

**Wave attenuation and root density analysis of *Bruguiera parviflora* at Larut Matang, Perak.**

**ABSTRACT**

Mangrove forests cover the upper intertidal zones of the tropical and subtropical shorelines. They play an important part in ecological, economical, physical, biological, chemical and geomorphological aspects. In Malaysia there are several small rivers and estuaries which are frequented by fishing boats. The present study deals with the physical processes involved in the dissipation of waves from boat wakes by the roots of mangrove vegetations. This study focuses on monostand of *Bruguiera parviflora* at Larut Matang, Taiping, Perak. This study used Mazda's model to find the percentage of wave reduction as the waves enter the mangrove forest. The main aim of this study is to quantify the wave attenuation capability of *Bruguiera parviflora* and identify the most suitable mangrove vegetation that can be used for erosion control from wave action. For this purpose, a relationship between wave attenuation and vegetation density has been analyzed. The variations in the horizontal and vertical trends of the vegetation were studied to analyze the root density and its impact on the wave reduction. It is found that the root density decrease with increasing distance