

CZESŁAW GREŃ

Additions to Crimean fauna of water beetles (Coleoptera: Dytiscidae, Hydrophilidae)

<http://doi.org/10.5281/zenodo.1491228>

Upper Silesian Museum in Bytom, Department of Natural History, pl. Jana III Sobieskiego 2, 41-902 Bytom,

Poland, e-mail: czeslaw.gren@vp.pl

Abstract: The paper presents new records for five species of water beetles from the Crimean peninsula: *Agabus (Agabus) fulvaster* ZAITSEV, *Berosus (Enoplurus) fulvus* KUWERT, *Cercyon (Cercyon) tristis* (ILLIGER), *Enochrus (Lumetus) ater* (KUWERT) and *Limnoxenus niger* (GMELIN). Three of them are simultaneously new to the fauna of Ukraine. The number of species from the family Dytiscidae known from the Crimea is currently 63, and the family of Hydrophilidae 62.

Key words: Coleoptera, Dytiscidae, Hydrophilidae, new records, the Crimean Peninsula.

INTRODUCTION

The study of water beetles in Crimea was initiated by LINDEMAN (1871), and the first extensive checklist was published by ZAYTSEV in 1908. Since that time there have been many reports of water beetles from Crimea, enabling that list to be updated. As far as Hydrophilidae is concerned, the article by RYNDEVICH (2007) is of major importance: based on the literature and his own research, he demonstrated the occurrence of 57 species from this family. Since that time, information on the discovery of a further hydrophilid species (*Enochrus halophilus* BEDEL, 1878) from Crimea has been recorded (RYNDEVICH & FIKAČEK 2013). In contrast, the family Dytiscidae has not yet received similar comprehensive treatment, although ZAYTSEV (1972) gives first records of many such species from Crimea in his fundamental work on the Hydradeptera of Russia. A species new to science was described from Crimea in the 1990 (BILYASHIWSKY 1993), but to date only its type specimen is known (FERY 2009). Further information on dytiscid beetles new to Crimea is given in GRAMMA (1998).

Below I provide data for five water beetle species hitherto not recorded in Crimea; three of them are new to Ukraine (indicated by an asterisk).

RESULTS

Dytiscidae LEACH, 1815

**Agabus (Agabus) fulvaster* ZAITSEV, 1906

Ukraine, Crimea, Batalne (Батальне) [YR00], a shallow, periodic steppe lake, 31.05.2011, 2 exx., 01.06.2011, 5 exx., leg. Czesław Greń.

This species inhabits steppes and semideserts in south-eastern Europe and Asia (Russia, Kazakhstan, Mongolia) (ZAYTSEV 1972, NILSSON 2003).

Hydrophilidae LATREILLE, 1802

**Berosus (Enoplurus) fulvus* KUWERT, 1888

Ukraine, Crimea, Mizhvodne (Мижводне), Lake Yarylhach (оз. Ярылгач) [VR84], 15.06.2011, 1 ex., leg. Czesław Greń.

The distribution of this species comprises the Palearctic with the exception of the extreme north. It is known from Netherlands, Denmark, Great Britain, France, Spain, Germany, Austria, Hungary, Turkey (Asian part), Russia (south of European territory, West and East Siberia), Turkmenistan, Kazakhstan, Uzbekistan, Iran, China and Mongolia. In the north-west it is confined to southern Sweden, around Öland and Gotland, with Finland providing its northernmost station (SCHÖDL 1991, FIKÁČEK *et al.* 2015).

Cercyon (Cercyon) tristis (ILLIGER, 1801)

Ukraine, Crimea, Sokolinoe (Соколиное), River Kokkozka (Река Коккозка) [WQ73], 13.06.2013, 1 ex., leg. Czesław Greń.

A Transeurasian temperate species (RYNDEVICH 2013), widespread in almost the whole of Europe; in the east, its range extends to Mongolia and the Russian Far East (FIKÁČEK *et al.* 2015). It is found in sand, mud and among decaying organic remains on the shorelines of water bodies (BOUKAL *et al.* 2007).

**Enochrus (Lumetus) ater* (KUWERT, 1888)

Ukraine, Crimea, Batalne (Батальне) [YR00], a shallow, periodic steppe lake, 01.06.2011, 12 exx., leg. Czesław Greń.

Ukraine, Crimea, Yevpatoriya (Евпатория), Lake Sasyk (оз. Сасык) [WR30], 12.06.2011, 17 exx., leg. Czesław Greń.

Ukraine, Crimea, Oktyabrske (Октябрьске) [XR42], an irrigation channel, 30.05.2011, 2 exx., leg. Czesław Greń.

Ukraine, Crimea, Hornostaivka (Горностаивка) [BL81], a saline steppe lake, 31.05.2011, 1 ex., leg. Czesław Greń.

This species is widespread throughout the Mediterranean region (Egypt, Israel, Spain, France, Italy, Bosnia and Herzegovina, Croatia, Montenegro, Greece, Turkey, Algeria), and even central Europe (Romania, Austria), and in Western and Central Asia (Iran, Iraq, Turkmenistan, Tajikistan, Kazakhstan and Uzbekistan (FIKÁČEK *et al.* 2015). It is present on some Mediterranean islands, e.g. the Balearics and Cyprus (RIBERA *et al.* 1997). It is also frequent and numerous in Bulgaria (GREŃ & LUBECKI 2018). *E. ater* is a typical inhabitant of all kinds of standing waters and wetlands (RIBERA *et al.* 1997).

***Limnoxenus niger* (GMELIN, 1790)**

Ukraine, Crimea, Batalne (Батальне) [YR00], a shallow, periodic steppe lake, 01.06.2011, 5 exx., leg. Czesław Greń.

A western Palearctic species, occurring from the North Africa (Morocco, Algeria) through Spain and most European countries as far as the Caucasus; in the south it reaches Asia (Iran, Israel, Syria, Turkey, Lebanon) (FIKÁČEK *et al.* 2015). Also reported from Taman by ZAYTSEV (1908). It inhabits various kinds of eutrophic bodies of standing water with abundant aquatic vegetation. It is regarded as a species capable of colonizing brackish waters (halophile) (BOUKAL *et al.* 2007, HANSEN 1987).

At present the fauna of the family of Dytiscidae of the Crimea includes 63 species and the family of Hydrophilidae 62.

REFERENCES

- BILYASHIVSKY M.M. 1993. K poznaniyu fauny zhukov-plavuntsov (Coleoptera, Dytiscidae) Kryma. (A contribution to the dytiscid-beetle fauna (Coleoptera, Dytiscidae) of the Crimea). *Journal of the Ukrainian Entomological Society* 1(1): 15–18.
- BOUKAL D.S., BOUKAL M., FIKÁČEK M., HÁJEK J., KLEČKA J., SKALICKÝ S., ŇĚSTAVNÝ J., TRÁVNÍČEK D. 2007. Catalogue of water beetles of the Czech Republic (Coleoptera: Sphaeriidae, Gyrinidae, Haliplidae, Noteridae, Hygrobiidae, Dytiscidae, Helophoridae, Georissidae, Hydrochidae, Spercheidae, Hydrophilidae, Hydraenidae, Scirtidae, Elmidae, Dryopidae, Limnichidae, Heteroceridae, Psephenidae). *Klapalekiana* 43(Suppl.): 1–289.
- FERY H. 2009. New species of the *Hydroporus longulus*-group from Iran, Armenia and Turkey with a synopsis of the group (Coleoptera: Dytiscidae). *Acta Entomologica Musei Nationalis Pragae* 49(2): 529–558.
- GRAMMA V.M. 1998. New for the Crimea species of water beetles (Coleoptera: Haliplidae, Dytiscidae). *Izvestiya Kharkovskogo Entomologicheskogo Obshchestva* 6(2): 41–42.
- GREŇ C., LUBECKI K. 2018. Water beetles (Coleoptera: Adephaga, Hydrophiloidea, Byrrhoidea) in Bulgaria: new records. *Annals of the Upper Silesian Museum in Bytom, Entomology* 26(007): 61–80. DOI: <http://doi.org/10.5281/zenodo.1184328>
- HANSEN M. 1987. The Hydrophiloidea (Coleoptera) of Fennoscandia and Denmark. *Fauna Entomologica Scandinavica* 18: 1–254.
- LINDEMAN K.E. 1871. Review of geographical distribution beetles of Russian empire, introduction, the foreword, Northern, Moscow and Turkestani provinces. *Trudy Russkogo Entomologicheskogo Obshchestva* 6(1): 41–366 [in Russian].
- FIKÁČEK M., ANGUS R.B., GENTILI E., JIA F., MINOSHIMA Y.N., PROKIN A., PRZEWOŻNY M., RYNDEVICH S.K. 2015. Family Hydrophilidae, pp. 37–76. In: LÖBL I. & LÖBL D. (Eds.), Catalogue of Palaeartic Coleoptera. Vol. 2/1. Hydrophiloidea – Staphilinoidea. Revised and updated edition. Brill, Leiden-Boston.
- NILSSON A.N. 2003. Dytiscidae, pp. 35–78. In: LÖBL I., & SMETANA A. (Eds.), Catalogue of Palaeartic Coleoptera, Vol. 1. Apollo Books, Stenstrup.
- RIBERA I., SCHÖDL S., HERNANDO C. 1997. *Enochrus ater* (KUWERT) and *E. salomonis* (SAHLBERG) (Coleoptera: Hydrophilidae), two widespread but overlooked species new to the European fauna. *Hydrobiologia* 354: 183–188.
- RYNDEVICH S.K. 2007. Beetles of superfamily Hydrophiloidea (Coleoptera: Helophoridae, Hydrochidae, Spercheidae, Hydrophilidae) of the Crimean peninsula. *Russian Entomological Journal* 16(3): 267–273.
- RYNDEVICH S.K. 2013. Zoogeographic structure of Hydrophiloid beetles fauna (Coleoptera: Hydrophiloidea) of Palearctic subtaiga. Hydroentomology in Russia and adjacent countries: Materials of the Fifth All-Russia Symposium on Amphibiotic and Aquatic Insects / Papanin Institute for Biology of Inland Waters, Russian Academy of Sciences. – Yaroslavl: Filigran: 145–156.
- RYNDEVICH S.K., FIKÁČEK M. 2013. Faunistic and Zoogeographic Notes on Hydrophiloid Beetles from the Palaeartic Region (Coleoptera: Hydrophilidae). *Vestnik BarDU Seriya Biologicheskoye Nauki Selskokhozyaistvennyye Nauki* 1: 32–37.
- SCHÖDL S. 1991. Revision der Gattung *Berosus* LEACH. 1. Teil: Die paläarktischen Arten der Untergattung *Enoplurus* (Coleoptera: Hydrophilidae). *Koleopterologische Rundschau* 61: 111–135.
- ZAYTSEV F.A. 1908. To fauna of water beetles of the Crimea and Taman. *Ezhedodnik Zoologicheskogo Muzeya AN* 13: 1–8 [in Russian].
- ZAYTSEV F.A. 1972. Fauna of the USSR. Coleoptera. Families: Amphizoidae, Hygrobiidae, Haliplidae, Dytiscidae, Gyrinidae. Israel Program for Scientific Translations, Jerusalem: 401 pp.

Accepted: 23 October 2018; published: 19 November 2018

Licensed under a Creative Commons Attribution License <http://creativecommons.org/licenses/by/4.0/>