

Checklist of rotifer species from Albania (phylum Rotifera)

S. SHUMKA

*Spase Shumka, Faculty of Biotechnology and Food, Agricultural University of Tirana, Tirana, Albania
ORCID: 0000-0002-5930-6034, Email: sprespa@gmail.com*

Abstract. The checklist of Rotifera species recorded for Albanian inland waters and its neighboring regions is provided. A total of 140 species of bdelloids and monogononts, with representatives of 38 genera are listed. The history of rotifer surveys as a component of zooplankton in Albania started at the end of 19th century. Mostly they were taxonomic and descriptive ones, while later on after the mid 20th century appeared the systematic approaches emphasizing the particularities and richness of zooplankton in specific karstic Mediterranean ecosystems. In this article 140 taxa of bdelloids and monogononts representing 39 genera are reported.

Keywords. Rotifera, Albania, checklist, inland water, distribution records

INTRODUCTION

Albania is a small country (Fig. 1) however, it is rich in water resources including lakes, rivers and springs. There are more than 152 streams and small rivers flow into the seven large rivers, Buna, Drini, Mati, Erzeni, Shkumbini, Semani, and Vjosa, which run southeast to north west towards the Adriatic coast (Cullaj *et al.* 2005). About 247 natural lakes are dispersed throughout the country, most of karstic or glacial origin and they are often very small (less than 1 ha). Albania shares with neighboring countries three of the largest Balkanic Lakes (Ohrid, Prespa and Shkodra). They represent distinct environments among all aquatic habitats of the Balkan in the view of origin, hydrology, and biodiversity (Shumka *et al.* 2018). Around 134 glacial lakes are situated mainly in the northeastern part of the country at altitudes between 1500 – 1800 m a.s.l. Generally, they are small, formed mainly over magmatic (mainly of ultrabasics) and terrene formations (Cullaj *et al.* 2005).

Following Segers (2007) the Phylum Rotifera comprises about 2030 known species worldwide and classified in three main groups, the marine Seisonida (4 species), the Monogononta (1570

species) and the unique, exclusively parthenogenetic Bdelloidea with 461 clonal species. Although the morphology of different species varies widely, all of them possess a specialized masticatory organ containing a set of densely sclerotized trophi (Fontaneto *et al.* 2008). Rotifers, as a component of zooplankton organisms, comprise crucial elements of the structure and function of freshwater ecosystems, not only as consumers of algae, bacteria, protozoans and other invertebrates (Russell *et al.* 2010), but also as food items for juvenile stages of several fish species (Shumka *et al.* 2018). Moreover, their pivotal role in freshwater ecosystems food web, as well as its sensitivity to both man-made and natural changes, makes zooplankton quite suitable for assessing alterations in the trophic dynamics and the ecological state of aquatic ecosystems related to changes in nutrient loading and climate (Hoffmann 1977, Ferrara *et al.* 2002, Preston & Rusak 2010).

Similarly to other large Balkanic lakes like Ohrid and Prespa, the history of zooplankton surveys in Albania starts from the end of 19th century. Basically they were taxonomic and descriptive ones, while later, after the mid 20th century appeared the systematic approach emphasizing

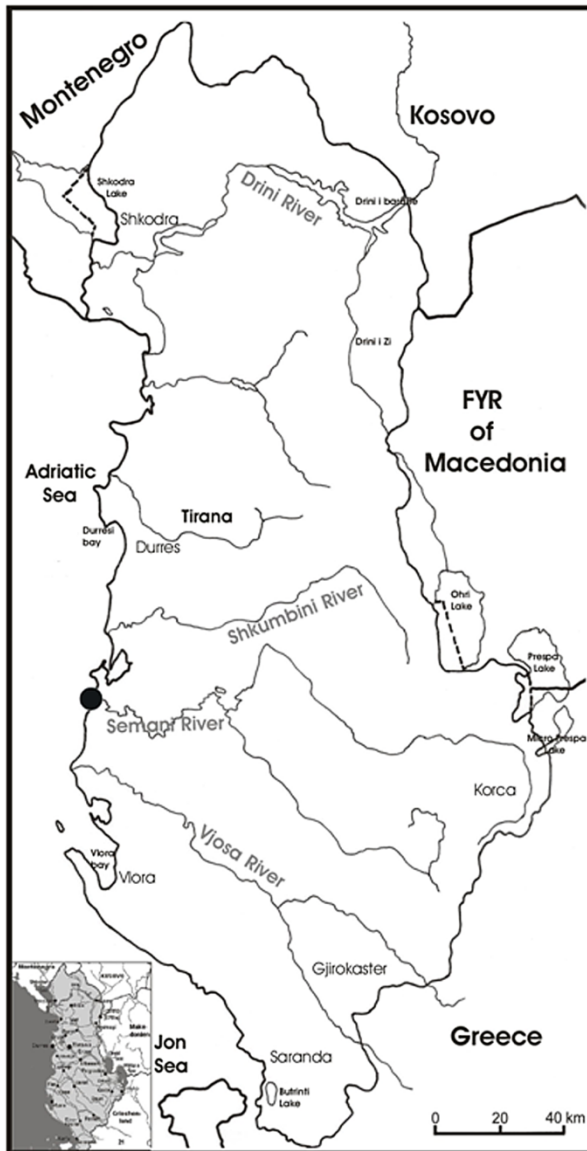


Figure 1. Map of Albania

the particularities and richness of zooplankton in specific karstic Mediterranean ecosystem. Amongst them can be mention Richard (1897) with his work dedicated to *Cladocera*, Steur (1900) with paper published on *Copepoda*, Vereščagin (1912) and Parenzan (193) on *Cladocera*, Nedeljković (1959) on *Rotifera*, Petkovski (1961) with fundamental work on *Cladocera* and *Copepoda*, separately *Harpacticoida* and *Ostracoda*, Živković (1965) and Milovanović & Živković (1965) on Rotifera, Protozoa and Cladocera.

MATERIALS AND METHODS

There are a large number of references, including identification keys with abundant information on ecological and systematical aspects of rotifers from different regions of the world. From this, the following papers were consulted: Segers (2002) and Wallace *et al.* (2006); higher-level classification. For taxonomy and distribution of the different families the following sources were used: De Ridder (1986, 1991, 1993), De Ridder & Segers (1997), Donner (1965), De Smet (2006), De Smet & Pourriot (1997), Jersabek (2003), Koste (1978), Koste & Shiel (1987, 1989a, b), Nogrady *et al.*, (1995), Nogrady & Segers (2002), Segers (1995a, b, 2003), Segers & Wallace (2001), Sørensen *et al.* (2005).

The following articles were used to compile the list of rotifers of Albanian inland waters: Brusina (1898), Byron (1981), Gannon & Stemberger (1981), Guseska (2012), Guseska *et al.* (2008, 2012, 2014), Gushevska *et al.* (1996), Kiefer (1937), Kostoski (1998), Kostoski *et al.* (2004, 2005), Michaloudi (2005), Michaloudi *et al.* (1997), Milovanovic & Živkovic (1965), Nedeljkovic (1959), Parenzan (1931), Petković (1973, 1975, 1978, 1981), Popovska-Stanković *et al.* (1988, 2003), Richard (1897), Serafimova-Hadzisce (1954, 1958, 1975), Shumka (1994, 1997a, b, 2000, 2001, 2014), Shumka & Miho (2006), Shumka & Nikleka (2018), Shumka & Špoljar (2018), Shumka *et al.* (1998, 2018), Steuer (1900), Tasevska (2002), Tasevska *et al.* (2006, 2008, 2012a, b, 2017, 2018), Verščagin (1912), Živkovic (1974, 1975),

RESULTS AND DISCUSSION

All species names appeared in the literature listed above were checked and corrected based on Segers *et al.* 2007 and Jersabek & Leitner 2013, and the following changes were made: *Brachionus calyciflorus f. amphiceros* (Ehrenberg, 1838) (synonym, considered an infrasubspecific variant of *B. calyiflorus*); *Brachionus q. f. brevispinus* Ehrenberg, 1832 (synonym, considered an infra

subspecific variant of *B. quadridentatus*); *Brachionus* q. f. *cluniorbicularis* Skorikov, 1894 (synonym considered an infrasubspecific variant of *B. quadridentatus*); *Brachionus quadridentatus* f. *rhenanus* Lauterborn, 1893, (synonym considered an infrasubspecific variant of *B. quadridentatus*); *Lophocharis salpina* (Ehrenberg, 1834) synonym of *Lepadella salpina* Ehrenberg, 1834; *Testudinella patina trilobata* (Anderson et Shepard, 1892), synonym of *T. patina* (Hermann 1783); *Testudinella pseudoelliptica* Bartoš, 1951 synonym of *T. patina* (Hermann 1783); *Trichocerca similis similis* (Wierzejski, 1893) synonymous with *Rattulus bicornis* (Western, 1893).

Reviewing the studies dedicated to the Albanian inland water Rotifera fauna is resulted in a list of 140 taxa of bdelloids and monogononts (Table 1). Among the rotifers, the most frequently reported genera are *Lecane* with 16 species, *Trichocerca* with 15 species, *Brachionus* (15 species), *Keratella* (7 species), *Polyarthra* (7 species) and *Lepadella* (6 species). At regional scale it is worth mentioning that from the neighboring Montenegro Petković (1973, 1978) recorded 205 rotifer taxa just for the Lake Scadar/Shkodra, while from North Macedonia for the lakes Ohrid,

Prespa and Dojran altogether 60 rotifer taxa were reported (Tasevska *et al.* 2006). However, the high number of species reported for the Lake Scadar/Shkodra by Petković (1973, 1978) does not reflect the latest taxonomic results of Segers *et al.*, (2007) and Jersabek & Leitner (2013) listing numerous synonym names and corrections.

The biogeography of Rotifera is highly controversial and prior to the work of Dumont (1983) it was generally accepted that all taxa were cosmopolitan. In the present list of the Albanian rotifers most of the species show a typical Palearctic distribution (Segers 2007) however, to clear the biogeography of several widely distributed species further studies with molecular approaches are needed.

Based on the data presented in the Table 1 almost 90% of the species are found in the Drini Basin (including Lakes of Lesser and Macro Prespa, Ohrid and Scadar/Shkodra), while the transitional water bodies belonging to Ionian and Adriatic Coastal areas are populated only by 9 different species. This disproportional distribution of species calls for further studies.

Table 1. List of Bdelloidea and Monogononta rotifers recorded from continental fresh- and transitional water habitats in Albania (genus and species)

Taxon	Locality (water basins)	References
<i>Adineta</i> Hudson & Gosse, 1886		
<i>A. steineri</i> Bartos, 1951	A5 (A)	14, 15, 30, 31, 32, 38, 40, 41,42
<i>Anuraeopsis</i> Lauterborn, 1900		
<i>A. fissa</i> Gosse, 1851	A1, A2, A5 (A)	12, 13, 15, 17
<i>A. coelata</i> de Beauchamp, 1932	A5 (A)	12, 13, 15, 17, 30, 31, 32
<i>Ascomorpha</i> Perty, 1850		
<i>A. ecaudis</i> Perty, 1850	A5, B1, B2 (A, B)	12, 13, 15, 17, 30, 31, 32
<i>A. ovalis</i> Carlin, 1943	A2, A5, B1 (A, B)	
<i>A. saltans</i> Bartsch, 1870	A5 (A)	12, 13, 14, 15, 30, 31, 32, 38, 40, 41, 42
<i>Asplanchna</i> Gosse, 1850		
<i>A. girodide</i> Guerne, 1888	A5 (A)	14, 15, 30, 31, 32, 38, 40, 41, 42
<i>A. priodonta</i> Gosse, 1850	A1, A2, A3, A4, A5, A6, B1, B2, C1	
<i>A. sieboldii</i> Leydig, 1854	A5 (A)	12, 13, 14, 15, 30, 31, 32, 38, 40, 41, 42
<i>Brachionus</i> Pallas, 1766		
<i>B. angularis</i> Gosse, 1851	A1, A2, A3, A5, B1, B2, C1, C2, C2, C4, C5, D1 (A, B, C, D)	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 30, 31, 32, 38, 40, 41, 42
<i>B. bidentatus</i> Anderson, 1889	A5 (A)	13, 14, 15, 30, 31, 32, 38, 40, 41, 42
<i>B. calyciflorus</i> Pallas, 1776	A5, B2 (A, B)	12, 13, 14, 15, 28, 29, 31, 32, 38, 40
<i>B. dimidiatus</i> Bryce, 1931	A5 (A)	12, 13, 14, 15, 17, 30, 31, 32, 38, 40, 41, 42

<i>B. diversicornis</i> Daday, 1883	A1, A2, A5 (A)	2, 3, 10, 11, 18, 19, 20, 21, 22, 23, 24, 25
<i>B. falcatus</i> Zacharias, 1898	A5 (A)	12, 13, 31, 32, 42
<i>B. forficula</i> Wierzejski, 1891	A1, A2, A5 (A)	13, 14, 15, 31, 32, 38, 42
<i>B. havanaensis</i> Rousselet, 1911	A5 (A)	13, 14, 15, 31, 32, 38, 42
<i>B. leydigii</i> Cohn, 1862	A5 (A)	13, 14, 15, 31, 32, 38, 42
<i>B. plicatilis</i> O.F. Müller, 1786	A5, B1 (A, B)	12, 13, 14, 15, 28, 29, 31, 32, 38, 40
<i>B. rhenanus</i> Lauterborn, 1893.	A5, B1 (A, B)	12, 13, 14, 15, 28, 29, 31
<i>B. quadridentatus</i> Hermann, 1783	A1, A3, A4, A5, B2. (A, B)	12, 13, 14, 15, 28, 29, 31, 32, 38, 40
<i>B. brevispinus</i> Ehrenberg, 1832	A5 (A)	13, 14, 15, 31, 32, 38, 42
<i>B. quadridentatus melhemi</i> Barrios et Daday, 1894	A5 (A)	13, 14, 15, 31, 32, 38, 42
<i>B. urceolaris</i> O.F. Müller, 1773	A2, A5 (A)	13, 14, 15, 31, 32, 38, 42
Cephalodella Bory de St. Vincent, 1826		
<i>C. catellina</i> O.F. Müller, 1786	A2, A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>C. forficula</i> Ehrenberg, 1831	A2, A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>C. gibba</i> Ehrenberg, 1832	A2, A3, A5 (A)	10, 11, 18, 19, 20, 21, 22
<i>C. misgurnus</i> Wulfert, 1937	A5. (A)	13, 14, 15, 31, 32, 38, 42
<i>C. ventripes</i> Dixon-Nuttall, 1901	A5, C1 (A, C)	13, 14, 15, 29, 31, 32, 38, 42
Collotheca Harring, 1913		
<i>C. mutabilis</i> Hudson, 1885	A5 (A)	13, 14, 15, 31, 32, 38, 42
<i>C. pelagic</i> Rousselet, 1893	A5 (A)	13, 14, 15, 31, 32, 38, 42
Colurella Bory de St. Vincent, 1824		
<i>C. adriatica</i> Ehrenberg, 1831	A3, A5, A6, D1, E1, E2, E3, E4 (A, D, E)	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 30, 31, 32, 38, 40, 41, 42
<i>C. colurus</i> Ehrenberg, 1830	A2, A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>C. obtuse</i> Gosse, 1886	A2, A5, A6 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>C. uncinato bicuspidato</i> Ehrenberg, 1830	A2, A3 (A)	10, 11, 18, 19, 20, 21, 22, 23, 33
<i>C. uncinata</i> O. F. Müller, 1773	A5 (A)	13, 14, 15, 31, 32, 38, 42
Conochilus Ehrenberg, 1834		
<i>C. exiguous</i> Ahlstrom, 1938	A5 (A)	13, 14, 15, 31, 32, 38, 42
<i>C. hippocrepsis</i> Schrank, 1830	A1, A2, A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>C. unicornis</i> Rousselet, 1892	A5 (A)	13, 14, 15, 31, 32, 42
Dicranophorus Nitsch, 1827		
<i>D. forcipatus</i> O.F. Müller, 1786	A2, E1 (A, E)	10, 11, 31
<i>D. grandis</i> Ehrenberg, 1832	A5 (A)	14, 15, 30, 31, 32, 38, 40, 41, 42
<i>D. rostratus</i> Dixon Nuttal et Freeman, 1902	A2, A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
Dipleuchlanis de Beauchamp, 1910		
<i>D. propatula</i> Gosse, 1886	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
Dissotrocha Bryce, 1910		
<i>D. aculeata</i> Ehrenberg, 1832	A3, A5, A6 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
Epiphanes Ehrenberg, 1832		
<i>E. macrourus</i> Barrois & Daday, 1894	A5, B1 (A, B)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>E. senta</i> O.F. Müller, 1773	A5, B1 (A, B)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
Euchlanis Ehrenberg, 1832		
<i>E. dilatata</i> Ehrenberg, 1832	A2, A3, A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>E. incise</i> Carlin, 1939	A3, A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>E. meneta</i> Myers, 1930	A5 (A)	39, 41
Filinia Bory de St. Vincent, 1824		
<i>F. longiseta</i> Ehrenberg, 1834	A1, A2, A3, A4, A5, B1, B2, C4, C5, D1 (A, B, C, D)	2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 19, 20, 31, 32, 38, 39, 40, 41, 42
<i>F. opoliensis</i> Zacharias, 1898	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>F. terminalis</i> Plate, 1886	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42

Gastropus Imhof, 1898		
<i>G. hyptopus</i> Ehrenberg, 1838	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>G. stylifer</i> Imhof, 1891	A1, A2, A4, A5, B1, D1, E1 (A, B, D, E)	3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 30, 31, 32, 38, 40, 41, 42
Hexarthra Schmarda, 1854		
<i>H. mira</i> Hudson, 1871	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
Kellicottia Ahlstrom, 1938		
<i>K. longispina</i> Kellicott, 1879	A1, A2, A3, A4, A5, B1, B2, C1, C2, C3, C4, D1, E1 (A, B, C, D, E)	2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 28, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 38, 39, 40, 41, 42
Keratella Bory de St. Vincent, 1822		
<i>K. cochlearis</i> Gosse, 1851	A1, A2, A3, A4, A5, B1, B2, C1, C2, C3, C4, C5, D1, E2 (A, B, C, D, E)	2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 38, 39, 40, 41, 42
<i>K. cochlearis</i> v. <i>hispida</i> Lauterborn, 1898	A2 (A)	2, 25, 26, 36
<i>K. hiemalis</i> Carlin, 1943,	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>K. quadrata</i> O.F. Müller, 1786,	A1, A2, A5, D1, E2 (A, D, E)	2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15
<i>K. tecta</i> Gosse, 1851	A2, A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>K. ticinensis</i> Callerio, 1921	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>K. valga</i> Ehrenberg, 1832	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
Lecane Nitzsch, 1827		
<i>L. bulla</i> Gosse, 1851	A2, A3, A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. clostercerca</i> Schmarda, 1859	A2, A3, A5, B1 (A, B)	2, 13, 14, 15, 32, 38, 39, 41, 42
<i>L. copeis</i> Harring et Myers, 1926	A2, A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. curvirostris</i> Yamamoto, 1941	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. elasma</i> Harring & Myers, 1926	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. elsa</i> Nitzsch, 1827	A5, A6 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. flexilis</i> Gosse, 1886	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. hamata</i> Stokes, 1896	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. ivli</i> Wiszniewski, 1935	A2, A5 (A)	2, 13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. lamellate</i> Daday, 1893	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. luna</i> O.F. Müller, 1776	A1, A2, A3, B1 (A, B)	13, 14, 15, 30, 32, 38, 39, 40, 41, 42
<i>L. lunaris</i> Ehrenberg, 1832	A3 (A)	3, 9, 23, 24, 25, 29
<i>L. nana</i> Murray, 1913	A5, B2 (A, B)	13, 14, 15, 39, 30, 32, 38, 39, 40, 41, 42
<i>L. quadridentata</i> Ehrenberg, 1832	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. obtusa</i> Hauer, 1889	A5 (A)	2, 13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. stenroosi</i> Meissner, 1908	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
Lepadella Bory de St. Vincent, 1826		
<i>L. acuminata</i> Ehrenberg, 1834	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. ehrenbergii</i> Perty, 1850	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. ovalis</i> O.F. Müller, 1786	A2, A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. patella</i> O.F. Müller, 1773	A2, A3, A5 (A)	13, 14, 15, 39, 30, 32, 38, 39, 40, 41, 42
<i>L. rhomboides</i> Gosse, 1886	A5 (A)	1, 2, 13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>L. triptera</i> Ehrenberg, 1830	A2, A3, A5 (A)	13, 14, 15, 39, 30, 32, 38, 39, 40, 41, 42
Lophocharis Ehrenberg, 1838		
<i>L. oxysternon</i> Gosse, 1851	A3, A5 (A)	13, 14, 15, 39, 30, 32, 38, 39, 40, 41, 42
<i>L. salpina</i> Ehrenberg, 1834	A5, A6 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
Monommata Bartsch, 1870		
<i>M. aequalis</i> Ehrenberg, 1832	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
Mytilina Bory de St. Vincent, 1826		
<i>M. crassipes</i> Luchs, 1912	A5 (A)	1, 2, 13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>M. mucronata</i> Ehrenberg, 1832	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>M. ventralis brevispina</i> Ehrenberg, 1832	A2, A3 (A)	13, 14, 15, 39, 30, 32, 38, 39

<i>M. ventralis ventralis</i> Ehrenberg, 1832	A2, A3 (A)	13, 14, 15, 39, 30, 32, 38, 39
Notholca Gosse, 1886		
<i>N. acuminatae</i> Ehrenberg, 1832	A2, A3 (A)	13, 14, 15, 39, 30, 32, 38, 39
<i>N. foliacea</i> Ehrenberg, 1838	A5 (A)	1, 2, 13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>N. squamula</i> O.F. Müller, 1786	A2 (A)	13, 14, 15, 30, 32, 38
Notommata Ehrenberg, 1830		
<i>N. copeus</i> Ehrenberg, 1834	A2, A3, A5 (A)	13, 14, 15, 39, 30, 32, 38, 39, 40, 41, 42
Philodina Ehrenberg, 1830		
<i>P. megalotrocha</i> Ehrenberg, 1832	A3 (A)	36, 37
Plationus Segers, Murugan & Dumont, 1993		
<i>P. patulus</i> O.F. Müller, 1786	A2, A5 (A)	13, 14, 15, 39, 30, 32, 38, 39, 41, 42
Platylas Harring, 1913		
<i>P. quadricornis</i> Ehrenberg, 1832	A3, A5 (A)	13, 14, 15, 39, 30, 32, 38, 39, 41, 42
Ploesoma Herrick, 1885		
<i>P. hudsoni</i> Imhof, 1891	A5 (A)	13, 14, 15, 39, 38, 39, 40, 41, 42
<i>P. truncatum</i> Levander, 1894	A3, A4, A5, B1 (A, B)	13, 14, 15, 39, 30, 32, 38, 39, 41, 42
Polyarthra Ehrenberg, 1834		
<i>P. dolichoptera</i> Delson, 1925	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>P. euryptera</i> Wierzejski, 1891	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>P. major</i> Bueckhardt, 1900	A5, A5, B1, B2 (A, B)	13, 14, 15, 39, 30, 32, 38, 39, 41, 42
<i>P. minor</i> Voigt, 1904	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>P. remata</i> Skorikov, 1896	A5, B1, B2, E1 (A, B, E)	2, 13, 14, 15, 39, 30, 32, 38, 39
<i>P. trygla</i> Ehrenberg, 1834	A1, A2, A3, A5, B1 (A, B)	13, 14, 15, 39, 30, 32, 38, 39, 41, 42
<i>P. vulgaris</i> Carlin, 1943	A1, A2, A3, A5, B1 (A, B)	13, 14, 15, 39, 30, 32, 38, 39, 41, 42
Pompholyx Gosse, 1851		
<i>P. complanata</i> Gosse, 1851	A5, A6 (A)	2, 13, 14, 15, 39, 30, 32, 38, 39
<i>P. sulcata</i> Hudson, 1885	B1, B2, D, E1, E2 (B, D, E)	26, 27, 28, 29, 30, 31, 32
<i>P. triloba</i> Pejler, 1957	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
Rotaria Scopoli, 1777		
<i>R. citrine</i> Ehrenberg, 1838	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>R. rotatoria</i> Pallas, 1766	A3, A5 (A)	13, 14, 15, 30, 32, 38, 39, 41, 42
<i>R. socialis</i> Kellicot, 1888	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
Scaridium Ehrenberg, 1830		
<i>S. longicaudum</i> O.F. Müller, 1786	A3 (A)	7, 8, 35, 36, 37
Squatinella Bory de St. Vincent, 1826		
<i>S. lamellaris</i> O.F. Müller, 1786	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
Synchaeta Ehrenberg, 1832		
<i>S. littoralis</i> Rousselet, 1902	A5, A6, E1 (A, E)	13, 14, 15, 29, 30, 32, 38, 39, 40, 41, 42
<i>S. pectinata</i> Ehrenberg, 1832	A1, A2, A5, A6, B1, B2, C1, C5. (A, B, C)	2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 28, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 38, 39, 41, 42
<i>S. stylata</i> Wierzejski, 1893	B1, B2, C1, C2, C3, C4, C5 (B, C)	27, 28, 29, 30, 31, 32
Testudinella Bory de St. Vincent, 1826		
<i>T. mucronata</i> Gosse, 1886	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>T. patina</i> Hermann, 1783	A2, A3 (A, B)	13, 14, 15, 30, 32, 38, 39, 41, 42
<i>T. truncata</i> Gosse, 1886	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
Trichocerca Lamarck, 1801		
<i>T. bicristata</i> Gosse, 1887	A3 (A)	5, 6, 7, 8, 35, 36
<i>T. capucina</i> Wie&Zach, 1893	A1, A2, A3, A4, A5, A6, B1, B2, D, C3, C4, C5 (A, B, C)	2, 3, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15, 28, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 38, 39, 41, 42
<i>T. cylindrica</i> Imhof, 1891	A1, A2, A5 (A)	2, 28, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 38, 39, 40, 41, 42

<i>T. elongate</i> Gosse, 1886	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>T. iernis</i> Gosse, 1887	A5 (A)	13, 14, 15, 31, 32, 38, 39, 40, 41, 42
<i>T. longiseta</i> Schrank, 1802	A1, A2, A3 (A)	13, 14, 15, 30, 32, 38, 39, 40, 41, 42
<i>T. myersi</i> Hauer, 1931	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>T. porcellus</i> Gosse, 1886	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>T. pusilla</i> Lauterborn, 1898	A2, E3, E4 (A, E)	3, 4, 6, 7, 8, 9, 10, 12, 13, 14
<i>T. rattus</i> O.F. Müller, 1776	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>T. rousseleti</i> Voigt, 1902)	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>T. similis</i> Wierzejski, 1893)	A1, A2, A5 (A)	2, 28, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 38, 39, 40, 41, 42
<i>T. stylata</i> Gosse, 1851	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>T. tenuior</i> Gosse, 1886	A2 (A)	13, 14, 15, 30, 32, 38
<i>T. weberi</i> Jennings, 1903	A2, A3 (A)	2, 28, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 38
Trichotria Bory de St. Vincent, 1827		
<i>T. curta</i> Skorikov, 1914	A5 (A)	13, 14, 15, 31, 32, 38, 39, 41, 42
<i>T. pocillum</i> O.F. Müller, 1776	A3, A5 (A)	2, 13, 14, 15, 39, 30, 32, 38, 39, 41, 42
<i>T. tetractis</i> Ehrenberg, 1830	A3, A5 (A)	2, 13, 14, 15, 39, 30, 32, 38, 39, 41, 42

Legends for letter symbols and nearest central point in brackets

A1 - Lake Micro Prespa (N:40.691447; E:21.028600),
A2 - Lake Macro Prespa (N:40.794431; E:20.946263),
A3 - Lake Ohrid (N:40.974442; E:20.676057),
A4 - Lake Fierza (N:42.090651; E:20.395832),
A5 - Lake Scadar/Shkodra (N:42.150502; E:19.395438),
A6 - River Buna (N:42.005522; E:19.456769),
B1 - Reservoir Bovilla (N:41.444056; E:19.893058),
B2 - Lake Tirana (N:41.310917; E:19.816143),
C1 - Lake Belshi (N:40.978345; E:19.891313),
C2 - Lake Merhoe (N:40.952991; E:19.899225),
C3 - Lake Seferani (N:40.940781; E:19.920761),
C4 - Reservoir Thana (N:40.862995; E:19.840817),
C5 - Reservoir Murrizi (N:40.727543; E:19.728467),
D1 - Lake Butrinti (N:39.784623; E:20.032498),
E1 - Lagoon of Patok (N:41.631068; E:19.601154),
E2 - Lagoon of Karavasta (N:40.918227; E:19.475840),
E3 - Lagoon of Narta (N:40.538250; E:19.424175),
E4 - Lagoon of Orikum (N:40.317013; E:19.441460),

Albanian water basin symbols in brackets from Dill (1993)

A (Drini Basin); B (Ishmi/Erzeni Basin); C (Semani Basin); D (Coastal Ionian Sea); E (Coastal Adriatic Sea).

List of numerical references

1. Byron 1981, 2. Gannon *et al.* 1981, 3. Guseska *et al.* 2012, 4. Gusheska 2003, 5. Guseska *et al.* 2008, 6. Guseska *et al.* 2014, 7. Kostoski 1998, 8. Kostoski *et al.* 2004, 9. Kostoski *et al.* 2005, 10. Michaloudi *et al.* 1997, 11. Michaloudi 2005, 12. Milovanovic *et al.* 1965, 13. Nedeljkovic 1959, 14. Petković 1973, 15. Petković 1975, 16. Petković 1978, 17. Petković 1981, 18. Popovska-Stanković 1988, 19. Popovska-Stanković 2003, 20. Serafimova-Hadžišće 1954, 21.

Serafimova-Hadžišće 1958, 22. Serafimova-Hadžišće 1978, 23. Shumka 1994, 24. Shumka 1998a, 25. Shumka 1998b, 26. Shumka *et al.* 1998, 27. Shumka 2000, 28. Shumka 2001, 29. Shumka *et al.* 2006, 30. Shumka 2014, 31. Shumka *et al.* 2018a, 32. Shumka *et al.* 2018b, 33. Tasevska 2005, 34. Tasevska *et al.* 2006, 35. Tasevska *et al.* 2008, 36. Tasevska *et al.* 2012a, 37. Tasevska *et al.* 2012b, 38. Tasevska *et al.* 2017, 39. Taseska *et al.* 2018, 40. Verščagin 1912, 41. Živkovic 1974, 42. Živkovic 1975.

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REFERENCES

- BYRON, G.T. (1981): *Growth rate of crustacean zooplankton in Skadar Lake*. In: BEETON, A.M. & KARAMAN, G.S. (Eds.) *The biota and limnology of Lake Skadar*, University Veljko Vlahović, Institute of Biological and Medicine Research Titograd, Montenegro, Yugoslavia, p. 217–219.
- BRUSINA, S. (1898): *Dreissensia torbari* and other related palearctic species. *Glasnik Hrvatskoga Naravoslovnoga Društva*, 10 (1/5): 197–208.
- CULLAJ, A., HASKO, A., MIHO, A., SCHANZ, F. & BRANDLE H. (2005): The quality of Albanian natural waters and the human impact. *Environment International*, 31: 133–146. doi: [10.1016/j.envint.2004.06.008](https://doi.org/10.1016/j.envint.2004.06.008)
- DE RIDDER, M. (1986): Annotated checklist of non-marine rotifers (Rotifera) from African inland waters. *Zoologische Documentatie, Koninklijk*

- Museum voor Midden-Afrika, Tervuren, Belgium*, 21: 5–123.
- DE RIDDER, M. (1991): Additions to the "Annotated checklist of non-marine rotifers (Rotifera) from African inland waters". *Revue d'Hydrobiologie tropicale*, 24: 25–46.
- DE RIDDER, M. (1993): Additions II to the "Annotated checklist of non-marine rotifers (Rotifera) from African inland waters". *Biologisch Jaarboek Dodona*, 61: 99–153.
- DE RIDDER, M. & SEGERS, H. (1997): *Monogonont Rotifera recorded in the World literature (except Africa) from 1960 to 1992*. Studie documenten van het KBIN, 88, Brussels, Belgium.
- DE SMET, W.H. (2006): Asciporrectidae, a new family of Rotifera (Monogononta: Ploima) with description of *Asciporrecta arcellicola* gen. et sp. nov. and *A. difflugicola* gen. et sp. nov. inhabiting shells of testate amoebae (Protozoa). *Zootaxa*, 1339: 31–49. doi: [10.11646/zootaxa.1339.1.2](https://doi.org/10.11646/zootaxa.1339.1.2)
- DE SMET, W.H. & POURRIOT, R. (1997): *The Dicranophoridae (Monogononta) and the Ituridae (Monogononta)*. In: Nogrady T. (Ed.) *Rotifera 5* In: DUMONT H.J. (Ed.) *Guides to the Identification of the Microinvertebrates of the Continental Waters of the World 12*. SPB Academic, The Hague, The Netherlands, 344 pp.
- DILL, W.A. (1993): Inland fisheries of Europe. *EIFAC Technical Paper*, No. 52 Suppl. Rome: FAO.
- DONNER, J. (1965): Ordnung Bdelloidea (Rotatoria, Rädertiere). *Bestimmungsbücher zur Bodenfauna Europas*, 6: 1–267.
- DUMONT, H. (1983): Biogeography of rotifers. *Hydrobiologia*, 104:19–30. doi: [10.1007/978-94-009-7287-2_4](https://doi.org/10.1007/978-94-009-7287-2_4)
- FERRARA, O., VAGAGGINI, D. & MARGARITORA, F.G. (2002): Zooplankton abundance and diversity in Lake Bracciano, Latium, Italy. *Journal of Limnology*, 61(2): 169–17. doi: [10.4081/jlimnol.2002.169](https://doi.org/10.4081/jlimnol.2002.169)
- FONTANETO, D., DE SMET, W.H. & MELONE, G. (2008): Identification key to the genera of marine rotifers worldwide. *Meiofauna Marina*, 16: 75–99.
- GANNON, J. & STEMBERGER, R. (1981): *Impact of influent rivers in the distribution of zooplankton in Skadar Lake*. In: BEETON, A.M. & KARAMAN, G.S. (Eds.) *The biota and limnology of Lake Skadar*, University Veljko Vlahović, Institute of Biological and Medicine Research Titograd, Montenegro, Yugoslavia, p. 199–216.
- GUSESKA, D. (2003): *Comparative morphological-ecological characteristics of Calanoida and Cyclopoida (Crustacea; Copepoda) from Lake Ohrid pelagic zone*. PhD dissertation, University "St. Cyril and Methodius", Skopje, R.Macedonia, 211 pp.
- GUSESKA, D., KOSTOSKI, G & TASEVSKA, O. (2008): *Seasonal successions of zooplankton in the pelagic zone of Lake Prespa during 2004–2006*. In: Proceedings of BALWOIS 2008 – Ohrid, Republic of Macedonia.
- GUSESKA, D., TASEVSKA, O. & KOSTOSKI, G. (2012). Zooplankton dynamic of Lake Prespa (Macedonia). *Biologia*, 67(5): 939–944. doi: [10.2478/s11756-012-0092-z](https://doi.org/10.2478/s11756-012-0092-z)
- GUŠESKA, D., TASEVSKA, O., KOSTOSKI, G. & GUSESKI, D. (2014): Zooplankton abundance and diversity in Lake Ohrid, Macedonia. *International Journal of Ecosystems and Ecology Sciences*, 4 (3): 333–340.
- HOFFMANN, W. (1977): The influence of abiotic environmental factors on population dynamics in planktonic rotifers. *Arch für Hydrobiologie*, 8:77–83.
- JERSABEK, C.D. (2003): Freshwater Rotifera (Monogononta) from Hawai'i – a preliminary checklist. *Bishop Museum occasional papers*, 74: 46–72.
- JERSABEK, C.D. & LEITNER, M.F. (2013): The Rotifer World Catalog. World Wide Web electronic publication. <http://www.rotifera.hausdernatur.at/>
- KIEFER, F. (1937): Die freilebenden Ruderfusskrebse (Crustacea, Copepoda) Jugoslawiens. *Bulletin de la Société Scientifique de Skoplje*, 48: 77–105.
- KOSTOSKI, G. (1998): *A Day-Night and seasonal periodicity in the distribution of the zooplankton from Lake Ohrid*. PhD dissertation, University "St. Cyril and Methodius", Skopje, R. Macedonia, 180 pp.
- KOSTOSKI, G., GUŠESKA, D. & TASEVSKA, O. (2004): *A day-night and seasonal periodicity in the distribution of the zooplankton from Lake Ohrid*. In: Proceedings of BALWOIS 2004 Conference of water observation and information system for decision support, Ohrid, R. Macedonia.

- KOSTOSKI, G., GUŠESKA, D. & TASEVSKA, O. (2005): Zooplankton research in the Lake Ohrid pelagic region. Plankton investigations. Hydrobiological Institute, Ohrid, *Limnological investigations of Ohrid and Prespa lakes*, 3(4): 79–87.
- KOSTE, W. (1978): *Rotatoria*. Die Rädertiere Mitteleuropas. Borntraeger, Berlin, Stuttgart, 2 vols, 673 pp.
- KOSTE, W. & SHIEL, R.J. (1987): Rotifera from Australian Inland waters II. Epiphanidae and Brachionidae (Rotifera: Monogononta). *Invertebrate Taxonomy*, 7: 949–1021. doi: [10.1071/IT9870949](https://doi.org/10.1071/IT9870949)
- KOSTE, W. & SHIEL, R.J. (1989a): Rotifera from Australian Inland waters III. Euchlanidae, Mytilinidae and Trichotriidae. *Transactions of the Royal Society of South Australia*, 113(1–2): 85–114.
- KOSTE, W. & SHIEL, R.J. (1989b): Rotifera from Australian Inland waters IV. Colurellidae (Rotifera: Monogononta). *Transactions of the Royal Society of South Australia*, 113(3): 119–143.
- MICHALOUDI, E., ZARFDJIAN, M. & ECONOMIDIS, P.S. (1997): The Zooplankton of Lake Mikri Prespa. *Hydrobiologia*, 351: 77–94. doi: [10.1023/A:1003008306292](https://doi.org/10.1023/A:1003008306292)
- MICHALOUDI, E. (2005): Dry weights of the zooplankton of Lake Mikri Prespa (Macedonia, Greece). *Belgian Journal of Zoology*, 135: 223–227.
- MILOVANOVIC, D. & ŽIVKOVIC, A. (1965): Plankton Skadarskog jezera (1957 do 1958). *Zbornik radova Biloškog Instituta, Beograd*, 8: 23–29.
- NEDELJKOVIC, R. (1959): Skadarsko jezero: studija organske produkcije u jednom kaesnomjezeru. *Posebno izdavanje Biolskog Instituta, Beograd*, 4: 1–56.
- NOGRADY, T. & SEGERS, H. (2002): *Rotifera 6. The Asplanchnidae, Gastropodidae, Lindiidae, Microcodinidae, Synchaetidae, Trochosphaeridae*. In: DUMONT, H.J. (Ed.) *Guides to the Identification of the Microinvertebrates of the Continental Waters of the World 18*. Backhuys Publishers BV, Dordrecht, The Netherlands, 264 pp.
- NOGRADY, T., POURRIOT, R. & SEGERS, H. (1995): *Rotifera 3. The Notommatidae and The Scardiidae*. In: DUMONT H.J. (Ed.) *Guides to the Identification of the Microinvertebrates of the Continental Waters of the World 8*. SPB Academic, The Hague, The Netherlands, 248 pp.
- PARENZAN, P. (1931): CladoceriD'Albaniacon brevi notizie morfologiche ed idrobiologiche et idrobiologiche sui grandilaghialbanesi. *Atti della Academia Veneto Trentino, Istriana*, 22: 16–47.
- PETKOVIĆ, S. (1973): Prilog poznavanju faune Rotatoria Crne Gore IIa.-Fam.Trichotriidae. *Glasnik Republike Zavoda Zaštite Prirode – Prirodnjackog muzeja Titograd*, 2: 129–134.
- PETKOVIĆ, S. (1975). Prilog poznavanju faune Rotatoria Crne Gore IIb. Fam. Brachionidae, genera: Notholca, Kellicottia, Argonotholca i Anuraeopsis. *Poljoprivreda i šumarstvo*, 21(4): 59–79.
- PETKOVIĆ, S. (1978): The contribution to the better knowledge of ecology and distribution of *Brachionus sessilis* Varga, 1957 (Rotatoria). *Poljoprivreda i šumarstvo*, 24(2): 17–37.
- PETKOVIĆ, S. (1981): *Zooplankton – General introduction*. In: BEETON AM, KARAMAN GS. (Eds.) *The biota and limnology of Lake Skadar*, University Veljko Vlahović, Institute of Biological and Medicine Research Titograd, Montenegro, Yugoslavia, p. 191–192.
- PETKOVSKI, T. (1961): Zur Kenntnis der Crustaceen des Skadar (Scuteri) Sees. *Acta Musei Macedonici Scientiarum Naturalium*, 8(2): 29–52.
- POPOVSKA-STANKOVIĆ, O. (1988): *Arctodiptomus steindachneri* (Richard 1987), (Crustacea, Copepoda) in Lake Prespa. In: *Proceedings of the Third Congress of Ecologists of Yugoslavia, Ohrid, Yugoslavia*, p. 308.
- POPOVSKA-STANKOVIĆ, O., KOSTOSKI, G., GUSESKA, D. & TASEVSKA, O. (2003): *Temporal successions of most important zooplankton populations of Lake Prespa*. In: *Proceedings of the 32th Annual Conference of the Yugoslav Water Pollution Control Society “Water 2003”, Zlatibor, Yugoslavia*, p. 201–206.
- PRESTON, N.D. & RUSAK, J.A. (2010): Homage to Hutchinson: does inter-annual climate variability affect zooplankton density and diversity? *Hydrobiologia*, 653:165–177. doi: [10.1007/s10750-010-0352-2](https://doi.org/10.1007/s10750-010-0352-2)
- RICHARD, J. (1897): Entomostraces recueillis par M. le Directeur Steindachner dans les lacs de Janina et Scutari. *Annalen des K. K. Naturhistorischen Hofmuseums in Wien, Serie B, Botanik und Zoologie*, 12: 63–66.

- SEGERS, H. (1995a): Rotifera 2. The Lecanidae (Monogononta). In: DUMONT, H.J. (Ed.) Guides to the Identification of the Continental Waters of the World 6. SPB Academic, The Hague, The Netherlands, 226 pp.
- SEGERS, H. (1995b): World records of Lecanidae (Rotifera: Monogononta). *Studiedocumenten van het Koninklijk Belgisch Instituut voor Natuurwetenschappen*, 81: 1–114.
- SEGERS, H. (2002): The nomenclature of the Rotifera: annotated checklist of valid family- and genusgroup names. *Journal of Natural History*, 36: 631–640. doi: [10.1080/002229302317339707](https://doi.org/10.1080/002229302317339707)
- SEGERS, H. (2003): A biogeographical analysis of rotifers of the genus *Trichocerca* Lamarck, 1801 (Trichocercidae, Monogononta, Rotifera), with notes on taxonomy. *Hydrobiologia*, 500: 113–114. doi: [10.1023/A:1024624132386](https://doi.org/10.1023/A:1024624132386)
- SEGERS, H. & WALLACE R.L. (2001): Phylogeny and classification of the Conochilidae (Rotifera: Monogononta). *Zoologica Scripta*, 30(1), 37–48. doi: [10.1046/j.1463-6409.2001.00048.x](https://doi.org/10.1046/j.1463-6409.2001.00048.x)
- SEGERS, H., DE SMET, .W.H., FISCHER, C., FONTANETO, D & MICHALOUDI, E. (2012): Towards a list of available names in zoology, partim phylum Rotifera. *Zootaxa*, 3179: 61–68. doi: [10.11646/zootaxa.3179.1.3](https://doi.org/10.11646/zootaxa.3179.1.3)
- SERAFIMOVA-HADŽIŠČE, J. (1954): Vertikalni migraciji na zooplanktonot vo Prespanskoto Ezero. *Zbornik na Rabotite Hidrobiološki Zavod*, 1: 29–38.
- SERAFIMOVA- HADŽIŠČE, J. (1958): Particularités du zooplankton du lac de Prespa et aperçu de la composition du zooplancton des grands lacs de la péninsule des Balkans. *Zbornik na Rabotite Hidrobiološki Zavod*, 12: 1–8.
- SERAFIMOVA- HADŽIŠČE, J. (1975): Seasonal variations of the reproductive rate of pelagic copepods of Lake Ohrid. *Verhandlungendes Internatlen Verein Limnologie*, 19: 2976–2982. doi: [10.1080/03680770.1974.11896402](https://doi.org/10.1080/03680770.1974.11896402)
- STEUER, A. (1900): Die Diaptomiden des Balkans zugleich ein Beitrag zur Kenntnis des *Dioptomus vulgaris* Schmeil. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe Abt. 1*, 109: 315–335.
- SHUMKA, S. (1994): *Annual zooplankton dynamics of Lake Prespa*. PhD, University “St. Cyril and Methodius”, Skopje, Macedonai, 111 pp
- SHUMKA, S. (1997a): *Significance of Prespa zooplankton in lake ecosystem functioning*. In: Proceedings of the Conference “Towards Integrated Conservation and Sustainable Development of Transboundary Macro and Micro Prespa Lakes”, 1997, Korca, Albania.
- SHUMKA, S. (1997b): *Qualitative composition of zooplankton from Micro Prespa lake*. In: Proceedings of the Conference “Towards Integrated Conservation and Sustainable Development of Transboundary Macro and Micro Prespa Lakes”, 1997, Korca, Albania.
- SHUMKA, S., THOMOLLARI, Z., MALI, S. & ALEKSI, P. (1998): *Can Rotifers from the pelagic region be used as indicators of Lake trophy state?* 27th Annual Water Control pollution Conference 1998, Proceedings, Kotor, Montenegro.
- SHUMKA, S. (2000): *Zooplankton community as an indicator of Lake trophic state (Makro Prespa Lake)*. In: Proceedings of the International Symposium on Sustainable Deveopment of Prespa Region, 2000, Oteshevo, R. Macedonia.
- SHUMKA, S. (2001): Feeding relations of *Eudiatomus gracilis* (SARS) and influence on some parameters of their life cycle in Lake Ohrid. *Verhandlungendes Internatlen Verein Limnologie*, 27: 3708–3711. doi: [10.1080/03680770.1998.11902523](https://doi.org/10.1080/03680770.1998.11902523)
- SHUMKA, S. & MIHO, A. (2006): *Data on Plankton community (Zooplankton and phytoplankton) in Drini course*. In: Proceedings of BALWOIS 2006 – Conference of water observation and information system for decision support, Ohrid, R. Macedonia.
- SHUMKA, S. (2014): Rotifers in the Littoral Zone of Lake Shkodra/Skadar (Albania-Montenegro) as a tool for Determining Water Quality. *International Research Journal of Biological Sciences*, 3(3): 71–77.
- SHUMKA, S. & NIKLEKA, E. (2018): *Diversity of Zooplankton and its Distribution in Karavasta Lagoon (central Albanian Adriatic)*. Proceedings of the 1st International Conference of the Holistic approach to Environment. September 13th–14th, 2018, Sisak, Republic of Croatia.

- SHUMKA, S., ŠPOLJAR, M. & TASEVSKA, O. (2018): *The Zooplankton of Lake Skadar/Shkodra: Species Diversity and Abundance*. PEŠIĆ, V., KOSTIANOV, A. G., KARAMAN, G. S. (Eds.) The Skadar/Shkodra Lake Environment. Springer, Berlin, pp. 223–241.
- SØRENSEN, M.V., SEGERS, H. & FUNCH, P. (2005): On a new *Seison* Grube, 1859 from coastal waters in Kenya, with a reappraisal of the classification of *Seisonida* (Rotifera). *Zoological Studies*, 44: 34–43.
- TASEVSKA, O. (2002): *Eco-taxonomic investigations of rotifers from Lake Ohrid*. Master thesis, University 'St. St. Cyril and Methodius'. Skopje, R. Macedonia, 240 pp.
- TASEVSKA, O., KOSTOSKI, G. & GUSESKA, D. (2006): *Recent species composition of Rotifera fauna of the Lake Dojran*. BALWOIS 2006 – Conference of water observation and information system for decision support, Ohrid, R. Macedonia.
- TASEVSKA, O., KOSTOSKI, G. & GUSESKA, D. (2008): Composition and dynamics of planktonic rotifers in Lake Ohrid, Macedonia. *Hydrobiological Institute Ohrid, Review*, 41(1): 109–115.
- TASEVSKA, O., GUSESKA, D. & KOSTOSKI, G. (2012a): Comparison of Pelagic Rotifer Communities in Three Natural Macedonian Lakes. *Acta zoologica bulgarica, Supplement*. 4: 159–165.
- TASEVSKA, O., JERSABEK, C.D., KOSTOSKI, G. & GUŠESKA, D. (2012b): Differences in rotifer communities in two freshwater bodies of different trophic degree (Lake Ohrid and Lake Dojran, Macedonia). *Biologia (Bratislava)*, 67(3): 565–572. doi: [10.1515/cjf-2017-0013](https://doi.org/10.1515/cjf-2017-0013)
- TASEVSKA, O., ŠPOLJAR, M., GUŠESKA, D., KOSTOSKI, G. & PATCHEVA, S. (2017): Zooplankton in ancient and oligotrophic Lake Ohrid (Europe) in association with environmental variables. *Croatian Journal of Fisheries*, 75: 95–103. doi: [10.1515/cjf-2017-0013](https://doi.org/10.1515/cjf-2017-0013)
- TASEVSKA, O., ŠPOLJAR, M., SHUMKA, S., KUCZYŃSKA-KIPPEN, N. & DRAŽINA, D. (2018): *Comparison of zooplankton functional response traits in deep lakes across Europe*. Proceedings of the 13th Croatian Biological Congress. with International Participation, 2018, Poreč, Croatia.
- VEREŠČAGIN, G.J. (1912): Cladocera Skutarijskogo ozera (Cernogorija). *Raboty iz laboratorii zoologicheskogo kabineta imperatorskago Varshavskago Universiteta*, 2: 22–33.
- WALLACE, R.L., SNELL, T.W. & RICCI, C. (2006): *Rotifera vol. 1: Biology, Ecology and Systematics* (2nd edition). In: SEGERS, H. & DUMONT, H.J. (Eds.) Guides to the Identification of the Microinvertebrates of the Continental Waters of the World, Volume 23. Kenobi productions, Ghent, Belgium and Backhuys Academic Publishing bv, The Hague, The Netherlands, 299 pp.
- ŽIVKOVIC, A. (1974): Nova vrsta Rotatoria *Platytias bicornis* sp.n. u Skadarskom jezeru. *Archiv bioloski nauka*, 26(3–4): 193–195.
- ŽIVKOVIC, A. (1975): *Zooplankton and microfauna of the vegetative area of Skadar lake*. In: Limnological Investigations of Skadar Lake, Progress Report, Smithsonian Institution, p. 89–106.