ENDOPHYTIC FUNGI FROM *Halimeda macroloba* AND *Sargassum* sp. IN NUEVA VALENCIA, GUIMARAS, PHILIPPINES

DARLENE KRIS V. ALEMANIA

An Undergraduate Special Problem
Presented to
Division of Biological Sciences
College of Arts and Sciences

In Partial Fulfilment of the Requirements
for the Degree of
Bachelor of Science (Biology)

JUNE 2019

ABSTRACT

Endophytic fungi of marine algae in the Philippines have not been widely explored despite the fact that marine fungi associated with algae are the second most diverse. This study aimed to conduct a preliminary investigation on the occurrence of endophytic fungi from *Halimeda macroloba* and *Sargassum* sp. In this study fungal endophytes were isolated from *Halimeda macroloba* and *Sargassum* sp. collected from Nueva Valencia, Guimaras. Broad-leaf macroalagal samples were surface sterilized and cultured on PDA seawater media at 37°C. Isolated fungal endophytes were identified through colony and microscopic characteristics. Twenty one distinct endophytic fungi were isolated, 17 of which were identified up to the genus level with the most endophytes belonging to the genus *Aspergillus.* Fungal endophytes obtained were mostly ascomycetes specifically *Aspergillus* sp., one hyphomycete and three unidentified fungi with sterile mycelia were present. The brown algae, *Sargassum* sp., had a higher diversity compared to the green algae *Halimeda macroloba* in spite of having a lower isolation frequency. In terms of similarity, the two algal hosts had a low index of similarity with J= 10%. This study contributes to the growing data regarding diversity and abundance of fungal endophyte species from marine macroalgae in the Philippines. This is the first study conducted on fungal endophyte assemblages of algae species in Western Visayas.