Asian Journal of Conservation Biology, July 2026. Vol. 15 No. 1, pp. 147–166 AJCB: FP0289/86518
ISSN 2278-7666 ©TCRP Foundation 2026 https://doi.org/10.53562/ajcb.86518

Research Article

Diversity and seasonal patterns of algal flora in select eco-sensitive floodplain wetlands of Eastern Himalayan foothills

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(Received: March 10, 2025; Revised: January 1, 2026; Accepted: May 31, 2026)

ABSTRACT

The present study investigated the diversity and seasonal dynamics of algae in five important wetlands of the Eastern Himalayas viz., Kapla Beel, Sorbhog Beel, Kukarjan Beel, Gandhi Beel and Kaplimara Beel which were designated as B1, B2, B3, B4 and B5 respectively. The study was conducted from December, 2019 to November, 2021 for a period of two years. A total of 265 algal species belonging to 104 genera, 30 orders and 57 families were recorded under 11 taxonomic classes. Maximum algal species richness was recorded in Kapla beel (B1) with 137 species, while, minimum species richness was observed in Kukarjan beel (B3) with 91 species. The algal community in the present study displayed distinct seasonal changes. As per Palmer's pollution index, the study sites could be arranged as: B4 (30)> B3 (29)> B1 (28)> B5 (26)> B2 (23). PCA graph displayed significant correlation between algal classes and four seasons during the study period.

Key words: Algal diversity; Wetland ecology; Seasonal dynamics; Pollution assessment