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STRUKTUR KUANTITATIF KOMUNITAS TUMBUHAN BAWAH DI LAHAN KONVERSI HUTAN, MUARA BOLIAN, JAMBI
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Quantitative Structure of Undergrowth Communities in The Forest Conversion Area in Muara Bulian Jambi

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ABSTRACT

The impact of forest conversion as a plantation area can reduce the diversity also increase the susceptibility on danger of fire (Butler, 2007). The undergrowth is one of the components in ecosystem structure (Marsono, 1977). High diversity can give certain stability on ecosystem, cover of soil from the opened condition also protect the prosperity of soil (Ngadung on Pelupessy, 1989). The objective of this research was to identify quantitative structure in order to know the dominant of undergrowth species, diversity index of undergrowth community, and similarity index of undergrowth community in Muara Bulian plantation, Jambi.

This research applied line method. Space plots in this monitoring plot, was 100 metres. Each plot made in perpendicular line to right and left at alternating scale. The research located in two place, PT. Inti Indosawit Subur plantation (PT. IIS) and plantation community. In order to know the quantitative structure of undergrowth community, vegetation analysis was used as a data analysis.

Result of the research showed that dominant undergrowth species both two places were different. The dominant species at PT. IIS are *Asystasia gangetica* (45,95 %), *Nephrolepis biserrata* (27,96 %), *Clidemia hirta* (18,35 %), and *Ageratum conyzoides (*11,78 %). Whereas The dominant species at community plantation are *C. hirta* (57,87 %), *Asystasia gangetica* (24,23 %), *Axonopus compressus* (15,54 %), and *Dicranopteris linearis* (14,16 %). The diversity index of undergrowth species in PT. IIS and community plantation is high, that are 0,85 and 0,82. Both of PT. IIS plantation and community plantation has low similarity index that is 36%.

Key words: quantitative structure, undergrowth community, forest conversion, coconut plantation

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