

**UNIVERSITY OF THE PHILIPPINES IN THE VISAYAS
MIAGAO, ILOILO**

**PRELIMINARY ASSESSMENT OF FOREST CANOPY AND
SEEDLING CONDITIONS OF MANGROVES IN
OIL AFFECTED AREAS IN
TAKLONG ISLAND NATIONAL MARINE RESERVE, GUIMARAS**

**A Special Problem
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by

ZAINA LEI LICANIEL BENITEZ

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Abstract of the Special Problem titled

Preliminary assessment of forest canopy and seedling conditions of mangroves in oil affected areas in Taklong Island National Marine Reserve, Guimaras

by Zaina Lei Licaniel Benitez

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Mangroves are important ecologically and economically in coastal areas in tropical and sub-tropical areas in the world. However, they continue to be under threat from various human activities either directly or indirectly. The recent oil spill off the coast of southern Guimaras has brought numerous damages to these critical habitats including the mangroves in Taklong Island National Marine Reserve. This study is part of the over all Oil Spill Assessment program conducted by University of the Philippines in the Visayas following the sinking of *M.T. Solar 1*. This study aimed to determine the effect of oil spill on shoot development as an indicator of health conditions of trees and seedlings of selected mangroves such as *Aegiceras floridum*, *Avicennia marina*, *Rhizophora apiculata* *Rhizophora* , *Rhizophora stylosa*, and *Sonneratia alba*. in Taklong Island National Marine Reserve. Specifically it aims to determine 1) standing leaves, 2) new leaves, 3) leaf scars of trees and seedlings. Results showed that shoot development among trees were not significantly different between oiled and unoled sites but closer examination of species response revealed significant differences on standing leaves and new leaves only. Seedling shoot development showed a consistent significant difference among species and between sites. *Aegiceras floridum* and *Sonneratia alba* were least affected as shown by the higher number of standing leaves and least number of leaf scar while the *Rhizophora* spp. and *Avicennia marina* had the greatest number of leaf scars and least number of standing leaves. Results of this study showed that seedlings are clearly under stress and are more sensitive to oiling than trees although species response also varied individually. While tree species such as the *Rhizophora* spp. (e.g. *R. apiculata*, *R. stylosa* and *R. mucronata*) appear to be the most sensitive compared with *Aegiceras floridum*, *Avicennia marina* and *Sonneratia alba*. Results of this study will be useful in providing new knowledge on the evaluation of impacts of oil spills on mangroves.