



## STUDY ON DIVERSITY OF MOTHS (LEPIDOPTERA : HETEROCERA) OF RATAPANI WILDLIFE SANCTUARY AND TIGER RESERVE, RAISEN AND SEHORE DISTRICT OF MADHYA PRADESH

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**ABSTRACT:** Moths (Lepidoptera: Heterocera) are one of the most diverse groups among the insects. They are phytophagous, forestry and agricultural pests, cosmopolitan, night pollinators, chiefly nocturnal and potential bio-indicators. The current study will be the first report on species diversity and species composition of moth fauna in Ratapani Wildlife Sanctuary, Raisen and Sehore district of Madhya Pradesh. During the survey period of 2022 to 2024, the 677 specimens of moths were collected pertaining to 102 species, 87 genera under 25 subfamilies, 13 families, and 7 superfamilies from different localities of Ratapani Wildlife Sanctuary. Based on the number of species and genera, family Erebidae was most dominant with 33 species and 27 genera and family Hyblaeidae, Eupterotidae, Uraniidae, Nolidae and Thyrididae were least dominant with one species and one genus. All the species are reported for the first time from this Wildlife Sanctuary. All the identified specimens are deposited in National Zoological Collection of Zoological Survey of India, Jabalpur. This finding will be highly helpful to academicians, students, stake holders, foresters and policy makers to protect and conserve the moth fauna of this protected area of Madhya Pradesh.

**Keywords:** *Diversity, Heterocera, Lepidoptera, moths fauna, Ratapani Wildlife Sanctuary*

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### INTRODUCTION

Moths belong to Order Lepidoptera, characterized by drably-colored scales on the body, epiphysis on the foreleg, phytophagous and predominantly nocturnal nature. Moths are commonly found in nocturnal habitat. They are holometabolous,

phytophagous and cryptic colored insects (Lees and Zilli, 2019). They are very sensitive to climate changes and vegetation alterations, making them an important group for monitoring climate and habitat changes (Kitching *et al.*, 2000). Moths are the most common insects of the natural forests, grasslands, agro-horticulture fields and crop