

**Research Article**

## **Euglenozoan diversity in Pobitora Wildlife Sanctuary, a unique wetland habitat for Rhinos and migratory birds**

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### **ABSTRACT**

Pobitora, the renowned Wildlife Sanctuary of Northeast India for highest density of Greater One Horned Rhinoceros houses a varied forms of phytoplankton in its unique aquatic habitats. The Sanctuary is situated within a thickly populated village in the Brahmaputra floodplain of the region and experiences with recurrence of flood every year and, subsequent increase of organic matter in the water bodies. Euglenozoan diversity, which is considered as one of the indicators of organic pollution, was enumerated in the Sanctuary which revealed a total of 124 euglenozoa species under 6 orders, 7 families and 13 genera. Among the different genera *Trachelomonas* Ehrenberg, 1834 with 36 species was recorded to be the dominant genus followed by *Phacus* Dujardin, 1841 (34), *Euglena* Ehrenberg 1830 (28), *Lepocinclis* Perty, 1849 (16), *Strombomonas* Deflandre, 1930 (2) respectively. The genera *Euglenocapsa* F. Steinecke, 1932, *Cryptoglana* Marin and Melkonian, *Sphenomonas* F. Stein, 1878, *Peranemopsis* lackey, 1940, *Petalomonas* F. Stein 1859, *Entosiphon* F. Stein, 1874, *Rhabdomonas* Fresenius, 1858, *Heteronema* Dujardin, 1841 were recorded with only one species each. Out of which, a total of 107 species were reported for the first time from North-east India. As the euglenoids are one of the indicators of organic pollution, the current data will undoubtedly serve as a boarding area for scientific monitoring and augmenting future management plan of the Sanctuary.

**Key words:** Euglenozoa, diversity, taxonomic enumeration, Pobitora wildlife Sanctuary, Protected area, Northeast India

