

ABSTRACT

Mangroves are unique type of forest that grows in the intertidal zone, where land meets the sea. They are found in tropical and subtropical regions around the world, with the highest diversity of mangrove species found in Southeast Asia including Philippines. They play a crucial role in coastal ecosystems, providing habitat for a variety of marine and terrestrial species, protecting shoreline from erosion and storing carbon. Mangrove forests are declining due to relentless anthropogenic activities. Thus, understanding of the community structure of mangroves is important for their conservation and management. This study aimed to determine the mangrove community structure in Gogo, Estancia, Iloilo, Philippines. Results revealed eight species belonging to six families and six genera were enumerated in the area. These were *Avicennia marina*, *Excoecaria agallocha*, *Xylocarpus moluccensis*, *Nypa fruticans*, *Rhizophora apiculata*, *Rhizophora mucronata*, *Rhizophora stylosa* and *Sonneratia alba*. In the 8 species only 5 occurred within the plots. *Avicennia marina* was present in all sites followed closely *Rhizophora mucronata* and *Sonneratia alba*. The plant density in the area was measured at (12,592 plants/ha), with *Rhizophora stylosa* exhibiting the highest number of individuals per hectare, accounting for 6,438 plants per hectare. *Avicennia marina* followed closely with 3,345 plants per hectare. *Rhizophora apiculata* had the lowest density, with only 50 plants per hectare. In terms of SBA total of (6.65 m²/ha), the highest was *Rhizophora mucronata* (2.30 m²³/ha) and the lowest had (0.001 m³/ha) which is *Rhizophora apiculata*. Among the eight species the most important was *Rhizophora stylosa* (101.97) followed by *Avicennia marina* (73.74) and *Sonneratia alba* (71.14) respectively. The least important species was *Rhizophora apiculata* (0.40). The mangrove ecosystem displayed, as indicated by Shannon Index value of (0.59).

Keywords: Mangrove Forest, Species Composition, Community Structure and *Rhizophora stylosa* and *Avicennia marina*.