

COMPARISON OF BUTTERFLY (INSECTA:LEPIDOPTERA)
HOSTS BETWEEN TWO DIFFERENT LAND
SCAPES OF SEVEN, TEREZOPOLIS

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**COMPARISON OF BUTTERFLY (INSECTA:LEPIDOPTERA) DIVERSITY
BETWEEN TWO DIFFERENT LAND USE AREAS AT SEKAYU, TERENGGANU**

By

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Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk: COMPARISON OF BUTTERFLY (INSECTA: LEPIDOPTERA) DIVERSITY BETWEEN TWO DIFFERENT LAND USE AREAS AT SEKAYU, TERENGGANU oleh MIMI AIDA NORSURIANA BINTI SUHAIMI, no. matrik: UK 10220 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperoleh ijazah SARJANA MUDA SAINS GUNAAN (PEMULIHARAAN DAN PENGURUSAN BIODIVERSITI), Fakulti Sains dan Teknologi, Universiti Malaysia Terengganu.

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LIST OF ABBREVIATIONS

%	-	Percent
E	-	Evenness index
FF	-	Forest fringe
H'	-	Shannon-Weiner index
OA	-	Open area
R	-	Riparian
R1	-	Margalef's Index
R2	-	Menhenick Index
RH	-	Relative humidity
UPGMA		Unweighted Pair group Method using Arithemethic Average

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ABSTRACT

Sampling of butterflies was carried out in the vicinity of Sekayu in order to study and investigate the composition and distribution of butterfly community. In this study, two different habitats, recreational and agriculture area were selected. A total of 98 butterfly species from five families, namely Papilionidae (11 species), Nymphalidae (57 species), Pieridae (16 species), Lycaenidae (11 species) and Hesperidae (13 species) were recorded. Out of the total, 44 species were new records for this study area. Among the recorded, three species were listed as totally protected species: *Idea stollii logani* (Nymphalidae: Danainae), *Troides amphrysus ruficollis* (Papilionidae: Papilioninae) and *Troides brookiana trogon* (Papilionidae: Papilioninae). These species were only recorded at recreational area. *Pareronia valeria lutescens* was considered as the most abundance species as they contributed 5.96% (13 individuals) of total individuals recorded at Sekayu Recreational Forest. Nymphalidae (58%) was apparently the largest family in term of species richness. Recreational area, representing the less disturbed site in Sekayu Recreational Forest, had the highest number of species as well as individuals during the comprehensive study. The value of Shannon index of species diversity (H') was comparatively high at recreational area (3.03) compared to agriculture area (0.78). This study was focused on three microhabitat preferences which were open area (119 individuals), riparian (23 individuals) and forest fringe (76 individuals). This study also found that light intensity was significantly correlated to the species abundance and the assemblages of butterfly communities were influenced by the time of day.

PERBANDINGAN KEPELBAGAIAN KUPU-KUPU (INSECTA: LEPIDOPTERA) DI ANTARA DUA KAWASAN YANG BERBEZA DI SEKAYU, TERENGGANU.

ABSTRAK

Kajian kupu-kupu telah dijalankan di persekitaran Sekayu untuk mengkaji komposisi dan taburan komuniti kupu-kupu. Dalam kajian ini, dua habitat yang berbeza iaitu kawasan rekreasi dan pertanian telah dipilih. Sejumlah 98 spesies kupu-kupu daripada lima famili iaitu Papilionidae (11 spesies), Nymphalidae (57 spesies), Pieridae (16 spesies), Lycaenidae (11 spesies) and Hesperidae (13 spesies) telah direkodkan. Daripada jumlah keseluruhan, 44 spesies adalah yang baru direkodkan bagi kawasan kajian ini. Antara spesies yang direkodkan termasuklah tiga spesies yang tersenarai sebagai spesies yang dilindungi: *Idea stollii logani* (Nymphalidae: Danainae), *Troides amphrysus ruficollis* (Papilionidae: Papilioninae) dan *Troides brookiana trogon* (Papilionidae: Papilioninae). Spesies ini hanya dijumpai di kawasan rekreasi. *Pareronia valeria lutescens* merupakan spesies tertinggi dikutip dengan nilai 5.96% (13 individu) daripada jumlah individu yang direkodkan di Hutan Lipur Sekayu. Nymphalidae (58%) muncul sebagai famili terbesar dari segi kakayaan spesies. Kawasan rekreasi mewakili tempat yang kurang diganggu di Hutan Lipur Sekayu mempunyai jumlah spesies dan individu yang tertinggi semasa kajian ini dijalankan. Nilai indeks kepelbagaian Shannon Weiner (H') adalah tinggi di kawasan rekreasi (3.03) berbanding kawasan pertanian (0.78). Kajian ini memberi fokus kepada tiga mikrohabitat yang disukai kupu-kupu seperti kawasan terbuka (119 individu), riparian (23 individu) dan pinggir hutan (76 individu). Kajian ini juga menunjukkan keamatan cahaya mempengaruhi taburan kupu-kupu dan masa harian juga turut mempengaruhi perkumpulan kupu-kupu.