Bacterial Populations in the Surface Sediments of Lake Lanao

ABSTRACT

Bacteria are among the major decomposers that maintain stability of any ecosystem, thus this study was conducted to determine the abundance of bacteria in the surface sediments of Lake Lanao. Bacteria were grown and isolated in nutrient broth yeast extract agar using Spread Plate method. Results showed spatio-temporal variations in the abundance of bacteria being highest in the eastern side of Lake Lanao along Tampararan with mean CFUs of 5.33 x 10^4 followed by 4.70 x 10^4 in Taraka. Bacterial abundance in the western side of Lake Lanao was relatively lower at 4.45 x 10^4, 4.11 x 10^4, and 3.61 x 10^4 CFUs in Tugaya, Wato-Balindong, and Bacolod-Kalawi, respectively. Abundance of bacteria showed a decrease from shore up to 25 meters lakeward direction. Bacteria were most abundant on January 2017 (5.29 x 10^4), followed by March 2017 (5.14 x 10^4), June 2016 (4.67 x 10^4), September 2016 (3.30 x 10^4), October 2016 (2.69 x 10^4), and lowest on February 2017 (1.10 x 10^4). Most bacterial species were Gram-negative bacilli although Gram-negative cocci were also present. Gram-positive cocci and bacilli also formed a part of the bacterial populations in the surface sediments of Lake Lanao,

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