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## NEW SPECIES OF HYDROPTILIDAE, HYDROPSYCHIDAE AND BERAEDIAE, AND NEW RECORDS OF TRICHOPTERA FROM TURKEY.

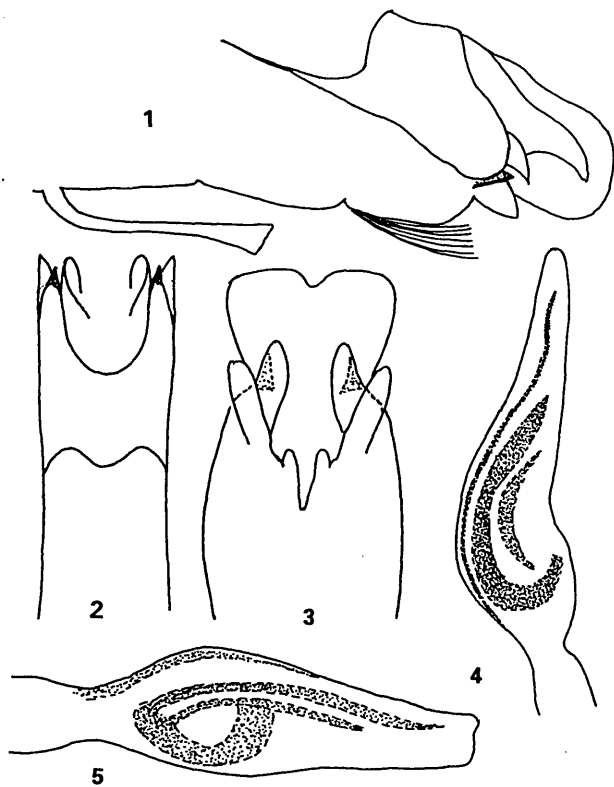
Füsun SIPAHILER

Abstract. The following four new species from Turkey are described and illustrated: *Stactobia cermikensis* sp.n., *S. lekoban* sp.n. (Hydroptilidae), *Hydropsyche kirikhan* sp.n. (Hydropsychidae) and *Ernodes dirginensis* sp.n. (Beraeidae). A list of species, which are newly recorded for Turkey, is given.

***Stactobia cermikensis* sp.n. (Hydroptilidae)**

Length of anterior wing of male 2- 2,5 mm. Male genitalia (Figs. 1-5): Tergite 9 dorsally deeply excised on the apical margin, the sides rounded; anterior margin roundly dilated in the middle; lateral prolongation short, as long as tergite 9. In lateral view, the sclerotized part of segment 10 is almost triangular in shape, and the apex is pointed and somewhat curved ventrally. Membranous part rounded apically; ventrally slightly excised in the middle, forming rounded lobes on the sides. In lateral view, superior appendages pointed at the tips. Inferior appendages composed of two triangular projections; in lateral view, the outer projection is broader than the superior appendages; the second triangular projection is small, connected to the outer projection at the base and directed towards the inside. Aedeagus dilated subdistally and with a large and curved sclerotized spine in the middle; beneath this spine there is a thin sclerite which is curved and shorter than the larger one. In addition to these, there is a thin and long sclerite on the dorsal part. The female is unknown.

Holotype ♂ and 2♂♂ paratypes: Turkey, Artvin, Şavşat, Çermik Mahallesi, direction Lekoban yaylası, 1800m, 42°07'N, 41°35'E, 7.8.1996, leg. & coll. Sipahiler.



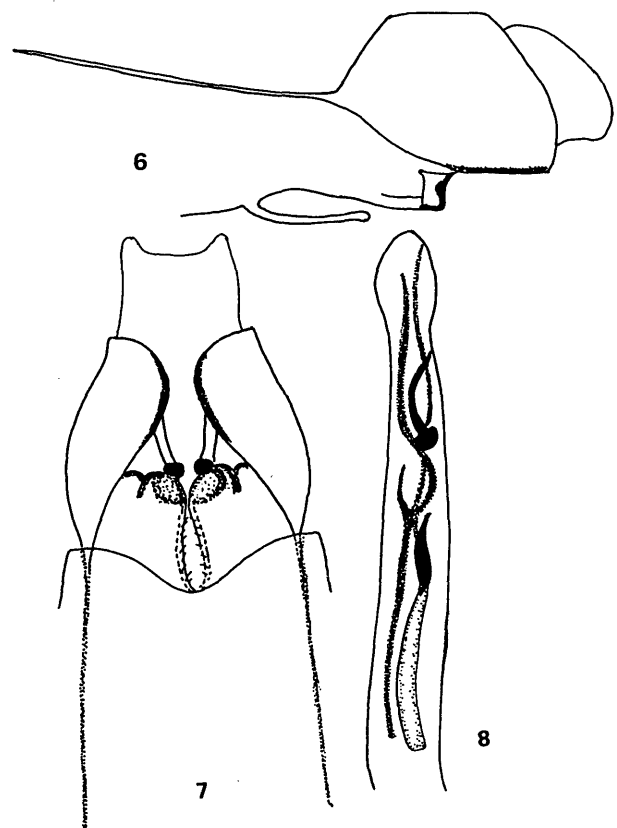
Figs. 1-5: *Stactobia cermikensis* sp.n., male genitalia: 1..lateral; 2..dorsal; 3..ventral; 4..aedeagus, lateral; 5..aedeagus, dorsal.

*Stactobia cermikensis* sp.n. belongs to the species group *S. martynovi* (Schmid 1959) and is related to *S. olgae* Martynov 1927 found in Turkestan (Malicky 1983) and *S. klapaleki* Schmid 1959 from Pakistan, who have two spines in the aedeagus. In *S. olgae* there are one curved and stout spine and a longer one which is found above it; in *S. klapaleki* the long spine is slightly curved and the short spine is smooth. *S. cermikensis* sp.n. differs from the related species in having two curved sclerites and an additional thin sclerite in the aedeagus. Differences in the other parts of the genitalia, especially the shape of segment 9 and 10, the preanal and inferior appendages are also evident.

***Stactobia lekoban* sp.n. (Hydroptilidae)**

Length of anterior wing of male 1,5 - 2 mm. Male genitalia (Figs. 6-8): Lateral prolongations of tergite 9 long, in lateral view the dorsal and ventral margins are almost equal in length; posterior margin slightly dilated through the ventral part; ventral margin strongly sclerotized. Superior appendages are rather long and thin, the apical parts are strongly sclerotized and form rounded tubercles. In ventral view, they are located above the dorsal margins of the inferior appendages. In caudal view, the apical margin of the inferior appendages is excised almost in the middle and seen as bilobed; the inner lobe is partly sclerotized and seen as oval plates, dilating laterally. The aedeagus has subdistally a curved, strongly sclerotized spine and basally a long spine, of which the distal part is strongly sclerotized. The long sclerite which begins from the base bifurcates in the middle, the right branch ends before the apex of the aedeagus; the left branch is short. There is a long and rather thin sclerite which reaches the apex of the aedeagus.

Holotype ♂ and paratype ♂: Turkey, Artvin, Şavşat, Çermik Mahallesi, direction Lekoban yaylası, 1800m, 42°07'N, 41°35'E, 7.8.1996, leg. & coll. Sipahiler.



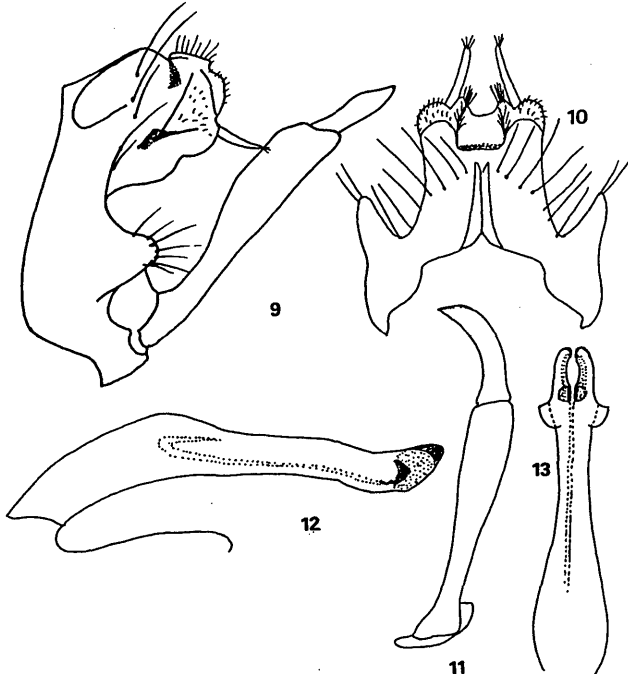
Figs. 6-8: *Stactobia lekoban* sp.n., male genitalia: 6..lateral; 7..ventral, 8.. aedeagus dorsal.

*Stactobia lekoban* sp.n. belongs to the group of *S.martynovi* (Schmid 1959). It is closely related to *S.wimmeri* Malicky 1988 (Malicky 1988) described from northeastern Anatolia (Trabzon), almost 200 km west of the collecting place of the new species. The main differences are seen in the shape and the number of the sclerites of the aedeagus and the inferior appendages. In *S.wimmeri* the aedeagus has two sclerites, of which the short spine is located beneath the long spine; the long spine is very long and reaches the apex of the aedeagus. In *S.lekoban* sp.n. the long spine is short, the curved small spine is found subdistally. The new species has also the additional long sclerites in the aedeagus.

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

Antennae, legs and wings pale brown, the hairs on the head and thorax whitish-yellow; thorax dorsally brown. Length of the anterior wing of male 8,5 - 9 mm. Male genitalia (Figs. 9-13): The median keel of segment 9 is moderately broad, in dorsal view broad at the base and gradually narrower towards the apex which is bifurcated. The median part of segment 10 is broad and almost quadrangular in shape. Segment 10 is longer than segment 9; in lateral view, the posterior margin is slightly excised three times, so that it protrudes as rounded lobes; the finger-shaped projections are long and thin. Harpago of the inferior appendages is gradually narrowed towards the pointed apex. The aedeagus with large lateral projections; in lateral view, the aedeagus is almost smooth, only very slightly bent on the ventral edge; the apical part becomes narrower and directed somewhat dorsally; the dorsal edge is dilated in the basal half; in ventral view, the ventral margins of the lateral projections are rounded.

Holotype ♂ and 1♂, 14♀ paratypes: Turkey, Kahraman Maraş, İslahiye, direction Kirikhan, kayabaşı Köyü, 450m, (large spring), 2.5.1997, leg.& coll.Sipahiler.



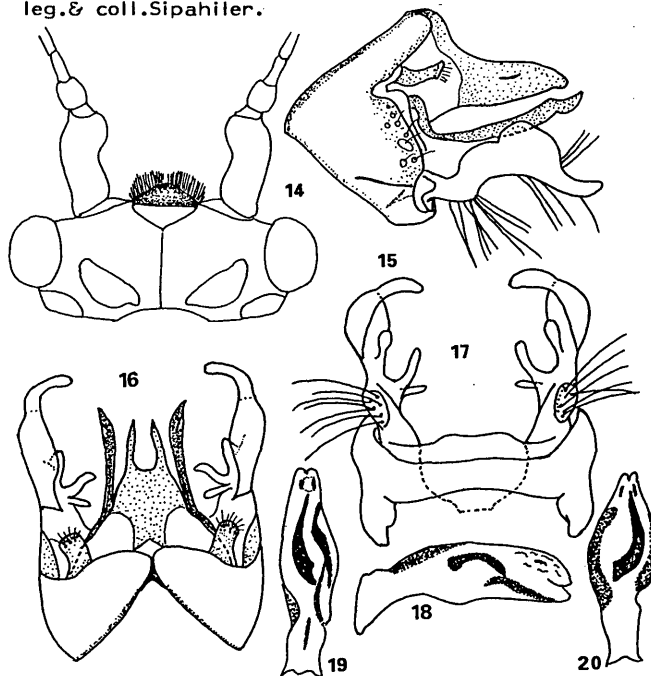
Figs. 9-13: *Hydropsyche kirikhan* sp.n., male genitalia: 9..lateral; 10..dorsal; 11..inferior appendage, ventral; 12..aedeagus, lateral; 13..aedeagus, ventral.

*Hydropsyche kirikhan* sp.n. belongs to the *instabilis* group and is characterized by several parts of the male genitalia, especially by the shape of the aedeagus with large lateral projections and the shape of segment 10; close relationship with other species are not evident.

***Ernodes dirginensis* sp.n. (Beraeidae)**

Wings blackish; scapus and pedicel of the antennae dark brown, the rest of the antennae pale brown yellowish; first two segments and half of third segment of the maxillary palps yellowish, the rest dark brown; tarsi of the legs pale yellowish brown, other segments dark brown. The tubercle of the head between the scapi is large and triangular in shape (Fig.14). Length of the anterior wing of male 4,5 - 5 mm. Male genitalia (Figs. 15-20): In lateral view, the anterior margin of segment 9 is dilated in a triangular manner; dorsally and ventrally narrow. Preanal appendages rather broad and long, almost quadrangular in shape. Segment 10 is long and broad; the sides are slightly sclerotized at the base; in dorsal view, the apical margin of segment 10 is deeply and largely excised, forming two lobes on the sides, of which the apex is pointed. The intermediate appendages are strongly sclerotized, subdistally notched and longer than segment 10. The inferior appendages are broad in the middle, subdistally becoming thinner and curved inside; in ventral view, they are connected with a large trapezoidal plate; the inferior appendages are broad in the middle and narrowed towards the apex, curving inwards; there are three lobes, located on the basal half. The sides of the aedeagus are sclerotized; in lateral view, there are two spiny sclerites in the aedeagus of which the larger one is strongly curved and located dorsally; the second sclerite is thin and found beneath the large spine on the apical half of the aedeagus; there are two small sclerites on the subdistal part. The female is unknown.

Holotype ♂ and 4♂ paratypes: Turkey, Bolu, Dırgine, Yedigöller Milli Parkı, 800m, 21.6.1997, leg.& coll.Sipahiler.



Figs. 14-20: *Ernodes dirginensis* sp.n.: 14..head, dorsal; 15..male genitalia, lateral; 16..dorsal; 17..ventral; 18..aedeagus, lateral; 19..aedeagus, dorsal; 20..aedeagus, ventral.

*Ernodes dirginensis* sp.n. is closely related to *E.digitatus* Martynov 1918 found in the Caucasus (Malicky 1983). The main differences in the male genitalia are seen especially in the shape of segment 10, inferior appendages and the aedeagus. In dorsal view, segment 10 of *E.digitatus* is narrow, longer than the intermediate appendages and shortly excised on the apical margin forming two obtuse lobes on the sides; in *E.dirginensis* sp.n. segment 10 is shorter than the intermediate appendages, apical margin deeply excised and forms two thin projections on the sides. The

inferior appendages of *E. digitatus* have two lobes, while *E. dirginensis* has three lobes. The aedeagus of the related species protrudes apically as two long and thin projections and has one stout spine which is curved ventrally; while in *E. dirginensis* the aedeagus has two small lobes at the apex and two spines.

#### NEW SPECIES RECORDS FROM TURKEY

The following species are newly recorded from Turkey. The numbers in parentheses refer to the geographical regions of the collecting places according to Sipahiler & Malicky 1987. All species were collected by myself.

*Philocrena trialectica* Lepneva 1956 (6)  
(Rhyacophilidae): Artvin, Borçka, Camili, Uğurköy, 1000m, 6.8.1995; same region, Gomvan yaylası 2000m, 1.8.1995; Mereta yaylası 2500m, 3.8.1995; Leloban yaylası, 2500m, 8.8.1996.

*Rhyacophila lepnevae* Kumanski 1981 (6)  
(Rhyacophilidae): Artvin, Borçka, Camili, 15 km SW of Camili, 29.10.1997.

*Stactobia caspersi* Ulmer 1950 (5) (Hydroptilidae): Konya, Hadim, Çamiçi Köyü, Cirlasun deresi, 1000m, 9.5.1995.

*Philopotamus montanus* Donovan 1813 (1)  
(Philopotamidae): Kırklareli, 2 km SW of Demirköy, 1.8.1994.

*Adicella filicornis* Pictet 1834 (3) (Leptoceridae): Bolu, Mudurnu, Sülüklügöl, 1200m, 26.5.1995.

*Limnephilus nigriceps* Zetterstedt 1840 (3)  
(Limnephilidae): Bolu, Abant, 1400m, 7.10.1995.

*Micropterna solotarewi* Martynov 1913 (6)  
(Limnephilidae): Borçka, Camili, Lekoban yaylası 2200m, 9.8.1996; same region, Gorgit yaylası 2200m, 12.7.1997.

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#### FURTHER DATA ON BELARUSSIAN TRICHOPTERA

Stanisław CZACHOROWSKI & Oleg PRISHCHEPCHIK

The first checklist of Belarussian Trichoptera was published in 1997 (Czachorowski 1997). Although so far 105 species of caddisflies have been found in Belarus, the list is not complete. Eastern Europe strongly needs more investigations of caddisfly distributions, in respect to both geography and habitat.

Caddisflies were caught in the vicinity of Kopiejnoje village in Central Belarus (region 2 in classifications used in the first checklist,

Czachorowski 1997). Adults were collected using a light trap from April to October 1997. The light trap was situated 3 m above the ground and 60m from buildings and was in operation from 22:00 to 06:00. The nearest astatic pools and ditches were 2 - 2,5 km away. Larvae were collected by a hand sampler in ditches in August and September. Ditches had 1 - 1,5m of depth, muddy bottoms and marshy shores.

A total of 1375 larvae, pupae and adults of 38 species were caught (see table). Ten species were new for Belarus, 10 were new for the region and confirmation of the occurrence in Central Belarus (region no.2) was obtained for 7 species.

In 1997 the investigations were continued in the middle course of River Niemen and in a small river, River Poplav, near Minsk.

Table: Trichoptera collected in Kopiejnoje. N: species new for Belarus, 2: species new for region 2, ?: confirmation of occurrence.

No		species/taxon	larvae	imagines	cases	total
<i>Hydroptilidae</i>						
1	N	<i>Agraylea multipunctata</i>		6		6
2	N	<i>Agraylea sexmaculata</i>		4		4
3	N	<i>Oxyethira frici</i>		1		1
<i>Ecnomidae</i>						
4	2	<i>Ecnomus tenellus</i>		3		3
<i>Polycentropodidae</i>						
5	N	<i>Cyrnus crenaticornis</i>		3		6
6	N	<i>Cyrnus flavidus</i>		1		1
7	N	<i>Cyrnus trimaculatus</i>		1		1
8		<i>Neureclipsis bimaculata</i>		6		6
9		<i>Plectrocnemia conspersa</i>		2		2
<i>Hydropsychidae</i>						
10	N	<i>Hydropsyche contubernalis?</i>		38		38
		<i>Hydropsyche sp.</i>		741		741
<i>Phryganeidae</i>						
11		<i>Agrypnia obsoleta</i>		10		10
12	2	<i>Agrypnia pagetana</i>		2		2
13	2	<i>Agrypnia varia</i>	3	3	10	16
14		<i>Phryganea grandis</i>		4		4
<i>Limnephilidae</i>						
15		<i>Anabolia laevis</i>	33	1		34
16		<i>Limnephilus extricatus</i>		2		2
17	2	<i>Limnephilus flavicornis</i>		3		3
18		<i>Limnephilus griseus</i>		1		1
19	2	<i>Limnephilus ignavus</i>		160		160
20	2	<i>Limnephilus incisus</i>		1		1
21	2?	<i>Limnephilus lunatus</i>		4		4
22	N	<i>Limnephilus nigriceps</i>	1	50		51
23	2?	<i>Limnephilus politus</i>		37		37
24		<i>Limnephilus rhombicus</i>		2		2
25		<i>Limnephilus stigma</i>		6		6
26	2?	<i>Limnephilus vittatus</i>		7		7
<i>Molannidae</i>						
27	2	<i>Molanna angustata</i>		6		6
<i>Leptoceridae</i>						
28		<i>Athripsodes cinereus</i>		1		1
29	2?	<i>Athripsodes aterrimus</i>	80		30	110
30	2	<i>Ceraclea dissimilis</i>		4		4
31	N	<i>Ceraclea fulva</i>		12		12
32	2	<i>Ceraclea nigronevosa? raceje O. ochracea</i>		14		14
		<i>Ceraclea sp.</i>		1		1
33	2?	<i>Leptocerus lineiformis</i>		1		1
34	2?	<i>Mystacides longicornis</i>		9		9
35	2	<i>Oecetis lacustris</i>		1		1
36	N	<i>Oecetis ochracea</i>		65		65
37	2?	<i>Trienodes bicolor</i>		2		2

#### Reference.

Czachorowski, S., 1997, The first checklist of Belarussian Trichoptera. - Braueria 24: 11-12.

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