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An updated checklist of the water beetles of Montenegro

(Coleoptera, Hydradephaga)

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During a short collecting trip to Montenegro in 2014, 26 locations were sampled and 692 specimens belonging to 45 species of water beetles were collected. The following species are recorded for the first time from Montenegro: *Haliphus dalmatinus* J. Müller, 1900, *Haliphus heydeni* Wehncke, 1875, *Haliphus laminatus* (Schaller, 1783), *Hydroporus erythrocephalus* (Linnaeus, 1758), *Hyphydrus anaticus* (Guignot, 1957), *Melanodytes pustulatus* (Rossi, 1792) and *Rhantus bistriatus* (Bergsträsser, 1778). The addition of these seven species brings the total of Hydradephaga known from Montenegro to 91 species. The new records are presented and an updated checklist of the Hydradephaga of Montenegro is given.

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Introduction

The first data on the Hydradephaga of Montenegro were given by Guéorguiev (1971). In his catalogue on the water beetles of Yugoslavia he reported 61 species of Hydradephaga (6 Halipidae, 1 Noteridae, 9 Gyrinidae and 45 Dytiscidae) from Montenegro. Pešič & Pavičević (2005) report new records of 19 species of Hydradephaga, five of which were new for Montenegro. Pešič 2008 gives a checklist of the diving beetles of Montenegro which contains 52 species of Dytiscidae and one species of Noteridae. Pavičević & Pešič 2010 gave the first record of *Oreodytes septentrionalis* (Gyllenhal, 1826) and later the same authors mentioned ten additional species of Dytiscidae for Montenegro and gave new records of 29 other species (Pavičević & Pešič 2011).

Material and methods

Water beetles were sampled at 26 locations, including both lentic and lotic habitats. The sampling took place between 9.VIII.2014 and 17.VIII.2014 and the locations are presented in Table 1 and in Figure 1. The coordinates

of the sampling sites were obtained using a GPS (Garmin eTrex Vista HCx). The material was collected with a small sieve and a hydrobiological handnet. Traps were not used during this study. The material was sorted out in the field, preserved in ethylalcohol (Norvanol D) and determined with the aid of a binocular. After determination all the material was mounted and deposited in the collection of the author. The nomenclature follows Nilsson (2016) (Dytiscidae), Löbl & Smetana (2003) (Gyrinidae), Vondel (2005) (Halipidae) and Nilsson (2011) (Noteridae). The checklist is ordered alphabetically by family, subfamily and species.

Results

At the 26 stations sampled a total of 692 specimens belonging to 45 species of Hydradephaga were collected. In total, seven species are recorded for the first time from Montenegro: *Haliphus dalmatinus* J. Müller, 1900, *Haliphus heydeni* Wehncke, 1875, *Haliphus laminatus* (Schaller, 1783), *Hydroporus erythrocephalus* (Linnaeus, 1758), *Hyphydrus anaticus* (Guignot, 1957), *Melanodytes pustulatus* (Rossi, 1792) and *Rhantus bistriatus* (Bergsträsser, 1778).

Dytiscidae**Agabinae***Agabus biguttatus* (Olivier, 1795)

Published records: Guéorguiev 1971, Pavičević & Pešič 2011.

Agabus bipustulatus (Linnaeus, 1767)Published records: Guéorguiev 1971 (both as *Agabus bipustulatus* (Linnaeus, 1767) and *A. solieri* Aubé, 1836), Pešič & Pavičević 2005, Pavičević & Pešič 2011. New records: loc. 4 (1 specimen), loc. 6 (14 specimens), loc. 10 (1 specimen), loc. 12 (18 specimens), loc. 14 (10 specimens), loc. 24 (1 specimen).*Agabus conspersus* (Marsham, 1802)

Published records: Guéorguiev 1971.

Remarks: Although mentioned for Montenegro by Guéorguiev (1971) this species was not included in the previous checklist (Pešič 2008).

Agabus didymus (Olivier, 1795)

Published records: Guéorguiev 1971.

Agabus guttatus guttatus (Paykull, 1798)

Published records: Guéorguiev 1971, Pešič & Pavičević 2005, Pavičević & Pešič 2011, Pavičević & Pešič 2012.

New records: loc. 8 (5 specimens), loc. 9 (1 specimen), loc. 11 (6 specimens), loc. 12 (11 specimens).

Agabus labiatus (Brahm, 1790)

Published records: Guéorguiev 1971.

Agabus nebulosus (Forster, 1771)

Published records: Guéorguiev 1971, Pavičević & Pešič 2011.

Agabus paludosus (Fabricius, 1801)

Published records: Pavičević & Pešič 2011.

Agabus sturmii (Gyllenhal, 1808)

Published records: Pavičević & Pešič 2011.

Ilybius chalconatus (Panzer, 1796)Published records: Guéorguiev 1971 (as *Agabus chalconatus* (Panzer, 1796)), Pavičević & Pešič 2011, Pavičević & Pešič 2012.

New records: loc. 11 (2 specimens), loc. 14 (7 specimens).

Table 1. Details of sampling sites.

Locality	Geographic coordinates	Sampling site	Type
loc. 1	N 42°23.6' E 18°44.6'	Kotor, small semi-permanent pond with loamy substrate	lentic
loc. 2	N 42°23.6' E 18°44.6'	depression in grassland temporary filled with rainwater	lentic
loc. 3	N 42°23.7' E 18°42.9'	Solila, salt lake	lentic
loc. 4	N 42°45.8' E 18°54.0'	Nikšič, shallow cattle pool with <i>Eleocharis palustris</i>	lentic
loc. 5	N 42°45.7' E 18°53.1'	Nikšič, loamy quarry pit devoid of vegetation	lentic
loc. 6	N 42°45.1' E 18°53.0'	Nikšič, patchy vegetated pools	lentic
loc. 7	N 42°57.4' E 19°05.8'	Savnik, Bukovica stream, substrate of sand and gravel	lotic
loc. 8	N 43°09.2' E 19°05.6'	Ivan Do, very small stream next to path	lotic
loc. 9	N 43°09.2' E 19°05.4'	Ivan Do, stream	lotic
loc. 10	N 43°09.4' E 19°04.8'	Zabljak, Zminje Jezero	lentic
loc. 11	N 43°09.3' E 19°04.3'	Ivan Do, seepage next to dirt road at the edge of a forest	lotic
loc. 12	N 43°06.2' E 19°01.2'	Ivan Do, small stream in coniferous forest	lotic
loc. 13	N 43°05.6' E 19°09.0'	Zabljak, Riblje jezero	lentic
loc. 14	N 43°05.7' E 19°09.1'	Zabljak, temporary pool on bare substratum	lentic
loc. 15	N 42°48.6' E 18°55.5'	River Zeta, near Mokra Njiva	lotic
loc. 16	N 42°23.7' E 18°44.6'	small semi-permanent pond with loamy substrate	lentic
loc. 17	N 42°23.7' E 18°44.6'	loamy pool with a lot of garbage	lentic
loc. 18	N 42°16.3' E 19°07.2'	Skadarsko jezero, Lesendro	lentic
loc. 19	N 42°20.0' E 19°12.4'	gravelpit near Vukovci	lentic
loc. 20	N 42°19.9' E 19°12.4'	River Moraca near Vukovci	lotic
loc. 21	N 42°19.9' E 19°12.4'	pool in riverbed, gravel with a thick layer of organic debris	lentic
loc. 22	N 42°15.2' E 19°03.3'	Dupilo, stream Orahovštica	lotic
loc. 23	N 42°15.2' E 19°03.3'	Dupilo, stream Orahovštica	lotic
loc. 24	N 42°15.4' E 19°02.4'	Dupilo, small shaded stream	lotic
loc. 25	N 42°15.2' E 19°02.3'	Dupilo, very small seepage next to path	lotic
loc. 26	N 42°28.6' E 18°27.9'	Sutorina stream, substrate of gravel and stones	lotic

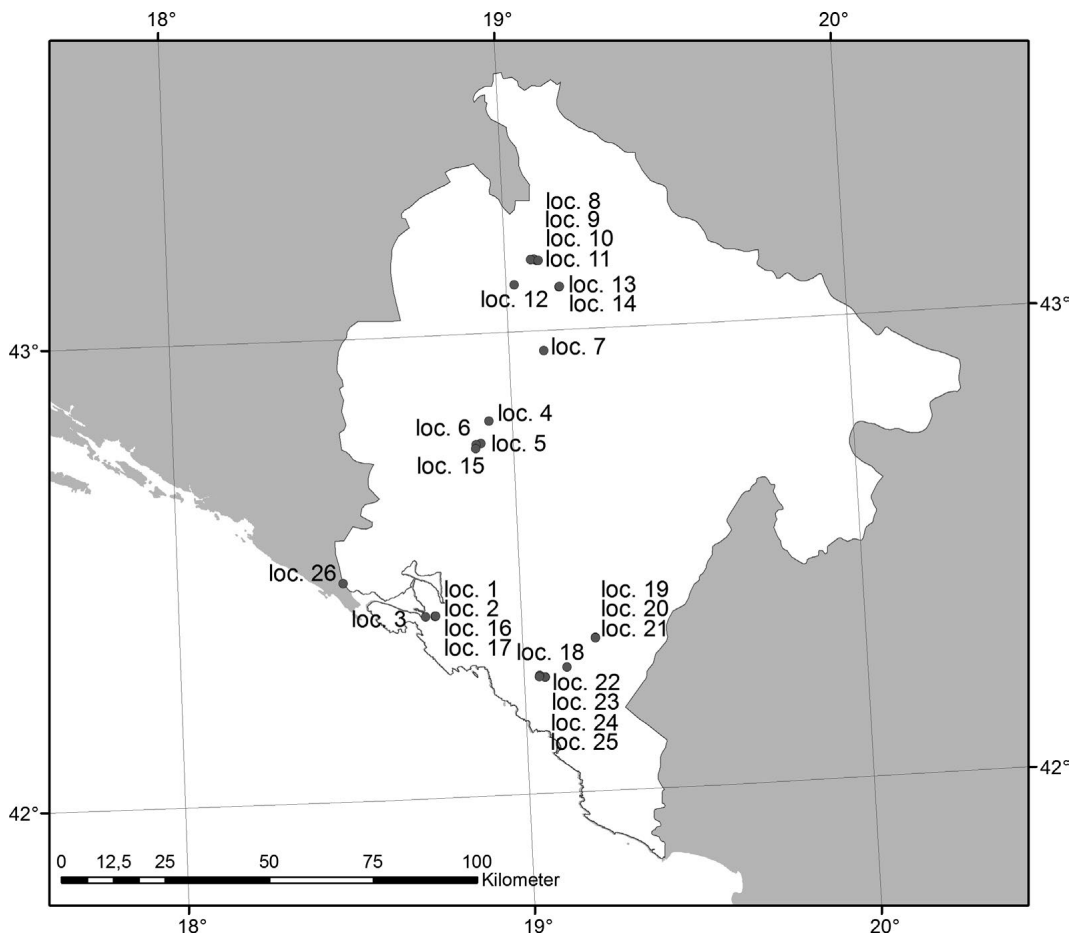


Fig. 1. Geographic location of the sampling sites in Montenegro during this survey.

Remarks: Pavičević & Pešič (2011) erroneously mentioned this species as new to the fauna of Montenegro, as it was already mentioned by Guéorguiev (1971).

Ilybius fenestratus (Fabricius, 1781)

Published records: Guéorguiev 1971.

Ilybius fuliginosus fuliginosus (Fabricius, 1792)

Published records: Pavičević & Pešič 2011.

New records: loc. 12 (14 specimens), loc. 15 (12 specimens).

Ilybius pseudoneglectus (Franciscolo, 1972)

Published records: Pavičević & Pešič 2011.

New records: loc. 4 (1 specimen).

Platambus maculatus (Linnaeus, 1758)

Published records: Guéorguiev 1971, Pešič & Pavičević 2005, Pavičević & Pešič 2011.

New records: loc. 15 (9 specimens)

Colymbetinae

Colymbetes fuscus (Linnaeus, 1758)

Published records: Guéorguiev 1971.

New records: loc. 4 (2 specimens), loc. 6 (10 specimens).

Melanodytes pustulatus (Rossi, 1792)

New records: loc. 1 (1 specimen).

Remarks: New to the fauna of Montenegro. This very rare species was until now only recorded from seven countries in the Mediterranean basin. It was already known in the Balkan Peninsula from Croatia to the north and Albania and Greece south of Montenegro. Although this locality was sampled quite intensively twice during this survey, only one specimen could be found.

Rhantus bistratus (Bergsträsser, 1778)

New records: loc. 4 (1 specimen).

Remarks: New to the fauna of Montenegro. A relatively widespread species in Europe. *R. bistriatus* was already known from most Balkan countries and the presence in Montenegro was to be expected.

Rhantus suturalis (W. S. Macleay, 1825)

Published records: Guéorguiev 1971.

New records: loc. 1 (1 specimen), loc. 2 (2 specimens), loc. 4 (9 specimens), loc. 5 (2 specimens), loc. 17 (3 specimens).

Copelatinae

Liopterus haemorrhoidalis (Fabricius, 1787)

Published records: Pavičević & Pešič 2011.

Dytiscinae

Acilius sulcatus (Linnaeus, 1758)

Published records: Guéorguiev 1971, Pešič & Pavičević 2005, Pavičević & Pešič 2011.

Cybister lateralimarginalis lateralimarginalis (De Geer, 1774)

Published records: Guéorguiev 1971, Pešič & Pavičević 2005, Pavičević & Pešič 2011.

New records: loc. 4 (7 specimens).

Dytiscus circumcinctus Ahrens, 1811

Published records: Pavičević & Pešič 2011.

Dytiscus dimidiatus Bergsträsser, 1778

Published records: Guéorguiev 1971, Pavičević & Pešič 2011.

Dytiscus marginalis marginalis Linnaeus, 1758

Published records: Guéorguiev 1971, Pešič 2008.

New records: loc. 14 (1 specimen).

Dytiscus semisulcatus O. F. Müller, 1776

Published records: Pešič & Pavičević 2005.

Eretes griseus (Fabricius, 1781)

Published records: Guéorguiev 1971 (as *Eretes sticticus* (Linnaeus, 1767)).

Remarks: Guéorguiev (1971) regarded *Eretes griseus* (Fabricius, 1781) as a synonym of *E. sticticus*. The more common species in the Balkan Peninsula is, however, *E. griseus*. Therefore the record most probably refers to *E. griseus*.

Hydaticus transversalis transversalis (Pontoppidan, 1763)

Published records: Guéorguiev 1971, Pavičević & Pešič 2011.

Hydaticus leander (Rossi, 1790)

Published records: Guéorguiev 1971.

New records: loc. 1 (10 specimens), loc. 16 (1 specimen), loc. 17 (6 specimens).

Hydroporinae

Bidessus delicatulus (Schaum, 1844)

Published records: Guéorguiev 1971.

New records: loc. 21 (1 specimen).

Bidessus exornatus (Reiche & Saulcy, 1855)

Published records: Guéorguiev 1971.

Bidessus muelleri Zimmermann, 1927

Published records: Guéorguiev 1971, Pavičević & Pešič 2011.

New records: loc. 4 (10 specimens).

Bidessus unistriatus (Goeze, 1777)

Published records: Guéorguiev 1971.

Boreonectes griseostriatus (De Geer, 1774)

Published records: Guéorguiev 1971 (as *Potamonectes griseostriatus* (De Geer, 1774)), Pešič & Pavičević 2005 (as *Stictotarsus griseostriatus* (De Geer, 1774)).

Remarks: The species belongs to a species complex (see Dutton & Angus 2007 and Angus 2008, 2010a, 2010b), the true identity of the specimens in Montenegro is not certain. The only *Boreonectes* species known with certainty in the Balkan peninsula are *B. macedonicus* (Guéorguiev, 1959) from Macedonia and *B. riberae* (Dutton & Angus, 2007) from Bulgaria.

Deronectes latus (Stephens, 1829)

Published records: Guéorguiev 1971, Pavičević & Pešič 2011.

Deronectes moestus inconspiculus (Leprieur, 1876)

Published records: Guéorguiev 1971, Pešič & Pavičević 2005, Pavičević & Pešič 2011, Pavičević & Pešič 2012.

Deronectes platynotus platynotus (Germar, 1834)

Published records: Pavičević & Pešič 2011.

Graptodytes flavipes (Olivier, 1795)

Published records: Guéorguiev 1971.

Graptodytes pictus (Fabricius, 1787)

Published records: Guéorguiev 1971, Pavičević & Pešič 2011.

New records: loc. 21 (1 specimen).

Graptodytes veterator veterator (Zimmermann, 1918)

Published records: Pešič 2008, Pavičević & Pešič 2011.

New records: loc. 18 (2 specimens).

Hydroglyphus geminus (Fabricius, 1792)

Published records: Guéorguiev 1971 (as *Guignotus pusillus* (Fabricius, 1781)), Fery & Št'astný 2007 and Pavičević & Pešič 2011.

New records: loc. 1 (25 specimens), loc. 2 (14 specimens), loc. 3 (1 specimen), loc. 4 (11 specimens), loc. 5 (32 specimens), loc. 6 (2 specimens), loc. 12 (1 speci-

men), loc. 14 (7 specimens), loc. 16 (12 specimens), loc. 17 (17 specimens).

Hydroglyphus signatellus (Klug, 1834)

Published records: Guéorguiev 1971 (as *Guignotus signatellus* (Klug, 1834)).

Hydroporus discretus discretus Fairmaire & Brisout, 1859

Published records: Pešič & Pavičević 2005, Pavičević & Pešič 2011.

New records: loc. 11 (3 specimens).

Remarks: Pešič & Pavičević (2005) mention *H. discretus* for the first time for Montenegro, however, the species is not listed in the checklist of the diving beetles of Montenegro (Pešič 2008).

Hydroporus dobrogeanus Ieništea, 1962

Published records: Pešič 2008, Pavičević & Pešič 2011.

Hydroporus erythrocephalus (Linnaeus, 1758)

New records: loc. 14 (1 specimen).

Remarks: New to the fauna of Montenegro.

Hydroporus ferrugineus Stephens, 1829

Published records: Guéorguiev 1971.

Hydroporus hebaueri Hendrich, 1990

Published records: Fery 1999.

New records: loc. 1 (12 specimens), loc. 25 (4 specimens).

Remarks: At loc. 1 the specimens were all taken at one point at the edge of the pond where a small spring was present, both on 09.VIII.2014 (7 specimens) and 15.VIII.2014 (5 specimens). Loc. 25 was a very small seepage on loamy substratum.

Hydroporus jonicus jonicus L. Miller, 1862

Published records: Fery 2006, Pavičević & Pešič 2011. New records: loc. 4 (1 specimen), loc. 6 (16 specimens).

Hydroporus longulus Mulsant & Rey, 1861

Published records: Guéorguiev 1971.

Remarks: The record in Guéorguiev (1971) is probably due to *Hydroporus dobrogeanus* or *H. hebaueri*. There are no confirmed records of *H. longulus* in the Balkan Peninsula and the nearest records are those from Austria and Italy.

Hydroporus macedonicus Fery & Pešič, 2006

Published records: Pavičević & Pešič 2011.

Remarks: This species was only recently described by Fery & Pešič (2006) based on two males from Macedonia and was subsequently found in a spring in Montenegro (Pavičević & Pešič 2011).

Hydroporus palustris (Linnaeus, 1761)

Published records: Guéorguiev 1971, Pavičević & Pešič 2011.

New records: loc. 12 (1 specimen).

Hydroporus planus (Fabricius, 1782)

Published records: Guéorguiev 1971.

New records: loc. 12 (4 specimens), loc. 14 (15 specimens).

Remarks: Although mentioned for Montenegro by Guéorguiev (1971) this species was not mentioned in the recent checklist (Pešič 2008).

Hydroporus pubescens (Gyllenhal, 1808)

Published records: Pavičević & Pešič 2011, Pavičević & Pešič 2012.

New records: loc. 5 (1 specimen), loc. 12 (7 specimens), loc. 14 (2 specimens), loc. 24 (1 specimen).

Hydroporus tessellatus (Drapiez, 1819)

Published records: Guéorguiev 1971, Pavičević & Pešič 2011.

New records: loc. 6 (10 specimens), loc. 12 (5 specimens), loc. 14 (1 specimen).

Hydroporus zimmermanni J. Müller, 1926

Published records: Guéorguiev 1971, Fery & Petrov 2005.

New records: loc. 7 (1 specimen), loc. 10 (1 specimen), loc. 12 (2 specimens).

Remarks: This species has a relatively small distribution occurring only in Slovenia, Croatia, Montenegro and Bosnia-Herzegovina.

Hygrotus confluens (Fabricius, 1787)

Published records: Guéorguiev 1971 (as *Coelambus confluens* (Fabricius, 1787)).

New records: loc. 14 (3 specimens).

Hygrotus inaequalis (Fabricius, 1777)

Published records: Guéorguiev 1971, Pavičević & Pešič 2011.

New records: loc. 4 (9 specimens), loc. 6 (12 specimens), loc. 13 (5 specimens), loc. 18 (2 specimens).

Hyphydrus anatolicus Guignot, 1957

New records: loc. 1 (8 specimens).

Remarks: New to the fauna of Montenegro. This species was already known from Croatia to the north and Albania to the south of Montenegro. Eight specimens were found on 09.VIII.2014. On a second sampling of this location on 15.VIII.2014 the species could not be found, even after an intensive search.

Hyphydrus aubei Ganglbauer, 1892

Published records: Guéorguiev 1971.

Hyphydrus ovatus (Linnaeus, 1761)

Published records: Pešič & Pavičević 2005.

Nebrioporus luctuosus (Aubé, 1838)

Published records: Pavičević & Pešić 2011.

Nebrioporus stearinus suavis (Sharp, 1882)

Published records: Guéorguiev 1971 (as *Potamonectes suavis* (Sharp, 1882)), Fery & Št'astný 2007.

Oreodytes davisii davisii (Curtis, 1831)

Published records: Pešić & Pavičević 2005, Pavičević & Pešić 2011.

New records: loc. 7 (20 specimens).

Oreodytes sanmarkii sanmarkii (C. R. Sahlberg, 1826)

Published records: Pešić 2008, Pavičević & Pešić 2011.

New records: loc. 7 (36 specimens).

Oreodytes septentrionalis (Gyllenhal, 1826)

Published records: Pavičević & Pešić 2010, Pavičević & Pešić 2011.

Porhydrus lineatus (Fabricius, 1775)

Published records: Guéorguiev 1971.

Scarodytes halensis (Fabricius, 1787)

Published records: Guéorguiev 1971, Fery & J. Št'astný 2007, Pešić & Pavičević 2005, Pavičević & Pešić 2011, Pavičević & Pešić 2012.

Scarodytes savinensis savinensis (Zimmerman, 1933)

Published records: Guéorguiev 1971, Fery & J. Št'astný 2007, Pešić 2008.

New records: loc. 12 (15 specimens), loc. 19 (1 specimen), loc. 20 (1 specimen), loc. 26 (1 specimen).

Laccophilinae

Laccophilus hyalinus (De Geer, 1774)

Published records: Guéorguiev 1971 (both as *Laccophilus hyalinus* (De Geer, 1774) and *L. testaceus* Aubé, 1837), Pešić & Pavičević 2005, Pavičević & Pešić 2011. New records: loc. 15 (13 specimens), loc. 18 (2 specimens), loc. 21 (10 specimens), loc. 26 (1 specimen).

Laccophilus minutus (Linnaeus, 1758)

Published records: Guéorguiev 1971, Pešić & Pavičević 2005, Pavičević & Pešić 2011.

New records: loc. 1 (1 specimen), loc. 4 (16 specimens), loc. 6 (11 specimens), loc. 13 (3 specimens), loc. 14 (4 specimens), loc. 15 (1 specimen).

Laccophilus poecilus Klug, 1834

Published records: Guéorguiev 1971 (as *Laccophilus variegatus* (Germar, 1816)) and Pavičević & Pešić 2011. New records: loc. 18 (12 specimens).

Gyrinidae

Gyrininae

Aulonogyrus striatus (Fabricius, 1792)

Published records: Guéorguiev 1971.

Gyrinus caspius Ménétrés, 1832

Published records: Guéorguiev 1971. New records: loc. 7 (8 specimens).

Gyrinus colymbus Erichson, 1837

Published records: Guéorguiev 1971.

Gyrinus dejeani Brullé, 1832

Published records: Guéorguiev 1971.

Gyrinus distinctus Aubé, 1838

Published records: Guéorguiev 1971.

Gyrinus marinus Gyllenhal, 1808

Published records: Guéorguiev 1971.

Gyrinus substriatus Stephens, 1828

Published records: Guéorguiev 1971, Pešić & Pavičević 2005.

Gyrinus urinator Illiger, 1807

Published records: Guéorguiev 1971.

Orectochilus villosus (O. F. Müller, 1776)

Published records: Guéorguiev 1971. New records: loc. 22 (7 specimens), loc. 23 (8 specimens).

Haliplidae

Brychius elevatus (Panzer, 1794)

Published records: Guéorguiev 1971, Pešić & Pavičević 2005.

Haliplus confinis Stephens, 1828

Published records: Guéorguiev 1971.

Haliplus dalmatinus J. Müller, 1900

New records: loc. 5 (15 specimens).
Remarks: New to the fauna of Montenegro.

Haliplus flavicollis Sturm, 1834

Published records: Guéorguiev 1971, Pešić & Pavičević 2005.

Haliplus heydeni Wehncke, 1875

New records: loc. 14 (9 specimens).
Remarks: New to the fauna of Montenegro.

Haliplus laminatus (Schaller, 1783)

New records: loc. 6 (26 specimens).
Remarks: New to the fauna of Montenegro.

Haliplus lineatocollis (Marsham, 1802)

Published records: Guéorguiev 1971. New records: loc. 26 (1 specimen).

Haliplus mucronatus Stephens, 1828
Published records: Guéorguiev 1971.

Haliplus variegatus Sturm, 1834
Published records: Guéorguiev 1971.
New records: loc. 1 (2 specimens), loc. 5 (1 specimen).

Peltodytes caesus (Duftschmid, 1805)
Published records: Guéorguiev 1971, Pešič & Pavičević 2005.
New records: loc. 6 (1 specimen).

Peltodytes rotundatus (Aubé, 1836)
Published records: Pešič & Pavičević 2005.
New records: loc. 6 (10 specimens).

Noteridae

Noterinae

Noterus clavicornis (De Geer, 1774)
Published records: Guéorguiev 1971, Pešič 2008.
New records: loc. 4 (9 specimens), loc. 6 (5 specimens), loc. 18 (10 specimens).

Discussion and conclusion

The addition of these seven new species brings the total of Hydradephaga known from Montenegro on 91 species. The species list is however far from complete. There are at least a dozen of species expected to occur in this country that have not yet been recorded. Some of them are widespread species such as *Hygrobia hermanni* (Fabricius, 1775), *Graphoderus austriacus* (Sturm, 1834), *G. cinereus* (Linnaeus, 1758), *Graptodytes bilineatus* (Sturm, 1835), *Hydroporus memnonius* Nicolai, 1822, *H. nigrita* (Fabricius, 1792), *Hydrovatus cuspidatus* Kunze, 1818 and *Hygrotus impressopunctatus* (Schaller, 1783), others are Mediterranean elements like *Agabus dilatatus* (Brullé, 1832), *Bidessus calabricus* Guignot, 1957, *Dytiscus pisanus* Laporte de Castelnau, 1835, *D. mutinensis* Branden, 1885, *Graptodytes ignotus* (Mulsant & Rey, 1861), *G. varius* (Aubé, 1838), *Hydroporus marginatus* (Duftschmid, 1805), *H. obsoletus* Aubé, 1838 and *Porhydrus genei* (Aubé, 1838). Among these there are species of both lentic and lotic habitats. Furthermore brackish water bodies could yield the halobiont species *Hygrotus parallelogrammus* (Ahrens, 1812), *H. saginatus* (Schaum, 1857) and *Nebrioporus ceresyi* (Aubé, 1838). All above mentioned species occur in the Balkan Peninsula both north and south of Montenegro and thus are expected to have a continued distribution. More research on Hydradephaga of Montenegro and other countries of the Balkan Peninsula is needed for a better understanding of the distribution of the European species and to detect biogeographical changes in the future.

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