

## **Ecological Profile of Tagbunsaing Lake, Quezon, Palawan**

Avillanosa, A.L., Benliro, I.M.P., Castro, L.S.G., and Gonzales, B.J.  
College of Fisheries and Aquatic Sciences–Western Philippines University  
[arlavillanosa@yahoo.com](mailto:arlavillanosa@yahoo.com)

### **ABSTRACT**

Tagbunsaing Lake serves as source of fish for daily subsistence of Tagbanua tribe which has cultural importance, especially among tribal women. Hence this study investigated the ecological status of this lake in Palawan. Environmental data were collected from two sampling sites (9 stations). Seven stations represented the lake proper, while two sampling stations were outside the lake. Abundance of ichthyofauna was inferred from CPUE to assess the status of fish stock and fisheries potential of the lake. Water samples and zooplankton were collected to assess the ecological condition of the lake. Ichthyofauna caught using various gears are mainly *Gerres filamentosus* (74.77%). CPUE was lowest for hook and line (0.66 kg/hr) and highest for gillnet (6.96 kg/hr). The water in the lake was brackish with mean salinity (ppt) of  $1.90 \pm 0.50$ . In general, the water quality was poor to marginal (based on DENR Standard DAO 34 Series of 1990) implying undesirable condition for recreational or tourism purposes, public domestic use, and for growth of aquatic species. Zooplankton composition belongs to four taxa with Arthropoda as the highest (62%). Biomass estimates for secondary productivity was 107,888 kg/m<sup>3</sup> wet weight. Since this study gives baseline information of the status of secondary productivity, monthly monitoring is necessary to determine seasonality. The limited diversity of fish species largely composed of *G. filamentosus* implies that management mitigation should be done to improve the eutrophic condition of Tagbunsaing Lake. This result shall be used to develop the scientific-based Lake Tagbunsaing Management Plan.

**Key Words:** ecological profile, Tagbunsaing Lake, ichthyofauna, secondary productivity, Western Palawan