

A preliminary checklist of moths (insect : lepidoptera) of Karanja (Ghadge), District Wardha (Maharashtra) India

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ABSTRACT

Diversity of moth species (Lepidoptera: Heterocera) was studied in the Karanja (Ghadge), District Wardha of Vidarbha region of Maharashtra. A total 64 species of moths belonging to 14 families and 31 subfamilies were recorded from different sites. Family Erebidae (22 species) was found to be dominating taxon, followed by Geometridae (11 species), Cambridae (10 species) Noctuidae (07 species), Sphingidae (4 Species), Cossidae (3 Species) and 1 species each from family Eupterotidae, Pterophoridae, Saturnidae, Uranidae, Bombycidae, Lasiocampidae and Scythrididae.

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KEY WORDS : Diversity, Karanja (Ghadge), Maharashtra, Moths, Vidarbha.

Introduction

Moths belong to order Lepidoptera of class Insecta. Many studies and survey have been carried out time to time by many researchers on moth fauna of Maharashtra state. Total 611 species of moths from Maharashtra have been reported⁸. From Nashik district of Maharashtra 70 species of moths from family Noctuidae (including Ereidae) have been recorded⁴. A preliminary checklist of moths has been reported from northern Maharashtra, wherein they have reported 245 species of moths⁵. In their further studies they reported total 405 species of moths from northern Maharashtra⁶. From Northern Western Ghats of Maharashtra 418 moth taxa from 28 families and 15 superfamilies was studied and also reported 11 species of moths from 5 families as a new record from India¹². A total 112 species of Moths from Marathwada region belonging to 88 genera and 15 families were reported¹¹.

Recently a preliminary checklist of 34 moth species were recorded from Ahmednagar College campus, Maharashtra and 200 moth's species belonging to 23

families and 13 superfamilies from Goa University campus^{1&7}.

Review of literature reveals that moth diversity from Maharashtra have been studied and their published data are available at some extent but no any attempt has been done to record diversity of moths from Wardha district of Maharashtra. Therefore, a small and very first preliminary attempt was made in the present survey to record diversity of moths from Karanja (Ghadge) of Wardha district of Maharashtra.

Material and Methods

The study was carried out from the month of February 2020 to January 2021. The moths observed during day in their natural environmental condition and during night near light in Karanja (Ghadge) of District Wardha were considered for the study. The moths observed during day in their natural environmental condition and during night near light were photographed with the help of mega plexus camera. The moths observed

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TABLE-1 : Systematic List of Moth species recorded from Karanja (Ghadge) of Wardha District (Maharashtra) India

Sr. No	TAXON
I	Superfamily: GELECHIOIDEA
1.	Family: SCYTHRIDIDAE
	Subfamily: SCYTHRIDIANE
1.	<i>Eretmocera impactella</i>
II	Superfamily: PTEROPHOROIDEA
2.	Family: PTEROPHORIDAE
	Subfamily: PTEROPHORINAE
2.	<i>Pterophorus pentadactyla</i>
III	Superfamily: COSSOIDEA
3.	Family: COSSIDAE
	Subfamily: ZEUZERINAE
3.	<i>Azygophleps scalaris</i>
4.	<i>Xyleutes persona</i>
4.	Family: METARBELIDAE
	Subfamily: METARBELINAE
5.	<i>Indarbela quadrinotata</i>
IV	Superfamily: PYRALOIDEA
5.	Family: CRAMBIDAE
	Subfamily: ACENTROPINAE
6.	<i>Parapoynx stagnalis</i>
	Subfamily: PYRAUSTINAE
7.	<i>Paliga damastesalis</i>
8.	<i>Paliga</i> sp. 1
9.	<i>Paliga</i> sp. 2
10.	<i>Pyrausta panopealis</i>
	Subfamily: SPILOMELINAE
11.	<i>Cnaphalocrocis medinalis</i>

Sr. No	TAXON
12.	<i>Conogethes punctiferalis</i>
13.	<i>Diaphania indica</i>
14.	<i>Hydriris ornatalis</i>
15.	<i>Spoladea recurvalis</i>
V	Superfamily: LASIOCAMPOIDEA
6.	Family: LASIOCAMPIDAE
	Subfamily: LASIOCAMPINAE
16.	<i>Trabala vishnou</i>
VI	Superfamily: BOMBYCOIDEA
17.	<i>Ocinarasp.</i>
8.	Family: EUPTEROTIDAE
	Subfamily: EUPTEROTINAE
18.	<i>Eupteorte undata</i>
9.	Family: SATURNIIDAE
	Subfamily: SATURNIINAE
19.	<i>Antheraea mylitta</i>
10.	Family: SPHINGIDAE
	Subfamily: MACROGLOSSINAE
20.	<i>Daphnis nerii</i>
	Subfamily: SPHINGINAE
21.	<i>Acherontia styx</i>
22.	<i>Agrius convolvuli</i>
23.	<i>Psilogramma increta</i>
VII	Superfamily: GEOMETROIDEA
11.	Family: GEOMETRIDAE
	Subfamily: ENNOMINAE
24.	<i>Astygisa albopunctata</i>

Sr. No	TAXON
25.	<i>Chiasmia hebesata</i>
26.	<i>Cleora</i> sp. 1
27.	<i>Cleora</i> sp. 2
28.	<i>Petelia medardaria</i>
29.	<i>Phigalia titea</i>
	Subfamily: STERRHINAE
30.	<i>Perixera</i> sp.
31.	<i>Scopula</i> sp. 1
32.	<i>Scopula</i> sp. 2
33.	<i>Scopula</i> sp. 3
34.	<i>Traminda mundissima</i>
12.	Family: URANIIDAE
	Subfamily: MICRONIINAE
35.	<i>Micronia aculeata</i>
VIII	Superfamily: NOCTUOIDEA
13.	Family: EREBIDAE
	Subfamily: AGANAINAE
36.	<i>Asota caricae</i>
	Subfamily: ARCTIINAE
37.	<i>Aemeneta probanis</i>
7.	Family: BOMBYCIDAE
	Subfamily: BOMBYCINAE
38.	<i>Aloa lactinea</i>
39.	<i>Amata bicincta</i>
40.	<i>Mangina argus</i>
41.	<i>Olepa clavatus</i>
42.	<i>Rajendra vittata</i>
	Subfamily: BOLETOBIINAE
43.	<i>Oruza</i> sp.
	Subfamily: CALPINAE
44.	<i>Gesonina obeditalis</i>
	Subfamily: EREBINAE
45.	<i>Achaea Janata</i>

Sr. No	TAXON
46.	<i>Chrysopera combinans</i>
47.	<i>Erebus macrops</i>
48.	<i>Mocis undata</i>
49.	<i>Pandesma quenavadi</i>
50.	<i>Pericyma cruegeri</i>
51.	<i>Polydesma boarmoides</i>
	Subfamily: EULEPIDOTINAE
52.	<i>Anticarsia irrorate</i>
	Subfamily: HERMINIINAE
53.	<i>Hydrillodes</i> sp.
	Subfamily: HYPOCALINAE
54.	<i>Hypocala</i> sp.
	Subfamily: LYMANTRIINAE
55.	<i>Euproctis</i> sp.
56.	<i>Lymantria incerta</i>
57.	<i>Somena scintillans</i>
14.	Family: NOCTUIDAE
	Subfamily: ACONTIINAE
58.	<i>Acontia crocata</i>
	Subfamily: ACRONICTINAE
59.	<i>Acronicta insularis</i>
	Subfamily: BAGISARINAE
60.	<i>Amyna axis</i>
	Subfamily: EUSTROTIINAE
61.	<i>Maliatha quadripartite</i>
	Subfamily: HELIOTHINAE
62.	<i>Heliothes peltigera</i>
	Subfamily: XYLENINAE
63.	<i>Mesapames secalis</i>
64.	<i>Spodoptera litura</i>



1. *Eretmocera impactella* 2. *Pterophorus pentadactyla* 3. *Azygophleps scalaris* 4. *Xyleutes persona*



5. *Indarbela quadrinotata* 6. *Parapoyns stagnalis* 7. *Paliga damastesalis* 8. *Paliga sp. 1* 9. *Paliga sp. 2*



10. *Pyrausta panopealis* 11. *Cnaphalocrocis medinalis* 12. *Congethes punctiferalis* 13. *Diaphania indica*



14. *Hydriris ornatalis* 15. *Spoladea recurvalis* 16. *Trabala vishnou* 17. *Ocinarina sp.*



18. *Eupteorte undata* 19. *Antheraea mylitta* 20. *Daphnis nerii* 21. *Acherontia styx*

Fig. 1 : Moths of Karanja, Wardha (Maharashtra) India



22. *Agrius convolvuli* 23. *Psilogramma increta* 24. *Astygisa albopunctata* 25. *Chiasmia hebesata*



26. *Cleora sp. 1* 27. *Cleora sp. 2* 28. *Petelia medardaria* 29. *Phigalia titea* 30. *Perixera sp.*



31. *Scopula sp. 1* 32. *Scopula sp. 2* 33. *Scopula sp. 3* 34. *Traminda mundissima*



35. *Micronia aculeata* 36. *Asota caricae* 37. *Aemene taprobanis* 38. *Aloa lactinea* 39. *Amata bicincta*



40. *Mangina argus* 41. *Olepa clavatus* 42. *Rajendra vittata* 43. *Oruza sp.* 44. *Gesonia obeditalis*

Fig. 2 : Moths of Karanja, Wardha (Maharashtra) India



45. *Achaea Janata*

46. *Chrysopera combinans*

47. *Erebus macrops*



48. *Mocis undata*

49. *Pandesma quenavadi*

50. *Pericyma cruegeri*

51. *Polydesma boarmoides*



52. *Anticarsia irrorate*

53. *Hydrillodes sp.*

54. *Hypocala sp.*

55. *Euproctis sp.*



56. *Lymantria incerata*

57. *Somena scintillans*

58. *Acontia crocata*

59. *Acronicta insularis*

60. *Amyna axis*



61. *Maliattha quadripartite*

62. *Heliothes peltigera*

63. *Mesapamea secalis*

64. *Spodoptera litura*

Fig. 3 : Moths of Karanja, Wardha (Maharashtra) India

were identified with reference to the relevant literature available⁵⁻⁷. The sequence of the superfamilies and families are given in the Table¹⁰. The identification of those moths was not possible at species level, were identified at genus level.

Result and Discussion

A total 64 species of moths belonging to 14 families and 31 subfamilies were recorded from different sites of Karanja (Ghadge) (Table -1). In the present study family Erebidae was found to be the dominating family containing 22 species belonging to 9 different subfamilies, 11 species of moths were recorded from family Geometridae and 10 species from Crambidae. Family Noctuidae represented by 7 species from 6 subfamily. 4 species were recorded from family Sphingidae belonging to 2 subfamilies, 3 species was recorded from family Cossidae and single species was recorded each from family Eupterotidae, Pterophoridae, Saturnidae, Uranidae, Bombycidae, Lasiocampidae and Scythrididae.

The result of the present study reveals the dominance of moth species from family Erebidae as compared to other family while the very least moth species were recorded from family Eupterotidae, Pterophoridae,

Saturnidae, Uranidae, Bombycidae, Lasiocampidae and Scythrididae.

Workers^{1,3,5,9,12} reported the dominancy of moth species from family Erebidae from Ahmednagar college campus, Amravati, North Maharashtra region, Pench National Park and North Western Ghats of Maharashtra respectively.

Workers^{3,11,12} also reported the least number of moth species recorded from family Lasiocampidae, Uranidae, Saturnidae, Bombycidae from various regions of Maharashtra.

A study² revealed that Family Noctuidae (including Erebidae) and Crambidae were found to be the dominant families. The study of moth diversity recorded 142 moths belonging to 90 genera and 16 families of Madhya Pradesh and Chhattisgarh.

Maximum moth species were recorded during rainy and winter season while least in summer season.

The present study on the moth diversity with a checklist of 64 species from Karanja (Ghadge) is the first study on moth in the Wardha District of Vidarbha region of Maharashtra. Further detailed survey from other areas of Wardha district is required.

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