

**PHYTOSOCIOLOGICAL STUDY IN GARANTIANGAN ISLAND,
TAKLONG ISLAND NATIONAL MARINE RESERVE (TINMR), NUEVA
VALENCIA, GUIMARAS, *PHILIPPINES***

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ABSTRACT

Each island has a unique set of characteristics attributed to differences in size, isolation, relief and climate, and origin. Such characteristic influence their floristic composition. Rapid development of tropical islands due to expansion of tourism thus put the flora under risks. In addition, the impact of climate change is also a big factor. There is a need to do baseline studies for proper management and conservation purposes. This study was conducted in Garantiangan Island (a part of Taklong Island National Marine Reserve) in Nueva Valencia, Guimaras, Philippines to assess the species composition, and community structure of flora present. Data were collected by establishing random plots from August 2016 to February 2017. Results showed a total of 45 species (7 unidentified) belonging to 26 families, were recorded. Rubiaceae was the most dominant family, having five representative species. Invasive species found were *Leucaena leucocephala*, and *Lantana camara*. Floras found belonged to two types of vegetation namely; littoral vegetation: herbaceous strand, littoral shrubland and littoral forest zone and mangrove vegetation. Total stand basal area was $16.63 \text{ m}^2 \text{ ha}^{-1}$, with $4985.71 \text{ stems ha}^{-1}$. The total seedling density ($1943 \text{ individuals ha}^{-1}$) > total sapling density ($1686 \text{ individuals ha}^{-1}$) > total tree density ($1343 \text{ individuals ha}^{-1}$) suggests “good” regeneration status. ¹. *Tarennia littoralis* had the highest relative density (18.05%) and frequency (8 %). *Terminalia foetidissima* had the highest relative dominance (26.70%) and was the most important species (37.04 %). Shannon-Weiner diversity index and Simpson evenness index values recorded were 1.33 and 0.89, respectively, which suggests low diversity and evenness in the island. Given that the biodiversity in the island is threatened, though the results are preliminary and full floral surveys were not carried out, data gathered can serve as a basis for conservation and management actions.