Identification and Biodiversity of Mollusks (Gastropods and Bivalves) in Lake Lanao

ABSTRACT

This study aims to identify and determine the mollusks fauna biodiversity in Lake Lanao. The selection of sampling stations was based on the thirty-two (32) mollusks (*soso*) vendors from fish/mollusk landings around the lake and public markets in the different municipalities. They were interviewed on the abundance of mollusks in the different municipalities. Modified Belt transect method was employed during the collection of mollusks utilizing a local-made hand-net (siyur) and was picked manually.

Out of the 3,693 individuals of mollusks collected, a total of 6 species were observed, with 3 species coming from the class Gastropoda, 2 from class Bivalvia. Among the Gastropods, the family Thiaridae has the highest number of species namely: *Melanoides* sp., *Thiara* sp., and *Vivipara* sp. On the other hand, two species comprised the Bivalves namely: *Lyonsia sp.* and *Corbicula fluminea.* While one species was unidentified. On the other hand, two invasive species of mollusk fauna were observed in Lake Lanao namely: *Pomacea* sp. and *Achatina* sp.

Results in the Shannon-Wiener Diversity index (H') ranged from 1.618 to 1.753 with its minimum value recorded at the municipality of Molundo and the maximum value recorded in the municipality of Bayan. Moreover, Simpson's dominance index (D) results ranged from 0.1795 to 0.2366 with its minimum value recorded at the municipality of Bayan and maximum value recorded at municipality of Molundo. The range of values recorded from the 9 study sites surrounding Lake Lanao indicated the absence of dominant species. Furthermore, given the values of dominance index were nearer to zero implies a relatively high species diversity.

Findings using the Evenness index (J) ranged from 0.9027 to 0.9782 in the 9 study sites surrounding Lake Lanao, where the minimum value was recorded at the municipality of Molundo while the maximum value was recorded at the municipality of Bayan. These values indicated high evenness index suggesting that the number of individuals in each species was almost the same, the absence of a dominating species, and a better-quality environmental condition due to the presence of ecological balance in the community.

Keywords: Mollusks, Gastropods, Bivalves Lake Lanao, Puket

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