

**CONTRIBUTION TO THE FAUNISTICAL LIST OF TRICHOPTERA
(INSECTA) OF SERBIA**Ivana ŽIVIĆ¹, Zoran MARKOVIĆ² & Miloje BRAJKOVIĆ¹

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Abstract - The faunistical list of Trichoptera of Serbia is revised. An increase in the number of species is a consequence of investigation of Trichoptera larvae in highland rivers of Serbia. The number of species found has risen from 173 to 186. Three genera and 13 species are new to the fauna of Serbia. Three species have been added as a result of examination of material in the museum collections: *Rhyacophila stankovici* Radovanović, *Potamophylax (Stenophylax) rotundipennis* Brauer and *Potamophylax latipennis* Curtis. *Rhyacophila dorsalis* Curtis is deleted from the list, and replaced with allopatric species *R. nubila* Zetterstedt. One species (*Stenophylax latipennis*) and one subspecies (*Stenophylax vibex speluncarum*) have been omitted due to misidentification and insufficient data. The species *Drusus serbicus* Marinković is endemic in Serbia, while *Crunoecia bosniaca* Marinković-Gospodnetić, *Rhyacophila bosnica* Schmid and *Rhyacophila vranitzensis* Marinković et Botosaneanu are endemic species of the western Balkans.

KEY WORDS: Trichoptera, fauna, Serbia, larvae, highland rivers

**Izveček – PRISPEVEK K FAVNISTIČNEMU SEZNAMU MLADOLETNIC
(TRICHOPTERA, INSECTA) SRBIJE**

Popravljen je favnistični seznam mladoletnic (Trichoptera) Srbije. Povečano število vrst je posledica raziskav ličink v gorskih rekah Srbije. Število najdenih vrst se je povečalo s 173 na 186. Trije rodovi in 13 vrst je novih v favni Srbije. Tri vrste smo dodali po pregledu primerkov v muzejskih zbirkah: *Rhyacophila stankovici* Radovanović, *Potamophylax (Stenophylax) rotundipennis* Brauer in *Potamophylax*

latipennis Curtis. Vrsta *Rhyacophila dorsalis* Curtis je izbrisana iz seznama in nadomeščena z alopatrično vrsto *R. nubila* Zetterstedt. Ena vrsta (*Stenophylax latipennis*) in ena podvrsta (*Stenophylax vibex speluncarum*) sta bili umaknjeni zaradi napačne določitve in pomanjkanja podatkov. Vrsta *Drusus serbicus* Marinković je endemična v Srbiji, medtem ko so *Crunoecia bosniaca* Marinković-Gospodnetić, *Rhyacophila bosnica* Schmid in *Rhyacophila vranitzensis* Marinković et Botosaneanu endemične vrste zahodnega Balkana.

KLJUČNE BESEDE: Trichoptera, favna, Srbija, ličinke, gorske reke

Introduction

Compiling of the list of Trichoptera of Serbia began with faunistical investigations of Radovanović (Radovanović 1931; 1935; 1953). It was continued by Marinković-Gospodnetić (Marinković-Gospodnetić 1975; 1980) and due to their work 154 species of Trichoptera were determined in the fauna of Serbia.

Having in mind the geographic position of Serbia on the Balkan Peninsula, and the fact that four faunistical zones of the freshwater fauna of Europe contact each other on its territory (Botosaneanu and Malicky, 1978), much more than 154 species were expected in the territory. In the west, the Dinaric system of mountains and area west of the Vardar-Morava line belong to zone 5; the south-western part of Serbia with Šarsko-Pind system belongs into the zone 6 together with Macedonia, Albania and Greece; the part of Serbia east of the above mentioned line together with Bulgaria is in zone 7, and the area north of the Sava and Danube Rivers, i.e., the Pannonian lowland, belongs to the zone 11. The richness of the Trichoptera species may also be expected in the fauna of Serbia due to great habitat diversity. In the north of Serbia there is a vast Pannonian plain, and its still waters are inhabited by a fauna significantly different from one that inhabits mountainous parts south of the Sava and the Danube. This plain is a natural barrier which separates mountainous parts of Serbia from the central European mountains preventing direct mixture of their faunas. However, the mountains of eastern Serbia are linked to the mountains of central Europe via the mountains of the Dinarides and the Alps, which to a certain extent open routes to migrations of the species between the mountains of central Europe and the Balkans. Between the Balkan-Carpates arch of mountains in the north-eastern part and the Dinarides in the west, there are old Rodopes which stretch from the southeast. As a consequence of all abovementioned, certain regions of the Balkans are inhabited by Trichoptera fauna, which has a considerable percentage of endemic species, many of which occur in a very small area. Also, it has been found that many endemic species of the Dinarides are closely related to endemic species of the Carpathians and that these species are allopatric (Marinković-Gospodnetić, 1978).

Since the publication of the first list of Trichopteran fauna in 1980 (Marinković-Gospodnetić 1980), research on Trichoptera, primarily larvae, has undergone intensification in Serbia. This has contributed significantly to our understanding of

the relationships of families, genera, and species. Specimens were collected in western, eastern and southeastern parts of Serbia from springs (from 1989 to 1996), rivers and brooks (the Đetinja river in 1988, the Kriveljska river in 1995, the Kolubara, Obnica, Jablanica and Gradac rivers and the river Banja from 1991 to 1995; the Kudoški and Jelenački brooks from 2000 to 2001). Trichoptera larvae were studied with the aid of keys for determination (Lepneva 1964, 1966; Sedlak 1980; Waringer and Graf 1997; Wallace et al., 2003). The results of these investigations were presented in the first faunistical list (the data from Simić 1993; Simić and Simić 2003; Martinović-Vitanović *et al.* 1998, and Paunović, 2001 were also incorporated), where findings of 19 species new to the fauna of Serbia were reported, the total number of Trichoptera species then being 173 (Živić *et al.* 2002).

Since Serbia has a central position on the Balkans and four limnofaunistic zones meet in it, the study of Trichoptera fauna of Serbia may be a contribution to the knowledge of the history of the aquatic organisms on the Balkans and in the south-eastern Europe. With this in mind, studies on Trichoptera, primarily larvae, were continued during the period of 1998-2003 in rivers of the watershed of the Southern Morava, where 92 species were found (Živić 2005). Investigations were also carried out in highland streams of Serbia during the period of 2001-2004. Thus, 20 species were recorded in the Toplica river (Živić *et al.* 2002a), 17 species in the Gazradska river and its tributaries (Živić *et al.* 2004), six species in the Borkovački brook (Živić *et al.* 2004a) and 14 species in the Trešnjica river (Živić *et al.* 2004b). There are also works dealing with the vertical distribution and range of Trichoptera larvae in rivers of Serbia (Živić and Marković 2005).

Results and Discussion

The revised checklist of the Trichoptera fauna of Serbia (Tab. 1) includes 19 families, 70 genera, and 186 species. In relation to the first list, the genera *Chimarra*, *Melampophylax*, and *Oecetis* are new to the fauna of Serbia. In the present list, the number of species found has risen to 186, which is a consequence of inclusion of 13 species of Trichoptera new to the fauna of Serbia (at the larval stage, indicated in the paper by an asterisk and filled diamond sign*◆; the findings of these species need confirmation by collection of adults, which is planned in the future investigations): *Rhyacophila torrentium* Pictet, 1834; *Rhyacophila glareosa* McLachlan, 1867; *Rhyacophila intermedia* McLachlan, 1868; *Glossosoma conformis* Neboiss, 1834; *Chimarra marginata* Linnaeus 1767; *Cyrnus flavidus* McLachlan, 1864; *Brachycentrus subnubilus* Curtis, 1834; *Ecclisopteryx madida* McLachlan, 1867; *Melampophylax mucoreus* Hagen, 1861; *Micropterna lateralis* Stephens, 1874; *Grammotaulius nigropunctatus* Retzius, 1783; *Oecetis testacea* Curtis, 1834; *Micrasema longulum* McLachlan, 1876. Moreover, since publication of the previous list, larval forms of eight species have been found in addition to adults: *Rhyacophila laevis* Pictet, 1834; *Wormaldia occipitalis* Pictet, 1834; *Cyrnus trimaculatus* Curtis, 1834; *Brachycentrus montanus* Klapalek, 1892; *Drusus biguttatus* Pictet, 1834;

Limnephilus vittatus Fabricius, 1798; *Stenophylax permistus* McLachlan, 1895; *Athripsodes aterrimus* Stephens, 1836.

Following revision, three species have been added to the previous list, namely *Ryacophila stankovici* Radovanović, *Potamophylax* (*Stenophylax*) *rotundipennis* Brauer and *Potamophylax latipennis* Curtis, since unrecorded specimens of these species were in the meantime discovered in museum collections. The species *Stenophylax latipennis* has been eliminated from the list, due to insufficient data (finding date, author), as has the subspecies *Stenophylax vibex speluncarum*, due to erroneous determination, since two separate species (*Stenophylax vibex* Curtis and *Stenophylax speluncarum* McLachlan=*S.meridionalis* Malicky) were identified in the preserved material. Species *Rhyacophila dorsalis* Curtis, which do not inhabit territory of Serbia (Malicky 2004), was also deleted from the previous list and replaced with allopatric *R. nubila* Zetterstedt. Also, in comparison to the former list it can be seen that the species *Potamophylax cingulatus* was found only in larval stage.

The species *Polycentropus irroratus* Curtis, *Micropterna testacea* Gmelin, *Annitella obscurata* Mac Lachlan, *Beraea maurus* Curtis, *Thremma anomalum* Mac Lachlan, *Helicopsyche sperata* Mac Lachlan, and *Helicopsyche bacescui* Orghidan et Botosaneanu were found only in the source region of five highland streams, i.e., these are forms that are characterized by a limited range of distribution in the fauna of Serbia and have the status of endangered species. Moreover, the first findings of the species *Helicopsyche bacescui* in rivers of the watershed of the Southern Morava define the southern and southeastern boundaries of the range of distribution of this species in Serbia. The western, southwestern, and northern boundaries of the range of this species in Serbia have not been clearly defined, whereas in Eastern Serbia the boundary is very sharp and represented by the watershed of the rivers Moravica and Svrljiški Timok.

The greatest number of identified species of Trichoptera belong to the families Limnephilidae (33.69%) and Rhyacophilidae (13.90%), while the families with the least diversity are Hydroptilidae (three species, each found in only one locality); Lepidostomatidae, Helicopsychidae, and Odontoceridae (with two species each); and Ecnomidae, Phryganeidae, and Uenoidae (with one species each). The most widespread species in the fauna of Serbia are *Hydropsyche angustipennis* Curtis (found in 38 localities), *Hydropsyche contubernalis* McLachlan (44 localities), *Hydropsyche pellucidula* Curtis (55 localities), *Anabolia nervosa* Curtis (48 localities), *Potamophylax cingulatus* Stephens (40 localities), *Potamophylax nigricornis* Pictet (40 localities), *Rhyacophila fasciata* Hagen (48 localities), *Rhyacophila nubila* Zetterstedt (42 localities), *Sericostoma personatum* Spence (68 localities), *Goera polosa* Fabricius and *Lithax niger* Hagen (39 localities), and *Polycentropus flavomaculatus* Pictet (33 localities).

The species from the family Baeridae were found in few localities in Serbia, the species *Baera pullata* Curtis being most frequent although it was recorded only in four localities. The family Leptoceridae is represented with 16 species, of which as many as 7 species were found in only one locality, while the most frequent species, *Mystacides azurea* Linné, was recorded in 9 localities. The family Uoenoidae occurs in all three zones, but only in 7 localities.

The family Hydropsychidae is the most widespread. From its 16 species only 4 are distributed only in one limnofaunistic zone, whereas only two species occur in one locality only. The family Goeridae is widely distributed in the area south of the Sava and Danube and is evenly distributed in limnofaunistic zones 5 and 7. The species *Silo piceus* Brauer from this family occurs in as many as 9 localities. In contrast to Hydropsychidae, the species from the family Goeridae have not been recorded in the zone 11. The same goes for the species from the family Philopotamidae; out of 6 found in the fauna of Serbia only *Chimarra marginata* Linnaeus is limited to limnofaunistic zone 7, while all others can be found in zones 5 and 7, while there are no species from the family Philopotamidae in the zone 11.

The species *Drusus serbicus* Marinković is endemic in the fauna of Serbia (which is also endemic species in the zone 5; this species was found in one locality, in a tributary of the river Glošnice, on Mt. Zlatibor). The species *Crunoecia bosniaca* Marinković-Gospodnetić 1970, *Rhyacophila bosnica* Schmid 1970 and *Rhyacophila vranitzensis* Marinković et Botosaneanu 1967 are endemic species of the western part of the Balkans i.e. the limnofaunistic zone 5 (Illies, 1978). According to the Limnofauna of Europe (Botosaneanu and Malicky, 1978) the species *Drusus botosaneanui* Kumanski 1968, is an endemic species of the East Balkans, but the occurrence of this species in Serbia in localities belonging to the zone 5 (on Mt. Kopaonik in a spring of the Samokovska river and on Mt. Tara) changes this claim since in addition to Bulgaria the area of this species stretches westward to the river basin of the Drina.

In the limnofaunistic zones 6 and 11 in Serbia a significantly smaller number of species was found. In the case of the zone 11, which covers similar area to the zones 5 and 7, a small number of recorded species is caused not only by poorly investigated Pannonian plain but also by specific types of habitats (slow and large rivers, ponds, channels and by-channels) which are characterized by smaller diversity of Trichoptera in comparison to the diversity of Trichoptera in hilly-mountainous regions dominating in the other three zones. Also, the fauna of Trichoptera in the zone 11 is characterized by small specificity as out of 15 species found only two were recorded only in this zone, 7 species were recorded in three zones (5, 6, 7), and one species, *Hydropsyche pellucidula*, in all four zones. Also, 4 species are common with the zone 7, while one species is common with the zone 6, which points to the greater similarity between the zones 11 and 7 than between 11 and 5. In the limnofaunistic zone 11, 30% of identified species belong to the family Hydropsychidae which has the greatest distribution and frequency in the fauna of Serbia. Having in mind the peculiar habitat in the zone 11 in comparison to the remaining part of Serbia we expect to find new species in the future which will confirm the specific Trichoptera fauna in this zone.

A small number of species identified in the zone 6 is caused not only by a smaller area covering this zone in Serbia but also by the fact that it has been poorly investigated (Brodka River, Prizrenska Bistrica, area of Mt. Nerodimka on Kačanik-Prizren stretch). However, a greater number of species are to be expected in this zone due to configuration of its terrain (because it is hilly-mountainous region) and very

small anthropogenic influence on its fauna. In contrast to the zone 11, the zone 6 has a very specific fauna of Trichoptera. Out of 14 species as many as 8 were found only in this zone, the families Limnephilidae with 6 and Rhyacophilidae with 4 species being the most frequent. The limnofaunistic zone 6 shows very small similarity to the zone 11 with which it has only one common species, while it is more similar to the zones 5 and 7 with which it has 5 and 4 common species, respectively.

The limnofaunistic zones 5 and 7 are characterized by similar number of species - 121 and 131, respectively. The fauna of Trichoptera of these two zones is relatively specific because there are 41,22% (54 species) and 34,70% (42 species) which are met only in the zones 5 or 7, respectively. The characteristic families of the zone 7 are Leptoceridae and Brachycentridae. Namely, out of 16 species from the family Leptoceridae recorded on the territory of Serbia as many as 14 were found in the zone 7, out of which 8 were found only in the zone 7. All five species belonging to the family Brachycentridae recorded on the territory of Serbia were found in the zone 7, 4 of which inhabited the zone 7 alone. In addition, *Ecnomus tenellus*, the only species recorded from the family Ecnomidae, is found in this zone only. The limnofaunistic zone 5 differs from all other zones in the fact that the family Phryganeidae with the species *Phryganea grandis* occurs only in this zone.

Although most of Trichoptera species in the Serbian fauna are common in Europe (Malicky, 2004), some frequently found species in the faunas of neighboring countries (Hungary, Nógrádi and Uherkovich 2002; Rumania, Ciubuc 1993, Botosaneanu 1995; and Bulgaria, Kumanski 1985, 1988) have not been found in our fauna. Those species are: *Hydropsyche bulgaromanorum*, *Ceraclea dissimilis*, *Ceraclea alboguttata*, *Ceraclea senilis*, *Ceraclea riparia*, *Oligotricha striata*, *Chionophylax mindszenty*, *Oecetis ochracea*, *Oecetis lacustris*, *Oecetis furva*, *Oecetis notata*, *Setodes punctatus*, *Leptocerus tineiformis*, *Agrypnia varia*, *Agrypnia pagetana*, as well as species belonging to the family Hydroptilidae (*Hydroptila lotensis*, *Hydroptila simulans*, *Hydroptila occulata*, *Orthotrichia striata*, *Orthotrichia tetensi*, *Orthotrichia costalis*, *Orthotrichia tragetti*, *Oxyerthira flavicornis*, *Agraylea sexmaculata*, *Agraylea sexmaculata*). Absence of these species are probably the consequence of inadequate level of investigation of Trichoptera fauna from lower regions of Serbia, especially from larger rivers (investigations of these areas are planned in the near future), because the majority of present investigations of Trichoptera were carried out in the rivers and brooks of the mountain-hill areas of Serbia.

We note that in contrast to the previous list, families and species are given in accordance with the classification of European Trichoptera (Malicky, 2004). Within different families, genera and species are listed in alphabetical order, and species that have been found only at the larval stage are marked by an asterisk (*).

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Tab. 1: Checklist of Trichoptera of Serbia and their distribution in limnofaunistic zones 5, 6, 7 and 11.

Species and families of Trichoptera	LZ5	LZ6	LZ7	LZ11
FAMILY ECNOMIDAE				
1. <i>Ecnomus tenellus</i> Rambur, 1842.			+	
FAMILY HYDROPSYCHIDAE				
2. <i>Cheumatopsyche lepida</i> Pictet, 1834.	+		+	+
3. <i>Diplectrona atra</i> McLachlan, 1878.	+			
4. <i>Diplectrona felix</i> McLachlan, 1878.	+		+	
5. <i>Hydropsyche angustipennis</i> Curtis, 1834	+		+	+
6. <i>Hydropsyche botosaneanui</i> Marinković-Gospodnetić, 1966.	+	+		
7. * <i>Hydropsyche bulbifera</i> McLachlan, 1878.	+			
8. * <i>Hydropsyche contubernalis</i> McLachlan, 1865.	+		+	
9. <i>Hydropsyche fulvipes</i> Curtis, 1834.			+	+
10. <i>Hydropsyche instabilis</i> Curtis, 1834.	+		+	
11. <i>Hydropsyche modesta</i> L Navas, 1925.	+		+	+
12. <i>Hydropsyche ornatula</i> McLachlan, 1878.	+		+	
13. <i>Hydropsyche pellucidula</i> Curtis, 1834.	+	+	+	+
14. <i>Hydropsyche peristerica</i> Botosaneanu et Marinković, 1966.	+		+	
15. <i>Hydropsyche saxonica</i> McLachlan, 1884.	+		+	
16. <i>Hydropsyche tabacarii</i> Botosaneanu, 1960.	+			
17. <i>Hydropsyche tjederi</i> Botosaneanu et Marinković, 1966.			+	
FAMILY POLYCENTROPODIDAE				
18. <i>Cyrnus crenaticornis</i> Kolenati, 1859.	+			
19. *♦ <i>Cyrnus flavidus</i> McLachlan, 1864.			+	
20. <i>Cyrnus trimaculatus</i> Curtis, 1834.			+	
21. <i>Holocentropus stagnalis</i> Albarda, 1874.				+
22. <i>Neureclipsis bimaculata</i> Linne, 1758.			+	+
23. <i>Plectrocnemia conspersa</i> Curtis, 1834.	+		+	
24. <i>Plectrocnemia geniculata</i> McLachlan, 1871.	+		+	
25. <i>Plectrocnemia minima</i> Klapalek, 1899.			+	
26. <i>Polycentropus excisus</i> Klapalek, 1894.	+			
27. <i>Polycentropus flavomaculatus</i> Pictet, 1834.	+		+	+
28. * <i>Polycentropus irroratus</i> Curtis, 1835.	+		+	

Species and families of Trichoptera	LZ5	LZ6	LZ7	LZ11
FAMILY PSYCHOMYIIDAE				
29. <i>Lype reducta</i> Hagen, 1860.			+	
30. <i>Psychomyia klapaleki</i> Malicky, 1995.	+			
31. <i>Psychomyia pusilla</i> Fabricius, 1781.	+		+	
32. <i>Tinodes pallidulus</i> McLachlan, 1878.			+	
33. <i>Tinodes rostocki</i> McLachlan, 1878.			+	
34. <i>Tinodes unicolor</i> Pictet, 1834.	+			
FAMILY GLOSSOSOMATIDAE				
35. * <i>Agapetus fuscipes</i> Curtis, 1834.	+		+	
36. <i>Agapetus laniger</i> Pictet, 1834.	+			
37. <i>Agapetus ochripes</i> Curtis, 1834.			+	
38. <i>Agapetus slavorum</i> Botosaneanu, 1960.	+		+	
39. <i>Glossosoma bifidum</i> McLachlan, 1879.	+			
40. <i>Glossosoma boltoni</i> Curtis, 1834.	+		+	
41. *♦ <i>Glossosoma conformis</i> Neboiss, 1834.			+	
42. <i>Glossosoma discophorum</i> Klapalek, 1902.			+	
43. <i>Syngapetus iridipennis</i> McLachlan, 1902.	+		+	
44. <i>Syngapetus krawanyi</i> Ulmer, 1938.	+			
FAMILY HYDROPTILIDAE				
45. * <i>Agraylea multipunctata</i> Curtis, 1834.	+			
46. * <i>Hydroptila sparsa</i> Curtis, 1834.			+	
47. * <i>Hydroptila vectis</i> Curtis, 1834.	+			
FAMILY LEPTOCERIDAE				
48. <i>Adicella balcanica</i> Botosaneanu et Novak, 1965.			+	
49. <i>Adicella filicornis</i> Pictet, 1834.	+		+	
50. <i>Adicella syriaca</i> Ulmer, 1907.	+		+	
51. <i>Athripsodes (Leptocerus)</i> <i>aterrimus</i> Stephens, 1836.			+	+
52. * <i>Athripsodes albifrons</i> Linne, 1758.	+			
53. <i>Athripsodes bilineatus</i> Linne, 1758.	+		+	
54. <i>Athripsodes commutatus</i> Rostock, 1874.			+	
55. <i>Ceraclea annulicornis</i> Stephens, 1836.			+	
56. <i>Leptocerus interruptus</i> Fabricius, 1775.			+	
57. <i>Mystacides azurea</i> Linne, 1761.			+	
58. <i>Mystacides longicornis</i> Linne, 1758.			+	+
59. <i>Mystacides nigra</i> Linne, 1758.	+		+	
60. *♦ <i>Oecetis testacea</i> Curtis, 1834.			+	
61. <i>Setodes hungaricus</i> Ulmer, 1908.	+			

Species and families of Trichoptera	LZ5	LZ6	LZ7	LZ11
FAMILY LEPTOCERIDAE				
62. <i>Triaenodes kawraiskii</i> Martynov, 1909.			+	
63. <i>Ylodes simulans</i> Tjeder, 1929.			+	
FAMILY ODONTOCERIDAE				
64. <i>Odontocerum albicorne</i> Scopoli, 1763.	+		+	
65. <i>Odontocerum hellenicum</i> Malicky, 1972.		+		
FAMILY BRACHYCENTRIDAE				
66. <i>Brachycentrus (Oligoplectrum) maculatum</i> Fourcroy, 1785	+		+	
67. <i>Brachycentrus montanus</i> Klapalek, 1892.			+	
68. *♦ <i>Brachycentrus subnubilus</i> Curtis, 1834.			+	
69. <i>Micrasema minimum</i> McLachlan, 1876.			+	
70. <i>Micrasema sericeum</i> Klapalek, 1902.			+	
71. <i>Micrasema longulum</i> McLachlan, 1876	+			
FAMILY GOERIDAE				
72. <i>Goera pilosa</i> Fabricius, 1775.	+		+	
73. <i>Lithax obscurus</i> Hagen, 1859.	+		+	
74. * <i>Lithax niger</i> Hagen, 1859.	+		+	
75. * <i>Silo nigricornis</i> Pictet, 1834.	+		+	
76. <i>Silo pallipes</i> Fabricius, 1781.	+		+	
77. <i>Silo piceus</i> Brauer, 1857.	+		+	
FAMILY LEPIDOSTOMATIDAE				
78. <i>Lasiocephala basalis</i> Kolenati, 1848.			+	
79. * <i>Lepidostoma hirtum</i> Fabricius, 1775	+		+	
80. <i>Crunoecia bosniaca</i> Marinković-Gospodnetić, 1970.	+			
81. <i>Crunoecia kempnyi</i> Morton, 1901.	+			
FAMILY LIMNEPHILIDAE				
82. <i>Allogamus auricollis</i> Pictet, 1834.	+	+		
83. <i>Allogamus uncatus</i> Brauer, 1857.	+			
84. <i>Anabolia furcata</i> Brauer, 1857.	+			
85. <i>Anabolia nervosa</i> Curtis, 1834.	+		+	+
86. * <i>Annitella obscurata</i> McLachlan, 1876.			+	
87. <i>Annitella triloba</i> Marinković, 1955.	+			

Species and families of Trichoptera
FAMILY LIMNEPHILIDAE

	LZ5	LZ6	LZ7	LZ11
88. <i>Chaetopteryx cissylvanica</i> Botosaneanu, 1960.	+			
89. <i>Chaetopteryx regulosa schmidi</i> Botosaneanu, 1957.			+	
90. <i>Chaetopteryx stankovici</i> Marinković, 1966.	+			
91. <i>Chaetopteryx villosa</i> Fabricius, 1798.	+		+	
92. <i>Chaetopteroides maximus</i> Kumanski, 1968.	+			
93. <i>Drusus annulatus</i> Stephens 1837.			+	
94. <i>Drusus biguttatus</i> Pictet, 1834.		+	+	
95. <i>Drusus botosaneanui</i> Kumanski, 1968.	+			
96. <i>Drusus discolor</i> Rambur, 1834.		+		
97. <i>Drusus discophorus</i> Radovanović, 1942.	+		+	
98. <i>Drusus serbicus</i> Marinković, 1971.	+			
99. <i>Drusus trifidus</i> McLachlan, 1868.			+	
100. <i>Eccliopteryx guttulata</i> Pictet, 1834.			+	
101. *♦ <i>Eccliopteryx madida</i> McLachlan, 1867.			+	
102. <i>Glyptotaelius pellucidus</i> Retzius, 1783.	+		+	
103. *♦ <i>Grammotaulius nigropunctatus</i> Retzius, 1783			+	
104. <i>Grammotaulius nitidus</i> Müller, 1764.	+			
105. <i>Halesus digitatus</i> Schrank, 1781.	+		+	
106. <i>Halesus interpunctatus</i> Zetterstedt, 1840.	+		+	
107. <i>Halesus tessellatus</i> Rambur, 1842.	+		+	
108. <i>Hydatophylax infumatus</i> McLachlan, 1865.	+			
109. <i>Limnephilus affinis</i> Curtis, 1834.				+
110. <i>Limnephilus auricula</i> Curtis, 1834.	+			+
111. <i>Limnephilus bipunctatus</i> Curtis, 1834.	+		+	+
112. <i>Limnephilus centralis</i> Curtis, 1834.	+		+	
113. <i>Limnephilus extricatus</i> McLachlan, 1865.	+			
114. <i>Limnephilus flavicornis</i> Fabricius, 1787.	+		+	
115. <i>Limnephilus fuscicornis</i> Rambur, 1842.	+			
116. <i>Limnephilus lunatus</i> Curtis, 1834.	+		+	
117. <i>Limnephilus marmoratus</i> Curtis.			+	
118. <i>Limnephilus petri</i> Marinković, 1966.		+		
119. <i>Limnephilus rhombicus</i> Linne, 1758.	+		+	
120. <i>Limnephilus sparsus</i> Curtis, 1834.	+			
121. <i>Limnephilus vittatus</i> Fabricius, 1798.	+		+	
122. *♦ <i>Melampophylax mucoreus</i> Hagen, 1861.			+	
123. <i>Mesophylax impunctatus</i> McLachlan, 1884.	+		+	
124. <i>Metanoea flavipennis</i> Pictet 1834.	+		+	

Species and families of Trichoptera	LZ5	LZ6	LZ7	LZ11
FAMILY LIMNEPHILIDAE				
125. <i>Micropterna (Stenophylax) sequax</i> McLachlan, 1875	+		+	
126. *♦ <i>Micropterna lateralis</i> Stephens, 1874.			+	
127. <i>Micropterna nycterobia</i> McLachlan, 1875.	+		+	
128. * <i>Micropterna testacea</i> Gmelin, 1798.	+		+	
129. <i>Parachiona picicornis</i> Pictet, 1834.	+			
130. <i>Potamophylax (Stenophylax)</i> <i>luctuosus</i> Piller et Mitterpacher, 1783	+		+	
131. <i>Potamophylax (Stenophylax)</i> <i>rotundipennis</i> Brauer, 1857	+			
132. * <i>Potamophylax cingulatus</i> Stephens, 1837.	+		+	
133. <i>Potamophylax latipennis</i> Curtis, 1834.	+		+	
134. <i>Potamophylax nigricornis</i> Pictet, 1834.	+		+	
135. <i>Potamophylax pallidus</i> Klapalek, 1900.		+		
136. <i>Psilopteryx montana</i> Kumanski, 1968.	+			
137. <i>Rhadicoleptus alpestris</i> Kolenati, 1848.		+		
138. <i>Stenophylax mitis</i> McLachlan, 1875.			+	
139. * <i>Stenophylax mucronatus</i> McLachlan, 1880.	+			
140. <i>Stenophylax permistus</i> McLachlan, 1895.			+	
141. <i>Stenophylax meridiorientalis</i> Malicky, 1980.			+	
142. <i>Stenophylax vibex</i> Curtis, 1834.			+	
FAMILY UENOIDAE				
143. <i>Thremma anomalum</i> Mac Lachlan, 1877.	+	+	+	
FAMILY PHILOPOTAMIDAE				
144. *♦ <i>Chimarra marginata</i> Linnaeus, 1767.			+	
145. <i>Philopotamus montanus</i> Donovan, 1813.	+		+	
146. <i>Philopotamus variegatus</i> Scopoli, 1763.	+		+	
147. <i>Wormaldia occipitalis</i> Pictet, 1834.	+		+	
148. <i>Wormaldia pulla</i> McLachlan, 1878.	+		+	
149. <i>Wormaldia subnigra</i> McLachlan, 1865.	+		+	
FAMILY PHRYGANEIDAE				
150. <i>Phryganea grandis</i> Linne, 1758.	+			
FAMILY RHYACOPHILIDAE				
151. <i>Rhyacophila aquitanica</i> MaLachlan, 1879.			+	
152. <i>Rhyacophila balcanica</i> Radovanović, 1953.	+			
153. <i>Rhyacophila bosnica</i> Schmid, 1970.	+			

Species and families of Trichoptera	LZ5	LZ6	LZ7	LZ11
FAMILY RHYACOPHILIDAE				
154. <i>Rhyacophila evoluta</i> McLachlan, 1879.	+		+	
155. <i>Rhyacophila fasciata</i> Hagen, 1859.	+		+	
156. <i>Rhyacophila fischeri</i> Botosaneanu, 1957.		+		
157. <i>Rhyacophila furcifer</i> Klapalek, 1904.	+			
158. *♦ <i>Rhyacophila glareosa</i> McLachlan, 1867.			+	
159. <i>Rhyacophila hirticornis</i> McLachlan, 1879.	+			
160. *♦ <i>Rhyacophila intermedia</i> McLachlan., 1868.			+	
161. <i>Rhyacophila laevis</i> Pictet, 1834.			+	
162. <i>Rhyacophila loxias</i> Schmid, 1970.		+		
163. <i>Rhyacophila nubila</i> Zetterstedt, 1840.	+		+	
164. <i>Rhyacophila obliterata</i> McLachlan, 1863.	+		+	
165. <i>Rhyacophila obtusa</i> Klapalek, 1894.	+	+	+	
166. * <i>Rhyacophila pascoei</i> McLachlan, 1879.			+	
167. * <i>Rhyacophila philopotamoides</i> McLachlan, 1879.	+			
168. <i>Rhyacophila polonica</i> McLachlan, 1879.	+		+	
169. * <i>Rhyacophila praemorsa</i> McLachlan, 1879.	+		+	
170. <i>Rhyacophila stankovici</i> Radovanović, 1931.	+			
171. *♦ <i>Rhyacophila torrentium</i> Pictet, 1834.			+	
172. <i>Rhyacophila trescavicensis</i> Boto., 1960.		+		
173. <i>Rhyacophila tristis</i> Pictet, 1834.				
174. <i>Rhyacophila vranitzensis</i> Marinković et Botosaneanu, 1967.	+			
175. <i>Rhyacophila vulgaris</i> Pictet, 1834.	+		+	
FAMILY BERAEEIDAE				
176. * <i>Beraea maurus</i> Curtis, 1834.	+			
177. <i>Beraea pullata</i> Curtis, 1834.	+		+	
178. <i>Beraemyia schmidi</i> Botosaneanu, 1960.			+	
179. <i>Beraeodes minutus</i> Linne, 1761.			+	
180. <i>Ernodes articularis</i> Pictet, 1834.			+	
FAMILY HELICOPSYCHIDAE				
181. <i>Helicopsyche bacescui</i> Orghidan et Botosaneanu, 1953.	+		+	
182. * <i>Helicopsyche sperata</i> McLachlan 1876.	+			
FAMILY SERICOSTOMATIDAE				
183. <i>Notidobia ciliaris</i> Linnaeus, 1761.	+		+	
184. <i>Oecismus monedula</i> Hagen, 1859.			+	
185. <i>Sericostoma flavicorne</i> Schneider, 1845.			+	
186. <i>Sericostoma personatum</i> Spence, 1826.	+			