THE COMMUNITY STRUCTURE OF MANGROVES IN Barangay Poblacion and Barangay Pinamuk-an, New Wahington, Aklan

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Mangrove ecosystems presently cover an area of about 20 million hectares worldwide. Mangroves grow in environmental settings ranging from highly humid to extremely arid conditions, and in soils which range from pure clays to peat, sand or coral rubble. This study was conducted to assess the community structure of mangroves in Barangay Poblacion and Barangay Pinamuk-an, New Washington, Aklan, using the transect line method of English *et al* (1995). Specifically, it aimed to determine selected physical and chemical factors such as salinity, pH, temperature for water and soil as well as characterization of substrates; to identify and classify true mangrove species present in the area; to describe the community structure in terms of stand basal area, stems per hectare, relative density, relative frequency, relative dominance, importance value, shannon index of diversity, zonation patterns, seedling and sapling density. No study had been conducted to document the community structure of mangroves in New Washington, Aklan. This study was done to provide these vital information needed for its proper management. Five stations were selected in Barangay Poblacion and Barangay Pinamuk-an, New Washington, Aklan. Twenty-two (22) species of mangroves were identified belonging to nine (9) families: Avicenniaceae – *Avicennia alab, A marina, a officinalis, A rumphiana;* Bombaceae – *Camptostemon philippinensis;*Combretaceae – *Lumnitzera littorea, L racemosa;* Euphorbiaceae – *Exoecaria agallocha;* Meliaceae – *Xylocarpus granatum, X moluccensis;* Myrsinaceae – *Aegiceras corniculatum;* Myrtaceae – *Osbornia octodonta;* Palmae – *Nypa fruticans;* Rhizophoraceae – *Bruguiera cylindrica, B parviflora, Ceriops decandra, Rhizophora apiculata, R mucronata;*Rubiaceae – *Scyphiphora hydrophyllacea;* Sonneratiaceae – *Sonneratia alba, S caseolaris;* Sterculiaceae – *Heritiera littoralis.*The study area had a water salinity of 6 ppt to 25 ppt ; water temperature of 27 °C to 30 °C ; soil temperature 27°C to 29°C ; water pH 2.29 to 7.80; soil pH 6.30 and 7.59. Basal area ranged from 0.008 m^2/ha for *Bruguiera parviflora* to 114 m^2/ha for *Sonneratia alba* The species with the highest average stems per hectare recorded was *Avicennia rumphiana* with 3320. The species with the highest average density recorded was *Avicennia rumphiana* with a value of 54.984. The station with the highest density was Station 3 and 4 while Station 1 and 5 had the lowest. Two species had the highest Relative Frequency. *Xylocarpus granatum* and *Sonneratia alba* were in all stations with 100% occurrence. From the 22 true mangrove species recorded, *Avicennia rumphiana* had the highest relative dominance of 462.30; the least was *Bruguiera parviflora* (0.06). The most important species was *Avicennia rumphiana* (118.51) while the least was *Sonneratia caseolaris* (1.23). The area is considered to be highly diverse at 0.7835. While on a per plot basis, Station 5 had the highest at 0.9439 while least at Station 1 with 0.5709 Index of Diversity.