Poi et al., 2025. Linking hydrological connectivity with the richness and composition of aquatic invertebrates across the Paraná River floodplain, Argentina. Limnetica 44(1), 2025.

SUPPLEMENTARY INFORMATION

Table S1. Comparison of the mean relative abundance, species richness and specific diversity of micro crustaceans transported by floods to sites with different connectivity in the studied section of the Paraná River floodplain. The Paraná River was included as reference site. *Comparación de la abundancia media relativa, riqueza de especie y diversidad específica de los microcrustáceos transportados por las inundaciones a los sitios con diferente conectividad en la sección estudiada de la planicie del río Paraná. El río Paraná fue incluido como sitio de referencia.*

	Paraná River	**Site 1**	**Site 2**	**Site 3**	**Site 4**	**Site 5**
Cladocera						
Bosminidae						
Bosmina hagmanni	9.6	13.37	15.16	10.37		
Bosminopsis deitersi	10	14.04	15.16	12.5	7.2	2.1
Chydoridae						
Alona monocantha	5	1.67	1.42	4.78	1.5	1.7
Alona cf. *diaphana*		2.34	0.94	0.79		
Alona cf. *rustica*		1.33	2.36	0.79		
Alona verrucosa	1.66	3.34	1.89			
Alona sp.		1.67	1.89	0.53	1.2	4.2
Alonella dentifera		1.67	1.42	0.26		

Alonella excise		1	1.42	0.53		
Camptocercus sp.			0.47	0.26		
Chydorus pubescens	5	3.67	1.89	5.05	6	1.7
Chydorus faviformis		1.67	0.47	0.79	1.5	
Chydorus strictomarginatus	1.66	13.7	12.32	15.15		
Chydorus scopulifer		0.33	0.47	0.26		
Chydorus nitidilus		0.33	0.47	0.26		
Dunhevedia odontoplax				0.26	4.5	1.7
Euryalona orientalis	6.66		1.89	0.26	3.9	5.0
Kurzia latisima					4.54	8.3
Kurzia sp.	2.33		0.47			
Leydigia leydigi	1.66			0.26	2.4	
Leydigiopsis curvirostris				0.53	1.5	5
Notoalona globulosa	6.66	3.34	2.36	5.05	1.5	
Oxyurella ciliata		0.33	0.94	0.53		
Pleuroxus sp.		0.33	0.47	0.26		
Phryxura dadayi	1.66	0.66	0.94	0.53		
Sididae						
Diaphanosoma birgei	6.66	0.33	0.47			
Diaphanosoma brevirreme		0.33	0.47	0.56	9	13.0
Latonopsis brevirreme				0.53		
Sarsilatona serricauda		0.33	0.47	0.53	0.5	
Pseudosida ramosa	6.66	1.67	1.89	2.39	2.12	2.5
Pseudopsida sp.					3.9	8.2
Macrotricidae						
Echinisca elegans				0.26	2.12	5.3
Echinisca sp.	1.66	0.66	0.94	0.53		
Guernella raphaelis	1.66					

Graptoleberis testudinaria	1.66	0.33	0.47	0.53	0.6	1.7
Grimaldina brazzai	2.33	0.33	1.42	0.53	5.15	
Macrothrix sp.	1.66	2	1.42	2.65		
Onchobunops tuberculatus	1.66	0.33	0,47	3.98	1.5	1.7
Ilyocryptidae						
Ilyocryptus paranaensis				0.26		
Ilyocryptus sp.	1.66	0.33	0.47			
Moinidae						
Moina minuta	6.66	2.3	3.79			
Moinodaphnia				0.26	2.12	2.5
Daphniidae						
Daphnia laevis			0.47			
Ceriodaphnia cornuta	1.66	6.68	3.79	2.92	10.6	19.0
Cerdiodaphnia dubia	8.33	13.04	10.9	8.51	2.7	1.0
Cerdiodaphnia reticulata		0.33	0.47			
Simocephalus serrulatus	1.66	2.33	1.89	1.32	3.6	3.2
Simocephalus vetulus		0.33	0.47	0.79		
Copepoda						
Macrocyclops albidus	1.33	0.66	1.42	1.86		
Microcyclops anceps pauxensis					5.45	5.2
Microcyclops anceps anceps				0.79	6.06	
Microcyclops anceps minor		0.33	0.47	1.87		
Microcyclops finitimus	0.66					
Microcylops mediasetosus		0.33	0.47	0.79		
Microcyclops medius	1.33	0.33	0.47			
Microcyclops sp.				0.53	7.2	6.7
Paracyclops fimbriatus		0.33	0.94			
Diaptomus corderoi	0.33					

Notodiaptomus carteri		0.66	0.47	2.39		
Notodiaptomus coniferoides	1.33	0.66	0.47	2.13		
Notodiaptomus spiniger				2.65		
Attheyella furmanni	0.66					
Total species richness (S) 62	30	41	45	47	26	20
Mean abundance (ind m^{-3} s^{-1}) and SD of three samples	19±10	299±32	211±6.5	370±75	23±6.2	18±7
Shannon-Wiener index	3.06	2.892	3.039	3.084	3.044	2.694
Evenness Shannon-Wiener index/ ln S	0.7112	0.4399	0.4642	0.4647	0.807	0.7395

Table S2. Comparison of the mean relative abundance, species richness and specific diversity of macroinvertebates retained by *Pontederia crassipes* roots in sites with different connectivity in the studied section of the Paraná River floodplain. *Comparación de la abundancia relativa promedio, riqueza de especies y diversidad específica de los macroinvertebrados retenidos por las raíces de* Pontederia crassipes *en sitios con diferente conectividad en la sección estudiada de la planicie del río Paraná.*

	Site 1	**Site 2**	**Site 3**	**Site 4**	**Site 5**
OLIGOCHAETA Naididae	2.45	3.93	5.65	11.03	25.96
Slavina sp.			+	+	-
Dero spp.	+	+	+	+	+
Pristina sp.	+	+	+		
Lumbricumorpha				+	+
OSTRACODA					
Limnocytheridae *Cytheridella ilosvayi*	22.65	22.87	18.35	9.7	8.7
HIRUDINEA					

Glossiphoniidae	-	-	-	1.71	-
CONCHOSTRACA					
Cyclestheridae *Cyclestheria hislopii*	10.7	3.32	3.16	19.97	4.2
CLADOCERA	10.9	7.76	9.8	8.11	1.55
Simocephalus serrulatus	+	+	+	+	
Diapahanosoma birgei	+	+	+	+	
Pseudosida bidentata			+	+	
Ceriodaphnia sp.	+	+	+		
Ilyiocriptus spinifer		+	+		
Eurialona occidentalis			+	+	+
Grimaldina brazzai			+	+	
COPEPODA	5.5	24.88	8.9	10.04	´5.5
Notodiaptomus coniferoides	+	+	+	+	
Macrocyclops albidus	+	+	+		
Notodiaptomus sp.		+	+	+	
Microcyclops sp.			+	+	+
AMPHIPODA					
Hyalellidae *Hyalella curvispina*	3.66	3.4	2.6	3.59	3.15
INSECTA					
HEMIPTERA Adults					
Belostomatidae *Belostoma micantulum*		0.14	0.42		
Pleidae *Neoplea maculosa*	0.02	0.56	2.5	0.06	0.16
Naucoridae *Pelocoris* sp.				-	0.02
Ambrysus sp.	0.38			-	
Veliidae *Microvelia* sp.	0.025			-	-
Corixidae *Tenagobia* sp.	1.35	1.4	1.44	0.64	-
ODONATA larvae					
Coenagrionidae larvae	0.505	0.72	1.23	´1.20	0.62

Telebasis sp.					
Libellulidae larvae	0.81	0.37	3.2	1.06	0.64
Miathyria marcella					
EPHEMEROPTERA larvae					
Caenidae*Caenis* sp.			3.7	0.69	0.85
Baetidae *Callibaetis* sp.	2.32	3.54	7.86	0.86	
Polymitarcyidae			1.3	1.96	1.8
TRICHOPTERA larvae					
Polycentropodidae *Cyrnellus* sp.	2.7	1.54	1.09	2.32	1.53
Hydroptilidae *Oxyethira* sp.			0.3	0.43	2.75
Neotrichia sp.	1.04	0.09			
DIPTERA larvae and pupae					
Culicidae *Mansonia* sp.					0.08
Aedeomyia sp		0.16	0.11	0.14	
Chironomidae	30.06	13.57	17.7	12.5	24.03
Chironomus sp.			+	+	+
Ablabesmyia sp.	+	+	+	+	+
Procladius sp.			+	+	
Stenochironomus sp.			´+	+	
Microtendipes sp.	+	+	+		
Polypedilum sp.	+	+	+		
Cricotopus sp.	+	+	+		
Tanytarsisni	+	+	+		
Ephydridae				0.07	
Syrphidae *Eristalis* sp.				0.07	0.05
Ceratopogonidae *Forcipomyia* sp.		0.28			
Bezzia sp.			1.2	0.37	1.1
COLEOPTERA Adults and larvae					

Noteridae, *Hydrocanthus* sp.		0.31	0.4	1.17	3.06
Scirtidae *Scirtes* sp.			0.37		0.27
Curculionidae *Neochetina brucchi*			0.47	0.24	0.57
Hydrophilidae		0.04	0.74	1.12	2.21
Tropisternus sp.		+	+	+	+
Hydrochus richteri			+	+	+
Derallus sp.		+	+	+	+
Enochrus sp.				+	+
Helochares sp.				+	+
Stratiomyidae			0.23		
Lampyridae					0.02
Lepidoptera larvae and pupae		1.09	1.15		0.02
MOLLUSCA					
Planorbiidae *Drepanotrema* sp.			1.15	3.2	1.14
Cochliopidae *Heleobia parchappii*	3.25	4.9	2.2	1.7	0.37
Ancylidae	0.46	3.02	2.3		
Sphaeriidae	0.02	1.05			
Total taxa richness (S) 63	27	34	48	41	32
Mean abundance (ind/m^2) and SD of three samples	26741.1 ±18212.0	24054.0 ±18272.3	21444.9 ±955.3	13529.1 ±12047.8	18965.6 ±9209.9
Shannon–Wiener index	2.082	2.277	2.752	2.69	2.545
Evenness Shannon-Wiener index/ ln S	0.4012	0.375	0.5057	0.4909	0.4393