ABSTARCT

Mangroves are salt tolerant species where in they are capable to grow well along coastal areas. It provides habitat to several flora and fauna in both marine and terrestrial ecosystem. Mangrove has also the capacity to store carbon "sinks". However, the mangrove forest now is declining due to natural disasters and human activities which harmed the living of mangrove ecosystem. Thus, knowing and understanding the coastal diversity of mangroves is important for their conservation and management, this study determine the species composition, community structure and physicochemical parameters of Mangrove Forest in Cabilao Grande, Carles, Iloilo, Three stations established in the area measuring 50x10 meters perpendicular to the shoreline. Each station has three plots respectively, measuring 10x10 meters. DBH of mature tree was also measured. The Field guide manual to Philippine Mangroves by Primavera et al. (2004) used in identifying mangrove species. The results revealed eight species belonging to six families and six genera. These are Bruguiera gymnorrhiza, Rhizophora mucronata, Sonneratia alba, Avicennia marina, Campostemon philippinensis, Scyphipora hydrophyllacea, Rhizophora stylosa and Aegiceras floridum. Among the 8 species only 7 occurred within the plots. The highest plant density (52.56) and frequency (38) among mangrove species was Rhizophora mucronata. In terms of importance value Avicennia marina has the highest value (124.05) and Scyphiphora hydropyllacea (0) was the lowest. SBA results, Sonneratia Alba (15.5m/ha) was being highest and Avicennia marina (6.79) was being the lowest. The Simpson's Diversity Index shows moderately high diversity (0.7237), Evenness Diversity is semi-balanced (0.6272) and very low (1.479) for Shannon Weiner's Diversity Index. The Pore water salinity range from 2.7-3.1 ppt across the three stations. Soil pII ranged from 5-6. in all three stations. DO range from 6.0-8 ml/1 within three stations. Pore water temperature ranged from 26-27°C in all site.

Keywords: Mangrove Forest, Species Composition, Community Structure, Physicochemical Parameters, Diversity