



ABSTRACT

Mangroves are one of the world's most productive ecosystems. The current study performed is a descriptive correlation of mangrove species and diversity with the physicochemical characteristics of Brgy. Lumaniag and Brgy. Binubusan in Lian, Batangas during the months of April and May 2015. The study analyzed the physicochemical parameters in Brgy Lumaniag and Brgy Binubusan in connection with the mangrove flora present on five subplots in both sites. The method was done by setting a 100m transect line with five subplots measured at 20 x 20m. The parameters that were measured are pH, water temperature, DO, salinity, phosphate and nitrate. The diversity of mangroves has a strong negative correlation with the water temperature in both sites (-0.651 & -0.6). The results also show that the diversity of mangroves have a weak negative correlation with the salinity in both sites (-0.363 & -0.381), and a weak positive correlation with phosphate in both sites (0.303 & 0.308). It also shows a "very weak" to "weak" negative correlation with the DO in both sites (-0.053 & -0.306). However, the correlation of nitrates (0.178 & -0.553) and pH (-0.16 & -0.553) with the diversity of mangroves differ between the two sites. In Brgy. Lumaniag, there were three species of mangrove that were identified, namely: *Sonneratia alba*, *Avicennia marina*, and *Rhizophora apiculata*. In Brgy. Binubusan, there were four identified species, including the three mentioned species found in Brgy. Lumaniag; the fourth identified species is *Rhizophora mucronata*. It was determined that *Avicennia marina* is the most abundant species in Brgy. Lumaniag, while *Sonneratia alba* is the most abundant species in Brgy. Binubusan. It was also determined that Brgy. Binubusan is more diverse compared to Brgy. Lumaniag.

Keywords: line transect, multiparameter, colorimeter, *Sonneratia alba*, *Avicennia marina*, *Rhizophora apiculata*, *Rhizophora mucronata*