

SEASONAL DISTRIBUTION, DIVERSITY AND
ABUNDANCE OF SPIDERS (ORDER ARANEI)
IN THE BUKIT RAJA FOREST RESERVE,
TERRANGANI, TERENGGANU

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ALTITUDINAL DISTRIBUTION, DIVERSITY AND ABUNDANCE OF
SPIDERS (ORDER ARANEAE) AT BUKIT BAUK FOREST
RESERVE, DUNGUN, TERENGGANU.

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LIST OF ABBREVIATIONS

ANOVA	– analysis of variance
asl	– above sea level
BBFR	– Bukit Bauk Forest Reserve
E	– Evenness index
H'	– Shannon-Weiner index
m	– meter
R	– Richness index
SPSS	– Statistical Package for Social Science
UMT	– Universiti Malaysia Terengganu

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ABSTRACT

This study is important to show the quality of natural habitats because spiders ubiquity and abundance are potentially useful as a biological indicator. This study was conducted at Bukit Bauk Forest Reserve, Dungun, Terengganu, Peninsular Malaysia at several altitudes. The purposes of this study were to determine the diversity of spiders at Bukit Bauk area and to compare the spiders composition and abundance at different altitudes there. The samplings were conducted in May and August 2006 and January 2007 using sweep netting and handpicking and the sample were preserving into 95% ethanol. A total of 315 individuals from 14 families were recorded. The most dominant family is Salticidae with 147 individuals (48%) followed by Araneidae (24%), Tetragnathidae (11%) and Heteropodidae (6%). Four families (Salticidae, Araneidae, Thomisidae and Tetragnathidae) found at every altitude. At site 345m above sea level supported the highest diversity ($H' = 2.99$) compared to the other sites because of the high amounts of forest litter. Site 45m above sea level is least diversified ($H' = 1.90$) compared to the other sites because this site is greatly modified. The spiders composition and abundance influenced by weather; the humidity increase the total individuals increase while high temperature resulted less total individuals collected and high herbal vegetation resulted more spiders individuals collected.

**TABURAN, KELIMPAHAN DAN KEPELBAGAIAN LABAH-LABAH
(ORDER ARANEAE) BERDASARKAN ARAS KETINGGIAN DI
HUTAN SIMPAN BUKIT BAUK, DUNGUN, TERENGGANU**

ABSTRAK

Kajian ini penting untuk menunjukkan kualiti habitat semulajadi kerana taburan dan kelimpahan labah-labah berpotensi untuk digunakan sebagai penunjuk biologi. Kajian ini dijalankan di Hutan Simpan Bukit Bauk, Dungun, Terengganu, Semenanjung Malaysia di beberapa aras ketinggian. Tujuan kajian ini dijalankan adalah untuk mengkaji kepelbagaian labah-labah di kawasan Bukit Bauk dan membandingkan komposisi dan kelimpahan labah-labah berdasarkan kedapatannya di aras ketinggian yang berbeza di kawasan tersebut. Pemungutan sampel dilakukan pada bulan Mei dan Ogos 2006 serta Januari 2007, menggunakan kaedah menangkap menggunakan jaring sapu dan kutipan tangan dan sampel diawet dalam etanol 95%. Sejumlah 315 individu daripada 14 famili telah direkodkan. Famili yang paling dominant adalah Salticidae, 147 individu (48%) diikuti Araneidae (24%), Tetragnathidae (11%) dan Heteropodidae (6%). Empat famili (Salticidae, Araneidae, Thomisidae and Tetragnathidae) dijumpai disetiap aras ketinggian. Aras ketinggian 345m dari aras laut menampung kepelbagaian yang tinggi ($H' = 2.99$) berbanding di tempat lain kerana ketinggian jumlah sampah hutan. Aras ketinggian 45m dari aras laut kurang kepelbagaian ($H' = 1.90$) berbanding di tempat lain kerana kawasan tersebut diubah. Komposisi dan kelimpahan labah-labah dipengaruhi oleh keadaan cuaca; kelembapan tinggi menyebabkan jumlah individu tinggi dan suhu tinggi menyebabkan jumlah individu berkurangan dan jenis tumbuhan renek yang banyak meningkatkan bilangan labah-labah yang dikutip.