



A study on the Moth (Lepidoptera: Heterocera) Biodiversity in Seloo, District Wardha, Maharashtra

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Abstract

The survey was conducted during the period from October 2024 to November 2024. The study and observations on the diversity of moths in Seloo, located in Wardha district of Maharashtra state. The survey was carried out over duration of two months. A 160 w mercury vapor light and a 3×3 ft white cloth were used to attract moths, and the specimens attracted to the light were photographed using a camera. Visits were made to various nearby locations in Seloo, and a total of 24 moth species belonging to 6 families were recorded. In this study, 7 species of Geometridae, 6 species of Crambidae, 5 species of Noctuidae, 3 species of Erebidae, 2 species of Pyralidae, and 1 species of Tortricidae were documented. This, a total of 24 moth species belonging to 6 families were recorded. The study was conducted within a limited time frame and represents findings from a relatively short survey period.

Keywords :- Moth biodiversity , Seloo, Wardha, Maharashtra

Introduction:

A moths is a nocturnal insects belonging to the order Lepidoptera and is closely related to the butterflies, moths generally is heavier and broader bodies. When resting , a moth folds it's wings over its back. Their bodies are often covered with dense hair. The life cycle of a moth consists of four stages: Egg, Larva, Pupa and adult stage. Moths fly at night and are as important as butterflies because they pollinate flowers that bloom during the night.

Many researchers in the state of Maharashtra have conducted surveys in different regions to study moths. Hampson (1891) ⁴ recorded a total of 611 moth species from Maharashtra. Gurule et. al., 2010³ recorded 70 moth species from Nashik district of Maharashtra during their survey, including species belonging to the family Noctuidae (including Erebidae). Shubhlaxmi and other 2011⁶ recorded 418 moth taxa belonging to 28 families and 15 super families from the northren Western Ghats of Maharashtra. Additionally, 11 moth species from 5 families were recorded as new records for India. Gurule and Nikam 2013 ²documented 245 moth species from Northern Maharashtra. It is evident from this that many researchers have studied the diversity of moths in various regions of Maharashtra. However, the present study aims to document the moth biodiversity in and around the area of Seloo.

Materials and Methods

Study period :

The study and field observations were conducted from October 2024 to November 2024

Study area:

Field visit were carried out at various locations in and around Seloo

Sampling method:

Moths were attracted using a 160 w mercury vapor light along with a 3×3 Ft white cloth screen. The moths attracted to illuminated screen were collected between 9:00 pm to 11:30 pm.

Documentation and Identification:

Photographs of moths were taken using a camera. The collected specimens were identified in the morning with the help of relevant taxonomic literature.

Result and Discussion:

Table 1. List of the moths species recorded

Sr. No.	Family	Subfamily	Species
1.	Crambidae	Pyraustinae	Pyrausta phoenicealis
2.	Crambidae	Spilomelinae	Spoladea recurvalis
3.	Crambidae	Spilomelinae	Herpetogramma bipunctalis
4.	Crambidae	Spilomelinae	Glyphodes bicolor
5.	Crambidae	Pyraustinae	Pyrausta pseudonythesalis
6.	Crambidae	Pyraustinae	Pyrausta salvalis
7.	Erebidae	Hypeninae	Hypena spp.
8.	Erebidae	Lymantriinae	Lymantria dispar
9.	Erebidae	Hypenodinae	Hypenodes humidalis
10.	Geometridae	Sterrhinae	Scopula adictaria
11.	Geometridae	Sterrhinae	Traminda mundissima
12.	Geometridae	Sterrhinae	Scopula umbilicata
13.	Geometridae	Geometrinae	Prasinocyma sp.
14.	Geometridae	Ennominae	Iridopsis larvaria
15.	Geometridae	Ennominae	Isturgia disputaria
16.	Geometridae	Sterrhinae	Scopula benitaria
17.	Noctuidae	Heliothinae	Helicoverpa armigera
18.	Noctuidae	Eustrotinae	M. nigrofimbria
19.	Noctuidae	Acronictinae	Tycracona obliqua
20.	Noctuidae	Calpinae	Gesonina obeditalis
21.	Noctuidae	Heliothinae	Heliothis peltigera

22.	Pyalidae	Pyalinae	Pyalis farinalis
23.	Pyalidae	Pyalinae	Pyalis pictalis
24.	Torticidae	Torticinae	Clepsid spectrana

In this survey, The number of visits were made to Seloo and various nearby locations, resulting in the recorded of total of 24 moth species belonging to 6 families (Table 1) . In the present study, the Geometridae family was represented by 7 species, the Crambidae family by 6 species, Noctuidae by 5 species, Erebidae by 3 species, Pyalidae by 2 species, and Torticidae by 1 species, a total of 24 species. Based on the result of this study, species of the Geometridae family were found in the highest number compared to other families, while the least number of species belonged to the Torticidae family. Gurule and Nikam (2013)² reported the dominance of moth species in Northern Maharashtra in their research. Wankhade and others (2021)¹ recorded 64 moth species from 14 families at Karanja Ghadge. Chandrakar and others (2022)¹ documented 184 moth species from 10 families in the Hinganghat taluka of Wardha district. The present study on moth biodiversity, including the list of 24 moth species from Seloo, provides an updated record in the Seloo area.



Spoladea recurvalis



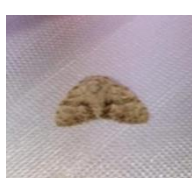
Iridopsis larvaria



Pyrausta pseudonythesalis



Clepsid spectrana



Hypenodes humidalis



Scopula umbilicata



Pyrausta phoenicealis



M. nigrofimbria



Glyphodes bicolor

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