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ABSTRACT

THE EFFECT OF SOIL PARTICLE SIZE AND SOIL ORGANIC

MATTER ON GASTROPODS IN MANGROVES

This study was conducted at Kota Kinabalu Wetland Center, Likas. It started from August to November 2017. The general aim of this study is to determine the correlation of soil organic matter and soil particle size to the distribution and abundance of gastropods between two mangrove species. The soil particle size was determined by using sieving method while the soil organic matter was determined by using the loss-on-ignition (LOI) method. Meanwhile, the abundance of gastropods was counted according to the number of individuals in quadrats. Statistical analysis comprises normality test, one-way ANOVA, Kruskal-wallis test, Friedman test, Pearson correlation and Spearman's rank order. There was difference between distribution and abundance of gastropods, soil organic matter and soil particle size between mangroves. Positive correlation ($n = 27$, $r = 0.424$, $p = 0.028$) occur for sand and distribution and abundance of gastropods for *Avicennia marina* mangroves. Negative correlation ($n = 27$, $r = -0.550$, $p = 0.003$) occur for clay and distribution and abundance of gastropods for *Avicennia marina* mangroves. Other than that, there was no correlation between soil organic matter with the distribution and abundance of gastropods for both mangroves.