Zooplankton Composition, Abundance and Diversity in Selected Municipalities of Negros Occidental and Aklan

By

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BS Biology IV (SN 2011-23046)

A Paper Presented to

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In Partial Fulfilment of the Requirements for the Course Biology 199 (Special Problem)

Bachelor of Science in Biology Program

Division of Biological Sciences

College of Arts and Sciences

UP VISAYAS Miagao, Iloilo

June 2015

ABSTRACT

Zooplankton samples were collected last May and June 2014 from 20 stations in the vicinity of Kalibo, Aklan and Pontevedra, San Enrique, and Valladolid, Negros Occidental. Three hundred fifty-three (353) liters of water were filtered per station thru a 5m vertical haul of plankton net with a diameter of 30cm and a mesh size of 20μm. Overall zooplankton densities were higher in Negros Occidental, specifically in Valladolid (D=1915.3 cells/L), than in Kalibo, Aklan (D=7.2 cells/L). On the other hand, zooplankton community was most diverse in Kalibo (H' = 2.6) compared to Valladolid (H'=1.3), San Enrique (H'=2.1) and Pontevedra (H'=1.8). Jaccard's similarity index was highest between Pontevedra and San Enrique while lowest between Valladolid and Kalibo. In Kalibo there were four major groups of zooplankton. Most dense of these were the tintinnids (3.9 cells/L) followed by copepods (2.5 cells/L), molluscs (7x10E-1cells/L) and polychaetes (1x10E-1cell/L). Among the copepods *Subeucalanus* was the most abundant zooplankton genus. In Pontevedra and San Enrique, Negros Occidental, copepods were the most abundant group with a mean density of 205.3 cells/L and 312.1 cells/L, respectively. The relative abundance of *Acartia* (36.5%) and *Longipedia* (22.6%) made them the dominant zooplankton genera in Pontevedra and San Enrique, respectively. Like in Kalibo, the tintinnids were also the most abundant group in Valladolid (1879.2 cells/L). Copepods followed with a mean density of 35.7 cells/L, while Polychaetes comprised only 4x10E-1cells/L. *Epiplocylis* was the most abundant tintinnid in Valladolid while *Xystonella* in Kalibo. Varying sampling time within months and day is the possible cause of the differences in zooplankton abundance, composition, and diversity since some zooplankton species undergo diel vertical migration.