

## Zooplanktonic communities in a lentic environment of northern Corrientes Province, Argentina

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### INTRODUCTION & AIM

Zooplankton communities are found in a wide variety of freshwater bodies. The main groups typically represented include rotifers, cladocerans, copepods, protozoa, and fish larvae. Other animal groups may also be present, collectively referred to as tychoplankton or neuston, which include aquatic mites, worms, aquatic beetles, dragonfly larvae, ostracods, and even snails. Unfortunately, little is known about the planktonic communities inhabiting lentic environments in Corrientes due to a lack of research. This study aims to investigate the zooplankton communities in a lentic environment in northern Corrientes to better understand their diversity within this ecosystem.

### METHOD

Sampling was conducted in April 2024 (autumn) at Totorá Lagoon in San Cosme, Corrientes, Argentina. Water samples were collected using plastic buckets from the littoral zone. Floating macrophyte plants, *Salvinia natans* (L.) All and submerged *Egeria densa* Planch., were extracted. Additionally, the physicochemical parameters of the water were measured at the time of sampling. In the laboratory, leaves and roots of macrophyte plants were examined in vivo using a stereoscopic binocular loupe and a compound microscope. The same instruments were used for the fixed samples, and a photographic record was made, whose images were used for identification and taxonomic classification.

### RESULTS & DISCUSSION

The physicochemical parameters measured on the day of sampling showed the following values: oxygen at 7 mg/L, conductivity at 91  $\mu$ S/cm, and pH at 7.6 and the total dissolved solids (TDS) at 46 ppm. The water temperature reached 27.1 °C during the morning hours when the macrophytes were collected. A total of 15 phyla and 46 genera were identified, ranging from protists to arthropods (Table 1). The groups with the largest and most diverse specimens were Amoebozoa and Ciliophora. Many of the individuals found could not be identified down to species or even family, so they were classified as “undetermined.”

### CONCLUSION

These results demonstrate a remarkable diversity of species in Totorá Lagoon. Additionally, species indicative of specific environmental conditions were identified. The presence of two species of coanoflagellates, two species of hydra, and the annelid *Pristina sp.* is highlighted for the first time in Corrientes (Fig. 1). This study represents the first record of planktonic communities in a lentic environment in Corrientes, Argentina, contributing to regional diversity. These findings could prove valuable for future research in the fields of ecology, biogeography, and biology.

Table 1. List of zooplankton species recorded in Totorá Lagoon, San Cosme, Corrientes, Argentina, in April 2024.

Taxa	Orden	Family	Genus	Specie	
Amoebozoa				Monopodial	
				Multipodial	
	Arcellinida	Arcellidae	Arcella	A. conica	
	Arcellinida	Arcellidae	Arcella	A. costata	
	Arcellinida	Arcellidae	Arcella	A. gibbosa	
	Arcellinida	Arcellidae	Arcella	A. mitrata	
	Arcellinida	Arcellidae	Galeripora	Galeripora sp.	
	Arcellinida	Centropyxidae	Centropyxis	C. aculeata	
	Arcellinida	Centropyxidae	Centropyxis	Centropyxis sp.	
	Arcellinida	Diffugiidae	Diffugia	D. oblonga	
	Arcellinida	Diffugiidae	Diffugia	D. urceolata	
	Arcellinida	Lesquereusiidae	Lesquereusia	L. modesta	
	Arcellinida	Lesquereusiidae	Lesquereusia	L. spiralis	
	Arcellinida	Netzelidae	Netzelia	N. corona	
	Arcellinida	Netzelidae	Netzelia	N. oviformis	
Cercozoa	Euglyphida	Euglyphidae	Euglypha	Euglypha sp.	
	Euglyphida	Euglyphidae	Euglypha	Euglypha sp.	
	Euglyphida	Trinematidae	Trinema	Trinema sp.	
Choanozoa	Choanoflagellida	Salpigoecidae	Salpingoeca	S. fluviatilis	
	Choanoflagellida	Salpigoecidae	Salpingoeca	Salpingoeca sp.	
Heliozoa				Undefined	
Ciliophora	Heterotrichida	Blepharismidae	Blepharisma	Blepharisma sp.	
	Heterotrichida	Spirostomidae	Spirostomum	S. teres	
	Spirotrichea	Euplotidae	Euplotes	Euplotes sp.	
	Halterida	Halteriidae	Halteria	Halteria grandinella	
	Sporadotrichida	Oxytrichinae	Oxytricha	Oxytricha sp.	
	Prorodontida	Colepidae	Coleps	Coleps hirtus.	
	Prorodontida	Prorodontidae	Prorodon	Prorodon sp.	
	Peniculida	Lembadionidae	Lembadion	Lembadion sp.	
	Pleuronematida	Cuclidiidae	Cyclidium	Cyclidium sp.	
	Sessilida	Vaginicolidae	Thuricola	Thuricola sp.	
	Sessilida	Vorticellidae	Vorticella	Vorticella sp.	
	Euglenozoa	Anisonemida	Anisonemidae	Anisonema	Anisonema sp.
Entosiphonida		Entosiphonidae	Entosiphon	Entosiphon sp.	
Peranemida		Peranemidae	Peranema	Peranema sp.	
Euglenales		Euglenaceae	Euglena	Euglena sp.	
Euglenales		Euglenaceae	Trachelomonas	T. acanthophora	
Euglenales		Phacaceae	Phacus	Phacus sp.	
Cnidaria	Anthoathecata	Hydriidae	Hydra	H. vulgaris	
	Anthoathecata	Hydriidae	Hydra	H. oligactis	
Platyhelminthes	Tricladida	Dugesiidae	Dugesia	Dugesia sp.	
Gastrotrichia	Chaetonotida	Chaetonotidae	Lepidochaetus	L. zelinkai	
Nematoda	Dorylaimida			Undefined	
Rotifera	Bdelloida	Philodinidae	Rotaria	Rotaria sp.	
		Philodinidae	Philodina	Philodina sp.	
		Floscuraciaceae	Flosculariidae	Limnias	L. ceratophylli
		Floscuraciaceae	Flosculariidae	Octotrocha	O. speciosa
		Ploima	Ploima	Colurella	C. hindenburgi
				Undefined	
				Undefined	
				Undefined	
Mollusca	Hygrophila	Planorbidae	Biomphalaria	Biomphalaria sp.	
	Hygrophila	Planorbidae	Uncancylus	Uncancylus sp.	
	Basommatophora	Physidae	Physa	Physa sp.	
	Architaenioglossa	Ampullariidae	Pomacea	Pomacea sp.	
Annelida	Tubificida	Naididae	Dero	Dero sp.	
	Tubificida	Naididae	Pristina	Pristina sp.	
Arthropoda	Trombidiformes	Hydrachnidia		Undefined	
	Trombidiformes			Undefined	
	Anomopoda	Daphniidae	Simocephalus	Simocephalus sp.	
	Anomopoda	Daphniidae		Undefined	
	Cyclopodida	Cyclopidae	Macrocylops	Macrocylops sp1.	
	Cyclopodida	Cyclopidae	Macrocylops	Macrocylops sp2.	
	Amphipoda	Hyalellidae	Hyalella	Hyalella sp.	
	Odonata	Coenagrionidae	Argia	Argia sp.	
	Lepidoptera			Undefined	
	Bryozoa	Plumatellida	Plumatellidae	Plumatella	Plumatella emarginata

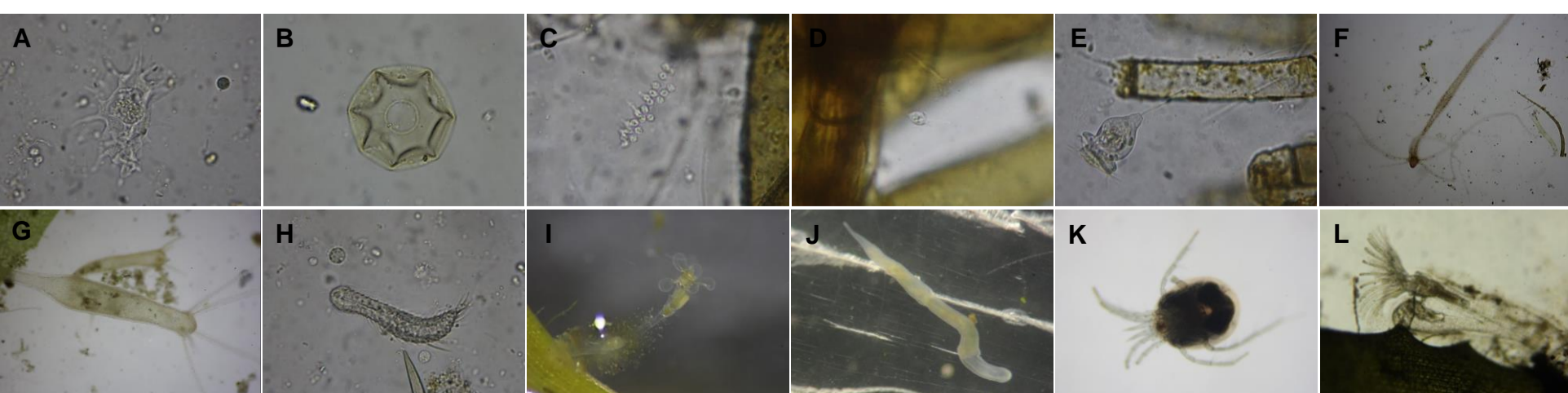


Figure 1. Photographs of some of the most representative specimens by taxa. A) Naked amoeba. B) *Arcella conica*. C) *Salpingoeca fluviatilis*. D) *Salpingoeca sp.* E) *Vorticella sp.* F) *Hydra vulgaris*. G) *Hydra oligactis*. H) *Lepidochaetus zelinkai*. I) *Octotrocha speciosa*. J) *Pristina sp.* K) *Hydrachnidia sp.* L) *Plumatella emarginata*.