

COMPOSITION OF GROUND-NEED COMMUNITY IN DUNE
DUNE FOREST, BANGKUL, TERENGGANU

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By

Suhaitah binti Laisin

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ABSTRACT

The herb community of tropical forest is very little known, with few studies addressing its structure quantitatively. Hence, with this few studies, many information about the community of tropical forest ground-herb were remained unknown. The significance of this study is to provide us at least some knowledge about the ground-herb community in Bukit Bauk forest. The study had the objectives of studying the diversity, abundance and the distribution of the ground-herb species in Bukit Bauk forest as well as to compare the species composition between elevations. This study was carried out at Bukit Bauk forest located 11 km from Dungun town and was conducted at three location of different elevation. The elevation studied were 45m, 145m and 345m above sea level (these elevations referred as elevation 1, 2, and 3 respectively) and one plot sized 20mx50m were placed at each of this location. Ground-herbs were surveyed in total 30 subplots of 100m² each distributed in three plots of 1000m² of each. A total of 19 species were surveyed distributed in 11 families and 16 genera. Araceae (4 species) and Pandanaceae (3 species) were the richest families. In elevation 1 the most abundant family was Pandanaceaea with 56% of the individuals while in elevation 2 was Dracaenaceae (37.7%) and Orchidaceae in elevation 3 with 47.36%. Overall, Pandanceae was the family with greatest abundance with 36.33% of all individuals. Among the three elevations, elevation 1 had the most diverse species where 14 species found. The most abundance species in this ground-herb community of Bukit Bauk forest is *Dracaena* sp. B with 66 individuals or 21.22% out of total individuals. The Shannon diversity index was decreasing with the increasing elevation.

KOMPOSISI KOMUNITI “GROUND-HERB” DI HUTAN BUKIT BAUK DUNGUN, TERENGGANU

ABSTRAK

Komuniti “ground-herb” hutan tropika sangat sedikit diketahui dengan beberapa kajian menyebut mengenai strukturnya secara kuantitatif. Maka dengan kajian yang sedikit ini menyebabkan banyak maklumat mengenai komuniti “ground-herb” di kawasan hutan tropika tidak diketahui. Kepentingan kajian ini adalah untuk memberikan kita sekurang-kurangnya sedikit pengetahuan mengenai komuniti “ground-herb” yang terdapat di hutan Bukit Bauk. Kajian ini mempunyai objektif untuk mengkaji kepelbagaian, kelimpahan dan taburan spesies “ground-herb” di hutan Bukit Bauk dan juga untuk membandingkan komposisi spesies bagi setiap ketinggian. Kajian mengenai “ground-herb” ini dijalankan di Hutan Bukit Bauk yang terletak 11 km dari Pekan Dungun. Kajian ini di jalankan di tiga lokasi pada ketinggian yang berbeza. Ketinggian dimana kajian dilakukan ialah pada ketinggian 45m 145m dan 345m dari aras laut (setiap ketinggian ini dirujuk sebagai ketinggian 1, 2 dan 3 masing-masing) dan satu plot bersaiz 20m X 50m dibina di setiap lokasi ini. Komuniti “ground-herb” ini dipantau dalam 30 subplot yang bersaiz 100m² setiap satu. Sejumlah 19 spesies dijumpai dengan 11 famili dan 16 genera. Araceae dengan empat spesies dan Pandanaceae dengan tiga spesies merupakan famili yang terkaya. Pada ketinggian 1, famili yang paling banyak bilangan individu ialah Pandanaceae dengan 56%, pada ketinggian 2 pula ialah famili Dracaenaceae dengan 37.7% bilangan individu. Manakala Orchidaceae pula merupakan famili yang paling banyak bilangan individu pada ketinggian 3 iaitu dengan 47.36%. Secara keseluruhannya Pandanaceae merupakan famili yang paling banyak sekali bilangannya iaitu 36.33%. Ketinggian 1 mempunyai spesies paling pelbagai iaitu 14 spesies dijumpai. Secara keseluruhannya dalam komuniti ini, spesies yang paling banyak ialah spesies *Dracaena* sp. B dengan 66 individu iaitu 21.22% daripada semua individu. Nilai indeks kepelbagaian Shannon semakin berkurang dengan meningkatnya ketinggian.