ACTA ZOOLOGICA BULGARICA

Acta Zool. Bulg., 73 (1), March 2021: 31-50

Zoogeography and Faunistics
Research Article

Published online 30 October 2020
http://www.acta-zoologica-bulgarica.eu/002385

Review of Aquatic Arthropods (Phylum Arthropoda) in the Republic of Moldova

Oxana Munjiu, Galina Buşmachiu*, Tatiana Şuleşco, Igor Șubernețkii & Ion Toderaş

Institute of Zoology, 1 Academiei Street, MD-2028 Chișinău, Republic of Moldova

Abstract: The first review of aquatic arthropods from the Republic of Moldova is presented. It is based on literature data and faunistic materials collected in 1946–2018 by researchers of the Institute of Zoology, Chișinău. The checklist includes data about 461 species belonging to six classes: Arachnida (one species), Branchiopoda (two species), Malacostraca (53 species), Maxillopoda (one species), Collembola (six species) and Insecta (398 species). The distribution of the species across the four freshwater basins in the country (Dniester River Basin, Prut River Basin, Danube River Basin and Black Sea Basin) is given. In addition, data on the species occurring in artificial reservoirs are also presented. *Psychomyia pusilla* (Fabricius, 1781) (order Trichoptera) is a new record for the country. The present study contains previously unpublished data about further 20 species of Insecta (19 species) and Malacostraca (one species) from the laboratory archive of the Institute of Zoology, Chișinău.

Key words: Freshwater arthropods, list of species, Dniester River Basin, Prut River Basin, Eastern Europe

Introduction

The Republic of Moldova has a rather small territory (33,760 km^2); however, its geographical position and heterogeneous environmental conditions are a prerequisite for the formation of diverse habitats supporting high faunal diversity. The largest rivers in the country are the Dniester and the Prut. The total length of the Dniester River is 1,352 km, 657 km of them within the territory of Moldova; its catchment area represents c. 70% of the territory of the country. The total length of the Prut River is 963 km, 695 km of them within Moldova; its basin occupies c. 24 % of the country. The Danube River within the borders of Moldova has a length of 480 m.

The first data on invertebrates of the phylum Arthropoda recorded on the current territory of the Republic of Moldova were published at the beginning of the 20th century (Brauner 1910, Miller & Zubovsky 1917, Bening 1928, Schellenberg 1937). The regular long-term studies of hydrobiont invertebrates began in 1946 and were carried out by researchers at the Department of Zoology of the Moldavian Scientific Research Station in the frames of the former Academy of Sciences of the USSR. Studies have been conducted for more than 70 years (1946–2018). The diversity of benthic invertebrates is an important part of the aquatic fauna surveys in the Republic of Moldova. Hydrobionts of the phylum Arthropoda from this country are poorly known to the international research community and the wider audience, mostly due to the limited access to the literature published in Russian (Yaroshenko 1957, 1964, 1973, Dediu 1967, 1980, Vladimirov 1984, Toderaş 1984,

*Corresponding author:bushmakiu@yahoo.com

Vladimirov & Toderaş 1988 and other publications cited in the checklist provided in this article).

Yaroshenko (1957) published the first taxonomic list of benthic fauna. It included 90 taxa, of which 67 were identified at the species level. Several arthropod groups from the Dniester River and its tributaries in the Republic of Moldova were covered by this monograph. Mushchinskij (1971, 1972) presented the first list of benthic invertebrates from the Prut River; it included 76 taxa, 67 of them being identified at the species level.

The most detailed species lists of the Amphipoda were presented by Dediu (1967, 1980).

Toderaş (1984) published a list of the Chironomidae (178 species-group taxa). Inventories of the Ephemeroptera, Plecoptera and Trichoptera were carried out by Vladimirov (1983a), Toderaş (1983a, 1983b), Toderaş et al. (2007) and Șubernețkii (2008). New species of Ephemeroptera and Plecoptera from the Dniester River were recorded by Munjiu & Șubernețkii (2013). Munjiu et al. (2014a, 2014b) reported further six species of ephemeropterans and two species of trichopterans from the Prut River. Munjiu et al. (2016) reported a new trichopteran species from the Dubăsari Reservoir on the Dniester River. A list of further 21 new records of freshwater macroinvertebrate arthropod species was published by Munjiu et al. (2018), including collecting data, localities and numbers of specimens.

Aquatic species of the Collembola from Moldova were reported for the first time by Stegarescu (1983). During the last 30th years, this group has been studied in more detail. The faunistic data on the collembolans from Moldova have been summarised in a checklist by Buşmachiu (2010). Totally, more than 230 species of collembolans were recorded from riparian habitats of the Prut, Dniester and Danube Rivers (Buşmachiu 2006, 2008, 2017, 2018).

Among the first works on dragonflies (Odonata) from Moldova were those by Brauner (1910), Bezvali (1932b), Artobolevsky (1917) and Vladimirov (1983b). Andreev (1998) listed 41 dragonfly species, combining both literature data and collections from the Talmaza section of the Dniester River. Another species (*Aeshna juncea*) was added from the Iagorlîc Reserve (Osenimskiy 2006). Some further dragonfly species detected in the middle part of the Dniester River were reported by Dyatlova (2010).

Information about true bugs (Hemiptera: Heteroptera) of Moldova was included in several works (Slastenenko 1928, Bezvali 1932a, Puchikov 1983, Jansson 1986). The first list of 31 aquatic heteropteran species was by Derzhansky (1984). More recent data on them were given by Derjanschi (1995, 2008, 2009, 2011) and Zubcova & Șubernețkii (2010).

Aquatic beetles (Coleoptera) were reported by various authors (Ruscinsky 1934, Miller & Zubovsky 1917, Medvedev & Shapiro 1957, Yaroshenko 1957, Ostafichuk 1983, Neculiseanu et al. 2005). The data were summarised by Munteanu-Molotievskiy et al. (2015).

The first data on mosquito larvae (Diptera: Culicidae) in aquatic habitats of Moldova were obtained by Markovich et al. (1949), Prendel et al. (1949), Prendel (1956) and Tihon (1984). The results of previous and recent surveys of larval mosquitoes were reported by Șuleșco et al. (2013, 2015). The updated checklist of the Culicidae included 40 species, of which 20 species belonging to five genera were found in natural or artificial aquatic habitats. The present checklist includes 18 mosquito species, with larval stages found only in natural permanent or temporary aquatic habitats.

The aim of the present article is to represent an inventory checklist of the hydrobiont species of the phylum Arthropoda recorded in water bodies of the Republic of Moldova.

Materials and Methods

Area descriptions

The field samplings have been made regularly in four freshwater basins (Fig. 1). The samples were collected with annual, seasonal, monthly and decadal frequency. The studied water basins and the abbreviations used in the Appendix 1 and Fig. 1 are as follows:

(i) Sampling sites on the Dniester River Basin (DRB) located near the v. Naslavcea, v. Volcineț, t. Soroca, t. Camenca, v. Hîrjău (Erjovo), v. Goian, v. Cocieri, t. Vadul-lui-Vodă, v. Varniţa, v. Sucleia and v. Palanca. Additional sampling sites were located on its small tributaries: Răut, Cogîlinic, Bîc, Botna, Ialpug, Ichel, Rîbnita, Beloci, Iagorlîc, Cubolta (Fig. 1, Basin 1).

(ii) Sampling sites on the Prut River Basin (PRB) located near the v. Branişte, v. Sculeni, t. Leuşeni, t. Leova, t. Cahul, v. Cîşliţa-Prut and v. Giurgiuleşti. Additional sites: v. Criva, v. Teţcani, v. Bădragii Noi, v. Duruitoarea Nouă, t. Ungheni, v. Goteşti, v. Slobozia Mare and the lake complex system consisting of several natural Lakes: Badelnic, Dracele, Rotunda and Beleu. Additional sampling sites were situated on the small tributaries: Lopatnic, Racovăț, Ciuhur, Larga, Delia, Camenca, Nîrnova, Lăpuşna and Sărata (Fig. 1, Basin 2).

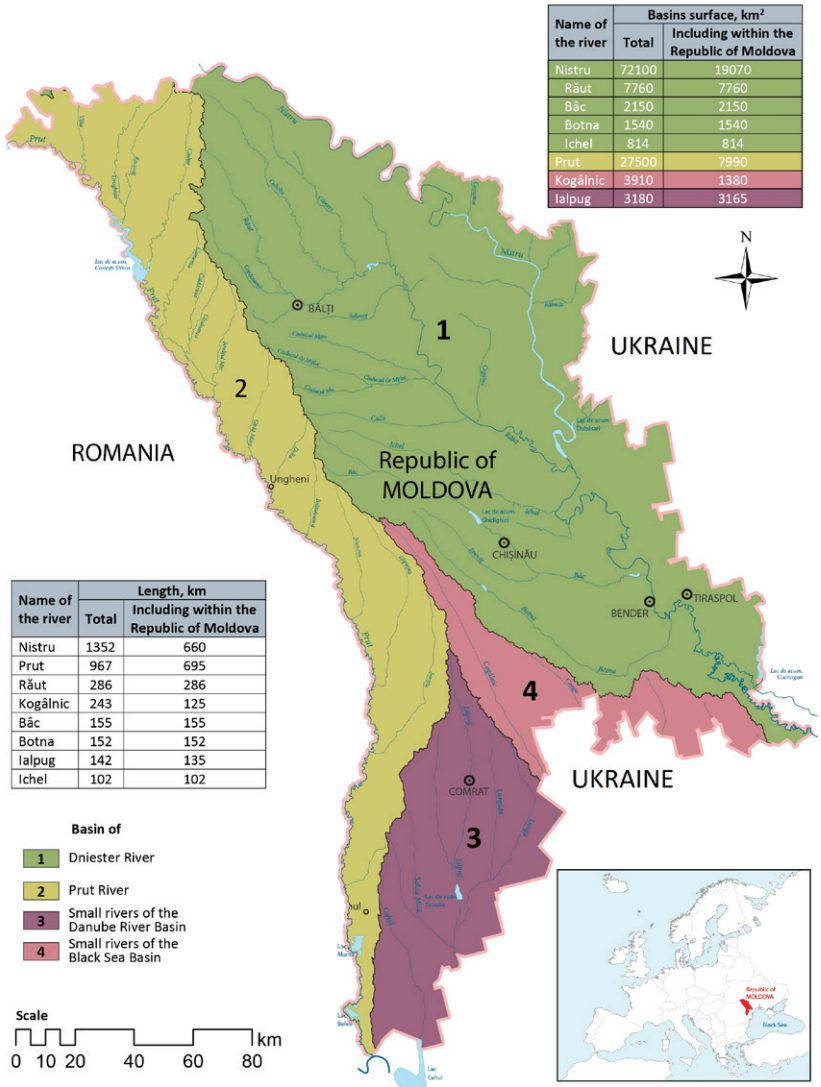

Fig. 1. Map of water basins in the Republic of Moldova.

(iii) Sampling sites Giurgiulești and Lake Cahul are part of the Danube River Basin (DnRB) (Fig. 1, Basin 3).

(iv) Small rivers Ialpug and Cogâlnic flowing into the Black Sea Basin (BSB) (Fig. 1, Basin 4).

The water reservoirs (WR) Cuciurgan and Dubăsari on the Dniester River and Costeşti-Stânca on the Prut River were studied separately because of the changes in the hydromorphological characteristics caused by the power stations built on them. Additional sampling sites located on the other water bodies as lakes near the localities v. Ghidighici, v. Cişcăreni, v. Congaz, t. Comrat, v. Lazo, v. Ulmeni, v. Răzeni and about 300 ponds were studied. In total, this checklist includes data from c. 360 sampling sites (Yaroshenko 1964, 1973, Grimal'skij & Mushchinskij 1973, Byzgu et al. 1964).

Sampling

Benthic invertebrates were collected between 1946 and 2018 using standard sampling techniques (Boruckij 1934, Zhadin 1956, 1960, Abakumov 1983, AQEM 2002). The Petersen and Ekman grabs with area of capture of 1/40 m^2, nets, bottom scrapers and dredges were used for quantitative sampling. Hand netting from different substrates was applied for qualitative sampling. E.g., c. 657 samples have been collected in one sampling point (t. Camenca) only by routine benthic sampling, starting in 1946 and over next 70 years – annually in spring, summer and autumn. The sample conservation has been made by adding 37% formaldehyde or 96% ethanol, thus conservation liquid reaching the final concentration of 3.7% and 70%, respectively. All individuals were morphologically identified using the keys by Chernovskiy & Popova (1953), Mordukhai-Boltovsky (1969, 1972), Ku-

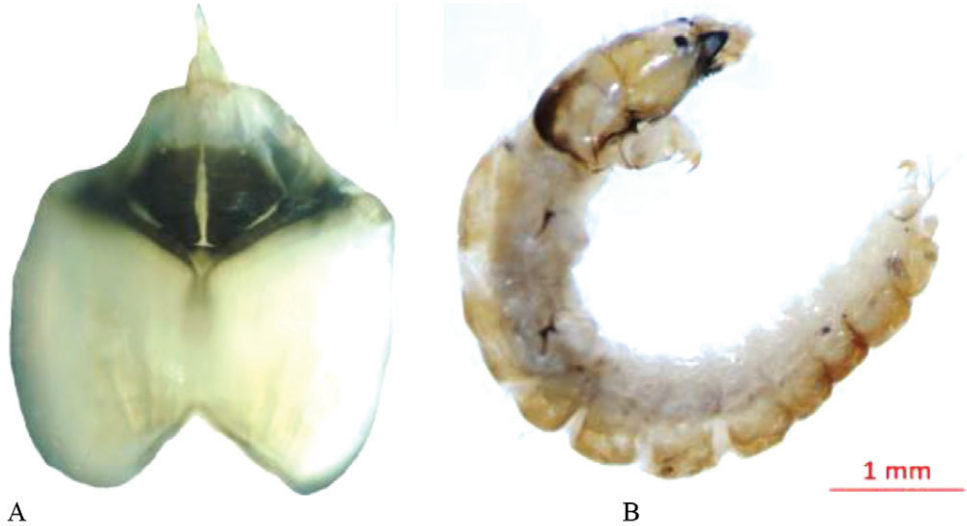

Fig. 2. *Psychomyia pusilla* (Fabricius, 1781) (Trichoptera): A. Head, ventral view. B. Larva, general view. Photo: O. Munjiu.

tikova & Starobogatov (1977), Pankratova (1970, 1983), Zhiltzova & Teslenko (2009) and Tsalolikhin (1995, 1997, 2000, 2001). Stereomicroscopes Jenaval (Zeiss) and Stereo Discovery.V8 (Zeiss) and compound microscope Axio Imager A.2 (Zeiss) were used to identify the arthropods.

The checklist is arranged using the systematic order for the superior taxa and the alphabetic order for the species-group taxa. The latest classifications by Spies & Sæther (2004), Daneliya et al. (2007), Bauernfeind & Soldan (2012), Wilkerson et al. (2015) and Gaffigan et al. (2017) were used (Table 1).

Data sources

The faunistic data have been extracted from scientific articles by reference tracking or expert sharing. They were supplemented by results of recent field samplings and revision of collections stored in the Institute of Zoology, Republic of Moldova. They represent results of long-term studies carried out over 70 years (1946–2018) in the Republic of Moldova (within the present country borders).

Results

In total, 461 species of aquatic arthropods belonging to six classes were revealed from the Republic of Moldova (Appendix 1). These were one species of Arachnida, 53 species of Malacostraca, two species of Branchiopoda, one species of Maxillopoda, 6 species of Collembola and 398 species of Insecta. Among these, *Psychomyia pusilla* is a new record for this country. In addition, previously unpublished data for 20 species, including 19 species of Insecta and one species of Malacostraca, found in the archive of the Laboratory of Hydrobiology and Ecotoxicology, were presented separately due to the lack of complete sampling data.

A new species record for the Republic of Moldova

Class Insecta

Order Trichoptera Kirby, 1813

Family Psychomyiidae Walker, 1852

***Psychomyia pusilla* (Fabricius, 1781)**

Material: 1 larva, 22.04.2014, sampled by Petersen grab, 3 larvae sampled by Ekman grab, 5 larvae sampled by dredge, 25.10.2016, Branişte (47˚78’49”/27˚25’41”), in the riverbed of the Prut River (Fig. 1), leg. I. Șubernețkii and O. Munjiu. The lengths of larvae were 3.4–6.3 mm (Fig. 2). Branişte is a sampling point with diverse substrates: coarse gravel, sand and mud, submerged macrophytes, emergent macrophytes, living parts of terrestrial plants and xylal (wood).

Diagnosis: larvae without abdominal gills; labrum comprising sclerotised plate; lateral plates on 2nd and 3rd thoracic segments small; black mentum with heavy ornamentation.

Distribution: Widespread and common in Europe (Urbanič et al. 2003), including in adjacent Romania (Ciubuc 1993) and Ukraine (Szczęsny & Godunko 2008).

Species synonymy

Class Malacostraca Latreille, 1802

Family Mysidae Haworth, 1825

***Paramysis bakuensis* G. O. Sars, 1895**

Synonym: *Paramysis baeri bispinosa* Martynov, 1924

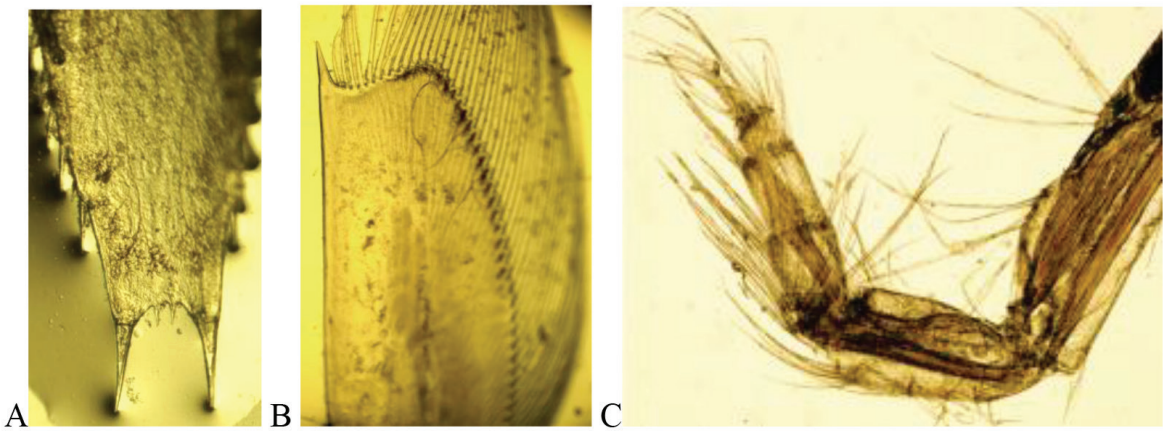

Fig. 3. *Paramysis bakuensis* G. O. Sars, 1895 (Malacostraca). A. Telson. B. Antennal scale. C. Periopod VI. Photo: O. Munjiu.

Yaroshenko (1957) reported *Paramysis baeri bispinosa* Martynov, 1924 from the Dniester River. Specimens identified as *Paramysis baeri bispinosa* were present in samples from the Dniester River and Lake Cahul before 2005 (Fig. 1). Several specimens of this taxon were re-examined by O. Munjiu; it was concluded that the specimens previously reported as *Paramysis baeri bispinosa* from Moldova belonged to *P. bakuensis* (Fig. 3). *Paramysis baeri bispinosa* was proposed as a synonym of *P. bakuensis* by Daneliya et al. (2007). The species was included in the 3rd edition of the Red Book of the Republic of Moldova (2015).

Review of some revealed species

Apart from the species present in Appendix 1, data about additional 20 species were found in the archive of the Laboratory of Hydrobiology and Ecotoxicology dating from the period 1990–1991. These species were not included in the checklist because they were identified on the basis of a few individuals and with no detailed sampling data recorded. Only the main freshwater basins have been indicated in the laboratory records. These are:

- *Leptocerus tineiformis* Curtis, 1834 sampled in the Middle Dniester.

- *Habrophlebia lauta* Eaton, 1884, *C.* (*Chironomus*) *heterodentatus* Konstantinov, 1956, *C.* (*Chironomus*) *solitus* Linevich & Erbaeva, 1971, *Glossosoma boltoni* Curtis, 1834, *Limnephilus centralis* Curtis, 1834 and *Ulomyia annulata* (Tonnoir, 1919) sampled from the Lower Dniester.

- *Prodiamesa rufovittata* Goetghebuer, 1932, *Pseudochironomus prasinatus* (Staeger, 1839) and *Stictochironomus sticticus* (Fabricius, 1781) sampled from the Lower Dniester and the Cuciurgan Reservoir;

- *Habrophlebia fusca* (Curtis, 1834), *Paraleptophlebia submarginata* (Stephens, 1835), *Cricotopus* (*Isocladius*) *ornatus* (Meigen, 1818) and *Glyptotendipes* (*Glyptotendipes*) *barbipes* (Staeger, 1839) sampled from the Dubăsari Reservoir.

- *Amathillina cristata* Sars, 1894, *Olecryptotendipes macropodus* (Lyakhov, 1941) and *Neoephemera maxima* (Joly, 1870) sampled from the Cuciurgan Reservoir.

- *Paralauterborniella nigrohalteralis* (Malloch, 1915) sampled from the Lower Dniester and the Prut River.

- *Synendotendipes dispar* (Meigen, 1830) and *Paratendipes nudisquama* (Edwards, 1929) sampled from the Prut River.

Discussion

Despite the long period of hydrobiological studies in the Republic of Moldova, the accumulated considerable amount of materials and the abundant literature sources in the former USSR are not accessible for researchers from many other countries. Thus, according to Fauna Europaea (see Sather & Spies 2013), only 75 chironomid species have been recorded in the Republic of Moldova. However, 30 years before this work, the detailed checklist of the Chironomidae from Moldova (Toderas 1984) has published data of 154 species identified either as adults or larvae.

Studies on some arthropod groups in the Republic of Moldova have been made by foreign researchers with various levels of accuracy. Thus, Antczak et al. (2016) studied the distribution of the Chironomidae from the Republic of Moldova during the summer of 2012 and recorded two new species for the country, providing detailed data on

their localities. One of them, *Rheocricotopus chalybeatus* (Edwards, 1929), was collected in two sampling sites located in the Dniester River Basin: a small river below a dam lake near v. Maramonovca and in the Răut River near t. Orhei. The second species, *Microchironomus deribae* (Freeman, (1957), was collected in a tributary of the Prut River near the locality Cuporani, Leova District.

One of the last works on the Amphipoda of Moldova (Konopacka et al. 2014) contained the results of field collections in 2012 from 25 sites across the country and a species inventory with a detailed review of local monographs and technical reports. Only four species of gammarids (*Gammarus kischineffensis*, *Pontogammarus robustoides*, *Obesogammarus crassus* and *Dikerogammarus haemobaphes*) have been identified during their survey. The list of species was very similar to the *most detailed lists of the Amphipoda* (Dediu 1967, 1980). Konopacka et al. (2014) did not add new species records but excluded *Dikerogammarus fluviatilis*.

Another example of an arthropod surveillance carried out by foreign researchers is the study of Trichoptera by Dyatlova & Czachorowski (2007). This work has not taken into account the monographs of the Moldovan researchers Yaroshenko (1957) and Mushchinskij *(1972). N*evertheless, several new species from the Dniester River have been reported: *Agapetus fuscipes*, *Ecnomus tenellus*, *Plectrocnemia conspersa*, *Hydropsyche angustipennis*, *H. bulgaromanorum*, *Phryganea grandis*, *Limnephilus flavospinosus* and *L. flavicornis.* These species are included in the present list. Specimens of *E. tenellus*, *H. angustipennis* and *H. bulgaromanorum* have regularly been found in our samples.

The sensitivity of some invertebrate species to negative anthropogenic impacts can lead to their extinction. E.g., *Astacus astacus* has not been recorded during the last 30 years and *Paramysis bakuensis* has not been sampled during the last 10 years in Moldova. The long term absence of such species in the samples does not always indicate their extinction in the country. An interesting example of reappearance is that of *Palingenia longicauda*, which has been considered extinct the 1970s and later rediscovered in 2010 in the Prut River (Munjiu 2017).

The present list of freshwater arthropods does not include Cladocera and Copepoda (zooplankton) as well as Ostracoda (meiobenthos), as they have been included in separate checklists by Climenco (2005) and Kovalenko (1973).

The comparative analysis of the species composition in the four main water basins and water reservoirs within the Republic of Moldova revealed the presence of 392 taxa in the Dniester River Basin, 192 taxa in the Prut River Basin, 54 taxa in the Danube River Basin, 42 taxa in the Black Sea Basin and 106 taxa in the reservoirs Costeşti-Stânca, Cuciurgan and Dubăsari. Such difference in numbers of the recorded species can be explained by the greater habitat diversity in water basins occupying large areas. Nevertheless, it should be taken into account the unequal sampling efforts in the studied water bodies, in addition to the size of the catchment basins, the biggest one being the Dniester River Basin. Some of basins have insufficiently been studied, resulting into the lack of data on certain groups in them.

The present state of the aquatic fauna of arthropods should be a subject of new studies. It is worth mentioning the serious impact of water pollution on aquatic species diversity and abundance. Some water bodies in this country are in poor conditions due to regular emissions of toxic substances.

The checklist of aquatic arthropods from the Republic of Moldova is open for additional species from the other groups, especially amphibiotic insects that will be supplemented in future investigations.

Conclusion

The first detailed review of literature on aquatic macroinvertebrates collected during 1946–2018 at more than 360 sampling sites belonged to four main water basins in the Republic of Moldova is presented. It is complemented with unpublished data of the present authors. The review has summarised data on 461 species of freshwater macroinvertebrate belonging to six classes: Arachnida (1), Branchiopoda (2), Malacostraca (53), Maxillopoda (1), Collembola (6) and Insecta (398 species). Among these species, *Psychomyia pusilla* is a new record for the country. Additionally, unpublished data on 20 further species of Insecta (19) and Malacostraca (1) collected in 1990–1991 from the Dniester and Prut Rivers from the archive of the Laboratory of Hydrobiology and Ecotoxicology are listed. This article provides the current state of knowledge on aquatic arthropods fauna available for international scientific community, thus removing the status of “Terra Incognita” for the Republic of Moldova.

Acknowledgements: We thank G. Karaman and M. Daneliya for advising us on the taxonomy of certain groups as well as anonymous reviewers for their useful comments, which have improved the manuscript. We are grateful to the colleagues at the Laboratory of Hydrobiology and Ecotoxicology where the investigations have been carried out and personally to the head of laboratory Professor E. Zubcov for the access to the laboratory archive. We acknowledge the help in map preparing by I. Jechiu (Institute of Ecology and Geography, Chişinău). The present study was supported by the projects 11.817.08.13F, 11.817.08.15A, JDDS, JDS3, MIS ETC 1150, MIS ETC 1676, 15.817.02.27 A and 20.80009.7007.02

References

Abakumov V. A. 1983. Guidelines on the methods of hydrobiological analysis of surface waters and bottom sediments. Hydrometeoizdat, Leningrad: 239 p. (In Russian).

Andreev A. V. 1998. On the Odonata fauna in Moldova and dragonflies of Talmaza's section of the Dniester River. Probleme conservării biodiversității cursului medial şi inferior al fluviului Nistru Biotica, Chişinău, pp. 14–16. (In Russian).

Antczak O., Póciennik M., Rewicz T., Baranov V. & Bilecka J. 2016. New records of Chironomidae (Diptera) from the Republic of Moldova. Lauterbornia 81: 155–162.

AQEM. 2002. A comprehensive method to assess European streams using benthic macroinvertebrates, developed for the purpose of the Water Framework Directive. Version 1.0. AQEM Consortium, 198.

Artobolevsky G. 1917. To the fauna of Odonata of Bessarabia. Materials to the knowledge of the fauna of Southwestern Russia 2: 1–58. (In Russian).

Bauernfeind E. & Soldan T. 2012. The Mayflies of Europe (Ephemeroptera). Ollerup: Apollo Books, 781 p.

Bening A. L. 1928. The Ponto-Caspian fauna elements in the Dniester River. Russian Hydrobiological Journal 7 (10–12): 260-263.

Bezvali V. 1932a. Hemipteres de Bessarabie. Buletinul Muzeului Naţional de Istorie Naturală din Chişinău 4: 45–52.

Bezvali V. 1932b. Odonata de Besarabie. Buletinul Muzeului Naţional de Istorie Naturală din Chişinău 4: 68–69.

Boruckij E. V. 1934. Towards of the technique of quantitative assessment of bottom fauna. Trudy limnologicheskoj stancii v Kosine 18: 129. (In Russian).

Brauner A. 1910. Materialien zur der entomologischen Fauna Bessarabiens. Odonata. Transactions of Bessarabia Naturalists' Society 2 (1): 3–5.

Buşmachiu G. 1999. Species diversity of Collembola from the Codrii Reserve. Conservarea biodiversității bazinului Nistrului. Materialele conferinței internaționale. Chişinău, pp. 32–35.

Buşmachiu G. 2001. Fauna of Moldavian Codrii Upland. Transactions of Zoological Museum of Odessa National University 4: 46–52.

Buşmachiu G. 2004. New records on Collembola (Insecta) from Moldova. Buletinul Academiei de Ştiinţe a Moldovei. Ştiinţe biologice şi chimice 3: 44–48.

Buşmachiu G. 2006. Structure of the Collembola communities of the Lower Prut River. Collection of scientific articles. In: Memoriam of academician Leo Berg – 130 years: Collection of Scientific Articles. Bender, pp. 142–146.

Buşmachiu G. 2008. Species diversity of Collembola from the riparian habitats of rivers ecosystems. Transboudary Dnester River basin management and the EU water framework directive. Proceedings of the International Conference. Chişinău, pp. 56-59.

Buşmachiu G. 2010. Checklist of springtails (Collembola) from the Republic of Moldova. Travaux du Muséum National d'Histoire Naturelle «Grigore Antipa» 53: 149–160.

Buşmachiu G. 2017. To the knowledge of the springtails fauna (Collembola: Hexapoda) of the Yagorlyk Reserve. Transboundary Dniester River basin management: platform for cooperation and current challenges. Eco-Tiras. Tiraspol, pp. 51–53. (In Russian).

Buşmachiu G. 2018. The study of Collembola (Hexapoda: Collembola) of the Danube River basin. Biodiversity and rational use of natural resources. Proceedings of the IV All-Russian Correspondence Scientific and Practical Conference with International Participation. Makhachkala 27: 81–84. (In Russian).

Byzgu S. E., Dymchishina-Krivencova T. D., Naberezhnyj A. I., Tomnatik E. N., Shalar' V. M. & Jaroshenko M. F. 1964. Dubăsari Rezervoir. Nauka, Moskva: 229 p. (In Russian).

Chernovskiy A. A. 1949. Key to larvae of mosquitoes of family Tendipedidae. Vol. 31. Publishing House of Academy of Sciences of USSR, Leningrad, 187 p. (In Russian).

Ciubuc C. 1993. Checklist of Romanian Trichoptera (Insecta). Travaux du Muséum National d'Histoire Naturelle «Grigore Antipa» 33: 11–147.

Climenco V. 2005. Structura şi funcţionarea comunităţilor de zooplancton în ecosistemele acvatice din bazinul hidrografic al fluviului Nistru. Autoreferat of PhD thesis. Institute of Zoology, Academy of Sciences of Moldova Chişinău, pp. 1–24. (In Romanian).

Daneliya M. E., Audzijonyte A. & Vainola R. 2007. Diversity within the Ponto-Caspian *Paramysis baeri* Czerniavsky *sensu lato* revisited: *P. bakuensis* G. O. Sars restored (Crustacea: Mysida: Mysidae). Zootaxa 1632: 21–36.

Dediu I. I. 1961. On the composition and distribution of amphipods in Moldova. In: Irihimovich A. I. (ed.): Questions of hydrobiology and ichthyology of waterbodies of Moldova. Kishinev: Shtiintsa, pp. 10–19. (In Russian).

Dediu I. I. 1967. Amphipods and mysids of the basins of rivers Dniester and Prut. Systematic ecology, zoogeographical analysis and economic importance. Moscow: Nauka, 172 p. (In Russian).

Dediu I. I. 1980. Amphipods of fresh and brackish waters of the southwestern USSR. Kishinev: Shtiintsa, 224 p. (In Russian).

Dediu I. I. & Val'kovskaja O. I. 1961. Materials to the fauna of the riverane zone of the Prut River In: Irihimovich A. I. (Ed.): Questions of hydrobiology and ichthyology of waterbodies of Moldova. Kishinev: Shtiintsa, pp. 19–23. (In Russian).

Derjanschi V. V. 1995. Completare la fauna heteropterelor (Hemiptera) din R. Moldova. Buletinul Academniei de Ştiinţe a Moldovei. Ştiinţe biologice şi chimice, 4: 32–33. (In Romanian).

Derjanschi V. V. 1998. To the knowledge of the Heteroptera of the Yagorlyk Reserve. Problemele conservării biodiversității cursului medial și inferior al fluviului Nistru. Biotica (Chișinău): 40–41. (In Russian).

Derjanschi V. V. 2008. Investigation of bug fauna (Hemiptera: Heteroptera) by light traps in Republic of Moldova. Muzeul Olteniei Craiova. Oltenia. Studii şi comunicări. Ştiinţele Naturii 24: 65–70.

Derjanschi V. V. 2009. Heteropterian diversity (Insecta, Heteroptera) in the „Prutul-de-Jos" Scientific Reserve. Muzeul Olteniei Craiova. Oltenia. Studii şi comunicări. Ştiinţele Naturii 25: 74–77. (In Romanian).

Derjanschi V. V. 2011. Aquatic bugs (Insecta, Heteroptera) from the Republic of Moldova. International Conference of Zoologists Actual problems of protection and sustainable use of animal world diversity. International Conference dedicated to the 50th anniversary from the foundation of Institute of Zoology of ASM, Chisinau, pp. 106–107.

Derzhansky V. V. 1984. The fauna of aquatic bugs (Heteroptera) of Moldavia. Izvestiya Akademii Nauk Moldavskoy SSR. Seriya Biologicheskikh i Khimicheskikh Nauk 2: 74–75. (In Russian).

Dyatlova E. S. 2010. Dragonflies of Moldova: state of knowledge and personal observations. International Dragonfly Fund – Report, 25: 1–43.

Dyatlova E.S. & Czachorowski S. 2007. First data on the Trichoptera from Moldova. Braueria 34: 1–14.

Filipenko S. I. & Mustya M. V. 2016. About the first discovery of the mud crab *Rhithropanopeus harrisitridentata* (Maitland, 1874) in Transdniestria. In: Mikheyeva T. M. (Ed.): Lake ecosystems: biological processes, antropogenic transformation, water quality: Materials of the V International Scientific Conference, Minsk Minsk: Naroch. BSU, pp. 397–398. (In Russian).

Gaffigan T.V., Wilkerson R. C., Pecor J. E., Stoffer J. A. & Anderson T. 2017. Systematic catalog of Culicidae. Walter Reed Biosystematic Unit. Available at: www.mosquitocatalog.org. (accessed 28 July 2018).

Grimal'skij V. V. & Mushchinskij V. G. 1973. Formation of biocenoses of small reservoirs of the central zone of Moldavia. In*:* Yaroshenko M. F. (Ed.): Biological resources of Moldovan waterbodies. Kishinev: Shtiintsa, pp. 41–52. (In Russian).

Jansson A. 1986. The Corixidae (Heteroptera) of Europe and some adjacent regions. Acta Entomologica Fennica 47: 1–94.

Karaman G.S. 1991. The survey of described and cited freshwater Gammarus species (Fam. Gammaridae) from Soviet Union with redescription of two taxa (Contribution to the knowledge of the Amphipoda 205). Poljoprivreda I Šumarstvo 37: 37–73.

Konopacka A., Hupalo K., Rewicz T. & Grabowski M. 2014. Species inventory and distribution patterns of freshwater amphipods in *Moldova*. North-Western Journal of Zoology 10 (2): 382–392.

Kovalenko A. L. 1973. The ostracods of Dubossary reservoir (preliminary report). Biologicheskije resursy vodoemov Moldavii. Kishinev: Shtiintsa, pp. 52–56. (In Russian).

Kutikova L. A. & Starobogatov E. I. (Ed.) 1977. Identification guide into the freshwater invertebrates from the European parts of the USSR (plankton and benthos). Leningrad: Gidrometeoizdat, 510 p. (In Russian).

Malikova E. 2009. The IUCN Red List of Threatened Species.

Markovich N. Y., Prokopenko L. & Ivanova L. V. 1949. Experience of using DDT for malaria control in the Moldavian SSR. Journal of Medical Parasitology and Parasitic Diseases 18: 21–43. (In Russian).

Medvedev S. & Shapiro D. 1957. K poznaniû fauny jukov (Coleoptera) Moldavskoj SSR i sopredel'nyh raionov Ukrainy. Trudy nauchno-issledovatel'skogo instituta biologii i biologiceskogo fakul'teta Harikovskogo Universiteta im. A. M. Gorikogo 30: 173–206. (In Russian).

Mikhailov K. G. 1997. Catalogue of the spiders of the territories of the former Soviet Union (Arachnida, Aranei). Sbornik Trudov Zoologicheskogo Muzeya MGU. Moscow: Zoological Museum, Moscow State University 37: 416 p. (In Russian).

Miller E. & Zubovsky N. 1917. Materialy po entomologiceskoy faune Bessarabii. Travaux Soc. Natur. und Amat. Bessarabie, Kishinev 6: 119–150. (In Russian).

Molotievskiy-Munteanu N. & Bacal S. 2015. *Rhantus suturalis* (Macleay, 1825) și *Rhantus exsoletus* (Forster, 1771) (Coleoptera: Dytiscidae), prima mențiune în Republica Moldova. Conferința Internațională „Mediul și schimbarea climei: de la viziune la acțiune". Chișinău, pp. 153–156.

Mordukhai-Boltovsky F. D. (Ed.) 1969. Opredeliteli fauny Chiornogo i Azovskogo morei. Svobodnojivuscie bespozvonocinie. Tom 2. Rakoobraznye. Kiev: Naukova dumka, 536 p. (In Russian).

Mordukhai-Boltovsky F. D. (Ed.) 1972. Opredeliteli fauny Chiornogo i Azovskogo morei. Svobodnojivuscie bespozvonocinie. Tom 3. Chlenistonogie (krome rakoobraznyh), molliuski, iglokozhie, shhetinkocheliustnye, hordovye. Kiev: Naukova dumka, 340 p. (In Russian).

Munjiu O. 2017. Distribution of endangered mayfly *Palingenia longicauda* (Olivier, 1791) (Ephemeroptera, Palingeniidae) on the territory of the Republic of Moldova. Lauterbornia 84: 39–51.

Munjiu O. V. & Șubernețkii I. V. 2013. The species diversity of hydrobionts of the middle part of the Dniester River in 2012. In*:* Transboundary Dniester River basin management in frames of a new river basin treaty. Chișinău: Eco-TIRAS, pp. 281–285. (In Russian).

Munjiu O. V., Toderaş I. C., Zubcov E. I., L. Biletchi and I. V.Subernetkii 2014a. Composition and distribution of benthic macroinvertebrates in the Prut River (2012-2013). Analele Științifice ale Universității „Alexandru Ioan Cuza" din Iași, s. Biologie animală 60: 27–34.

Munjiu O. V., I. C. Toderaş, I. V. Șubernețkii and V. Banu 2014b. Biodiversity, abundance and biomass of Ehhemeroptera of the Prut River in 2012–2014. *In:* Toderaş I. (ed.) Sustainable use and protection of animal world diversity. Kishinev: Shtiintsa, pp. 223–224. (In Russian).

Munjiu O. V., E. I. Zubkova, I. C. Toderaş, I. V. Șubernețkii and V. Banu 2016. Assessment of species composition and production of macrobenthos communities in the Dubossary reservoir. In*:* Academician Leo Berg 140: Collection of Scientific Articles. Bendery: Eco-TIRAS, pp. 452–456. (In Russian).

Munjiu O. V., G. N. Buşmachiu, Toderaş I. C. & Șubernețkii I. V. 2018. New species of invertebtates on the territory of the Republic of Moldova. Biodiversity and rational use of natural resources. Proceedings of the IV All-Russian Correspondence Scientific and Practical Conference with International Participation. Makhachkala 27: 128–130. (In Russian).

Munteanu-Molotievskiy N., Bacal S., Munjiu O. & Moldovan A. 2015. Aquatic beetles fauna (Coleoptera: Gyrinidae, Haliplidae, Noteridae, Hygrobiidae, Dytiscidae and Hydro-

philidae) from the Republic of Moldova. Marisia. Studii și Materiale, Ştiinţele Naturii 35: 1016–9652.

Mushchinskij V. G. 1971. Benthic fauna of the Prut River. Autoreferat of PhD thesis. Kishinev: 1–26. (In Russian).

Mushchinskij V. G. 1972. Ecological and systematic characteristics of zoobenthos of the Prut River. In: Cojocaru E. V. (Ed.): Biology and biotechnology of growing herbivorous fish. Kishinev, Shtiintsa: 156–181. (In Russian).

Neculiseanu Z. Z., Zubcov E. I., Ungureanu L. & Negru M. 2005. Monitorizarea macronevertebratelor acvatice. Chisinau: Continental Grup, 132 p. (In Romanian).

Osenimskiy B. I. 2006. Short results of inventory of the fauna of the "Jagorlyk" Reserve. Chisinau, Eco-TIRAS, pp. 28–35. (In Russian).

Ostafichuk V. 1983. Coleoptera. In: Insects. Animal World of Moldavia. Kishinev. Shtiintsa, pp. 133–184. (In Russian).

Pankratova V. Y. 1970. Larvae and pupae of the midges of the subfamily Orthocladiinae from the fauna of USSR (Diptera, Chironomidae = Tendipedidae). Leningrad: Nauka, 344 p. (In Russian).

Pankratova V. Y. 1983. Larvae and pupae of the midges of the subfamily Chironominae from the fauna of USSR (Diptera, Chironomidae = Tendipedidae). Leningrad: Nauka, 295 p. (In Russian).

Popova A. N. 1953. The larvae of dragonflies fauna of the USSR (Odonata). Moscow & Leningrad: Publishing House of Academy of Sciences of the USSR, 236 p. (In Russian).

Prendel A. R. 1956. Comparative description of the mosquito fauna of Moldavia and adjacent areas. Parasitology Problems 2: 252–254. (In Russian).

Prendel A. R., Krasilshikov A., Motornii I. A. & Vainberg E. G. 1949. *Anopheles maculipennis* subspecies in Moldavian SSR. Journal of Medical Parasitology and Parasitic Diseases 18: 433–436. (In Russian).

Puchikov P. V. 1983. Hemiptera. In: Insects. Animal World of Moldavia. Kishinev: Shtiintsa, pp. 108–125. (In Russian).

Ruscinsky A. 1934. Beitrag Zur Colepterenfauna Bessatabiens. Bulertinul Muzeului Național de Istorie Naturală din Chișinău 5 (1933): 130–143.

Schellenberg A. 1937. Kritische Bemerkungen zur Systematik der Süsswassergammariden. Zoologische Jahrbücher (Systematik) 69(5/6): 469–516.

Slastenenko E. 1928. Note on *Aphelocheirus aestivalis* in the Dniester. Russian Hydrobiological Journal **7**(10– 12): 263–264. (In Russian).

Sæther O. A. & Spies M. 2013. Fauna Europaea: Chironomidae. In: Beuk P. & Pape T. (Eds.) Fauna Europaea: Diptera Nematocera. Fauna Europaea. Version 2.6.2 (http://www.faunaeur.org/), accessed August 2013.

Spies M. & Sæther O. A. 2004. Notes and recommendations on taxonomy and nomenclature of Chironomidae (Diptera). Zootaxa 752: 1–90.

Stegarescu O. 1983. Collembola. In: Insects. Animal World of Moldavia. Kishinev: Shtiintsa, pp. 17–19. (In Russian).

Șuberneţkii I. V. 2008. Macroinvertebrate Fauna of the Upper Part of the Middle Dniester under the Conditions of the Modern Hydrological Regime. In: Academician Jukovskii P. M. – 120 Years: Collection Of Scientific Articles. Kishinev, Pp. 133–135. (In Russian).

Șuleşco T. M., Toderas I. C. & Toderas L. G. 2013. Annotated Checklist of the Mosquitoes of the Republic of Moldova. Journal of the American Mosquito Control Association 29(2): 98–101.

Șuleşco T. M., Toderas L. G., Uspenskaia I. G. & Toderas I. C. 2015. Larval habitat diversity and distribution of the mosquito (Diptera: Culicidae) species in the Republic of Moldova. Journal of Medical Entomology 52 (6): 1299–1308.

Szczęsny B. & Godunko R. J. 2008. Catalogue of caddis flies (Insecta: Trichoptera) of Ukraine. Lvov: SMNH NAS Ukraine: 103 p.

Tatole V. 2000. Checklist of Chironomidae (Diptera) of Romania. Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa" 42: 117–132.

The Red Book of the Republic of Moldova. 2015. Chişinău: Ştiinţa: 491 p.

Toderaş I. C. 1983a. Order Plecoptera. In: Yaroshenko M. F. (Ed.): Animal World of Moldavia. Kishinev: Shtiintsa, pp. 44–46. (In Russian).

Toderaş I. C. 1983b. Order Trichoptera. In: Yaroshenko M. F. (ed.): Animal World of Moldavia. Kishinev: Shtiintsa, pp. 196–198. (In Russian).

Toderaş I. C. 1984. The functional significance of chironomids in the ecosystems of the waterbodes of Moldvia. Kishinev: Shtiintsa, 170 p. (In Russian).

Toderaş I. C., Vladimirov M. Z. & Neculiseanu Z. Z. 2007. The Animal World of Moldova. Vol. 1. Invertebrates. Chişinău: Ştiinţa: 200 p. (In Russian).

Tsalolikhin S. J. (Ed.) 1995. Key to Freshwater Invertebrates of Russia and adjacent countries. Vol. 2. Crustacea. Sankt-Peterburg: Zoological Institute of Russian Academy of Science, 627 p. (In Russian).

Tsalolikhin S. J. (Ed.) 1997. Key to Freshwater Invertebrates of Russia and adjacent countries. Vol. 3. Sankt-Peterburg: Zoological Institute of Russian Academy of Science, 439 p. (In Russian).

Tsalolkhin S. J. (Ed.) 2000. Key to Freshwater Invertebrates of Russia and adjacent lands. Diptera. Vol. 4. Sankt-Peterburg: Zoological Institute of Russian Academy of Science, 997 p. (In Russian).

Tsalolikhin S. J. (Ed.) 2001. Key to Freshwater Invertebrates of Russia and adjacent lands. Trichoptera, Lepidoptera, Coleoptera, Neuroptera, Megaloptera, Hymenoptera. Vol. 5. Sankt-Peterburg: Zoological Institute of Russian Academy of Science, Sankt-Peterburg: 836 p. (In Russian).

Urbanič G., Waringer J. & Graf W. 2003. The larva and distribution of *Psychomyia klapalek* Malicky, 1995 (Trichoptera: Psychomyiidae). Lauterbornia 46: 135–140.

Uspensky A. I. 1989. Some ecological characteristics of *Culex territans* (Diptera: Culicidae) in the anthropogenic landscape of Moldavia, In Proceedings, Republican Scientific Conference The problems inmanagement and designing faunistic complexes in anthropogenic landscape of Moldavia, 14–15 November 1989, Chisinau, Moldova. Stiinta, Chisinau, p. 93 (In Russian).

Vladimirov M. Z. 1983a. Order Ephemeroptera. In: Yaroshenko M. F. (Ed.): Animal World of Moldavia. Kishinev, Shtiintsa, pp. 24–28. (In Russian).

Vladimirov M. Z. 1983b. Odonata. In: Yaroshenko M. F. (Ed.): Insects. Animal World of Moldavia. Kishinev: Shtiintsa, pp. 28–35 (In Russian).

Vladimirov M. Z. 1984. Bryozoa, molluscs, arthropods. In: Yaroshenko M. F. (Ed.): Animal World of Moldavia series. Kishinev: Shtiintsa, pp. 31–45. (In Russian).

Vladimirov M. Z. 1989. The eastern river shrimp *Macrobrachium nipponense* (de Haan) – new element of hydrofauna of Cuciurgan rezervoir. Kishinev. News of AN MSSR. Series Biological and Chemical Sciences 1: 77–78. (In Russian).

Vladimirov M. Z. & Toderaş I. C. 1988. Qualitative composition and quantitative development of macrozoobenthos. In: Zelenin A. M. (Ed.): Bioproduction processes in cooling reservoirs of thermoelectric power plants. Kishinev: Shtiintsa, pp. 130–138. (In Russian).

Wilkerson R. C., Linton Y.-M., Fonseca D. M., Schultz T. R., Price D. C., Daniel A. & Strickman A. 2015. Making Mosquito Taxonomy Useful: A Stable Classification of Tribe Aedini that Balances Utility with Current Knowledge of Evolutionary Relationships. PLoS ONE 10(7): e0133602. doi:10.1371.

Yaroshenko M. F. (Ed.) 1957. Hydrofauna of Dniester River. Moscow: Publishing house of Academy of Sciences of the USSR, 169 p. (In Russian).

Yaroshenko M. F. 1964. The formation of bottom fauna of the reservoirs of Moldavia. In: Yaroshenko M. F. (ed) Biological resources of Moldovan waterbodies. Kishinev: Shtiintsa, pp. 98–102. (In Russian).

Yaroshenko M. F. (Ed). 1973. The Cuciurgan Cooling Reservoir of the Moldavskaya GRES. Kishinev: Shtiintsa, 207 p. (In Russian).

Zhadin V. I. 1956. Methods for study of the bottom fauna of water bodies and the ecology of benthic invertebrates. In: Pavlovskii E. N. & Zhadin V. I. (Ed.): Freshwater Life of USSR. Vol. 4(1). Moscow & Leningrad: Publishing House of Academy of Sciences of the USSR, pp. 279–382. (In Russian).

Zhadin V. I. 1960. Methods of hydrobiological research. Publishing house of Academy of Sciences of the USSR. Moscow & Leningrad: 182 p. (In Russian).

Zhiltzova L. A. & Teslenko V. A. 2009. Key to the Stoneflies (Insecta, Plecoptera) of Russia and adjacent countries. Dalnauka, Vladivostok: 380 pp. (In Russian).

Zubcova E. I. & Șubernețkii I. V. 2010. Monitoring of small rivers and reservoirs. Bendery, 96 p. (In Russian).

Received: 22.08.2019
Accepted: 19.10.2020

Appendix 1. Checklist of freshwater arthropods from the Republic of Moldova

Abbreviations: DRB – Dniester River Basin; PRB – Prut River Basin; DnRB – Danube River Basin; BSB – Black Sea Basin; WR – Water Reservoirs (Cuciurgan and Dubăsari on the Dniester River and Costeşti-Stânca on the Prut River); (+) species present, (-) species absent.

Phylum Arthropoda von Siebold, 1948
Subphylum Chelicerata Heymons, 1901
Class Arachnida Cuvier, 1812
Argyroneta aquatica (Clerck, 1757): DRB: Mikhailov (1997); PRB: Mikhailov (1997); DnRB: –; BSB: –; WR: –.

Subphylum Crustacea Brünnich, 1772
Class Branchiopoda Latreille, 1817
Order Diplostraca Gerstaecker, 1866
Cyzicus tetracerus (Krynicki, 1830): DRB: –; PRB: Toderaş et al. (2007); DnRB: –; BSB: –; WR:–.

Order Phyllopoda Latreille, 1817
Triops cancriformis (Bosc, 1801): DRB: Toderaş (2007); PRB: Toderaş (2007); DnRB: Toderaş (2007); BSB: Toderaş (2007); WR: Toderaş (2007).

Class Malacostraca Latreille, 1802
Order Amphipoda Latreille, 1817
Chelicorophium chelicorne (G.O. Sars, 1895): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Chelicorophium curvispinum (G.O. Sars, 1895): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR :–.
Chelicorophium maeoticum (Sowinsky, 1898): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Chelicorophium nobile (G.O. Sars, 1895): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Chelicorophium robustum (G.O. Sars, 1895): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Chelicorophium sowinskyi (Martynov, 1924): DRB: Dediu (1961); PRB: –; DnRB: –; BSB: –; WR –.
Dikerogammarus bispinosus Martynov, 1925: DRB: Dediu (1961); PRB: –; DnRB: –; BSB: –; WR:–.
Dikerogammarus haemobaphes (Eichwald, 1841): DRB: Bening (1928); PRB: –; DnRB: –; BSB: Toderaş (2007); WR: –.
Dikerogammarus villosus (Sowinsky, 1894): DRB: Bening (1928); PRB: –; DnRB: –; BSB: –; WR: –.
Echinogammarus ischnus (Stebbing, 1899): DRB: Bening (1928); PRB: Dediu (1961); DnRB: –; BSB: –; WR: Dediu (1961).
Echinogammarus trichiatus (Martynov, 1932): DRB: Dediu (1967); PRB: –; DnRB: –; BSB: –; WR: –.
Echinogammarus warpachowskyi (Sars, 1894): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Dediu (1961).
Euxinia sarsi (Sowinsky, 1898): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Dediu (1961).
Gammarus balcanicus Schäferna, 1922: DRB: Dediu (1967); PRB: Dediu & (1961); DnRB: –; BSB: –; WR: –.
Gammarus dacicus (Dobrenau & Manolache, 1942): DRB: Dediu (1967); PRB: Dediu (1961); DnRB: –; BSB: –; WR: –.
Gammarus kischineffensis Schellenberg, 1937: DRB: Schellenberg (1937); PRB: Dediu (1961); DnRB: Dediu (1961); BSB: Dediu (1961); WR: Dediu (1961).

Gammarus komareki Schäferna, 1922: DRB: Karaman (1991); PRB: –; DnRB: –; BSB: –; WR: –.
Iphigenella acanthopoda G.O. Sars, 1896: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Yaroshenko (1973).
Niphargogammarus intermedius (Carausu, 1943): DRB: –; PRB: –; DnRB: –; BSB: –; WR: Dediu (1961).
Niphargus birsteini Dedju, 1963: DRB: Dediu (1967); PRB: –; DnRB: –; BSB: –; WR: –.
Niphargus jaroschenkoi Dedju, 1963: DRB: Dediu (1967); PRB: –; DnRB: –; BSB: –; WR: –.
Obesogammarus crassus (Sars, 1894): DRB: Bening (1928); PRB: –; DnRB: –; BSB: –; WR: –.
Obesogammarus obesus (G.O. Sars, 1894): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Byzgu et al. (1964).
Pontogammarus abbreviatus (Sars, 1894): DRB: Dediu (1961); PRB: –; DnRB: –; BSB: –; WR: Dediu (1961).
Pontogammarus maeoticus (Sowinsky, 1894): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Pontogammarus robustoides (Sars, 1894): DRB: Yaroshenko (1957); PRB: Dediu (1961); DnRB: –; BSB: –; WR: –.
Stenogammarus (*Stenogammarus*) *compressus* (G.O. Sars, 1894): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Stenogammarus (*Stenogammarus*) *macrurus* (G.O. Sars, 1894): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Stenogammarus (*Stenogammarus*) *similis* (G.O. Sars, 1894): DRB: Dediu (1967); PRB: –; DnRB: –; BSB: –; WR: –.
Synurella ambulans ambulans (Müller, 1846): DRB: Dediu (1961); PRB: –; DnRB: –; BSB: –; WR: –.

Order Cumacea Krøyer, 1846
Caspiocuma campylaspoides (G.O. Sars, 1897): DRB: Yaroshenko (1973); PRB: –; DnRB: –; BSB: –; WR: Byzgu et al. (1964).
Pseudocuma (*Stenocuma*) *cercaroides* G.O. Sars, 1894: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: Toderaş (2007); WR: Yaroshenko (1973).
Pseudocuma (*Stenocuma*) *graciloides* G.O. Sars, 1894: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Yaroshenko (1973).
Pterocuma pectinata (Sowinsky, 1893): DRB: Yaroshenko & (1957); PRB: Toderaş (2007); DnRB: –; BSB: –; WR: Yaroshenko (1973).
Pterocuma rostrata (G.O. Sars, 1894): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Yaroshenko (1973).
Pterocuma sowinskyi (G.O.Sars, 1894): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Yaroshenko (1973).
Schizorhamphus eudorelloides (G.O.Sars, 1894): DRB: Yaroshenko (1973); PRB: –; DnRB: –; BSB: –; WR: Yaroshenko (1973).
Schizorhamphus scabriusculus (G.O.Sars, 1894): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Yaroshenko (1973).
Volgocuma telmatophora Derzavin, 1912: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Yaroshenko (1973).

Order Decapoda Latreille, 1802
Astacus astacus (Linnaeus, 1758): DRB: Dediu (1961); PRB: –; DnRB: –; BSB: –; WR: –.
Macrobrachium nipponense (De Haan, 1849): DRB: Vladimirov 1989 PRB: –; DnRB: –; BSB: –; WR: –.
Pontastacus leptodactylus (Eschscholtz, 1823): DRB: Yaroshenko (1957); PRB: Dediu (1961); DnRB: Toderaş (2007); BSB: Toderaş (2007); WR: Byzgu et al. (1964).
Rhithropanopeus harrisii (Gould, 1841): DRB: Filipenko & Mustya (2016); PRB: –; DnRB: –; BSB: –; WR: –.

Order Isopoda Latreille, 1817
Asellus (*Asellus*) *aquaticus* (Linnaeus, 1758): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Byzgu et al. (1964).
Jaera (*Jaera*) *sarsi* Valkanov, 1936: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Byzgu et al. (1964).

Order Mysida Haworth, 1825
Diamysis pengoi (Czerniavsky, 1882): DRB: Yaroshenko (1957); PRB: Dediu (1961); DnRB: –; BSB: –; WR: –.
Hemimysis anomala G.O. Sars, 1907: DRB: Dediu (1967); PRB: –; DnRB: –; BSB: –; WR: –.
Katamysis warpachowskyi G.O. Sars, 1893: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Byzgu et al. (1964).
Limnomysis benedeni Czerniavsky, 1882: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (2007); BSB: Toderaş (2007); WR: Byzgu et al. (1964).
Paramysis bakuensis G. O. Sars, 1895: DRB: Yaroshenko (1957); PRB: –; DnRB: Toderaş (2007); BSB: –; WR: –.
Paramysis (*Mesomysis*) *intermedia* (Czerniavsky, 1882): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Paramysis (*Paramysis*) *kessleri sarsi* (Derzhavin, 1925) (subspecies): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Paramysis (*Serrapalpisis*) *lacustris* (Czerniavsky, 1882): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (2007); BSB: Toderaş (2007); WR: Byzgu et al. (1964).

Class Maxillopoda Dahl, 1956
Order Arguloida Yamaguti, 1963
Argulus foliaceus (Linnaeus, 1758): DRB: Yaroshenko (1957); PRB: Toderaş (2007); DnRB: Toderaş (2007); BSB: Toderaş (2007); WR: Toderaş (2007).

Subphylum Hexapoda Latreille, 1825
Class Collembola Lubbbock, 1870

Anurida tullbergi (Nicolet, 1847): DRB: Buşmachiu (2004); PRB: Buşmachiu (2008); DnRB: Buşmachiu (2018); BSB: –; WR: –.
Ballistura schoetti (Dalla Torre, 1895): DRB: Buşmachiu (2004); PRB: –; DnRB: Buşmachiu (2018); BSB: –; WR: –.
Isotomurus palustris (Müller, 1776): DRB: Buşmachiu (1999); PRB: Buşmachiu 2006 DnRB: Buşmachiu (2018); BSB: –; WR: Buşmachiu (2017).
Podura aquatica Linnaeus, 1758: DRB: Stegarescu (1983); PRB: Buşmachiu (2008); DnRB: Buşmachiu (2018); BSB: –; WR: –.
Sminthurides aquaticus (Bourlet, 1843): DRB: Stegarescu (1983); PRB: Buşmachiu (2008); DnRB: –; BSB: –; WR: –.
Sminthurides malmgreni (Tullberg, 1876): DRB: Buşmachiu (2001); PRB: –; DnRB: –; BSB: –; WR: –.

Class Insecta Linnaeus, 1758
Order Coleoptera Linnaeus, 1758
Acilus canaliculatus (Nicolai, 1822): DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Acilius sulcatus (Linnaeus, 1758): DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Agabus uliginosus (Linnaeus, 1761): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Agabus undulatus (Schrank, 1776): DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Aulonogyrus concinnus (Klug, 1834): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Berosus signaticollis Charpentier, 1825: DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Berosus (*Enoplurus*) *spinosus* (Steven, 1808): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Cercyon convexiusculus Stephens, 1829: DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Cercyon marinus Thompson, 1853: DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Cercyon quisquilus (Linnaeus, 1761): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Cercyon unipunctatus Linnaeus, 1758: DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Coelambus confluens (Fabricius, 1787): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Coelambus impressopunctatus (Schaller, 1783): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Coelambus parallellogrammus (Ahrens, 1812): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Coelostoma orbiculare (Fabricius, 1775): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Colymbetes fuscus (Linnaeus, 1758): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Cryptopleurum minutum (Fabricius, 1775): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Cybister lateralimarginalis (De Geer, 1774): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Cymbiodyta marginella (Fabricius, 1792): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Dytiscus circumcinctus Ahrens, 1811: DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Dytiscus circumphlexus Fabricius, 1801: DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Dytiscus dimidiatus Bergsträsser, 1778: DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Dytiscus marginalis Linnaeus, 1758: DRB: Ostafichuk (1983); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Enochrus (*Lumetus*) *bicolor* (Fabricius, 1792): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Enochrus (*Lumetus*) *quadripunctatus* (Herbst, 1797): DRB: –; PRB: Munteanu-Molotievskiy et al. (2015); DnRB: –; BSB: –; WR: –.
Enochrus (*Methydrus*) *affinis* (Thunberg, 1794): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Enochrus (*Methydrus*) *nigritus* (Sharp, 1872): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Graphoderus cinereus (Linnaeus, 1758): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Graptodytes bilineatus (Strum, 1835): DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Gyrinus (*Gyrinus*) *marinus* Gyllenhal, 1808: DRB: Neculiseanu et al. 2005 PRB: –; DnRB: –; BSB: –; WR: –.
Gyrinus (*Gyrinus*) *natator* (Linnaeus, 1758): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Haliplus (*Liaphlus*) *flavicollis* Sturm, 1834: DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Haliplus (*Neohaliplus*) *lineatocollis* (Marsham, 1802): DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.
Haliplus ruficollis (De Geer, 1774): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Helochares lividus (Forster, 1771): DRB: Medvedev & Shapiro (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Helophorus (*Helophorus*) *aquaticus* Linnaeus, 1758: DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Helophorus (*Rhapalobelophorus*) *granularis* (Linnaeus, 1761): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Hydaticus transversalis (Pontoppidan, 1763): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Hydrobius fuscipes (Linnaeus, 1758): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Hydrochara caraboides (Linnaeus, 1758): DRB: Medvedev & Shapiro (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Hydrochara flavipes (Steven, 1808): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Hydroglyphus geminus (Fabricius, 1792): DRB: Ruscin-

sky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Hydrophilus piceus (Linnaeus, 1758): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Hygrobia hermanni (Fabricius, 1775): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Hygrotus inaequalis (Fabricius, 1776): DRB: Ruscinsky (1934); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Hyphydrus ovatus (Linnaeus, 1761): DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Ilybius fenestratus (Fabricius, 1781): DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Ilybius subaeneus Erichson, 1837: DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Laccobius bipunctatus (Fabricius, 1775): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Laccophilus hyalinus (De Geer, 1774): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Laccophilus minutus (Linnaeus, 1758): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Laccophilus poecilus Klug, 1834: DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Limnoxenus niger (Gmelin, 1790): DRB: –; PRB: Munteanu-Molotievskiy et al. (2015); DnRB: –; BSB: –; WR: –.
Liopterus haemorrhoidalis (Fabricius, 1787): DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Noterus clavicornis (De Geer, 1774): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Noterus crassicornis (O. F. Muller, 1776): DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Peltodytes caesus (Duftschmid, 1805): DRB: Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Platambus maculatus (Linnaeus, 1758): DRB: –; PRB: Munteanu-Molotievskiy et al. (2015); DnRB: –; BSB: –; WR: –.
Rhantus bistriatus (Bergsträsser 1778): DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Rhantus exoletus (Forester, 1771): DRB: –; PRB: Molotievskiy- Munteanu & Bacal (2015); DnRB: –; BSB: –; WR: –.
Rhantus frontalis (Marsham, 1802): DRB: Ruscinsky (1934); PRB: –; DnRB: –; BSB: –; WR: –.
Rhantus suturalis (MacLeay, 1825): DRB: –; PRB: Molotievskiy- Munteanu & Bacal (2015); DnRB: –; BSB: –; WR: –.
Sphaeridium bipustulatum Fabricius, 1781 Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.
Sphaeridium scarabaeoides (Linnaeus, 1758) Miller & Zubovsky (1917); PRB: –; DnRB: –; BSB: –; WR: –.

Order Diptera Linnaeus, 1758
Family Ceratopogonidae Newman, 1834
Bezzia circumdata (Staeger, 1839): DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.
Culicoides (*Culicoides*) *pulicaris* (Linnaeus, 1758): DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.
Family Chironomidae Macquart, 1838
Ablabesmyia (*Ablabesmyia*) *monilis* (Linnaeus, 1758): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Acricotopus lucens (Zetterstedt, 1850): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Anatopynia plumipes (Fries, 1823): DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Apsectrotanypus trifascipennis (Zetterstedt, 1838): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Beckidia zabolotzkyi (Goetghebuer, 1938): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Benthalia carbonaria (Meigen, 1804): DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Boreoheptagyia legeri (Goetghebuer, 1933): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Brillia bifida (Kieffer, 1909): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Brillia longifurca Kieffer, 1921: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Chaetocladius (*Chaetocladius*) *piger* (Goetghebuer, 1913): DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Chernovskiia orbicus (Townes, 1945): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Chironomus (*Chironomus*) *anthracinus* Zetterstedt, 1860: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Chironomus (*Chironomus*) *plumosus* (Linnaeus, 1758): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Chironomus (*Chironomus*) *riparius* Meigen, 1804: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Byzgu (1964).
Chironomus (*Lobochironomus*) *dorsalis* Meigen, 1818: DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Chironomus plumosus-reductus Lipina, 1929: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Cladopelma fridmanae Chernovskij, 1949: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Cladopelma viridula (Linnaeus, 1767): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Cladotanytarsus (*Cladotanytarsus*) *mancus* (Walker, 1856): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Byzgu (1964).
Cladotanytarsus sexdentatus (Chernovskij, 1949): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR:

Toderaş (1984).
Clinotanypus nervosus (Meigen, 1818): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Corynoneura celeripes Winnertz, 1852: DRB: Toderaş (1984); PRB: –; DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Yaroshenko & (1957).
Corynoneura scutellata Winnertz, 1846: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Cricotopus (*Cricotopus*) *algarum* (Kieffer, 1911): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Cricotopus (*Cricotopus*) *bicinctus* (Meigen, 1818): DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Cricotopus (*Cricotopus*) *ephippium* (Zetterstedt, 1838): DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Cricotopus (*Cricotopus*) *fuscus* (Kieffer, 1909): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: –; WR: Toderaş (1984).
Cricotopus (*Cricotopus*) *trifascia* Edwards, 1929: DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Cricotopus (*Isocladius*) *brevipalpis* Kieffer, 1909: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Cricotopus (*Isocladius*) *sylvestris* (Fabricius, 1794): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Byzgu (1964).
Cricotopus latidentatus Tshernovskij, 1941: DRB: –; PRB: –; DnRB: –; BSB: –; WR: –.
Cryptochironomus conjugens Kieffer, 1918: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Byzgu (1964).
Cryptochironomus (*Cryptochironomus*) *defectus* (Kieffer, 1913): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Cryptotendipes nigronitens (Edwards, 1929): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Demeijerea rufipes (Linnaeus, 1761): DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Demicryptochironomus (*Demicryptochironomus*) *vulneratus* (Zetterstedt, 1838): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Derotanypus sibiricus (Kruglova & Chernovskii, 1940): DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Diamesa carpatica Botnariuc & Cindea-Cure, 1954: DRB: Mushchinskij (1972); PRB: –; DnRB: –; BSB: –; WR: –.
Diamesa insignipes Kieffer, 1908: DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.
Diamesa longipes Tshernovskij, 1949: DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Dicrotendipes nervosus (Staeger, 1839): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Byzgu (1964).
Dicrotendipes tritomus (Kieffer, 1916): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Einfeldia pagana (Meigen, 1838): DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Endochironomus albipennis (Meigen, 1830): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Endochironomus impar (Walker, 1856): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Endochironomus signaticornis Kieffer, 1913: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Endochironomus tendens (Fabricius, 1775): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Eukiefferiella alpestris (Goetghebuer 1934): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Eukiefferiella brevicalcar (Kieffer, 1911): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Eukiefferiella clypeata (Thienemann, 1919): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Eukiefferiella coerulescens (Kieffer, 1926): DRB: Yaroshenko & (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Eukiefferiella gracei (Edwards, 1929): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Eukiefferiella lobifera Goetghebuer, 1934: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Eukiefferiella masordarjensis Pankratova, 1950: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Eukiefferiella popovae Chernovskij, 1949: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Eukiefferiella similis Goetghebuer, 1939: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Glyptotendipes (*Caulochironomus*) *scirpi* (Kieffer, 1915): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Glyptotendipes (*Glyptotendipes*) *gripekoveni* (Kieffer, 1913): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Glyptotendipes (*Glyptotendipes*) *pallens* (Meigen, 1804): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Harnischia burganadzeae (Tshernovskij, 1949): DRB: Toderaş,(1984); PRB: –; DnRB: –; BSB: –; WR: –.
Harnischia curtilamellata (Malloch, 1915): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Harnischia fuscimanus Kieffer, 1921: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Hydrobaenus lugubris Fries, 1830: DRB: Toderaş

(1984); PRB: –; DnRB: –; BSB: –; WR: –.
Hydrosmittia oxoniana (Edwards, 1922): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Limnophyes asquamatus Soegaard Andersen, 1937: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Limnophyes dystrophilus (Chernovskij, 1949): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Limnophyes karelicus (Tshernovskij, 1949): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Limnophyes pentaplastus (Kieffer, 1921): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Lipiniella araenicola Shilova, 1961: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Metriocnemus (*Metriocnemus*) *cavicola* Kieffer, 1921: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Metriocnemus (*Metriocnemus*) *eurynotus* (Holmgren, 1883): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Metriocnemus (*Metriocnemus*) *inopinatus* Strenzke, 1950: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Microchironomus deribae (Freeman, (1957): DRB: –; PRB: Antczak et al. (2016); DnRB: –; BSB: –; WR: –.
Microchironomus tener (Kieffer, 1918): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Micropsectra junci (Meigen, 1818): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Microtendipes chloris (Meigen, 1818): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Microtendipes pedellus (De Geer, 1776): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Microtendipes tarsalis (Walker, 1856): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Monodiamesa bathyphila (Kieffer, 1918): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Monopelopia tenuicalcar (Kieffer, 1918): DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Nanocladius (*Nanocladius*) *dichromus* (Kieffer, 1906): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Natarsia punctata (Fabricius, 1805): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Orthocladius bifidus (Kieffer, 1921): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Orthocladius (*Euorthocladius*) *rivicola* Kieffer, 1911: DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Orthocladius (*Euorthocladius*) *thienemanni* Kieffer, 1906: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Orthocladius (*Orthocladius*) *rubicundus* (Meigen, 1818): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Orthocladius (*Symposiocladius*) *holsatus* Goetghebuer, 1937: DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Parachironomus gracilior (Kieffer, 1918): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Byzgu (1964).
Parachironomus vitiosus (Goetghebuer, 1921): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Paracladius conversus (Walker, 1856): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Paracladopelma camptolabis (Kieffer, 1913): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Paracladopelma rollei Kirpichenko, 1949: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Byzgu (1964).
Paralauterborniella nigrohalteralis (Malloch, 1915): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Paratanytarsus austriacus (Kieffer, 1924): DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Paratanytarsus dissimilis (Johannsen, 1905): DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Paratanytarsus quintuplex Kieffer, 1922: DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Paratanytarsus lauterborni (Kieffer, 1909): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Paratendipes albimanus (Meigen, 1818): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Paratendipes "*connectens*" N 3 Lipina, 1926: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Paratendipes intermedius Chernovskij, 1949: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Parorthocladius nudipennis (Kieffer, 1908): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Polypedilum (*Pentapedilum*) *exsectum* (Kieffer, 1916): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Polypedilum (*Polypedilum*) *nubeculosum* (Meigen, 1804): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Byzgu (1964).
Polypedilum (*Polypedilum*) *nubifer* (Skuse, 1889): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Polypedilum (*Polypedilum*) *pedestre* (Meigen, 1830): DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Polypedilum (*Tripodura*) *bicrenatum* Kieffer, 1921: DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Polypedilum (*Tripodura*) *scalaenum* (Schrank, 1803): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Byzgu (1964).
Polypedilum (*Uresipedilum*) *convictum* (Walker, 1856):

DRB: Yaroshenko (1957); PRB: Dediu (1961); DnRB: –; BSB: –; WR: –.
Potthastia gaedii (Meigen, 1838): DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Procladius (*Holotanypus*) *ferrugineus* (Kieffer, 1918): DRB: Toderaş (2007); PRB: Toderaş (2007); DnRB: Toderaş (2007); BSB: Toderaş (2007); WR: Toderaş (1984).
Prodiamesa olivacea (Meigen, 1818): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Psectrocladius (*Allopsectrocladius*) *obvius* (Walker 1856): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Psectrocladius (*Psectrocladius*) *oligosetus* Wuelker, 1956: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Psectrocladius (*Psectrocladius*) *psilopterus* (Kieffer, 1906): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Psectrocladius (*Psectrocladius*) *schlienzi* Wuelker, 1956: DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Psectrocladius (*Psectrocladius*) *septentrionalis* Chernovskij, 1949: DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Psectrocladius (*Psectrocladius*) *simulans* (Johannsen, 1937): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Psectrocladius (*Psectrocladius*) *ventricosus* Kieffer, 1925: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Psectrotanypus varius (Fabricius, 1787): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Pseudodiamesa (*Pseudodiamesa*) *nivosa* (Goetghebuer, 1928): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Pseudosmittia gracilis (Goetghebuer, 1913): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Rheocricotopus brunensis (Goetghebuer, 1937): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Rheocricotopus chalybeatus (Edwards, 1929): DRB: Antczak et al. (2016); PRB: –; DnRB: –; BSB: –; WR: –.
Rheocricotopus effusus (Walker, 1856): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Rheotanytarsus exiguus (Johannsen, 1905): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Robackia demeijerei (Kruseman, 1933): DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Sergentia coracina (Zetterstedt, 1850): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Smittia contingens (Walker, 1856): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Smittia hiberna Polshchuck, 1963: DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Stempellina bausei (Kieffer, 1911): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Stempellinella edwardsi Spies & Saether, 2004: DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Stictochironomus crassiforceps (Kieffer, 1921): DRB: Toderaş (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Stictochironomus connectens (Lipina, 1926): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Stictochironomus sticticus (Fabricius, 1781): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Syndiamesa hygropetrica (Kieffer, 1909): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Synorthocladius semivirens (Kieffer, 1909): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Tanypus (*Tanypus*) *kraatzi* (Kieffer, 1912): DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Tanypus (*Tanypus*) *punctipennis* Meigen, 1818: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: Toderaş (1984); BSB: –; WR: Byzgu (1964).
Tanypus (*Tanypus*) *vilipennis* (Kieffer, 1918): DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Tanytarsus excavatus Edwards, 1929: DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Tanytarsus gregarius Kieffer, 1909: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (1984).
Tanytarsus inaequalis Goetghebuer, 1921: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.
Tanytarsus mendax Kieffer, 1925: DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).
Thienemaniella clavicornis (Kieffer, 1911): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Thienemanniella flaviforceps Kieffer, 1925: DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Thienemannimyia lentiginosa (Fries, 1823): DRB: Yaroshenko (1957); PRB: Dediu (1961); DnRB: Toderaş (1984); BSB: Toderaş (1984); WR: Toderaş (1984).
Trissopelopia flavida Kieffer, 1923: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Tvetenia bavarica (Goetghebuer, 1934): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Tvetenia discoloripes (Goetghebuer & Thienemann, 1936): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Tvetenia tshernovskii (Pankratova, 1968): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Xenochironomus xenolabis (Kieffer, 1916): DRB: Toderaş (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Zalutschia mucronata (Brundin, 1949): DRB: –; PRB: –; DnRB: –; BSB: –; WR: Toderaş (1984).

Family Culicidae Meigen, 1818

Aedes caspius (Pallas, 1771): DRB: Prendel (1956); PRB: Prendel (1956); DnRB: Prendel (1956); BSB: –; WR: –.

Aedes cinereus Meigen, 1818: DRB: Prendel (1956); PRB: –; DnRB: –; BSB: –; WR: –.

Aedes geminus Peus, 1970: DRB: Sulesco et al. 2013 PRB: –; DnRB: –; BSB: –; WR: –.

Aedes dorsalis (Meigen, 1830): DRB: Prendel (1956); PRB: –; DnRB: –; WR: –.

Aedes vexans (Meigen, 1830): DRB: Prendel (1956); PRB: Prendel (1956); DnRB: Prendel (1956); BSB: Prendel (1956); WR: –.

Anopheles atroparvus Van Thiel, 1927: DRB: Prendel et al. (1949); PRB: Prendel et al. (1949); DnRB: Prendel et al. (1949); BSB: Prendel et al. (1949); WR: –.

Anopheles claviger (Meigen, 1804): DRB: Prendel (1956); PRB: Prendel (1956); DnRB: –; BSB: –; WR: –.

Anopheles hyrcanus (Pallas, 1771): DRB: Prendel (1956); PRB: Prendel (1956); DnRB: –; BSB: –; WR: –.

Anopheles maculipennis Meigen, 1818: DRB: Prendel et al. (1949); PRB: Prendel et al. (1949); DnRB: Prendel et al. (1949); BSB: Prendel et al. (1949); WR: –.

Anopheles melanoon Hackett, 1934: DRB: Sulesco et al. (2013); PRB: Sulesco et al. (2013); DnRB: –; BSB: Sulesco et al. (2013); WR: –.

Anopheles messeae Falleroni, 1926: DRB: Prendel et al. (1949); PRB: Prendel et al. (1949); DnRB: Prendel et al. (1949); BSB: Prendel et al. (1949); WR: –.

Culex modestus Ficalbi, 1889: DRB: Prendel (1956); PRB: Prendel (1956); DnRB: Prendel (1956); BSB: BSB: –; WR: –.

Culex pipiens Linnaeus, 1758: DRB: Prendel (1956); PRB: Prendel (1956); DnRB: Prendel (1956); BSB: Prendel (1956); WR: –.

Culex territans Walker, 1856: DRB: Uspensky (1989); PRB: Uspensky (1989); DnRB: Sulesco et al. (2015); BSB: –; WR: –.

Culex theileri Theobald, 1903: DRB: Prendel (1956); PRB: Prendel (1956); DnRB: –; BSB: –; WR: –.

Culex torrentium Martini, 1925: DRB: Sulesco et al. (2015); PRB: Sulesco et al. (2015); DnRB: Sulesco et al. (2015); BSB: –; WR: –.

Culiseta annulata (Schrank, 1776): DRB: Prendel (1956); PRB: Prendel (1956); DnRB: –; BSB: –; WR: –.

Uranotaenia unguiculata Edwards, 1913: DRB: Sulesco et al. (2015); PRB: Sulesco et al. (2015); DnRB: Sulesco et al. (2015); BSB: –; WR: –.

Family Simuliidae Newman, 1834

Simulium (*Byssodon*) *maculatum* (Meigen, 1804): DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.

Family Syrphydae Latreille, 1802

Eristalis tenax (Linnaeus, 1758): DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.

Family Tabanidae Latreille, 1802

Haematopota pluvialis (Linnaeus, 1758): DRB: Zubcova & Șubernețkii (2010); PRB: Zubcova & Șubernețkii (2010); DnRB: –; BSB: –; WR: –.

Tabanus bovinus Linnaeus, 1758: DRB: Zubcova & Șubernețkii (2010); PRB: Zubcova & Șubernețkii (2010); DnRB: –; BSB: –; WR: –.

Order Ephemeroptera Hyatt & Arms, 1891

Acentrella inexpectatus (Tshernova, 1928): DRB: Munjiu (2012) PRB: –; DnRB: –; BSB: –; WR: –.

Baetis fuscatus (Linnaeus, 1761): DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.

Baetis vernus Curtis, 1834: DRB: –; PRB: Munjiu et al. (2018); DnRB: –; BSB: –; WR: –.

Baetis rhodani (Pictet, 1843): DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.

Caenis horaria (Linnaeus, 1758): DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.

Caenis macrura Stephens, 1835: DRB: Vladimirov (1983); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Vladimirov (1983).

Caenis robusta Eaton, 1884: DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.

Centroptilum luteolum (O.F. Müller, 1776): DRB: Munjiu (2012); PRB: –; DnRB: –; BSB: –; WR: –.

Cloeon dipterum (Linnaeus, 1761): DRB: Vladimirov (1983); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Vladimirov (1983).

Cloeon simile Eaton, 1870: DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.

Ecdyonurus venosus (Fabricius, 1775): DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.

Ephemera vulgata Linnaeus, 1758: DRB: Vladimirov (1983); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.

Ephoron virgo (Olivier, 1791): DRB: –; PRB: Mushchinskij (1971) DnRB: –; BSB: –; WR: Byzgu et al. (1964).

Heptagenia coerulans Rostock, 1878: DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.

Heptagenia flava Rostock, 1878: DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.

Heptagenia sulphurea (O.F. Müller, 1776): DRB: Vladimirov (1983); PRB: Vladimirov (1983); DnRB: Toderaș (2007); BSB: Toderaș (2007); WR: Vladimirov (1983).

Oligoneuriella rhenana (Imhoff, 1852): DRB: Yaroshenko (1957); PRB: Dediu (1961); DnRB: –; BSB: –; WR: Byzgu et al. (1964).

Palingenia longicauda (Olivier, 1791): DRB: Munjiu (2017); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Byzgu et al. (1964).

Palingenia fuliginosa (Boeber [in Georgi], 1802): DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.

Potamanthus luteus (Linnaeus, 1767): DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.

Order Hemiptera Linnaeus, 1758

Aphelocheirus aestivalis (Fabricius, 1794): DRB: Slastenko (1928); PRB: –; DnRB: –; BSB: –; WR: –.

Aquarius paludum paludum Fabricius, 1794: DRB: Der-

zhansky (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Callicorixa praeusta (Fieber, 1848): DRB: –; PRB: Derzhansky (1984); DnRB: –; BSB: –; WR: –.
Corixa dentipes Thomson, 1869: DRB: Derjanschi (2008); PRB: Derjanschi (2008); DnRB: Derjanschi (2008); BSB: –; WR: –.
Corixa punctata (Illiger, 1807): DRB: Derzhansky (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Cymatia coleoptrata (Fabricius, 1777): DRB: Derzhansky (1984); PRB: Derzhansky (1984); DnRB: –; BSB: –; WR: –.
Cymatia rogenhoferi (Fieber, 1864): DRB: Derzhansky 1995 PRB: Derzhansky (1995); DnRB: –; BSB: –; WR: –.
Gerris argentatus Schummel, 1832: DRB: Derzhansky (1984); PRB: Derjanschi (2009); DnRB: –; BSB: –; WR: Derjanschi (1998).
Gerris lacustris (Linnaeus, 1758): DRB: Derzhansky (1984); PRB: Derjanschi (2009); DnRB: –; BSB: –; WR: –.
Gerris odontogaster (Zetterstedt, 1828): DRB: Derzhansky (1984); PRB: Derjanschi (2009); DnRB: –; BSB: –; WR: –.
Gerris thoracicus Schummel, 1832: DRB: Derzhansky (1984); PRB: Brezvali (1932); DnRB: –; BSB: –; WR: –.
Hebrus (*Hebrus*) *pusillus* (Fallén, 1807): DRB: Derzhansky (1984); PRB: –; DnRB: –; BSB: –; WR: Derjanschi (1998).
Hebrus (*Hebrusella*) *ruficeps* Thomson, 1871: DRB: Derzhansky (1984); PRB: –; DnRB: –; BSB: –; WR: Derjanschi (1998).
Hesperocorixa linnaei (Fieber, 1848): DRB: Derzhansky (1984); PRB: Derjanschi (2009); DnRB: –; BSB: –; WR: –.
Hydrometra gracilenta Horváth, 1899: DRB: Derjanschi (2011); PRB: –; DnRB: –; BSB: –; WR: –.
Hydrometra stagnorum (Linnaeus, 1758): DRB: Zubcova & Șubernețkii (2010); PRB: Zubcova & Șubernețkii (2010); DnRB: –; BSB: –; WR: –.
Ilyocoris cimicoides (Linnaeus, 1758): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: Derjanschi (1998).
Limnoporus rufoscutellatus (Latreille, 1807): DRB: Derzhansky,(1984); PRB: Derzhansky (1984); DnRB: –; BSB: –; WR: –.
Mesovelia furcata Mulsant & Rey, 1852: DRB: Derzhansky (1984); PRB: Derzhansky (1984); DnRB: –; BSB: –; WR: –.
Mesovelia thermalis Horváth, 1915: DRB: Derzhansky (1984); PRB: Derzhansky (1984); DnRB: –; BSB: –; WR: –.
Micronecta (*Dichaetonecta*) *pusilla* (Horváth, 1895): DRB: –; PRB: Derjanschi (2008); DnRB: Derjanschi (2008); BSB: –; WR: –.
Micronecta (*Dichaetonecta*) *scholtzi* (Fieber, 1860): DRB: Derzhansky (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Micronecta (*Micronecta*) *griseola* Horváth, 1899: DRB: Derjanschi (2011); PRB: –; DnRB: –; BSB: –; WR: –.
Microvelia (*Microvelia*) *buenoi* Drake, 1920: DRB: Derzhansky (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Microvelia (*Microvelia*) *reticulata* (Burmeister, 1835): DRB: Derzhansky (1984); PRB: Derzhansky (1984); DnRB: –; BSB: –; WR: –.
Nepa cinerea Linnaeus, 1758: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Notonecta (*Notonecta*) *glauca* Linnaeus, 1758: DRB: Yaroshenko (1957); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Notonecta (*Notonecta*) *lutea* Muller, 1776: DRB: Derjanschi (2011); PRB: –; DnRB: –; BSB: –; WR: –.
Notonecta (*Notonecta*) *viridis* Delcourt, 1909: DRB: Derzhansky (1984); PRB: Derzhansky (1984); DnRB: –; BSB: –; WR: –.
Paracorixa concinna (Fieber, 1848): DRB: Derzhansky (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Plea minutissima Leach, 1817: DRB: Yaroshenko (1957); PRB: Derzhansky (1984); DnRB: –; BSB: –; WR: Derjanschi (1998).
Ranatra (*Ranatra*) *linearis* (Linnaeus, 1758): DRB: Puchikov (1983); PRB: –; DnRB: –; BSB: –; WR: –.
Sigara (*Halicorixa*) *stagnalis* (Leach, 1817): DRB: Derzhansky 1995 PRB: Derzhansky (1995); DnRB: Derjanschi (2008); BSB: –; WR: –.
Sigara (*Pseudovermicorixa*) *nigrolineata* (Fieber, 1848): DRB: Derzhansky (1984); PRB: Derzhansky (1984); DnRB: –; BSB: –; WR: –.
Sigara (*Retrocorixa*) *limitata* (Fieber, 1848): DRB: Brezvali (1932); PRB: –; DnRB: –; BSB: –; WR: –.
Sigara (*Retrocorixa*) *semistriata* (Fieber, 1848): DRB: Derzhansky (1984); PRB: –; DnRB: –; BSB: –; WR: –.
Sigara (*Sigara*) *assimilis* (Fieber, 1848): DRB: Derjanschi (2008); PRB: Derjanschi (2008); DnRB: Derjanschi (2008); BSB: –; WR: –.
Sigara (*Sigara*) *striata* (Linnaeus, 1758): DRB: Derzhansky (1984); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Sigara (Subsigara) *distincta* (Fieber, 1848): DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.
Sigara (*Subsigara*) *falleni* (Fieber, 1848): DRB: Derzhansky (1984); PRB: Derjanschi (2009); DnRB: –; BSB: –; WR: –.
Sigara (*Vermicorixa*) *lateralis* (Leach, 1818): DRB: Derzhansky (1984); PRB: Derjanschi (2009); DnRB: –; BSB: –; WR: –.
Viella (*Plesiovelia*) *caprai* Tamanini, 1947: DRB: Derjanschi (2011); PRB: –; DnRB: –; BSB: –; WR: –.

Order Megaloptera Latreille, 1802
Sialis lutaria (Linnaeus, 1758): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.

Order Neuroptera Linnaeus, 1758
Sisyra nigra (Retzius, 1783): DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.

Order Odonata Fabricius, 1793

Aeshna affinis Vander Linden, 1820: DRB: Brauner (1910); PRB: –; DnRB: –; BSB: –; WR: –.

Aeshna grandis (Linnaeus, 1758): DRB: Vladimirov (1983); PRB: –; DnRB: –; BSB: –; WR: Vladimirov (1983).

Aeshna isosceles (Muller, 1767): DRB: Brauner (1910); PRB: Brezvali (1932); DnRB: –; BSB: –; WR: –.

Aeshna juncea (Linnaeus, 1758): DRB: Vladimirov (1983); PRB: –; DnRB: –; BSB: –; WR: Osenimskiy (2006).

Aeshna mixta Latreille, 1805: DRB: Bezvali (1932); PRB: –; DnRB: –; BSB: –; WR: –.

Aeshna viridis Eversmann, 1836: DRB: Andreev (1998); PRB: –; DnRB: –; BSB: –; WR: –.

Anax imperator Leach, 1815: DRB: Brauner (1910); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Toderaş (2007).

Anax parthenope (Selys, 1839): DRB: Brauner (1910); PRB: Brezvali (1932); DnRB: –; BSB: –; WR: –.

Calopteryx splendens (Harris, 1750): DRB: Andreev (1998); PRB: Brezvali (1932); DnRB: –; BSB: –; WR: –.

Calopteryx virgo (Linnaeus, 1758): DRB: Vladimirov (1983); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: Vladimirov (1983).

Cercion lindenii (Selys, 1840): DRB: Andreev (1998); PRB: –; DnRB: –; BSB: –; WR: –.

Coenagrion lunulatum (Charpentier, 1840): DRB: Andreev (1998); PRB: –; DnRB: –; BSB: –; WR: –.

Coenagrion mercuriale (Charpentier, 1840): DRB: Andreev (1998); PRB: –; DnRB: –; BSB: –; WR: –.

Coenagrion ornatum (Selys, 1850): DRB: Dyatlova (2010); PRB: Brezvali (1932); DnRB: –; BSB: –; WR: –.

Coenagrion puella (Linnaeus, 1758): DRB: Brauner (1910); PRB: –; DnRB: –; BSB: –; WR: –.

Coenagrion pulchellum (Vander Linden, 1825): DRB: Brauner (1910); PRB: –; DnRB: –; BSB: –; WR: –.

Coenagrion scitulum (Rambur, 1842): DRB: Dyatlova (2010); PRB: –; DnRB: –; BSB: –; WR: –.

Cordulia aenea (Linnaeus, 1758): DRB: Filipenco et al. (2015) PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.

Cordulegaster boltonii (Donovan, 1807): DRB: Andreev (1998); PRB: –; DnRB: –; BSB: –; WR: –.

Crocothemis erythraea (Brullé, 1832): DRB: Bezvali (1932); PRB: –; DnRB: –; BSB: –; WR: –.

Enallagma cyathigerum (Charpentier, 1840): DRB: Brauner (1910); PRB: –; DnRB: –; BSB: –; WR: –.

Erythromma najas (Hansemann, 1823): DRB: Andreev (1998); PRB: Brezvali (1932); DnRB: –; BSB: –; WR: –.

Erythromma viridulum (Charpentier, 1840): DRB: Andreev (1998); PRB: –; DnRB: –; BSB: –; WR: –.

Gomphus flavipes (Carpentier, 1825): DRB: Vladimirov (1983); PRB: Brezvali (1932); DnRB: –; BSB: –; WR: –.

Gomphus vulgatissimus (Linnaeus, 1758): DRB: Vladimirov (1983); PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.

Ischnura elegans (Vander Linden, 1820): DRB: Andreev (1998); PRB: Brezvali (1932); DnRB: –; BSB: –; WR: –.

Ischnura pumilio (Charpentier, 1825): DRB: Andreev (1998); PRB: –; DnRB: –; BSB: –; WR: –.

Lestes barbarus (Fabricius, 1798): DRB: Andreev (1998); PRB: Bezvali (1932); DnRB: –; BSB: –; WR: –.

Lestes macrostigma (Eversmann, 1836): DRB: Dyatlova (2010); PRB: –; DnRB: –; BSB: –; WR: –.

Lestes parvidens Artobolevsky, 1929: DRB: Andreev (1998); PRB: –; DnRB: –; BSB: –; WR: –.

Lestes sponsa (Hansemann, 1823): DRB: –; PRB: Bezvali (1932); DnRB: –; BSB: –; WR: –.

Lestes viridis (Vander Linden, 1825): DRB: Vladimirov (1983); PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.

Leucorrhinia caudalis (Charpentier, 1840): DRB: Bezvali (1932); PRB: –; DnRB: –; BSB: –; WR: –.

Leucorrhinia pectoralis (Charpentier, 1825): DRB: Dyatlova (2010); PRB: –; DnRB: –; BSB: –; WR: –.

Libellula depressa Linnaeus, 1758: DRB: Brauner (2010); PRB: Vladimirov (1983); DnRB: –; BSB: –; WR: –.

Libellula quadrimaculata Linnaeus, 1758: DRB: Brauner (2010); PRB: Bezvali (1932); DnRB: –; BSB: –; WR: –.

Nehalennia speciosa (Charpentier, 1840): DRB: –; PRB: Bezvali (1932); DnRB: –; BSB: –; WR: –.

Ophiogomphus cecilia (Fourcroy, 1785): DRB: Malikova (2009); PRB: –; DnRB: –; BSB: –; WR: –.

Orthetrum albistylum (Selys, 1848): DRB: Andreev (1998); PRB: Bezvali (1932); DnRB: –; BSB: –; WR: –.

Orthetrum brunneum (Fonscolombe, 1837): DRB: Dyatlova (2010); PRB: –; DnRB: –; BSB: –; WR: –.

Orthetrum cancellatum (Linnaeus, 1758): DRB: Brauner (2010); PRB: Bezvali (1932); DnRB: –; BSB: –; WR: –.

Onychogomphus forcipatus (Linnaeus, 1758): DRB: Andreev (1998); PRB: –; DnRB: –; BSB: –; WR: –.

Platycnemis pennipes (Pallas, 1771): DRB: Andreev (1998); PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.

Somatochlora flavomaculata Vander Linden, 1825: DRB: Brauner (2010); PRB: –; DnRB: –; BSB: –; WR: –.

Sympecma fusca (Vander Linden, 1820): DRB: –; PRB: Bezvali (1932); DnRB: –; BSB: –; WR: –.

Sympetrum depressiusculum (Selys, 1841): DRB: Bezvali (1932); PRB: Bezvali (1932); DnRB: –; BSB: –; WR: –.

Sympetrum flaveolum (Linnaeus, 1758): DRB: Brauner (1910); PRB: –; DnRB: –; BSB: –; WR: –.

Sympetrum meridionale (Selys, 1841): DRB: Bezvali (1932); PRB: –; DnRB: –; BSB: –; WR: –.

Sympetrum sangiuneum Muller, 1764: DRB: Artobolevsky (1917); PRB: Toderaş (2007); DnRB: Toderaş (2007); BSB: Toderaş (2007); WR: –.

Sympetrum striolatum (Charpentier, 1840): DRB: Andreev (1998); PRB: –; DnRB: –; BSB: –; WR: –.

Sympetrum vulgatum (Linnaeus, 1758): DRB: Bezvali (1932); PRB: –; DnRB: –; BSB: –; WR: –.

Order Plecoptera Burmiester, 1839

Brachyptera braueri (Klapalek, 1900): DRB: Munjiu (2012); PRB: –; DnRB: –; BSB: –; WR: –.
Brachyptera risi (Morton, 1896): DRB: Munjiu (2012); PRB: –; DnRB: –; BSB: –; WR: –.
Capnia atra Morton, 1896: DRB: Munjiu (2012); PRB: –; DnRB: –; BSB: –; WR: –.
Capnia bifrons (Newman, 1839): DRB: Șubernețkii (2008); PRB: –; DnRB: –; BSB: –; WR: –.
Chloroperla tripunctata (Scopoli, 1763): DRB: Toderaş (2007); PRB: –; DnRB: –; BSB: –; WR: –.

Order Trichoptera Kirby, 1813

Agapetus fuscipes Curtis, 1834: DRB: Dyatlova (2007); PRB: –; DnRB: –; BSB: –; WR: –.
Agraylea multipunctata Curtis, 1834: DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.
Agraylea sexmaculata Curtis, 1834: DRB: –; PRB: Munjiu et al. (2018); DnRB: –; BSB: –; WR: –.
Anabolia furcata Brauer, 1857: DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.
Anabolia laevis Zetterstedt, 1840: DRB: –; PRB: Munjiu et al. (2018); DnRB: –; BSB: –; WR: –.
Athripsodes bilineatus (Linnaeus, 1758): DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.
Athripsodes cinereus (Curtis, 1834): DRB: –; PRB: Munjiu et al. (2018); DnRB: –; BSB: –; WR: –.
Ecnomus tenellus (Rambur, 1842): DRB: Dyatlova (2007); PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.
Hydroptila tineoides Dalman, 1819: DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.
Hydropsyche acuta Martynov, 1909: DRB: –; PRB: Mushchinskij (1972); DnRB: –; BSB: –; WR: –.
Hydropsyche angustipennis (Curtis, 1834): DRB: Dyatlova (2007); PRB: –; DnRB: –; BSB: –; WR: –.
Hydropsyche bulgaromanorum Malicky, 1977: DRB: Dyatlova (2007); PRB: –; DnRB: –; BSB: –; WR: –.
Hydropsyche contubernalis McLachlan, 1865: DRB: –; PRB: Munjiu et al. (2018); DnRB: –; BSB: –; WR: –.
Hydropsyche ornatula McLachlan, 1878: DRB: Yaroshenko (1957); PRB: Dediu (1961); DnRB: Toderaş (2007); BSB: Toderaş (2007); WR: Byzgu (1964);
Hydropsyche pellucidula (Curtis, 1834): DRB: –; PRB: Munjiu et al. (2018); DnRB: –; BSB: –; WR: –.
Limnephilus flavicornis (Fabricius, 1787): DRB: Dyatlova (2007); PRB: –; DnRB: –; BSB: –; WR: –.
Limnephilus flavospinosus (Stein, 1874): DRB: Dyatlova (2007); PRB: –; DnRB: –; BSB: –; WR: –.
Mystacides azureus (Linnaeus, 1761): DRB: Munjiu et al. (2018); PRB: Munjiu et al. (2018); DnRB: –; BSB: –; WR: –.
Mystacides longicornis (Linnaeus, 1758): DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.
Neureclipsis bimaculata (Linnaeus, 1758): DRB: Toderaş (1984); PRB: Toderaş (1984); DnRB: Toderaş (2007); BSB: Toderaş (2007); WR: Toderaş (2007).
Oecetis furva (Rambur, 1842): DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.
Oecetis ochracea (Curtis, 1825): DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.
Oligostomis reticulata (Linnaeus, 1761): DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.
Orthotrichia costalis (Curtis, 1834): DRB: Munjiu (2016); PRB: –; DnRB: –; BSB: –; WR: –.
Phryganea bipunctata Retzius 1783: DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.
Phryganea grandis Linnaeus, 1758: DRB: Dyatlova (2007); PRB: –; DnRB: –; BSB: –; WR: –.
Plectrocnemia conspersa (Curtis, 1834): DRB: Dyatlova (2007); PRB: –; DnRB: –; BSB: –; WR: –.
Polycentropus flavomaculatus (Pictet, 1834): DRB: Zubcova & Șubernețkii (2010); PRB: Zubcova & Șubernețkii (2010); DnRB: –; BSB: –; WR: –.
Polycentropus irroratus Curtis, 1835: DRB: Munjiu et al. (2018); PRB: –; DnRB: –; BSB: –; WR: –.
Psychomyia pusilla (Fabricius, 1781): DRB: –; PRB: Present study; DnRB: –; BSB: –; WR: –.
Rhyacophila nubila (Zetterstedt, 1840): DRB: Zubcova & Șubernețkii (2010); PRB: Zubcova & Șubernețkii (2010); DnRB: –; BSB: –; WR: –.
Triaenodes bicolor (Curtis, 1834): DRB: –; PRB: Munjiu (2014); DnRB: –; BSB: –; WR: –.
Wormaldia subnigra McLachlan, 1865: DRB: Yaroshenko (1957); PRB: –; DnRB: –; BSB: –; WR: –.