

THE PHYSICAL CHARACTERISTIC AND ABOVEGROUND
BIOMASS AT 7 YEAR'S OLD REPLANTED MANGROVES AT
KELANTAN DELTA, TUMPAT

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KELANTAN DELTA, TUMPAT.**

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LIST OF ABBREVIATIONS

AGB	Aboveground Biomass
Rhizophora sp.	Rhizophora species
<i>R. apiculata</i>	<i>Rhizophora apiculata</i>
<i>R. mucronata</i>	<i>Rhizophora mucronata</i>
P. Emas	Pulau Emas
P. Layang-Layang	Pulau Layang - Layang
P Che Minah	Pulau Che Minah
P. Ekor Che Tahir	Pulau Ekor Che Tahir
P. Che Soh	Pulau Che Soh
P. Terendak	Pulau Terendak
P. Che Lah	Pulau Che Lah
P. Timun	Pulau Timun
P. Tongkang	Pulau Tongkang
P. Suri	Pulau Suri
P. Haji Nik Mat	Pulau Haji Nik Mat
P. Seratus	Pulau Seratus
P. Beluru	Pulau Beluru
P. Renjuna	Pulau Renjuna
P. Che Tahir	Pulau Che Tahir
P. Rulah	Pulau Rulah
Tg. Kuala or Tg. Duff Tanjung	Kuala or Tanjung Duff
d_t	Diameter Top

d_m	Diameter Middle
d_l	Diameter Lower
d_{10}	Diameter 10 cm from the ground surface
DBH	Diameter at Breast Height

ABSTRACT

The study was done in order to determine and analyze the stand structure of replanted mangroves and aboveground biomass at 7 year's old replanted mangrove. The physical characteristic and standing crop biomass of a mangrove forest, sited at the Pulau Layang-Layang at Kelantan Delta, Tumpat were studied. There are two types of mangrove species; *Rhizophora mucronata* and *Rhizophora apiculata*. The *R. mucronata* trees dominated in this forest. Five physical characteristics in this study were: diameter (cm), length (m) (for root and branch only), height (m), distance (m) (for root only), and DBH (cm) (for stem only). The estimate increment for 7 year's old root was 43 roots. The increment of length was 1.06 m, the distance was 0.85 m and height of root formation was 0.66 m. Meanwhile the increment for diameter was d_t 1.83 cm, d_m 1.98 cm and d_{10} 2.62 cm respectively. Subsequently, the height of tree and DBH estimate increment 5.22 m and 4.44 m. Followed by the diameter of stem formation d_t 0.63 cm, d_m 3.35 cm and d_{10} 5.55 cm. The estimate increments for primary branches were 35 branches. The height and length increment was 2.15 m and 1.47 m. Furthermore for the diameter of formation primary branch was d_t 1.38 cm, d_m 1.60 cm and d_{10} 1.81 cm respectively. For the aboveground biomass, the estimate increment was 10.62 kg for root, 5.60 kg for stem, 8.38 kg for primary branch, 6.67 kg for secondary branch, 6.77 kg for leaves and 0.06 kg for fruits respectively. In sapling the root constitutes the largest component of the aboveground biomass.