

THE DRAEONID DIVERSITY (INSECTA : COLEOPTERA)
BETWEEN TWO DIFFERENT LAND USE AREAS AT
SEMANI FOREST, TERENGGANU

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FAKULTI SAINS DAN TEKNOLOGI
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THE DRAGONFLY DIVERSITY (INSECTA: ODONATA) BETWEEN TWO
DIFFERENT LAND USE AREAS AT SEKAYU FOREST, TERENGGANU.

By

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LIST OF ABBREVIATIONS

E	-	Evenness index
H	-	Diversity Index
H'	-	Shannon- Weiner Index
MVSP	-	Multivariate Statistical Package
R	-	Richness Index
R1	-	Margalef Richness Index
SPSS	-	Statistical Package for Social Science
Sg.	-	Sungai
UMT	-	University Malaysia Terengganu
UPGMA	-	Unweight Pair Group Methods using Arithmetic Averages

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ABSTRACT

This study focused on the diversity of dragonfly (Order: Odonata) between two different land use areas (agriculture and recreational area) at Sekayu Forest, Terengganu. There were four samplings occasions started from August 2006 until November 2006. Odonata were caught using insect net and laboratory work such as identification also was done. Two groups of odonates were successfully recorded contained Anisoptera and Zygoptera. A rich collection of 154 individuals belonging to 36 species from 10 families of odonates were successfully identified. Anisoptera was higher in abundance than Zygoptera. The most dominant family was Libellulidae (Anisoptera) followed by Euphaeidae (Zygoptera). *Crocothemis servilia* (Libellulidae) was found to be the most abundance species recorded in this study followed by *Neurothemis fluctuans* (Libellulidae). Anisoptera and Zygoptera were commonly found on overhanging vegetation and open area in hot and sunny days. Agriculture area was less disturbed compare to recreational area so that the species there more diverse. The assemblages of odonates in this study was strongly influenced by numerous type of vegetation and heterogeneity of microhabitats as well as great concentration of light which odonate most active. The studies about odonates were very interesting as they can be good indicator for the pollution and habitat disturbance.

**KEPELBAGAIAN KOMUNITI PEPATUNG
(INSECTA: ODONATA) DI ANTARA DUA KAWASAN GUNA
TANAH YANG BERBEZA DI HUTAN SEKAYU, TERENGGANU**

ABSTRAK

Kajian ini adalah difokuskan kepada kepelbagaian pepatung (Order: Odonata) di antara dua kawasan guna tanah yang berbeza (kawasan pertanian dan rekreasi) di Hutan Sekayu, Terengganu. Terdapat empat kali penyampelan bermula pada Ogos 2006 dan berakhir pada November 2006. Odonata ditangkap menggunakan jaring serangga dan kerja makmal seperti pengecaman juga dilakukan. Dua kumpulan odonata terdiri daripada Anisoptera dan Zygoptera telah berjaya direkodkan. Sejumlah 154 individu pepatung daripada 36 spesis yang diwakili oleh 10 famili telah berjaya dikenalpasti. Kelimpahan Anisoptera adalah lebih tinggi berbanding Zygoptera. Famili yang paling dominan adalah Libellulidae (Anisoptera) diikuti oleh Euphaeidae (Zygoptera). *Crocothemis servilia* (Libellulidae) adalah merupakan spesis yang paling dominan direkodkan dalam kajian ini diikuti oleh *Neurothemis fluctuans* (Libellulidae). Anisoptera and Zygoptera biasanya dijumpai pada tumbuhan berjuntai dan kawasan terbuka pada hari yang panas dan terik. Kawasan pertanian mengalami kurang gangguan berbanding kawasan rekreasi menyebabkan spesis di situ lebih pelbagai. Perhimpunan pepatung dalam kajian ini adalah kuat dipengaruhi oleh kepelbagaian jenis tumbuhan dan mikrohabitat disamping keamatan cahaya yang baik dimana pepatung sangat aktif. Kajian terhadap pepatung adalah sangat menarik kerana ia boleh menjadi penunjuk yang baik terhadap pencemaran dan gangguan habitat.