

STUDY ON PLANT FUNCTIONAL ATTRIBUTES IN NATURE RESERVE OF EAST NUSAKAMBANGAN

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ABSTRACT

Nature Reserve of East Nusakambangan is included to tropical lowland humid forest type. However, the area of this forest is becoming decreasing due to natural damages and human factor. The damage is large continuously recovers in the process of succession. Succession will take place immediately after a forest damage. Earlier observation on plant biodiversity revealed that succession stages were able to be scrutinized by inspecting its *Plant Functional Attributes* (PFA).

This study was conducted by making 3 plots to represent areas with the large of each plot is about 40 x 5 m. Investigation was conducted for the whole habitat identity and all plants. All *Plant Functional Attributes* was recorded as continuous numerical data. The data was analysed to identify and compare the vegetation dynamic along recognisable physical environmental gradients. Method employed for PFA classification was *Minimum Variance Clustering* or Ward.

The result shows that Nature Reserve of East Nusakambangan is dominated by PFA's element namely leaf size of *notophyll* and *mesophyll*, leaf inclination of *lateral* and *life form* of *phanerophyte*. There are two group reflecting the stages of succession. Group A consists of 2 plots i.e. plot 2 and plot 3. those plots indicate the early step of secondary succession. Group B consists of one plot (plot 1). This plot indicates the advance stage of succession. Between two groups (A and B) there is a difference on plant functional attributes composition ;it shows the higher level of succession the more diverse the type of vegetation. This study used DO elemen which is indicating of chlorophyll presence within leaf (*dorsiventral*).

Keyword : Damage, Succession, Plant Functional Attributes

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