

**UNIVERSITY OF THE PHILIPPINES IN THE VISAYAS
MIAG-AO, ILOILO**

**COMMUNITY STRUCTURE OF A TEN-YEAR OLD
NATURALLY REGENERATING MANGROVE STAND IN
BAGUINGIN, TIGBAUAN, ILOILO**

Submitted to

**The Division of Biological Sciences
College of Arts and Sciences
In Partial Fulfillment of the Requirements
For the Degree of
Bachelor of Science in Biology**

By

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MIAG-AO, ILOILO

APRIL 1999

Abstract of the Thesis entitled

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Submitted by

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

in April 1999

The structure of the mangrove community in Baguingin Tigbauan, was studied using the transect line plot method with seven plots established. Community structure is described in terms of the following parameters: basal area, stems per hectare, relative density, relative frequency, relative dominance, and importance value of the species and the Shannon Index of Diversity. Variations in these parameters are correlated with certain physico-chemical factors-- air and water temperature, soil pH, water salinity, land elevation- and the degree of human influence.

Three true mangrove species were found in the area: *Excoecaria agallocha*, *Avicennia marina*, and *Avicennia alba*. *A. marina* was found to have the highest relative density of 70.8%, relative dominance of 52.35% and importance value of 169.82. *A. marina* and *A. alba* have equal relative frequency of 46.67%. Seedlings and saplings of *A. marina* dominate the area indicating that the community is a young and regenerating stand. Basal area significantly increased from sea to land (53.68 cm² to 431.66 cm²) and from creek to land (8.83 cm² to 366.54 cm²). Shannon Index of Diversity gave a result of 0. The very low diversity index means that there is uneven distribution of individual trees among the species and only a few kinds of species were present and are centered around only two genera, *Avicennia* species and *Excoecaria agallocha*.