INFLUENCE OF TIDAL LEVELS ON MEIOFAUNAL COMMUNITIES IN A ROCKY SHORE AREA IN TAKLONG ISLAND NATIONAL MARINE RESERVE, GUIMARAS

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By:

MARIA CARLA A. BARBASA

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Abstract of Special Problem titled

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Submitted by

Maria Carla A. Barbasa

For the degree of Bachelor of Science in Biology at the
University of the Philippines Visayas
Miag-ao, Iloilo

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Rocky shores present an exuberant richness of life, which can be attributed to the hard substrate provided by rocks, necessary for the attachment of sessile organisms. There are many factors affecting community structure in rocky shores, including tidal levels. Tidal levels affect communities by periodically exposing them to air, causing drying up and dessication. Among those affected are meiofauna. Meiofauna in rocky shores are the least studied of all habitats, thus this study serves as baseline information regarding meiofauna in rocky shores, particularly in TINMAR, and how tidal levels affect them. Sorting and identification of meiofauna from 18 samples (5 TST, 5 TLT, 4 TMT, 4 THT) yielded 17 identified taxa, with Harpacticoids being numerically dominant followed by Tanaids (Copepods) and Polychaetes. Mean meiofaunal abundance was found to higher in lower tides (low and sub-tide), but differences were not statistically significant. A similar lack of significant differences between transects was shown for abundances of all and common taxa in edge or mid-section quadrats, although abundances appeared to be higher in low and sub-tidal transects. Cluster analyses based on similarities in abundance of taxa in the transect quadrats showed which asemblages are characteristic of mid- and high tide levels (Insect larvae and Sipunculids). Nematodes, which are typically dominant in soft-bottom substrates, were also most abundant in the upper intertidal in the present study. Other taxa like Tanaids, on the other hand, were more abundant in the low intertidal and subtidal transects. Harpacticoids were observed to be dominant in higher tides.