

## **Biomass and carbon estimation of *Eugeissona tristis*.**

### **ABSTRACT**

Plant biomass represents a sink for atmospheric carbon dioxide, which is one of the most important greenhouse gas. *Eugeissona tristis* (Bertam) is a common palm species found in tropical lowland forest contributing to carbon and biomass stock estimation. However, the species has been neglected in most studies because of differences in sampling procedures and lack of equations. The objective of this study was to develop an allometric equation in estimating biomass and carbon content of *Eugeissona tristis*. This study was conducted in 10 20 m × 50 m plots in Ayer Hitam Forest Reserve (AFHR). Carbon content was estimated using carbon analyzer. The results showed AFHR contained 104 clumps/ha and distribution of *E. tristis* was not influenced by slope. The aboveground biomass of *E. tristis* was estimated to be 0.879 t ha<sup>-1</sup> corresponding to 1096 t for AFHR area (0.4% from total aboveground biomass). It contains 51% of carbon which contributes about 0.44 t C ha<sup>-1</sup> and 548 t C for the whole area, depicting that this species contributed to the overall carbon stock to a reasonable extent in AFHR.

**Keyword:** Biomass; Carbon; *Eugeissona tristis*.