

Zooplankton diversity and assemblages in arid zone rivers of the Lake Eyre Basin, Australia

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Abstract. The responses of zooplankton assemblages in arid zone rivers to seasonal changes, flow events, drying and water quality changes are fundamental to our understanding of these unregulated rivers. For three years the zooplankton and littoral microfauna in three rivers in the Lake Eyre Basin were studied. A diverse assemblage was discovered with a total of 398 identifiable taxa being recorded, consisting of 72 protist, 227 rotifer and 93 microcrustacean taxa. Zooplankton diversity was highest in a boom phase during, or in the summer following, a large flood. The rotifer assemblage dominated during, or soon after, periods of flow. However, during the winter and early summer, there was a decline in rotifer taxon richness and abundance accompanied by an increase in microcrustacean taxon richness and abundance. The winter samples occurred during the recession of a large flood and the early summer samples during periods of no flow. These changes suggested the involvement of a strong annual cycle of ecosystem structure evident within the longer term patterns of boom and bust driven by the timing and size of flood events. Multivariate and regression analyses found that salinity was a significant and independent driver of assemblage composition.

List of zooplankton taxa observed in this study

The zooplankton taxa observed during the six field trips of the current study are described in the table below and the occurrence of each taxa in a particular trip is noted by the figure one. The total number of taxa observed in each trip is listed at the bottom of the table. Possible new species are denoted by ‘ns?’ and new records for a taxon in Australia are denoted by ‘nr’.

Taxon	Trip	Apr. 2000	Aug. 2000	Dec. 2000	Apr. 2001	Nov. 2001	Mar. 2002
Protista							
Ciliophora							
<i>Coleps</i> sp.		1					
<i>Didinium</i> sp.			1	1			
<i>Epistylis</i> sp.				1			
indet. med. white spherical ciliate		1			1		1
indet. pyriform ?ciliate		1					
indet. lge white spherical ?ciliate		1	1				1
? <i>Stentor</i> sp.							1
Rhizopoda							
<i>Arcella bathystoma</i> Deflandre, 1928		1	1	1	1		
<i>Arcella</i> cf. <i>discooides</i> Ehrenberg, 1843 [med. xxx µm]		1		1	1	1	1
<i>Arcella megastoma</i> Penard, 1902 [>220 µm]				1	1	1	
<i>Arcella rotundata</i> Playfair, 1917				1			
<i>Arcella</i> sp. a [discoid, light-br, 174-220 µm]		1		1			
<i>Arcella</i> sp. b [discoid, transparent, 150 µm]				1		1	1
<i>Arcella</i> sp. h [discoid, ddk red-br, 136 µm]				1			
<i>Arcella</i> sp. i [discoid, lt br, 65 µm]					1	1	
<i>Arcella</i> sp. c [discoid, tiny, <40 µm]				1	1	1	
<i>Arcella</i> sp. d [domed, >100 µm]				1			1
<i>Arcella</i> sp. e [domed, red, 82-87 µm]		1	1	1	1	1	1
<i>Arcella</i> sp. f [domed, transparent, 70-80 µm]				1	1		
<i>Arcella</i> sp. g [domed, yellow-orange, 40-42 µm]		1	1		1	1	
<i>Arcella</i> sp. j [domed, transparent, <40 µm]						1	
<i>Centropyxis aculeata</i> (Ehrenberg, 1830)				1	1	1	1
<i>Centropyxis aerophila</i> Deflandre, 1929				1	1		
<i>Centropyxis</i> cf. <i>arcelloides</i> Penard, 1902					1		
<i>Centropyxis</i> cf. <i>circularis</i> Decloitre,					1		
<i>Centropyxis discoides</i> Penard, 1890		1	1				
<i>Centropyxis ecornis</i> (Ehrenberg, 1841)				1			
<i>Centropyxis</i> cf. <i>laevigata</i> Penard, 1890				1	1		
<i>Centropyxis</i> sp. a [ovoid]			1				
<i>Centropyxis</i> sp. b [med ~100 µm]				1	1	1	1
<i>Centropyxis</i> sp. c [small]		1	1	1	1	1	1
<i>Centropyxis</i> sp. d [v. sm: 50x45 µm, ap. 24.5x19 µm]				1			
<i>Cucurbitella</i> sp.		1		1	1	1	1
cf. <i>Cyclopyxis</i> sp.					1	1	
<i>Cyphoderia</i> sp.		1					
<i>Difflugia</i> cf. <i>acuminata</i> Ehrenberg, 1838		1	1	1	1	1	1
<i>Difflugia</i> cf. <i>amphora</i> Leidy, 1879					1		
<i>Difflugia</i> cf. <i>bryophila</i> Penard, 1902						1	
<i>Difflugia corona</i> Wallich, 1864		1	1	1	1	1	1
<i>Difflugia</i> cf. <i>cylindrus</i> (Thomas, 1953)			1				
<i>Difflugia</i> cf. <i>decloitrei</i> Godeanu, 1972				1		1	1
<i>Difflugia elegans</i> Penard, 1890					1	1	1
<i>Difflugiagramen</i> Penard, 1902		1	1	1	1	1	1
<i>Difflugia</i> cf. <i>labiosa</i> Wailes, 1919							1
<i>Difflugia</i> cf. <i>lanceolata</i> Penard, 1890 [?n. sp.]					1	1	
<i>Difflugia limnetica</i> Levander, 1900		1		1	1		1
<i>Difflugia lismorensis</i> Playfair, 1917		1	1	1	1	1	1
<i>Difflugia</i> cf. <i>mamillaris</i> Penard, 1893				1			1

<i>Diffugia</i> cf. <i>manicata</i> Penard, 1902		1		1
<i>Diffugia</i> cf. <i>oblonga</i> Ehrenberg, 1838	1			1
<i>Diffugia</i> cf. <i>rotunda</i> Ogden, 1983	1			1
<i>Diffugia</i> cf. <i>urceolata</i> Carter, 1864		1		
<i>Diffugia</i> <i>varians</i> Penard, 1902	1		1	1
<i>Diffugia</i> sp. a [ovoid, 52 µm, collar, dentate aperture]	1	1	1	1
<i>Diffugia</i> sp. b [ovoid, no collar, circular aperture]			1	1
<i>Diffugia</i> sp. c [vasiform, ampullate]	1		1	1
<i>Diffugia</i> sp. d [cylindrical, elongate]	1	1	1	1
<i>Diffugia</i> sp. e [spherical]	1	1		1
<i>Diffugia</i> sp. f [pyriform, 60-80 µm]	1	1		1
<i>Diffugia</i> sp. g [ovoid, larger, no collar, circular aperture]	1	1	1	1
<i>Diffugia</i> sp. h [globose, >100 µm]	1	1	1	1
<i>Diffugia</i> sp. i [med. ovoid, <100 µm]	1			1
<i>Diffugia</i> sp. j [med. boxy]	1			
<i>Diffugia</i> sp. k [transp. pyriform, striate]	1			
<i>Diffugia</i> sp. l [v. small, ovoid]	1			1
<i>Diffugia</i> sp. m [pyriform, smaller than <i>D. oblonga</i> , >80 µm]	1			1
<i>Diffugia</i> sp. n [med., conical]	1	1		
<i>Diffugia</i> sp. o [pyriform, <60 µm]]			1	1
<i>Diffugia</i> sp.p [pyriform, >100 µm]			1	
<i>Diffugia</i> sp. q [large, >100 µm geoid]				1
<i>Diffugia</i> sp. r [v. small, cylindrical, glassy]				1
<i>Diffugia</i> sp. s [discoid, flattened,]				1
<i>Diffugia</i> sp. t [oval, boxy, 95 µm]				1
<i>Euglypha</i> sp.	1	1	1	1
<i>Lesquereusia</i> cf. <i>modesta</i> Rhumbler, 1895	1	1		1
<i>Lecquereusia</i> <i>spiralis</i> (Ehrenberg, 1840)		1		
<i>Netzelia</i> cf. <i>oviformis</i> (Cash, 1909)	1	1	1	1
<i>Netzelia</i> cf. <i>tuberculata</i> (Wallich, 1864)	1	1	1	1
cf. <i>Physochila</i> sp.				1
<i>Pontigulasia</i> sp.				1
<i>Zivkovicia</i> sp.	1		1	1

Rotifera**Bdelloidea****Habrotrochidae***Habrotrocha* sp.

1

Philodinidae*Dissotrocha* cf. *macrostyla* (Ehrenberg, 1838)

1

Dissotrocha sp.

1

Mniobia sp.

1

Philodina sp.

1

1

Rotaria neptunia (Ehrenberg, 1832)

1 1 1 1 1 1

Rotaria sp.

1 1 1 1 1 1

indet contr. bdelloid [2-main unci teeth]

1 1 1 1 1 1

indet contr. bdelloid [other unci teeth]

1 1 1 1 1 1

Monogononta**Asplanchnidae***Asplanchna* *asymmetrica* (Shiel & Koste, 1985)

1 1 1 1 1 1

Asplanchna *brightwellii* Gosse, 1850

1 1 1 1 1 1

Asplanchna *girodi* de Guerne, 1888

1

Asplanchna *priodonta henrietta* Langhans, 1906

1 1 1 1 1 1

Asplanchna *sieboldii* (Leydig, 1854)

1 1 1 1 1 1

Asplanchna **n. sp.** [nr *A. sieboldii*, both scapes bifurcate] ns?

1 1 1 1 1 1

<i>Asplanchna</i> sp.	1	1	1	1	1	1
<i>Asplanchnopus multiceps</i> (Schrank, 1793)		1				
Brachionidae						
<i>Anuraeopsis coelata</i> De Beauchamp, 1932	1		1	1		1
<i>Anuraeopsis fissa</i> (Gosse, 1851)				1		1
<i>Anuraeopsis cf. navicula</i> Rousselet, 1910	1	1	1	1		
<i>Anuraeopsis n. sp.</i> [nr <i>A. coelata</i>]	ns?			1		
<i>Brachionus angularis</i> Gosse, 1851	1	1	1	1	1	1
<i>B. angularis bidens</i> (Plate, 1886)						1
<i>Brachionus cf. baylyi</i> Sudzuki & Timms, 1977	1					
<i>Brachionus cf. bennini</i> Leissling, 1924	1			1		
<i>Brachionus bidentatus</i> Anderson, 1889	1	1	1	1	1	1
<i>Brachionus budapestinensis</i> Daday, 1885	1	1	1	1		1
<i>Brachionus calyciflorus</i> Pallas, 1766	1	1	1	1		1
<i>B. calyciflorus amphiceros</i> (Ehrenberg, 1838)			1			
<i>B. calyciflorus dorcas</i> (Gosse, 1851)			1		1	
<i>B. calyciflorus gigantea</i> Koste & Shiel, 1980					1	1
<i>Brachionus dichotomus</i> Shepherd, 1911	1					1
<i>Brachionus diversicornis</i> (Daday, 1883)	1		1	1		
<i>Brachionus falcatus</i> Zacharias, 1898	1			1		1
<i>Brachionus ibericus</i> Ciros-Pérez, Gomez & Serra	nr					1
<i>Brachionus keikoa</i> Koste, 1979	1	1	1		1	1
<i>Brachionus lyratus</i> Shephard, 1911	1					
<i>Brachionus nilsoni</i> Ahlstrom, 1940	1		1	1	1	1
<i>Brachionus novaezealandiae</i> (Morris, 1912)		1			1	1
<i>Brachionus cf. plicatilis</i> Müller, 1786	1	1	1		1	
<i>Brachionus cf. pterodinoides</i> (Rousselet, 1913)	nr				1	
<i>Brachionus quadridentatus</i> Hermann, 1783	1		1	1	1	1
<i>B. quadridentatus cluniorbicularis</i> (Skorikov, 1894)			1	1		
<i>Brachionus cf. rotundiformis</i> Tschugonoff, 1921	1				1	
<i>Brachionus cf. sericus</i> Rousselet, 1907			1	1		1
<i>Brachionus cf. urceolaris</i> (Müller, 1773)	1	1	1	1	1	1
<i>Brachionus n.sp. a</i> [halophile, BL 57 um, egg 41x33 um]	ns?				1	
<i>Brachionus n.sp. b</i> [shield-like, rounded posterior]	ns?					1
<i>Brachionus n.sp. c</i> [pyriform, large, cf. <i>B. durgae</i>]	ns?	1				
<i>Brachionus</i> sp.	1		1	1	1	1
<i>Keratella australis</i> (Berzins, 1963)		1	1	1	1	1
<i>Keratella cochlearis</i> (Gosse, 1851)			1			
<i>Keratella lenzi</i> Hauer, 1953	1			1		1
<i>Keratella procurva</i> (Thorpe, 1891)	1	1	1	1		1
<i>K. procurva robusta</i> Koste & Shiel, 1980		1			1	
<i>Keratella cf. quadrata</i> (Müller, 1786)		1	1			
<i>Keratella slacki</i> (Berzins, 1963)		1	1	1		1
<i>Keratella tropica</i> (Apstein, 1907)	1	1	1	1		1
<i>Keratella n. sp. a</i> [short occipital spines, trapezoidal lorica]	ns?				1	
<i>Keratella n. sp. b</i> [single or no caudal spines, pyriform lorica]	ns?		1			
<i>Keratella</i> sp.	1					
<i>Plationus patulus</i> (Müller, 1786)	1		1	1		1
<i>Platyias quadricornis</i> (Ehrenberg, 1832)	1	1	1	1		1
Collotheidae						
<i>Collotheca campanulata</i> (Dobie, 1849)			1			
<i>Collotheca cf. pelagica</i> (Rousselet, 1893)	1	1	1	1	1	1
<i>Collotheca</i> sp.	1					

Conochilidae

<i>Conochilus coenobasis</i> Skorikov, 1914	1					
<i>Conochilus dossuarius</i> (Hudson, 1885)	1	1		1	1	1
<i>Conochilus natans</i> (Seligo, 1900).			1	1		1
<i>Conochilus</i> sp.	1		1	1	1	1

Dicranophoridae

<i>Aspelta psitta</i> Harring & Myers, 1928				1		
<i>Dicranophorooides caudatus</i> (Ehrenberg, 1834)			1	1		
<i>Dicranophorus epicharis</i> Harring & Myers, 1928	1		1	1		
cf. <i>Dicranophorus</i> sp.			1			
<i>Encentrum nr aquilis</i> (Gosse, 1887)		1				
<i>Encentrum cruentum</i> Harring & Myers, 1928			1			
<i>Encentrum cf. incisum</i> Wulfert, 1936		nr				
<i>Encentrum cf. mustela</i> (Milne, 1885)		nr				1
<i>Encentrum nr nikor</i> (Pawlowski, 1938)		nr			1	
<i>Encentrum uncinatum</i> (Milne, 1886)						1
<i>Parencentrum lutetiae</i> Harring & Myers, 1928		nr		1	1	
cf. <i>Encentrum</i> sp.	1	1		1		

Epiphanidae

<i>Epiphanes macroura</i> (Barrois & Daday, 1894)	1					
<i>Microcodides chlaena</i> Gosse, 1886			1	1		
<i>Proalides subtilis</i> Rodewald, 1940			1		1	1
<i>Proalides tentaculatus</i> De Beauchamp, 1907	1	1	1	1	1	1

Euchlanidae

<i>Dipleuchlanis propatula</i> Hudson & Gosse, 1886				1		1
<i>Euchlanis</i> cf. <i>dilatata</i> Ehrenberg, 1832				1		1
<i>Euchlanis</i> sp.	1	1				
<i>Tripleuchlanis plicata</i> (Levander, 1894)		1				

Flosculariidae

<i>Lacinularia pedunculata</i> Hudson, 1889					1	
<i>Ptygura</i> cf. <i>crystallina</i> (Ehrenberg, 1834)				1		
cf. <i>Ptygura</i> sp.	1		1	1	1	
<i>Sinantherina ariprepes</i> Edmondson, 1939 [3 major unci teeth]						1
<i>Sinantherina</i> sp. a [2 major unci teeth]						1
<i>Sinantherina</i> sp. b [uniform unci teeth]	1	1	1	1	1	1

Gastropodidae

<i>Ascomorpha indica</i> (Wulfert, 1966) [good species]	1	1		1		
<i>Ascomorpha ?ovalis</i> (Bergendal, 1892)	1	1				

Hexarthridae

<i>Hexarthra brandorffii</i> Koste, 1977 6/6 unci [similar-size]				1		1
<i>Hexarthra fennica</i> (Levander, 1892) 7/7 unci		1				1
<i>Hexarthra intermedia</i> (Wiszniewski, 1929) 5/5 unci	1	1	1	1	1	1
<i>Hexarthra mira</i> (Hudson, 1871) 6/6 unci [3&3, diff. size]	1	1	1	1	1	1
<i>Hexarthra polyodonta</i> (Hauer, 1957) 10/11 unci						1

Hexarthra sp.

	1	1	1	1	1	1
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Ituridae

<i>Itura aurita</i> (Ehrenberg, 1830)	1					
<i>Itura deridderae</i> Segers, 1993		nr		1		
<i>Itura myersi</i> Wulfert, 1935					1	

Lecanidae

<i>Lecane bifastigata</i> Hauer, 1938	1					
<i>Lecane bulla</i> Gosse, 1851	1	1	1	1	1	1
<i>Lecane closterocerca</i> Schmarda, 1859	1		1	1		1

<i>Lecane crepida</i> Herring, 1914	1					
<i>Lecane curvicornis</i> (Murray, 1913)	1			1		1
<i>Lecane cf. doryssa</i> Herring, 1914					1	
<i>Lecane flexilis</i> (Gosse, 1886)	1	1	1	1		1
<i>Lecane furcata</i> (Murray, 1913)				1		
<i>Lecane hamata</i> (Stokes, 1896)	1	1	1	1		1
<i>Lecane hastata</i> (Murray, 1913)	1		1	1	1	
<i>Lecaneleontina</i> (Turner, 1892)	1		1	1		
<i>Lecane ludwigi</i> (Eckstein, 1883)	1	1		1		
<i>L. ludwigi ercodes</i> (Herring, 1914)				1		
<i>Lecane luna</i> (Müller, 1776)	1	1	1	1	1	1
<i>Lecane lunaris</i> (Ehrenberg, 1832)	1					
<i>Lecane cf. obtusa</i> (Murray, 1913)			1			
<i>Lecane papuana</i> (Murray, 1913)	1		1	1		1
<i>Lecane quadridentata</i> (Ehrenberg, 1832)	1	1		1	1	
 <i>Lecane ruttneri</i> Hauer, 1938						1
<i>Lecane signifera</i> (Jennings, 1896)				1	1	1
<i>Lecane stenroosi</i> (Meissner, 1908)				1		
<i>Lecane cf. uenoii</i> Yamamoto, 1951	nr				1	
<i>Lecane unguitata</i> (Fadeev, 1925)		1			1	
<i>Lecane ungulata</i> (Gosse, 1887)				1		1
<i>Lecane n. sp. a</i> [cf. <i>L. halsei</i>]	ns?			1	1	1
<i>Lecane n. sp. b</i> [<i>L. (Monostyla)</i> , ornamented dorsum]	ns?			1		1
<i>Lecane n. sp. c</i> [Icf. <i>L. noobijupi</i>]	ns?	1				
<i>Lecane</i> (s.str.) sp.	1	1	1	1	1	1
<i>Lecane</i> (<i>M.</i>) sp.	1		1		1	1
 Lepadellidae						
<i>Colurella adriatica</i> Ehrenberg, 1831					1	
<i>Colurella uncinata</i> (Müller, 1773)						1
<i>C. uncinata bicuspidata</i> Ehrenberg, 1832				1	1	
<i>Colurella</i> sp.	1				1	
<i>Lepadella cf. acuminata</i> (Ehrenberg, 1834)	1					
<i>Lepadella benjamini</i> Herring, 1916					1	
<i>Lepadella biloba</i> Hauer, 1958	1					
<i>Lepadella cf. elliptica</i> Wulfert, 1939				1		
<i>Lepadella cf. imbricata</i> Herring, 1916 [non- <i>rhombooides</i>]					1	
<i>Lepadella ovalis</i> (Müller, 1786)			1			
<i>Lepadella cf. rhodesiana</i> Wulfert, 1965	nr					1
<i>Lepadella cf. rhombooides</i> (Gosse, 1886)					1	
<i>Lepadella rottenburgi</i> (Lucks, 1912)						1
<i>Lepadella triptera</i> Ehrenberg, 1830	1				1	
<i>Lepadella n. sp. a</i> [cf. Koste's NT <i>L. 'patella'</i> n.f.]	ns?	1				
<i>Lepadella n. sp. b</i> [nr <i>L. rhombooides</i>]	ns?		1	1		
<i>Lepadella n. sp. c</i> [no near relatives]	ns?			1		
<i>Lepadella</i> sp. a	1	1		1	1	
<i>Lepadella</i> sp. b				1		
 Lindiidae						
<i>Lindia cf. janickii</i> Wiszniewski, 1934	nr			1		
<i>Lindia torulosa</i> Dujardin, 1841		1		1	1	1
 Mytilinidae						
<i>Lophocharis salpina</i> (Ehrenberg, 1834)	1	1	1	1		
<i>Mytilina ventralis</i> (Ehrenberg, 1832)		1	1			
<i>Mytilinia</i> sp.	1					
 Notommatidae						

<i>Cephalodella catellina</i> (Müller, 1786)		1	1	1		1
<i>C. catellina major</i> (Zavadowsky, 1916)						1
<i>Cephalodella cf. eva</i> (Gosse, 1887)	1					
<i>Cephalodella cf. forficula</i> (Ehrenberg, 1832)	1		1			1
<i>Cephalodella gibba</i> (Ehrenberg, 1832)	1	1	1	1		1
<i>C. cf. gibba microdactyla</i> Althaus, 1963				1		
<i>Cephalodella gisleni</i> Berzins, 1953					1	
<i>Cephalodella cf. innesi</i> Myers, 1924 [?n.sp.]	1					
<i>Cephalodella megalcephala</i> (Glasscott, 1893)	1				1	
<i>Cephalodella cf. pachydactyla</i> Wulfert, 1937	1					
<i>Cephalodella cf. panarista</i> Myers, 1924			1	1		
<i>Cephalodella sterea</i> (Gosse, 1887) s.l.	1	1			1	
<i>Cephalodella cf. tenuior</i> (Gosse, 1886)				1		
<i>Cephalodella cf. tinca</i> Wulfert, 1937	1					
<i>Cephalodella n. sp. a</i> [asymmetric manubria]	ns?					1
<i>Cephalodella n. sp. b</i> [fenestrated rami, trabeculate, TR 20 µm]	ns?			1	1	
<i>Cephalodella n. sp. c</i> [hooked manubria, TR 26 µm]	ns?				1	
<i>Cephalodella n. sp. d</i> [aff. <i>C. tenuiseta</i>]	ns?	1				1
<i>Cephalodella n. sp. f</i> [v. large, nr. <i>C. gigantea</i>]	ns?			1		
<i>Cephalodella n. sp. g</i> [triangular fenestrations in rami, non-n.sp. b]	ns?	1	1			
<i>Cephalodella</i> sp. a		1		1	1	
<i>Cephalodella</i> sp. b		1		1	1	1
<i>Cephalodella</i> sp. c [smaller than <i>C. gibba</i>]			1			
<i>Enteroplea</i> n. sp. [nr <i>lacustris</i> Ehrenberg, 1830]	ns?			1		
<i>Eosphora ehrenbergi</i> (Ehrenberg, 1832)				1		
<i>Eosphora najas</i> Ehrenberg, 1830		1				
<i>Eosphora thoides</i> Wulfert, 1935				1		
<i>Eosphora</i> n. sp. [nr <i>E. anthadis</i>]	ns?				1	
<i>Monommata dentata</i> Wulfert, 1940					1	
<i>Monommata diaphora</i> Myers, 1930						1
<i>Monommata</i> sp.	1	1				
<i>Notommata cf. allantois</i> Wulfert, 1935	1					
<i>Notommata copeus</i> Ehrenberg, 1834	1					
<i>Notommata glyphura</i> Wulfert, 1935				1		
<i>Notommata cf. pseudocerberus</i> De Beauchamp, 1907	1					
<i>Notommata</i> n. sp. 1 [cf. <i>collaris</i> Ehrenberg, 1886]	ns?	1				
<i>Notommata</i> n. sp. 2 [cf. <i>tripus</i> Ehrenberg, 1838]	ns?			1		1
<i>Notommata</i> sp.	1			1		
<i>Taphrocampus selenura</i> Gosse, 1887	1	1		1		1
Proalidae						
<i>Proales</i> cf. <i>kosteai</i> Nogrady & Smol. 1989	nr		1			
<i>Proales</i> cf. <i>similis</i> De Beauchamp, 1907				1		
? <i>Proales</i> sp.	1			1		
Scardiidae						
<i>Scardium bostjani</i> Daems & Dumont, 1974	1					1
<i>Scardium longicaudum</i> (Muller, 1786)			1			
<i>Scardium</i> sp.	1					
Synchaetidae						
<i>Polyarthra dolichoptera</i> (Idelson, 1925)	1	1	1	1	1	1
<i>Polyarthra remata</i> (Skorikov, 1896)	1			1		1
<i>Polyarthra</i> sp.	1		1	1	1	1
<i>Synchaeta grandis</i> Zacharias, 1893						1
<i>Synchaeta jollyi</i> Shiel & Koste, 1993	1					
<i>Synchaeta oblonga</i> Ehrenberg, 1832				1		1

<i>Synchaeta pectinata</i> Ehrenberg, 1832	1	1		1		1
<i>Synchaeta stylata</i> Wierzejski, 1893			1			
<i>Synchaeta n. sp. b</i> [small, retractile toe,]	ns?	1				
<i>Synchaeta</i> sp.	1	1	1	1	1	1
Testudinellidae						
<i>Pompholyx cf. complanata</i> Gosse, 1851				1	1	1
<i>Pompholyx sulcata</i> (Hudson, 1885)			1			
<i>Pompholyx</i> sp.	1	1			1	
<i>Testudinella emarginula</i> (Stenoos, 1898)				1		
<i>Testudinella incisa</i> (Ternetz, 1892)					1	
<i>Testudinella patina</i> (Hermann, 1783)	1	1	1	1	1	1
<i>Testudinella n. sp. a</i> [155 µm, dentate occipital margin]	ns?			1		
<i>Testudinella n. sp. b</i> [114 µm, discoid, collared aperture, cf. <i>T. patina</i>]]	ns?					1
<i>Testudinella tasmaniensis</i> Koste & Shiel, 1985	1					
<i>Testudinella</i> sp.	1	1	1		1	1
Trichocercidae						
<i>Ascomorphella volvocicola</i> (Plate, 1886)	1	1				1
<i>Trichocerca cf. agnatha</i> Wulfert, 1939	1					
<i>Trichocerca bicristata</i> (Gosse, 1887)	1	1	1	1	1	
<i>Trichocerca bidens</i> (Lucks, 1912)		1				
<i>Trichocerca braziliensis</i> (Murray, 1913)						1
<i>Trichocerca kostei</i> Segers, 1993		1				
<i>Trichocerca pusilla</i> (Jennings, 1903)	1	1	1	1	1	1
<i>Trichocerca cf. rattus</i> (Müller, 1776)	1	1		1		
<i>Trichocerca rattus carinata</i> (Ehrenberg, 1832)						1
<i>Trichocerca similis</i> (Wierzejski, 1893)	1	1		1		1
<i>Trichocerca cf. similis grandis</i> (Hauer, 1965)				1	1	1
<i>Trichocerca stylata</i> (Gosse, 1851)	1					
<i>Trichocerca cf. weberi</i> Jennings, 1903	1					
<i>Trichocerca</i> sp. a	1	1	1	1	1	1
<i>Trichocerca</i> sp. b		1				
Trichotriidae						
<i>Macrochaetus altamirai</i> (Arevalho, 1918)					1	
<i>Trichotria pocillum</i> (Müller, 1776)	1					
<i>Trichotria tetractis similis</i> (Stenoos, 1898)	1			1		1
<i>Trichotria truncata</i> (Whitelegge, 1889)	1					
<i>Wolga spinifera</i> (Western, 1893)	1		1	1	1	
Trochosphaeridae						
<i>Filinia australiensis</i> Koste, 1980	1	1			1	
<i>Filinia grandis</i> Koste, 1979		1			1	1
<i>Filinia longiseta</i> (Ehrenberg, 1834)	1	1	1	1	1	1
<i>Filinia cf. novaezealandiae</i> Shiel & Sanoamuang, 1993	1					
<i>Filinia opoliensis</i> (Zacharias, 1898)	1		1	1		1
<i>Filinia passa</i> (Müller, 1786)	1		1			
<i>Filinia pejleri</i> Hutchinson, 1964	1		1	1	1	1
<i>Filinia cf. terminalis</i>		1				
<i>Filinia</i> sp.	1		1	1		1
<i>Horaella brehmi</i> Donner, 1949		1	1	1	1	
To ID						
indet. solitary vermiform rotifer	1	1		1	1	1
colonial rotifer	1					
indet. spherical blob	1	1	1	1	1	1
Microcrustacea						
Copepoda: Calanoida						
<i>Boeckella fluvialis</i> Henry, 1922				1		

<i>Boeckella triarticulata</i> (Thompson, 1883)	1	1	1	1	1	1
<i>Boeckella</i> sp. [female only in tray]	1		1	1	1	1
<i>Calamoecia canberra</i> Bayly, 1962	1	1	1	1	1	1
<i>Calamoecia lucasi</i> (Brady, 1906)	1	1	1	1	1	1
<i>Calamoecia zeidleri</i> Bayly, 1984			1		1	1
<i>Calamoecia</i> sp.	1	1	1	1	1	1
<i>Eodiaptomus lumholtzi</i> Sars, 1889	1		1	1		1
indet. calanoid	1		1	1		1
cal. copepodites	1	1	1	1	1	1
indet cal. nauplii					1	1

Copepoda: Cyclopoida

<i>Apocyclops</i> cf. <i>dengizicus</i> (Lepeschkin, 1900)				1		
<i>Australocyclops australis</i> Morton, 1985		1			1	
<i>Diacyclops</i> sp.				1		
<i>Ectocyclops</i> sp.	1			1		
cf. <i>Ergasilus</i> sp.					1	
<i>Eucyclops australiensis</i> Morton, 1990			1			
<i>Eucyclops</i> sp.	1					1
<i>Macrocylops</i> sp.			1			
<i>Mesocyclops apericornis</i> (Daday, 1906)	1					
<i>Mesocyclops</i> cf. <i>australiensis</i> (Sars 1908)	1			1		
<i>Mesocyclops</i> cf. <i>dadayi</i> Holynska, 1997	1					
<i>Mesocyclops</i> cf. <i>darwini</i> Dussart & Fernando, 1988				1		
<i>Mesocyclops</i> cf. <i>kieferi</i> Van de Velde, 1984	1		1	1	1	1
<i>Mesocyclops</i> cf. <i>notius</i> Kiefer, 1981	1					
<i>Mesocyclops pseudospinus</i> Dussart & Fernando, 1988	nr				1	
<i>Mesocyclops</i> cf. <i>yessoensis</i> Ishida, 1999	nr					1
<i>Mesocyclops</i> sp.	1	1	1	1		1
<i>Metacyclops mortoni</i> Pesce et al., 1996						1
<i>Metacyclops</i> sp.				1		
<i>Microcyclops</i> cf. <i>varicans</i> (Sars, 1862)				1		
<i>Microcyclops</i> sp. a	1	1	1		1	
<i>Microcyclops</i> sp. b [?n.sp.]						1
<i>Thermocyclops decipiens</i> (Kiefer, 1929)	1	1	1	1	1	1
indet. cyclopoid	1	1	1	1	1	1
cyclopoid copepodites	1	1	1	1	1	1
indet nauplii	1	1	1	1	1	1

Copepoda: Harpacticoida

cf. <i>Canthocamptus</i> sp.				1		
cf. <i>Mesochra</i> sp.					1	
harpac. copepodite/nauplii						1
Copepoda: ?Notodelphyidae						
indet. sp.					1	

Branchiopoda: Anomopoda/Ctenopoda ('Cladocera')

Bosminidae						
<i>Bosmina meridionalis</i> Sars, 1904	1	1	1			1
Chydoridae						
<i>Alona</i> cf. <i>diaphana</i> King, 1853		1	1	1		
<i>Alona</i> cf. <i>guttata</i> Sars, 1862					1	
<i>Alona macrocopa</i> Sars, 1895	1	1				1
<i>Alona</i> cf. <i>poppei</i> Richard, 1897	1					
<i>Alona</i> cf. <i>pulchella</i> King, 1853			1		1	
<i>Alona</i> cf. <i>rectangula</i> Sars, 1862	1		1	1	1	1
<i>Alona rectangula novaezealandiae</i> Sars, 1904		1				1
<i>Alona rigidicaudis</i> Smirnov, 1971	1	1	1	1	1	1

<i>Alona nr rigidicaudis</i> Smirnov, 1971 [p/a armature differs]						1
<i>Alona cf. setuloides</i> Smirnov & Timms, 1983			1			
<i>Alona cf. willisi</i> (Smirnov, 1989)					1	
<i>Alona</i> sp. a	1	1	1	1	1	
<i>Alona</i> sp. b				1		
<i>Alona</i> sp. c				1		
<i>Alona</i> sp. d				1		
<i>Alona</i> sp. e				1		1
<i>Alonella</i> sp.						1
<i>Australospilus cf. elongatus</i> (Smirnov & Timms, 1983)					1	
<i>Chydorus</i> sp.	1	1	1	1		1
<i>Dadaya macrops</i> (Daday, 1898)						1
<i>Dunhevedia crassa</i> King, 1853	1	1				
<i>Ephemeroporus cf. barroisi</i> (Richard, 1894)	1				1	
<i>Euryalona orientalis</i> (Daday, 1898)	1					
<i>Leydigia</i> sp.	1					1
<i>Pleuroxus jugosus</i> (Henry, 1922)					1	
<i>Pleuroxus</i> sp.		1	1		1	
<i>Pseudomonospilus diporus</i> (Smirnov & Timms, 1983)		1			1	1
<i>Rak</i> n.sp.	ns?	1			1	1
indet. juvenile chydorid		1				
Daphniidae						
<i>Ceriodaphnia cornuta</i> Sars, 1885	1	1	1	1	1	1
<i>Ceriodaphnia</i> sp. [?n.sp. 1 of D. Berner]	1	1	1	1	1	1
<i>Daphnia carinata</i> King, 1853 s.l.		1			1	
<i>Daphnia cephalata</i> King, 1853		1			1	1
<i>Daphnia lumholtzi</i> Sars, 1885	1	1			1	
<i>Daphnia</i> cf. <i>projecta</i> Hebert, 1977	1	1			1	1
<i>Daphnia</i> sp. [none of the above]					1	
<i>Scapholeberis kingi</i> Sars, 1903	1					
<i>Simocephalus</i> cf. <i>elizabethae</i> (King, 1853)		1				
<i>Simocephalus</i> cf. <i>gibbosus</i> Sars, 1896					1	
<i>Simocephalus heilongjiangensis</i> Shi & Shi, 1994				1		
<i>Simocephalus victoriensis</i> Dumont, 1983	1					
<i>Simocephalus</i> sp.	1	1	1	1		
Ilyocryptidae						
<i>Ilyocryptus raridentatus</i> Smirnov, 1989					1	
<i>Ilyocryptus</i> sp.	1		1	1	1	
Macrothricidae						
<i>Macrothrix breviseta</i> Smirnov, 1976	1				1	1
<i>Macrothrix</i> cf. <i>indistincta</i> Smirnov, 1992						1
<i>Macrothrix spinosa</i> King, 1853			1			1
<i>Macrothrix</i> sp.	1	1	1	1	1	1
Moinidae						
<i>Moina</i> cf. <i>australiensis</i> Sars, 1896		1				
<i>Moina</i> cf. <i>micrura</i> Kurz, 1874	1		1	1	1	1
<i>Moina</i> cf. <i>tenuicornis</i> Sars, 1896		1	1			
<i>Moina</i> sp.	1	1	1	1	1	
Neothricidae						
<i>Neothrix</i> sp.		1	1			
Sididae						
<i>Diaphanosoma excisum</i> Sars, 1885			1	1		1
<i>Diaphanosoma</i> cf. <i>sarsi</i> Richard, 1894	1			1	1	1
<i>Diaphanosoma unguiculatum</i> Gurney, 1927	1		1	1	1	1
<i>Diaphanosoma</i> sp.	1	1	1	1	1	1

Ostracoda						
cf. <i>Australocypris</i> sp.		1	1	1	1	
<i>Bennelongia</i> cf. <i>barangaroo</i> De Deckker, 1981					1	
cf. <i>Candonocypris</i> sp.		1	1		1	1
cf. <i>Candonopsis</i>					1	
cf. <i>Cypretta</i> sp.		1	1	1	1	
cf. <i>Diacypris</i> sp.		1	1	1		
cf. <i>Limnocythere</i>	1	1	1		1	1
cf. <i>Stenocypris</i> sp.		1	1			
indet.		1	1	1	1	1
'Others'						
coelenterate: <i>Hydra</i>			1	1		
nematode					1	
flatworm cf. <i>Mesostoma</i>			1		1	
Hirudinea: fluke cercaria					1	
Oligochaeta: Naididae	1	1	1	1	1	
Mollusca: Gastropoda - snail		1	1			
Mollusca: Bivalvia				1		
Mollusca: mussel glochidia	1	1	1	1	1	1
conchostracean cf. <i>Czyzicus</i>				1		
Insecta: Hemiptera: Corixidae - corixid (<i>Micronecta</i> et al.)	1	1	1		1	1
Insecta: Hemiptera: Notonectidae - notonectids	1	1	1	1	1	1
Insecta: Hemiptera: other families						1
Insecta: Coleoptera: Dytiscidae				1		
Insecta: Diptera - larvae/pupae	1	1	1	1	1	1
Insecta: Ephemeroptera - larvae	1	1	1			
Insecta: Odonata: Anisoptera - dragon fly larvae			1			
Insecta: Odonata: Zygoptera - damsel fly larvae			1	1		
Arachnidae: hydracarnid mite	1	1	1			
fairy shrimp cf. <i>Branchinella</i>				1		
brine shrimps (cf. <i>Parartemia</i>) (incl. larvae)	1					
f/w shrimp cf. <i>Macrobrachium</i>	1		1	1	1	1
Arachnidae: hydracarnid mite	1		1			1
Arachnidae: oribatid mite					1	1
Vertebrate						
Pisces: <i>Gambusia, Retropinna</i>	1	1	1	1	1	1
other, fry		1		1		
Number of taxa per trip		227	174	221	222	166
						198