

A COMPARATIVE STUDY OF THE SPECIES DIVERSITY OF LITTER INHABITING ACARINA IN A FOREST FLOOR AND A GRASSLAND OF MANIPUR

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Abstract

Free living terrestrial Acarina occur in a great variety of habitats and they are especially abundant in situations where organic detritus is present (Block, 1966). Consequently an ecological study of the diversity of the litter acarine fauna of two different habitats viz. a Subtropical Reserve Forest at Phayeng and Grassland of Keibul Lamjao National Park where the famous brow-antlered deer *Rucervus eldii* Mc Clelland habitats was done. Species diversity indices of litter inhabiting Acarina were calculated during rainy season from the two study sites. Total number of individuals collected from forest was found to be $1298.7 \times 10^2 \text{m}^2$ and that from grassland was $492.5 \times 10^2 \text{m}^2$. Species diversity indices like Da, H, H max and R.A. and J of the two study sites were calculated at family level and higher values of all diversity indices were obtained in forest litter. Out of the collected species, 21 families have so far been identified and others are still continued for identification. Families like Carabodiidae, Nanharmaniidae, Zetorchestidae, Vagaidae, Empodae etc. were not recorded so far from the grass litter during the study period. Restriction of the distribution of these families might be due to the nature of the habitat of the national park where the litter was mainly formed by grass like *Zizania latifolia*, *Phragmitis karka*, *Narenga porphyrochroa* etc. and formed floating mat of decaying grasses. This study would be highlighted the diversified acarine fauna of forest and a grassland situated in Manipur State.

Keywords : Acarina, forest, grassland.