycentropodidae**

### ***Polycentropus flavomaculatus (PICTET, 1834)***

Distribution: Europe, Turkey.

Localities: Ordu, Mesudiye direction, a tributary of Baldıran stream, near Baldıran Bridge, 1200 m, 5.7.2007, 1♂; same place, 8.8.2007, 1♂, (4); Giresun, Şebinkarahisar –Alucra direction, Çamoluk, 7.7.2007, 1♂ (pupa), (36); Ordu, Niksar-Ünye direction, Gökçebayır Village, Tifi stream, (light), 914 m, 14.8.2008, 2♂♂, (7).

### ***Polycentropus yuecelcaglari SIPAHILER, 1999***

Distribution: Endemic to Turkey.

Localities: Giresun Şebinkarahisar direction, Kümbet Yaylası, Uzundere, 1400 m, 9.8.2007, (light), 40°33N/38°23E, 2♂♂, 4♀♀, (38); Giresun, Bektaş Yaylası, 40°40N/38°20E, 1320 m, 9.8.2007, 2♂♂ (pupae), (32).

## ***Plectrocnemia latissima MARTYNOV, 1913***

Distribution: Iran, Turkey.

Locality: Sivas, Koyulhisar, Eğriçimen Yaylası 1600 m 5.7.2007, 40°21N/37°47E, 1♂, (58).

## **Psychomyiidae**

### ***Tinodes conjuncta MARTYNOV, 1913***

Distribution: Caucasus, northern Turkey.

Localities: Ordu, Aybastı, Perşembe Yaylası, 2 km north, 3.7.2007, 1♀; same place, 7.8.2007, 6♂♂, 2♀♀, (16); Sivas, Koyulhisar, Eğriçimen Yaylası, 5.7.2007, 1600 m, 3♂♂, 3♀♀, (58); Ordu, Mesudiye, Arpalan, 1610 m, 8.8.2007, 6♂♂, 1♀, (27); Ordu, Mesudiye, Harçbeli Pass, 10 km south of Gölköy, 8.8.2007, 1♂, (11); Ordu, Mesudiye, Baldıran stream, 5.7.2007, 1♂, (5); Giresun Bektaş Yaylası, 2010 m, 9.8.2007 1♂, (31); Ordu, Çambaşı Yaylası direction, 1430 m, 19.8.2008, 40°41N/37°56E, 1♂, (23); Ordu, Çambaşı Yaylası, Yeşilce-Mesudiye direction, 1960 m, 40°35N/37°53E, 19.9.2008, 1♂, (26); Giresun, Kümbet Yaylası-Yağlıdere direction, Üçtepe, İspir stream, 17.8.2008, 550 m, 40°42N/38°37E, 1♂, (56).

### ***Tinodes dificilis* MARTYNOV, 1927**

Distribution: Caucasus, northern Turkey.

Localities: Ordu, Mesudiye, Gölköy direction, Bayırköy, 8.7.2007, 3♂♂, (10); Giresun, Kümbet Yaylası-Yağlıdere direction, Çikrikkapı, 10.7.2008, 1820 m, 40°32N/3832E; 3♂♂, 1♀, (48).

### ***Tinodes valvatus* MARTYNOV, 1913**

Distribution: Caucasus, Lebanon, Turkey.

Localities: Sivas, Koyulhisar, Eğriçimen Yaylası, 5.7.2007, 1600m, 1♂, (58); Giresun, Bektaş Yaylası direction, 1350 m, 9.8.2007, 1♂, (32).

### ***Psychomyia dadayensis* SIPAHILER, 2006**

Distribution: Endemic to Turkey. New for northeastern Turkey.

Localities: Tokat, 16 km east of Reşadiye, Kelkit River, 2.7.2007, (light), 10♂♂; Niksar, Kelkit River, 3.7.2007, 2♂♂, (14).

### ***Psychomyia pusilla* (FABRICIUS, 1781)**

Distribution: Europe, North Africa, Turkey.

Localities: Ordu, Mesudiye, Baldıran Çayı, 5.7.2007, 21♂♂, 2♀♀, (5); Giresun, Şebinkarahisar, Alucra direction, 25. km, Balçana, 7.7.2007 27♂♂, 3♀♀, (34); Ordu, Mesudiye, İlışar Köyü, Köykent, 8.8.2007, 18♂♂, 1♀; same place, 7.7.2008, 7♂♂; Ordu, Niksar Ordu yolu, Gökcəbayır Köyü, Tifi stream, 914 m, 7.8.2007, 37♂♂, 5♀♀, (7); Ordu, Aybastı, Yolüstü, 4.7.2007, 5♂♂, (17); Tokat, 16 km east of Reşadiye, Kelkit River, 2.7.2007, (light), 80♂♂, 141♀♀; Ordu, Mesudiye, Arpalan, Baldıran Çayı, 8.7.2008, 8♂♂, 5♀♀, (5); Giresun, Kümbet- Yağlıdere direction, Üçtepe, İspir stream, 550 m, 40°42N/38°37E, 17.8.2008, 5♂♂, (56).

### **Hydroptyschidae**

#### ***Cheumatopsyche lepida* (PICTET, 1834)**

Distribution: Europe, Iran, Levant, Cyprus, Turkey.

Localities: Giresun, Şebinkarahisar, Alucra road, 25. km, Balçana, 990 m, 7.7.2007, 2♂♂, 2♀♀, (34); Ordu, Niksar-Ünye direction, Gökcəbayır Village, Tifi stream, (light), 914 m, 14.8.2008, 1♂, (7).

### ***Hydropsyche acuta* MARTYNOV, 1909**

Distribution: Caucasus, Iran, Turkey.

Locality: Giresun, 8 km north of Şebinkarahisar, before Eğribel Pass, 40°20N/38°26E, 6.7.2007, 2♂♂, 3♀♀, (29).

### ***Hydropsyche bulbifera* McLACHLAN, 1878**

Distribution: Europe, Turkey.

Localities: Ordu, Aybastı- Reşadiye direction, Perşembe Yaylası, 2 km north, 1540 m, 4.7.2007, 40°37N/37°19E, 9♂♂, 7♀♀; same place, 7.8.2007, 1♂, 1♀, (16); Ordu, Mesudiye, Arpalan, Baldıran Stream, 1470 m, 8.8.2007, 1♂, (5); Ordu, Niksar- Ordu direction, Gökcəbayır Village, Tifi Stream, 914 m, 7.8.2007, 40°42N/37°01E, 7.8.2007, 6♂♂; same place, (light), 14.8.2008, 22♂♂, (7).

### ***Hydropsyche cornuta* MARTYNOV, 1909**

Distribution: Caucasus, Syrie, Turkey.

Localities: Tokat, Reşadiye, 16 km east, Kelkit River, (light), 3.8.2007, 10♂♂, 19♀♀; Tokat, Niksar, Kelkit River, (light), 3.7.2007, 2♂♂, (14).

### ***Hydropsyche instabilis* (CURTIS, 1834)**

Distribution: Europe, Iran, Levant, Turkey.

Localities: Giresun-Sivas province boundary, Koyulhisar, Eğriçimen Yaylası 1600 m, 40°21N/37°47E, 5.7.2007, 1♂; same place, (light), 5.7.2007, 1♂, 3♀♀, (2); Ordu, Mesudiye, Arpalan, Baldır Stream, 1470 m, 8.8.2007, 1♂, (5); Giresun, Kümbet Yaylası, Uzungere, 1400 m, 9.8.2007, 2♂♂, 16♀♀, (38); Tokat, Niksar, Ordu province boundary, 7.8.2007, 1♂, (15).

### ***Hydropsyche lepnevae* BOTOSANEANU, 1967**

Distribution: Caucasus, Turkey.

Localities: Ordu, Mesudiye, Arpalan, Baldır Stream, 1470m, 6.7.2007, 3♂♂, 2♀♀, (5); Ordu, Mesudiye, Arpalan, 1610 m, 1♂, 8.8.2007, (27); Sivas, Koyulhisar, Eğriçimen Yaylası, 5.7.2007, 1600 m, 1♂; same place, (light), 8.8.2007, 1♂, 5♀♀, (2); Giresun, Şebinkarahisar, Alucra direction, 25 km east of Şebinkarahisar, Balçana, 7.7.2007 1♂, 1♀, (34), Tokat, Niksar, Kelkit River, (light), 3.7.2007, 1♂, 1♀, (14).

### ***Hydropsyche orduensis* SIPAHILER, 1987**

Distribution: Endemic to Turkey.

Localities: Ordu, Yukarıtepe Village, 21-27.8.1982, 40°57'N, 37°50'E, 2♂♂, (1), (SIPAHILER 1987); Giresun, Kümbet Yaylası-Yağlıdere direction, after HES dam, source, 1035 m, 40°36'N/38°36'E, 17.8.2008, 1♂, 1♀, (54).

### ***Hydropsyche sappho* MALICKY, 1976**

Distribution: Endemic to Turkey. New for northeastern Turkey.

Locality: Ordu, Niksar- Ordu direction, 25 km south of Gölköy, Gökçebayır Village, 914 m, 40°40'N/37°21'E, 7♂♂, 6♀♀, (10).

### ***Hydropsyche yukaritepe* SIPAHILER, 2004**

Distribution: Endemic to Turkey.

Locality: Ordu, Yukarıtepe Village, 21-27.8.1982, 40°57'N/37°50'E, 2♂♂, 1♀, (1) (SIPAHILER & MALICKY 1987).

## **Brachycentridae**

### ***Micrasema anatolicum* BOTOSANEANU, 1974**

Distribution: Endemic to Turkey.

Localities: Giresun, Bektaş Yaylası direction, 6.7.2007, 3♀♀; same place, 9.8.2007, 2♂♂, (30).

## Uenoidae

### Thremmatinae

#### *Thremma anomalam* McLACHLAN, 1876

Distribution: Southeast Europe, Turkey.

Localities: Giresun, Şebinkarahisar, before Tamdere, 1600 m, 10.8.2007, 1♂, (39); Ordu, Mesudiye, Harçbeli Pass, 10 km south of Gölköy, 8.8.2007, 40°37N/37°37E, 4♀♀, (11); Giresun, Karagöl Yaylası direction, before Karagöl, 2070 m, 40°32N/38°12E, 16.8.2008, 7♂♂, 4♀♀, (52); Giresun, Karagöl Yaylası-Bektaş Yaylası direction, 2140 m, 40°38N/38°13E, 16.6.2008, 1♂, (51).

## Gordidae

#### *Lithax incanus* (HAGEN, 1859)

Distribution: Caucasus, northeastern Turkey.

Localities: Giresun-Sivas province boundary, Koyulhisar, Eğriçimen Yaylası 1600 m, 40°21N/37°47E, 5.7.2007, 1600 m, 8♂♂, 8♀♀, (2); Ordu, Mesudiye, Harçbeli Pass, 10 km south of Gölköy, 8.8.2007, 40°37N/37°37E, 4♂♂, (11); Giresun, Bektaş Yaylası direction, 6.7.2007, 1♂, (32); Giresun, Bektaş Yaylası, 2010 m, 9.8.2007, 1♂, 1♀, (31); Ordu, Akkuş direction, Esentepe, before Kabakulak, 1100 m, 7.8.2007, 2♂♂, 1♀, (8); Ordu, Perşembe Yaylası, 2 km north, 1540 m, 40°37N/37°19E, larva, (16); Giresun, Kümbet Yaylası, 1600 m, 17.8.2008, 40°33N/38°27E, 1♂, (42).

#### *Lithax musaca* MALICKY, 1972

Distribution: Endemic to Turkey.

Locality: Ordu, Çambaşı Yaylası, Yeşilce-Mesudiye direction, 1960 m, 40°35N/37°53E, 19.8.2008, 1♂ pupa (26).

## Lepidostomatidae

#### *Lepidostoma hirtum* (FABRICIUS, 1775)

Distribution: Europe, Turkey.

Localities: Giresun-Sivas province boundary, Koyulhisar, Eğriçimen Yaylası 1600 m, 40°21N/37°47E, 5.7.2007, 1600 m, 2♂♂, 2♀♀, (2); Tokat, Reşadiye, Tatlıca village, 1200 m, 4.7.2007, 1♀, (18); Giresun, Alucra, Bayburt direction, 7 km east of Çamoluk village, 1500 m, 9.7.2008, 2♂♂, 3♀♀, (46).

## Apataniidae

#### *Apatania subtilis* MARTYNOV, 1909

Distribution: Caucasus, Turkey.

Localities: Giresun, Kümbet Yaylası, stream, 1600 m, 40°33N/38°23E, 8.8.2007, 1♂; same place, 9.7.2008, 3♂♂, 1♀, (42); Giresun, Kümbet Yaylası-Yağlıdere direction, 2.10.2008, 2200 m, 40°30N/38°30E, 1♂, (47); Giresun, Kümbet Yaylası-Yağlıdere direction, Çırıkkapı, 1786 m, 10.7.2008, 40°32N/38°30E, 15♂♂, 3♀♀; same place, 17.8.2008, 34♂♂, 7♀♀, (48); Ordu, Koyulhisar-Mesudiye direction, Arpaalan, 1610 m, 40°21N/37°52E, 11.10.2007, 6♂♂, 3♀♀; same place, 5.7.2007, 2♀♀, (27); Ordu, Çambaşı Yaylası, Yeşilce-Mesudiye direction, 1960 m, 40°35N/37°53E, 4.10.2008, 4♂♂, 3♀♀, (26).

## L i m n e p h i l i d a e

### Drusinae

#### ***Drusus bayburtii* ÇAKIN, 1983**

D i s t r i b u t i o n : Endemic to Turkey.

L o c a l i t i e s : Giresun Şebinkarahisar direction, Kümbet Yaylası, Uzundere, 1400 m, 9.8.2007, (light), 40°33N/38°23 E, 4♀♀; same place, (light), 16.8.2008, 1♂, 1♀; (38); Giresun, - Şebinkarahisar direction, Tamdere, 1600 m, 40°28N/38°23E, 6.7.2007, 8♂♂, 5♀♀, (35); Giresun, Kümbet Yaylası, stream, 1600 m, 40°33N/38°23E, 6.7.2007, 5♂♂, 4♀♀; same place, 1580 m, 40°33N/38°27E, 9.8.2007, 1♀, (42); Giresun, Bektaş Yaylası- Kulakkaya Yaylası direction, Çaltepe road, 40°41N/38°18E, 1530 m, 9.8.2007, 1♀, (44).

#### ***Drusus fuesunae* MALICKY, 1986**

D i s t r i b u t i o n : Endemic to Turkey.

L o c a l i t i e s : Giresun, Tamdere, İkisu, Karagöl Yaylası direction, 1825 m, 40°33N/38°12E, 16.8.2008, 3♂♂, 5♀♀, (53); Giresun, Şebinkarahisar, Tamdere, 1990 m, 10.8.2007, 40°28N/38°23E, 2♂♂, 4♀♀, (28); Giresun- Şebinkarahisar direction, Eğribel Pass, 2000 m, 9.7.2008, 2♀♀, (28); Giresun-Şebinkarahisar direction, after Eğribel Pass, 2110 m, 40°28N/38°23E, 16.8.2008, 4♂♂, 3♀♀; same place, 1.10.2008, 1♂, 1♀, (28); Ordu, Mesudiye, Çambaşı, 1960 m, 40°35N/37°53E, 19.8.2008, 1♂, (26); Giresun, Kümbet Yaylası-Yağlıdere direction, Çırıkkapı, 1786 m, 17.8.2008, 40°32N/38°30E, 4♂♂, 2♀♀, (48); Giresun, Kümbet, Yağlıdere direction, 40°30N/38°30 E, 2200 m, 1♀, (50); Giresun-Trabzon province boundary, Beşikdüzü, Şalpazarı, Sis Mountain, 40°51N/39°08E, 1760 m, 11.7.2008, 1♂, 1♀, (57); Ordu, Çambaşı Yaylası, Yeşilce-Mesudiye direction, 1960 m, 40°35N/37°53E, 19.9.2008. 2♂♂, 1♀, (26).

### L i m n e p h i l i n a e

#### ***Limnephilus ponticus* MCLACHLAN, 1898**

D i s t r i b u t i o n : Endemic to Turkey.

L o c a l i t i e s : Giresun, Bektaş Yaylası, 2010 m, 9.8.2007, 1♀, 1♂, (31); Giresun, Kümbet, Çırıkkapı, 17.8.2008, 40°32N/38°30E, 1786 m, 1♀, (48); same place, 1815 m, 40°32N/38°32E, 17.8.2008, 1♀, 4♂♂, (49); same place, 10.7.2008, 1♀, 2♂♂, (49); Sivas, Koyulhisar, Eğriçimen Yaylası, 8.8.2007, (light), 1600 m, 40°21N/37°47E, 1♀, 5♂♂, (58); Tokat, Reşadiye, Aybastı, Taşlıca Village, 1200 m, 4.7.2007, 1♀, 2♂♂, (18); Ordu, Koyulhisar-Mesudiye direction, Arpaalan, 1610 m, 5.7.2007, 40°21N/37°52E; 1♀; same place, 8.8.2007, 1♂, (27); Ordu, Çambaşı Yaylası, Yeşilce-Mesudiye direction, 1960 m, 40°35N/37°53E, 19.9.2008. 2♀♀, 1♂, (26).

#### ***Limnephilus rhombicus* (LINNAEUS, 1758)**

D i s t r i b u t i o n : Holarctic, Europe, Turkey.

L o c a l i t y : Ordu, Mesudiye, Arpalan, Baldırın stream, 1500 m, 8.7.2008, 1♀ (pupa), (5).

#### ***Limnephilus lunatus* CURTIS, 1834**

D i s t r i b u t i o n : Europe to Iran, Turkey.

L o c a l i t y : Tokat, Reşadiye, Aybastı, Taşlıca Village, 1200 m, 4.7.2007, 2♀♀, (18).

***Potamophylax latipennis* (CURTIS, 1834)**

Distribution: Europe, Turkey.

Localities: Giresun, Kümbet Yaylası, Uzundere, 1400 m, 9.8.2007, (light), 2♂♂, 1♀, (38); Ordu, Mesudiye, Baldırın stream, 1470 m, 8.8.2007, (larvae and pupae), (5).

***Micropterna caesareica* SCHMID, 1959**

Distribution: Southeast Europe, Turkey.

Locality: Sivas, Koyulhisar, Eğriçimen Yaylası, 5.7.2007, 1600m, 40°21N/37°47E, 1♂, (58).

***Micropterna sipahilariae* KUMANSKI & MALICKY, 1997**

Distribution: Endemic to Turkey.

Localities: Giresun, Giresun Dagh, southern side of Egribel pass, 1450 m, 4-5.6.1996, leg. B. Georgiev, coll. Nat. Mus. Hist. Nat., Sofia (MALICKY & KUMANSKI 1997). (near 39).

***Chaetopteryx bosniaca* MARINKOVIC, 1955**

Distribution: Balkans, Carpathians, Turkey. New record for Turkey.

Locality: Ordu, Koyulhisar-Mesudiye direction, Arpaalan, 1610 m, 40°21N/37°52E; 11.10.2007, 8♂♂, 2♀♀, (27).

***Chaetopteryx bektasensis* SIPAHILER, 2008**

Distribution: Endemic to Turkey.

Localities: Giresun, Bektaş Yaylası, 2010 m, 12.10.2007, 1♂ (31); same place, 1.10.2008, 1♂; Giresun, Kümbet Yaylası, 40°33N/38°23E, 1600 m, 2.10. 2008, 1♂, 1♀, (42); Giresun, Karagöl Yaylası direction, 1825 m, 1.10.2008, 40°33N/38°12E, 1♂, 2♀♀, (53); Sivas, Koyulhisar, Eğriçimen Yaylası, 4.10.2008, 1600 m, 40°21N/37°47E, 1♀, (2); Ordu, Çambası Yaylası, Yeşilce-Mesudiye direction, 1960 m, 40°35N/37°53E, 19.8.2008, 1♀, (26).

***Kelgena nehirae* SIPAHILER, 2009**

Distribution: Endemic to Turkey.

Localities: Giresun, Yavuzkemal, Bektaş Yaylası, 2010 m, 40°39N/38°14E, 12.10.2007, 3♂♂, 1♀; (31); Giresun, in direction of Bektaş Yaylası, before Yavuzkemal, 40°40N/38°21E, 12.10.2007, 1♀; (32); Giresun, Bektaş Yaylası, in direction of Kulakkaya Yaylası, 1530 m, 40°41N, 38°18E, 12.10.2007, 1♀; (near 30).

***Kelgena sisensis* SIPAHILER, 2009**

Distribution: Endemic to Turkey.

Locality: Trabzon, Beşikdüzü, Şalpazarı, Sis Dağı, 1760 m, 39°08N/40°51E, 3.10.2008, 15♂♂, 6♀♀; (57).

## Sericostomatidae

### *Notidobia kumbetensis* SIPAHILER, 2008

Distribution: Endemic to Turkey.

Localities: Giresun, Kümbet Yaylası, stream, 1600 m, 40°33N/38°23E, 5.7.2007, 7♂♂, 2♀♀; same place, 9.7.2008, 3♀♀, (42); Ordu, Niksar-Ordu direction, 4 km north of Özdemir, before Yolbaşı, 3.7.2007, 1300 m, 40°40N/36°59E, 3.7.2007, 2♂♂, (9).

### *Oecismus turcicus* SIPAHILER, 2010

Distribution: Endemic to Turkey.

Localities: Sivas, Koyulhisar, Eğriçimen yaylası, 1535 m, 15.8.2008, 1♂; same place, 5.7.2007 8♂♂, (58); Giresun, Giresun Dagları, Ergidin pass, (at light), 1450 m, 4-5.7.1996, 1♂, leg. Guérguiev, coll. Sipahiler, (near 39).

### *Sericostoma flavigorne* SCHNEIDER, 1845

Distribution: Europe, Levant, Turkey.

Localities: Giresun, Kümbet Yaylası-Yağlıdere direction, Çıraklıkapı, 10.7.2008, 1820 m, 40°32N/38°32E, 1♂, (49); Giresun-Şebinkarahisar direction, after Eğribel Pass, 2000 m, 40°28N/38°23E, 9.7.2008, 1♂, 3♂♂, (28); Giresun Bektas Yaylası direction, before Kulakkaya Yaylası, 9.8.2007, 1530 m, 40°41N/38°21E, 1♂, (30); Ordu, Koyulhisar-Mesudiye direction, Arpaalan, 1610 m, 40°21N/37°52E, 15.8.2007, 1♀, (27); Ordu, Mesudiye direction, Baldırın stream, 15.8.2008, 1♀, (5).

### *Sericostoma grusiense* MARTYNOV, 1913

Distribution: Caucasus, Turkey.

Locality: Giresun, Tamdere, Eğribel Pass, 1450 m, 1♂, 1♀ leg. W. Heinz, coll. Malicky (SIPAHILER & MALICKY 1987).

## Odontoceridae

### *Odontocerum hellenicum* MALICKY, 1973

Distribution: Greece, Bulgaria, Romania, Turkey.

Localities: Ordu, Koyulhisar-Mesudiye direction, Arpaalan, 1610 m, 8.8.2007, 40°21N/37°52E, 18♂♂, 7♀♀, (27); Sivas, Koyulhisar, Eğriçimen Yaylası 1600 m 5.7.2007, 40°21N/37°47E, 1♂, 2♀♀; same place, 8.7.2008, 1♂, (58); Ordu, Mesudiye-Ordu direction, Harçbeli Pass, 10 km south of Gölköy, 1260 m, 40°7N/37°37E, 8.8.2007, 1♂, 1♀, (11); Giresun Bektas Yaylası, 2010 m, 9.8.2007, 1♂, 2♀♀, (31); Giresun, Uzungere-Şebinkarahisar direction, before Tamdere, 1600 m, spring, 40°31N/38°21E, 10.8.2007, 4♂♂, 1♀; same place, 16.8.2008, 5♀♀, (39); Ordu, Çambaşı Yaylası direction, 1430 m, 19.8.2008, 40°41N/37°56E, 2♀♀, (23).

## Calamoceratidae

### *Calamoceras illiesi* MALICKY & KUMANSKI, 1974

Distribution: Greece, Balkans, Romania, Turkey.

Localities: Ordu, Mesudiye direction, Baldırın stream, 40°23N/37°47E, 8.8.2007, 1♂, (5).

## Beraeidae

### ***Beraea alihosi* SIPAHILER, 2008**

Distribution: Endemic to Turkey.

Locality: Ordu, Koyulhisar-Mesudiye direction, Arpaalan, 1610 m, 5.7.2007, 40°21N/37°52E, 3♂♂, 3♀♀, (27).

### ***Beraea walteri* MALICKY, 1975**

Distribution: Cyprus, Turkey.

Localities: Tokat, Niksar-Ordu direction, after Çamiçi Yaylası, source, 1300 m, 3.7.2007, 3♂♂, (12); Ordu- Mesudiye direction, 25 km south of Gölköy, Bayırköy, 955 m, 40°34N/37°40E, 7.7.2007, 1♂, (10); Ordu, Mesudiye direction, Baldıran stream, 40°23N/37°47E, 8.7.2008, 1♂, (5).

### ***Ernodes saltans* MARTYNOV, 1913**

Distribution: Caucasus, Iran, Lebanon, Turkey.

Localities: Ordu- Mesudiye direction, 25 km south of Gölköy, Bayırköy, 955 m, 40°34N/37°40E, 8.7.2008, 1♂, 2♀♀, (10); Ordu, Koyulhisar- Mesudiye direction, Baldıran stream, 40°23N/37°47E, 6.7.2007, 4♂♂, (5); Ordu, Aybastı- Reşadiye direction, 2 km north of Perşembe Yaylası, 1540 m, mountain spring, 4.7.2007, 40°37N/37°19E, 1♂, (16); Ordu, Niksar- Ordu direction, 4 km north of Özdemir, 3.7.2007, 1200 m, 40°40N/36°59E, 7.8.2007, 1♂, 1♀; same place, 9.8.2007, 1♂; same place, 7.7.2008, 3♂♂, 3♀♀, (9); Giresun, Kümbet Yaylası, stream, 40°33N/38°23E, 6.7.2007, 4♂♂, 3♀♀, (42); Giresun, Kümbet Yaylası-Yağlıdere direction, Çıkırkkapı, 17.8.2008, 1820 m, 40°32N/38°32E, 10♀♀, 1♀, (49).

### ***Ernodes rizeiensis* SIPAHILER, 1987**

Distribution: Endemic to Turkey.

Locality: Giresun Bektaş Yaylası direction, before Kulakkaya Yaylası, 6.7.2007, 1530 m, 40°41N/38°21E, 1♂, (30).

### ***Ernodes ordensis* SIPAHILER, 2008**

Distribution: Endemic to Turkey.

Locality: Ordu- Mesudiye direction, 25 km south of Gölköy, Bayırköy, 955 m, 40°34N/37°40E 7.7.2007, 1♂; same place, 8.7.2008, 1♀, (10).

## Lepidopteridae

### ***Athripsodes longispinosus* (MARTYNOV, 1909)**

Distribution: Europe, Iran, Turkey.

Localities: Ordu, Niksar-Ünye direction, Gökçebayır Village, 33 km north of Niksar, Tifi stream, (light), 914 m, 40°42N/37°01 E, 7.8.2007, 3♀♀; same place, 7.7.2007 1♀, 1♂, (7); 14.8.2008, many specimens, (7); Ordu, Perşembe Yaylası 1470 m, 4.7.2007, 40°37N/37°17E, 7♀♀, 8♂♂, (21).

### ***Athripsodes fulvicornis* (MARTYNOV, 1913)**

**Distribution:** Europe, Iran, Turkey.

**Localities:** Tokat-Ordu province boundary, before Yolbaşı, 3.7.2007, 995 m, 40°41N/36°59E, 3♂♂, 2♀♀, (15); Giresun, Kümbet Yaylası-Yağlıdere direction, Çikrikkapı, 2 km north, 10.8.2008, 1800 m, 40°31N/38°33E, 2♂♂; same place, 1850 m, 10.7.2008, 11♂♂, 15♀♀, (50); Giresun, Kümbet Yaylası-Yağlıdere direction, after HES dam, source, 17.8.2008, 1035 m, 40°36N/38°36E, 1♂, 3♀♀, (54); Giresun, Karagöl Yaylası direction, 1825 m, 16.8.2008 1♀, (53); Giresun, Kümbet Yaylası, 10.8.2007, 1630 m, 40°32N/38°26E, 3♂♂, 2♀♀; same place, 40°33N/38°27E, 1♂, (42); Giresun – Şebinkarahisar direction, 15 km north of Şebinkarahisar, 10.8.2007, 40°23N/38°26E, 1♂, (37); Giresun Şebinkarahisar direction, Kümbet Yaylası, Uzungere, 1400 m, 1.10.2008, (light), 40°33N/38°23E, 1♂; same place, 17.8.2008, 2♂♂, 2♀♀, (38); Giresun-Trabzon province boundary, Beşikdüzü, Şalpazarı, Sis Mountain, 40°51N/39°08E, 1760 m, 11.7.2008, 9♂♂, 1♀, (57).

### ***Athripsodes caglari* SIPAHILER, 2008**

**Distribution:** Endemic to Turkey.

**Localities:** Reşadiye, Aybastı direction, Berekeli Village, Taşlıca road, 1200 m, 4.7.2007, 8♂♂, 17♀♀, (19); Ordu, Koyulhisar- Mesudiye direction, Baldırın stream, 8.7.2008, 40°23N/37°47E, 10♂♂, 8♀♀, (5); Reşadiye, Aybastı direction, Yolüstü, inlet of Zinav lake, 900 m, 4.7.2007, 1♂, 1♀, (20).

### ***Leptocerus interruptus* (FABRICIUS, 1775)**

**Distribution:** Europe, Turkey.

**Localities:** Ordu- Mesudiye direction, 25 km south of Gölköy, Bayırköy, 955 m, 40°34N/37°40E 7.7.2007; 8.7.2008, 1♂, (10); Ordu, Mesudiye, Çaltepe spring, 1070 m, 40°28N/37°43E, 5.7.2007, 3♂♂, 1♀, (22); Ordu, Niksar-Ünye direction, Gökçebayır Village, 33 km north of Niksar, Tifi stream, (light), 914 m, 40°42N/37°01E, 14.8.2008, 5♂♂, 6♀♀, (7); Reşadiye, Aybastı direction, Yolüstü, inlet of Zinav Lake, 900 m, 40°28N/37°16E, 4.7.2007, 1♂, (20).

### ***Adicella syriaca* ULMER, 1907**

**Distribution:** Greece, Levant, Turkey.

**Localities:** Ordu, Niksar-Ünye direction, Gökçebayır Village, 33 km north of Niksar, Tifi stream, (light), 914 m, 40°42N/37°01E, 8.2007, 3♂♂ (7).

### ***Mystacides azurea* (LINNAEUS, 1761)**

**Distribution:** Palaearctic Region, Turkey.

**Localities:** Ordu, Niksar-Ünye direction, Gökçebayır Village, 33 km north of Niksar, Tifi stream, (light), 914 m, 40°42N/37°01E, 7.8.2007, 2♀♀, (7).

## **Discussion**

The Trichoptera fauna of Ordu and Giresun provinces is composed of species of Caucasus/Transcaucasus origin (25 species; 29.4 %), the species that have a western distribution and largely distributed species (38 species; 44.7 %), and endemic species (22 species; 25.8 %). These results suggest that the area is where the western and northeastern faunas meet.

The Trichoptera fauna of northeastern Turkey is strongly related to the Caucasian and Transcaucasian fauna; 42.8 % of the known species (60 species) from this region are also found in the Caucasus/Transcaucasus (SIPAHLER 2008). These 60 Caucasian/Transcaucasian species, which were formerly recorded from northeastern Anatolia, are intensively found in the eastern provinces of the region. The high rate of the Caucasian/Transcaucasian species is lower (29.4 %) in Ordu and Giresun provinces.

An important characteristic of the fauna is the presence of the western species in these provinces. The western species are represented here by 38 species (44.7 %). Among them *Rhyacophila osellai* MALICKY, 1981, *Hydroptila aegyptia* ULMER, 1963, *H. armathai* SCHMID, 1959, *H. vectis* CURTIS, 1834, *H. tineoides* DALMAN, 1819, *Sactobiella celtikci* ÇAKIN, 1983, *Agapetus altineri* SIPAHLER, 1989, *Synagapetus anatolicus* ÇAKIN, 1983, *Psychomyia dadayensis* SIPAHLER, 2006, *Hydropsyche sappho* MALICKY, 1976, *Lithax musaca* MALICKY, 1972, *Limnephilus rhombicus* (LINNAEUS, 1758), *Adicella syriaca* ULMER, 1907, *Mystacides azurea* (LINNAEUS, 1761), *Beraea walteri* MALICKY, 1975, *Odontocerum hellenicum* MALICKY, 1973, and *Calamoceras illiesi* MALICKY & KUMANSKI, 1974, which were formerly known from the western part of the country, were discovered in Ordu and Giresun provinces.

Some of these western species are found scarcely in the area and are not seen further east, e.g. *Lithax musaca* occurs only in one locality in the region. In contrast, the eastern species *Lithax incanus* is found in many localities. Among these species mentioned above, the species that live in mountain springs are not found further east; namely, this part of the region is the boundary of their distribution. Similarly, some eastern species, which are found abundantly in the eastern provinces, are represented here in a few localities and are found rarely, e.g. *Drusus bayburti*, in spite of its large ecological tolerance living in cold and warm streams and springs, was found in this region in only four localities. Likewise, *Rhyacophila forcipulata* was found in these provinces in just two localities.

## Acknowledgements

This study was supported by Grant no. 0601704001 from Hacettepe University Scientific Research Centre.

## Zusammenfassung

Als neue Arten werden beschrieben und abgebildet: *Hydroptila mardinica* aus Südost-Anatolien (Hydroptilidae), *Wormaldia malickyi* (Philopotamidae) und *Philopotamus giresunicus* (Philopotamidae) aus Nordost-Anatolien. Eine faunistische Liste aus den Provinzen Ordu und Giresun (im Westteil der Nordost-Türkei) wird mit einer Lageskizze der Fundorte präsentiert. 85 Arten aus 19 Familien wurden gefunden. Von diesen sind 38 Arten (44,7%) aus der westlichen Türkei bekannt. Die Region stellt eine Verbreitungsgrenze „westlicher“ Arten dar. 25 Kaukasische und transkaukasische Arten (29,4%) kommen vor; in den östlichen Provinzen von Nordost-Anatolien steigt dieser Anteil auf 42,8% (= 60 Arten). *Chaetopteryx bosniaca* ist ein Neufund für die Türkei.

## References

- BOTOSANEANU L. (1960): Révision de quelques espèces de *Philopotamus* LEACH. et de *Wormaldia* McL., (Trichoptera, Philopotamidae). — Acta Societatis Entomologicae Cechoslovaciae **57** (3): 223-228.
- KUMANSKI K. & F. SIPAHLER (2002): List of caddisflies (Insecta: Trichoptera) collected by Bulgarian scientists in Turkey. — Hist. Nat. Bulg. **15**: 127-137.
- KUMANSKI K. & M. MALICKY (1997): Beschreibung einer neuen *Micropterna* (Trichoptera) aus Kleinasien. — Braueria **24**: 19.

- MALICKY M. (2004): *Atlas of European Trichoptera* (2nd ed.). — The Nederlands: Springer, pp xxvii+359.
- SİPAHİLER F. (2000): New species of Trichoptera from Turkey (Hydroptilidae, Philopotamidae, Phryganeidae, Lepidostomatidae). *Braueria* **27**: 26-28.
- SİPAHİLER F (2005): A checklist of Trichoptera of Turkey. — In TANIDA K. & A. ROSSITER (eds), 11<sup>th</sup> International Symposium on Trichoptera, (2003, Osaka), Tokai University Press, Kanagawa: 393-405.
- SİPAHİLER F. (2008): Zoogeographical characteristics of the Trichoptera fauna of Turkey. — In: MEYER M. & P. NEU (eds), Proceedings of the first conference on faunistics and zoogeography of European Trichoptera. *Ferrantia* **55**: 93-109.
- SİPAHİLER F. (2010): Two new species of Trichoptera from northeastern Turkey (Rhyacophilidae, Sericostomatidae). — *Aquatic Insects* **32**: 61-66.
- SİPAHİLER F. (2009): Two new species of the genus *Kelgena* MEY from northeastern Turkey (Trichoptera: Limnephilidae, Chaetopterygini). — *Aquatic Insects* **31**: 315-320.
- SİPAHİLER F. & H. MALICKY (1987): Köcherfliegen der Türkei (Trichoptera). — *Entomofauna* **8**: 77-165.

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Artikel/Article: [New species of Trichoptera \( Hydroptilidae, Philopotamidae\) from Turkey and the list of the species of Ordu and Giresun provinces in northeastern Anatolia 347-368](#)