Fernandes Gomes *et al.*, 2020. Environmental controls on zooplankton during hydrological periods of flooding and flushing in an Amazonian floodplain lake. Limnetica 39(1), 2020: 35-48

SUPPLEMENTARY INFORMATION

Table S1: Mean and standard deviation (SD) of zooplankton sampled at Lago Grande do Curuai, Pará, Brazil. *Média e desvio padrão (SD) do zooplâncton amostrado no Lago Grande do Curuai, Pará, Brasil*.

Family/Groups	Species	Acronyms	Mean	SD
Cladoceran				
Bosminidae	*Bosmina hagmanni*	*B.hag*	487.7	869.2
	Bosmina tubicen	*B.tub*	498.4	801.8
	Bosminopsis deitersi	*B.deit*	3 159.6	9 669.0
Chydoridae	*Alona guttata*	*A.gut*	10.2	45.5
	Alonella granulata	*A.gran*	6.3	39.5
	Biapertura karua	*B.kar*	10.8	68.5
	Chydorus pubescens	*C.pub*	50.0	316.2
	Chydorus sphaericus	*C.spha*	65.6	319.0
	Disparalona dadayi	*D.dad*	8.3	52.7
	Pleuroxus similis	*P.sim*	1.6	9.9
	Dadaya macrops	*D.mac*	12.5	79.1
Daphniidae	*Ceriodaphnia cornuta*	*C.corn*	1 153.6	1 812.5
	Ceriodaphnia reticulata	*C.ret*	42.3	118.6
	Ceriodaphnia silvestrii	*C.Silv*	53.2	241.7
	Chydorus eurynotus	*C.eury*	0.1	0.2
	Daphnia cf. *gessneri*	*D.ges*	3.1	19.8
Holopedidae	*Holopedium amazonicum*	*H.amaz*	814.9	2 209.1
Macrothricidae	*Macrothrix laticornis*	*M.lat*	17.1	78.2
	Macrothrix mira	*M.mira*	6.3	39.5
Moinidae	*Moina micrura*	*M.mic*	1 032.4	2 198.8
	Moina minuta	*M.min*	1 377.0	3 647.6
	Moina reticulata	*M.ret*	10.0	63.2
Sididae	*Diaphanosoma birgei*	*D.birg*	1 008.1	1 999.0
	Diaphanosoma spinulosum	*D.spin*	605.1	1 097.9
Copepod				
Cyclopidae	Copepodite	*Cop.cyc*	8 630.0	10 606.9
	Mesocyclops meridianus	*M.meri*	3.1	19.8
	Metacyclops mendocinus	*M.mend*	6.3	39.5
	Microcyclops alius	*M.Al*	151.1	495.3

	Microcyclops anceps	*M.anc*	25.0	158.1
	Microcyclops ceibaensis	*M.ceib*	58.7	300.9
	Microcyclops finitimus	*M.finit*	137.7	374.4
	Microcyclops sp.	*M.sp*	10.9	68.5
	Nauplii	*N.cyc*	34 454.0	36 849.7
	Thermocyclops decipiens	*T.deci*	1 284.2	2 600.4
	Thermocyclops inversus	*T.inv*	113.7	353.5
	Thermocyclops meridianus	*T.merid*	1.3	7.9
	Thermocyclops minutus	*T.min*	27.9	176.7
Diaptomidae	*Argyrodiaptomus azevedoi*	*A.azev*	35.4	134.6
	Argyrodiaptomus robertsonae	*A.rob*	353.7	2 114.2
	Copepodite	*C.diapt*	4 242.3	8 239.9
	Diaptomus deitersi	*D.deit*	2.7	17.2
	Nauplii	*N.diapt*	8 589.0	20 560.2
	Notodiaptomus amazonicus	*N.am*	64.4	158.3
	Notodiaptomus kieferi	*N.kief*	12.5	79.1
	Notodiaptomus paraensis	*N.par*	9.6	44.5
Rotifer				
Asplanchnidae	*Asplanchna siebold*	*A.sieb*	502.8	1 908.0
	Harringia eupoda	*H.eup*	381.3	2 411.2
Atrochidae	*Cupelopagis vorax*	*C.vorax*	6.3	39.5
Bdelloidea	Bdelloidea	*Bde*	230.6	1 369.9
Brachionidae	*Brachionus bidentata*	*B.bid*	10.8	68.5
	Brachionus calyciflorus	*B.caly*	3 539.6	9 101.7
	Brachionus caudatus	*B.caud*	2 224.8	6 635.9
	Brachionus dolabratus	*B.dol*	1 133.9	2 832.8
	Brachionus falcatus	*B.fal*	454.7	961.0
	Brachionus havanaensis	*B.hav*	156.3	908.8
	Brachionus mirus	*B.mir*	384.7	981.7
	Brachionus zahniseri	*B.zan*	5 879.5	18 278.5
	Keratella americana	*K.amer*	7 146.5	19 035.1
	Keratella cochlearis	*K.coch*	2.1	13.2
	Keratella cruciformis	*K.cruc*	12.5	79.1
	Keratella lenzi	*K.lenz*	18.4	74.4
	Keratella tropica	*K.trop*	31.3	78.8
	Plationus patulus var. *macracanthus*	*P.patul*	154.2	442.9
	Platyias quadricornis	*P.quad*	25.0	158.1
Collothecidae	*Collotheca edentata*	*C.edent*	12.0	66.4
	Collotheca mutabilis	*C.mut*	12.5	79.1
	Collotheca stephanochaeta	*C.step*	15.6	70.4
	Collotheca tubiformis	*C.tub*	12.5	79.1
Conochilidae	*Conochilus unicornis*	*C.unic*	1 889.7	6 004.1
Dicranophoridae	*Dicranophorus* sp.	*Dic.sp*	6.3	39.5

Epiphanidae	*Epiphanes clavatula*	*E.clav*	593.3	2 118.0
	Epiphanes macrorus	*E.mac*	170.2	689.3
	Epiphanes pelagica	*E.pel*	1.0	6.6
	Liliferotrocha subtilis	*L.sub*	23.1	127.5
	Proalides tentaculatus	*P.tent*	50.0	277.1
Filinidae	*Filinia camasecla*	*F.cam*	118.4	315.2
	Filinia longiseta	*F.long*	2 689.7	5 000.6
	Filinia opoliensis	*F.opol*	48.8	206.2
	Filinia terminalis	*F.term*	546.5	1 918.2
	Filinia unicornis	*F.unic*	6.3	39.5
Flosculariidae	*Ptygura spongicula*	*P.spong*	6.3	39.5
Gastropidae	*Ascomorpha eucadis*	*A.euc*	95.8	422.2
	Ascomorpha saltans	*A.salt*	16.7	105.4
Gastropodidae	*Gastropus hyptopus*	*G.hyp*	206.3	1 264.5
Hexarthridae	*Hexarthra intermedia*	*H.int*	136.3	695.2
	Hexarthra cf. *mira*	*H.mir*	37.5	237.2
	Hexarthra sp.	*Hex.sp*	100.0	632.5
Lecanidae	*Lecane elsa*	*L.elsa*	4.2	26.4
	Lecane levystila	*L.levy*	37.5	237.2
	Lecane luna	*L.luna*	43.8	159.0
	Lecane lunares	*L.lnrs*	32.7	93.5
	Lecane proiecta	*L.pro*	1 767.9	5 156.3
	Lecane scutata	*L.scut*	16.7	105.4
	Lecane signifera	*L.sign*	0.1	0.2
	Lecane submagna	*L.subm*	77.1	474.2
	Lecane ungulata	*L.ung*	6.3	39.5
Lepadellidae	*Colurella hindenburg*	*C.hind*	8.3	52.7
	Colurella obtusa	*C.obt*	1 139.2	3 874.4
	Colurella sp.	*Col.sp*	8.3	52.7
	Lepadella cf. *heterodactyla*	*L.het*	25.0	158.1
	Lepadella patela	*L.pat*	1 989.6	4 936.2
	Squatinella cf. *mutica*	*S.mut*	50.0	248.1
	Xenolepadella monodactyla	*X.mon*	68.8	396.2
Notomatidae	*Cephalodella* sp.	*Ceph.sp*	16.7	105.4
	Cephalodella tenuiseta	*C.ten*	2.1	13.2
	Drilophaga delagei	*D.del*	132.8	527.7
Synchaetidae	*Polyarthra remata*	*P.rem*	6.3	39.5
	Polyarthra vulgaris	*P.vulg*	682.6	2 581.7
Testudinellidae	*Testudinella patina*	*T.pat*	188.6	544.1
Trichocercidae	*Trichocerca bicristata*	*T.bic*	8.4	41.3
	Trichocerca cylindrica	*T.cyl*	72.1	204.7
	Trichocerca iernis	*T.ier*	1 595.4	2 201.7
	Trichocerda bidens	*T.bid*	6.3	39.5

Trichotridae	*Trichotria cornuta*	*T.corn*	115.0	711.3
Testate amoebae				
Arcellidae	*Arcella costata*	*A.cost*	18.8	118.6
	Arcella gibbosa	*A.gib*	25.0	94.7
	Arcella hemisphaerica	*A.hem*	18.8	118.6
	Arcella megastoma	*A.meg*	7.5	40.1
	Arcella vulgaris	*A.vulg*	48.2	137.5
Centropyxidae	*Centropyxis aculeata*	*C.acul*	6.3	39.5
	Centropyxis discoides	*C.disc*	2.1	13.2
	Centropyxis gibba	*C.gib*	106.0	394.0
Cucurbitaceae	*Curcubitella mespiliformis*	*C.mesp*	125.9	396.1
	Curcubitella sp.	*Curc.sp*	6.3	39.5
Difflugiidae	*Difflugia capreolata*	*D.cap*	3.1	19.8
	Difflugia difficilis	*D.diff*	360.5	938.0
	Difflugia elegans	*D.eleg*	7.3	39.9
	Difflugia lobostoma	*D.lob*	801.0	2 363.6
	Difflugia sp..	*Diff.sp*	19.8	87.5
	Difflugia tuberculata	*D.tuberc*	241.7	974.5
	Difflugia urceolata	*D.urc*	25.0	158.1
Euglyphidae	*Sphenoderia lenta*	*S.lenta*	33.3	210.8
	Trinema enchelys	*T.enc*	2.1	13.2
	Trinema lineare	*T.lin*	3 964.6	11 703.7
Hyalospheniidae	*Hyalosphenia elegans*	*H.eleg*	6.3	39.5
	Nebela collaris	*N.coll*	2.1	13.2
	Nebela tubulata	*N.tub*	10.8	68.5
Lesquereusiidae	*Lesquereusia globulosa*	*L.glob*	1 092.1	2 394.9
	Lesquereusia sp.	*Lesq.sp*	6.3	39.5
	Lesquereusia spiralis	*L.spir*	637.5	1 012.0
	Netzelia labeosa	*N.lab*	25.0	158.1
	Netzelia oviformis	*N.ovi*	38.8	171.2
	Netzelia sp.	*Netz.sp*	50.0	316.2

Table S2: Results of R^2_{adj} and *P* of the partial Redundancy Analysis (pRDA) and partial Canonical Correspondence Analysis (pCCA) between zooplankton groups and environmental variables. Significant values are in bold (P<0.05). a = effect of one variable, removing the effects of other variables; c = effect of other variables, removing the effect of variable a; b = effect of the interaction between the variable a and the other variables. BGA = Blue-green algae (µg/L), Chlo-*a* = Chlorophyll-*a* (µg/L), Transp = Transparency (m), TDS = Total dissolved solids (mg/L), P = Total phosphorus (ug/L) and N = Total nitrogen (ug/L), ∩=interaction. *Resultados do R^2_{adj} e P da Análise de Redundância parcial (pRDA) e Análise de Correspondência Canônica (pCCA) entre os grupos zooplanctônicos e as variáveis ambientais. Valores significativos estão em negrito (P<0.05). a = efeito de uma variável, removendo os efeitos de outras variáveis; c = efeito de outras variáveis, removendo o efeito da variável a; b = efeito da interação entre a variável a e as outras variáveis. BGA = Algas verde-azuladas (µg/L), Chlo-a = Clorofila-a (µg/L), Transp = Transparência (m), TDS = Sólidos totais dissolvidos (mg/L), P = Fósforo total (ug/L) e N = Nitrogênio total (ug/L), ∩= interação.*

		pRDA			pCCA	
		Zooplankton	**Cladoceran**	**Copepod**	**Rotifer**	**Testate amoebae**
TDS	**R^2_{adj} (a=TDS/Others)**	**0.080**	**0.077**	**0.175**	**0.037**	0.010
	***P* (a=TDS/Others)**	0.001	0.001	0.001	0.001	0.236
	R^2_{adj} (b=TDS∩Others)	0.118	0.070	0.205	0.016	0.070
	R^2_{adj} (c=Others/TDS)	**0.049**	**0.042**	0.000	0.060	**0.067**
	***P* (c=Others/TDS)**	0.002	0.048	0.471	0.057	0.017
BGA	**R^2_{adj} (a=BGA/Others)**	-0.002	-0.009	-0.005	0.005	0.001
	***P* (a=BGA/Others)**	0.612	0.802	0.529	0.339	0.386
	R^2_{adj} (b=BGA∩Others)	0.090	0.056	0.078	0.018	0.094
	R^2_{adj} (c=Others/BGA)	**0.161**	**0.144**	**0.306**	**0.089**	**0.049**
	***P* (c=Others/BGA)**	0.001	0.001	0.001	0.001	0.047
P	**R^2_{adj} (a=P/Others)**	0.012	0.000	0.001	**0.017**	0.010
	***P* (a=P/Others)**	0.051	0.454	0.353	0.151	0.329
	R^2_{adj} (b=P∩Others)	0.057	0.072	0.142	-0.003	0.039
	R^2_{adj} (c=Others/P)	**0.177**	**0.118**	**0.236**	**0.101**	**0.093**

		pRDA			pCCA	
		Zooplankton	**Cladoceran**	**Copepod**	**Rotifer**	**Testate amoebae**
	***P* (c=Others/P)**	0.001	0.001	0.001	0.001	0.001
Transp	**R^2_{adj} (a=Transp/Others)**	0.011	0.018	0.006	0.008	-0.005
	***P* (a=Transp/Others)**	0.054	0.055	0.225	0.078	0.632
	R^2_{adj} (b=Transp∩Others)	0.039	0.052	0.100	0.010	0.055
	R^2_{adj} (c=Others/Transp)	**0.197**	**0.120**	**0.274**	**0.097**	**0.093**
	***P* (c=Others/Transp)**	0.001	0.001	0.001	0.001	0.007
N	**R^2_{adj} (a=N/Others)**	0.006	0.001	-0.003	0.012	0.028
	***P* (a=N/Others)**	0.170	0.401	0.512	0.191	0.577
	R^2_{adj} (b=N∩Others)	0.016	0.018	0.041	-0.002	0.001
	R^2_{adj} (c=Others/N)	**0.226**	**0.171**	**0.343**	**0.104**	**0.116**
	***P* (c=Others/N)**	0.001	0.001	0.001	0.001	0.001
Chlo-*a*	**R^2_{adj} (a=Chlo-*a*/Others)**	0.001	-0.015	-0.003	0.014	0.006
	***P* (a=Chlo-*a*/Others)**	0.446	0.971	0.494	0.354	0.214
	R^2_{adj} (b=Chlo-*a*∩Others)	0.062	0.043	0.055	0.005	0.071
	R^2_{adj} (c=Others/N)	**0.186**	**0.163**	**0.328**	**0.095**	**0.067**
	***P* (c=Others/N)**	0.001	0.001	0.001	0.001	0.024