

SYNERGISTIC EFFECTS OF NATURAL AND ANTHROPOGENIC IMPACTS ON ZOOPLANKTON DIVERSITY IN A SUBTROPICAL FLOODPLAIN: A LONG-TERM STUDY

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SUPPLEMENTARY MATERIAL

Table 1A. Species inventory of the zooplanktonic community in different environments of the upper Paraná river floodplain, from 2000 to 2018.

Species inventory	
TESTACEOUS AMOEBAS	
Arcellidae	
<i>Arcella arenaria</i> Greeff, 1866	<i>A. hemisphaerica</i> Perty, 1852
<i>A. artocrea</i> Leidy, 1876	<i>A. h. f. undulata</i> Deflandre, 1928
<i>A. brasiliensis</i> Cunha, 1913	<i>A. marginata</i> Daday, 1905
<i>A. catinus</i> Pénard, 1890	<i>A. megastoma</i> Pénard, 1902
<i>A. conica</i> Playfair, 1917	<i>A. mitrata</i> Leidy, 1879
<i>A. costata</i> Ehrenberg, 1847	<i>A. spectabilis</i> Deflandre, 1928
<i>A. crenulata</i> Deflandre, 1928	<i>A. nordestina</i> Vucetich, 1973
<i>A. dentata</i> Ehrenberg, 1830	<i>A. rota</i> Daday, 1905
<i>A. discoides</i> Ehrenberg, 1843	<i>A. vulgaris</i> Ehrenberg, 1830
<i>A. gandalfi</i> Leidy, 1876	<i>A. v. f. elegans</i> Deflandre, 1928
<i>A. gibbosa</i> Pénard, 1890	<i>A. v. var. penardi</i> Deflandre, 1928

Species inventory

A. g. var. mitriformis Deflandre, 1928

A. v. f. undulata Deflandre, 1928

Centropyxidae

Centropyxis aculeata Ehrenberg, 1838

C. ecornis Ehrenberg, 1841

C. aerophila Deflandre, 1929

C. gibba Deflandre, 1929

C. a. var. sphagnicola Deflandre, 1929

C. hirsuta Deflandre, 1929

C. aplanata Deflandre, 1929

C. marsupiformis Wallich, 1864

C. cassis Wallich, 1864

C. platystoma Pénard, 1902

C. constricta Ehrenberg, 1841

C. spinosa Cash, 1905

C. discoides Pénard, 1890

Centropyxis sp

Cyphoderidae

Cyphoderia ampulla Ehrenberg, 1840

Diffugiidae

Cucurbitella crateriformis G.L. & Th., 1960

D. kempny Stepánek, 1953

C. dentata G.L. & T., 1960

D. lanceolata Penard, 1890

C. d. f. crucilobata G.L. & Th., 1958

D. limnetica Levander, 1900

C. d. f. quinquelobata G.L. & Th., 1960

D. lingula Pénard, 1911

C. d. f. trilobata G.L. & Th., 1958

D. lithophila Pénard, 1902.

C. madagascariensis G.L. & Th., 1960

D. lobostoma Leidy, 1879

C. mespiliformis Pénard, 1902

D. l. var. cornuta G.L. & Th., 1958

C. m. var. africana G.L. & Th., 1960

D. l. f. multilobata G.L. & Th., 1958

C. m. var. africana f. trilobata G.L. & Th.,
1960

D. l. var. tuberosa G.L. & Th., 1958

Cucurbitella sp

D. marsupiformis Wallich, 1864

Diffugia acuminata Ehrenberg, 1838

D. microclaviformis Kourov, 1925

D. a. var. inflata Pénard, 1899

D. multidentata Dioni, 1970

D. acutissima Deflandre, 1931

D. muriculata G.L. & Th., 1958

D. amphoralis var. globosa G.L. & Th., 1958

D. muriformis G.L. & Th., 1958

D. a. var. cornuta Hopkinson, 1909

D. m. f. crucilobata G.L. & Th., 1958

D. angulostoma G.L. & Th., 1958

D. nebeloides G.L. & Th., 1958

D. cf. avellana Pénard, 1890

D. oblonga Ehrenberg, 1838

D. cf. brevicola Cash, 1890

D. parva Thomas, 1954

D. bicruris G.L. & Th., 1958

D. pleustonica Dioni, 1970

D. capreolata G.L. & Th., 1958

D. pseudogramen G.L. & T., 1960

D. corona Wallich, 1864

D. penardi Hopkinson, 1909

D. c. var. ecornis G.L. & Th., 1958

D. sinuata G.L. & Th., 1958

D. c. f. tuberculata Vucetich, 1973

D. smilion Thomas, 1953

D. correntina Vucetich, 1978

D. schurmanni Van Oye, 1932

D. curvicaulis Pénard, 1899

D. stellastoma Vucetich, 1989

D. difficilis Thomas, 1954

D. urceolata Carter, 1864

D. elegans Pénard, 1890

D. ventricosa Deflandre, 1926

D. fragosa Hempel, 1898

D. ventricosa f. recticaulis Dioni, 1970

Species inventory

<i>D. globularis</i> Wallich, 1864	<i>Protocucurbitella coroniformis ecornis</i> G.L. & T., 1960
<i>D. globulosa</i> Dujardin, 1837	<i>Pontigulasia</i> cf. <i>compressa</i> Rhumbler, 1895
<i>D. gramen</i> Pénard, 1902	<i>Pontigulasia</i> sp
<i>D. hevetica</i> var. <i>multilobata</i> Pénard, 1908	<i>Suiadifflugia multipora</i> Green, 1975

Euglyphidae

<i>Euglypha acanthophora</i> Ehrenberg 1841	<i>Euglypha</i> sp
<i>E. denticulata</i> Brown, 1912	<i>Trinema lineare</i> Penard, 1890
<i>E. filifera</i> Penard, 1890	

Hyalospheniidae

<i>Hyalosphaenia nobilis</i> Sars, 1910	<i>Heleopera</i> sp
<i>Longinebela penardiana</i> Deflandre, 1936	<i>Nebella</i> sp

Lesquereusiidae

<i>Lesquereusia globulosa</i> Rhumbler, 1896	<i>L. spiralis</i> Ehrenberg, 1840
<i>L. gibbosa</i> G.L. & T., 1960	<i>L. spiralis</i> var. <i>hirsuta</i> G.L. & Th., 1958
<i>L. mimetica</i> Pénard, 1911	<i>L. spiralis</i> var. <i>caudata</i> G.L. & Th., 1958
<i>L. modesta</i> Rhumbler, 1896	<i>Netzelia oviformis</i> Cash, 1909
<i>L. modesta</i> var. <i>caudata</i> Playfair, 1917	<i>N. tuberculata</i> Wallich, 1864
<i>L. ovalis</i> G.L. & Th., 1958	<i>N. wailesi</i> Ogden, 1980

Phryganellidae

<i>Phryganella dissimulatoris</i> Chardez, 1969	<i>Phryganella</i> sp
<i>P. hemisphaerica</i> Pénard, 1902	

Plagyopyxidae

<i>Hoogenraadia cryptostoma</i> G.L. & Th., 1958	<i>Plagiopyxis callida</i> Pénard, 1910
<i>Hoogenraadia</i> sp.	<i>Plagiopyxis</i> sp

Trigonopyxidae

<i>Cyclopyxis aplanata</i> Deflandre, 1929	<i>C. khali</i> Deflandre, 1929
<i>C. eurystoma</i> Deflandre, 1928	<i>Cyclopyxis</i> sp
<i>C. impressa</i> Daday, 1905	

ROTIFERS**Asplanchnidae**

<i>Asplanchnopus hyalinus</i> Haring, 1913	<i>A. sieboldi</i> Leydig, 1854
<i>Asplanchna priodontata</i> Gosse, 1850	<i>Harringia rousseleti</i> De Beauchamp, 1912

Atrochidae

Cupelopagis vorax Leidy, 1857

Brachionidae

<i>Anuraeopsis fissa</i> Gosse, 1851	<i>B. q. mirabilis</i> Daday, 1897
<i>A. navicula</i> Rousselet, 1910	<i>B. q. quadridentatus</i> Hermann, 1783
<i>A. quadriantennata</i> Koste, 1974	<i>B. urceolaris</i> O.F. Muller, 1773
<i>Anuraeopsis</i> sp	<i>B. amazonicus</i> Koste 1983
<i>Brachionus angularis</i> Gosse, 1851	<i>B. satanicus</i> Rousselet, 1913

Species inventory

- | | |
|---|---|
| <i>B. bidentatus</i> Anderson, 1889 | <i>Kellicotia bostoniensis</i> Rousselet, 1908 |
| <i>B. budapestinensis</i> Daday, 1885 | <i>K. eratella americana</i> Carlin, 1943 |
| <i>B. calyciflorus</i> Pallas, 1766 | <i>K. cochlearis</i> Gosse, 1851 |
| <i>B. c. spinosus</i> Rousselet, 1901 | <i>K. c. micracantha</i> Lauterborn, 1898 |
| <i>B. caudatus</i> Barrois & Daday, 1894 | <i>K. lenzi</i> Hauer, 1953 |
| <i>B. c. austrogenitus</i> Ahlstrom, 1940 | <i>K. tecta</i> Gosse, 1851 |
| <i>B. c. personatus</i> Ahlstrom, 1940 | <i>K. tropica</i> Apstein, 1907 |
| <i>B. c. majusculus</i> Ahlstrom, 1940 | <i>Notholca acuminata</i> Ehrenberg, 1832 |
| <i>B. dolabratus</i> Haring, 1915 | <i>N. caudata</i> Carlin, 1943 |
| <i>B. falcatus</i> Zacharias, 1898 | <i>N. lamelifera</i> Kutikova, 1978 |
| <i>B. forficula</i> Wierzejski, 1891 | <i>Notholca</i> sp |
| <i>B. havanaensis</i> Lindeman, 1939 | <i>Platyonus patulus macracanthus</i> Daday, 1905 |
| <i>B. mirus</i> Daday, 1905 | <i>P. patulus patulus</i> O. F. Müller, 1786 |
| <i>B. m. angustus</i> Koste, 1972 | <i>Platyias leloupi</i> Gillard, 1957 |
| <i>B. m. reductus</i> Koste, 1972 | <i>P. quadricornis quadricornis</i> Daday, 1905 |
| <i>B. quadridentatus</i> Daday, 1897 | |

Collothecidae

- | | |
|--|----------------------|
| <i>Collotheca ornata</i> Ehrenberg, 1832 | <i>Collotheca</i> sp |
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Conochilidae

- | | |
|---|-------------------------------------|
| <i>Conochilus coenobasis</i> Skorikov, 1914 | <i>C. unicornis</i> Rousselet, 1892 |
| <i>C. dossuaris</i> Hudson, 1885 | <i>C. natans</i> Seligo, 1900 |

Dicranophoridae

- | | |
|--|---|
| <i>Aspelta angusta</i> Haring & Myers, 1928 | <i>D. prionacis</i> Haring & Myers, 1928 |
| <i>Dicranophoroides caudatus</i> Ehrenberg, 1834 | <i>D. tegillus</i> Haring & Myers, 1928 |
| <i>D. claviger</i> Hauer, 1965 | <i>D. hauerianos</i> Wiszniewski, 1939 |
| <i>D. difflugarum</i> Penard, 1914 | <i>Encentrum longisepes</i> Wulfert, 1936 |
| <i>D. epicharis</i> Haring & Myers, 1928 | <i>E. saundersiae</i> Hudson, 1885 |
| <i>D. forcipatus</i> Müller, 1786 | <i>Encentrum</i> sp |
| <i>D. luetkeni</i> Bergendal, 1892 | |

Epiphanidae

- | | |
|--|---|
| <i>Epiphanes clavatula</i> Ehrenberg, 1834 | <i>Epiphanes</i> sp |
| <i>E. macroura</i> Barrois & Daday, 1894 | <i>Mikrocodides robustus</i> Glascott, 1893 |
| <i>E. senta</i> Muller, 1973 | |

Euchlanidae

- | | |
|--|--|
| <i>Beuchampiella eudactylota</i> Gosse, 1886 | <i>E. i. mucronata</i> Ahlstrom, 1934 |
| <i>Dipleuchlanis propatula propatula</i> Gosse, 1886 | <i>E. meneta</i> Myers, 1930 |
| <i>D. propatula macrodactyla</i> Hauer, 1965 | <i>E. cf. mikropous</i> Koch-Althaus, 1962 |
| <i>Euchlanis deflexa</i> Gosse, 1851 | <i>E. oropha</i> Gosse, 1887 |
| <i>E. dilatata dilatata</i> Ehrenberg, 1832 | <i>Euchlanis</i> sp |
| <i>E. d. luckisiana</i> Hauer, 1930 | <i>Tripleuchlanis plicata plicata</i> Levander, 1894 |
| <i>E. incisa</i> Carlin, 1939 | |

Species inventory

Filinidae

- | | |
|--|------------------------------------|
| <i>Filinia longiseta</i> Ehrenberg, 1834 | <i>F. pejleri</i> Hutchinson, 1964 |
| <i>F. limnética</i> Zacharias, 1893 | <i>F. saltator</i> Gosse, 1886 |
| <i>F. opoliensis</i> Zacharias, 1891 | <i>F. terminalis</i> Plate, 1886 |

Flosculariidae

- | | |
|--|---|
| <i>Floscularia melicerta</i> Ehrenberg, 1832 | <i>P. melicerta</i> Ehrenberg, 1832 |
| <i>F. ringens</i> Linnaeus, 1758 | <i>P. longicornis</i> Davis, 1867 |
| <i>Floscularia</i> sp | <i>Ptygura</i> sp |
| <i>Limnias ceratophylli</i> Schrank, 1803 | <i>Sinantherina ariprepes</i> Edmondson, 1939 |
| <i>L. melicerta</i> Weisse, 1848 | <i>S. procera</i> Thorpe, 1889 |
| <i>Octotrocha speciosa</i> Thorpe, 1893 | <i>S. spinosa</i> Thorpe, 1893 |
| <i>Ptygura libera</i> Myers, 1934 | <i>Sinantherina</i> sp |

Gastropodidae

- | | |
|---|---|
| <i>Ascomorpha</i> cf. <i>agilis</i> Zacharias, 1893 | <i>Gastropus hyptopus</i> Ehrenberg, 1938 |
| <i>A. ecaudis</i> Perty, 1850 | <i>G. minor</i> Ehrenberg, 1938 |
| <i>A. ovalis</i> Bergendal, 1892 | <i>G. stylifer</i> Imhof, 1891 |
| <i>A. saltans</i> Bartsch, 1870 | <i>Gastropus</i> sp |
| <i>Ascomorpha</i> sp | |

Proalidae

- | | |
|------------------------------------|-------------------|
| <i>Proales minima</i> Montet, 1915 | <i>Proales</i> sp |
| <i>P. sigmoidea</i> Skorikov, 1896 | |

Hexarthridae

- | | |
|---|-----------------------------|
| <i>Hexarthra intermedia</i> Wiszniewski, 1929 | <i>H. mira</i> Hudson, 1871 |
| <i>H. i. braziliensis</i> Hauer, 1953 | <i>Hexarthra</i> sp |

Ituriidae

- | | |
|--|--------------------------------|
| <i>Itura aurita</i> Ehrenberg, 1830 | <i>I. myersi</i> Wulfert, 1935 |
| <i>I. chamadis</i> Harring & Myers, 1928 | <i>Itura</i> sp |
| <i>I. deridderae</i> Segers, 1993 | |

Lecanidae

- | | |
|--|--|
| <i>Lecane aculeata</i> Jakubski, 1912 | <i>L. l. brevicauda</i> Hauer, 1938 |
| <i>L. amazonica</i> Murray, 1913 | <i>L. luna</i> O. F. Müller, 1776 |
| <i>L. boettgeri</i> Koste, 1986 | <i>L. lunaris</i> Ehrenberg, 1832 |
| <i>L. braumi</i> Koste, 1988 | <i>L. mira</i> Murray, 1913 |
| <i>L. bulla</i> Gosse, 1886 | <i>L. monostyla</i> Daday, 1897 |
| <i>L. closterocerca</i> Schmarda, 1856 | <i>L. papuana</i> Murray, 1913 |
| <i>L. cornuta</i> O.F. Muller, 1786. | <i>L. proiecta</i> Hauer, 1956 |
| <i>L. curvicornis</i> Murray, 1913 | <i>L. pusilla</i> Harring, 1914 |
| <i>L. crenata</i> Harring, 1913 | <i>L. obtusa</i> Murray, 1913 |
| <i>L. decipiens</i> Murray, 1913 | <i>L. ohioensis</i> Herrick, 1885 |
| <i>L. doryssa</i> Harring, 1914 | <i>L. quadridentata</i> Ehrenberg, 1832. |
| <i>L. elsa</i> Hauer, 1931 | <i>L. remanei</i> Hauer, 1956 |

Species inventory

- | | |
|--|---|
| <i>L. furcata</i> Murray, 1913 | <i>L. rhytida</i> Harring & Myers, 1926 |
| <i>L. grandis</i> Murray, 1913 | <i>L. roberstonae</i> Segers, 1993 |
| <i>L. halyclista</i> Harring & Myers, 1926 | <i>L. scutata</i> H. & M., 1926 |
| <i>L. hornemanni</i> Ehrenberg, 1834 | <i>L. signifera</i> Jennings, 1896 |
| <i>L. hamata</i> Stokes, 1896 | <i>L. s. ploenensis</i> Voigt, 1902 |
| <i>L. hastata</i> Murray, 1913 | <i>L. stenroosi</i> Meissner, 1908 |
| <i>L. inermis</i> Bryce, 1892 | <i>L. stichaea</i> Harring, 1913 |
| <i>L. inopinata</i> Harring & Myers, 1926 | <i>L. ungulata</i> Gosse, 1887 |
| <i>L. leontina</i> Turner, 1892 | <i>L. unguitata</i> Fadeev, 1925 |
| <i>L. ludwigi</i> Eckstein, 1883 | <i>L. thienemanni</i> Hauer, 1938 |

Lepadellidae

- | | |
|--|--|
| <i>Colurella adriatica</i> Ehrenberg, 1831 | <i>L. ovalis</i> Müller, 1786 |
| <i>C. obtusa</i> Gosse, 1886 | <i>L. patella</i> Müller, 1773 |
| <i>Colurella</i> sp | <i>L. oblonga</i> Ehrenberg, 1834 |
| <i>Lepadella benjamini</i> Harring, 1916 | <i>L. rhomboides</i> Gosse, 1886 |
| <i>L. monodactyla</i> Bērziņš, 1960 | <i>L. triptera</i> Ehrenberg, 1832 |
| <i>L. dactyliseta</i> Stenroos, 1898 | <i>L. cristata</i> Rousselet, 1893 |
| <i>L. donneri</i> Koste, 1972 | <i>L. monodactyla brasiliensis</i> Koste, 1972 |
| <i>L. imbricata</i> Harring, 1914 | <i>Lepadella</i> sp |

Lindiidae

- Lindia toluosa* Dujardin, 1841

Mytilinidae

- | | |
|---|---|
| <i>Mytilina acantophora</i> Hauer, 1938 | <i>M. trigona</i> Gosse, 1886 |
| <i>M. bisulcata</i> Lucks, 1912 | <i>M. ventralis</i> Ehrenberg, 1832 |
| <i>M. macrocera</i> Jennings, 1894 | <i>Mytilina ventralis</i> var. <i>macrachanta</i> Gosse, 1886 |
| <i>M. mucronata</i> O.F. Muller, 1773 | <i>Lophocauris oysternon</i> Gosse, 1851 |
| <i>M. spinigera</i> Ehrenberg, 1830 | <i>L. salpina</i> Ehrenberg, 1834 |

Notommatidae

- | | |
|--|--|
| <i>Cephalodella anebodica</i> Ehrenberg, 1830 | <i>M. pseudophoxa</i> Wulfert, 1960 |
| <i>C. forficula</i> Ehrenberg, 1830 | <i>Monommata</i> sp. |
| <i>C. gibba</i> Ehrenberg, 1832 | <i>Notommata angusta</i> Harring & Myers, 1922 |
| <i>C. gracilis</i> Ehrenberg, 1832 | <i>N. cerberus</i> Gosse, 1896 |
| <i>C. hiulca</i> Myers, 1924 | <i>N. cyrtopus</i> Gosse, 1886 |
| <i>C. mucronata</i> Myers, 1924 | <i>N. copeus</i> Ehrenger, 1834 |
| <i>C. obvia</i> Donner, 1950 | <i>N. falcinella</i> Harring & Myers, 1921 |
| <i>C. tenuiseta</i> Burn, 1890 | <i>N. glyphura</i> Wulf, 1935 |
| <i>C. sterea</i> Gosse, 1887 | <i>N. haueri</i> Wulf, 1939 |
| <i>Cephalodella</i> sp | <i>N. pachyura</i> Gosse, 1886 |
| <i>Enteroplea lacustris</i> Ehrenberg, 1830 | <i>N. prodota</i> Myers, 1933 |
| <i>Eosphora anthadis</i> Harring & Myers, 1922 | <i>N. pseudocerberus</i> De Beauchamp, 1908 |
| <i>E. thoides</i> Wulferti, 1935 | <i>N. saccigera</i> Ehrenberg, 1832 |

Species inventory

<i>Eothinia elongata</i> Ehrenberg, 1832	<i>N. stitista</i> Myers, 1838
<i>Monommata arndti</i> Remane, 1933	<i>N. triptus</i> Ehrenberg, 1838
<i>M. caeca</i> Myers, 1930	<i>Notommata</i> sp
<i>M. dentata</i> Wulfert, 1940	<i>Pleurotrocha robusta</i> Glascott, 1893
<i>M. grandis</i> Tessin, 1890	<i>Pleurotrocha</i> sp
<i>M. maculata</i> Harring & Myers, 1924	<i>Taphrocampa selenura</i> Gosse, 1887
<i>M. actices</i> Myers, 1930	

Scarididae

<i>Scaridium grandis</i> Segers, 1995	<i>Scaridium</i> sp
<i>S. longicaudatum</i> O.F.Muller, 1786	

Synchaetidae

<i>Ploesoma lenticulare</i> Gosse, 1851	<i>Synchaeta oblonga</i> Ehrenberg, 1831
<i>P. truncata</i> Levander, 1894	<i>S. pectinata</i> Ehrenberg 1832
<i>Polyarthra dolicoptera</i> Idelson, 1925	<i>S. stylata</i> Wierzejski, 1893
<i>P. remata</i> Skorikov, 1896	<i>S. longipes</i> Gosse, 1887
<i>P. vulgaris</i> Carlin, 1943	<i>Synchaeta</i> sp

Testudinellidae

<i>Pompholix complanata</i> Gosse, 1951	<i>T. mucronata hauerensis</i> Gillard, 1967
<i>P. sulcata</i> Hudson, 1885	<i>T. ohlei</i> Koste, 1972
<i>P. trilobata</i> Pejler, 1957	<i>T. patina patina</i> Hermann, 1783
<i>Pompholyx</i> sp	<i>T. patina dendradena</i> De Beauchamp, 1955
<i>Testudinella ahlstromi</i> Hauer, 1956	<i>T. tridentata</i> Smirnov, 1931
<i>T. discoidea</i> Ahlstrom, 1938	<i>T. t. amazônica</i> Thomasson, 1971
<i>T. greeni</i> Koste, 1981	<i>T. truncata</i> Gosse, 1886
<i>T. mucronata</i> Gosse, 1886	<i>T. discoides</i> Ahlstrom, 1938

Tetrasiphonidae

Tetrasiphon hydrocora Ehrenberg, 1840

Trichotriidae

<i>Macrochaetos collinsi</i> Gosse, 1867	<i>M. subquadratus</i> Perty, 1850
<i>M. longipes</i> Myers, 1934	<i>Trichotria tetractis</i> Ehrenberg, 1830
<i>M. sericus</i> Thorpe, 1893	

Trichocercidae

<i>Elosa</i> sp.	<i>T. longiseta</i> Schrank, 1802
<i>Trichocerca agnata</i> Wulf, 1939	<i>T. longistyla</i> Olofsson, 1918
<i>T. bidens</i> Lucks, 1912	<i>T. macera</i> Gosse, 1886
<i>T. bicristata</i> Gosse, 1886	<i>T. mus</i> Hauer, 1938
<i>T. braziliensis</i> Murray, 1913	<i>T. myersi</i> Hauer, 1931
<i>T. capucina</i> Wierzejski & Zacharias, 1893	<i>T. plaka</i> Myers, 1938
<i>T. collaris</i> Rousselet, 1896	<i>T. porcellus</i> (Gosse, 1886)
<i>T. cylindrica cylindrica</i> Imhof, 1891	<i>T. pusilla</i> Lauterborn, 1898
<i>T. c. chattoni</i> Beauchamp, 1907	<i>T. rattus</i> O.F. Muller, 1776

Species inventory

<i>T. dixonuttalli</i> Jennings, 1903	<i>T. rosea</i> Stenroos, 1898
<i>T. elongata</i> Gosse, 1886	<i>T. rousseleti</i> Voigt, 1902
<i>T. e. braziliensis</i> Murray, 1913	<i>T. ruttneri</i> Donner, 1953
<i>T. flagellata</i> Hauer, 1937	<i>T. scipio</i> Pejler, 1962
<i>T. fusiformis</i> Levander, 1894	<i>T. similis</i> Wierzejski, 1893
<i>T. gracilis</i> Tessin, 1890	<i>T. s. grandis</i> Hauer, 1965
<i>T. heterodactyla</i> Tschugunoff, 1921	<i>T. stylata</i> Gosse, 1851
<i>T. iernis</i> Gosse, 1887	<i>T. sulcata</i> Jennings, 1894
<i>T. inermis</i> Linder, 1904	<i>T. tigris</i> O.F. Muller, 1786
<i>T. insignis</i> Herrich, 1885	<i>Trichocerca</i> sp
<i>T. insulana</i> Hauer, 1937	<i>Trichotria tetractis</i> var. <i>similis</i> Stenroos 1830
<i>T. intermedia</i> Stenroos, 1898	

Trochosphaeridae

<i>Horaëlla brehmi</i> Wulfert, 1935	<i>Trochosphaera aequatorialis</i> Semper, 1872
<i>H. thomassoni</i> Koste, 1973	

Philodinidae

Bdelloidea	<i>Rotaria neptunia</i> Ehrenberg, 1830
<i>Dissotrocha aculeata</i> Ehrenberg, 1832	<i>R. rotatoria</i> Pallas, 1766
<i>D. macrostyla</i> Ehrenberg, 1838	<i>R. sordida</i> Western, 1893
<i>D. schlienzi</i> Hauer, 1956	<i>R. tardigada</i> Ehrenberg, 1830
<i>Dissotrocha</i> sp	<i>Rotaria</i> sp

CLADOCERS**Bosminidae**

<i>Bosmina hagmanni</i> Stingelin, 1904	<i>Bosmina</i> sp
<i>B. frey</i> De Mello & Hebbert 1994	<i>Bosminopsis deitersi</i> Richard, 1895
<i>B. tubicen</i> Brehm, 1939	

Chydoridae

<i>Acroperus tupinamba</i> Sinev & Elmoor-Loureiro, 2010	<i>Ephemeroporus barroisi</i> Richardi, 1894
<i>A. guttata</i> Sars, 1862	<i>E. hybridus</i> Daday, 1905
<i>A. intermedia</i> Sars, 1862	<i>E. tridentatus</i> Bergamin, 1932
<i>A. yara</i> Sinev & Elmoor-Loureiro, 2010	<i>Flavalona iheringula</i> Kotov & Sinev, 2004
<i>A. ossiani</i> Sinev, 1998	<i>Graptoleberis occidentalis</i> Sars, 1901
<i>Alonella dadayi</i> Birge, 1910	<i>Karualona muelleri</i> Richard, 1897
<i>A. clathratula</i> Sars, 1896	<i>Kurzia polypina</i> Kurz, 1974
<i>Alonella</i> sp	<i>K. longirostris</i> Daday, 1898
<i>Anthalona verrucosa</i> Sars, 1901	<i>Leberis davidi</i> Richard, 1893
<i>Bergamina lineolata</i> Sars, 1901	<i>Leydigia ipojucae</i> Brehm, 1938
<i>Camptocercus australis</i> Sars, 1896	<i>L. striata</i> Berabén, 1939
<i>Chydorus eurynotus</i> Sars, 1901	<i>Leydigia</i> sp
<i>C. nitidulus</i> Sars, 1901	<i>Leydigiopsis brevirostris</i> Brehm, 1938
<i>C. parvireticulatus</i> Frey, 1987	<i>L. curvirostris</i> Sars, 1901

Species inventory

- C. pubescens* Sars, 1901
C. sphaericus O. F. Muller, 1785
Chydorus sp
Coronatella monacantha Sars, 1901
C. poppei Richard, 1897
C. rectangula Sars, 1901
Dadaya macrops Daday, 1898
Disparalona leptorhyncha Smirnov, 1996
D. hamata Birge, 1879
Dunhevedia odontoplax Sars, 1901
Euryalona brasiliensis Brehm & Thomsen, 1936
E. orientalis Daday, 1908
L. ornata Daday, 1905
L. megalops Sars, 1901
L. propinqua Sars, 1903
Magnospyna. dentifera Sars, 1901
Notoalona globulosa Daday, 1898
Nicsmirnovius incredibilis Smirnov, 1984
N. paggi Kiser, 1948
Oxyurella ciliata Bergamin, 1931
O. longicaudis Birge, 1910
O. sculpta Bergamin, 1931
Ovalona glabra Sars, 1901
Parvalona parva Daday, 1905

Daphniidae

- Ceriodaphnia cornuta* Sars, 1886
C. reticulata Jurine, 1820
C. laticaudata P.E. Muller, 1867
C. pulchela Sars, 1862
C. silvestrii Daday, 1903
C. richardi Sars, 1901
Ceriodaphnia sp
Daphnia ambigua Scourfield, 1947
D. gessneri Herbst, 1967
D. laevis Birge, 1878
Daphnia lumholtzi Sars, 1885
Daphnia sp
Scapholeberis cf. armata freyi Herrick, 1882
Scapholeberis sp.
Simocephalus iheringi Richard, 1897
S. latirostris Stingelin, 1906
S. semiserratus Sars, 1901
S. mixtus Sars, 1903
S. punctatus Orlova-Bienkowskaja, 1998
S. serrulatus Koch, 1841
S. vetulus O.F. Muller, 1776
Simocephalus sp

Ilyocryptidae

- Ilyocryptus spinifer* Herrich, 1884

Macrothricidae

- Grimaldina brazzai* Richard, 1892
Guernella raphaelis Richard, 1892
Macrothrix laticornis Jurine, 1820
M. elegans Sars, 1901
M. paulensis, Sars, 1888
M. squamosa Sars, 1901
M. superaculeata Smirnov, 1992
M. triserialis Brady, 1886
Macrothrix sp
Onchobunops tuberculatus Fryer & Paggi, 1972
Streblocerus cf. pygmaeus Sars, 1901

Moinidae

- Moina micrura* Kurz, 1874
M. minuta Hansen, 1899
M. reticulata Daday, 1905
M. rostrata McNair, 1980
Moinodaphnia macleayi King, 1853
Moina sp

Sididae

- Diaphanosoma birgei* Korineck, 1981
D. brevireme Sars, 1901
D. fluviatile Hansen, 1899
Diaphanosoma sp
Latonopsis australis Sars, 1888
Pseudosida ramosa Daday, 1904

Species inventory

D. spinulosum Herbst, 1975
D. polypina Korovchink, 1982

Sarsilatona behningi Korovchinsky 1985
S. serricauda Sars, 1901

COPEPODS

Cyclopidae

<p><i>Acanthocyclops robustus</i> Sars, 1863 <i>Ectocyclops rubescens</i> Brady, 1904 <i>Ectocyclops</i> sp <i>Eucyclops ensifer</i> Fischer, 1853 <i>E. solitarius</i> Herbst, 1959 <i>E. elegans</i> Herrick, 1884 <i>Eucyclops prinophorus</i>. Kiefer, 1931 <i>Eucyclops</i> sp <i>Macrocyclops albidus</i> Jurine, 1820 <i>Microcyclops anceps anceps</i> Ricard, 1897 <i>M. alius</i> Kiefer, 1935 <i>M. ceibaensis</i> Marsh, 1919 <i>M. finitimus</i> Dussart, 1984 <i>M. anceps</i> Richard, 1897 <i>Microcyclops</i> sp <i>Mesocyclops aspericornis</i> Daday, 1906 <i>M. ellipticus</i> Kiefer, 1936</p>	<p><i>Mesocyclops longisetus</i> var. <i>araucarus</i> Loffler, 1961 <i>M. l. longisetus</i> Thiébaud, 1914 <i>M. l. curvatus</i> Dussart, 1987 <i>M. meridianus</i> Kiefer, 1926 <i>M. ogunnus</i> Onabaniro, 1957 <i>Metacyclops brauni</i> Herbst, 1962 <i>M. laticornis</i> Lowndes, 1934 <i>M. mendocinus</i> Wierzejski, 1892 <i>Metacyclops</i> sp <i>Neutrocyclops brevifurca</i> Lowndes, 1934 <i>Paracyclops chiltoni</i> Thomson, 1882 <i>P. fimbriatus</i> Fischer, 1853 <i>Paracyclops</i> sp <i>Thermocyclops decipiens</i> Kiefer, 1929 <i>T. inversus</i> Kiefer, 1936 <i>T. minutus</i> Lowndes, 1934 <i>Tropocyclops prasinus</i> Fischer, 1860</p>
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Diaptomidae

<p><i>Argyrodiaptomus azevedoi</i> Wright, 1935 <i>A. denticulatus</i> Pesta, 1927 <i>A. furcatus</i> Sars, 1901 <i>Argyrodiaptomus</i> sp <i>Notodiaptomus cearensis</i> Wright, 1936 <i>N. deitersi</i> Poppe, 1891 <i>N. henseni</i> Dahl, 1894 <i>N. iheringi</i> Wright, 1935 <i>N. jatobensis</i> Kiefer, 1956 <i>N. incompositus</i> Pesta, 1927</p>	<p><i>N. isabelae</i> Wright, 1936 <i>N. cf. nordestinus</i> Wright, 1935 <i>N. kieferi</i> Brandorff, 1973 <i>N. paraensis</i> Dussart & Robertson, 1984 <i>N. spiniger</i> Brian 1925 <i>N. spinuliferus</i> D. & M.T., 1986 <i>N. conifer</i> Sars, 1901 <i>Notodiaptomus</i> sp <i>Odontodiaptomus paulistanus</i> Wright, 1936</p>
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Table 1B. Species richness and organisms' abundance (ind. m⁻³) recorded in the different environments of the upper Paraná river floodplain during 19 years.

Year	Species richness				Abundance			
	Average	Deviation	Minimum	Maximum	Average	Deviation	Minimum	Maximum
2000	33.9	11.0	0.0	57.0	60,186.4	79,328.5	0.0	356,833.6

2001	45.5	17.6	0.0	96.0	369,951.1	1,236,994.5	0.0	850,9623.2
2002	57.3	14.6	30.0	97.0	99,615.5	99,318.4	948.3	508,492.0
2003	44.1	15.0	13.0	77.0	31,340.9	63,536.0	485.8	333,482.3
2004	34.4	11.4	16.0	69.0	60,444.3	232,960.7	196.4	1,615,675.8
2005	34.5	10.1	7.0	53.0	41,194.7	107,108.9	273.3	664,147.4
2006	39.4	10.5	11.0	58.0	95,228.9	329,030.4	1440.2	2,276,924.8
2007	33.4	10.0	14.0	63.0	44,397.9	87,940.8	351.9	547,784.3
2008	31.6	9.5	16.0	54.0	30,138.8	51,087.5	502.1	286,440.4
2009	41.8	11.1	18.0	68.0	53,088.8	95,380.3	677.5	399,828.8
2010	44.7	17.3	16.0	83.0	75,514.0	105,671.0	668.8	483,085.9
2011	36.5	12.2	0.0	65.0	58,465.9	90,237.5	0.0	365,637.7
2012	40.9	11.9	20.0	77.0	62,784.2	162,805.9	321.4	1,115,963.7
2013	37.9	12.4	16.0	74.0	41,533.4	74,223.6	534.5	394,910.0
2014	37.4	15.7	0.0	91.0	26,675.5	46,729.3	0.0	263,198.0
2015	45.1	17.8	9.0	87.0	23,229.4	63,540.8	106.9	422,626.6
2016	18.2	8.0	11.0	49.0	20,637.1	52,693.1	93.5	244,455.6
2017	33.3	11.1	16.0	57.0	70,044.4	206,833.5	552.9	990,927.0
2018	28.9	12.1	7.0	55.0	31,237.1	118,709.7	23.4	822,202.7
