**Figure capitions**



**Figure 1**



**Figure 2**

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**Figure 3**

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**Figure 4**

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**Figure 5**

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**Figure 6**

**Supplementary material**

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

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

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| **AMEBAS TESTÁCEAS** |
| **Arcellidae** |
| *Arcella arenaria* Greeff, 1866 | *A. hemisphaerica* Perty, 1852 |
| *A. artocrea* Leidy, 1876 | *A. h.* f. *undulata* Deflandre, 1928 |
| *A*. *brasiliensis* Cunha, 1913 | *A. marginata* Daday, 1905 |
| *A. catinus* Pénard, 1890 | *A. megastoma* Pénard, 1902 |
| *A. conica* Playfair, 1917 | *A. mitrata* Leidy, 1879  |
| *A. costata* Ehrenberg, 1847 | *A. spectabilis* Deflandre, 1928 |
| *A. crenulata* Deflandre, 1928 | *A. nordestina* Vucetich, 1973 |
| *A. dentata* Ehrenberg, 1830 | *A. rota* Daday, 1905 |
| *A. discoides* Ehrenberg, 1843 | *A. vulgaris* Ehrenberg, 1830 |
| *A. gandalfi* Leidy, 1876 | *A. v.* f. *elegans* Deflandre, 1928 |
| *A. gibbosa* Pénard, 1890 | *A. v.* var*. penardi* Deflandre, 1928 |
| *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 |  |
| **Difflugiidae** |
| *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 |
| *Difflugia acuminata* Ehremberg, 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 |
| *D. globularis* Wallich, 1864 | *Protocucurbitella coroniformis ecornis* G.L. & T., 1960 |
| *D. globulosa* Dujardin, 1837 | *Pontigulasia* cf. *compressa*Rhumbler, 1895 |
| *D. gramen* Pénard, 1902 | *Pontigulasia* sp |
| *D. hevetica* var. *multilobata* Pénard, 1908 | *Suiadifflugia multipora* Green, 1975 |
| **Euglyphidae** |
| *Euglypha acanthophora* Ehrenberg 1841 | *Euglypha* sp |
| *E. denticulata* Brown, 1912 | *Trinema lineare* Penard, 1890 |
| *E. filifera* Penard, 1890 |  |
| **Hyalospheniidae** |
| *Hyalosphaenia nobilis* Sars, 1910 | *Heleopera* sp |
| *Longinebela penardiana* Deflandre, 1936 | *Nebella* sp |
| **Lesquereusiidae** |
| *Lesquereusia globulosa* Rhumbler, 1896 | *L. spiralis* Ehrenberg, 1840 |
| *L. gibbosa* G.L. & T., 1960 | *L. spiralis var. hirsuta* G.L. & Th., 1958 |
| *L.mimetica* Pénard, 1911 | *L. spiralis var. caudata* G.L. & Th., 1958 |
| *L. modesta* Rhumbler, 1896 | *Netzelia oviformis* Cash, 1909 |
| *L. modesta* var. *caudata* Playfair, 1917 | *N. tuberculata* Wallich, 1864 |
| *L. ovalis* G.L. & Th., 1958 | *N. wailesi* Ogden, 1980 |
| **Phryganellidae** |  |
| *Phryganella dissimulatoris* Chardez, 1969 | *Phryganella* sp |
| *P. hemisphaerica* Pénard, 1902 |  |
| **Plagyopyxidae** |  |
| *Hoogenraadia cryptostoma* G.L. & Th., 1958 | *Plagiopyxis callida* Pénard, 1910 |
| *Hoogenraadia* sp. | *Plagiopyxis* sp |
| **Trigonopyxidae** |  |
| *Cyclopyxis aplanata* Deflandre, 1929 | *C. khali* Deflandre, 1929 |
| *C. eurystoma* Deflandre, 1928 | *Cyclopyxis* sp |
| *C. impressa* Daday, 1905 |  |
| **ROTÍFEROS** |
| **Asplanchnidae** |
| *Asplanchnopus hyalinus*Harring, 1913 | *A. sieboldi* Leydig, 1854 |
| *Asplanchna priodonta* Gosse, 1850 | *Harringia rousseleti* De Beauchamp, 1912 |
| **Atrochidae** |
| *Cupelopagis vorax* Leidy, 1857 |  |
| **Brachionidae** |
| *Anuraeopsis fissa* Gosse, 1851 | *B. q. mirabilis* Daday, 1897 |
| *A. navicula* Rousselet, 1910 | *B. q. quadridentatus* Hermann, 1783 |
| *A. quadriantennata*Koste, 1974 | *B. urceolaris* O.F. Muller, 1773 |
| *Anuraeopsis* sp | *B. amazonicus* Koste 1983 |
| *Brachionus angularis* Gosse, 1851 | *B. satanicus* Rousselet, 1913 |
| *B. bidentatus* Anderson, 1889 | *Kellicotia bostoniensis* Rousselet, 1908 |
| *B. budapestinensis* Daday, 1885 | *K.eratella americana* Carlin, 1943 |
| *B. calyciflorus* Pallas, 1766 | *K. cochlearis* Gosse, 1851 |
| *B. c. spinosus* Rousselet, 1901 | *K. c. micracantha* Lauterborn, 1898 |
| *B. caudatus* Barrois & Daday, 1894 | *K. lenzi* Hauer, 1953 |
| *B. c. austrogenitus* Ahlstrom, 1940 | *K. tecta* Gosse, 1851 |
| *B. c. personatus* Ahlstrom, 1940 | *K.* *tropica* Apstein, 1907 |
| *B. c. majusculus* Ahlstrom, 1940 | *Notholca acuminata* Ehrenberg, 1832 |
| *B. dolabratus* Harring, 1915 | *N. caudata* Carlin, 1943 |
| *B. falcatus* Zacharias, 1898 | *N. lamelifera* Kutikova, 1978 |
| *B. forficula* Wierzejski, 1891 | *Notholca* sp |
| *B. havanaensis* Lindeman, 1939 | *Plationus patulus macracanthus* Daday, 1905 |
| *B. mirus* Daday, 1905 | *P. patulus patulus* O. F. Müller,1786 |
| *B. m. angustus* Koste, 1972 | *Platyias leloupi* Gillard, 1957 |
| *B. m. reductus* Koste, 1972 | *P. quadricornis quadricornis* Daday, 1905 |
| *B. quadridentatus* Daday, 1897 |  |
| **Collothecidae** |
| *Collotheca ornata* Ehrenberg, 1832 | *Collotheca* sp |
| **Conochilidae** |
| *Conochilus coenobasis* Skorikov, 1914 | *C. unicornis* Rousselet, 1892 |
| *C. dossuaris* Hudson, 1885 | *C. natans* Seligo, 1900 |
| **Dicranophoridae** |
| *Aspelta angusta* Harring & Myers, 1928 | *D. prionacis* Harring & Myers, 1928 |
| *Dicranophoroides caudatus* Ehrenberg, 1834 | *D. tegillus* Harring & Myers, 1928 |
| *D. claviger* Hauer, 1965 | *D. hauerianos* Wiszniewski, 1939 |
| *D. difflugiarum* Penard, 1914 | *Encentrum longisepes* Wulfert, 1936 |
| *D. epicharis* Harring & Myers, 1928 | *E. saundersiae* Hudson, 1885 |
| *D. forcipatus* Müller, 1786 | *Encentrum* sp |
| *D. luetkeni* Bergendal, 1892 |  |
| **Epiphanidae** |
| *Epiphanes clavatula* Ehrenberg, 1834 | *Epiphanes* sp |
| *E. macroura* Barrois & Daday, 1894 | *Mikrocodides robustus* Glascott, 1893 |
| *E. senta* Muller, 1973 |  |
| **Euchlanidae** |
| *Beuchampiella eudactylota* Gosse, 1886 | *E. i. mucronata* Ahlstrom, 1934 |
| *Dipleuchlanis propatula propatula* Gosse, 1886 | *E. meneta* Myers, 1930 |
| *D. propatula macrodactyla* Hauer, 1965 | *E.* cf. *mikropous* Koch-Althaus, 1962 |
| *Euchlanis deflexa* Gosse, 1851 | *E. oropha* Gosse, 1887 |
| *E. dilatata dilatata* Ehrenberg, 1832 | *Euchlanis* sp |
| *E. d.* *luckisiana* Hauer, 1930 | *Tripleuchlanis plicata plicata* Levander, 1894 |
| *E. incisa* Carlin, 1939 |  |
| **Filinidae** |
| *Filinia longiseta* Ehrenberg, 1834 | *F. pejleri* Hutchinson, 1964 |
| *F. limnética* Zacharias, 1893 | *F.* *saltator* Gosse, 1886 |
| *F.* *opoliensis* Zacharias, 1891 | *F.* *terminalis* Plate, 1886 |
| **Flosculariidae** |
| *Floscularia melicerta* Ehrenberg, 1832 | *P. melicerta* Ehrenberg, 1832 |
| *F. ringens* Linnaeus, 1758 | *P. longicornis* Davis, 1867 |
| *Floscularia* sp | *Ptygura* sp |
| *Limnias ceratophylli* Schrank, 1803 | *Sinantherina ariprepes* Edmondson, 1939 |
| *L. melicerta* Weisse, 1848 | *S. procera* Thorpe, 1889 |
| *Octotrocha speciosa*Thorpe, 1893 | *S. spinosa*Thorpe, 1893 |
| *Ptygura libera* Myers, 1934 | *Sinantherina* sp |
| **Gastropodidae** |
| *Ascomorpha* cf*. agilis* Zacharias, 1893 | *Gastropus hyptopus* Ehrenberg, 1938 |
| *A. ecaudis* Perty, 1850 | *G. minor* Ehrenberg, 1938 |
| *A. ovalis* Bergendal, 1892 | *G. stylifer* Imhof, 1891 |
| *A. saltans* Bartsch, 1870 | *Gastropus* sp |
| *Ascomorpha* sp |  |
| **Proalidae** |
| *Proales minima* Montet, 1915 | *Proales* sp |
| *P. sigmoidea* Skorikov, 1896 |  |
| **Hexarthridae** |
| *Hexarthra intermedia* Wiszniewski, 1929 | *H. mira* Hudson, 1871 |
| *H. i. braziliensis* Hauer, 1953 | *Hexarthra* sp |
| **Ituriidae** |
| *Itura aurita* Ehrenberg, 1830 | *I. myersi* Wulfert, 1935 |
| *I. chamadis* Harring & Myers, 1928 | *Itura* sp |
| *I. deridderae* Segers, 1993 |  |
| **Lecanidae** |
| *Lecane aculeata* Jakubski, 1912  | *L. l. brevicauda* Hauer, 1938 |
| *L. amazonica* Murray, 1913 | *L. luna*O. F. Müller, 1776 |
| *L. boettgeri* Koste, 1986 | *L. lunaris* Ehrenberg, 1832 |
| *L. braumi* Koste, 1988 | *L. mira* Murray, 1913 |
| *L. bulla* Gosse, 1886 | *L. monostyla* Daday, 1897 |
| *L. closterocerca* Schmarda, 1856 | *L. papuana* Murray, 1913 |
| *L. cornuta* O.F. Muller, 1786. | *L. proiecta* Hauer, 1956 |
| *L. curvicornis* Murray, 1913 | *L. pusilla* Harring, 1914 |
| *L. crenata* Harring, 1913 | *L. obtusa* Murray, 1913 |
| *L. decipiens* Murray, 1913 | *L. ohioensis* Herrick, 1885 |
| *L. doryssa* Harring, 1914 | *L. quadridentata* Ehrenberg, 1832*.* |
| *L. elsa* Hauer, 1931 | *L.* *remanei* Hauer, 1956 |
| *L. furcata* Murray, 1913 | *L. rhytida* Harring & Myers, 1926 |
| *L. grandis* Murray, 1913 | *L. roberstonae* Segers, 1993 |
| *L. halyclista* Harring & Myers, 1926 | *L. scutata* H. & M., 1926 |
| *L. hornemanni* Ehrenberg, 1834 | *L. signifera* Jennings, 1896 |
| *L. hamata* Stokes, 1896 | *L. s. ploenensis* Voigt, 1902 |
| *L. hastata* Murray, 1913 | *L. stenroosi* Meissner, 1908 |
| *L. inermis* Bryce, 1892 | *L. stichaea* Harring, 1913 |
| *L. inopinata* Harring & Myers, 1926 | *L. ungulata* Gosse, 1887 |
| *L. leontina*Turner, 1892 | *L unguitata* Fadeev, 1925 |
| *L. ludwigi* Eckstein, 1883 | *L. thienemanni* Hauer, 1938 |
| **Lepadellidae** |
| *Colurella* *adriatica* Ehrenberg, 1831 | *L. ovalis* Müller, 1786 |
| *C. obtusa* Gosse, 1886 | *L. patella* Müller, 1773 |
| *Colurella* sp | *L. oblonga* Ehrenberg, 1834 |
| *Lepadella benjamini* Harring, 1916 | *L. rhomboides* Gosse, 1886 |
| *L. monodactyla* Bērziņš, 1960 | *L. triptera* Ehrenberg, 1832 |
| *L. dactyliseta* Stenroos, 1898 | *L. cristata* Rousselet, 1893 |
| *L. donneri* Koste, 1972 | *L. monodactyla brasiliensis* Koste, 1972 |
| *L. imbricata* Harring, 1914 | *Lepadella* sp |
| **Lindiidae** |
| *Lindia tolurosa* Dujardin, 1841 |   |
| **Mytilinidae** |
| *Mytilina acantophora* Hauer, 1938 | *M. trigona* Gosse, 1886 |
| *M. bisulcata* Lucks, 1912 | *M. ventralis*Ehrenberg, 1832 |
| *M. macrocera* Jennings, 1894 | *Mytilina ventralis var. macrachanta* Gosse, 1886 |
| *M. mucronata* O.F. Muller, 1773 | *Lophocauris oysternon* Gosse, 1851 |
| *M. spinigera* Ehrenberg, 1830 | *L. salpina* Ehrenberg, 1834 |
| **Notommatidae** |
| *Cephalodella anebodica* Ehrenberg, 1830 | *M. pseudophoxa* Wulfert, 1960 |
| *C. forficula* Ehrenberg, 1830 | *Monommata* sp. |
| *C. gibba* Ehrenberg, 1832 | *Notommata angusta* Harring & Myers, 1922 |
| *C. gracilis* Ehrenberg, 1832 | *N. cerberus* Gosse, 1896 |
| *C. hiulca* Myers, 1924 | *N. cyrtopus*Gosse, 1886 |
| *C. mucronata*Myers, 1924 | *N.* *copeus* Ehrenger, 1834 |
| *C. obvia* Donner, 1950 | *N. falcinella* Harring & Myers, 1921 |
| *C. tenuiseta* Burn, 1890 | *N. glyphura* Wulf, 1935 |
| *C. sterea* Gosse, 1887 | *N. haueri* Wulf, 1939 |
| *Cephalodella* sp | *N.* *pachyura* Gosse, 1886 |
| *Enteroplea lacustris* Ehrenberg, 1830 | *N. prodota* Myers, 1933 |
| *Eosphora anthadis* Harring & Myers, 1922 | *N.* *pseudocerberus* De Beauchamp, 1908 |
| *E. thoides* Wulferti, 1935 | *N. saccigera* Ehrenberg, 1832 |
| *Eothinia elongata* Ehrenberg, 1832 | *N. stitista* Myers, 1838 |
| *Monommata arndti* Remane, 1933 | *N. triptus* Ehrenberg, 1838 |
| *M. caeca*Myers, 1930 | *Notommata* sp |
| *M. dentata*Wulfert, 1940 | *Pleurotrocha robusta* Glascott, 1893 |
| *M. grandis* Tessin, 1890 | *Pleurotrocha* sp |
| *M. maculata*Harring & Myers, 1924 | *Taphrocampa selenura* Gosse, 1887 |
| *M. actices* Myers, 1930 |  |
| **Scarididae** |
| *Scaridium grandis* Segers, 1995 | *Scaridium* sp |
| *S. longicaudatum* O.F.Muller, 1786 |  |
| **Synchaetidae** |
| *Ploesoma lenticulare* Gosse, 1851 | *Synchaeta oblonga* Ehrenberg, 1831 |
| *P. truncata* Levander, 1894 | *S. pectinata* Ehrenberg 1832 |
| *Polyarthra dolicoptera* Idelson, 1925 | *S. stylata* Wierzejski, 1893 |
| *P. remata* Skorikov, 1896 | *S. longipes* Gosse, 1887 |
| *P. vulgaris* Carlin, 1943 | *Synchaeta* sp |
| **Testudinellidae** |
| *Pompholix complanata* Gosse, 1951 | *T. mucronata hauerensis* Gillard, 1967 |
| *P. sulcata* Hudson, 1885 | *T. ohlei*Koste, 1972 |
| *P. trilobata* Pejler, 1957 | *T.* *patina patina*Hermann, 1783 |
| *Pompholyx* sp | *T. patina dendradena* De Beauchamp,1955 |
| *Testudinella ahlstromi* Hauer, 1956 | *T.* *tridentata*Smirnov, 1931 |
| *T. discoidea* Ahlstrom, 1938 | *T. t. amazônica* Thomasson, 1971 |
| *T. greeni* Koste, 1981 | *T.* *truncata* Gosse, 1886 |
| *T. mucronata* Gosse, 1886 | *T. discoides* Ahlstrom, 1938 |
| **Tetrasiphonidae** |
| *Tetrasiphon hydrocora* Ehrenberg, 1840 |  |
| **Trichotriidae** |
| *Macrochaetos collinsi*Gosse, 1867 | *M. subquadratus* Perty, 1850 |
| *M. longipes* Myers, 1934 | *Trichotria tetractis* Ehrenberg, 1830 |
| *M. sericus* Thorpe, 1893 |  |
| **Trichocercidae** |
| *Elosa* sp. | *T.* *longiseta* Schrank, 1802 |
| *Trichocerca agnata* Wulf, 1939 | *T. longistyla* Olofsson, 1918 |
| *T. bidens* Lucks, 1912 | *T. macera* Gosse, 1886 |
| *T. bicristata* Gosse, 1886 | *T. mus* Hauer, 1938 |
| *T. braziliensis* Murray, 1913 | *T. myersi* Hauer, 1931 |
| *T. capucina* Wierzejski & Zacharias, 1893 | *T. plaka* Myers, 1938 |
| *T. collaris* Rousselet, 1896 | *T. porcellus* (Gosse, 1886) |
| *T. cylindrica cylindrica* Imhof, 1891 | *T. pusilla* Lauterborn, 1898 |
| *T. c. chattoni* Beauchamp, 1907 | *T. rattus* O.F. Muller, 1776 |
| *T. dixonnuttalli* Jennings, 1903 | *T. rosea* Stenroos, 1898 |
| *T. elongata*Gosse, 1886 | *T. rousseleti* Voigt, 1902 |
| *T. e. braziliensis* Murray, 1913 | *T. ruttneri* Donner, 1953 |
| *T. flagellata* Hauer, 1937 | *T. scipio* Pejler, 1962 |
| *T. fusiformis*Levander, 1894 | *T. similis* Wierzejski, 1893 |
| *T. gracilis*Tessin, 1890 | *T. s. grandis* Hauer, 1965 |
| *T. heterodactyla*Tschugunoff, 1921 | *T. stylata* Gosse, 1851 |
| *T. iernis*Gosse, 1887 | *T. sulcata* Jennings, 1894 |
| *T. inermis* Linder, 1904 | *T. tigris* O.F. Muller, 1786 |
| *T. insignis* Herrich, 1885 | *Trichocerca* sp |
| *T. insulana* Hauer, 1937 | *Trichotria tetractis var. similis*Stenroos 1830 |
| *T. intermedia*Stenroos, 1898 |  |
| **Trochosphaeridae** |
| *Horaëlla brehmi* Wulfert, 1935 | *Trochosphaera aequatorialis* Semper, 1872 |
| *H. thomassoni* Koste, 1973 |  |
| **Philodinidae** |
| Bdelloidea | *Rotaria neptunia* Ehrenberg, 1830 |
| *Dissotrocha aculeata* Ehrenberg, 1832 | *R. rotatoria* Pallas, 1766 |
| *D. macrostyla* Ehrenberg, 1838 | *R. sordida* Western, 1893 |
| *D. schlienzi* Hauer, 1956 | *R. tardigada* Ehrenberg, 1830 |
| *Dissotrocha* sp | *Rotaria* sp |
| **CLADÓCEROS** |
| **Bosminidae** |
| *Bosmina hagmanni* Stingelin, 1904 | *Bosmina* sp |
| *B. frey* De Mello & Hebbert 1994 | *Bosminopsis deitersi* Richard, 1895 |
| *B. tubicen* Brehm, 1939 |  |
| **Chydoridae** |
| *Acroperus tupinamba* Sinev & Elmoor-Loureiro, 2010 | *Ephemeroporus barroisi* Richardi, 1894 |
| *A. guttata* Sars, 1862 | *E. hibridus* Daday, 1905 |
| *A. intermedia* Sars, 1862 | *E. tridentatus* Bergamin, 1932 |
| *A. yara* Sinev & Elmoor-Loureiro, 2010 | *Flavalona iheringula* Kotov & Sinev, 2004 |
| *A. ossiani* Sinev, 1998 | *Graptoleberis ocidentalis* Sars, 1901 |
| *Alonella dadayi* Birge, 1910 | *Karualona muelleri* Richard, 1897 |
| *A. clathratula* Sars, 1896 | *Kurzia polyspina* Kurz, 1974 |
| *Alonella* sp | *K. longirostris* Daday, 1898 |
| *Anthalona verrucosa* Sars, 1901 | *Leberis davidi* Richard, 1893 |
| *Bergamina lineolata* Sars, 1901 | *Leydigia ipojucae* Brehm, 1938 |
| *Camptocercus australis* Sars, 1896 | *L. striata* Berabén, 1939 |
| *Chydorus eurynotus* Sars, 1901 | *Leydigia* sp |
| *C. nitidulus* Sars, 1901 | *Leydigiopsis brevirostris* Brehm, 1938  |
| *C. parvireticulatus* Frey, 1987 | *L. curvirostris* Sars, 1901 |
| *C. pubescens* Sars, 1901 | *L. ornata* Daday, 1905 |
| *C. sphaericus* O. F. Muller, 1785 | *L. megalops* Sars, 1901 |
| *Chydorus* sp | *L. propinqua* Sars, 1903 |
| *Coronatella monacantha* Sars, 1901 | *Magnospyna. dentifera* Sars, 1901 |
| *C. poppei* Richard, 1897 | *Notoalona globulosa* Daday, 1898 |
| *C. rectangula* Sars, 1901 | *Nicsmirnovius incredibilis* Smirnov, 1984 |
| *Dadaya macrops* Daday, 1898 | *N. paggi* Kiser, 1948 |
| *Disparalona leptorhyncha* Smirnov, 1996 | *Oxyurella ciliata* Bergamin, 1931 |
| *D. hamata* Birge, 1879 | *O. longicaudis* Birge, 1910 |
| *Dunhevedia odontoplax* Sars, 1901 | *O. sculpta* Bergamin, 1931 |
| *Euryalona brasiliensis* Brehm & Thomsen, 1936 | *Ovalona glabra* Sars, 1901 |
| *E. orientalis* Daday, 1908 | *Parvalona parva* Daday, 1905 |
| **Daphniidae** |
| *Ceriodaphnia cornuta* Sars, 1886 | *Daphnia* sp |
| *C. reticulata* Jurine, 1820 | *Scapholeberis* cf. *armata freyi* Herrick, 1882 |
| *C. laticaudata* P.E. Muller, 1867 | *Scapholeberis* sp. |
| *C. pulchela* Sars, 1862 | *Simocephalus iheringi* Richard, 1897 |
| *C. silvestrii* Daday, 1903 | *S. latirostris* Stingelin, 1906 |
| *C. richardi* Sars, 1901 | *S. semiserratus* Sars, 1901 |
| *Ceriodaphnia* sp | *S. mixtus* Sars, 1903 |
| *Daphnia ambigua* Scourfield, 1947 | *S. punctatus*Orlova-Bienkowskaja, 1998 |
| *D. gessneri* Herbst, 1967 | *S. serrulatus* Koch, 1841 |
| *D. laevis* Birge, 1878 | *S. vetulus* O.F. Muller, 1776 |
| *Daphnia lumholtzi* Sars, 1885 | *Simocephalus* sp |
| **Ilyocriptidae** |
| *Ilyocryptus spinifer* Herrich, 1884 |  |
| **Macrothricidae** |
| *Grimaldina brazzai* Richard, 1892 | *M. superaculeata* Smirnov, 1992 |
| *Guernella raphaelis* Richard, 1892 | *M. triserialis* Brady ,1886 |
| *Macrothrix laticornis* Jurine, 1820 | *Macrothrix* sp |
| *M. elegans* Sars, 1901 | *Onchobunops tuberculatus* Fryer & Paggi, 1972 |
| *M. paulensis,* Sars, 1888 | *Streblocerus* cf. *pygmaeus* Sars, 1901 |
| *M. squamosa Sars, 1901* |  |
| **Moinidae** |
| *Moina micrura* Kurz, 1874 | *M. rostrata* McNair, 1980 |
| *M. minuta* Hansen, 1899 | *Moinodaphnia macleayi* King, 1853 |
| *M. reticulata* Daday, 1905 | *Moina* sp |
| **Sididae** |
| *Diaphanosoma birgei* Korineck, 1981 | *Diaphanosoma* sp |
| *D. brevireme* Sars, 1901 | *Latonopsis australis* Sars, 1888 |
| *D. fluviatile* Hansen, 1899 | *Pseudosida ramosa* Daday, 1904 |
| *D. spinulosum* Herbst, 1975 | *Sarsilatona behningi* Korovchinsky 1985 |
| *D. polyspina* Korovchink, 1982 | *S. serricauda* Sars, 1901 |
| **COPÉPODES** |
| **Cyclopidae** |
| *Acanthocyclops robustus* Sars, 1863 | *Mesocyclops longisetus* var. *araucarus* Loffler, 1961 |
| *Ectocyclops rubescens* Brady, 1904 | *M. l. longisetus* Thiébaud, 1914 |
| *Ectocyclops* sp | *M. l. curvatus* Dussart, 1987 |
| *Eucyclops ensifer* Fischer, 1853 | *M. meridianus* Kiefer, 1926 |
| *E. solitarius* Herbst, 1959 | *M. ogunnus* Onabaniro, 1957 |
| *E. elegans* Herrick, 1884 | *Metacyclops brauni* Herbst, 1962 |
| *Eucyclops prinophorus.* Kiefer, 1931 | *M. laticornis* Lowndes, 1934 |
| *Eucyclops* sp | *M. mendocinus* Wierzejski, 1892 |
| *Macrocyclops albidus* Jurine, 1820 | *Metacyclops* sp |
| *Microcyclops anceps anceps* Ricard, 1897 | *Neutrocyclops brevifurca* Lowndes, 1934 |
| *M. alius* Kiefer, 1935 | *Paracyclops chiltoni* Thomson, 1882 |
| *M. ceibaensis* Marsh, 1919 | *P. fimbriatus* Fischer, 1853 |
| *M. finitimus* Dussart, 1984 | *Paracyclops* sp |
| *M. anceps* Richard, 1897 | *Thermocyclops decipiens* Kiefer, 1929 |
| *Microcyclops* sp | *T. inversus* Kiefer, 1936 |
| *Mesocyclops aspericornis* Daday, 1906 | *T. minutus* Lowndes, 1934 |
| *M. ellipticus* Kiefer, 1936 | *Tropocyclops prasinus* Fischer, 1860 |
| **Diaptomidae** |
| *Argyrodiaptomus azevedoi* Wright, 1935 | *N. isabelae* Wright, 1936 |
| *A. denticulatus* Pesta, 1927 | *N.* cf. *nordestinus* Wright, 1935 |
| *A. furcatus* Sars, 1901 | *N. kieferi* Brandorff, 1973 |
| *Argyrodiaptomus* sp | *N. paraensis* Dussart & Robertson, 1984 |
| *Notodiaptomus cearensis* Wright, 1936 | *N. spiniger* Brian 1925 |
| *N. deitersi* Poppe, 1891 | *N. spinuliferus* D. & M.T., 1986 |
| *N. henseni* Dahl, 1894 | *N. conifer* Sars, 1901 |
| *N. iheringi* Wright, 1935 | *Notodiaptomus* sp |
| *N. jatobensis* Kiefer, 1956 | *Odontodiaptomus paulistanus* Wright, 1936 |
| *N. incompositus* Pesta, 1927 |  |

**Supplementary material 1B.** Species richness and organisms’ abundance (ind. m-3) recorded in the different environments of the upper Paraná river floodplain during 19 years.

|  |  |  |
| --- | --- | --- |
|   | Species richness | Abundance |
| Year | 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 |