

Diversity and abundance of Ichneumonidae in Denai Hutan Cadamba UiTM Puncak Alam Tasik 5, Selangor

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Structured Abstract

Background: Ichneumonidae is a parasitoid wasp of the insect order Hymenoptera that lives in many kinds of habitats.

Methods: The Malaise trap was used to collect data on the diversity and abundance of Ichneumonidae at Denai Hutan Cadamba UiTM Puncak Alam Tasik 5, Selangor, from 3rd December 2022 to 24th December 2022. Trap 1 Malaise trap was set at a low elevation (about 70 m above sea level) while Trap 2, Malaise trap was placed at a higher elevation (approximately 110 m above sea level).

Results: This study collected 14 individuals from the family Ichneumonidae, which includes five subfamilies and 10 morphospecies. Tryphoninae, Cremastinae, Tersilochinae, Brachycyrtinae, and Ophioninae are the subfamilies that have been identified. For high elevation, insects collected from family Ichneumonidae has 11 individuals. The high individuals collected is from subfamilies Tryphoninae, six individuals from two morphospecies. Cremastinae are the second highest with two individuals from two different morphospecies. The least subfamilies collected are from subfamily Brachycyrtinae, Ophioninae, Tersilochinae which only has one individual and one morphospecies for each subfamilies. For low elevation has three individuals collected from three subfamilies which is Tryphoninae, Cremastinae and Tersilochinae. Each of the subfamilies has only one individuals and one morphospecies.

Conclusion: The number individuals documented in this study is affected by sampling duration, rainfall, and the number of Malaise Traps. Based on these findings, the diversity and abundance of Ichneumonidae can be used as a baseline for future research on Ichneumonidae at Denai Hutan Cadamba UiTM Puncak Alam Tasik 5, Selangor to determine whether active deforestation impacts the diversity and abundance of Ichneumonidae.

Keywords: Hymenoptera, Ichneumonidae, Diversity, Abundance

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