

## ABSTRACT

Mangrove swamp are important ecosystem that provide various ecological services. Macrovertebrates play a crucial role in the functioning of these ecosystems. This study assessed the macrobenthic invertebrate community in the mangrove swamps of Carles, Iloilo, Philippines. The study sampling stations were established in the study area, (Bancal proper), station 2 (Cabilao), and station 3 (Cambalatong). A transect quadrat method was used during the field survey to collect macrovertebrates to determine the species composition, density, and diversity indices. Physico-chemical parameters in the site were also performed. Samples were brought to the laboratory for processing and species identification. The study collected species belonging to 2 phyla. Mollusca was the most dominant phylum, followed by Anthropoda. The most abundant species were the gastropods, specifically the *Telescopium telescopium*. The diversity and abundance of macrovertebrates varied among the sites, with station 1 (Bancal proper) having the highest diversity and abundance.

The physico-chemical parameters in Carles, Iloilo are good indication that marine waters are still suitable for growth of macro-benthic invertebrates under the same conditions. The density of macro-benthic invertebrates in mangrove swamps is highly variable and depends on a range of factors such as sediment type, water quality, and vegetation structure. The study has a total density of 919 individuals  $m^3$  and an overall relative density of 100%.

Keywords: Mangrove swamp, macroinvertebrates, species composition, density, diversity, physico-chemical parameters, Carles