

Abstract

Recovery of *Rhizophora mucronata* mangrove ecosystems was investigated by assessing the physical characteristics of their sediments and the forest densities, community composition and diversity of macro-endofauna. This was done in 5- and 10-year reforested mangroves and natural and degraded controls. Natural and 10-year reforested sites were characterised by significantly higher TOM and silt/clay. The natural site had significantly higher (ANOVA, $p < 0.05$) macrofaunal densities than all the other sites. Oligochaetes dominated the natural and 10-year reforested sites, but in higher densities at the former. Polychaetes and nemertines dominated the 5-year reforested and degraded sites. PCA, MDS and ANOSIM indicated clear differences in physical characteristics of the sediment and macrofaunal composition between the sites. The study showed that, while mangrove degradation leads to drastic changes in sediment characteristics as well as macrofaunal density and community structure, reforested mangroves evolve slowly back to their natural condition. However, the recovery may take more than 10 years before complete in terms of their TOM and macrofaunal densities.