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## Review Article

### INDIAN FRESH WATER ZOOPLANKTON: A REVIEW

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#### ABSTRACT

Global human population growth rate increasing rapidly and has significant impact on natural resources. It reduces the natural water quality. Assessment of zooplankton gives valuable information about the management and restoration of aquatic ecosystem. Zooplanktons are minute aquatic animal that live all or part of their life as plankton. They play an important role in the aquatic food web by providing crucial source of food to a number of aquatic animals especially for fishes. Some of the zooplankton groups act as pollution indicator. Zooplankton communities are typically diverse and occur in almost all type of aquatic habitat. Zooplankton communities are highly sensitive to environmental variation, their growth and distribution is depends on some biotic and abiotic factors. As a result, change in their abundance, and species diversity or community composition, can provide important indications of environmental variation. This review is an attempt to list out Indian freshwater zooplankton in a single platform.

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#### INTRODUCTION

Water, the basis of life on earth is the most precious of all natural resources and covers about three quarters of the surface of our planet. Freshwater ecosystems provide vital resources for humans and are the sole habitat for an extraordinarily rich, endemic, and sensitive biota, which constitute larger part of our biosphere (Palmeri, Barausse, & Jorgensen, 2013). Due to increased population and manmade activities like use of fertilizers in agriculture it is highly polluted with different harmful contaminants. So that regular checking of the quality of drinking water is essential for healthy population. Zooplankton is the best indicator of water quality in aquatic ecosystem (Litchman, Ohman, & Kiørboe, 2013), can react to water quality change by making changes in species composition, abundance and by morphological abnormalities (Telesh 2004).

Zooplanktons are minute aquatic organisms size ranging from a few microns to a millimeter or more. They include representatives of almost every taxon of the animal kingdom (Goswami 2004) that live all (holoplankton) or part (meroplankton) of their life as plankton (Lindeque *et al* 2013) plays an important role in the aquatic ecosystem. They are non motile or very weak swimmers drifting in ocean, seas and fresh water bodies and are greatly associated with changes in

phytoplankton community (Perbiche-Neves *et al* 2016), increase in phytoplankton population is most favorable for growth of zooplankton population (Kumar *et al* 2011). They feed on phytoplankton or other members of zooplankton, so they act as important role in the food web (ward *et al* 2012) by acting as major mode of energy transfer between phytoplankton and fish (Duxbury *et al.* 2002; Telesh 2004). That is zooplanktons are one of the major primary consumer in most of the aquatic ecosystems. The biotic component of the aquatic ecosystem is strongly related to the diversity, abundance and seasonality of the zooplankton (Jose R *et al* 2012), combinations of low food quality and high fish predation cause zooplankton elimination (Danielsdottir *et al* 2007). Not only the biotic factors, the physicochemical parameters like temperature, pH, turbidity, BoD, CoD etc may affect the zooplankton distribution (Raut *et al* 2015), seasonal variation also alter the zooplankton abundance (Goswami *et al* 2012; Jomet *et al* 2014; Reddy *et al* 2016; Das *et al* 2016; Kumar *et al* 2011; Dede *et al* 2015). Local environmental factors and regional processes such as dispersal can regulate the distribution of zooplankton. Dispersal is promoted by different way. Transport through wind and atmosphere is the most frequent mode of dispersal. Water flow, activities of the animals mainly human beings (by the introduction of aquatic species and recreational boating) (Havel *et al* 2004).

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**Table 1** List of Rotifers found in Indian freshwater ecosystem

species	Reference
<i>Anuraeopsis sp.</i>	Kar et al 2016a ; Kar et al 2016b; Slathia et al 2013; Ghosh et al 2015; Das et al 2016a; Dalal et al 2013
<i>Anuraeopsis fissa</i>	Kumar et al 2010; Bhat th et al 2014; Amalesh et al 2014; Vanjare et al 2013; Riddhi et al 2011; Pandey et al 2014; Manickam et al 2014; Maibam et al 2016; Manivelu et al 2016; Manickam et al 2015
<i>Aneuropsis navicula</i>	Manickam et al 2014; Manickam et al 2015
<i>Ascomorpha sp.</i>	Sarwade et al 2014; Bhat et al 2014; Kar et al 2016b; Kar et al 2016a; Vanjare et al 2013; Ghosh et al 2015; Sarkar et al 2016; Das et al 2016a; Kapoor 2015
<i>Ascomorpha ovalis</i>	Thirupathaiiah et al 2012; Sharma et al 2010; Sree et al 2017; Rao et al 2017; Rao 2017
<i>Asplanchna sp.</i>	Kumar et al 2010; Thirupathaiiah et al 2012; Bhat et al 2014; Bhat th et al 2014; Dhembare 2011; Lahane et al 2013; Kar et al 2016b; Gautham et al 2016; Malik et al 2016; Kar et al 2016a; Sharma et al 2016; Tidame et al 2012; Watkar et al 2013; Slathia et al 2013; Shiv et al 2017; Sree et al 2017; Ahmad et al 2011; Dey et al 2015; Majumder et al 2015; Mruthyunjaya et al 2016; Kadam 2016; Rao et al 2017; Maibam et al 2016; Ghosh et al 2015; Singh et al 2012; Biswas 2015; Watkar et al 2015; Das et al 2016a; Rao 2017; Kapoor 2015; Das BK et al 2016
<i>Asplanchna brightwelli</i>	Kumar et al 2010; Rajagopal et al 2010; Shukla et al 2016; Pandey et al 2015; Rai et al 2016; Vaidya et al 2008; Rajashekhar et al 2009; Ramesh et al 2016; Vanjare et al 2013; Riddhi et al 2011; Pandey et al 2014; Vanjare et al 2010; Manickam et al 2014; Bhanja et al 2014; Majagi et al 2009; Manivelu et al 2016; Adhikari et al 2017; Manickam et al 2015; Kumar et al 2012; Sultana et al 2016
<i>Asplanchna herricki</i>	Amalesh et al 2014; Riddhi et al 2011
<i>Asplanchna intermedia</i>	Bhavan et al 2016; Sharma et al 2015; Manickam et al 2014; Manickam et al 2015
<i>Asplanchna multiceps</i>	Amalesh et al 2014
<i>Asplanchna priodonta</i>	Jose et al 2012; Amalesh et al 2014; Imran et al 2016; Sontakke et al 2014; Rajashekhar et al 2009; Riddhi et al 2011; Majagi et al 2009
<i>Asplanchna reticulata</i>	Amalesh et al 2014
<i>Asplanchnopsis sp.</i>	Bhat et al 2014; Riddhi et al 2011; Kapoor 2015
<i>Asplanchnopus sp.</i>	Vaidya et al 2008
<i>Asplanchnopus hyalinus</i>	Vanjare et al 2013
<i>Asplanchnopus multiceps</i>	Pandey et al 2014; Vanjare et al 2010
<i>Atrachus sp.</i>	Malik et al 2016
<i>Branchinecta ferox</i>	Shukla et al 2016
<i>Brachionus sp.</i>	Dhembare 2011; Kar et al 2016a; Gautham et al 2016; Malik et al 2016; Kar et al 2016b; Sharma et al 2016; Veerendra et al 2012; Tidame et al 2012; Pradhan 2014; Acharya 2016; Slathia et al 2013; Negi et al 2013; Sheikh 2015; Shiv et al 2017; Dey et al 2015; Sarkar et al 2016; Banerjee et al 2014; Das et al 2016; Dalal et al 2013; Das et al 2016b; Shahzan et al 2014
<i>Brachionus angularis</i>	Kumar et al 2010; Thirupathaiiah et al 2012; Kiran et al., 2007; Jose et al 2012; Bhat et al 2014; Bhat th et al 2014; Lahane et al 2010; Rajagopal et al 2010; Jomet 2015; Shukla et al 2016; Sinha et al 2016; Amalesh et al 2014; Pandey et al 2015; Pawar 2016; Sivalingam et al 2016; Rai et al 2016; Manikandan et al 2016; Gadekar 2014; Pawar 2014; Kather et al 2015; Watkar et al 2013; Nimbalkar et al 2013; Suganthi et al 2014; Sontakke et al 2014; Jaiswal et al 2014; Rajashekhar et al 2009; Sree et al 2017; Ahmad et al 2011; Ramesh et al 2016; Riddhi et al 2011; Sharma et al 2015a; Vanjare et al 2010; Kadam 2016; Rao et al 2017; Maibam et al 2016; Singh et al 2012; Watkar et al 2015; Majagi et al 2009; Rao 2017; Shukla et al 2012; Kapoor 2015; Adhikari et al 2017; Devi et al 2013; Kumar et al 2012; Sultana et al 2016
<i>Brachionus angulosum</i>	Bhat et al 2014
<i>Brachionus bidentata</i>	Kumar et al 2010; {Ahangar, 2012 #5}; Amalesh et al 2014; Imran et al 2016; Pawar 2016; Vaidya et al 2008; Pawar 2014; Watkar et al 2013; Nimbalkar et al 2013; Suganthi et al 2014; Sontakke et al 2014; Slathia et al 2013; Ahmad et al 2011; Riddhi et al 2011; Majumder et al 2015; Manickam et al 2014; Maibam et al 2016; Watkar et al 2015; Kumar et al 2012
<i>Brachionus budapestinensis</i>	Manikandan et al 2016; Manickam et al 2014; Manickam et al 2015; Sultana et al 2016
<i>Brachionus calafertus</i>	Pawar 2014
<i>Brachionus calyciflorus</i>	Kumar et al 2010; Thirupathaiiah et al 2012; Kiran et al 2007; Jose et al 2012; Bhat et al 2014; Bhat th et al 2014; Rajagopal et al 2010; Jomet 2015; Sinha et al 2016; Ahangar et al 2012; Imran et al 2016; Pawar 2016; Indur et al 2015; Bhavan et al 2016; Manikandan et al 2016; Gadekar 2014; Vaidya et al 2008; Pawar 2014; Balai et al 2014; Kather et al 2015; Shivashankar et al 2013; Nimbalkar et al 2013; Dede et al 2015; Riddhi et al 2011; Ahmad et al 2011; Suganthi et al 2014; Sontakke et al 2014; Slathia et al 2013; Sharma et al 2010; Rajashekhar et al 2009; Sree et al 2017; Vanjare et al 2013; Harkal et al 2015; Sharma et al 2015; Mruthyunjaya et al 2016; Vanjare et al 2010; Kadam 2016; Rao et al 2017; Manickam 2014; Maibam et al 2016; Kalita et al 2016; Biswas 2015; Majagi et al 2009; Manivelu et al 2016; Rao 2017; Adhikari et al 2017; Manickam et al 2015; Kanagasabapathi et al 2010; Devi et al 2013; Kumar et al 2012; Sultana et al 2016; Manjare 2015
<i>Brachionus caudatus</i>	Kumar et al 2010; Thirupathaiiah et al 2012; Kiran et al., 2007; Jose et al 2012; Sarwade et al 2014; Bhat et al 2014; Rajagopal et al 2010; Jomet 2015; Sinha et al 2016; Amalesh et al 2014; Pawar 2016; Sivalingam et al 2016; mahesh et al 2015; Bhavan et al 2016; Gadekar 2014; Vaidya et al 2008; Pawar 2014; Shivashankar et al 2013; Nimbalkar et al 2013; Dede et al 2015; Suganthi et al 2014; Sontakke et al 2014; Jaiswal et al 2014; Sharma et al 2010; Mahesh et al 2015; Sree et al 2017; Ramesh et al 2016; Vanjare et al 2013; Riddhi et al 2011; Pandey et al 2014; Sharma et al 2015a; Vanjare et al 2010; Kadam 2016; Rao et al 2017; Manickam et al 2014; Maibam et al 2016; Singh et al 2012; Biswas 2015; Majagi et al 2009; Manivelu et al 2016; Rao 2017; Adhikari et al 2017; Manickam et al 2015; Kanagasabapathi et al 2010; Devi et al 2013; Kumar et al 2012; Soni et al 2013; Sultana et al 2016
<i>Brachionus diversicornis</i>	Thirupathaiiah et al 2012; Jomet 2015; Amalesh et al 2014; mahesh et al 2015; Manikandan et al 2016; Pawar 2014; Dede et al 2015; Suganthi et al 2014; Sharma et al 2010; Mahesh et al 2015; Sree et al 2017; Riddhi et al 2011; Harkal et al 2015; Majumder et al 2015; Rao et al 2017; Manickam et al 2014; Singh et al 2012; Biswas 2015; Manivelu et al 2016; Rao 2017; Adhikari et al 2017; Manickam et al 2015; Kanagasabapathi et al 2010; Devi et al 2013
<i>Brachionus durgae</i>	Pawar 2014; Watkar et al 2013; Watkar et al 2015; Sultana et al 2016
<i>Brachionus falcatus</i>	Kumar et al 2010; Kiran et al 2007; Sarwade et al 2014; Bhat et al 2014; Lahane et al 2013; Rajagopal et al 2010; Sinha et al 2016; Amalesh et al 2014; Imran et al 2016; Sivalingam et al 2016; mahesh et al 2015; Indur et al 2015; Gadekar 2014; Vaidya et al 2008; Pawar 2014; Balai et al 2014; Kather et al 2015; Watkar et al 2013; Shivashankar et al 2013; Nimbalkar et al 2013; Dede et al 2015; Suganthi et al 2014; Slathia et al 2013; Jaiswal et al 2014; Sharma et al 2010; Rajashekhar et al 2009; Mahesh et al 2015; Ramesh et al 2016; Riddhi et al 2011; Harkal et al 2015; Sharma et al 2015; Mruthyunjaya et al 2016; Vanjare et al 2010; Kadam 2016; Salve et al 2013; Manickam et al 2014; Maibam et al 2016; Kalita et al 2016; Singh et al 2012; Biswas 2015; Watkar et al 2015; Majagi et al 2009; Ramulu et al 2013; Manivelu et al 2016; Adhikari et al 2017; Manickam et al 2015; Kanagasabapathi et al 2010; Devi et al 2013; Kumar et al 2012; Sultana et al 2016; Manjare 2015

<i>Brachionus forticula</i>	Kumar <i>et al</i> 2010; Bhat <i>et al</i> 2014; Rajagopal <i>et al</i> 2010; Pawar 2016; Gadekar 2014; Vaidya <i>et al</i> 2008; Pawar 2014; Shivashankar <i>et al</i> 2013; Dede <i>et al</i> 2015; Suganthi <i>et al</i> 2014; Sontakke <i>et al</i> 2014; Karuthapandi <i>et al</i> 2012; Rajashekhar <i>et al</i> 2009; Riddhi <i>et al</i> 2011; Sharma <i>et al</i> 2015a; Kadam 2016; Manickam 2014; Biswas 2015; Adhikari <i>et al</i> 2017; Manickam <i>et al</i> 2015; Kanagasabapathi <i>et al</i> 2010; Devi <i>et al</i> 2013; Kumar <i>et al</i> 2012; Manjare 2015
<i>Brachinus havanaensis</i>	Amalesh <i>et al</i> 2014; Balai <i>et al</i> 2014; Sharma <i>et al</i> 2010
<i>Brachionus pallas</i>	Pawar 2014; Watkar <i>et al</i> 2013; Watkar <i>et al</i> 2015
<i>Brachionus patulus</i>	Manikandan <i>et al</i> 2016; Vaidya <i>et al</i> 2008; Nimbalkar <i>et al</i> 2013; Slathia <i>et al</i> 2013; Biswas 2015
<i>Brachionus plicatilis</i>	Kiran <i>et al</i> 2007; Jomet 2015; Balai <i>et al</i> 2014; Ahmad <i>et al</i> 2011; Rao <i>et al</i> 2017; Rao 2017; Sultana <i>et al</i> 2016
<i>Brachionus quadrangularis</i>	Adhikari <i>et al</i> 2017
<i>Brachionus quadridentata</i>	Kumar <i>et al</i> 2010; Thirupathaiah <i>et al</i> 2012; Bhat <i>et al</i> 2014; Rajagopal <i>et al</i> 2010; Sinha <i>et al</i> 2016; Ahangar <i>et al</i> 2012. Amalesh <i>et al</i> 2014; Sivalingam <i>et al</i> 2016; Vaidya <i>et al</i> 2008; Pawar 2014; Nimbalkar <i>et al</i> 2013; Slathia <i>et al</i> 2013; Karuthapandi <i>et al</i> 2012; Sharma <i>et al</i> 2010; Sree <i>et al</i> 2017; Ahmad <i>et al</i> 2011; Vanjare <i>et al</i> 2013; Riddhi <i>et al</i> 2011; Harkal <i>et al</i> 2015; Majumder <i>et al</i> 2015; Sharma <i>et al</i> 2015; Vanjare <i>et al</i> 2010; Rao <i>et al</i> 2017; Manickam <i>et al</i> 2014; Maibam <i>et al</i> 2016; Biswas 2015; Manivelu <i>et al</i> 2016; Sharma <i>et al</i> 2013; Rao 2017; Adhikari <i>et al</i> 2017; Manickam <i>et al</i> 2015; Sultana <i>et al</i> 2016; Manjare 2015
<i>Brachionus rotundiformis</i>	Bhavan <i>et al</i> 2016
<i>Brachionus rubens</i>	Kiran <i>et al</i> ., 2007; Sivalingam <i>et al</i> 2016; Indur <i>et al</i> 2015; Bhavan <i>et al</i> 2016; Vaidya <i>et al</i> 2008; Pawar 2014; Shivashankar <i>et al</i> 2013; Suganthi <i>et al</i> 2014; Rajashekhar <i>et al</i> 2009; Ramesh <i>et al</i> 2016; Sharma <i>et al</i> 2015a; Vanjare <i>et al</i> 2010; Kadam 2016; Manickam <i>et al</i> 2014; Maibam <i>et al</i> 2016; Bhanja <i>et al</i> 2014; Majagi <i>et al</i> 2009; Manivelu <i>et al</i> 2016; Adhikari <i>et al</i> 2017; Manickam <i>et al</i> 2015; Devi <i>et al</i> 2013
<i>Brachionus terminalis</i>	Gadekar 2014
<i>Brachionus typical</i>	Bhanja <i>et al</i> 2014
<i>Brachionus urceolaris</i>	Kumar <i>et al</i> 2010; Rajagopal <i>et al</i> 2010; Sinha <i>et al</i> 2016; Imran <i>et al</i> 2016; Vaidya <i>et al</i> 2008; Harkal <i>et al</i> 2015; Adhikari <i>et al</i> 2017
<i>Brachionus urceus</i>	Bhat <i>et al</i> 2014
<i>Brachionus terminalis</i>	Kumar <i>et al</i> 2010
<i>Branchinecta ferox</i>	Pandey <i>et al</i> 2015; Rai <i>et al</i> 2016
<i>Bryocamptus hiemalis</i>	Ahangar <i>et al</i> 2012
<i>Cephalodella sp</i>	Bhat <i>et al</i> 2014; Bhat th <i>et al</i> 2014; Kar <i>et al</i> 2016a; mahesh <i>et al</i> 2015; Vaidya <i>et al</i> 2008; Malik <i>et al</i> 2016; Kar <i>et al</i> 2016b; Slathia <i>et al</i> 2013; Mahesh <i>et al</i> 2015; Harkal <i>et al</i> 2015; Ghosh <i>et al</i> 2015; Das <i>et al</i> 2016a; Kapoor 2015
<i>Cephalodella catelina</i>	Kumar <i>et al</i> 2010; Jomet 2015; Vanjare <i>et al</i> 2010; Kumar <i>et al</i> 2012
<i>Cephalodella exigua</i>	Riddhi <i>et al</i> 2011
<i>Cephalodella gibba</i>	Kumar <i>et al</i> 2010; Imran <i>et al</i> 2016; mahesh <i>et al</i> 2015; Gadekar 2014; Slathia <i>et al</i> 2013; Jaiswal <i>et al</i> 2014; Mahesh <i>et al</i> 2015; Sharma <i>et al</i> 2013; Kumar <i>et al</i> 2012
<i>Cephalodella mucronata</i>	Riddhi <i>et al</i> 2011; Kanagasabapathi <i>et al</i> 2010
<i>Chromogaster ovalis</i>	Shukla <i>et al</i> 2016; Pandey <i>et al</i> 2015; Rai <i>et al</i> 2016; Pandey <i>et al</i> 2014
<i>Cocconeis</i>	Sarwade <i>et al</i> 2014
<i>Colurella sp.</i>	Bhat <i>et al</i> 2014; Kar <i>et al</i> 2016a; Malik <i>et al</i> 2016; Kar <i>et al</i> 2016b; Slathia <i>et al</i> 2013; Vanjare <i>et al</i> 2013; Kapoor 2015
<i>Colurella adriacta</i>	Slathia <i>et al</i> 2013
<i>Colurella bicuspidate</i>	Slathia <i>et al</i> 2013
<i>Colurlla obtuse</i>	Slathia <i>et al</i> 2013
<i>Colurella sulcata</i>	Sharma <i>et al</i> 2013
<i>Colurella uncinata</i>	Sharma <i>et al</i> 2013
<i>Conochilodes dossuarius</i>	Jomet 2015
<i>Conochilus sp.</i>	Kumar <i>et al</i> 2010; Bhat <i>et al</i> 2014; Rajagopal <i>et al</i> 2010; Kar <i>et al</i> 2016a; Malik <i>et al</i> 2016; Harkal <i>et al</i> 2015; Sarkar <i>et al</i> 2016; Das <i>et al</i> 2016a; Kapoor 2015
<i>Conochilus arboreus</i>	Kanagasabapathi <i>et al</i> 2010
<i>Conochilus unicornis</i>	Sharma <i>et al</i> 2010
<i>Crystaluta sp.</i>	Dhembare 2011
<i>Cupelopagis sp.</i>	Dhembare 2011
<i>Diacranophorus sp</i>	Sarwade <i>et al</i> 2014; Malik <i>et al</i> 2016; Sharma <i>et al</i> 2013
<i>Dipleuchlanis propatula</i>	Nimbalkar <i>et al</i> 2013
<i>Diplois sp.</i>	Harkal <i>et al</i> 2015
<i>Diplois devieseae</i>	Sultana <i>et al</i> 2016
<i>Elosa sp</i>	Tidame <i>et al</i> 2012
<i>Epiphane sp.</i>	Negi <i>et al</i> 2013; Sarkar <i>et al</i> 2016
<i>Epiphanyes brachionus spinosa</i>	Vanjare <i>et al</i> 2010
<i>Epiphanyes brachionus</i>	Vanjare <i>et al</i> 2013
<i>Epiphanyes sp.</i>	Bhat th <i>et al</i> 2014; Malik <i>et al</i> 2016
<i>Epiphanyes clavulata</i>	Karuthapandi <i>et al</i> 2012; Pandey <i>et al</i> 2014
<i>Euchlanis sp.</i>	Kumar <i>et al</i> 2010; Rajagopal <i>et al</i> 2010; Sinha <i>et al</i> 2016; Amalesh <i>et al</i> 2014; Malik <i>et al</i> 2016; Sharma <i>et al</i> 2016; Negi <i>et al</i> 2013; Sharma <i>et al</i> 2015a
<i>Euchlanis dilatata</i>	Vaidya <i>et al</i> 2008; Pawar 2014; Nimbalkar <i>et al</i> 2013; Slathia <i>et al</i> 2013; Jaiswal <i>et al</i> 2014; Karuthapandi <i>et al</i> 2012; Vanjare <i>et al</i> 2013; Salve <i>et al</i> 2013; Maibam <i>et al</i> 2016; Biswas 2015; Sharma <i>et al</i> 2013
<i>Filina sp.</i>	Kar <i>et al</i> 2016a; Shil <i>et al</i> 2013; Kar <i>et al</i> 2016b; Sharma <i>et al</i> 2016; Tidame <i>et al</i> 2012; Slathia <i>et al</i> 2013; Sheikh 2015; Singh <i>et al</i> 2012; Das <i>et al</i> 2016a; Kapoor 2015; Das <i>et al</i> 2016b; Shahzan <i>et al</i> 2014; Kumar <i>et al</i> 2012
<i>Filinia bory</i>	Pawar 2014; Watkar <i>et al</i> 2013; Watkar <i>et al</i> 2015
<i>Filinia camacecla</i>	Maibam <i>et al</i> 2016
<i>Filinia inopinoata</i>	Sharma <i>et al</i> 2015a

<i>Filinia longiseta</i>	Kumar et al 2010; Thirupathaiyah et al 2012; Lahane et al 2013; Imran et al 2016; Indur et al 2015; Vaidya et al 2008; Pawar 2014; Balai et al 2014; Kather et al 2015; Watkar et al 2013; Nimbalkar et al 2013; Sharma et al 2010; Shiv et al 2017; Rajashekhar et al 2009; Sree et al 2017; Ahmad et al 2011; Ramesh et al 2016; Riddhi et al 2011; Harkal et al 2015; Sharma et al 2015; Vanjare et al 2010; Kadam 2016; Rao et al 2017; Manickam et al 2014; Watkar et al 2015; Majagi et al 2009; Manivelu et al 2016; Rao 2017; Manickam et al 2015; Devi et al 2013; Kumar et al 2012; Sultana et al 2016
<i>Filinia opoliensis</i>	Amalesh et al 2014; Nimbalkar et al 2013; Dede et al 2015; Sharma et al 2015a
<i>Filinia pejleri</i>	Kanagasabapathi et al 2010
<i>Filinia terminalis</i>	Amalesh et al 2014; Pawar 2016; Indur et al 2015; Vaidya et al 2008; Pawar 2014; Sontakke et al 2014; Rajashekhar et al 2009; Riddhi et al 2011; Vanjare et al 2010; Kadam 2016; Salve et al 2013; Biswas 2015; Adhikari et al 2017
<i>Filinia tetramatrix</i>	Riddhi et al 2011
<i>Floscularia ringens</i>	Harkal et al 2015
<i>Gastropus sp</i>	Bhat th et al 2014; Pandey et al 2014; Kapoor 2015
<i>Gastropus minor</i>	Thirupathaiyah et al 2012; Sree et al 2017; Rao et al 2017; Rao 2017
<i>Habrotrocha sp</i>	Harkal et al 2015
<i>Habrotrocha bidens</i>	Imran et al 2016; Rajashekhar et al 2009
<i>Hexathra sp.</i>	Slathia et al 2013; Sharma et al 2010; Kapoor 2015
<i>Hexarthra mira</i>	Riddhi et al 2011
<i>Horealla sp.</i>	Kar et al 2016a; Kar et al 2016b; Sharma et al 2010
<i>Horaella brehmi</i>	Kumar et al 2010; Rajagopal et al 2010; Jomet 2015; Rajashekhar et al 2009; Kalita et al 2016; Bhanja et al 2014
<i>Horaella mira</i>	Riddhi et al 2011
<i>Keratella bory</i>	Pawar 2014
<i>Keratella canedensis</i>	Balai et al 2014
<i>Keratella crassa</i>	Amalesh et al 2014; Dede et al 2015
<i>Keratella cochlearis</i>	Kumar et al 2010; Thirupathaiyah et al 2012; Bhat th et al 2014; Rajagopal et al 2010; Jomet 2015; Ahangar et al 2012; Amalesh et al 2014; Pandey et al 2015; mahesh et al 2015; Indur et al 2015; Pawar 2014; Balai et al 2014; Nimbalkar et al 2013; Dede et al 2015; Jaiswal et al 2014; Sharma et al 2010; Shiv et al 2017; Rajashekhar et al 2009; Mahesh et al 2015; Sree et al 2017; Riddhi et al 2011; Pandey et al 2014; Sharma et al 2015a; Kadam 2016; Rao et al 2017; Manickam et al 2014; Majagi et al 2009; Manivelu et al 2016; Rao 2017; Adhikari et al 2017; Manickam et al 2015; Kumar et al 2012; Sultana et al 2016
<i>Keratella hiemalis</i>	Balai et al 2014
<i>Keratella lenzi</i>	Vaidya et al 2008; Singh et al 2012
<i>Keratella procurva</i>	Kumar et al 2010; Pawar 2014
<i>Keratella quadrata</i>	Kumar et al 2010; Sarwade et al 2014; Bhat th et al 2014; Lahane et al 2013; Amalesh et al 2014; Pawar 2014; Balai et al 2014; Salve et al 2013; Kumar et al 2012; Sultana et al 2016; Manjare 2015
<i>Keratella serrulata</i>	Amalesh et al 2014
<i>Keratella tropica</i>	Kumar et al 2010; Thirupathaiyah et al 2012; Kiran et al 2007; Jose et al 2012; Lahane et al 2013; Rajagopal et al 2010; Jomet 2015; Sinha et al 2016; Amalesh et al 2014; Imran et al 2016; mahesh et al 2015; Indur et al 2015; Gadekar 2014; Vaidya et al 2008; Pawar 2014; Balai et al 2014; Veerendra et al 2012; Shivashankar et al 2013; Suganthi et al 2014; Slathia et al 2013; Jaiswal et al 2014; Karuthapandi et al 2012; Sharma et al 2010; Shiv et al 2017; Rajashekhar et al 2009; Mahesh et al 2015; Sree et al 2017; Ramesh et al 2016; Vanjare et al 2013; Riddhi et al 2011; Pandey et al 2014; Harkal et al 2015; Sharma et al 2015a; Majumder et al 2015; Mruthyunjaya et al 2016; Kadam 2016; Rao et al 2017; Salve et al 2013; Manickam et al 2014; Maibam et al 2016; Kalita et al 2016; Sehgal et al 2013; Bhanja et al 2014; Singh et al 2012; Biswas 2015; Majagi et al 2009; Ramulu et al 2013; Manivelu et al 2016; Sharma et al 2013; Rao 2017; Shukla et al 2012; Manickam et al 2015; Kanagasabapathi et al 2010; Devi et al 2013; Kumar et al 2012; Manjare 2015
<i>Keratella valga</i>	(Ahangar, Mir, Saksena, & Ahangar, 2012); Amalesh et al 2014; Vaidya et al 2008; Balai et al 2014; Watkar et al 2013; Riddhi et al 2011; Watkar et al 2015
<i>Keratella sp</i>	Kumar et al 2010; Dhembare 2011; Kar et al 2016b; Balai et al 2014; Malik et al 2016; Sharma et al 2016; Tidame et al 2012; Pradhan 2014; Negi et al 2013; Sheikh 2015; Ahmad et al 2011; Dey et al 2015; Sarkar et al 2016; Banerjee et al 2014; Das et al 2016a; Kapoor 2015; Das et al 2016b; Shahzan et al 2014
<i>Lacinularia sp.</i>	Harkal et al 2015
<i>Lacinularia elliptica</i>	Vanjare et al 2010
<i>Lacinularia socialis</i>	Rajashekhar et al 2009
<i>Lecane sp</i>	Dhembare 2011; Kar et al 2016a; Amalesh et al 2014; Gadekar 2014; Vaidya et al 2008; Pawar 2014; Malik et al 2016; Kar et al 2016b; Sharma et al 2016; Tidame et al 2012; Shivashankar et al 2013; Slathia et al 2013; Harkal et al 2015; Singh et al 2012; Sarkar et al 2016; Das et al 2016a; Dalal et al 2013; Kapoor 2015; Das et al 2016b; Kumar et al 2012
<i>Lecane arculata</i>	Slathia et al 2013; Vanjare et al 2013
<i>Lecane bulla</i>	Kumar et al 2010; Jose et al 2012; Rajagopal et al 2010; Slathia et al 2013; Karuthapandi et al 2012; Vanjare et al 2013; Maibam et al 2016; Sharma et al 2013; Sultana et al 2016
<i>Lecane closterocera</i>	Kumar et al 2010; Pawar 2014; Slathia et al 2013; Vanjare et al 2013; Sharma et al 2013; Kumar et al 2012
<i>Lecane cornuta</i>	Karuthapandi et al 2012
<i>Lecane curvicornis</i>	Vaidya et al 2008; Kather et al 2015; Karuthapandi et al 2012; Vanjare et al 2013
<i>Lecane decipeans</i>	Slathia et al 2013
<i>Lecane depressa</i>	Riddhi et al 2011
<i>Lecane donneri</i>	Karuthapandi et al 2012; Harkal et al 2015
<i>Lecane eswari</i>	Karuthapandi et al 2012; Harkal et al 2015
<i>Lecane hamata</i>	Pawar 2014; Karuthapandi et al 2012; Vanjare et al 2013; Sharma et al 2013
<i>Lecane hornemanni</i>	Vanjare et al 2013
<i>Lecane inopinata</i>	Karuthapandi et al 2012
<i>Lecane leontina</i>	Karuthapandi et al 2012; Vanjare et al 2013; Maibam et al 2016; Sharma et al 2013
<i>Lecane ludwigii</i>	Karuthapandi et al 2012; Vanjare et al 2013
<i>Lecane luna</i>	Kumar et al 2010; Bhat th et al 2014; (Ahangar et al., 2012); Imran et al 2016; Sivalingam et al 2016; mahesh et al 2015; Indur et al 2015; Vaidya et al 2008; Pawar 2014; Sontakke et al 2014; Slathia et al 2013; Jaiswal et al 2014; Karuthapandi et al 2012; Rajashekhar et al 2009; Mahesh et al 2015; Ramesh et al 2016; Vanjare et al 2013; Riddhi et al 2011; Harkal et al 2015; Majagi et al 2009; Kumar et al 2012

<i>Lecane lunaris</i>	Kumar <i>et al</i> 2010; Thirupathiaiah <i>et al</i> 2012; Rajagopal <i>et al</i> 2010; Sinha <i>et al</i> 2016; Slathia <i>et al</i> 2013; Sree <i>et al</i> 2017; Vanjare <i>et al</i> 2013; Rao <i>et al</i> 2017; Kalita <i>et al</i> 2016; Sharma <i>et al</i> 2013; Rao 2017
<i>Lecane minuta</i>	Slathia <i>et al</i> 2013
<i>Lacane monostyla</i>	Thirupathiaiah <i>et al</i> 2012; Sree <i>et al</i> 2017; Rao <i>et al</i> 2017; Rao 2017
<i>Lecane ohioensis</i>	Vanjare <i>et al</i> 2013
<i>Lecane papuana</i>	Kumar <i>et al</i> 2010; Rajagopal <i>et al</i> 2010; Jomet 2015; Karuthapandi <i>et al</i> 2012; Manickam <i>et al</i> 2014; Maibam <i>et al</i> 2016; Manickam <i>et al</i> 2015; Sultana <i>et al</i> 2016
<i>Lecane pyriformis</i>	Karuthapandi <i>et al</i> 2012
<i>Lecane quadridentata</i>	Slathia <i>et al</i> 2013; Vanjare <i>et al</i> 2013; Sharma <i>et al</i> 2013
<i>Lecane ruttneri</i>	Karuthapandi <i>et al</i> 2012
<i>Lecane stichaea</i>	Pawar 2014
<i>Lecane tessellata</i>	Harkal <i>et al</i> 2015
<i>Lecane unguitata</i>	Vanjare <i>et al</i> 2013
<i>Lacane unguulate</i>	Vaidya <i>et al</i> 2008; Karuthapandi <i>et al</i> 2012; Vanjare <i>et al</i> 2013
<i>Lepadella sp.</i>	Kumar <i>et al</i> 2010; Rajagopal <i>et al</i> 2010; Kar <i>et al</i> 2016a; Gadekar 2014; Vaidya <i>et al</i> 2008; Kar <i>et al</i> 2016b; Sharma <i>et al</i> 2016; Shivashankar <i>et al</i> 2013; Vanjare <i>et al</i> 2013; Das <i>et al</i> 2016a; Dalal <i>et al</i> 2013; Kapoor 2015
<i>Lepadella acuminata</i>	Sultana <i>et al</i> 2016
<i>Lepadella bicornis</i>	Rajashkhar <i>et al</i> 2009; Majagi <i>et al</i> 2009
<i>Lepadella cristata</i>	Slathia <i>et al</i> 2013
<i>Lepadella patella</i>	Slathia <i>et al</i> 2013; Riddhi <i>et al</i> 2011; Biswas 2015; Sharma <i>et al</i> 2013; Sultana <i>et al</i> 2016
<i>Lepadella ovalis</i>	Slathia <i>et al</i> 2013; Karuthapandi <i>et al</i> 2012; Rajashkhar <i>et al</i> 2009; Vanjare <i>et al</i> 2013; Riddhi <i>et al</i> 2011; Harkal <i>et al</i> 2015; Majagi <i>et al</i> 2009
<i>Limnia carotophyllia</i>	Harkal <i>et al</i> 2015
<i>Lophocaris sp.</i>	Malik <i>et al</i> 2016
<i>Lopocharis salpina</i>	Riddhi <i>et al</i> 2011
<i>Macrochaetus sp.</i>	Kar <i>et al</i> 2016a; Kar <i>et al</i> 2016b; Negi <i>et al</i> 2013
<i>Macrochaetus serica</i>	Indur <i>et al</i> 2015; Rajashkhar <i>et al</i> 2009; Vanjare <i>et al</i> 2013
<i>Monomatta sp</i>	Vanjare <i>et al</i> 2013
<i>Monomata grandis</i>	Sharma <i>et al</i> 2013
<i>Monostyla sp</i>	Sharma <i>et al</i> 2016; Tidame <i>et al</i> 2012; Pradhan 2014; Sharma <i>et al</i> 2010; Negi <i>et al</i> 2013; Sharma <i>et al</i> 2015; Shiv <i>et al</i> 2017; Watkar <i>et al</i> 2015; Dalal <i>et al</i> 2013; Kapoor 2015; Kumar <i>et al</i> 2012
<i>Monostyla bulla</i>	Bhat th <i>et al</i> 2014; Amalesh <i>et al</i> 2014; Imran <i>et al</i> 2016; Riddhi <i>et al</i> 2011; Pandey <i>et al</i> 2014; Harkal <i>et al</i> 2015
<i>Monostyla closterocerca</i>	Balai <i>et al</i> 2014
<i>Monostyla decipiens</i>	Biswas 2015
<i>Monostyla lunaris</i>	Amalesh <i>et al</i> 2014
<i>Monostyla quadridentatus</i>	Kumar <i>et al</i> 2010; Rajagopal <i>et al</i> 2010; Sinha <i>et al</i> 2016; Balai <i>et al</i> 2014; Riddhi <i>et al</i> 2011; Harkal <i>et al</i> 2015; Biswas 2015
<i>Mytilina sp.</i>	Kumar <i>et al</i> 2010; Bhat <i>et al</i> 2014; Bhat th <i>et al</i> 2014; Kar <i>et al</i> 2016a; Rajagopal <i>et al</i> 2010; Balai <i>et al</i> 2014; Kar <i>et al</i> 2016b; Negi <i>et al</i> 2013; Kapoor 2015
<i>Mytilina acanthophora</i>	Imran <i>et al</i> 2016
<i>Mytilina mucronate</i>	Pandey <i>et al</i> 2015
<i>Mytilina trigona</i>	Vanjare <i>et al</i> 2013
<i>Mytilina ventralis</i>	Imran <i>et al</i> 2016; Slathia <i>et al</i> 2013; Vanjare <i>et al</i> 2013; Riddhi <i>et al</i> 2011; Harkal <i>et al</i> 2015; Maibam <i>et al</i> 2016; Biswas 2015; Soni <i>et al</i> 2013
<i>Notholca sp.</i>	Kumar <i>et al</i> 2010; Rajagopal <i>et al</i> 2010; Sinha <i>et al</i> 2016; Balai <i>et al</i> 2014; Tidame <i>et al</i> 2012; Sharma <i>et al</i> 2010; Shiv <i>et al</i> 2017; Ahmad <i>et al</i> 2011; Singh <i>et al</i> 2012
<i>Notholca acuminata</i>	Kumar <i>et al</i> 2010; Shukla <i>et al</i> 2016; Amalesh <i>et al</i> 2014; Pandey <i>et al</i> 2015; Rai <i>et al</i> 2016; Pawar 2014; Shukla <i>et al</i> 2012
<i>Notholca labis</i>	Amalesh <i>et al</i> 2014; Manickam 2014; Manickam <i>et al</i> 2015
<i>Notomata sp</i>	Harkal <i>et al</i> 2015
<i>Philodina sp.</i>	Sarwade <i>et al</i> 2014; Bhat <i>et al</i> 2014; Bhat th <i>et al</i> 2014; Kar <i>et al</i> 2016; Malik <i>et al</i> 2016; Slathia <i>et al</i> 2013; Riddhi <i>et al</i> 2011; Sharma <i>et al</i> 2015a; Kapoor 2015; Das <i>et al</i> 2016b; Kumar <i>et al</i> 2012
<i>Philodina citrine</i>	Thirupathiaiah <i>et al</i> 2012; Sree <i>et al</i> 2017; Rao <i>et al</i> 2017; Sharma <i>et al</i> 2013; Rao 2017
<i>Philodina roseola</i>	Sharma <i>et al</i> 2013
<i>Phinoglena sp.</i>	Malik <i>et al</i> 2016
<i>Plationus sp</i>	Kar <i>et al</i> 2016a; Kar <i>et al</i> 2016b; Das <i>et al</i> 2016
<i>Plationus patulus</i>	Vanjare <i>et al</i> 2013; Vanjare <i>et al</i> 2010; Maibam <i>et al</i> 2016; Sharma <i>et al</i> 2013
<i>Platyias sp.</i>	Bhat <i>et al</i> 2014; Kar <i>et al</i> 2016; Balai <i>et al</i> 2014; Sharma <i>et al</i> 2016; Sheikh 2015; Ghosh <i>et al</i> 2015; Kapoor 2015
<i>Platyias leolopi</i>	Vaidya <i>et al</i> 2008
<i>Platyias patulus</i>	Kumar <i>et al</i> 2010; Rajagopal <i>et al</i> 2010; Shiv <i>et al</i> 2017; Harkal <i>et al</i> 2015
<i>Platyias polyacanthus</i>	Harkal <i>et al</i> 2015
<i>Platyias quadricornis</i>	Imran <i>et al</i> 2016; Slathia <i>et al</i> 2013; Karuthapandi <i>et al</i> 2012; Vanjare <i>et al</i> 2013; Riddhi <i>et al</i> 2011; Pandey <i>et al</i> 2014; Harkal <i>et al</i> 2015; Sharma <i>et al</i> 2015; Vanjare <i>et al</i> 2010; Manickam 2014; Maibam <i>et al</i> 2016; Sultana <i>et al</i> 2016
<i>Platyias trgonellus</i>	Vaidya <i>et al</i> 2008
<i>Ploesoma sp.</i>	Bhat <i>et al</i> 2014; Kapoor 2015
<i>Polyarthra sp.</i>	Bhat <i>et al</i> 2014; Tidame <i>et al</i> 2012; Nimbalkar <i>et al</i> 2013; Slathia <i>et al</i> 2013; Sharma <i>et al</i> 2010; Vanjare <i>et al</i> 2013; Sharma <i>et al</i> 2015a; Biswas 2015; Kapoor 2015; Das <i>et al</i> 2016b
<i>Polyarthra indica</i>	Karuthapandi <i>et al</i> 2012
<i>Polyarthra major</i>	Pawar 2016; Sontakke <i>et al</i> 2014
<i>Polyarthra remata</i>	Amalesh <i>et al</i> 2014
<i>Polyarthra vulgaris</i>	Kumar <i>et al</i> 2010; Thirupathiaiah <i>et al</i> 2012; Bhat th <i>et al</i> 2014; Shukla <i>et al</i> 2016; Amalesh <i>et al</i> 2014; Pandey <i>et al</i> 2015; Pawar 2014; Kather <i>et al</i> 2015; Shiv <i>et al</i> 2017; Sree <i>et al</i> 2017; Riddhi <i>et al</i> 2011; Pandey <i>et al</i> 2014; Vanjare <i>et al</i> 2010; Rao <i>et al</i> 2017; Sharma <i>et al</i> 2013; Rao 2017; Adhikari <i>et al</i> 2017; Kumar <i>et al</i> 2012

<i>Pompholyx sp</i>	Kar et al 2016b
<i>Pompholyx sulcata</i>	Vaidya et al 2008
<i>Proales decipiens</i>	Slathia et al 2013
<i>Pseudoembata acutipoda</i>	Karuthapandi et al 2012
<i>Ptygura mucicola</i>	Harkal et al 2015
<i>Rotaria sp.</i>	Bhat et al 2014; Dhembare 2011; Kar et al 2016a; Indur et al 2015; Malik et al 2016; Kar et al 2016b; Rajashekhar et al 2009; Ramesh et al 2016; Sarkar et al 2016; Kapoor 2015
<i>Rotaria neptunia</i>	Slathia et al 2013; Majagi et al 2009; Sharma et al 2013
<i>Rotaria rotaria</i>	Slathia et al 2013
<i>Rotaria rotatoria</i>	Harkal et al 2015
<i>Rotataria sp.</i>	Ahmad et al 2011
<i>Rotifer tardus</i>	Imran et al 2016
<i>Scaridium sp.</i>	Bhat et al 2014; Kar et al 2016a; Kapoor 2015
<i>Scaridium longicaudam</i>	Shukla et al 2016; Pandey et al 2015; Rai et al 2016; Karuthapandi et al 2012; Pandey et al 2014; Harkal et al 2015
<i>Squatinella lamellaris</i>	Vanjare et al 2013
<i>Squatinella mutica</i>	Slathia et al 2013
<i>Synchaeta sp</i>	Thirupathiah et al 2012; Bhat et al 2014; Bhat th et al 2014; Kar et al 2016a; Rao et al 2017; Kapoor 2015
<i>Synchaeta asymmetrica</i>	Amalesh et al 2014
<i>Synchaeta ctinata</i>	Pandey et al 2014
<i>Synchaeta grandis</i>	Amalesh et al 2014
<i>Synchaeta kitina</i>	Amalesh et al 2014
<i>Synchaeta oblonga</i>	Amalesh et al 2014
<i>Synchaeta pectinata</i>	Pandey et al 2015
<i>Taphrocampa sp.</i>	Kar et al 2016a
<i>Tetramastixapoliensis</i>	Bhat et al 2014; Kapoor 2015
<i>Testudinella sp.</i>	Kar et al 2016a; Kar et al 2016b; Tidame et al 2012; Slathia et al 2013; Sharma et al 2010; Sharma et al 2015; Vanjare et al 2010; Kadam 2016; Singh et al 2012; Das et al 2016a; Kanagasabapathi et al 2010; Kumar et al 2012
<i>Testudinella elliptica</i>	Bhanja et al 2014
<i>Testudinella emerginula</i>	Sharma et al 2013
<i>Testudinella mucronata</i>	Karuthapandi et al 2012; Harkal et al 2015; Salve et al 2013; Biswas 2015
<i>Testudinella parva</i>	Devi et al 2013
<i>Testudinella patina</i>	Kumar et al 2010; Jose et al 2012; Rajagopal et al 2010; Riddhi et al 2011; Kalita et al 2016; Sharma et al 2013
<i>Tophrocauna sp.</i>	Dhembare 2011
<i>Trichotria sp.</i>	Kumar et al 2010; Rajagopal et al 2010; Kar et al 2016; Sinha et al 2016; Kar et al 2016b; Shiv et al 2017; Dalal et al 2013; Kapoor 2015
<i>Trichotria poecillum</i>	Karuthapandi et al 2012
<i>Trichotria similis</i>	Harkal et al 2015
<i>Trichotria tetractis</i>	Pawar 2016; Sontakke et al 2014; Vanjare et al 2013; Sharma et al 2013
<i>Trichocerca sp.</i>	Bhat et al 2014; Bhat th et al 2014; Dhembare 2011; Kar et al 2016a; Vaidya et al 2008; Malik et al 2016; Kar et al 2016b; Sontakke et al 2014; Slathia et al 2013; Shiv et al 2017; Harkal et al 2015; Das et al 2016a; Dalal et al 2013; Kapoor 2015; Kanagasabapathi et al 2010
<i>Trichocerca cylindrical</i>	Amalesh et al 2014; Indur et al 2015; Sharma et al 2010; Rajashekhar et al 2009; Riddhi et al 2011
<i>Trichocerca longiseta</i>	Bhat et al 2014; Indur et al 2015; Rajashekhar et al 2009; Riddhi et al 2011; Kalita et al 2016
<i>Trichocerca porcellus</i>	Pawar 2014; Kalita et al 2016
<i>Trichocerca similes</i>	Shukla et al 2016; Pandey et al 2015; Rai et al 2016; Rajashekhar et al 2009; Vanjare et al 2013; Sharma et al 2013
<i>Trichocerca rattneri</i>	Harkal et al 2015
<i>Trichocera rattus</i>	Kumar et al 2010; Jose et al 2012; Rajagopal et al 2010; Indur et al 2015; Rajashekhar et al 2009; Vanjare et al 2013; Harkal et al 2015
<i>Trichocerca tigris</i>	Harkal et al 2015
<i>Trichotria sp.</i>	Bhat et al 2014
<i>Trichotria tetractis</i>	Riddhi et al 2011
<i>Trichotria similis</i>	Riddhi et al 2011
<i>Triploceros limias</i>	Bhat et al 2014; Kapoor 2015
<i>Tripeuchlanis sp</i>	Harkal et al 2015
<i>Trochosphaera sp.</i>	Bhat et al 2014; Kar et al 2016a; Kar et al 2016b; Kapoor 2015

Certain members of the zooplankton show significant association with the vibrio cholerae (de Magny et al 2011).

Zooplanktons respond quickly to environmental changes like alteration in the water quality parameters (Jha et al 2003; Holz et al 1996). So that it act as best indicator of water quality. The impact of pollution may reflect the diversity and abundance of zooplankton (Gannon et al 1978). These indicators serve as inexpensive and efficient early warning and control system.

zooplankton, but certain group of zooplankton show dominance in polluted water (Mishra et al 1998; Kankal et al 2012). The fresh water zooplankton consists of Rotifera, Cladocera, Copepod and Ostracods. Zooplankton ecology was primarily focused on crustacean zooplankton cladocera and copepod (Sommer et al 2006). More definitive information about diversity, evolution, ecology etc of organisms can be assess fastly by easy, reliable and inexpensive DNA based methods (Yan et al 2007).

**Table 2** List of Copepods found in Indian freshwater ecosystem

<b>Species</b>	<b>Reference</b>
<i>Acanthocyclops sp.</i>	Amallesh <i>et al</i> 2014; Sharma <i>et al</i> 2016; Dalal <i>et al</i> 2013
<i>Acanthocyclops vernalis</i>	Nimbalkar <i>et al</i> 2013; Manickam 2014; Sultana <i>et al</i> 2016
<i>Allodiptomus sp</i>	Bhanja <i>et al</i> 2014; Sultana <i>et al</i> 2016
<i>Apocyclops dengizicus</i>	Manickam 2014; Manickam <i>et al</i> 2015; Sultana <i>et al</i> 2016
<i>Arctodiptomus dorsalis</i>	Kumar <i>et al</i> 2012
<i>Cardona sp.</i>	Dhembare 2011
<i>Cyclops sp.</i>	Kumar <i>et al</i> 2010; Thirupathiah <i>et al</i> 2012; Bhat <i>et al</i> 2014; Bhat <i>th et al</i> 2014; Sinha <i>et al</i> 2016; Gadekar 2014; Pawar 2014; Malik <i>et al</i> 2016; Veerendra <i>et al</i> 2012; Pradhan 2014; Slathia <i>et al</i> 2013; Negi <i>et al</i> 2013; Sheikh 2015; Kumar <i>et al</i> 2015; Shiv <i>et al</i> 2017; Sree <i>et al</i> 2017; Ahmad <i>et al</i> 2011; Dey <i>et al</i> 2015; Majumder <i>et al</i> 2015; Sharma <i>et al</i> 2015; Kadam 2016; Rao <i>et al</i> 2017; Sehgal <i>et al</i> 2013; Singh <i>et al</i> 2012; Sarkar <i>et al</i> 2016; Banerjee <i>et al</i> 2014; Ramulu <i>et al</i> 2013; Rao 2017; Dalal <i>et al</i> 2013; Kapoor 2015; Das <i>et al</i> 2016b; Shahzan <i>et al</i> 2014; Kumar <i>et al</i> 2012; Soni <i>et al</i> 2013
<i>Cyclops abssorum</i>	Bhanja <i>et al</i> 2014
<i>Cyclopoid copepodite</i>	Thirupathiah <i>et al</i> 2012; Bhat <i>et al</i> 2014; Kather <i>et al</i> 2015; Nimbalkar <i>et al</i> 2013; Sree <i>et al</i> 2017; Rao <i>et al</i> 2017; Kalita <i>et al</i> 2016; Rao 2017; Kapoor 2015; Kanagasabapathi <i>et al</i> 2010
<i>Cyclops insignis</i>	Ravichandran <i>et al</i> 2014
<i>Cyclops leukarti</i>	Riddhi <i>et al</i> 2011
<i>Cyclops sternuus</i>	Lahane <i>et al</i> 2013; Jomet 2015; Watkar <i>et al</i> 2013; Shivashankar <i>et al</i> 2013; Watkar <i>et al</i> 2015
<i>Cyclops vernalis</i>	Bhavan <i>et al</i> 2016
<i>Cyclops vicinus</i>	Kumar <i>et al</i> 2010; Vaidya <i>et al</i> 2008
<i>Cyclops viriids</i>	Lahane <i>et al</i> 2013; Jomet 2015; Shukla <i>et al</i> 2016; Pandey <i>et al</i> 2015; Rai <i>et al</i> 2016; Watkar <i>et al</i> 2013; Acharya 2016; Pandey <i>et al</i> 2014; Watkar <i>et al</i> 2015
<i>Cyclops scutifer</i>	Kiran <i>et al.</i> , 2007; Bhat <i>th et al</i> 2014; Shukla <i>et al</i> 2016; (Ahangar <i>et al.</i> , 2012); Pandey <i>et al</i> 2015; Rai <i>et al</i> 2016; Shivashankar <i>et al</i> 2013
<i>Diacyclops sp.</i>	Amallesh <i>et al</i> 2014; Sharma <i>et al</i> 2016; Sheikh 2015; Dalal <i>et al</i> 2013
<i>Diaptomus sp.</i>	Bhat <i>et al</i> 2014; Bhat <i>th et al</i> 2014; Rajagopal <i>et al</i> 2010; Sinha <i>et al</i> 2016; Vaidya <i>et al</i> 2008; Pawar 2014; Balai <i>et al</i> 2014; Veerendra <i>et al</i> 2012; Acharya 2016; Sheikh 2015; Kumar <i>et al</i> 2015; Shiv <i>et al</i> 2017; Ahmad <i>et al</i> 2011; Dey <i>et al</i> 2015; Majumder <i>et al</i> 2015; Kadam 2016; Salve <i>et al</i> 2013; Sehgal <i>et al</i> 2013; Singh <i>et al</i> 2012; Sarkar <i>et al</i> 2016; Banerjee <i>et al</i> 2014; Shukla <i>et al</i> 2012; Kapoor 2015; Das <i>et al</i> 2016b; Kumar <i>et al</i> 2012
<i>Diaptomus denticornis</i>	Amallesh <i>et al</i> 2014
<i>Diaptomus edax</i>	Lahane <i>et al</i> 2013; Jomet 2015; Watkar <i>et al</i> 2013; Watkar <i>et al</i> 2015
<i>Diaptomus leptopus</i>	Amallesh <i>et al</i> 2014
<i>Diaptomus minutus</i>	Lahane <i>et al</i> 2013; Watkar <i>et al</i> 2013; Watkar <i>et al</i> 2015
<i>Diaptomus nauplius</i>	Gadekar 2014
<i>Diaptomus oregonensis</i>	Ravichandran <i>et al</i> 2014
<i>Diaptomus pallidus</i>	Thirupathiah <i>et al</i> 2012; Amallesh <i>et al</i> 2014; Sree <i>et al</i> 2017; Rao <i>et al</i> 2017; Rao 2017
<i>Diaptomus theeli</i>	Ravichandran <i>et al</i> 2014
<i>Diaptomus tyrelli</i>	Amallesh <i>et al</i> 2014
<i>Ectocyclops sp.</i>	Manikandan <i>et al</i> 2016; Ravichandran <i>et al</i> 2014
<i>Ectocyclops phaleratus</i>	Harkal <i>et al</i> 2015
<i>Eodiaptomus japonicus</i>	Sontakke <i>et al</i> 2014
<i>Eucyclops sp.</i>	Dhembare 2011; Manikandan <i>et al</i> 2016; Balai <i>et al</i> 2014; Malik <i>et al</i> 2016; Sharma <i>et al</i> 2016; Tidame <i>et al</i> 2012; Slathia <i>et al</i> 2013; Karuthapandi <i>et al</i> 2012; Sheikh 2015; Kumar <i>et al</i> 2015; Shiv <i>et al</i> 2017; Sharma <i>et al</i> 2015a; Ravichandran <i>et al</i> 2014; Das <i>et al</i> 2016b
<i>Eucyclops agilis</i>	Kumar <i>et al</i> 2010; Bhat <i>th et al</i> 2014; (Ahangar <i>et al.</i> , 2012)
<i>Eucyclops serrulatus</i>	Jose <i>et al</i> 2012; Amallesh <i>et al</i> 2014; Sultana <i>et al</i> 2016
<i>Eucyclops speratus</i>	Harkal <i>et al</i> 2015; Manickam <i>et al</i> 2015
<i>Filipinidiaptomus sp.</i>	Amallesh <i>et al</i> 2014
<i>Halicyclops sp.</i>	Balai <i>et al</i> 2014
<i>Halicyclops radiae</i>	Ravichandran <i>et al</i> 2014
<i>Heliodiaptomus sp.</i>	Kar <i>et al</i> 2016a; Kar <i>et al</i> 2016b; Karuthapandi <i>et al</i> 2012; Kumar <i>et al</i> 2015; Dey <i>et al</i> 2015; Sharma <i>et al</i> 2015a; Sarkar <i>et al</i> 2016; Das <i>et al</i> 2016
<i>Heliodiaptomus viduus</i>	Kumar <i>et al</i> 2010; Rajagopal <i>et al</i> 2010; Sinha <i>et al</i> 2016; Imran <i>et al</i> 2016; Pawar 2016; Bhavan <i>et al</i> 2016; Gadekar 2014; Vaidya <i>et al</i> 2008; Pawar 2014; Watkar <i>et al</i> 2013; Sontakke <i>et al</i> 2014; Sharma <i>et al</i> 2010; Riddhi <i>et al</i> 2011; Harkal <i>et al</i> 2015; Mruthyunjaya <i>et al</i> 2016; Manickam 2014; Bhanja <i>et al</i> 2014; Sivakumar <i>et al</i> 2014; Watkar <i>et al</i> 2015; Majagi <i>et al</i> 2009; Manivelu <i>et al</i> 2016; Shukla <i>et al</i> 2012; Adhikari <i>et al</i> 2017; Manickam <i>et al</i> 2015; Kanagasabapathi <i>et al</i> 2010; Devi <i>et al</i> 2013; Sultana <i>et al</i> 2016
<i>Heliodiaptomus cinctus</i>	Manickam 2014
<i>Leptodiptomus sp</i>	Kumar <i>et al</i> 2015; Ravichandran <i>et al</i> 2014
<i>Leptodiptomus sicilis</i>	Ravichandran <i>et al</i> 2014
<i>macrobrachium</i>	Rai <i>et al</i> 2016
<i>Macrocyclops sp.</i>	Shukla <i>et al</i> 2016; Pandey <i>et al</i> 2015; Sharma <i>et al</i> 2016; Shiv <i>et al</i> 2017; Shukla <i>et al</i> 2012
<i>Macrocyclops distinctus</i>	Harkal <i>et al</i> 2015
<i>Mesocyclops sp.</i>	Thirupathiah <i>et al</i> 2012; Bhat <i>et al</i> 2014; Dhembare 2011; Kar <i>et al</i> 2016a; Jomet 2015; Shukla <i>et al</i> 2016; Pandey <i>et al</i> 2015; Kar <i>et al</i> 2016b; Rai <i>et al</i> 2016; Pawar 2014; Balai <i>et al</i> 2014; Malik <i>et al</i> 2016; Sharma <i>et al</i> 2016; Veerendra <i>et al</i> 2012; Tidame <i>et al</i> 2012; Dede <i>et al</i> 2015; Slathia <i>et al</i> 2013; Sheikh 2015; Kumar <i>et al</i> 2015; Shiv <i>et al</i> 2017; Sree <i>et al</i> 2017; Ahmad <i>et al</i> 2011; Dey <i>et al</i> 2015; Harkal <i>et al</i> 2015; Majumder <i>et al</i> 2015; Rao <i>et al</i> 2017; Sehgal <i>et al</i> 2013; Sarkar <i>et al</i> 2016; Das <i>et al</i> 2016a; Sharma <i>et al</i> 2013; Rao 2017; Dalal <i>et al</i> 2013; Kapoor 2015; Das <i>et al</i> 2016b; Shahzan <i>et al</i> 2014; Kanagasabapathi <i>et al</i> 2010
<i>Mesocyclops aspericornis</i>	Ravichandran <i>et al</i> 2014; Sivakumar <i>et al</i> 2014; Manivelu <i>et al</i> 2016; Manickam <i>et al</i> 2015; Devi <i>et al</i> 2013
<i>Mesocyclops edax</i>	Bhavan <i>et al</i> 2016; Salve <i>et al</i> 2013

<i>Mesocyclops hyalinus</i>	Kumar et al 2010; Jose et al 2012; Kiran et al 2007; Rajagopal et al 2010; Sinha et al 2016; Amalesh et al 2014; Pawar 2016; mahesh et al 2015; Vaidya et al 2008; Kather et al 2015; Shivashankar et al 2013; Sontakke et al 2014; Jaiswal et al 2014; Karuthapandi et al 2012; Sharma et al 2010; Rajashekhar et al 2009; Mahesh et al 2015; Ramesh et al 2016; Riddhi et al 2011; Harkal et al 2015; Manickam 2014; Ravichandran et al 2014; Majagi et al 2009; Ramulu et al 2013; Manivelu et al 2016; Manickam et al 2015; Kumar et al 2012
<i>Mesocyclops leuckarti</i>	Kumar et al 2010; Jose et al 2012; Rajagopal et al 2010; Pawar 2016; Amalesh et al 2014; Imran et al 2016; Sivalingam et al 2016; mahesh et al 2015; Indur et al 2015; Bhavan et al 2016; Manikandan et al 2016; Vaidya et al 2008; Pawar 2014; Watkar et al 2013; Sontakke et al 2014; Jaiswal et al 2014; Karuthapandi et al 2012; Sharma et al 2010; Rajashekhar et al 2009; Mahesh et al 2015; Riddhi et al 2011; Harkal et al 2015; Mruthyunjaya et al 2016; Kadam 2016; Manickam 2014; Kalita et al 2016; Bhanja et al 2014; Biswas 2015; Watkar et al 2015; Majagi et al 2009; Ramulu et al 2013; Adhikari et al 2017; Manickam et al 2015; Manjare 2015
<i>Mesocyclops longisetus</i>	Nimbalkar et al 2013
<i>Mesocyclops thermocyclooides</i>	Ravichandran et al 2014
<i>Microcyclops sp.</i>	Shukla et al 2016; Pandey et al 2015; Pawar 2014; Malik et al 2016; Kar et al 2016a; Sharma et al 2016; Dede et al 2015; Dalal et al 2013
<i>Microcyclops bicolor</i>	Riddhi et al 2011
<i>Microcyclops varicans</i>	Jose et al 2012; Amalesh et al 2014; Harkal et al 2015; Kalita et al 2016; Ravichandran et al 2014 Kumar et al 2010; Jose et al 2012; Thirupathaiiah et al 2012; Sarwade et al 2014; Bhat et al 2014; Dhembare 2011; Amalesh et al 2014; Sinha et al 2016; mahesh et al 2015; Vaidya et al 2008; Pawar 2014; Sharma et al 2016; Tidame et al 2012; Nimbalkar et al 2013; Dede et al 2015; Pradhan 2014; Acharya 2016; Slathia et al 2013; Sharma et al 2010; Shiv et al 2017; Mahesh et al 2015; Sree et al 2017; Ahmad et al 2011; Vasanthakumar et al 2015; Riddhi et al 2011; Majumder et al 2015; Sharma et al 2015; Mruthyunjaya et al 2016; Kadam 2016; Rao et al 2017; Salve et al 2013; Sehgal et al 2013; Bhanja et al 2014; Singh et al 2012; Biswas 2015; Sivakumar et al 2014; Ramulu et al 2013; Sharma et al 2013; Rao 2017; Dalal et al 2013; Shukla et al 2012; Kapoor 2015; Kumar et al 2012; Manjare 2015
<i>Nauplius larvae</i>	Thirupathaiiah et al 2012; Kar et al 2016a; Shukla et al 2016; Kar et al 2016b; Rai et al 2016; Sree et al 2017; Riddhi et al 2011; Kadam 2016; Sarkar et al 2016; Das et al 2016a; Das et al 2016b; Sultana et al 2016
<i>Neodiaptomus sp.</i>	Vaidya et al 2008
<i>Neodiaptomus handelli</i>	Manickam 2014; Manickam et al 2015
<i>Neodiaptomus lindbergi</i>	Vaidya et al 2008; Manickam 2014; Manickam et al 2015
<i>Neodiaptomus schmackeri</i>	Rajashekhar et al 2009; Ramesh et al 2016; Mruthyunjaya et al 2016; Majagi et al 2009
<i>Neodiaptomus strigilips</i>	Slathia et al 2013; Kumar et al 2015; Dey et al 2015; Dalal et al 2013; Manjare 2015
<i>Paracyclops sp</i>	Riddhi et al 2011; Salve et al 2013
<i>Paracyclops affinis</i>	Amalesh et al 2014; Pawar 2016; Sivalingam et al 2016; Indur et al 2015; Sontakke et al 2014
<i>Paracyclops fimbriatus</i>	Jaiswal et al 2014; Karuthapandi et al 2012; Rajashekhar et al 2009; Majagi et al 2009
<i>Paracyclops fimbriatus</i>	Manikandan et al 2016
<i>Paradiaptomus greeni</i>	Malik et al 2016; Sharma et al 2010; Riddhi et al 2011; Sehgal et al 2013; Biswas 2015; Sultana et al 2016
<i>Phylloidiaptomus sp.</i>	Manikandan et al 2016; Pawar 2014
<i>Phylloidiaptomus blanci</i>	Vasanthakumar et al 2015
<i>Pseudodiaptomus sp.</i>	Jose et al 2012
<i>Pseudodiaptomus nostradamus</i>	Amalesh et al 2014
<i>Pseudodiaptomus smithi</i>	Riddhi et al 2011
<i>Rhinediaptomus sp</i>	Indur et al 2015; Rajashekhar et al 2009; Harkal et al 2015; Manickam 2014; Sivakumar et al 2014; Majagi et al 2009; Manivelu et al 2016; Manickam et al 2015; Sultana et al 2016
<i>Rhinediaptomus indicus</i>	Vasanthakumar et al 2015
<i>Rhinocalanus sp</i>	Kumar et al 2010
<i>Rhinocalanus nasutus</i>	Shahzan et al 2014; Sultana et al 2016
<i>Spicodiaptomus sp.</i>	Kumar et al 2010; Rajagopal et al 2010; Sinha et al 2016
<i>Spicodiaptomus chilospinus</i>	Kumar et al 2010; Rajagopal et al 2010; Kar et al 2016a; Sinha et al 2016; Amalesh et al 2014; Kar et al 2016b; Dede et al 2015; Das et al 2016a; Kanagasabapathi et al 2010
<i>Thermocyclops sp.</i>	Kumar et al 2010; Rajagopal et al 2010; Kumar et al 2012
<i>Thermocyclops crassus</i>	Manickam 2014
<i>Thermocyclops decipiens</i>	Bhavan et al 2016; Manickam 2014; Sivakumar et al 2014; Manivelu et al 2016; Adhikari et al 2017; Manickam et al 2015; Sultana et al 2016
<i>Thermocyclops hyalinus</i>	Kumar et al 2010; Rajagopal et al 2010; Sinha et al 2016; Sivalingam et al 2016; Manikandan et al 2016; Slathia et al 2013; Sheikh 2015; Sharma et al 2015a; Sarkar et al 2016; Dalal et al 2013
<i>Tropocyclops sp.</i>	Jose et al 2012; Imran et al 2016; Pawar 2016; Sontakke et al 2014; Jaiswal et al 2014; Mahesh et al 2015; Majagi et al 2009
<i>Trophocyclops prascinus</i>	Amalesh et al 2014
<i>Tropodiaptomus australis</i>	Dede et al 2015; Kanagasabapathi et al 2010
<i>Undinula valgaris</i>	Dhembare 2011
<i>Zoea larva</i>	

Next generation sequencing can be used to estimate the hidden diversity of zooplankton assemblage (Lindeque et al 2013).

### Rotifers

Rotifers are microscopic aquatic animals occurring in almost all types of fresh water habitats (Segers H 2008) and have an important role in many fresh water ecosystems, considered as water quality indicator (Gannon et al 1978; Sladeczek 1983; Shayestehfar et al 2008) and nature's water purifier.

Brachionidae indicate eutrophication (Pal et al 2015), abundance of *Brachionus calyciflorus* (zooplankton group: Rotifera, Family: Brachionidae) indicates organic pollution (Pandey et al 2013) and eutrophication. The abundance increases rapidly under favorable environmental condition because they have very short life cycle (Dhanapathi 2000), and feed on algae and bacteria (Berks et al 2005). Rotifers serves as major food for young commercially important species of crustacean and fishes (Telesh 2004), so that many



**Table 3** List of Cladocerans found in Indian freshwater ecosystem

Species	References
<i>Alona</i> sp.	Bhat <i>et al</i> 2014; Bhat th <i>et al</i> 2014; Kar <i>et al</i> 2016a; Shukla <i>et al</i> 2016; Pandey <i>et al</i> 2015; Rai <i>et al</i> 2016; Manikandan <i>et al</i> 2016; Pawar 2014; Balai <i>et al</i> 2014; Malik <i>et al</i> 2016; Kar <i>et al</i> 2016b; Sharma <i>et al</i> 2016; Slathia <i>et al</i> 2013; Negi <i>et al</i> 2013; Sheikh 2015; Shiv <i>et al</i> 2017; Sarkar <i>et al</i> 2016; Das <i>et al</i> 2016a; Dalal <i>et al</i> 2013; Kapoor 2015; Das <i>et al</i> 2016b
<i>Alona cheni</i>	Sharma <i>et al</i> 2015b
<i>Alona combouei</i>	Jaiswal <i>et al</i> 2014
<i>Alona davidi davidi</i>	Shivashankar <i>et al</i> 2013; Karuthapandi <i>et al</i> 2012
<i>Alona dhilloni</i>	Biswas 2015
<i>Alona exigna</i>	(Ahangar <i>et al.</i> , 2012)
<i>Alona globolusa</i>	Kalita <i>et al</i> 2016
<i>Alona guttata</i>	Sharma <i>et al</i> 2015b
<i>Alona intermedia</i>	Watkar <i>et al</i> 2013; Rao <i>et al</i> 2017; Watkar <i>et al</i> 2015; Rao 2017; Kumar <i>et al</i> 2012
<i>Alona karua</i>	Balai <i>et al</i> 2014
<i>Alona kotovi</i>	Sharma BK <i>et al</i> 2015
<i>Alona pulchella</i>	Vaidya <i>et al</i> 2008; Pawar 2014; Watkar <i>et al</i> 2013; Rao <i>et al</i> 2017; Watkar <i>et al</i> 2015; Rao 2017
<i>Alona quadrangularis</i>	Karuthapandi <i>et al</i> 2012; Sivakumar <i>et al</i> 2014
<i>Alona rectangular</i>	Vaidya <i>et al</i> 2008; Suganthi <i>et al</i> 2014; Karuthapandi <i>et al</i> 2012; Kalita <i>et al</i> 2016; Manivelu <i>et al</i> 2016
<i>Alona verrucosa</i>	Suganthi <i>et al</i> 2014.
<i>Alonella</i> sp.	Kumar <i>et al</i> 2010; Thirupathaiiah <i>et al</i> 2012; Bhat <i>et al</i> 2014; Rajagopal <i>et al</i> 2010; Kar <i>et al</i> 2016a; Sinha <i>et al</i> 2016; Kar <i>et al</i> 2016b; Balai <i>et al</i> 2014; Malik <i>et al</i> 2016; Slathia <i>et al</i> 2013; Shiv <i>et al</i> 2017; Rao <i>et al</i> 2017; Das <i>et al</i> 2016a; Rao 2017; Kapoor 2015
<i>Alonella clathratula</i>	Sharma <i>et al</i> 2015b
<i>Alonella dentifera</i>	Bhat <i>et al</i> 2014
<i>Alonella excisa</i>	Sharma <i>et al</i> 2015b
<i>Alonella exigua</i>	Bhat th <i>et al</i> 2014; (Ahangar <i>et al.</i> , 2012)
<i>Alona affinis</i>	Amalesh <i>et al</i> 2014; Salve <i>et al</i> 2013
<i>Alona pulchella</i>	Thirupathaiiah <i>et al</i> 2012; Majagi <i>et al</i> 2009
<i>Alona quadrangularis</i>	Jose <i>et al</i> 2012; Lahane <i>et al</i> 2013; Manickam 2014; Sultana <i>et al</i> 2016
<i>Alona rectangular</i>	Jose <i>et al</i> 2012; Amalesh <i>et al</i> 2014; Manickam 2014
<i>Alona verrucosa</i>	Jose <i>et al</i> 2012
<i>Bosmina</i> sp	Kumar <i>et al</i> 2010; Thirupathaiiah <i>et al</i> 2012; Bhat <i>et al</i> 2014; Kar <i>et al</i> 2016a; Kar <i>et al</i> 2016b; Gadekar 2014; Pawar 2014; Sharma <i>et al</i> 2016; Veerendra <i>et al</i> 2012; Tidame <i>et al</i> 2012; Sharma <i>et al</i> 2010; Negi <i>et al</i> 2013; Shiv <i>et al</i> 2017; Kadam 2016; Sehgal <i>et al</i> 2013; Ghosh <i>et al</i> 2015; Singh <i>et al</i> 2012; Banerjee <i>et al</i> 2014; Das <i>et al</i> 2016a; Dalal <i>et al</i> 2013; Kapoor 2015; Das <i>et al</i> 2016b; Shahzan <i>et al</i> 2014
<i>Bosmina coregoni</i>	Balai <i>et al</i> 2014
<i>Bosmina deiteri</i>	Pawar 2014
<i>Bosmina fatalis</i>	Jose <i>et al</i> 2012; Jomet 2015; Amalesh <i>et al</i> 2014
<i>Bosmina hagmani</i>	Nimbalkar <i>et al</i> 2013
<i>Bosmina longirostris</i>	Kumar <i>et al</i> 2010; Bhat <i>et al</i> 2014; Jose <i>et al</i> 2012; Bhat th <i>et al</i> 2014; Rajagopal <i>et al</i> 2010; Jomet 2015; (Ahangar <i>et al.</i> , 2012); Amalesh <i>et al</i> 2014; mahesh <i>et al</i> 2015; Manikandan <i>et al</i> 2016; Vaidya <i>et al</i> 2008; Pawar 2014; Balai <i>et al</i> 2014; Shivashankar <i>et al</i> 2013; Dede <i>et al</i> 2015; Acharya 2016; Rao <i>et al</i> 2017; Kalita <i>et al</i> 2016; Sharma <i>et al</i> 2015b; Sharma <i>et al</i> 2013; Rao 2017; Shukla <i>et al</i> 2012
<i>Bosminopsis</i> sp.	Kar <i>et al</i> 2016a; Kar <i>et al</i> 2016b; Sharma <i>et al</i> 2016; Das <i>et al</i> 2016a
<i>Bosminopsis deitersi</i>	Bhat <i>et al</i> 2014; Nimbalkar <i>et al</i> 2013; Sharma BK <i>et al</i> 2015; Kapoor 2015
<i>Ceriodaphnia</i> sp.	Bhat <i>et al</i> 2014; Kar <i>et al</i> 2016a; Pandey <i>et al</i> 2015; Kar <i>et al</i> 2016b; Vaidya <i>et al</i> 2008; Balai <i>et al</i> 2014; Malik <i>et al</i> 2016; Sharma <i>et al</i> 2016; Veerendra <i>et al</i> 2012; Tidame <i>et al</i> 2012; Slathia <i>et al</i> 2013; Sheikh 2015; Shiv <i>et al</i> 2017; Kadam 2016; Das <i>et al</i> 2016a; Dalal <i>et al</i> 2013; Shukla <i>et al</i> 2012; Kapoor 2015; Das <i>et al</i> 2016b
<i>Ceriodaphnia cornuta</i>	Jose <i>et al</i> 2012; Amalesh <i>et al</i> 2014; Imran <i>et al</i> 2016; Pawar 2016; mahesh <i>et al</i> 2015; Bhavan <i>et al</i> 2016; Vaidya <i>et al</i> 2008; Pawar 2014; Watkar <i>et al</i> 2013; Suganthi <i>et al</i> 2014; Sontakke <i>et al</i> 2014; Jaiswal <i>et al</i> 2014; Karuthapandi <i>et al</i> 2012; Vanjare <i>et al</i> 2010; Manickam 2014; Bhanja <i>et al</i> 2014; Biswas 2015; Sivakumar <i>et al</i> 2014; Watkar <i>et al</i> 2015; Sharma <i>et al</i> 2015b; Manivelu <i>et al</i> 2016; Adhikari <i>et al</i> 2017; Manickam <i>et al</i> 2015; Kanagasabapathi <i>et al</i> 2010; Devi <i>et al</i> 2013; Sultana <i>et al</i> 2016
<i>Ceriodaphnia laticaudata</i>	Pawar 2014; Karuthapandi <i>et al</i> 2012
<i>Ceriodaphnia laticoenis</i>	Vaidya <i>et al</i> 2008
<i>Ceriodaphnia lacustris</i>	Amalesh <i>et al</i> 2014
<i>Ceriodaphnia puchella</i>	Kumar <i>et al</i> 2012
<i>Ceriodaphnia quadrangula</i>	Karuthapandi <i>et al</i> 2012; Salve <i>et al</i> 2013
<i>Ceriodaphnia reticulate</i>	Kiran <i>et al</i> 2007; Jomet 2015; Amalesh <i>et al</i> 2014; Balai <i>et al</i> 2014; Karuthapandi <i>et al</i> 2012; Sharma <i>et al</i> 2010; Salve <i>et al</i> 2013; Manickam 2014; Manickam <i>et al</i> 2015
<i>Chydorus</i> sp.	Kumar <i>et al</i> 2010; Bhat <i>et al</i> 2014; Bhat th <i>et al</i> 2014; Dhembare 2011; Amalesh <i>et al</i> 2014; Kar <i>et al</i> 2016a; Vaidya <i>et al</i> 2008; Balai <i>et al</i> 2014; Malik <i>et al</i> 2016; Kar <i>et al</i> 2016b; Sharma <i>et al</i> 2016; Slathia <i>et al</i> 2013; Sarkar <i>et al</i> 2016; Das <i>et al</i> 2016a; Dalal <i>et al</i> 2013; Kapoor 2015; Shahzan <i>et al</i> 2014
<i>Chydorus barroisi barroisi</i>	Rajashekhar <i>et al</i> 2009
<i>Chydorus ciliates</i>	Jomet 2015; Soni <i>et al</i> 2013
<i>Chydorus faviformis</i>	Slathia <i>et al</i> 2013; Sharma <i>et al</i> 2013
<i>Chydorus gibbus</i>	Slathia <i>et al</i> 2013
<i>Chydorus ovalis</i>	Balai <i>et al</i> 2014; Slathia <i>et al</i> 2013
<i>Chydorus parvus</i>	Manikandan <i>et al</i> 2016; Vaidya <i>et al</i> 2008
<i>Chydorus piger</i>	Slathia <i>et al</i> 2013
<i>Chydorus reticulatus</i>	Jaiswal <i>et al</i> 2014; Rajashekhar <i>et al</i> 2009
<i>Chydorus sphaericus</i>	Kumar <i>et al</i> 2010; Bhat <i>et al</i> 2014; Imran <i>et al</i> 2016; Kather <i>et al</i> 2015; Dede <i>et al</i> 2015; Slathia <i>et al</i> 2013; Sharma <i>et al</i> 2010; Rajashekhar <i>et al</i> 2009; Kalita <i>et al</i> 2016; Biswas 2015; Sharma <i>et al</i> 2015b; Sharma <i>et al</i> 2013; Kumar <i>et al</i> 2012
<i>Chydorus ventricosue</i>	Bhat <i>et al</i> 2014; Jose <i>et al</i> 2012; Vaidya <i>et al</i> 2008; Sharma <i>et al</i> 2015b
<i>Conochiloides</i> sp.	Bhat <i>et al</i> 2014; Kapoor 2015

<i>Daphnia sp</i>	Bhat et al 2014; Bhat th et al 2014; Dhembare 2011; Kar et al 2016a; Sivalingam et al 2016; Gadekar 2014; Balai et al 2014; Malik et al 2016; Veerendra et al 2012; Tidame et al 2012; Pradhan 2014; Acharya 2016; Slathia et al 2013; Negi et al 2013; Sheikh 2015; Shiv et al 2017; Bhanja et al 2014; Sarkar et al 2016; Banerjee et al 2014; Shukla et al 2012; Kapoor 2015; Das et al 2016b; Shahzan et al 2014
<i>Daphnia ambigua</i>	Amalesh et al 2014
<i>Daphnia carinata</i>	Kumar et al 2010; Thirupathaiiah et al 2012; Kiran et al 2007; Jose et al 2012; Rajagopal et al 2010; Shukla et al 2016; Sinha et al 2016; Pandey et al 2015; Indur et al 2015; Rai et al 2016; Vaidya et al 2008; Rajashekhar et al 2009; Kadam 2016; Rao et al 2017; Manickam 2014; Singh et al 2012; Sivakumar et al 2014; Majagi et al 2009; Manivelu et al 2016; Rao 2017; Manickam et al 2015; Manjare 2015
<i>Daphnia duplex</i>	Sharma et al 2010
<i>Daphnia galeata</i>	Amalesh et al 2014
<i>Daphnia laevis</i>	Indur et al 2015; Rajashekhar et al 2009
<i>Daphnia longispina</i>	Rajashekhar et al 2009
<i>Daphnia longiremis</i>	Amalesh et al 2014; Pawar 2016; Pawar 2014; Balai et al 2014; Sontakke et al 2014
<i>Daphnia lumholtzi</i>	Pandey et al 2015; Vaidya et al 2008; Pawar 2014; Soni et al 2013
<i>Daphnia magna</i>	Jomet 2015; Manickam 2014; Manivelu et al 2016; Manickam et al 2015
<i>Daphnia pulex</i>	Kumar et al 2010; Thirupathaiiah et al 2012; Jomet 2015; (Ahangar et al., 2012); Amalesh et al 2014; Manikandan et al 2016; Vaidya et al 2008; Pawar 2014; Balai et al 2014; Rao et al 2017; Majagi et al 2009; Rao 2017; Kumar et al 2012
<i>Daphnia retrocurva</i>	Amalesh et al 2014
<i>Daphnia Rosea</i>	Pawar 2014; Salve et al 2013
<i>Daphnia similis</i>	Kumar et al 2010; Rajagopal et al 2010; Jomet 2015
<i>Diaphanosoma birgie</i>	Nimbalkar et al 2013
<i>Diaphanosoma brachyurum</i>	Bhat et al 2014
<i>Diaphanosoma carinata</i>	Suganthi et al 2014.
<i>Diaphanosoma excisum</i>	Kumar et al 2010; Jose et al 2012; Bhat et al 2014; Pawar 2016; Indur et al 2015; Pawar 2014; Sontakke et al 2014; Rajashekhar et al 2009; Manickam 2014; Sivakumar et al 2014; Majagi et al 2009; Sharma et al 2015b; Manickam et al 2015; Devi et al 2013; Kumar et al 2012; Sultana et al 2016
<i>Diaphanosoma sarsi</i>	Bhat et al 2014; Bhavan et al 2016; Vaidya et al 2008; Dede et al 2015; Suganthi et al 2014; Rajashekhar et al 2009; Manickam 2014; Biswas 2015; Sivakumar et al 2014; Majagi et al 2009; Sharma et al 2015b; Manivelu et al 2016; Adhikari et al 2017; Manickam et al 2015; Kanagasabapathi et al 2010; Devi et al 2013; Sultana et al 2016
<i>Diaphanosoma sp.</i>	Kumar et al 2010; Bhat et al 2014; Rajagopal et al 2010; Sinha et al 2016; Amalesh et al 2014; Pandey et al 2015; Kar et al 2016a; Kar et al 2016b; Sharma et al 2016; Veerendra et al 2012; Shivashankar et al 2013; Nimbalkar et al 2013; Sharma et al 2010; Negi et al 2013; Shiv et al 2017; Singh et al 2012; Sarkar et al 2016; Das et al 2016a; Kapoor 2015
<i>Dunhevedia crassa</i>	Biswas 2015; Sharma et al 2015b
<i>Dunhevedia serrata</i>	Rajashekhar et al 2009; Sharma et al 2015b
<i>Ephemeroporus barroisi</i>	Sharma et al 2013
<i>Eubosmina sp.</i>	Amalesh et al 2014
<i>Eucylope sp.</i>	Dhembare 2011
<i>Euryalona sp</i>	Kar et al 2016b
<i>Euryalona orientalis</i>	Rajashekhar et al 2009; Majagi et al 2009; Sharma et al 2015b
<i>Graptoleberis sp</i>	Slathia et al 2013
<i>Holopedium sp.</i>	Amalesh et al 2014
<i>Holopedium gibberum</i>	Balai et al 2014
<i>Ilyocryptus sp</i>	Sharma et al 2016
<i>Ilyocryptus spinifer</i>	Nimbalkar et al 2013; Vanjare et al 2010; Sharma et al 2015b; Sultana et al 2016
<i>Indialona ganapati</i>	Pawar 2014
<i>Karualona sp</i>	Vanjare et al 2010
<i>Kurualona karua</i>	Sharma et al 2015b; Sharma et al 2013
<i>Kurzia sp</i>	Sharma et al 2016
<i>Kurzia lattissima</i>	Sharma et al 2015b
<i>Kurzia longirostris</i>	Nimbalkar et al 2013; Karuthapandi et al 2012; Vanjare et al 2010; Sharma et al 2015b
<i>Lantonopsis australis</i>	Rajashekhar et al 2009; Vanjare et al 2010; Majagi et al 2009
<i>Leydigia sp.</i>	Kumar et al 2010; Bhat et al 2014; Rajagopal et al 2010; Pandey et al 2015; Sharma et al 2010; Vanjare et al 2010; Kapoor 2015
<i>Leydigo</i>	Pawar 2016; Sontakke et al 2014
<i>acanthocercoids</i>	Bhat et al 2014;; Shukla et al 2016; Pandey et al 2015; Kar et al 2016a; Rai et al 2016; Balai et al 2014; Malik et al 2016; Kar et al 2016b; Sharma et al 2016; Slathia et al 2013; Shiv et al 2017; Das et al 2016a; Dalal et al 2013; Shukla et al 2012; Kapoor 2015; Kanagasabapathi et al 2010
<i>Macrothrix sp.</i>	Vaidya et al 2008; Karuthapandi et al 2012
<i>Macrothrix goeldii</i>	Vaidya et al 2008; Suganthi et al 2014; Karuthapandi et al 2012; Sharma et al 2010; Majagi et al 2009; Sharma et al 2015b
<i>Macrothrix laticornis</i>	Slathia et al 2013; Watkar et al 2015
<i>Macrothrix rosea</i>	Jose et al 2012; Vaidya et al 2008; Shivashankar et al 2013; Karuthapandi et al 2012; Vanjare et al 2010; Kalita et al 2016; Sultana et al 2016
<i>Macrothrix spinosa</i>	Kumar et al 2010; Bhat et al 2014; Bhat th et al 2014; Dhembare 2011; Rajagopal et al 2010; Kar et al 2016a; Shukla et al 2016; Sinha et al 2016; Pandey et al 2015; Kar et al 2016a; Rai et al 2016; Manikandan et al 2016; Gadekar 2014; Pawar 2014; Balai et al 2014; Kar et al 2016b; Sharma et al 2016; Nimbalkar et al 2013; Pradhan 2014; Slathia et al 2013; Negi et al 2013; Sheikh 2015; Vanjare et al 2010; Bhanja et al 2014; Biswas 2015; Sarkar et al 2016; Banerjee et al 2014; Das et al 2016a; Kapoor 2015; Das et al 2016b; Shahzan et al 2014
<i>Moina sp.</i>	Kumar et al 2010; Thirupathaiiah et al 2012; Kiran et al., 2007; Lahane et al 2013; (Ahangar et al., 2012); Imran et al 2016; Sivalingam et al 2016; mahesh et al 2015; Indur et al 2015; Manikandan et al 2016; Pawar 2014; Watkar et al 2013; Dede et al 2015; Jaiswal et al 2014; Sharma et al 2010; Rajashekhar et al 2009; Rao et al 2017; Salve et al 2013; Manickam 2014; Sivakumar et al 2014; Watkar et al 2015; Majagi et al 2009; Manivelu et al 2016; Rao 2017; Adhikari et al 2017; Manickam et al 2015; Kanagasabapathi et al 2010; Manjare 2015

<i>Moina comuta</i>	Manikandan <i>et al</i> 2016
<i>Moina dubia</i>	Kadam 2016; Singh <i>et al</i> 2012
<i>Moina flagellate</i>	Manickam 2014; Manickam <i>et al</i> 2015
<i>Moina macrocopa</i>	Bhat <i>et al</i> 2014; Jomet 2015; Pawar 2016; Sivalingam <i>et al</i> 2016; mahesh <i>et al</i> 2015; Pawar 2014; Nimbalkar <i>et al</i> 2013; Sontakke <i>et al</i> 2014; Jaiswal <i>et al</i> 2014; Vanjare <i>et al</i> 2010 ; Manickam 2014; Majagi <i>et al</i> 2009; Manickam <i>et al</i> 2015
<i>Moina micrura</i>	Thirupathiah <i>et al</i> 2012; Bhat <i>et al</i> 2014; Jose <i>et al</i> 2012; Jomet 2015; Amalesh <i>et al</i> 2014; Pawar 2016; Sontakke <i>et al</i> 2014; Bhavan <i>et al</i> 2016; Vaidya <i>et al</i> 2008; Pawar 2014; Watkar <i>et al</i> 2013; Nimbalkar <i>et al</i> 2013; Dede <i>et al</i> 2015; Shiv <i>et al</i> 2017; Rao <i>et al</i> 2017; Manickam 2014; Sivakumar <i>et al</i> 2014; Watkar <i>et al</i> 2015; Sharma <i>et al</i> 2015a; Manivelu <i>et al</i> 2016; Rao 2017; Shukla <i>et al</i> 2012; Adhikari <i>et al</i> 2017; Manickam <i>et al</i> 2015; Kanagasabapathi <i>et al</i> 2010; Sultana <i>et al</i> 2016
<i>Moina minuta</i>	Nimbalkar <i>et al</i> 2013
<i>Moina rectirostris</i>	Majagi <i>et al</i> 2009
<i>Moina reticularis</i>	Indur <i>et al</i> 2015; Rajashekhar <i>et al</i> 2009
<i>Moinadaphnia macleayii</i>	(Ahangar <i>et al.</i> , 2012); Vaidya <i>et al</i> 2008; Manickam 2014; Sharma <i>et al</i> 2015b; Manivelu <i>et al</i> 2016; Manickam <i>et al</i> 2015
<i>Monodaphnia sp.</i>	Bhat <i>et al</i> 2014; Kiran <i>et al</i> 2007; Bhat <i>et al</i> 2014; Rajagopal <i>et al</i> 2010; Sinha <i>et al</i> 2016; Pandey <i>et al</i> 2015; Dhembare 2011; Kar <i>et al</i> 2016b; Sharma <i>et al</i> 2016; Veerendra <i>et al</i> 2012; Slathia <i>et al</i> 2013; Watkar <i>et al</i> 2015; Kapoor 2015
<i>Oxyurella sp.</i>	Sharma <i>et al</i> 2016
<i>Oxyurella singlensis</i>	Biswas 2015; Sharma <i>et al</i> 2015b; Soni <i>et al</i> 2013
<i>Pleuroxus sp.</i>	Kumar <i>et al</i> 2010; Amalesh <i>et al</i> 2014; Malik <i>et al</i> 2016; Sharma <i>et al</i> 2016; Slathia <i>et al</i> 2013; Dalal <i>et al</i> 2013
<i>Pleuroxus aduncus</i>	Bhat <i>et al</i> 2014; Amalesh <i>et al</i> 2014; Kapoor 2015
<i>Pleuroxus denticulateus</i>	Jaiswal <i>et al</i> 2014; Biswas 2015; Kumar <i>et al</i> 2012
<i>Pleuroxus laevis</i>	Vaidya <i>et al</i> 2008
<i>Pleuroxus trigonellus</i>	Balai <i>et al</i> 2014
<i>Pleuroxus uncinatus</i>	Amalesh <i>et al</i> 2014
<i>Pseudosida bidentata</i>	(Ahangar <i>et al.</i> , 2012)
<i>Scapholebris sp.</i>	Bhat <i>et al</i> 2014; Kar <i>et al</i> 2016a; Kar <i>et al</i> 2016b; Das <i>et al</i> 2016a; Kapoor 2015
<i>Scapholebris kingi</i>	Balai <i>et al</i> 2014; Slathia <i>et al</i> 2013; Biswas 2015; Sharma <i>et al</i> 2015b
<i>Scapholebris kingisars</i>	Vaidya <i>et al</i> 2008
<i>Sida sp.</i>	Bhat <i>et al</i> 2014; Bhat <i>et al</i> 2014; Kar <i>et al</i> 2016a; Kar <i>et al</i> 2016b; Das <i>et al</i> 2016a; Kapoor 2015
<i>Sida crystalline</i>	Bhat <i>et al</i> 2014; (Ahangar <i>et al.</i> , 2012); Pawar 2014
<i>Simocephalus sp.</i>	Bhat <i>et al</i> 2014; Kar <i>et al</i> 2016a; Amalesh <i>et al</i> 2014; Balai <i>et al</i> 2014; Malik <i>et al</i> 2016; Slathia <i>et al</i> 2013; Sharma <i>et al</i> 2010; Shiv <i>et al</i> 2017; Kadam 2016; Das <i>et al</i> 2016a; Dalal <i>et al</i> 2013; Kapoor 2015
<i>Simocephalus expinosus</i>	Shivashankar <i>et al</i> 2013; Biswas 2015
<i>Simocephalus laticornis</i>	Vaidya <i>et al</i> 2008
<i>Simocephalus cernulatus</i>	Karuthapandi <i>et al</i> 2012
<i>Simocephalus vetulus</i>	Vaidya <i>et al</i> 2008; Nimbalkar <i>et al</i> 2013; Vanjare <i>et al</i> 2010
<i>Steblocerus sp.</i>	Bhat <i>et al</i> 2014; Kapoor 2015

aquaculturalists exploit this. Because of the less specialised feeding and high fecundity they are prominent group of zooplankton. Rotifers are less susceptible to chemical application than cladocerans (Chang *et al* 2005).

Most diverse rotifer assemblages can be found in soft, slightly acidic, oligo- to mesotrophic waters (Segers 2008). Rotifers are less susceptible to chemical application than cladocerans. Classically three groups are recognised within the phylum rotifera. Class monogononta, Bdelloidea and Seasonoidea. Molecular studies indicated that an obligate endoparasitic group Acanthocephala is belongs to rotifera in addition to Monogononta, Bdelloidea and Seasonoidea (Markwelch 2000).

### Copepoda

Copepods are a group of small crustaceans found in both marine and fresh water habitat. They are usually the dominant members of the zooplankton and are abundant in freshwater as planktonic, benthic and ground water forms (Boxshall *et al* 2008, Reid *et al* 2010). Copepods are major food organism for small fishes and other crustaceans such as Krill. They feed both autotropic and hetero tropic protozoans and metazoans (Turner 2004). The life history characteristics of copepods are greatly influenced by temperature, food availability and predation (Reid *et al* 2010). There is an evidence for the presence of Vibriocholerae on the surface of live planktonic copepods (Huq *et al* 1983; Rawlings *et al* 2007). Freshwater copepods fall in to five orders Calanoida, Harpacticoida, Cyclopoida, Gelyelloida and Siphonostomatoida (Boxshall *et al* 2008).

### Cladocera

Cladocera commonly called waterfleas are an order of small crustaceans found in most fresh water habitats inhabiting pelagic, littoral, and benthic zones and rare in the ocean. Many species found in open water of lakes as plankton, some other species live near bottom or on aquatic vegetation (Leveque *et al* 2005). Cladocera considered as the most important herbivore in lake plankton (Sommer *et al* 2006). . Four cladoceran orders are recognised (Fryer, 1987) Anomopoda, Ctenopoda, Onychopoda, and the monotypic Haplopoda Environmental factors such as biotic (Gilloy *et al* 2000) and abiotic factors alters the attributes of cladoceran communities. Pelagic, herbivorous cladocerans are mostly studied rather than littoral species. Most species of the cladocera are filter feeders, they have significant role in the food web of stagnant waters. Cladoceran populations are dominated mostly by females and reproduce by parthenogenesis, eggs are resistant to unfavourable conditions like dessication. Due to their easy culturing, short generation time, and clonal reproduction Cladocerans (especially Daphnia) are important model organisms in ecological and evolutionary studies (Forro *et al* 2008).

## Ostracoda

Ostracoda is one of the most diverse groups of crustaceans living in all aquatic ecosystems: marine, brackish, and freshwater (including subterranean ecosystems) use as model group for several ecological and evolutionary studies (Martens et al 2007; Perez et al 2010). They are cosmopolitan in distribution and play a vital role in the food chain and energy flow in the aquatic ecosystem. Ostracods has calcified carapace they have a high preservational capacity, reflects the variation in physicochemical parameters of the water such as salinity, water depth, temperature or pH (Ruiz et al 2013) and they display different tolerances to different physico-chemical variables of the water (Perez et al 2010). Ostracoda is considered as a separate class under Crustacea and it has been divided into the subclasses Myodocopa (only marine representatives) and Podocopa (Martin & Davis 2001).

## CONCLUSION

Zooplanktons are one of the major primary consumer in most of the aquatic ecosystem and are the best indicator of water quality. Any undesirable change in the physical, chemical and biological properties of the water leads to the changes in zooplankton diversity and abundance. So that regular monitoring of zooplankton gives information about the proper management of aquatic ecosystem. Normally polluted water contain very low count of zooplankton, Some species of zooplankton especially species of Rotifer (eg: *Brachionus calyciflorus*) show dominance in polluted water.

**Table 4** List of Ostracods found in Indian freshwater ecosystem

Species	Reference
<i>Candona sp.</i>	Slathia et al 2013
<i>Candonocypris dentatus</i>	Manickam 2014; Manickam et al 2015
<i>Centocypris sp.</i>	Kalita et al 2016
<i>Cyclocypris sp.</i>	Balai et al 2014; Riddhi et al 2011
<i>Cyclocypris globosa</i>	Lahane et al 2013; Pawar 2014; Watkar et al 2013; Sontakke et al 2014; Watkar et al 2015; Adhikari et al 2017
<i>Cyclocypris kinkaidia</i>	Harkal et al 2015
<i>Cyclocypris laevis</i>	Jomet 2015
<i>Cyprretta fontinalis</i>	Manickam 2014; Manickam et al 2015; Sultana et al 2016
<i>Cypricerus sp.</i>	Slathia et al 2013
<i>Cypridopsis sp.</i>	Ahmad et al 2011
<i>Cypris sp.</i>	Kumar et al 2010; Thirupathiah et al 2012; Bhat et al 2014; Rajagopal et al 2010; Shukla et al 2016; Sinha et al 2016; Amallesh et al 2014; Pandey et al 2015; Sivalingam et al 2016; mahesh et al 2015; Gadekar 2014; Pawar 2014; Balai et al 2014; Shivashankar et al 2013; Suganthi et al 2014; Acharya 2016; Slathia et al 2013; Negi et al 2013; Shiv et al 2017; Mahesh et al 2015; Ahmad et al 2011; Dey et al 2015; Majumder et al 2015; Kadam 2016; Rao et al 2017; Salve et al 2013; Sehgal et al 2013; Bhanja et al 2014; Biswas 2015; Ramulu et al 2011; Sarkar et al 2016; Watkar et al 2015; Ramulu et al 2013; Das et al 2016a; Rao 2017; Shukla et al 2012; Kapoor 2015; Das et al 2016b; Sultana et al 2016; Manjare 2015
<i>Cypris globososa</i>	Pawar 2016; Sree et al 2017
<i>Cypris protuberata</i>	Jomet 2015; Bhavan et al 2016; Manickam 2014; Manivelu et al 2016; Manickam et al 2015
<i>Cypris subglobososa</i>	Kather et al 2015; Watkar et al 2013; Karuthapandi et al 2012; Ramesh et al 2016; Watkar et al 2015; Manjare 2015
<i>Cypris subglobososa</i>	Kiran et al., 2007; (Ahangar et al., 2012)
<i>Cyprina medeana</i>	Harkal et al 2015
<i>Cyprinotus sp.</i>	Bhat et al 2014; Rajagopal et al 2010; Sinha et al 2016; Amallesh et al 2014; Balai et al 2014; Kapoor 2015
<i>Cyprinotus glaucus</i>	Kumar et al 2012
<i>Cyprinotus medus</i>	Sultana et al 2016
<i>Cyprinotus nudus</i>	Manickam 2014; Manivelu et al 2016; Manickam et al 2015
<i>Cyprinotus salinus</i>	Harkal et al 2015
<i>Entocythere sp.</i>	Balai et al 2014
<i>Eucypris sp.</i>	Slathia et al 2013; Riddhi et al 2011
<i>Eucypris affinis</i>	Jomet 2015
<i>Eucypris bispinosa</i>	Jomet 2015; Indur et al 2015; Bhavan et al 2016; Rajashekhar et al 2009; Manickam 2014; Manivelu et al 2016
<i>Eucypris virens</i>	Salve et al 2013
<i>Hemicypris sp.</i>	Sarkar et al 2016
<i>Hemicypris anomala</i>	Manickam 2014; Manivelu et al 2016; Manickam et al 2015
<i>Hemicypris fossulata</i>	Imran et al 2016; Pawar 2016; mahesh et al 2015; Indur et al 2015; Suganthi et al 2014; Sontakke et al 2014; Jaiswal et al 2014; Rajashekhar et al 2009; Mahesh et al 2015; Sree et al 2017; Ramesh et al 2016; Ramulu et al 2011; Majagi et al 2009; Ramulu et al 2013
<i>Heterocypris sp.</i>	Kumar et al 2010 ; Kiran et al., 2007; Shivashankar et al 2013; Dede et al 2015; Riddhi et al 2011; Kalita et al 2016; Ramulu et al 2011; Ramulu et al 2013
<i>Heterocypris dentatomarginatus</i>	Bhavan et al 2016; Manickam 2014; Manickam et al 2015
<i>Ilyodypris gibba</i>	Jaiswal et al 2014; Karuthapandi et al 2012; Ramulu et al 2011
<i>Labidocera sp.</i>	Vasanthakumar et al 2015
<i>Metacypris maracoensis</i>	Salve et al 2013
<i>Oncaea sp.</i>	Vasanthakumar et al 2015
<i>Onchocypris postulata</i>	Sharma et al 2015a
<i>Posptomocypris sp.</i>	Rajashekhar et al 2009
<i>Spirocypris sp.</i>	Indur et al 2015; Rajashekhar et al 2009; Majagi et al 2009
<i>Stenocypris sp.</i>	Thirupathiah et al 2012; Bhat et al 2014; Pawar 2014; Dede et al 2015; Suganthi et al 2014; Karuthapandi et al 2012; Shiv et al 2017; Sree et al 2017; Riddhi et al 2011; Majumder et al 2015; Rao 2017; Kapoor 2015; Kanagasabapathi et al 2010; Kumar et al 2012; Manjare 2015
<i>Stenocypris fontinalis</i>	Lahane et al 2013; Watkar et al 2013; Slathia et al 2013; Watkar et al 2015
<i>Stenocypris major</i>	Harkal et al 2015; Devi et al 2013; Sultana et al 2016
<i>Stenocypris malcolmsoni</i>	Kumar et al 2010; Rajagopal et al 2010; Sinha et al 2016; Manikandan et al 2016; Slathia et al 2013; Kumar et al 2012
<i>Strandesia elongate</i>	Bhavan et al 2016; Ramulu et al 2011; Ramulu et al 2013; Manickam et al 2015
<i>Strandesia stuhlmann</i>	Manickam 2014

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