



## An Updated Zooplankton Biodiversity of Turkish Inland Waters

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### ABSTRACT

In this study, zooplankton biodiversity in Turkish inland waters is updated by literature review. In 2004, a total of 427 taxa belong to 229 rotifers, 92 cladocerans and 106 copepods have determined in a zooplankton checklist (Ustaoğlu 2004). Between 2004 and 2011, rotifer biodiversity raised from 229 to 341 taxa in the checklist (Ustaoğlu et al. 2012). By the increasing studies on the subject in recent years and as a consequence of reviewing 263 literature from the studies; 5 new genera (*Ceratotrocha*, *Donneria*, *Octotrocha*, *Otostephanos*, *Stephanoceros*) and 76 taxa from rotifer fauna; 1 new genus (*Kurzia*) and 11 taxa from cladoceran fauna; 13 new genera (*Calacalanus*, *Mecynocera*, *Paracalanus*, *Lernaea*, *Oithona*, *Echinocampus*, *Maraenobiotus*, *Leptocaris*, *Harpacticus*, *Heterolaophonte*, *Metis*, *Phyllognathopu*, *Kinnecaris*) and 35 taxa from copepod fauna have been added to the zooplankton fauna. As a result, the recent checklist of inland waters zooplankton of Turkey has 661 taxa which include 417 rotifers, 103 cladocerans and 141 copepods namely.

**Keywords:** Rotifera, Cladocera, Copepoda, zooplankton, check-list

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### Türkiye İçsuları Zooplankton Biyoçeşitliliğinin Güncellemesi

**Öz:** Bu çalışma ile Türkiye iç sularında yapılmış olan zooplanktonik çalışmalar incelenerek zooplankton kontrol listesi güncellenmiştir. 2004 yılında hazırlanan zooplankton kontrol listesi ile rotiferlerden 229, kladoserlerden 92, kopepodlardan ise 106 olmak üzere toplam 427 takson saptanmıştır (Ustaoğlu 2004). 2004-2011 yılları arasında yapılan yayınların eklenmesiyle hazırlanan kontrol listesi ile rotifer biyoçeşitliliği 229 taksandan 341 taksona yükselmiştir (Ustaoğlu et al. 2012). Son yıllarda artan araştırmalarla birlikte toplam 263 yayının incelenmesi sonucunda rotifer faunasına 5 yeni genus (*Ceratotrocha*, *Donneria*, *Octotrocha*, *Otostephanos*, *Stephanoceros*) ve 76 taxa; kladoser faunasına 1 yeni genus (*Kurzia*) ve 11 taxa; copepod faunasına ise 13 yeni genus (*Calacalanus*, *Mecynocera*, *Paracalanus*, *Lernaea*, *Oithona*, *Echinocampus*, *Maraenobiotus*, *Leptocaris*, *Harpacticus*, *Heterolaophonte*, *Metis*, *Phyllognathopu*, *Kinnecaris*) ve 35 taxa ilave edilmiştir. Sonuç olarak, güncel Türkiye içsuları zooplankton kontrol listesi 417 rotifer, 103 kladoser ve 141 kopepod olmak üzere toplam 661 taksandan oluşmuştur.

**Anahtar kelimeler:** Rotifera, Cladocera, Copepoda, zooplankton, kontrol listesi

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### Introduction

The animal components of the freshwater plankton are dominated by 3 major groups: the rotifers, and 2 subclasses of the Crustacea, the Cladocera and Copepoda (Wetzel 1975). Rotifera is a phylum of primary freshwater Metazoa containing two major groups; the heterogonic Monogenonta and the exclusively parthenogenetic Bdelloidea. Monogenonta contains 1570 species level taxa, of which a majority (1488) is free-living fresh or inland water taxa. Bdelloidea contains 461 species, only one of which is marine, but with many limnoterrestrial representatives. Rotifer biodiversity is very rich in

Palaearctic region, Monogenonta 978 species in 93 genera and Bdelloidea 370 species in 19 genera (Segers 2008). Cladocera is a primarily-freshwater monophyletic group, an important component of the microcrustacean zooplankton. They inhabit most types of continental fresh and saline water habitats, occurring more abundantly in both temporary and permanent stagnant waters. About 620 species are currently known in 95 genera. In Palaearctic region Cladocera biodiversity is very rich with 245 species in 60 genera (Forro et al. 2008). Approximately 2814 copepod species in 257 genera inhabit freshwater. The palaearctic region

has 1204 recorded copepod species in 134 genera (Boxshall and Defaye 2008).

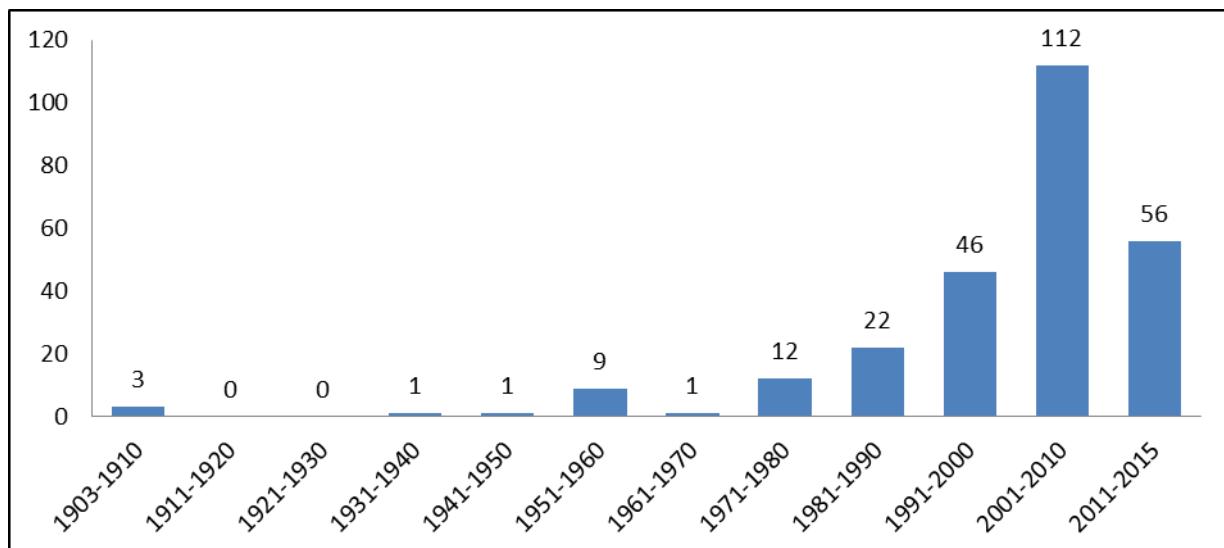
In Turkish inland waters, the studies on the zooplankton biodiversity were started at the beginning of 1900's. The first checklist on Cladocera was published by Gündüz (1997). In 2004, a total of 427 taxa belong to 229 rotifers, 92 cladocerans and 106 copepods have determined in a zooplankton checklist by reviewing approximately 120 literatures (Ustaoğlu 2004). With an addition of 68 literatures between 2004 and 2011, rotifer biodiversity raised from 229 to 341 taxa in the checklist (Ustaoğlu et al. 2012). Moreover, regional checklists for zooplankton of Eastern and Southeastern Anatolia Regions (Turkey) (Bulut and Saler 2014) and European Turkey inland waters (Güher 2014) were published. The aim of this study was updated checklist for zooplankton of Turkish inland waters.

## Materials and Methods

All published papers and theses (263 papers) from 1903 to 2015 were examined (Figure 1).

The studies performed concerning zooplankton of Turkish inland waters: Akbulut Emir et al. (2008), Akıncı et al. (2012), Aladağ et al. (2006), Alper et al. (2007), Altındağ et al. (2009), Altınsaçlı et al. (2014), Apaydin Yağcı (2013, 2014), Apaydin Yağcı et al. (2013, 2014a, 2014b, 2015), Apaydin Yağcı and Ustaoğlu (2012, 2014), Atıcı et al. (2008), Aydin and Ahiska (2009), Aygen et al. (2004, 2009, 2012), Aygen and Balık (2005), Balık et al. (2004, 2006), Barinova et al. (2014), Başak et al. (2014), Baykal et al. (2006), Baysal and Saler (2014), Bekleyen (2006), Bekleyen et al. (2011), Bekleyen and İpek (2010), Bekleyen and Taş (2008),

Bozkurt (2004a, 2004b, 2006, 2007), Bozkurt and Akın (2012a, 2012b), Bozkurt and Güven (2009, 2010), Bozkurt and Sagat (2008), Bozkurt and Tepe (2011), Bozkurt and Dural (2005), Bozkurt et al. (2004), Bruno and Cottarelli (2015), Bulut and Saler (2013, 2014a, 2014b, 2014c), Buyurgan et al. (2010), Chapuis (1953), Demir (2005), Demir et al. (2007), Demirkalp et al. (2004, 2010), Deveci et al. (2011), Dirican and Musul (2008), Dorak (2013), Dorak and Albay (2015), Dorak et al. (2013, 2014), Dorak and Temel (2015), Erdoğan and Ertan (2015), Erdoğan and Güher (2012a, 2012b), Erdoğan and Kaya (2013), Gaygusuz and Dorak (2013), Gökcé and Özhan Turhan (2014), Göksu et al. (2005), Güher (2004, 2012, 2014), Güher and Erdoğan (2008), Güher et al. (2004, 2011), Güher and Kırgız (2004, 2007), Gülle et al. (2010a, 2010b), Gündüz (1997), Gürel and Saler (2015), İnce et al. (2007), İpek and Saler (2012, 2013), Kaya (2013), Kaya and Altındağ (2006, 2007a, 2007b), Kaya and Erdoğan (2015), Okgerman (2008), Özbay and Altındağ (2009), Özbay and Kılınç (2008), Özçalkap and Temel (2011), Özdemir Mis et al. (2009), Saler (2011), Saler and Aliş (2014), Saler and Arslan (2007), Saler et al. (2010, 2014, 2015), Saler and Haykır (2011), Saygı Başbuğ (2005), Saygı et al. (2011), Sezen et al. (2014), Sönmez et al. (2008), Şen Özdemir and Caf (2015), Tavşanoğlu et al. (2015), Tellioğlu (2007), Tellioğlu and Yılmaztürk (2005), Türkmen et al. (2006), Ustaoğlu et al. (2005, 2006, 2008, 2012a, 2012b), Ustaoğlu (2004), Yalım and Çiplak (2005a, 2005b), Yiğit (2006), Yiğit and Altındağ (2005), Yıldız (2012), Yıldız et al. (2007, 2010).



**Figure 1.** Quantitative distribution of zooplankton studies in decades in Turkey.

## Results and Discussion

By the increasing studies on the subject in recent years and as a consequence of reviewing 263 literature from the studies; 5 new genera (*Ceratotrocha*, *Donneria*, *Octotrocha*, *Otostephanos*, *Stephanoceros*) and 76 taxa from rotifer fauna; 1 new genus (*Kurzia*) and 11 taxa from

cladoceran fauna; 13 new genera (*Calacalanus*, *Mecynocera*, *Paracalanus*, *Lernaea*, *Oithona*, *Echinocamptus*, *Maraenobiotus*, *Leptocaris*, *Harpacticus*, *Heterolaophonte*, *Metis*, *Phyllognathopush*, *Kinnecaris*) and 35 taxa from copepod fauna have been added to the zooplankton fauna (Table 1).

**Table 1.** Additional taxa to the Turkish inland water zooplankton fauna (after Ustaoğlu 2004, Ustaoğlu et al. 2012).

|   |  |
|---|--|
| <b>Phylum: ROTIFERA Cuvier, 1817</b>                | <b>Phylum: ARTHROPODA Latreille, 1829</b>                  |
| <b>Classis: Eurotatoria De Ridder, 1957</b>         | <b>Subphylum: Crustacea Brünnich, 1772</b>                 |
| <b>Subclassis: Bdelloidea Hudson, 1884</b>          | <b>Classis: Branchiopoda Latreille, 1817</b>               |
| <b>Familia: Habrotrochidae Bryce, 1910</b>          | <b>Subclassis: Phyllopoda Preuss, 1951</b>                 |
| <i>Habrotrocha constricta</i> (Dujardin, 1841)      | <b>Ordo: Diplostraca Gerstaecker, 1866</b>                 |
| <i>Habrotrocha eremita</i> (Bryce, 1894)            | <b>Subordo: CLADOCERA Latreille, 1829</b>                  |
| <i>Habrotrocha fusca</i> (Bryce, 1894)              | <b>Infraordo: Anomopoda Stebbing, 1902</b>                 |
| <i>Habrotrocha gracilis</i> Montet, 1915            | <b>Familia: Daphniidae Sars, 1865</b>                      |
| <i>Habrotrocha ligula</i> Bryce, 1913               | <i>Ceriodaphnia bicuspidata</i> Weltner, 1897              |
| <i>Habrotrocha pusilla</i> (Bryce, 1839)            | <b>Familia: Moinidae Goulden, 1968</b>                     |
| <i>Otostephanos monteti</i> Milne, 1916             | <i>Moina dubia</i> Guerne & Richard, 1892                  |
| <b>Familia: Philodinidae Ehrenberg, 1838</b>        | <i>Moina mongolica</i> Daday, 1901                         |
| <i>Ceratotrocha cornigera</i> (Bryce, 1893)         | <i>Moina rectirostris</i> (Leydig, 1860)                   |
| <i>Ceratotrocha velata</i> Donner, 1949             | <b>Familia: Bosminidae Baird, 1845</b>                     |
| <i>Macrotrachela cf. brachysoma</i> Schulte, 1954   | <i>Bosmina coregoni</i> Baird, 1857                        |
| <i>Macrotrachela crucicornis</i> (Murray, 1905)     | <b>Familia: Chydoridae Stebbing, 1902</b>                  |
| <i>Macrotrachela decora</i> (Bryce, 1912)           | <b>Subfamilia: Euryercinae Kurz, 1875</b>                  |
| <i>Macrotrachela inermis</i> Donner, 1965           | <i>Kurzia latissima</i> (Kurz, 1875)                       |
| <i>Macrotrachela insolita</i> De Koning, 1947       | <b>Subfamilia: Chydorinae Stebbing, 1902</b>               |
| <i>Macrotrachela plicatula</i> (Murray, 1911)       | <i>Chydorus ovalis</i> Kurz, 1874                          |
| <i>Mniobia bdelloidea</i> Donner, 1951              | <b>Subfamilia: Aloninae Frey, 1967</b>                     |
| <i>Mniobia cf. armata</i> (Murray, 1905)            | <i>Acoperus neglectus</i> Lilljeborg, 1901                 |
| <i>Mniobia lamellata</i> Donner, 1950               | <i>Alona cambouei</i> Guerne & Richard, 1893               |
| <i>Mniobia obtusicalcar</i> De Koning, 1947         | <i>Alona mediterranea</i> Yalim & Çiplak, 2005             |
| <i>Mniobia orta</i> Donner, 1951                    | <b>Infraordo: Onychopoda Sars, 1865</b>                    |
| <i>Mniobia scabrosa</i> Murray, 1911                | <b>Familia: Podonidae Mordukhai-Boltovskoi, 1968</b>       |
| <i>Mniobia tarda</i> Donner, 1949                   | <i>Cornigerus maeticus</i> (Pengo, 1879)                   |
| <i>Mniobia vargai</i> Donner, 1962                  | <b>Classis: Maxillopoda Dahl, 1956</b>                     |
| <i>Mniobia variabilis</i> Donner, 1949              | <b>Subclassis: COPEPODA H.Milne-Edwards, 1840</b>          |
| <i>Philodina cristata</i> Donner, 1949              | <b>Infraclassis: Neocopepoda Huys &amp; Boxshall, 1991</b> |
| <i>Philodina rapida</i> Milne, 1916                 | <b>Superordo: Gymnoplea Giesbrecht, 1882</b>               |
| <b>Subclassis: Monogononta Plate, 1889</b>          | <b>Ordo: Calanoida Sars, 1930</b>                          |
| <b>Superordo: Pseudotrocha Kutikova, 1970</b>       | <b>Familia: Acartidae G.O.Sars, 1903</b>                   |
| <b>Ordo: Ploima Hudson &amp; Gosse, 1886</b>        | <i>Acartia (Acartiura) clausi</i> Giesbrecht, 1889         |
| <b>Familia: Brachionidae Ehrenberg, 1838</b>        | <b>Familia: Paracalanidae Giesbrecht, 1893</b>             |
| <i>Brachionus bennini</i> (Leissing, 1924)          | <i>Calocalanus contractus</i> Farran, 1926                 |
| <i>Brachionus durgae</i> (Dhanapathi, 1974)         | <i>Mecynocera clausi</i> Thompson I.C., 1888               |
| <i>Brachionus murphyi</i> (Suzuki, 1989)            | <i>Paracalanus parvus parvus</i> (Claus, 1863)             |
| <i>Brachionus nilsoni</i> (Ahlstrom, 1940)          | <b>Familia: Diaptomidae G.O.Sars, 1903</b>                 |
| <i>Brachionus sericus</i> (Rousselet, 1907)         | <b>Subfamilia: Diaptominae Kiefer, 1932</b>                |
| <b>Familia: Dicranophoridae Harring, 1913</b>       | <i>Eudiaptomus gracilis</i> (G.O.Sars, 1863)               |
| <i>Aspelta angusta</i> Harring & Myers, 1928        | <i>Arctodiaptomus (Rh.) alpinus</i> (Imhof, 1885)          |
| <i>Aspelta aper</i> (Harring, 1913)                 | <i>Occidodiaptomus dischensis</i> (Brehm, 1938)            |
| <i>Aspelta curvidactyla</i> Berzins, 1949           | <b>Superordo: Podoplea Giesbrecht, 1882</b>                |
| <i>Aspelta psitta</i> Harring & Myers, 1928         | <b>Ordo: Cyclopoida Sars, 1918</b>                         |
| <i>Dicranophorus aspondus</i> Harring & Myers, 1928 | <b>Familia: Cyclopoidae G.O.Sars, 1913</b>                 |
| <i>Donneria sudzukii</i> (Donner, 1968)             | <b>Subfamilia: Eucyclopinae Kiefer, 1927</b>               |
| <i>Encentrum kulmatyckii</i> Wiszniewski, 1953      | <i>Paracyclops affinis</i> (Sars, 1863)                    |
| <i>Encentrum martes</i> Wulfert, 1939               | <i>Paracyclops imminutus</i> (Kiefer, 1929)                |
| <i>Erignatha clastopsis</i> (Gosse, 1886)           |  |

**Table 1.** Continued.

|  |   |
|--|---|
| <b>Familia:</b> Epiphanidae Harring, 1913<br><i>Mikrocodides hertha</i> Wulferty, 1961   | <b>Subfamilia:</b> Cyclopinae Kiefer, 1927<br><i>Cyclops kolensis</i> Lilljeborg, 1901<br><i>Megacyclops gigas</i> (Claus, 1857)<br><i>Metacyclops stammeri</i> Kiefer, 1938<br><i>Thermocyclops oithonoides</i> (Sars, 1863)   |
| <b>Familia:</b> Euchlanidae Ehrenberg, 1838<br><i>Euchlanis triquetra</i> Ehrenberg, 1838  | <b>Familia:</b> Lernaeidae Cobbold, 1879<br><i>Lernaea cyprinacea</i> Linnaeus, 1758  |
| <b>Familia:</b> Gastropodidae Harring, 1913<br><i>Gastropus minor</i> (Rousselet, 1892)  | <b>Familia:</b> Oithonidae Dana, 1853<br><i>Oithona nana</i> Giesbrecht, 1893<br><i>Oithona plumifera</i> Baird, 1843   |
| <b>Familia:</b> Lecanidae Remane, 1933<br><i>Lecane aspasia</i> Myers, 1917<br><i>Lecane decipiens</i> (Murray, 1913)<br><i>Lecane ivli</i> (Wiszniewski, 1935)<br><i>Lecane margalefi</i> De Manuel, 1994<br><i>Lecane signifera</i> (Jennings, 1896)   | <b>Ordo:</b> Harpacticoida Sars, 1911<br><b>Familia:</b> Ameiridae Monard, 1927<br><i>Nitokrella stammeri</i> Chappius, 1938  |
| <b>Familia:</b> Lepadellidae Harring, 1913<br><i>Lepadella (Lepadella) latusinus</i> (Hilgendorf, 1899)  | <b>Familia:</b> Canthocamptidae Sars, 1906<br><i>Attheyella wulmeri</i> (De Kerherve, 1914)<br><i>Bryocamptus (Bryocamptus) minutus</i> (Claus, 1863)<br><i>Bryocamptus (Bryocamptus) tarnogradskyi</i> Borutzky, 1934<br><i>Bryocamptus (Rheocamptus) typhlops</i> (Mrazek, 1893)<br><i>Bryocamptus (Rheocamptus) zschokkei</i> (Schmeil, 1893)<br><i>Echinocamptus georgevitchi</i> (Chappius, 1927)<br><i>Elaphoidella anatolica</i> Chappius, 1953<br><i>Elaphoidella helenae</i> Chappius, 1953<br><i>Elaphoidella jasonis</i> Chappius, 1953<br><i>Maraenobiotus brucei himalayensis</i> Chappius, 1928 |
| <b>Familia:</b> Mytilinidae Harring, 1913<br><i>Mytilina mucronata spinigera</i> (Ehrenberg, 1830)   | <b>Familia:</b> Darcythompsoniidae Lang, 1936<br><i>Leptocaris brevicornis</i> (Van Douwe, 1904)<br>(=Horisella)<br><i>Leptocaris trisetosus</i> (Kurz, 1935) (=Horisella)  |
| <b>Familia:</b> Notommatidae Hudson & Gosse, 1886<br><i>Cephalodella cf. ungulata</i> (Fischer & Ahlrichs, 2006)<br><i>Cephalodella forficata</i> (Ehrenberg, 1832)<br><i>Cephalodella gigantea</i> Remane, 1933<br><i>Cephalodella hoodii</i> (Gosse, 1886)<br><i>Cephalodella obvia</i> Donner, 1950<br><i>Cephalodella theodora</i> Koch-Althaus, 1961<br><i>Cephalodella tinca</i> Wulfert, 1937<br><i>Notomma aurita</i> (Müller, 1786)<br><i>Notomma codonella</i> Harring & Myers, 1924<br><i>Notomma pachyura</i> (Gosse, 1886)<br><i>Notomma pseudocerberus</i> de Beauchamp, 1908<br><i>Resticula melandocus</i> (Gosse, 1887) | <b>Familia:</b> Harpacticidae Dana, 1846<br><i>Harpacticus littoralis</i> Sars G.O., 1910<br><b>Familia:</b> Laophontidae Scott T., 1904<br><i>Heterolaophonte stroemii</i> (Baird, 1837)   |
| <b>Familia:</b> Proalidae Harring & Myers, 1924<br><i>Proales sigmoidea</i> (Skorikov, 1896) (=Pleurotrocha)   | <b>Familia:</b> Metidae Boeck, 1873<br><i>Metis ignea ignea</i> Philippi, 1843  |
| <b>Familia:</b> Synchaetidae Hudson & Gosse, 1886<br><i>Ploesoma truncatum</i> (Levander, 1894)<br><i>Synchaeta kitina</i> Rousselet, 1902<br><i>Synchaeta tremula</i> (Müller, 1786)  | <b>Familia:</b> Phyllognathopodidae Gurney, 1932<br><i>Phyllognathopus viguieri</i> (Maupas, 1892)  |
| <b>Familia:</b> Trichocercidae Harring, 1913<br><i>Trichocerca bicristata</i> (Gosse, 1887)<br><i>Trichocerca brasiliensis</i> (Murray, 1913)<br><i>Trichocerca chattoni</i> (de Beauchamp, 1907)<br><i>Trichocerca myersi</i> (Hauer, 1931)<br><i>Trichocerca ruttneri</i> Donner, 1953<br><i>Trichocerca similis grandis</i> Hauer, 1965   | <b>Familia:</b> Parastenocarididae Chappius, 1940<br><b>Subfamilia:</b> Parastenocaridinae Chappius, 1940<br><i>Kinnecaris draconis</i> Bruno & Cottarelli, 2015<br><i>Kinnecaris xanthi</i> Bruno & Cottarelli, 2015   |
| <b>Superordo:</b> Gnesiotrocha Kutikova, 1970  |   |
| <b>Ordo:</b> Flosculariaceae Harring, 1913   |   |
| <b>Familia:</b> Flosculariidae Ehrenberg, 1838<br><i>Beauchiapilla eudactylota</i> (Gosse, 1886)<br><i>Octotrocha speciosa</i> Thorpe, 1893  |   |
| <b>Familia:</b> Hexarthridae Bartos, 1959<br><i>Hexarthra bulgarica</i> (Wiszniewski, 1933)  |   |
| <b>Ordo:</b> Collothecaceae Harring, 1913  |   |
| <b>Familia:</b> Collothecidae Harring, 1913<br><i>Stephanoceros fimbriatus</i> (Goldfusz, 1820)  |   |

As a result, the recent checklist of inland waters zooplankton of Turkey has 661 taxa which include 417 rotifers (63.09%), 103 cladocerans (15.58%) and 141 copepods (21.33%) namely (Table 2). If we

compare taxa of Turkey to Palaearctic region; 30.93% of rotifers, 42.04% of cladocerans and 11.71% copepods occurs in Turkish freshwaters (Table 3).

**Table 2.** Number genera and taxa within zooplankton groups.

| Group     | Ustaoğlu 2004 |      | Ustaoğlu et al. 2012 |      | 2015   |      |
|-----------|---------------|------|----------------------|------|--------|------|
|           | Genera        | Taxa | Genera               | Taxa | Genera | Taxa |
| ROTIFERA  | Bdelloida     | 3    | 7                    | 12   | 48     | 14   |
|           | Monogononta   | 50   | 222                  | 62   | 293    | 65   |
|           | Total         | 53   | 229                  | 74   | 341    | 79   |
| CLADOCERA |               | 35   | 92                   |      | 36     | 103  |
| COPEPODA  | Calanoida     | 12   | 32                   |      | 15     | 39   |
|           | Cyclopoida    | 17   | 56                   |      | 19     | 65   |
|           | Harpacticoida | 13   | 18                   |      | 21     | 37   |
|           | Total         | 42   | 106                  |      | 55     | 141  |
| Total     |               | 130  | 427                  | 74   | 341    | 170  |
|           |               |      |                      |      |        | 661  |

**Table 3.** Number genera and taxa within zooplankton groups currently in Palaearctic and Turkey.

| Group                                  | PALAEARCTIC       |      | TURKEY |      |        |
|--|-------------------|------|--------|------|--------|
|  | Genera            | Taxa | Genera | Taxa | Taxa % |
| ROTIFERA<br>(Segers 2008)              | Bdelloida         | 19   | 370    | 14   | 74     |
|  | Monogononta       | 93   | 978    | 65   | 343    |
|  | Total             | 112  | 1348   | 79   | 417    |
| CLADOCERA<br>(Forro et al. 2008)       |                   | 60   | 245    | 36   | 42.04  |
| COPEPODA<br>(Boxshall and Defaye 2008) | Calanoida         | 32   | 175    | 15   | 39     |
|  | Cyclopoida        | 44   | 410    | 19   | 65     |
|  | Harpacticoida     | 49   | 584    | 21   | 37     |
|  | Gelyelloida       | 1    | 2      | -    | -      |
|  | Siphonostomatoida | 8    | 33     | -    | -      |
| Total                                  | 134               | 1204 | 55     | 141  | 11.71  |
| Total                                  | 306               | 2797 | 170    | 661  |        |

## References

- Akbulut Emir N, Akbulut A, Park YS. 2008. Relationship between zooplankton (Rotifera) distribution and physico-chemical variables in Uluabat Lake (Turkey). Fresen Environ Bull. 17(8a):947-955.
- Akıncı H, Erdoğan S, Atasağun S, Karacakaya P. 2012. Seasonal dynamics of Cladocera species in Keçi Lake (Bolu). Eğirdir Su Ürün Fak Derg. 8(1):51-56. [in Turkish]
- Aladağ AT, Erdem C, Karaytuğ S. 2006. Cladocera and Copepoda (Crustacea) fauna of Çatalan Dam Lake (Adana, Turkey). Ege J Fish Aqua Sci. 23(3-4):427-428.
- Alper A, Çelebi E, Çam H, Karaytuğ S. 2007. Cladocera and Copepoda (Crustacea) fauna of İkizcetepeler Dam Lake (Balıkesir, Turkey). Turk J Fish Aquat Sc. 7(1):71-73.
- Altındağ A, Buyurgan Ö, Kaya M, Özdemir E, Dirican S. 2009. A survey on some physico-chemical parameters and zooplankton structure in Karaman Stream, Antalya, Turkey. J Anim Vet Adv. 8(9):1710-1716.
- Altınsaçlı S, Altınsaçlı S, Paçal FP. 2014. Spatial and temporal distribution of Ostracoda (Crustacea) assemblages in Lake Kartal (Köyceğiz, Muğla, Turkey). J Entomol and Zool Stud. 2(3):59-67.
- Apaydın Yağcı M, Özkan K, Yağcı A, Uysal R, Gülsoy S. 2014a. The Effects of irrigation pumps on the zooplankton composition in Lake Eğirdir (Isparta/Turkey). J Appl Biol Sci. 8(1):57-63.
- Apaydın Yağcı M, Yazıcıoğlu O, Polat N. 2015. The zooplankton composition of Lake Ladik (Samsun, Turkey). Turk J Zool. 39(4):652-659. doi: 10.3906/zoo-1312-54
- Apaydın Yağcı M. 2013. Seasonal zooplankton community variation in Karataş Lake. Iran J Fish Sci. 12(2):265-276.
- Apaydın Yağcı M. 2014. Seasonal variations in zooplankton species of Lake Gölhisar, a shallow lake in Burdur, Turkey. Pakistan J. Zool. 46(4):927-932.
- Atıcı T, Ahiska S, Altındağ A, Aydin D. 2008. Ecological effects of some heavy metals (Cd, Pb, Hg, Cr) pollution of phytoplanktonic algae and zooplanktonic organisms

- in Sarıyar Dam Reservoir in Turkey. Afr J Biotechnol. 7(12):1972-1977.
- Aydın D, Ahiska S. 2009. Determination of trophic situation of Sarmisaklı Dam Lake (Kayseri-Turkey). Afr J Biotechnol. 8(22):6295-6300.
- Aygen C, Balık S. 2005. Crustacea fauna of Işıklı Lake and Springs (Çivril, Denizli). Ege J Fish Aqua Sci. 22(3-4):371-375. [in Turkish]
- Aygen C, Özdemir Mis D, Ustaoğlu MR, Balık S. 2004. The cladoceran and copepod fauna of Lake Yayla (Buldan-Denizli). Turk J Aqua Life.e. 2(3):35-40. [in Turkish]
- Aygen C, Özdemir Mis D, Ustaoğlu MR, Balık S. 2009. Zooplankton composition and abundance in Lake Eğrigöl, a high mountain lake (Gündoğmuş, Antalya). Turk J Zool. 33(1):83-88. doi: [10.3906/zoo-0805-11](https://doi.org/10.3906/zoo-0805-11)
- Aygen C, Özdemir Mis D, Ustaoğlu MR. 2012. Discovering the hidden biodiversity of Crustacea (Branchiopoda, Maxillopoda and Ostracoda) assemblages in the high mountain lakes of Kackar Mountains (Turkey). J Anim Vet Adv. 11(1):67-73.
- Balık S, Ustaoğlu MR, Sarı HM, Özdemir Mis D, Aygen C, Taşdemir A, Yıldız S, Topkara ET, Sömek H, Özbek M, İlhan A. 2006. A preliminary study on the biological diversity of Bozalan Lake (Menemen-İzmir). Ege J Fish Aqua Sci. 23(3-4):291-294. [in Turkish]
- Balık S, Ustaoğlu MR, Taşdemir A, Özdemir Mis D, Aygen C, Özbek M, Topkara ET. 2004. A preliminary study on the aquatic fauna of Birgi Ponds (Urla, İzmir) ve Sazlıgöl (Karaburun, İzmir). Ege J Fish Aqua Sci. 21(1-2):29-30. [in Turkish]
- Barinova S, Solak CN, Erdoğan O, Romanov R. 2014. Algae and zooplankton in ecological assessment of the Işıklı Lake, Turkey. Aquatic Biol Res. 2(2):23-35. doi: [10.12966/abr.05.02.2014](https://doi.org/10.12966/abr.05.02.2014)
- Başak E, Aygen C, Küküylüoğlu O. 2014. Taxonomy, distribution, and ecology of crustacean zooplankton in trough waters of Ankara (Turkey). Turk J Zool. 38(1):1-10. doi: [10.3906/zoo-1301-7](https://doi.org/10.3906/zoo-1301-7)
- Baykal T, Salman S, Açıkgöz İ. 2006. The relationship between seasonal variation in phytoplankton and zooplankton densities in Hirfanlı Dam Lake (Kırşehir, Turkey). Turk J Zool. 30(4):217-226.
- Baysal N, Saler S. 2014. Zooplankton of Çalgan Stream (Elaçığ). Fırat Univ. J Sci 26(1):1-7. [in Turkish]
- Bekleyen A, Gokot B, Varol M. 2011. Thirty-four new records and the diversity of the Rotifera in the Turkish part of the Tigris River watershed, with remarks on biogeographically interesting taxa. Sci Res Essays. 6(30):6270-6284. doi: [10.5897/SRE11.355](https://doi.org/10.5897/SRE11.355)
- Bekleyen A, İpek E. 2010. Composition and abundance of zooplankton in a natural aquarium, Lake Balıkligöl (Sanliurfa, Turkey) and new records. J Anim Vet Adv. 9(4):681-687. doi: [10.3923/javaa.2010.681.687](https://doi.org/10.3923/javaa.2010.681.687)
- Bekleyen A, Taş B. 2008. Zooplankton fauna of Çernek Lake (Samsun). Ekoloji. 17(67):24-30. [in Turkish]
- Bekleyen A. 2006. Cladocera and Copepoda fauna (Crustacea) of Devegeçidi Dam Lake (Diyarbakır). Ege J Fish Aqua Sci. 23(3-4):413-415. [in Turkish]
- Boxshall GA, Defaye D. 2008. Global diversity of copepods (Crustacea: Copepoda) in freshwater. Hydrobiologia. 595(1):195–207. doi: [10.1007/s10750-007-9014-4](https://doi.org/10.1007/s10750-007-9014-4)
- Bozkurt A, Akin Ş. 2012a. First record of Eudiaptomus gracilis (G.O.Sars, 1863) (Copepoda: Diaptomida) in the inland waters of Turkey. Turk J Zool. 36(4):503-511. doi: [10.3906/zoo-1101-98](https://doi.org/10.3906/zoo-1101-98)
- Bozkurt A, Akin Ş. 2012b. Zooplankton fauna of Yeşilırmak (between Tokat and Blacksea), Hasan Uğurlu and Suat Uğurlu Dam Lakes. Turk J Fish Aquat Sc. 12(4):777-786. doi: [10.4194/1303-2712-v12\\_4\\_06](https://doi.org/10.4194/1303-2712-v12_4_06)
- Bozkurt A, Dural M, Yılmaz AB. 2004. Some physico-chemical parameters and zooplankton (Rotifer, Cladocer and Copepod) fauna of Yarseli Dam Lake (Hatay/Turkey). Turk J Aqua Life. 2(3): 307-317. [in Turkish]
- Bozkurt A, Dural M. 2005. Vertical migration of zooplankton in Topboğazı Dam Lake (Hatay). Turk J Aqua Life. 3(4):104-109. [in Turkish]
- Bozkurt A, Güven SE. 2009. Zooplankton composition and distribution in vegetated and unvegetated area of three reservoirs in Hatay, Turkey. J Anim Vet Adv. 8(5):984-994.
- Bozkurt A, Güven SE. 2010. Zooplankton succession of the Asi River (Hatay-Turkey). J FisheriesSciences.com. 4(4):337-353. [in Turkish] doi: [10.3153/jfscom.2010037](https://doi.org/10.3153/jfscom.2010037)
- Bozkurt A, Sagat Y. 2008. Vertical distribution of Birecik Dam Lake (Turkey) zooplankton. J FisheriesSciences.com. 2(3):332-342. [in Turkish] doi: [10.3153/jfscom.mug.200721](https://doi.org/10.3153/jfscom.mug.200721)
- Bozkurt A, Tepe Y. 2011. Zooplankton composition and water quality of Lake Gölbaşı (Hatay-Turkey). Fresen Environ Bull. 20(1a):166-174.
- Bozkurt A. 2004a. Preliminary observation on the zooplankton fauna of some rivers in Mediterranean Region. Turk J Aqua Life. 2(3):65-70. [in Turkish]
- Bozkurt A. 2004b. Preliminary observation on the zooplankton fauna of some ponds and dam lakes in Eastern Mediterranean Region. Turk J Aqua Life. 2(3):71-76. [in Turkish]
- Bozkurt A. 2006. Zooplankton of Yenişehir Lake (Reyhanlı, Hatay). Ege J Fish Aqua Sci. 23(Suppl. 1/1):39-43. [in Turkish]
- Bozkurt A. 2007. Two new records of Harpacticoid copepods for Turkish inland waters (Copepoda, Harpacticoida) Phyllognathopus vigueri (Maupas, 1892) and Leptocaris brevicornis (Van Douwe, 1904). Crustaceana. 80(9):1033-1042. doi: [10.1163/156854007782008603](https://doi.org/10.1163/156854007782008603)
- Bruno MC, Cottarelli V. 2015. First record of Kinnecaris (Copepoda: Harpacticoida: Parastenocarididae) from Turkey and Thailand; description of three new species and emended definition of the genus. Ital J Zool. 82(1):1-26.

- Bulut H, Saler S. 2013. Zooplankton of Kalecik Dam Lake (Elazığ-Turkey). *Fırat Univ. Journal of Science.* 25(2):99-103. [in Turkish]
- Bulut H, Saler S. 2014a. A Checklist for zooplankton of Eastern and Southeastern Anatolia Regions (Turkey). *Düzce University Journal of Science & Technology.* 2(1):36-47.
- Bulut H, Saler S. 2014b. Zooplankton variation of Murat River (Elazığ-within the borders Palu district). *Turk J Agric-Food Sci Tech.* 2(1):13-17. [in Turkish]
- Bulut H, Saler S. 2014c. Zooplankton of Beyhan Dam Lake (Elazığ, Turkey). *Turk J Sci Tech.* 9(1):23-28.
- Buyurgan Ö, Altındağ A, Kaya M. 2010. Zooplankton community structure of Asartepe Dam Lake (Ankara, Turkey). *Turk J Fish Aquat Sc.* 10(1):135-138. doi: [10.4194/trjfas.2010.0119](https://doi.org/10.4194/trjfas.2010.0119)
- Chapuis PA. 1953. Copépodes Harpacticoides de Turquie. *Bull. Soc. Hist. Nat. Toulouse.* 88(3-4):355-361.
- Demir N, Kirkağaç MU, Topçu A, Zencir Ö, Pulatsu S, Karasu Benli Ç. 2007. Water quality and trophic state of Sarısu-Mamuca Pond (Eskişehir). *Tarım Bil Derg.* 13(4):385-390. [in Turkish]
- Demir N. 2005. Zooplankton of two drinking water reservoirs in Central Anatolia: composition and seasonal cycle. *Turk J Zool.* 29(1):9-16.
- Demirkalp FY, Çağlar SS, Saygı Başbug Y, Gündüz E, Kaynaş S, Kılınç S. 2004. Preliminary limnological assessment on the Shallow Lagoon Lake Çernek (Samsun, Turkey): plankton composition and in relation to physical and chemical variables. *Fresen Environ Bull.* 13(6):508-518.
- Demirkalp Y, Saygı Y, Çağlar SS, Gündüz E, Kılınç S. 2010. Limnological assessment on the brackish shallow Liman Lake from Kızılırmak Delta (Turkey). *J Anımk Vet Adv.* 9(16):2132-2139. doi: [10.3923/javaa.2010.2132.2139](https://doi.org/10.3923/javaa.2010.2132.2139)
- Deveci A, Dügel M, Küklöylüoğlu O. 2011. Zooplankton of Lake Sünnet (Bolu, Turkey) and determination of some environmental variables. *RevHydrobiology.* 4(2):115-130.
- Dirican S, Musul H. 2008. A preliminary study on some physico-chemical properties and Cladocera species of Çamlıgözde Dam Lake (Sivas). *J Agric Fac HR U.* 12(4): 19–24. [in Turkish]
- Dorak Z, Albay M. 2015. A new Rotifer species for Turkish Inland Waters. *LimnoFish.* 1(2):89-94. doi: [10.17216/LimnoFish-5000119313](https://doi.org/10.17216/LimnoFish-5000119313)
- Dorak Z, Gaygusuz Ö, Köker L, Tarkan AS, Aydin H. 2014. Effects of physicochemical factors and Chlorophyll a on diel changes in vertical distribution of zooplankton in a eutrophic reservoir (Tahtalı Reservoir, NW Turkey). *Ege J Fish Aqua Sci.* 31(4):167-179. doi: [10.12714/egejfas.2014.31.4.01](https://doi.org/10.12714/egejfas.2014.31.4.01)
- Dorak Z, Gaygusuz Ö, Tarkan AS, Aydin H. 2013. Diurnal vertical distribution of zooplankton in a newly formed reservoir (Tahtalı Reservoir, Kocaeli): the role of abiotic factors and chlorophyll a. *Turk J Zool.* 37(2):218-227. doi: [10.3906/zoo-1206-21](https://doi.org/10.3906/zoo-1206-21)
- Dorak Z, Temel M. 2015. The zooplankton community and its relationship with environmental variables in a highly polluted system, Golden Horn, Turkey. *J Aquacult Eng Fish Res.* 1(2):57-71. doi: [10.3153/JAEFR15006](https://doi.org/10.3153/JAEFR15006)
- Dorak Z. 2013. Zooplankton abundance in the lower Sakarya River Basin (Turkey): Impact of environmental variables. *J. Black Sea/Mediterranean Environment.* 19(1):1-22.
- Erdoğan Ö, Ertan ÖÖ. 2015. Abundance and diversity of zooplankton in the Köprüçay Estuary, Turkey. *J Aquacult Eng Fish Res.* 1(1):19-32. doi: [10.3153/JAEFR15002](https://doi.org/10.3153/JAEFR15002)
- Erdoğan S, Güher H. 2012a. Four new Rotifera species of Turkish fauna. *Turk J Fish Aquat Sc.* 12(1):165-169. doi: [10.4194/1303-2712-v12\\_1\\_19](https://doi.org/10.4194/1303-2712-v12_1_19)
- Erdoğan S, Güher H. 2012b. The Rotifera fauna of Turkish Thrace (Edirne, Tekirdağ, Kırklareli). *J FisheriesSciences.com.* 6(2):132-149. doi:[10.3153/jfscom.2012017](https://doi.org/10.3153/jfscom.2012017)
- Erdoğan S, Kaya M. 2013. The biodiversity of Bdelloid rotifers on a single rock affected by cardinal directions. *JEarth Sci Res.* 1(1):21-24. doi: [10.18005/JESR0101004](https://doi.org/10.18005/JESR0101004)
- Forro L, Korovchinsky NM, Kotov AA, Petrusek A. 2008. Global diversity of cladocerans (Cladocera; Crustacea) in freshwater. *Hydrobiologia.* 595:177-184. doi: [10.1007/s10750-007-9013-5](https://doi.org/10.1007/s10750-007-9013-5)
- Gaygusuz Ö, Dorak Z. 2013. Species composition and diversity of the zooplankton fauna of Darlık Stream (İstanbul-Turkey) and its tributaries. *J FisheriesSciences. Com.* 7(4):329-343. doi: [10.3153/jfscom.2013037](https://doi.org/10.3153/jfscom.2013037)
- Gökçe D, Özhan Turhan D. 2014. Evaluation of vertical and horizontal changes in community structure of zooplankton in a deep dam lake. *Turk J Zool.* 38(1):11-22. doi: [10.3906/zoo-1302-28](https://doi.org/10.3906/zoo-1302-28)
- Göksu MZL, Bozkurt A, Taşdemir M, Saruhan E. 2005. Copepoda and Cladocera (Crustacea) fauna of Asi River (Hatay, Türkiye). *Ege J Fish Aqua Sci.* 22(1-2):17-19. [in Turkish]
- Güher H, Erdoğan S, Kırgız T, Çamur-Elipek B. 2011. The dynamics of zooplankton in National Park of Lake Gala (Edirne-Turkey). *Acta zool. Bulg.* 63(2):157-168.
- Güher H, Erdoğan S. 2008. An investigation on the periphytic zooplankton species zooplankton (Cladocera, Copepoda, Rotifera) in Aliç Pond (Turkey). *J FisheriesSciences.com.* 2(3):516-523. [in Turkish] doi: [10.3153/jfscom.mug.200749](https://doi.org/10.3153/jfscom.mug.200749)
- Güher H, Kırgız T, Çamur B, Güner H. 2004. A study on zooplankton organisms community of Lake Terkos (İstanbul-Turkey). *Pakistan J Biol Sci.* 7(4):566-570.
- Güher H, Kırgız T. 2004. The Copepoda (Crustacea) freshwater fauna of Turkish Thrace Region (Edirne, Kırklareli, Tekirdağ). *Pakistan J Bioll Sci.* 7(5): 834-837.
- Güher H, Kırgız T. 2007. A study on associated microcrustacea (Cladocera, Copepoda) with macrophytes in Gala Lake National Park. *Trakya Univ J Sci.* 8(2):109-114. [in Turkish]

- Güher H. 2004. A study on morphological characters, spatial and seasonal densities, and co-existence of two predatory Cladocera, *Cergopagis pengoi* (Oïstromov, 1891) and *Cornigerus meaticus* (Pengo, 1879) in Lake Terekos, Turkey. Crustaceana. 77(6):669-681.
- Güher H. 2012. The investigation of zooplanktonic organisms (Rotifera, Copepoda, Cladocera) of Meriç River (Turkey). J Anim Vet Adv. 11(24):4673-4677. doi: [10.3923/java.2012.4673.4677](https://doi.org/10.3923/java.2012.4673.4677)
- Güher H. 2014. A checklist for zooplankton (Rotifera, Copepoda, Cladocera) of European Turkey inland waters. Ege J Fish Aqua Sci. 31(4):221-225. doi: [10.12714/egefjas.2014.31.4.08](https://doi.org/10.12714/egefjas.2014.31.4.08)
- Gülle İ, Turna İİ, Güçlü SS, Gülle P, Güçlü Z. 2010a. Zooplankton seasonal abundance and vertical distribution of highly alkaline Lake Burdur, Turkey. Turk J Fish Aquat Sc. 10(2):245-254. doi: [10.4194/trjfas.2010.0213](https://doi.org/10.4194/trjfas.2010.0213)
- Gülle İ, Yıldırım MZ, Ertan ÖÖ. 2010b. Changes in Rotifera Fauna of Kovada Lake (Turkey) between 1998 and 2006. Oltenia Studii și comunicari. Științele Naturii. 26(2):71-74.
- Gündüz E. 1997. A checklist of Cladoceran species (Crustacea) living in Turkish inland waters. Turk J Zoology. 21:37-45. [in Turkish]
- Gürel Ö, Saler S. 2015. Zooplankton of Orduzu Lake (Malatya). Fırat Uni J Sci. 27(1):21-28. [in Turkish]
- İnce Ö, Aluç Y, Başaran G, Tüzün İ. 2007. Comparision of littoral, pelagic and seasonal distributions of zooplankton populations in Kapulukaya Dam Lake. Turk J Aqua Life. 5-8:297-305. [in Turkish]
- İpek N, Saler S. 2012. Zooplankton of Görgüşan Stream and Geban Stream (Elazığ-Turkey) zooplankton. J FisheriesSciences.com. 6(2):155-163. [in Turkish] doi: [10.3153/jfscom.2012019](https://doi.org/10.3153/jfscom.2012019)
- İpek N, Saler S. 2013. Zooplankton community structure of Ohi Stream (Elazığ-Turkey). J FisheriesSciences.com. 7(1):83-88. doi: [10.3153/jfscom.2013009](https://doi.org/10.3153/jfscom.2013009)
- Kaya M, Altındağ A. 2006. Some Chydorid (Crustacea, Cladocera) species recorded from Turkish Inland Waters. SA Üni Fen Edebiyat Dergisi. 8:33-48.
- Kaya M, Altındağ A. 2007a. Some Cladoceran species from Turkish inland waters. SDÜ Fen Edeb Fak Fen Derg. 2(1):60-76.
- Kaya M, Altındağ A. 2007b. Zooplankton fauna and seasonal changes of Gelingüllü Dam Lake (Yozgat, Turkey). Turk J Zool. 31(4):347-351.
- Kaya M, Erdogan S. 2015. Testing the habitat selectivity of bdelloid rotifers in a restricted area. Turk J Zool. 39(6):1132-1141. doi: [10.3906/zoo-1410-46](https://doi.org/10.3906/zoo-1410-46)
- Kaya M. 2013. Terrestrial bdelloid rotifers from Erzurum (eastern part of Turkey). Turk J Zool. 37(4):413-418 doi: [10.3906/zoo-1211-32](https://doi.org/10.3906/zoo-1211-32)
- Okgerman H. 2008. Sapancı Gölü zooplanktonu. In: Sapancı Gölü'ne Bilimsel Açıdan Bakış (Ed: Okgerman H, Altuğ G) TÜDAV Yayınları. 28:65-74.
- Özbay H, Altındağ A. 2009. Zooplankton abundance in the River Kars, Northeast Turkey: Impact of environmental variables. Afr. J. Biotechnol. 8(21):5814-5818.
- Özbay H, Kılınç S. 2008. Limnological studies on the transboundary Turkish Soda Lake: Lake Aktaş. Fresen Environ Bull. 17(6):722-731.
- Özçalkap S, Temel M. 2011. Seasonal changes in zooplankton community structure in Lake Küçükçekmece, İstanbul, Turkey. Turk J Zool. 35(5):689-700. doi: [10.3906/zoo-1001-16](https://doi.org/10.3906/zoo-1001-16)
- Özdemir Mis D, Aygen C, Ustaoğlu MR, Balık S. 2009. The zooplankton composition of Tahtalı Dam Lake (İzmir). Ege J Fish Aqua Sci. 26(2):129-134. [in Turkish]
- Saler S, Alış N. 2014. Zooplankton of Hancağız Dam Lake (Gaziantep-Turkey). J Survey in Fisheries Sci. 1(1):36-45.
- Saler S, Arslan S. 2007. Copepoda and Cladocera fauna of TMİ 12 Pond (Elazığ). Ege J Fish Aqua Sci. 24(1-2):191-193. [in Turkish]
- Saler S, Bulut H, Birici N, Tepe R, Alpaslan K. 2015. Karasu Nehri (Erzincan)'nin zooplanktonu. Eğirdir Su Ürün Fak Derg. 11(1):10-16.
- Saler S, Eroğlu M, Haykır H. 2010. Zooplankton of Peri Stream (Tunceli-Türkiye). e-Journal of New World Sciences Academy, Ecological Life Sciences. 6(2):14-20. [in Turkish]
- Saler S, Haykır H, Baysal N. 2014. Zooplankton of Uzunçayır Dam Lake. J FisheriesSciences.com. 8(1):1-7.
- Saler S, Haykır H. 2011. Zooplankton composition of Pülümür Stream (Tunceli-Turkey). J Anim Vet Adv. 10(11):1401-1403.
- Saler S. 2011. Zooplankton of Munzur River (Tunceli-Turkey). J Anim Vet Adv. 10(2):192-194.
- Sayıgı Başbuğ Y. 2005. Seasonal succession and distribution of zooplankton in Yeniçağa Lake in Northwestern Turkey. Zool Middle East. 34(1):93-100. doi: [10.1080/09397140.2005.10638088](https://doi.org/10.1080/09397140.2005.10638088)
- Sayıgı Y, Gündüz E, Demirkalp FY, Çağlar SS. 2011. Seasonal patterns of the zooplankton community in the shallow, brackish Liman Lake in Kızılırmak Delta, Turkey. Turk J Zool. 35(6):783-792. doi: [10.3906/zoo-1001-25](https://doi.org/10.3906/zoo-1001-25)
- Segers H. 2008. Global diversity of rotifers (Rotifera) in freshwater. Hydrobiologia. 595:49-59. doi: [10.1007/a10750-007-9003-7](https://doi.org/10.1007/a10750-007-9003-7)
- Sezen G, Topaç A, Çelik S. 2014. Soil bdelloid rotifers in Aksaray (Central Anatolia, Türkiye). SDÜ J Sci (E-Jurnal). 9(1):1-5.
- Sönmez S, Sak S, Alper A, Karaytuğ S. 2008. A faunistic study on the freshwater Copepoda (Crustacea) of Balıkesir. J Appl Biol Sci. 2(3):45-49.
- Şen Özdemir N, Caf F. 2015. Bingöl yüzey adaları'ın kış dönemi zooplankton faunası. J Aquacult Eng Fish Res. 1(3):125-132. doi: [10.3153/JAEFR15013](https://doi.org/10.3153/JAEFR15013)
- Tavşanoğlu UN, Maleki R, Akbulut N. 2015. Effects of salinity on the zooplankton community

- structure in two maar lakes and one freshwater lake in the Konya closed basin, Turkey. *Ekoloji*. 24(94):25-32.  
 doi: [10.5053/ekoloji.2015.944](https://doi.org/10.5053/ekoloji.2015.944)
- Tellioğlu A, Yılmaztürk Y. 2005. A taxonomical study on the Cladoceran and Copepod fauna in Pertek region of Keban Dam Lake. *Ege J Fish Aqua Sci.* 22(3-4):431-433. [in Turkish]
- Tellioğlu A. 2007. Morphometric variables and individual volume of *Macrocylops albidus* and *Cyclops vicinus* females (Copepoda, Cyclopoida) from Hazar Lake (Elazığ-Turkey). *Iran J Sci Technol. Transaction A*, 31(A3):301-307.
- Türkmen M, Naz M, Dinler ZM. 2006. The species composition and biomass of zooplankton in Lake Gölbaşı (Hatay, Türkiye). *Ege J Fish Aqua Sci.* 23(Suppl. 1/1):163-167. [in Turkish]
- Ustaoğlu MR, Altındağ A, Kaya M, Akbulut N, Bozkurt A, Özdemir Mis D, Atasagun S, Erdoğan S, Bekleyen A, Saler S, Okgerman HC. 2012. A Checklist of Turkish Rotifers. *Turk J Zool.* 36(5):607-622.  
 doi: [10.3906/zoo-1110-1](https://doi.org/10.3906/zoo-1110-1)
- Ustaoğlu MR, Balık S, Aygen C, Özdemir Mis D. 2006. The Cladoceran and Copepods of Akgöl (Selçuk, İzmir). *Ege J Fish Aqua Sci.* 23(Suppl. 1/1):169-172. [in Turkish]
- Ustaoğlu MR, Balık S, Özdemir Mis D. 2005. The zooplankton of the some mountain lakes in the Taurus Range (Turkey). *Zoology in the Middle East.* 34:101-108.  
 doi: [10.1080/09397140.2005.10638089](https://doi.org/10.1080/09397140.2005.10638089)
- Ustaoğlu MR, Balık S, Sarı HM, Özdemir Mis D, Aygen C, Özbek M, İlhan A, Taşdemir A, Yıldız S, Topkara ET. 2008. A faunal study of the glacier lakes and rivers on Uludağ (Bursa) Mountain. *Ege J Fish Aqua Sci.* 24(4):295-299. [in Turkish]
- Ustaoğlu MR, Özdemir Mis D, Aygen C. 2012a. Observation on zooplankton in some lagoons in Turkey. *J. Black Sea/Mediterranean Environment.* 18(2):208-222.
- Ustaoğlu MR. 2004. A Check-list for zooplankton of Turkish inland waters. *Ege J Fish Aqua Sci.* 21(3-4):191-199.
- Wetzel, RG, 1975. Limnology. W.B.Saunders Company 743 p.
- Yalım FB, Çiplak B. 2005a. Digging more deeply into the Verrucosa-group of the genus *Alona* (Anomopoda, Chydoridae): *Alona mediterranea* new species from the Mediterranean part of Anatolia (Turkey). *Crustaceana*. 78(5):565-578.  
 doi: [10.1163/15685400577431805](https://doi.org/10.1163/15685400577431805)
- Yalım FB, Çiplak B. 2005b. A representative of the Pulchella Group of *Alona* in Anatolia: *Alona cambouei* Guerne & Richard, 1893 (Cladocera: Chydoridae). *Turk J Zool.* 29(1):61-65.
- Yıldız Ş, Altındağ A, Ergönül MB. 2007. Seasonal fluctuations in the zooplankton composition of a eutrophic lake: Lake Marmara (Manisa, Turkey). *Turk J Zool.* 31(2):121-126.
- Yıldız Ş, Özgökçe MS, Özgökçe F, Karaca İ, Polat E. 2010. Zooplankton composition of Van Lake coastline in Turkey. *Afr. J. Biotechnol.* 9(48):8248-8252.  
 doi: [10.5897/AJB10.538](https://doi.org/10.5897/AJB10.538)
- Yıldız Ş. 2012. Zernek Baraj Gölü (Van/Türkiye) zooplankton faunası. *Biyol Bil Araş Derg.* 5(1):57-59.
- Yiğit S, Altındağ A. 2005. A taxonomical study on the zooplankton fauna of Hirfanlı Dam Lake (Kırşehir), Turkey. *G.Ü. Fen Bil Derg.* 18(4):563-567.
- Yiğit S. 2006. Analysis of the zooplankton community by the Shannon-Weaver Index in Kesikköprü Dam Lake, Turkey. *A.Ü.Ziraat Fak, Tarım Bil Derg.* 12(2):216-220.