

**A study on some Insect fauna of Chandewani, Karanja (Ghadge)
Tahsil, District Wardha, Maharashtra**

**Lokesh N Wankhade, Pushpanjali A Bidwai, Dipali L Deogade
and Utkarsha P Mude**

Department of Zoology, Narayanrao Kale Smruti Model College,
Karanja Ghadge - 442203 (India)
Email: lokesh.wankhade@gmail.com

Abstract

A short survey of biodiversity in Chandewani area of Karanja (Ghadge), District Wardha was undertaken to study the insect fauna. During survey about 48 species of insect pest belonging to 10 order and 31 families were studied and identified. The order Coleoptera and Lepidoptera was found to be dominant with 11 species each followed by order Orthoptera with 9 species, order Diptera with 6, order Hemiptera with 4, order Odonata with 3 species, order Hymenoptera, Blattodea, Mantodea and Embioptera each with 1 species was reported. The insect pest recorded and identified in this study was agricultural and predatory pest.

Key words : Insect pest, species.

India is an agriculture country. All around the World more than 10,000 species of insect's pest are found to damaged different types of food plants³. In Maharashtra many workers have done study related to insect pest diversity in different region. About 443 insect species diversity belonging to 102 families and 19 orders was reported from Western Satpuda⁵. Hymenopteran insect diversity of 82 species belonging to 47 genera and 17 families was reported from Amba reserved forest of Kolhapur, Western ghats¹. 19 species of Scarab beetles belonging to 10 genera was reported from Akola². 44 species of insects

belonging to 9 orders was reported from Jangamhatti area, of Chandgad, district, Kolhapur⁶. Insect pest of 17 species from agriculture and forest areas of Chandgad tahsil, district Kolhapur was recorded⁸. Dung beetles of 24 types belonging to 14 genera and 3 families was recorded from Nashik⁴. Coleopteran insect diversity was studied from Sawanga-Vithoba Lake region, District Amravati and recorded 27 species of beetle belonging to 7 families¹⁰. Spider diversity from agro-ecosystem of tahsil Sangrampur, district Buldhana was studied and reported 143 species of spiders belonging to 63 genera and 11 families⁹. Spider

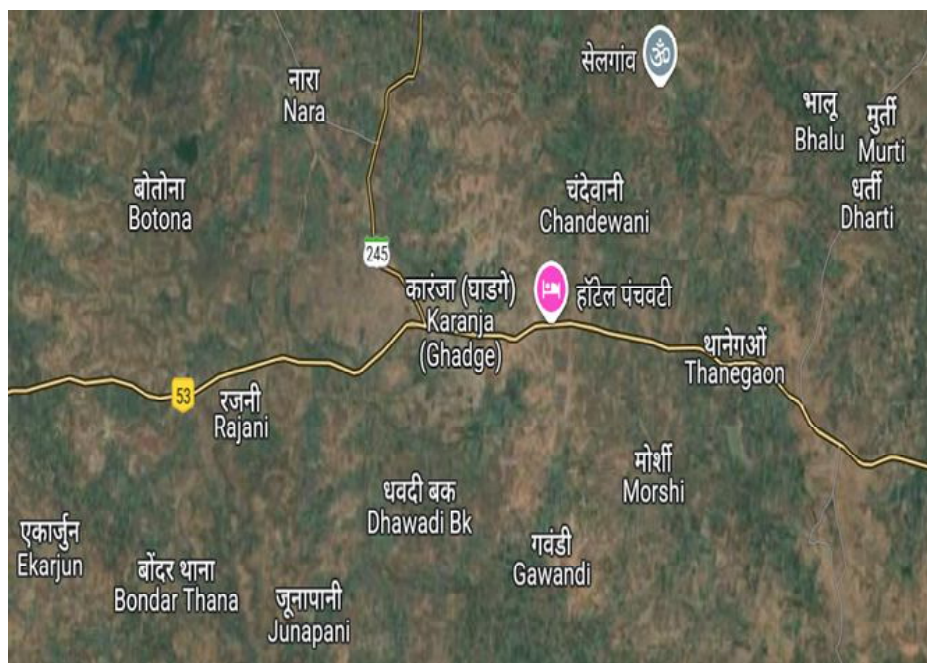


Fig. Google Map of Chandewani, Tahsil Karanja (Ghadge), District Wardha

diversity was also studied from Ambegaon tahsil, district Pune and reported 58 species belonging to 38 genera and 5 families⁷. Insect fauna during rainy season in the agricultural field of Karanja (Ghadge), District Wardha was studied and reported 44 species of insect belonging to 9 orders and 28 families¹¹.

In order to elaborate the study of insect pest biodiversity of Karanja (Ghadge) tahsil, District Wardha the study was undertaken in Chandewani village. The main aim of the survey is to prepare a list of occurrences of insect pest in the given area.

The survey was carried out in Chandewani village area located at Karanja (Ghadge) tahsil, of district Wardha, Maharashtra (Fig. 1).

A survey of Chandewani and nearby area was carried out from June 2024-November 2024 to study the insect fauna. The field survey includes various agriculture field and nearby area of the village. The insect pest observed during the survey was captured in the camera. The insect pest recorded were identified with the help of various research paper, literature available and internet sources. The insect pest identified was arranged according to their order and family.

A survey was undertaken from month of June 2024 to November 2024. The survey records 48 species of insect pest belonging to 10 orders and 31 families (Table-1). The order Coleoptera and Lepidoptera was found to be the dominant order with maximum 11 species from each belonging to 6 and 5 family

Table 1. List of Insect Pests identified during the survey in Chandewani, Karanja
(Ghadge) Tahsil, District Wardha, Maharashtra.

Sr. no.	Common Name	Scientific Name	Family	Order
1.	Big headed ground beetle	<i>Scarites subterraneus</i>	Carabidae	Coleoptera
2.	Rice weevil	<i>Sitophilus oryzae</i>	Curculionidae	Coleoptera
3.	Click beetle	<i>Lanelater fuscipes</i>	Elateridae	Coleoptera
4.	Sandwich Click beetle	<i>Melanotus punctatus</i>	Elateridae	Coleoptera
5.	Dung Beetle	<i>Catharsius granulatus</i>	Scarabaeidae	Coleoptera
6.	Masked Chafer	<i>Cyclocephala hirta</i>	Scarabaeidae	Coleoptera
7.	Dung beetle	<i>Onthophagus unifasciatus</i>	Scarabaeidae	Coleoptera
8.	Coconut rhinoceros beetle	<i>Oryctes rhinoceros</i>	Scarabaeidae	Coleoptera
9.	Predatory rove beetle	<i>Paederus littoralis</i>	Staphylinidae	Coleoptera
10.	Mupli Beetle	<i>Luprops tristis</i>	Tenebrionidae	Coleoptera
11.	Darkling beetle	<i>Platynotus excavatus</i>	Tenebrionidae	Coleoptera
12.	Hubner's wasp moth	<i>Amata huebneri</i>	Erebidae	Lepidoptera
13.	Seven Spotted Handmaiden moth	<i>Amata cyssea</i>	Erebidae	Lepidoptera
14.	Tussock Moth	<i>Arctornis</i> sp.	Erebidae	Lepidoptera
15.	Hairy Caterpillar Moth	<i>Olepa ricini</i>	Erebidae	Lepidoptera
16.	—	<i>Pandesma anysa</i>	Erebidae	Lepidoptera
17.	Hairy Caterpillar moth	<i>Eupterote mollifera</i>	Eupterotidae	Lepidoptera
18.	—	<i>Anisephyra ocularia</i>	Geometridae	Lepidoptera
19.	White looper moth	<i>Pingasa</i> sp.	Geometridae	Lepidoptera
20.	Cotton Bollworm moth	<i>Helicoverpa armigera</i>	Noctuidae	Lepidoptera
21.	Convolvulus hawk moth	<i>Agrius convolvuli</i>	Sphingidae	Lepidoptera
22.	Vine hawk moth	<i>Hippotion celerio</i>	Sphingidae	Lepidoptera
23.	Brown-spotted locust/ Yellow backed grasshopper	<i>Cyrtacanthacris tatarica</i>	Acrididae	Orthoptera
24.	Short-horned grasshopper	<i>Hieroglyphus annulicornis</i>	Acrididae	Orthoptera

25.	Band-winged grasshopper	<i>Trilophidia annulata</i>	Acrididae	Orthoptera
26.	Indian house cricket or banded cricket	<i>Gryllodes sigillatus</i>	Gryllidae	Orthoptera
27.	Cricket	<i>Phonarellus</i> sp.	Gryllidae	Orthoptera
28.	Oriental Mole Cricket	<i>Gryllotalpa orientalis</i>	Gryllotalpidae	Orthoptera
29.	Bush cricket	<i>Mecopoda elongata</i>	Tettigoniidae	Orthoptera
30.	Bush cricket	<i>Mecopoda nipponensis</i>	Tettigoniidae	Orthoptera
31.	Broad winged katydid	<i>Microcentrum rhombifolium</i>	Tettigoniidae	Orthoptera
32.	Robber fly	<i>Colepia rufiventris</i>	Asilidae	Diptera
33.	Marsh Mosquito	<i>Anopheles pseudopunctipennis</i>	Culicidae	Diptera
34.	Bathroom moth fly or drain fly	<i>Clogmia albipunctata</i>	Psychodidae	Diptera
35.	Hoverfly	<i>Eupeodes luniger</i>	Syrphidae	Diptera
36.	Horse fly	<i>Haematopota pluvialis</i>	Tabanidae	Diptera
37.	Winter crane fly	<i>Trichocera regelationis</i>	Trichoceridae	Diptera
38.	Red pumpkin bug	<i>Coridius janus</i>	Dinidoridae	Hemiptera
39.	Rough stink bug	<i>Brochymena arborea</i>	Pentatomidae	Hemiptera
40.	Red cotton bug	<i>Dysdercus cingulatus</i>	Pyrrhocoridae	Hemiptera
41.	Jewel bug	<i>Scutiphora pedicellata</i>	Scutelleridae	Hemiptera
42.	Dragonfly	<i>Nepogomphus modestus</i>	Gomphidae	Odonata
43.	Chalky percher or ground skimmer	<i>Diplacodes trivialis</i>	Libellulidae	Odonata
44.	Crimson marsh glider dragonfly	<i>Trithemis aurora</i>	Libellulidae	Odonata
45.	Carpenter bee	<i>Xylocopa pubescens</i>	Apidae	Hymenoptera
46.	American Cockroach	<i>Periplaneta americana</i>	Blattidae	Blattodea
47.	Giant Asian mantis	<i>Hierodula patellifera</i>	Mantidae	Mantodea
48.	Webspinners or Footspinners	<i>Oligotoma</i> sp.	Oligotomidae	Embioptera

**Photos of Insect Pest identified during the survey in Chandewani, Tahsil Karanja
(Ghadge), Wardha, Maharashtra**



1. *Scarites subterraneus*



2. *Sitophilus oryzae*



3. *Lanelater fuscipes*



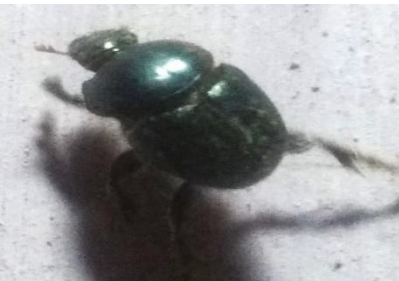
4. *Melanotus punctatus*



5. *Catharsius granulatus*



6. *Cyclocephala hirta*



7. *Onthophagus unifasciatus*



8. *Oryctes rhinoceros*



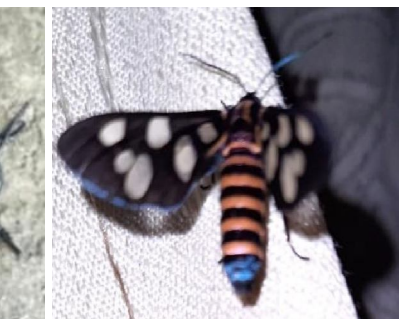
9. *Paederus littoralis*



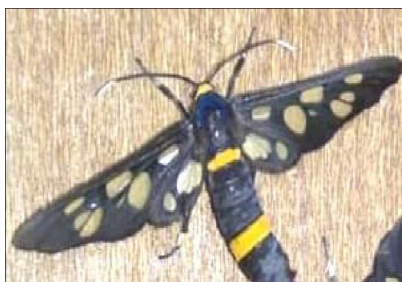
10. *Luprops tristis*



11. *Platynotus excavates*



12. *Amata huebneri*



13. *Amata cyssea*



14. *Arctormis* sp.



15. *Olepa ricini*



16. *Pandesma anysa*



17. *Eupterote mollifera*



18. *Anisephyra ocularia*



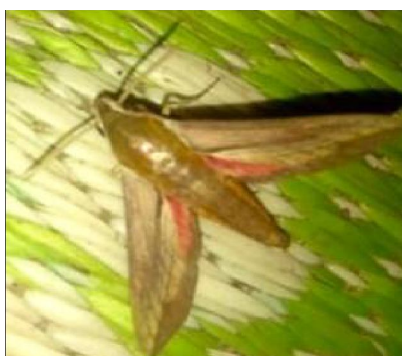
19. *Pingasa* sp.



20. *Helicoverpa armigera*



21. *Agrius convolvuli*



22. *Hippotion celerio*



23. *Cyrtacanthacris tatarica*



24. *Hieroglyphus annulicornis*



25. *Trilophidia annulate*



26. *Gryllodes sigillatus*



27. *Phonarellus* sp.



28. *Gryllotalpa orientallis*



29. *Mecopoda elongata*



30. *Mecopoda nipponensis*



31. *Microcentrum rhombifolium*



32. *Colepia rufiventris*



33. *Anopheles pseudopunctipennis*



34. *Clogmia albipunctata*



35. *Eupeodes luniger*



36. *Haematopota pluvialis*



37. *Trichocera regelationis*



38. *Coridius janus*



39. *Brochymena arborea*



40. *Dysdercus cingulatus*



41. *Scutiphora pedicellata*



42. *Nepogomphus modestus*



43. *Diplacodes trivialis*



44. *Trithemis aurora*



45. *Xylocopa latipes*



46. *Periplaneta Americana*



47. *Hierodula patellifera*



48. *Oligotoma* sp.

respectively. From order Orthoptera 9 species belonging to 4 families followed by order Diptera with 6 species belonging to 6 families, order Hemiptera with 4 species belonging to 4 families, order Odonata with 3 species belonging to 2 family and least species from order Hymenoptera, Blattodea, Mantodea and Embioptera each with 1 species and 1 family was reported.

The given survey reported that order Coleoptera and Lepidoptera was found to be the dominant order from the study area with maximum insect pest fauna followed by Orthoptera, Diptera, Hemiptera and Odonata while the least insects was recorded from order Hymenoptera, Blattodea, Mantodea and Embioptera.

The insect's pest recorded and identified during the survey was predatory and agricultural insects. The above survey of insect pest in this area shows the record of occurrence and dominance of various agriculture and predatory insect belonging to different orders and families.

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References :

1. Aland, S.R., A.B. Mamlayya, S.M Gaikwad, D. L Bharmal and G. P, Bhawane (2010). *Biological Forum*. 2(2): 59-64.
2. Dadmal S.M and S Khadakkar (2014). *Journal of Entomology and Zoology Studies*. 2(3): 44-48.
3. Dhaliwal G.S., A.K. Dhawan and R Singh (2007). *Indian Journal of Ecology*. 34(2): 100-109.
4. Jagdale P and S. Magdum (2017). *International Journal of Engineering Development and Research*. 5(4): 413-420.
5. Mahajan D.M and R.D. Patil (2014). *Indian Forester*. 140(3): 312-316.
6. Nikam K. N., S.V. More (2016). *Biolife*. 4(1): 209-212.
7. Rajgurav G. D., A.J. Khandagle and R Morey (2018). *Asian Journal of Agriculture & Life Sciences*. 3(1): 19-23.
8. Salunke R. N and S.V. More (2017). *Indian Journal of Scientific Research*. 13(1): 263-267.
9. Vairale A.B (2017). *Vidyabharati International Interdisciplinary Research Journal*. 6(1): 107-111.
10. Wankhade V., N. Manwar and A. Malu (2014). *Journal of Entomology*. 11(3): 170-175.
11. Wankhade LN and P. A. Bidwai (2022). *Journal of Entomology and Zoology Studies*. 10(1): 323-328.