International Journal of Zoology Studies
www.zoologyjournals.com
ISSN: 2455-7269
Received: 31-05-2025, Accepted: 01-07-2025, Published: 16-07-2025
Volume 10, Issue 3, 2025, Page No. 14-18

A preliminary study on some of the insect fauna during rainy season of Khultabad, district Chattrapati Sambhaji Nagar (Maharashtra)

Tahesinkhan D Pathan[1], Lokesh N Wankhade[2]
[1] Associate Professor, Department of Zoology, Kohinoor Arts, Commerce & Science College, Khultabad, Chattrapati Sambhaji Nagar, Maharashtra, India
[2] Associate Professor, Department of Zoology, NKS Model College, Karanja, Ghadge, Wardha, Maharashtra, India

Abstract
A field survey was done to carried out the preliminary study on some of the insect fauna during rainy season (July 2024-August 2024) in and nearby area of Khultabad, District Chattrapati Sambhaji Nagar, Maharashtra. In the present study 39 species of insects belonging to 9 orders and 28 families have been recorded. Out of 39 species, order Lepidoptera was found to be dominant, represented by 16 species followed by order Diptera and Coleoptera, each represented by 5 species Hemiptera by 4 species, order Blattodea, Odonata, Hymenoptera, Orthoptera each represent 2 species and Neuroptera with only one species. The species recorded in this study are agriculture-pests and some are predatory insects.

Keywords: Insect, Khultabad, order, species

Introduction

In Animal Kingdom Phylum Arthropoda is the largest and dominant group representing two-thirds of the animal species. Insects comes under class Insecta of phylum Arthropoda. Insects play an important role in ecosystems and act as a herbivores, pollinators, decomposers, predators and parasites. Insects are considered to pollinate nearly 70% of crop plants worldwide and over 98% of trees in lowland tropical rain forest (Bawa, 1990) [4]. All around the World more than 10,000 species of insect's pest are known to damaged different types of food plants. India is rich in its insect biodiversity, Kailash Chandra (2011) [5] reported total 63,760 known insect species from states and union territories of India of which 2,289 species of insect from Maharashtra of which highest 420 form order coleoptera, followed by Diptera (386), Hymenoptera (339) etc. and least 1 each from order Plecoptera and Phasmida. Maharashtra state is also rich in its diverse ecosystems, including the Western Ghats. In Maharashtra study on insect `have recorded number of insect orders, including Coleoptera (beetles), Lepidoptera (butterflies & moths), Diptera (flies), Hymenoptera (ants, bees & wasps), Odonata (dragonflies & damselflies), Hemiptera (bugs) etc.

In Maharashtra many workers have done study related to insect pest diversity in different region. Khadse T A (2023) [9] have studied biodiversity of insects from Achalpur City, Maharashtra, India and recorded total 45 species of insects from 24 families during July to August. Supanekar *et al.*, (2021) [8] have studied insect diversity in and around Panvel, Navi Mumbai and recorded 15 species of Odonates representing 2 suborders, 2 families and 2 subfamilies and reported the abundance of species belongs to families Libellulidae & Coenagrionidae. Parwate A Vand Indurkar U S (2024) have studied diversity of insect pest in rice crop at Nawargaon, district Chandrapur (Maharashtra) and reported 28 insect pests. Raut *et al.*, (2022) [10] have studied Arthropod biodiversity in tropical forest litter around Nagpur (Maharashtra) and reported total 195 litter arthropods representing 13 insect orders and found abundance and dominance of insect orders, Hymenoptera, Isoptera, Thysanura, and Orthoptera. Tiple A and Koparde P (2015) have studied Odonata of Maharashtra and reported a checklist of 134 species of odonata belonging to 70 genera representing 11 families and also reported the abundance of species from the Libellulidae (48 species) and Gomphidae (22 species) families.

However not a single study was carried out on insect fauna of Khultabad area, therefore the present study will record the list of occurrences of insects during rainy season in this area.

Material and Methods

The study of fauna of insects of Khultabad, District Chattrapati Sambhaji Nagar Maharashtra, India was carried out during rainy season (July 2024 to August 2024). A survey was carried out in and nearby area of Khultabad. The survey was done during morning 9 am to evening 5.00 pm. The insect found during the survey was minutely observed and photograph was taken in their natural environmental condition. Some insects were collected with the help of net for minute observation. The collected insect was released in their natural environmental condition after observation. The preservation were avoided. The recorded insects were identified using internet, google lens, literature and research publication available.

Table 1: List of Insect species recorded during survey in Khultabad, District Chattrapati Sambhaji Nagar, Maharashtra

Sr. No	Sr. No	Order	Family	Common Name	Scientific Name
1.	1.	Lepidoptera	Erebidae	Lantana Defoliator Moth	*Hypena laceratalis*
2.		Lepidoptera	Erebidae	Brown Tussock Moth	*Olene dudgeoni*

3.		Lepidoptera	Erebidae	Castor Hairy Caterpillar	*Olepa ricini*
4.		Lepidoptera	Erebidae	White Ermine	*Spilosoma lubricipeda*
5.		Lepidoptera	Erebidae	Bihar Hairy Caterpillar/Jute Hairy Caterpillar	*Spilosoma obliqua*
6.		Lepidoptera	Erebidae	Litter Moths	*Zanclognatha* Sp.
7.		Lepidoptera	Nymphalidae	Tawny Castor Caterpillar	*Acraea terpsicore*
8.		Lepidoptera	Nymphalidae	Plain Tiger Butterfly Caterpillar	*Danaus chrysippus*
9.		Lepidoptera	Nymphalidae	Common Crow Butterfly Caterpillar/Indian Crow Caterpillar	*Euploea core*
10.		Lepidoptera	Nymphalidae	Common Leopard Butterfly	*Phalanta phalantha*
11.		Lepidoptera	Pieridae	Common Emigrant/Lemon Emigrant	*Catopsilla Pomona*
12.		Lepidoptera	Pieridae	White Orange Tip Butterfly	*Ixias marianne*
13.		Lepidoptera	Hyblaeidae	Teak Defoliater	*Hyblaea puera*
14.		Lepidoptera	Limacodidae	Slug Caterpillar Moth	*Cania bilinea*
15.		Lepidoptera	Saturniidae	Tasar Silk Moth	*Antheraea myllita*
16.		Lepidoptera	Sphingidae	Tersa Sphinx moth Caterpillar	*Xylophanes tersa*
17.	2.	Diptera	Calliphoridae	Bluebottle Fly	*Calliphora* Sp.
18.		Diptera	Muscidae	Orange Muscid Fly	*Phaonia pallida*
19.		Diptera	Sarcophagidae	Flesh Fly	*Sarcophaga* Sp.
20.		Diptera	Stratiomyidae	Green Soldier Fly	*Chloromyia formosa*
21.		Diptera	Syrphidae	Big -Headed Lagoon Fly	*Eristalinus megacephalus*
22.	3.	Coleoptera	Chrysomelidae	Blue Mint Leaf Beetle	*Chrysolina coerulans*
23.		Coleoptera	Scarabaeidae	Maybug Grub/Cockchafers Grub/May Beetle Grub	*Melolontha melolontha*
24.		Coleoptera	Scarabaeidae	Fruit Chafer Beetle/Flower Chafer Beetle	*Protaetia alboguttata*
25.		Coleoptera	Silphidae	Carrion Beetle	*Necrophila rufithorax*
26.		Coleoptera	Tenebrionidae	Asian Darkling Beetle	*Ceropria induta*
27.	4.	Hemiptera	Cicadidae	Cicada	*Platypleura octoguttata*
28.		Hemiptera	Lygaeidae	Indian Milkweed bug	*Spilostethus pandurus*
29.		Hemiptera	Scutelleridae	Jewel Bug	*Chrysocoris purpureus*
30.		Hemiptera	Diaspididae	White Mango Scale/Mango Scale	*Aulacaspis tubercularis*
31.	5.	Blattodea	Ectobiidae	Asian Cockroach	*Blatetella asahinai*
32.		Blattodea	Rhinotermitidae	Asian Subterranean Termite	*Coptotermes gestroi*
33.	6.	Odonata	Libellulidae	Blue Marsh Hawk/Common Blue Skimmer	*Orthetrum glaucaum*
34.		Odonata	Libellulidae	Crimson-tailed Marsh Hawk/Pink Skimmer	*Orthetrum pruinosum*
35.	7.	Hymenoptera	Apidae	Tropical Carpenter Bee	*Xylocopa latipes*
36.		Hymenoptera	Vespidae	Mud Wasp/Potter Wasp	*Delta esuriens*
37.	8.	Orthoptera	Acrididae	Short-Horned Grasshopper	*Melanoplus* Sp.
38.		Orthoptera	Tettigoniidae	Katydid/Bush-Cricket	*Phyllomimus* Sp.
39.	9.	Neuroptera	Nemopteridae	Thread-winged lacewing	*Croce filipennis*

1. Hypena laceratalis

2. Olene dudgeoni

3. Olepa ricini

4. *Siplosoma lubricipeda*

5. *Spilosoma obliqua*

6. *Zanclognatha* Sp.

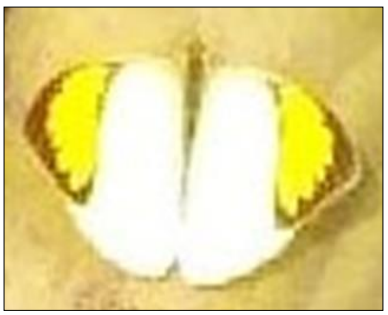
7. *Acraea terpsicore*

8. *Danaus chrysippus*

9. *Euploea core*

10. *Phalanta phalantha*

11. *Catopsilla Pomona*



12. *Ixias marianne*

13. *Hyblaea puera*

14. *Cania bilinear*

15. *Antheraea myllita*

16. *Xylophanes tersa*

17. *Calliphora* Sp.

18. *Phaonia pallida*

19. *Sarcophaga* Sp.

20. *Chloromyia formosa*

21. *Eristalinus megacephalus*

22. *Chrysolina coerulans*

23. *Melolontha melolontha*

24. *Protaetia alboguttata*

25. *Necrophila rufithorax*

26. *Ceropria induta*

27. *Platypleura octoguttata*

28. *Spilostethus pandurus*

29. *Chrysocoris purpureus*

30. *Aulacaspis tubercularis*

31. *Blatetella asahinai*

32. *Coptotermes gestroi*

33. *Orthetrum glaucaum*

34. *Orthetrum pruinosum*

35. *Xylocopa latipes*

36. *Delta esuriens*

37. *Melanoplus* Sp.

38. *Phyllomimus* Sp.

39. *Croce filipennis*

Result and Discussion

In the present study of survey, 39 species of insects belonging to 9 orders and 28 families have been recorded (Table.1). Out of 39 species, order Lepidoptera was found to be dominant, represented by 16 species with 7 families followed by order Diptera and Coleoptera, each represented by 5 species with 5 and 4 families respectively, Hemiptera by 4 species with 4 families, order Blattodea, Odonata, Hymenoptera, Orthoptera each represent 2 species with 2, 1, 2 and 2 families respectively and the last Neuroptera with only one species. The species recorded in this study are agriculture-pests and some are predatory insects. Samrit C R and Masram S C (2024) [3] have studied diversity of insect pest on various crops from Sakoli Tahshil, Bhandara, Maharashtra and reported 41 insect pests from diverse crops with Lepidoptera, the dominant order, with 18 species. L. N Wankhade L N and Bidwai P A (2022) also studied the insect fauna during rainy season of Karanja (Ghadge) and reported the dominance of order lepidopteran with 18 species. Wankhade *et al.*, (2025) reported 48 species of insect from Chandevani village of Karanja (Ghadge), District Maharashtra and reported Lepidoptera and Coleoptera as a dominant order with 11 insect species.

The above survey of insect fauna in Khultabad shows the record of occurrence of various agriculture and predatory insect belonging to different orders and families.

Acknowledgement: The authors would like to thanks to MSc students of Department of Zoology, Kohinoor Arts, Commerce & Science College, Khultabad for their valuable help during the field survey.

References

1. Angraj V Parwate, Umesh S Indurkar. Diversity of insect pest in rice crop at Nawargaon, dist Chandrapur (Maharashtra). International Journal of Entomology Research,2024:9(4):107-110.
2. Ashish Tiple, Pankaj Koparde. Odonata of Maharashtra, India with Notes on Species distribution. Journal of Insect Science,2015:15(1):1-10.
3. CR Samrit, SC Masram. Diversity of Insect Pest on Various Crops from Sakoli Tahshil, Bhandara, Maharashtra. International Journal of Innovative Science and Research Technology,2024:9(5):3492-3494.
4. Bawa KS. Plant-pollinator interactions in tropical rainforest. Annual Review of Ecology and Systematics, ZX1990:21:399-422.
5. Kailash Chandra. Insect fauna of states and union territories in India. Research Gate,2011:14(1):189-218.
6. Lokesh N Wankhade, Pushpanjali A Bidwai. A preliminary study on some of the insect fauna during rainy season in the agricultural field of Karanja (Ghadge), District Wardha (Maharashtra). Journal of Entomology and Zoology Studies,2022:10(1):323-328.
7. Wankahde LN, Bidwai PA, Deogade DL. A study on some Insect fauna of Chandewani, Karanja (Ghadge)Tahsil, District Wardha, Maharashtra. Indian Journal of Applied and Pure Biology,2025:40(2):869-877.
8. Supanekar SP, Naik MS, Meshram LN, Rokade AG, Pawar PR. Species Diversity and Abundance of Dragonflies and Damselflies (Odonata: Insecta) in and around Panvel, Navi Mumbai, Maharashtra (India). International Journal of Scientific and Research Publications,2021:11(5):368-374.
9. Khadse TA. A study on Biodiversity of insects from Achalpur City, Maharashtra, India. International Journal of Life Sciences,2023:11(4):357-360.
10. Raut VD, Chavhan PH, Kirsan JK. Arthropod biodiversity in tropical forest litter around Nagpur (Maharashtra). Journal of Entomology and Zoology Studies,2022:10(5):133-136.