

The first checklist of rotifers of Armenia

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Armenia is located in the Caucasus Ecoregion, one of Earth's most biologically rich regions and ranked among the planet's 36 most diverse hotspots. Although the country is home to a wide range of flora and fauna, much of its biological wealth has yet to be explored. This study aims to compile the first checklist of Armenian rotifer species with an indication of their sampling sites based on available literature data. The phylum Rotifera comprises about 2,000 species of tiny invertebrates that occupy key positions in aquatic ecosystems. The oldest available records of rotifers in Armenia date back 100 years. To date, 101 rotifers below the genus level (95 species and 6 subspecies) belonging to 35 genera and 21 families from the class Eurotatoria, orders Ploima (79 species and 6 subspecies), Flosculariaceae (10 species), Bdelloidea (5 species), and Collothecacea (1 species) have been recorded in Armenia. The highest number of rotifer species (69) has been reported from Lake Sevan. Similarities in species diversity of rotifers with neighboring countries are as follows: Turkey – 88%, Iran – 85%, Azerbaijan – 43%, and Georgia – 29%. Only 5 species recorded in Armenia were not found in adjacent countries. While the checklist of Armenian Rotifera provided in this article incorporates almost all available records, it needs to be completed by future studies, especially from the Ararat Valley, as well as the major rivers, high-altitude brooks, lakes, ponds, and marshes of the southern and northeastern parts of Armenia.

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Keywords

Caucasus Ecoregion, rotifers, diversity, distribution

Introduction

Phylum Rotifera is one of the three main groups of freshwater zooplankton, together with Cladocera and Copepoda. In many cases, it contributes the highest number of species to local zooplankton diversity (Sa-Ardrit et al. 2013). Rotifers play a major role in energy transfer and nutrient cycling (Malekzadeh-Viayeh and Špoljar 2012; Phan et al. 2021). They are highly diverse

and among the most conspicuous freshwater micro-metazoans (Jersabek and Leitner 2013) occurring in almost all habitats, from large permanent lakes to small temporary puddles and interstitial and capillary waters (Segers 2008).

Armenia is a landlocked mountainous country with an area of 29,743 km² and elevations from 380 to 4,090 m above sea level. It is entirely located in the Caucasus Ecoregion (Figure 1), one of the most biologically rich regions on Earth, and ranked among the planet's 25 most diverse and endangered hotspots (Williams et al. 2006). Covering an area of 586,800 m² and extending over Armenia, Azerbaijan, Georgia, the North Caucasian part of Russia, north-eastern Türkiye, and north-western Iran, the Caucasus hosts a wide variety of fauna and flora. The level of endemism is among the highest in the entire globe. The biodiversity of the Caucasus faces multiple threats, in particular, freshwater ecosystems have been degraded by the clearance of riverine forests the construction of hydro-power plants, and overfishing (Zazanashvili et al. 2020). Despite its small size, the climate of Armenia is diverse and includes all the climatic zones of the Caucasian Ecoregion, except for the humid subtropics.

Lake Sevan is the greatest inland water body of the Caucasus Ecoregion and one of the largest high-mountain freshwater lakes of Eurasia. It has great importance to the country's economy from several points of view such as fishery, irrigation, electric power, and tourism. The water level of Lake Sevan was artificially lowered beginning in 1931 and reduced to nearly 20 m by 2001. The outflowing water has been extensively used for irrigation and production of hydroelectric power. Since 1980, to maintain and elevate the water level, a part of the Arpa River flow has been diverted to Lake Sevan through a 49 km-long tunnel. The water level increased almost 4 m by 2024. The lake is located at an elevation of 1,900 m above sea level and has a maximal water depth of 80 m, a surface area of 1,278 square km, and a water volume of 38 cubic km (Hydrometeorology and Monitoring Center 2023).

The oldest information on rotifers in Armenia dates back to 100 years ago. Meshkova (1948, 1955, 1968), who devoted her research career to the study of Lake Sevan and mountain reservoirs of Armenia, listed 46 species of rotifers found by herself and reports 14 more species found earlier by other researchers (i.e., Decksbach 1923; Neizvestnova-Zhadina 1928; Arnoldi 1931; Arnoldi and Malevich 1934; Derzhavin et al. 1940). In total 60 species comprised 47 taxa from the order Ploima, 8 Flosculariaceae, and 5 Bdelloidea. After 1966, new rotifer species to Armenia were only reported from the watershed of Lake Sevan: the pelagic (Krylov et al. 2010, 2013, 2016a, 2016b, 2021) and coastal (Krylov et al. 2007, 2013; Hayrapetyan et al. 2014; Asatryan et al. 2016) zones of the lake and its tributaries (Krylov et al. 2007, 2010), including Arpa River and its main tributaries (Hayrapetyan et al. 2016), as well as the Hrazdan River flowing from the lake and its Akhpara and Yerevan reservoirs (Hayrapetyan 2011, 2012).

This study presents the first checklist of rotifers of Armenia with locations of sampling. The similarity of rotifer species composition to the neighboring countries is discussed in the context of the Caucasus Ecoregion. The uneven regional and habitat coverage of the study of the rotifer fauna is emphasized and directions to fill the gaps are suggested.



Figure 1. The Caucasus Ecoregion (source: Williams et al. 2006).

Materials and methods

A review of all available literature on the Armenian rotifers was performed during this study. The criterion for inclusion in the checklist was the indication of at least one location within the internationally recognized borders of Armenia. The distribution of each species within the country is given by present-day 10 administrative regions (Marz) and the capital Yerevan (Figure 2), followed by locality names, separated by semicolons for each locality. Lake Sevan, which is entirely located in Gegharkunik Marz, is mentioned separately because of its large size and the special attention of researchers. In cases where the names of the geographic locations have changed

(Hakobyan et al. 2001), the old name in the source is given in curly brackets after the current name, for example: Sevan {Yelenovka} Bay.

Scientific names of the species are given in the Global Biodiversity Information Facility (GBIF). Species names that did not correspond to GBIF were checked and defined according to Harring (1913), Kutikova (1970), Segers (2007), and Jersabek and Leitner (2013). They are given in the text under their accepted name concerning the corresponding article. The occurrence of each species in the eight major biogeographical regions (Afrotropical, Antarctic, Australian, Nearctic, Neotropical, Oriental, Pacific, and Palearctic) as defined in Balian et al. (2008) mainly relied on Segers (2007).



Figure 2. Administrative map of Armenia (source: Wikipedia, 2023).

Results

Together 95 rotifer species (of which 2, *Collotheca* sp. and *Eosphora* sp., only identified at the genus level) and 6 subspecies from 35 genera and 21 families, belonging to the orders Ploima (79 species and 6 subspecies), Flosculariaceae (10 species), Bdelloidea (5 species) and Collothecacea (1 species), have been listed from Armenia. At the genus level, *Brachionus* is dominant with 9 species, followed by *Trichocerca* and *Lecane* (8 species each), *Euchlanis* (7 species), *Lepadella* and *Synchaeta* (5 species each). The most widespread rotifer species in Armenia is *Keratella quadrata*, found in 9 regions, followed by *Asplanchna priodonta* (7 regions), *Hexarthra mira*, and *Filinia longiseta* (6 regions each). Thirty rotifer species are found in 2 to 5 regions, while the remaining 60 occurred only in one region, of which 40 species were recorded only once. The taxonomic identities and distribution of the identified rotifers of Armenia are as follows:

Phylum : Rotifera Cuvier, 1798

Class: Eurotatoria De Ridder, 1957

Order: Bdelloidea Hudson, 1884

Family: Habrotrochidae Harring, 1913

Genus: *Habrotrocha* Bryce, 1910**1. *Habrotrocha roeperi* (Milne, 1889)**

Rotifer roeperi (Milne): Meshkova 1948, 1968.

Distribution in Armenia: Lake Sevan, known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1948, 1968). Biogeography: Holarctic (Segers 2007).

Family: Philodinidae Ehrenberg, 1838**Genus: *Embata* Bryce, 1910****2. *Embata parasitica* (Giglioli, 1863)**

Callidina parasitica Giglioli, 1863: Meshkova 1948, 1968.

Distribution in Armenia: Lake Sevan, known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1948, 1968). Biogeography: Holarctic (Segers 2007).

Genus: *Philodina* Ehrenberg, 1830**3. *Philodina citrina* Ehrenberg, 1830**

Distribution in Armenia: Lake Sevan, known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1948, 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

4. *Philodina roseola* Ehrenberg, 1832

Distribution in Armenia: Lake Sevan, coastal areas, and bays; known from the now defunct Sevan {Yelenovka} Bay (Neizvestnova-Zhadina 1928; Meshkova 1947, 1948, 1968).

Biogeography: Afrotropical, Australian, Holarctic, Neotropical (Segers 2007).

Genus: *Rotaria* Scopoli, 1777**5. *Rotaria rotatoria* (Pallas, 1766)**

Distribution in Armenia: Lake Sevan, coastal areas, and bays (Neizvestnova-Zhadina 1928; Meshkova 1947, 1968).

Biogeography: Cosmopolitan, except for the Pacific (Segers 2007; Garlasché et al. 2020).

Order: Collothecacea Haring, 1913**Family: Collothecidae Haring, 1913****Genus: *Collotheca* Haring, 1913****6. *Collotheca* sp.**

Distribution in Armenia: Lake Sevan, littoral (Vezhnovets et al. 2024).

Order: Flosculariacea Haring, 1913**Family: Conochilidae Haring, 1913****Genus: *Conochilus* Ehrenberg, 1834****7. *Conochilus coenobasis* (Skorikov, 1914)**

Conochiloides coenobasis Skorikov, 1914: Meshkova 1955, 1968.

Distribution in Armenia: Shirak, Lake/Reservoir Arpi (before and after the rise of water level r) (Meshkova 1955, 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

8. *Conochilus hippocrepis* (Schrank, 1803)

Conochilus volvox Ehrenberg, 1834: Arnoldi and Malevich, 1934; Meshkova 1955, 1968.

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010, 2013, 2016, 2016a, 2016b; Vezhnovets et al. 2024). Aragatsotn, Lake Kari (Meshkova 1968); Aragatsotn/Kotayk, water bodies of the Tsakhkunyats Range; Gegharkunik, a temporary water body near Town Sevan (Meshkova 1968). Kotayk, Lake Akna {Kanly} and the surrounding pools for livestock watering (Arnoldi and Malevich, 1934; Meshkova 1968). Lori, marshes, and lakes of the Lori Plateau (Meshkova 1968). Shirak, Lake/Reservoir Arpi (before the rise of water level) (Meshkova 1955, 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

9. *Conochilus unicornis* Rousselet, 1892

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010, 2013, 2016, 2016a, 2016b). Gegharkunik, outflow of the Hrazdan River (Krylov et al. 2007). Vayots Dzor Arpa River, 1.5 downstream from the Village Areni (Hayrapetyan et al. 2016).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

Family: Hexarthridae Bartoš, 1959**Genus: *Hexarthra* Schmarda, 1854****10. *Hexarthra fennica* (Levander, 1892)**

Pedalia fennica v. *oxyuris*: Meshkova 1968.

Distribution in Armenia: Aragatsotn, Lake Kari; Aragatsotn/Kotayk, reservoirs of the Tsakhkunyats Ridge; Gegharkunik, a small pond in the Village Shoghakat {Shorzha}. Gegharkunik/Kotayk, small reservoirs of the Geghama Range. Kotayk, Lake Akna; ponds in the pastures of Abovyan; Tavush, the reservoir of Village Verin Karmirakhbyur; a concrete reservoir in the Village Norashen (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Antarctic (Segers 2007).

11. *Hexarthra mira* (Hudson, 1871)

Pedalia mira (Hudson, 1871): Meshkova 1947, 1968.

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Meshkova 1941, 1947, 1948, 1968; Krylov et al. 2010, 2013, 2016, 2016b, 2021); coast of Minor Sevan (Krylov et al. 2010; Hayrapetyan et al. 2014): known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1968). Aragatsotn, water bodies of the Aragats massif; Aparan Plateau (Meshkova 1968). Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b). Lori, a marsh; a lake at the Lori Plateau (Meshkova 1968). Tavush, Lake Parz (Meshkova 1968). Vayots Dzor, Arpa River, 0.5 km upstream from the Town Vayk (Hayrapetyan et al. 2016).

Biogeography: Cosmopolitan, except for the Antarctic (Segers 2007).

***Hexarthra* sp.**

Pedalia sp.: Meshkova 1968.

Distribution in Armenia: Syunik, Goris, water bodies of the Zangezur Range.

Yerevan, Pond Vardavar. {Komeritmiutyan} (Meshkova 1968).

Family: Testudinellidae Harring, 1913

Genus: *Pompholyx* Gosse, 1851

12. *Pompholyx sulcata* Hudson, 1885

Distribution in Armenia: Gegharkunik, Lake Gilli (before draining) (Meshkova 1948).

Biogeography: Afrotropical, Holarctic, Neotropical, Oriental (Segers 2007).

Genus : *Testudinella* Bory de St. Vincent, 1826

13. *Testudinella emarginula* (Stenroos, 1898)

Distribution in Armenia: Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Krylov et al. 2016b).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

14. *Testudinella patina* (Hermann, 1783)

Pterodina patina (Hermann, 1783): Decksbach 1923; Meshkova 1948, 1968. Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Decksbach 1923; Meshkova 1947, 1948, 1968; Krylov et al. 2010, 2016b); known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1968). Gegharkunik, Lake Gilli (before draining); Lori, marshlands at the Lori Plateau (Meshkova 1968). Shirak Lake/Reservoir Arpi (before the rise of the water level) (Meshkova 1955, 1968). Syunik, Goris, water bodies in Zangezur Ridge. (Meshkova 1968).

Biogeography: Cosmopolitan (Segers 2007; Garlasché et al. 2020).

Family: Trochosphaeridae Harring, 1913

Genus: *Filinia* Bory de St. Vincent, 1824

Eggs of *Filinia* were found in the surroundings of the Village Tsovinar (Gegharkunik) during the

palynological study of modern soils formed on the former bottom of Lake Sevan as a result of its artificial drainage (Hayrapetyan et al. 2020).

15. *Filinia longiseta* (Ehrenberg, 1834)

Triarthra longiseta: Decksbach 1923.

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Decksbach, 1923; Meshkova 1941, 1947, 1948, 1968; Krylov et al. 2013; Vezhnovets et al. 2024); known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1968). Aragatsotn, Aparan reservoir. Kotayk, ponds in the Abovyan pastures; Akhbyurak reservoir. Lori, a pond; a lake at the Lori Plateau. Shirak, Lake/Reservoir Arpi (before the water level rise) (Meshkova 1955, 1968); Tavush, Village Norashen, a concrete reservoir (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

16. *Filinia terminalis* (Plate, 1886)

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010, 2016, 2016b, 2021). Gegharkunik/Kotayk, small reservoirs of the Geghama range (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Pacific (Segers 2007; Garlasché et al. 2020).

Family: Asplanchnidae Eckstein, 1883

Genus: *Asplanchna* Gosse, 1850

17. *Asplanchna brightwellii* Gosse, 1850

Distribution in Armenia: Kotayk, ponds in the Abovyan pastures (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Antarctic (Segers 2007).

18. *Asplanchna girodi* Guerne, 1888

Distribution in Armenia: Lake Sevan, inundated coast of Minor Sevan near the Village Tsovazard; littoral and pelagic zones (Krylov et al. 2007, 2010, 2016b). Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014); outflow of the Hrazdan River (Krylov et al. 2007).

Biogeography: Cosmopolitan, except for the Antarctic (Segers 2007).

19. *Asplanchna priodonta* Gosse, 1850

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010). Aragatsotn, Reservoir Aparan; Aragatsotn/Kotayk, small water bodies of Tsakhkunyats range (Meshkova 1968). Gegharkunik, outflow of the Hrazdan River (Krylov et al. 2007). Shirak, Lake/Reservoir Arpi (before and after the rise of the water level) (Meshkova 1955, 1968). Vayots Dzor, Arpa River 0.5 km upstream from The Town Vayk, 5 km upstream from the confluence of the Yeghegis River, and 1.5 km downstream from Village Areni (Hayrapetyan et al. 2016). Yerevan, Reservoir Yerevan (Hayrapetyan 2012).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

20. *Asplanchna sieboldii* (Leydig, 1854)

Asplanchna amphora Western: Meshkova 1968.

Distribution in Armenia: Kotayk, ponds in the Abovyan pastures. Yerevan, Pond Vardavar {Komeritmiutyan} (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

***Asplanchna* sp.**

Distribution in Armenia: Lake Sevan, inundated coast of Minor Sevan near the Village Tsovazard (Asatryan et al. 2016). Syunik, Sisian, water bodies of Zangezur Ridge (Meshkova 1968).

Genus: *Asplanchnopus* Guerne, 1888**21. *Asplanchnopus multiceps* (Schrank, 1793)**

Distribution in Armenia: Lori, steppe marshlands of the Lori Plateau (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

Family: Brachionidae Ehrenberg, 1838**Genus: *Anuraeopsis* Lauterborn, 1900****22. *Anuraeopsis fissa* Gosse, 1851**

Distribution in Armenia: Gegharkunik, Lake Gilli (before draining) (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

Genus: *Brachionus* Pallas, 1766**23. *Brachionus angularis* Gosse, 1851**

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010, 2016). Kotayk, Lake Akna. (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

24. *Brachionus bidentatus* Anderson, 1889

Distribution in Armenia: Lake Sevan, inundated coast of Minor Sevan near the Village Tsovazard (Asatryan et al. 2016). Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Asatryan et al. 2016; Krylov et al. 2016b).

Biogeography: Cosmopolitan, except for the Pacific (Segers 2007).

25. *Brachionus calyciflorus* Pallas, 1766

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2016b); Gegharkunik, the outflow of the River Hrazdan; Kotayk, Village Getamej, River Hrazdan; Reservoir Akhpara (Hayrapetyan, 2012). Shirak, Lake/Reservoir Arpi (after and before the water level rise) (Meshkova 1968). Yerevan. Pond Vardavar {Komeritmiutyan} (Meshkova 1968); Reservoir Yerevan (Hayrapetyan, 2012).

Biogeography: Cosmopolitan, except for Pacific (Segers 2007).

***Brachionus calyciflorus calyciflorus* Pallas, 1766**

Brachionus calyciflorus ampiceros Ehrenberg: Krylov et al. 2010; Asatryan et al. 2016.

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2010); inundated coast of Minor Sevan (Asatryan et al. 2016).

***Brachionus calyciflorus spinosus* Wierzejski, 1891**

Distribution in Armenia: Kotayk, Village Getamej, River Hrazdan; Reservoir Akhpara (Hayrapetyan 2012).

26. *Brachionus capsuliflorus* Pallas, 1766

Distribution in Armenia: Lake Sevan, coastal areas, and bays (Neizvestnova-Zhadina 1928). Shirak, Lake/Reservoir Arpi (before raising the level) (Meshkova 1955, 1968).

Biogeography: Cosmopolitan (Segers 2007).

27. *Brachionus leydigii* Cohn, 1862

Distribution in Armenia: Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b).

Biogeography: Afrotropical, Australian, Oriental, Palearctic (Segers 2007).

28. *Brachionus nilsoni* Ahlstrom, 1940

Distribution in Armenia: Lake Sevan, inundated coast of Minor Sevan near the Village Tsovazard (Asatryan et al. 2016).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

29. *Brachionus quadridentatus* Hermann, 1783

Brachionus quadridentatus cluniorbicalari Skorikov: Krylov et al. 2010. Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010, 2016b); inundated coast of Minor Sevan (Asatryan et al. 2016). Gegharkunik, Lavanda, a pond semi-detached to Minor Sevan (Hayrapetyan et al. 2014; Asatryan et al. 2016).

Biogeography: Cosmopolitan (Segers 2007).

30. *Brachionus rubens* Ehrenberg, 1838

Distribution in Armenia: Aragatsotn, Lake Kari; water reservoirs for cattle watering at Aragats massif. Aragatsotn/Kotayk, water bodies of Tsakhkunyats Ridge. Gegharkunik, residual lakes near Lake Sevan; Gegharkunik/Kotayk, small water bodies of Geghama ridge, Kotayk, small ponds in pastures of Abovyan. Shirak, Lake/Reservoir Arpi (before and after the rise of the water level) (Meshkova 1955, 1968). Tavush, Village Norashen, a concrete reservoir (Meshkova 1968).

Biogeography: Afrotropical, Holarctic, Neotropical, Oriental (Segers 2007).

31. *Brachionus urceolaris* Müller, 1773

Brachionus urceus (Linnaeus, 1758): Asatryan et al. 2016.

Distribution in Armenia: Lake Sevan, inundated coast of Minor Sevan near the Village Tsovazard (Asatryan et al. 2016); known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1947, 1948, 1968). Lori, marshes, ponds, and lakes at the Lori Plateau. Shirak, Lake/Reservoir Arpi (before the water level rise) (Meshkova 1955, 1968). Syunik, Goris, small pools for watering cattle with the muddy water of Zangezur Ridge (Meshkova 1968).

Biogeography: Cosmopolitan, except for Pacific (Segers 2007).

Genus: *Kellicottia* Ahlstrom, 1938

32. *Kellicottia longispina* (Kellicott, 1879)

Notholca longispina: Decksbach 1923.

Distribution in Armenia: Lake Sevan (Decksbach 1923).

Biogeography: Afrotropic, Holarctic, Neotropical, Oriental (Segers 2007).

Genus: *Keratella* Bory de St. Vincent, 1822

33. *Keratella cochlearis* (Gosse, 1851)

Keratella cochlearis cochlearis (Gosse, 1851): Meshkova 1968.

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010, 2016, 2016b). Lori, a relict lake at the Lori Plateau. Tavush, water bodies of north-east Armenia (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Pacific (Segers 2007).

34. *Keratella quadrata* (Müller, 1786)

Anuraea aculeata Ehrenberg, 1832: Decksbach 1923; Arnoldi and Malevich 1934; Derzhavin et al. 1940.

Keratella quadrata var. *curvicornis*: Meshkova 1968 in Lake Gilli.

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Decksbach 1923; Meshkova 1947, 1948, 1968; Krylov et al. 2010, 2013, 2016, 2016b, 2021; Hayrapetyan et al. 2014; Vezhnovets et al. 2024); inundated coast of Minor Sevan (Asatryan et al. 2016; Krylov et al. 2016b); known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1968). Aragatsotn, Aparan Reservoir. Gegharkunik, residual lakes near Village Shoghakat {Shorzha}; Lake Gilli (before draining) (Meshkova 1968); Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b); outflow of the River Hrazdan. Kotayk, Lake Akna {Kanly}; cattle watering ponds in Abovyan; (Arnoldi and Malevich, 1934; Meshkova 1968); Reservoir Aghbyurak; Village Getamej, River Hrazdan; Reservoir Akhpara (Hayrapetyan 2012; Hayrapetyan et al. 2014). Lori, bogs, and lakes at the Lori Plateau (Meshkova 1968). Shirak, Lake/Reservoir Arpi (before the water level rise) (Derzhavin et al. 1940; Meshkova 1955, 1968). Syunik, Sisian, small water bodies of Zangezur Ridge. Tavush, Lake Parz (Meshkova 1968). Vayots Dzor, Arpa River, 0.5 km upstream from the Town Vayk (Hayrapetyan et al. 2016). Yerevan, Yerevan Reservoir (Hayrapetyan 2012).

Biogeography: Cosmopolitan, except for Pacific (Segers 2007; Garlasché et al. 2020).

Note: It is the most widespread species in Armenia. According to T M Meshkova 1968, in Lake Gilli

the species was represented by 3 varieties: *K. q.* var. *brevispina*, *K. q.* var. *curvicornis*, and *K. q.* var. *valga*. As reported by Willem H. De Smet, var. *curvicornis* = *K. quadrata*, var. *brevispina* is now *K. testudo* and var. *valga* is now *K. valga*.

35. *Keratella testudo* (Ehrenberg, 1832)

K. quadrata var. *brevispina*: Meshkova 1968.

Distribution in Armenia: Gegharkunik, Lake Gilli (before draining) (Meshkova 1968).

Biogeography: Afrotropical, Holarctic (Segers 2007).

36. *Keratella valga* (Ehrenberg, 1834)

K. quadrata var. *valga*: Meshkova 1968.

Distribution in Armenia: Gegharkunik, Lake Gilli (before draining) (Meshkova 1948, 1968).

Biogeography: Cosmopolitan (Segers 2007).

Genus: *Notholca* Gosse, 1886

37. *Notholca acuminata* (Ehrenberg, 1832)

Distribution in Armenia: Lake Sevan, littoral; known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1947, 1948, 1968).

Biogeography: Afrotropical, Holarctic (Segers 2007).

38. *Notholca caudata* Carlin, 1943

Distribution in Armenia: Lake Sevan, pelagic zone (Krylov et al. 2010, 2016); Biogeography: Holarctic, Neotropical (Segers 2007).

39. *Notholca squamula* (Müller, 1786)

Distribution in Armenia: Gegharkunik, the mouth of the Arpa River (Krylov et al. 2010).

Biogeography: Cosmopolitan, except for the Pacific (Segers 2007).

40. *Notholca striata* (Müller, 1786)

Distribution in Armenia: Lake Sevan, littoral; known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1947, 1948). Gegharkunik/Kotayk, small water bodies of Geghama Ridge (Meshkova 1968).

Biogeography: Holarctic, Neotropical (Segers 2007).

Genus: *Platylas* Harring, 1913

41. *Platylas quadricornis* (Ehrenberg, 1832)

Distribution in Armenia: Lake Sevan, inundated coast of Minor Sevan near the Village Tsovazard (Asatryan et al. 2016). Kotayk, Reservoir Akhpara (Hayrapetyan 2012).

Biogeography: Neotropical, Holarctic (Segers 2007).

Family: Dicranophoridae Haring, 1913

Genus: *Dicranophorus* Nitzsch, 1827

42. *Dicranophorus grandis* (Ehrenberg, 1832)

Diglena grandis Ehrenberg, 1832: Meshkova 1948, 1968.

Distribution in Armenia: Lake Sevan, known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1968).

Biogeography: Cosmopolitan, except the Oriental and Antarctic (Segers 2007).

***Dicranophorus* sp.**

Distribution in Armenia: Vayots Dzor, Arpa River, 1.5 km downstream from the Village Areni (Hayrapetyan et al. 2016).

Family: Euchlanidae Ehrenberg, 1838

Genus: *Beauchampiella* Remane, 1929

43. *Beauchampiella eudactylota* (Gosse, 1886)

Eudactylota eudactylota (Gosse): Krylov et al. 2007, 2010.

Distribution in Armenia: Gegharkunik, middle stream of the River Argichi (Krylov et al. 2007, 2010).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

Genus: *Euchlanis* Ehrenberg, 1832

44. *Euchlanis deflexa* Gosse, 1851

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010, 2013, 2016, 2016b); Gegharkunik, Minor Sevan, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

45. *Euchlanis dilatata* Ehrenberg, 1832

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Meshkova 1947; Krylov et al. 2007, 2010, 2013, 2016a, 2016b, 2021; Vezhnovets et al. 2024); inundated coast of Minor Sevan (Hayrapetyan et al. 2014; Asatryan et al. 2016; Krylov et al. 2016b); known from the now defunct {Yelenovka} Bay (Meshkova 1948, 1968). Gegharkunik, Lake Gilli (before draining) (Meshkova 1968); Lavanda, a pond semi-detached to Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b); outflow of the River Hrazdan; middle stream of the River Argichi; mouth of the River Makenis (Krylov et al. 2007, 2010); Shirak, Lake/Reservoir Arpi (before and after the water level rise) (Meshkova 1955, 1968). Vayots Dzor, Arpa River, 5 km upstream from Jermuk Town and 1.5 km downstream from Village Areni; River Darb; River Yeghegis (Hayrapetyan et al. 2016).

Biogeography: Cosmopolitan (Segers 2007).

46. *Euchlanis lucksiana* Hauer, 1930

Euchlanis dilatata lucksiana Hauer, 1930: Krylov et al. 2007, 2010, 2016b). Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010, 2016b). Gegharkunik, the outflow of the River Hrazdan; a middle stream of the River Argichi; the mouth of the River Makenis (Krylov et al. 2007).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

47. *Euchlanis lyra* Hudson, 1886

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2016b); inundated coast of Minor Sevan. Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014).

Biogeography: Afrotropical, Australian, Nearctic, Neotropical (Segers 2007).

48. *Euchlanis meneta* Myers, 1930

Distribution in Armenia: Lake Sevan, inundated coast of Minor Sevan near the Village Tsovazard. Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

49. *Euchlanis oropha* Gosse, 1887

Distribution in Armenia: Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Krylov et al. 2016b).

Biogeography: Cosmopolitan, except for the Pacific (Segers 2007).

50. *Euchlanis pyriformis* Gosse, 1851

Distribution in Armenia: Lake Sevan, littoral; known from the now defunct Sevan {Yelenovka} Bay. Gegharkunik, Lake Gilli (before draining) (Meshkova 1947, 1948, 1968).

Biogeography: Afrotropical, Australian, Holarctic, Neotropical (Segers 2007).

Family: Gastropodidae Haring, 1913

Genus: *Ascomorpha* Perty, 1850

51. *Ascomorpha ecaudis* Perty, 1850

Distribution in Armenia: Lake Sevan, littoral (Vezhnovets et al. 2024). Biogeography: Afrotropical, Australian, Holarctic, Oriental (Segers 2007).

Family : Lecanidae Remane, 1933

Genus : *Lecane* Nitzsch, 1827

52. *Lecane bulla* (Gosse, 1851)

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2016b). Gegharkunik, Lavanda, a pond semi-attached to Minor Sevan (Krylov et al. 2016b).

Biogeography: Cosmopolitan, except for Antarctic (Segers 2007).

Note: morphologically variable taxon requires further study (Segers 2007), in particular, on the molecular level (Garcia-Morales and Dominguez-Dominguez 2020).

53. *Lecane cornuta* (Müller, 1786)

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2013, 2016b). Biogeography: Neotropical, Holarctic (Segers 2007).

Note: morphologically variable taxon requires further study (Segers 2007), in particular, on the molecular level (Garcia-Morales and Dominguez-Dominguez 2020). According to Willem H. De Smet, this could be a misidentification of the common *Lecane closterocerca* (Schmarda, 1859).

54. *Lecane crenata* (Harring, 1913)

Distribution in Armenia: Lake Sevan, inundated coast of Minor Sevan near the Village Tsovazard (Asatryan et al. 2016).

Biogeography: Cosmopolitan, except in the Antarctic and Pacific (Segers 2007).

55. *Lecane ludwigii* (Eckstein, 1883)

Distribution in Armenia: Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014).

Biogeography: Cosmopolitan, except in the Antarctic (Segers 2007).

56. *Lecane luna* (Müller, 1776)

Cathypna luna (O.F. Muller): Arnoldi and Malevich, 1934; Meshkova 1955, 1968.

Distribution in Armenia: Lake Sevan, littoral; inundated coast of Minor Sevan (Asatryan et al. 2016; Krylov et al. 2016b); known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1961). Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b); Lake Gilli (before draining). Kotayk, Lake Akna {Kanly}, Crater Bay (Arnoldi and Malevich 1934; Meshkova 1968). Shirak, Shirak, Lake/ Reservoir Arpi (before the water level rise) (Meshkova 1955, 1968). Syunik, Sisian, water bodies of Zangezur Ridge (Meshkova 1968). Vayots Dzor, Arpa River, 5 km upstream from the confluence of the Yeghegis River and 1.5 km downstream from the Village Areni (Hayrapetyan et al. 2016).

Biogeography: Cosmopolitan, except in the Antarctic (Segers 2007).

57. *Lecane lunaris* (Ehrenberg, 1832) Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2016b). Kotayk, Lake Akna {Kanly} Crater Bay (Arnoldi and Malevich, 1934). Biogeography: Cosmopolitan (Segers 2007). Note: morphologically variable taxon requires further study (Segers 2007), in particular, on the molecular level (Garcia-Morales and Dominguez-Dominguez 2020).

58. *Lecane quadridentata* (Ehrenberg, 1830) *Monostyla quadridenata* Ehrbg.: Meshkova 1947. Distribution in Armenia: Lake Sevan, littoral (Meshkova 1947; Krylov et al. 2016b); known from the now defunct Sevan {Yelenovka} Bay; Lori, marshes and relict lakes at the Lori Plateau (Meshkova 1948, 1968). Biogeography: Cosmopolitan, except the Oriental and Antarctic (Segers 2007).

***Lecane* sp.**

Monostyla sp.: Meshkova 1968.

Distribution in Armenia: Tavush, Village Norashen, a cement pool (Meshkova 1968).

Family: Lepadellidae Haring, 1913**Genus : *Colurella* Bory de St. Vincent, 1824**

59. *Colurella adriatica* Ehrenberg, 1831 *Colurella caudata* Dieffenbach, 1912: Meshkova 1948, 1968. Distribution in Armenia: Lake Sevan, known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1948, 1968). Biogeography: Cosmopolitan (Segers 2007).

60. *Colurella colurus compressa* (Lucks, 1830) *Corulella compressa*: Meshkova 1968. Distribution in Armenia: Lake Sevan, known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1948, 1968). Biogeography: Antarctic, Australian, Holarctic, Neotropical (Segers 2007).

Genus: *Lepadella* Bory de St. Vincent, 1826

61. *Lepadella acuminata* (Ehrenberg, 1834) Distribution in Armenia: Kotayk, Lake Akna {Kanly} Crater Bay (Arnoldi and Malevich, 1934; Meshkova 1968).

Biogeography: Cosmopolitan (Segers 2007).

62. *Lepadella obtusa* Wang, 1961

Distribution in Armenia: Kotayk, small water bodies used for watering cattle near Lake Akna (Meshkova 1968).

Biogeography: Palearctic (Segers 2007).

63. *Lepadella ovalis* (Müller, 1786)

Metopidia lepadella Ehrenberg, 1832: Meshkova 1948, 1968.

Distribution in Armenia: Lake Sevan, known from the now defunct Sevan {Yelenovka} Bay. (Meshkova 1948, 968).

Biogeography: Cosmopolitan, (Segers 2007; Garlasché et al. 2020).

64. *Lepadella patella* (Müller, 1773)

Distribution in Armenia: Lake Sevan, coastal areas, and bays (Neizvestnova-Zhadina 1928; Meshkova 1947). Gegharkunik, Lake Gilli (before draining) (Meshkova 1968).

Biogeography: Cosmopolitan (Segers 2007).

***Lepadella patella oblonga* (Ehrenberg, 1773)**

Lepadella oblonga (Ehrenberg, 1834): Arnoldi and Malevich, 1934. Distribution in Armenia: Kotayk, pools for watering cattle in the vicinity of Lake Akna {Kanly} (Arnoldi and Malevich, 1934).

Biogeography: Cosmopolitan, except for the Pacific (Segers 2007).

***Lepadella patella persimilis* De Ridder, 1773**

Lepadella similis (Lucks, 1912): Meshkova 1968.

Distribution in Armenia: Lake Sevan, littoral. Gegharkunik, Lake Gilli (before draining) (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Pacific (Segers 2007; Garlasché et al. 2020).

65. *Lepadella rhomboides* (Gosse, 1886)

Distribution in Armenia: Lake Sevan, Lavanda pond, semi-separated from the Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b).

Biogeography: Cosmopolitan, except for the Antarctic (Segers 2007).

***Lepadella* sp.**

Distribution in Armenia: Lori, relict lakes of the Lori Plateau (Meshkova 1968).

Family: Mytilinidae Haring, 1913**Genus: *Lophocharis* Ehrenberg, 1838****66. *Lophocharis salpina* (Ehrenberg, 1934)**

Distribution in Armenia: Gegharkunik, Lavanda lake-shaped pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b).

Biogeography: Cosmopolitan, except for the Antarctic (Segers 2007).

Genus: *Mytilina* Bory de St. Vincent, 1826**67. *Mytilina bicarinata* (Perty, 1850)**

Distribution in Armenia: Lake Sevan, littoral; known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1947); Gegharkunik, Lake Gilli (before draining) (Meshkova 1968).

Biogeography: Holarctic, Oriental (Segers 2007).

68. *Mytilina mucronata* (Müller, 1773)

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2016b); inundated coast of Minor Sevan; Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b).

Biogeography: Cosmopolitan, except the Antarctic and Pacific (Segers 2007).

***Mytilina mucronata spinigera* (Ehrenberg, 1773)**

Mytilina spinigera Ehrb.: Derzhavin et al. 1940; Meshkova 1955, 1968.

Distribution in Armenia: Shirak, Lake/Reservoir Arpi (before the water level rise) (Derzhavin et al. 1940; Meshkova 1955, 1968).

***Mytilina* sp.**

Distribution in Armenia: Lake Sevan, inundated coast of Minor Sevan near the Village Tsovazard (Asatryan et al. 2016).

Genus: *Cephalodella* Bory de St. Vincent, 1826**69. *Cephalodella catellina* (Müller, 1786)**

Distribution in Armenia: Lake Sevan, littoral (Vezhnovets et al. 2024). Biogeography: Cosmopolitan, except for the Pacific (Segers 2007).

70. *Cephalodella forficata* (Ehrenberg, 1832)

Diaschiza caeca Gosse: Meshkova 1968.

Distribution in Armenia: Lake Sevan, known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1948, 1968).

Biogeography: Cosmopolitan, except for the Nearctic (Segers 2007).

71. *Cephalodella gibba* (Ehrenberg, 1830)

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2016b). Vayots Dzor, Arpa River from 5 km upstream from Jermuk Town to 1.5 km downstream from Village Areni; River Darb; River Yeghegis (Hayrapetyan et al. 2016).

Biogeography: Cosmopolitan (Segers 2007).

72. *Cephalodella tenuior* (Gosse, 1886)

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2010, 2016b). Biogeography: Antarctic, Australian, Holarctic, Oriental (Segers 2007).

***Cephalodella* sp.**

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2007, 2010).

Genus: *Eosphora* Ehrenberg, 1830**73. *Eosphora* sp.**

Distribution in Armenia: Vayots Dzor, Arpa River, 0.5 km upstream from the Town Vayk (Hayrapetyan et al. 2016).

Genus: *Notommata* Ehrenberg, 1830**74. *Notommata aurita* (Müller, 1786)**

Notommata aurita var. *goktschana*: Meshkova 1947, 1968.

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2016b); coastal areas and bays (Neizvestnova-Zhadina, 1928; Meshkova 1947); known from the now defunct Sevan {Yelenovka}

Bay (Meshkova 1968). Vayots Dzor, Arpa River, 5 km upstream from Jermuk Town, 0.5 km upstream from Vayk Town, and 1.5 km down-stream from the Village Areni (Hayrapetyan et al. 2016).

Biogeography: Australian, Holarctic, Neotropical (Segers 2007).

Family: Scaridiidae Manfredi, 1927

Genus: *Scaridium* Ehrenberg, 1830

75. *Scaridium longicaudum* (Müller, 1786)

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2016b). Biogeography: Cosmopolitan (Segers 2007).

Genus: *Polyarthra* Ehrenberg, 1834

76. *Polyarthra dolichoptera* Idelson, 1925

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2007, 2010, 2013, 2016a, 2016b). Gegharkunik, tributaries of Lake Sevan (Krylov et al. 2010). Vayots Dzor, Arpa River, 0.5 km upstream from the confluence of the Darb River, 0.5 km upstream from the Vayk Town; Yeghegis River, 5 km upstream from Getikvank (Hayrapetyan et al. 2016).

Biogeography: Cosmopolitan, except for Antarctic and Neotropical (Segers 2007).

77. *Polyarthra longiremis* Carlin, 1943

Distribution in Armenia: Gegharkunik, reached mass quantitative development in Lake Gilli (before draining); Lori, marshes at the Lori Plateau (Meshkova 1968).

Biogeography: Australian, Holarctic, Neotropical, Oriental (Segers 2007).

78. *Polyarthra remata* Skorikov, 1896

Distribution in Armenia: Gegharkunik, Gavar, Lake Aghilich {Aghigol}. Gegharkunik/Kotayk, small water reservoirs at Geghama Ridge. Kotayk, ponds on pastures of Abovyan. Lori, a steppe marsh (Meshkova 1968).

Biogeography: Australian, Holarctic, Neotropical, Oriental (Segers 2007).

79. *Polyarthra vulgaris* Carlin, 1943

Polyarthra trigla Ehrenberg, 1834: Meshkova 1947, 1948.

Distribution in Armenia: Lake Sevan, littoral and profundal zones, abundant (Meshkova 1947, 1948; Krylov et al. 2010, 2013, 2016a, 2016b); known from the now defunct Sevan {Yelenovka} Bay. Gegharkunik, Lake Gilli (before draining) (Meshkova 1968); tributaries of Lake Sevan (Krylov et al. 2010); Lavanda, pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014). Gegharkunik/ Kotayk, cattle watering small water bodies of the Geghama Range. Lori, a relict lake of the Lori Plateau; Shirak, Lake/Reservoir Arpi (before the water level rise) (Meshkova 1955, 1968).

Biogeography: Cosmopolitan, except for Antarctic (Segers 2007).

***Polyarthra* sp.**

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Vezhnovets et al. 2024).

Genus: *Synchaeta* Ehrenberg, 1832

80. *Synchaeta grandis* Zacharias, 1893

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2016a, 2016b). Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b).

Biogeography: Holarctic (Segers 2007).

81. *Synchaeta longipes* Gosse, 1887

Distribution in Armenia: Tavush, Lake Parz (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

82. *Synchaeta oblonga* Ehrenberg, 1832

Distribution in Armenia: Lake Sevan, littoral; known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1947, 1948, 1968).

Biogeography: Cosmopolitan, except for the Antarctic (Segers 2007).

83. *Synchaeta pectinata* Ehrenberg, 1832

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Meshkova 1941, 1947, 1948; Krylov et al. 2007, 2010, 2013, 2016a, 2016b, Vezhnovets et al. 2024); known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1968); inundated coast of Minor Sevan (Hayrapetyan et al. 2014). Gegharkunik, tributaries of Lake Sevan (Krylov et al. 2010); Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014; Krylov et al. 2016b). Shirak, Lake/Reservoir Arpi (before the water level rise) (Meshkova 1955, 1968). Syunik, Sisian, water bodies of Zangezur Ridge (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

84. *Synchaeta stylata* Wierzejski, 1893

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010, 2016b). Gegharkunik, outflow of the Hrazdan River (Krylov et al. 2007, 2010). Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

***Synchaeta* sp.**

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2010, 2016b).

Family: *Trichocercidae* Haring, 1913

Genus: *Trichocerca* Lamarck, 1801

85. *Trichocerca bicristata* (Gosse, 1887)

Distribution in Armenia: Lake Sevan, known from the defunct Sevan {Yelenovka Bay} (Meshkova 1968).

Biogeography: Cosmopolitan, except for the Antarctic and Nearctic (Segers 2007).

86. *Trichocerca brachyura* (Gosse, 1851)

Diurella brachyura (Gosse): Meshkova 1948, 1968

Distribution in Armenia: Lake Sevan, littoral (Meshkova 1947); known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1948, 1968).

Biogeography: Cosmopolitan, except for the Pacific (Segers 2007).

87. *Trichocerca capucina*

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Krylov et al. 2010, 2016b); inundated coast of Minor Sevan (Hayrapetyan et al. 2014).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

88. *Trichocerca intermedia* (Stenroos, 1898)

Distribution in Armenia: Kotayk, Lake Akna {Kanly} Crater Bay (Arnoldi and Malevich, 1934; Meshkova 1968).

Biogeography: Australian, Holarctic, Neotropical, Pacific (Segers 2007).

89. *Trichocerca longiseta* (Schrank, 1802)

Distribution in Armenia: Lake Sevan, littoral (Meshkova 1947; Krylov et al. 2016b); known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1948, 1968); inundated coast of Minor Sevan (Hayrapetyan et al. 2014). Vayots Dzor, Arpa River 1.5 km downstream from Village Areni (Hayrapetyan et al. 2016).

Biogeography: Cosmopolitan, except for the Pacific Antarctic and Nearctic (Segers 2007).

90. *Trichocerca rattus* (Müller, 1776)

Trichocerca rattulus (Müller, 1776): Meshkova 1947.

Distribution in Armenia: Lake Sevan, littoral (Meshkova 1947, 1968). Biogeography: Cosmopolitan (Segers 2007).

***Trichocerca rattus carinata* (Ehrenberg, 1830)**

Rattulus carinatus Lamarck, 1816: Meshkova 1968.

Trichocerca carinatus: Meshkova 1948.

Distribution in Armenia: Lake Sevan, known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1948). Gegharkunik, Lake Gilli (before draining). Shirak, Lake/Reservoir Arpi (before the water level rise) (Meshkova 1955, 1968).

91. *Trichocerca stylata* (Gosse, 1851)

Distribution in Armenia: Lake Sevan (Krylov et al. 2013, 2016b). Biogeography: Cosmopolitan, except for the Antarctic (Segers 2007).

92. *Trichocerca tigris* (Müller, 1786)

Diurella tigris (O.F. Muller, 1786): Arnoldi and Malevich, 1934.

Distribution in Armenia: Kotayk, pools for watering cattle in the vicinity of Lake Akna {Kanly} (Arnoldi and Malevich, 1934; Meshkova 1968).

Biogeography: Cosmopolitan (Segers 2007).

***Trichocerca* sp.**

Distribution in Armenia: Lori, the marsh of the Lori Plateau (Meshkova 1968).

Family: Trichotriidae Harring, 1913

Genus: *Trichotria* Bory de St. Vincent, 1827

93. *Trichotria pocillum* (Müller, 1776)

Distribution in Armenia: Lake Sevan, littoral and pelagic zones (Meshkova 1947; Krylov et al. 2010, 2013, 2016b; Vezhnovets et al., 2024); inundated coast of Minor Sevan (Asatryan et al. 2016); known from the now defunct Sevan {Yelenovka} Bay (Meshkova 1948, 1968). Gegharkunik, tributaries of Lake Sevan (Krylov et al. 2010). Shirak, Lake/Reservoir Arpi (before the water level rise) (Meshkova 1955, 1968). Vayots Dzor, Arpa River, 5 km upstream from the Jermuk Town; Darb River, 0.5 km upstream from the mouth and 0.5 km upstream from the Village Ughedzor; Yeghegis River 1 km upstream from the mouth (Hayrapetyan et al. 2016).

Biogeography: Cosmopolitan, except for the Antarctic and Pacific (Segers 2007).

94. *Trichotria tetractis* (Ehrenberg, 1830)

Distribution in Armenia: Lake Sevan, inundated coast of Minor Sevan near the Village Tsovazard (Asatryan et al. 2016).

Biogeography: Cosmopolitan (Segers 2007; Garlasché et al. 2020).

95. *Trichotria truncata* (Whitelegge, 1889)

Distribution in Armenia: Lake Sevan, littoral (Krylov et al. 2016b); inundated coast of Minor Sevan. Gegharkunik, Lavanda, a pond semi-separated from the Minor Sevan (Hayrapetyan et al. 2014); middle stream of the Hrazdan River (Krylov et al. 2007).

Biogeography: Australia, Holarctic (Segers 2007).

***Trichotria* sp.**

Distribution in Armenia: Kotayk, Village Getamej, Hrazdan River (Hayrapetyan 2012).

Discussion

Of the total number of rotifer species observed in Armenia, 69 (68%) are cosmopolitan or nearly

cosmopolitan (absent in 1 or 2 biogeographical regions). Only 1 species, *Lepadella obtusa* has been recorded from one, Palearctic, region. Three further species, *Habrotrocha roeperi*, *Embata parasitica*, and *Synchaeta grandis*, were recorded only from the Holarctic (Palearctic + Nearctic) region.

For the Caucasus Ecoregion, it is essential to assess the level of similarity between the species composition of rotifers in Armenia and the neighboring countries. In Türkiye, extensive literature is devoted to the study of rotifers, in particular their biodiversity. The first report of rotifers of Türkiye comprised 167 taxa (Emir, 1999), while later, Ustaoglu (2004) and Ustaoglu et al. (2012) reported 229 and 341 rotifer taxa respectively. As a result of the updated assessments of the zooplankton biodiversity of Turkish inland waters, the recent checklist includes 417 rotifers below the genus level (Ustaoglu, 2015). In a comprehensive review of the rotifers of inland water bodies of Iran, Malekzadeh-Viayeh (2021) provided a catalog of 361 rotifer species and subspecies. Historically, studies of rotifers in Azerbaijan and Georgia (as well as in Armenia) have been intermittent. Meshkova (1968), referencing several previous surveys, reported 24 and rotifer species for Azerbaijan (Alizade 1934, 1938, 1939, 1940, 1941, 1946; Weisig 1931, 1937, 1939) and 28 species for Georgia (Fadeev 1925, Arnoldi 1933; Kudelina 1940; Puzanov & Lyatti 1940; Puzanov et al. 1940; Kutubidze 1952, 1954, 1959, 1960; Kutubidze & Nezhadze 1959; Macharashvili 1955, 1963a, b; Derzhavin et al. 1959; Tskhomelidze 1959, 1961; Tkheshelashvili 1966). The number of known species in Azerbaijan increased to 65 as a result of the studies on the Kura River (Aleperov and Tapdiqova, 2022) and its connected reservoirs, Mingechaur (Likhodeeva, 1964; Akhmedov, 1971; Tapytsova, 2022) and Varvara (Akhmedov, 1971; Tapytsova, 2023), as well as those on Lake Hajigabul (Sultanov et al. 2008, referring to Likhodeeva 1967 and Mamedova 2001) and Nakhchivan Reservoir on the Aras (Araks) River (Azerbaijan/Iran) (Yahyazadeh et al. 2017). For Georgia, the list of rotifers was supplemented to up to 39 species by the study of Abkhazian freshwater and salt lakes, canals, rivers, brooks, and cave waterbodies (Derevenskaya and Mingazova, 2015). A comparison of the species and subspecies composition of rotifers of Armenia with the known species and subspecies of the neighboring countries shows that 87 (86%) rotifers below the genus level are in common with Türkiye, 84 (83%) with Iran, 42 (42%) with Azerbaijan and 29 (29%) with Georgia. Concerning the rotifer diversity and based on the current reports the total number of rotifers recorded in Armenia is 20% of those reported from Türkiye, 22% from Iran, 72% from Azerbaijan, and 69% from Georgia.

The most widespread rotifer species in Armenia, *K. quadrata*, *A. priodonta*, *H. mira*, and *F. longiseta*, are also common in Iran, occurring in 33-44% of the locations where rotifers have been found. The higher frequencies were observed only for 3 species of the genus *Lecane*, *L. bulla*, *L. luna*, and *L. lunaris*, recorded in 50- 61% of the locations (Malekzadeh-Viayeh 2021). Similar to those for Armenia, *K. quadrata*, *A. priodonta*, *H. mira* and *F. longiseta* have been recorded from more than 10 localities each in Türkiye (Ustaoglu, 2004), while all these species are reported from Azerbaijan and Georgia as well. There are only 5 species (5.3%) recorded in Armenia which were not found in the bordering countries: *Embata parasitica*, *Habrotrocha roeperi*, *Lepadella obtusa*, *Mytilina bicarinata* and *Trichocerca brachyura*.

It is noteworthy that 40 species of the rotifers were last observed about 60 years ago, including the once widespread *Brachionus rubens*, recorded in 5 regions, *Hexarthra fennica* and *Testudinella patina* each recorded in 4 regions, and *Polyarthra remata* and *Trichocerca rattus* each recorded in 3 regions (Table 1). A possible reason for the absence of these species in the later studies could be the desiccation of the habitats (e.g. Lake Gilli and Sevan Bay) or their conversion to reservoirs (e. g. Lake/Reservoir Arpi). The fact that some other habitats have not been visited since then also played a role.

Among the species of special interest that have not yet been recorded in Armenia are *Brachionus plicatilis* Müller, 1786, *Epiphanes senta* (Müller, 1773), *Monommata grandis* Tessin, 1890 and *Trichocerca cylindrica*. These species were found on the abdomen, and cephalothorax of the narrow-clawed crayfish, *Pontastacus leptodactylus* (Eschscholtz, 1823) of the Aras Reservoir (Yahyazadeh

et al. 2017). Thus, the probability of their presence in the Armenian waters is relatively high, as this crayfish, due to its high commercial value, is actively dispersed by people and is currently found in almost all water bodies suitable for them.

In Armenia, the study of hydrobionts, including rotifers, has mainly been focused on those of Lake Sevan. Of the 21 scientific articles where rotifer species identification has been noted, 18 are devoted to Lake Sevan, its coastal areas, and tributaries, including the Arpa River and the Hrazdan River flowing from the lake and its reservoirs (Table 2). Sixty-nine rotifer species or 73% of the total number of rotifer species known in Armenia have been found in Lake Sevan. Of these, only a few planktonic species, e.g. *Synchaeta pectinata*, *Keratella quadrata*, *Hexarthra mira*, *Filinia longiseta*, and *Euchlanis dilatata*, were dominant in different years (Meshkova 1947, 1951, 1952, 1962, 1975; Simonyan 1991; Krylov et al. 2021). Meshkova (1945) indicated that the above species, as well as two coastal semiplanktonic species of *Synchaeta oblonga* and *Testudinella patina* were entered into the Hrazdan River through the outlet channel from Lake Sevan.

Genus	Species	NN
<i>Anuraeopsis</i> Lauterborn, 1900	<i>Anuraeopsis fissa</i> Gosse, 1851	1#*
<i>Ascomorpha</i> Perty, 1850	<i>Ascomorpha ecaudis</i> Perty, 1850	1*
<i>Asplanchna</i> Gosse, 1850	<i>Asplanchna brightwellii</i> Gosse, 1850	1#*
	<i>Asplanchna girodi</i> Guerne, 1888	1
	<i>Asplanchna priodonta</i> Gosse, 1850	7
	<i>Asplanchna sieboldii</i> (Leydig, 1854)	2#
<i>Asplanchnopus</i> Guerne, 1888	<i>Asplanchnopus multiceps</i> (Schrank, 1793)	1#*
<i>Beauchampiella</i> Remane, 1929	<i>Beauchampiella eudactylota</i> (Gosse, 1886)	1
<i>Brachionus</i> Pallas, 1766	<i>Brachionus angularis</i> Gosse, 1851	2
	<i>Brachionus bidentatus</i> Anderson, 1889	1
	<i>Brachionus calyciflorus</i> Pallas, 1766	4
	<i>B. calyciflorus calyciflorus</i> Pallas, 1766	1
	<i>B. calyciflorus spinosus</i> Wierzejski, 1891	1
	<i>Brachionus capsuliflorus</i> Pallas, 1766	1#
	<i>Brachionus leydigii</i> Cohn, 1862	1
	<i>Brachionus nilsoni</i> Ahlstrom, 1940	1*
	<i>Brachionus quadridentatus</i> Hermann, 1783	2
	<i>Brachionus rubens</i> Ehrenberg, 1838	5#
	<i>Brachionus urceolaris</i> Müller, 1773	4
<i>Cephalodella</i> Bory de St. Vincent, 1826	<i>Cephalodella catellina</i> (Müller, 1786)	1*
	<i>Cephalodella forficata</i> (Ehrenberg, 1832)	1#*
	<i>Cephalodella gibba</i> (Ehrenberg, 1830)	2
	<i>Cephalodella tenuior</i> (Gosse, 1886)	1*
<i>Collothea</i> Harring, 1913	<i>Collothea</i> sp.	1*
<i>Colurella</i> Bory De St. Vincent, 1824	<i>Colurella adriatica</i> Ehrenberg, 1831	1#*
	<i>Colurella colurus compressa</i> (Lucks, 1830)	1#*
	<i>Conochilus coenobasis</i> (Skorikov, 1914)	1#*
	<i>Conochilus hippocrepis</i> (Schrank, 1803)	5
	<i>Conochilus unicornis</i> Rousselet, 1892	2
<i>Dicranophorus</i> Nitzsch, 1827	<i>Dicranophorus grandis</i> (Ehrenberg, 1832)	1#*
<i>Embata</i> Bryce, 1910	<i>Embata parasitica</i> (Giglioli, 1863)	1#*
<i>Eosphora</i> Ehrenberg, 1830	<i>Eosphora</i> sp.	1*

<i>Euchlanis</i> Ehrenberg, 1832	<i>Euchlanis deflexa</i> Gosse, 1851	1
	<i>Euchlanis dilatata</i> Ehrenberg, 1832	3
	<i>Euchlanis lucksiana</i> Hauer	1
	<i>Euchlanis lyra</i> Hudson, 1886	1
	<i>Euchlanis meneta</i> Myers, 1930	1
	<i>Euchlanis oropha</i> Gosse, 1887	1*
	<i>Euchlanis pyriformis</i> Gosse, 1851	1#
<i>Filinia</i> Bory de St. Vincent, 1824	<i>Filinia longiseta</i> (Ehrenberg, 1834)	6
	<i>Filinia terminalis</i> (Plate, 1886)	2
<i>Habrotrocha</i> Bryce, 1910	<i>Habrotrocha roeperi</i> (Milne, 1889)	1#*
<i>Hexarthra</i> Schmarda, 1854	<i>Hexarthra fennica</i> (Levander, 1892)	4#
	<i>Hexarthra mira</i> (Hudson, 1871)	7
<i>Kellicottia</i> Ahlstrom, 1938	<i>Kellicottia longispina</i> (Kellicott, 1879)	1#*
<i>Keratella</i> Bory de St. Vincent, 1822	<i>Keratella cochlearis</i> (Gosse, 1851)	3
	<i>Keratella quadrata</i> (Müller, 1786)	9
	<i>Keratella testudo</i> (Ehrenberg, 1832)	1#*
	<i>Keratella valga</i> (Ehrenberg, 1834)	1#*
<i>Lecane</i> Nitzsch, 1827	<i>Lecane bulla</i> (Gosse, 1851)	1
	<i>Lecane cornuta</i> (Müller, 1786)	1
	<i>Lecane crenata</i> (Harring, 1913)	1*
	<i>Lecane ludwigii</i> (Eckstein, 1883)	1*
	<i>Lecane luna</i> (Müller, 1776)	4
	<i>Lecane lunaris</i> (Ehrenberg, 1832)	2
	<i>Lecane quadridentata</i> (Ehrenberg, 1830)	2
<i>Lepadella</i> Bory de St. Vincent, 1826	<i>Lepadella acuminata</i> (Ehrenberg, 1834)	1#*
	<i>Lepadella obtusa</i> Wang, 1961	1#*
	<i>Lepadella ovalis</i> (Müller, 1786)	1#*
	<i>Lepadella patella</i> (Müller, 1773)	2#
	<i>L. patella oblonga</i> (Ehrenberg, 1773)	1
	<i>L. patella persimilis</i> De Ridder, 1773	1
	<i>Lepadella rhomboides</i> (Gosse, 1886)	1*
<i>Lophocharis</i> Ehrenberg, 1838	<i>Lophocharis salpina</i> (Ehrenberg, 1934)	1
<i>Mytilina</i> Bory de St. Vincent, 1826	<i>Mytilina bicarinata</i> (Perty, 1850)	1#
	<i>Mytilina mucronata</i> (Müller, 1773)	2
	<i>M. mucronata spinigera</i> (Ehrenberg, 1773)	1
<i>Notholca</i> Gosse, 1886	<i>Notholca acuminata</i> (Ehrenberg, 1832)	1#*
	<i>Notholca caudata</i> Carlin, 1943	1
	<i>Notholca squamula</i> (Müller, 1786)	1*
	<i>Notholca striata</i> (Müller, 1786)	2#
<i>Notommata</i> Ehrenberg, 1830	<i>Notommata aurita</i> (Müller, 1786)	2
<i>Philodina</i> Ehrenberg, 1830	<i>Philodina citrina</i> Ehrenberg, 1832	1#*
	<i>Philodina roseola</i> Ehrenberg, 1832	1#
<i>Platyias</i> Harring, 1913	<i>Platyias quadricornis</i> (Ehrenberg, 1832)	1
<i>Polyarthra</i> Ehrenberg, 1834	<i>Polyarthra dolichoptera</i> Idelson, 1925	2
	<i>Polyarthra longiremis</i> Carlin, 1943	2#
	<i>Polyarthra remata</i> Skorikov, 1896	3#
	<i>Polyarthra vulgaris</i> Carlin, 1943	4
<i>Pompholyx</i> Gosse, 1851	<i>Pompholyx sulcata</i> Hudson, 1885	1#*
<i>Rotaria</i> Scopoli, 1777	<i>Rotaria rotatoria</i> (Pallas, 1766)	1#*
<i>Scaridium</i> Ehrenberg, 1830	<i>Scaridium longicaudum</i> (Müller, 1786)	1*
<i>Synchaeta</i> Ehrenberg, 1832	<i>Synchaeta grandis</i> Zacharias, 1893	1

	<i>Synchaeta longipes</i> Gosse, 1887	1#*
	<i>Synchaeta oblonga</i> Ehrenberg, 1832	1#
	<i>Synchaeta pectinata</i> Ehrenberg, 1832	3
	<i>Synchaeta stylata</i> Wierzejski, 1893	1
<i>Testudinella</i> Bory de St.Vincent, 1826	<i>Testudinella emarginula</i> (Stenroos, 1898)	1*
	<i>Testudinella patina</i> (Hermann, 1783)	4#
<i>Trichocerca</i> Lamarck, 1801	<i>Trichocerca bicristata</i> (Gosse, 1887)	1#*
	<i>Trichocerca brachyura</i> (Gosse, 1851)	1#*
	<i>Trichocerca capucina</i> (Wierzejski & Zacharias, 1893)	1
	<i>Trichocerca intermedia</i> (Stenroos, 1898)	1#*
	<i>Trichocerca longiseta</i> (Schrank, 1802)	2
	<i>Trichocerca rattus</i> (Müller, 1776)	3#
	<i>T. rattus carinata</i> (Ehrenberg, 1830)	2
	<i>Trichocerca stylata</i> (Gosse, 1851)	1*
	<i>Trichocerca tigris</i> (Müller, 1786)	1#*
<i>Trichotria</i> Bory De St. Vincent, 1827	<i>Trichotria pocillum</i> (Müller, 1776)	3
	<i>Trichotria tetractis</i> (Ehrenberg, 1830)	1*
	<i>Trichotria truncata</i> (Whitelegge, 1889)	1

Table 1. List of the hitherto identified Armenian rotifers

Notes: NN - number of regions where the species was found; # - last record before 1966; * - single observation.

In other bodies of water in the country, the last rotifer collections were conducted in 1966 (Meshkova 1968). Therefore, the number of recorded species by region rather reflects the extent of the studies than actual species richness (Table 2). For this reason, it is necessary to focus more on the understudied regions and habitats, while giving priority to the entire Ararat Valley (Aragatsotn, Ararat, and Armavir), south (Syunik), and north-east (Tavush) of the country (Figure 2). There is practically no data on the rotifers of such major rivers of Armenia as Aghstev, Debed, Sevjur, and Vorotan, as well as the Armenian sides of the border rivers Araks (Aras) and Akhuryan. There also is very limited data on the high-altitude small brooks, lakes, ponds, pools, and marshes.

Source	Years	Regions												
		Lake Sevan	Aragatsotn	Ararat	Armavir	Gegharkunik	Kotayk	Lori	Shirak	Syunik	Vayots Dzor	Tavush	Yerevan	
Arnoldi & Malevich 1934	1931						X							
Asatryan et al. 2016	2012	X				X								
Decksbach 1923	before 1923	X				X								
Derzhavin et al. 1940	1936							X	X					
Hayrapetyan 2011, 2012	2004–2007				X	X	X	Hrazdan River					X	
Hayrapetyan et	2013	X				X								

al. 2014														
Hayrapetyan et al. 2016	2012-2013	Arpa River										X		
Krylov et al. 2007	2006	X				X								
Krylov et al. 2010	2005-2009	X				X								
Krylov et al. 2013	2011	X				X								
Krylov et al. 2016a	2011-2014	X				X								
Krylov et al. 2016b	2008-2013	X				X								
Krylov et al. 2021	2013, 2018	X				X								
Meshkova 1941	1938-1939	X				X								
Meshkova 1947	1936-1941	X				X								
Meshkova 1948	1938-1945	X				X								
Meshkova 1952	1937-1950	X				X								
Meshkova 1955	1947-1953	X				X								
Meshkova 1968	1938-1966	X	X	X	X	X	X	X	X	X	X	X	X	X
Neizvestnova-Zhadina 1928	before 1928	X				X								
Vezhnovets et al. 2024	2024	X				X								
Number of species recorded		69	7	0	0	78	23	14	17	7	12	1	5	

Table 2. List of literature published on Armenian rotifers with an indication of the year and place of material collection and the number of species recorded in Lake Sevan and each administrative region

Conclusions

1. To date, 101 rotifers below the genus level (95 species and 6 subspecies) belonging to 35 genera and 21 families from the class Eurotatoria, orders Ploima (79 species and 6 subspecies), Flosculariaceae (10 species), Bdelloidea (5 species) and Collothecacea 1 species), have been

recorded in Armenia.

2. Only 1 species was recorded from one, Palearctic, region. Three further species were recorded from the Holarctic region.

3. At the genus level, *Brachionus* is dominant with 9 species, followed by *Trichocerca* and *Lecane* with 8 species each, *Euchlanis* with 7 species, *Lepadella* and *Synchaeta* with 5 species each.

4. The most widespread taxa in Armenia are *Keratella quadrata*, found in 9 regions, followed by *Asplanchna priodonta* in 7 regions, and *Hexarthra mira* and *Filinia longiseta* in 6 regions each. These species are among the most common rotifer taxa in the bordering countries as well.

5. The similarity of rotifer species diversity with those of the neighboring countries is as follows: Türkiye 83 (88%), Iran 80 (85%), Azerbaijan 40 (43%), and Georgia 27 (29%). Only 5 (5.3%) species recorded in Armenia were not found in the adjacent countries.

6. The highest number of rotifer species (69) has been recorded from Lake Sevan. Of these, 4 pelagic species, *Synchaeta pectinata*, *Keratella quadrata*, *Filinia longiseta*, *Filinia terminalis*, and 1 benthic-periphytic species, *Euchlanis dilatata*, were dominant in their habitats.

7. To provide a complete picture of rotifer biodiversity in Armenia, further investigations are recommended in the Ararat Valley and southern and north-eastern regions of the country, especially the major rivers and high-altitude brooks, lakes, ponds, pools, and marshes.

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