



**A Preliminary Study On the Biodiversity Of Insects Collected From
Tehere-Malegaon Tahsil, Nashik District, Maharashtra, India.**

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Abstract-

Insects are belonging to the phylum Arthropoda which is the largest phylum of the animal kingdom. Insects are worldwidly distributed so they form an important component of terrestrial, aquatic and areal ecosystems. The present survey was aimed to prepare a checklist of insects found in the Tehere village , Malegaon, District Nashik. Since there was no known published data of insect in Tehere village till date. Therefore, this is the first study which reports the abundance and distribution of insects . The study was conducted from 1 September to 20 September, 2022. In this study, researcher recorded total of 9 orders of insects . Based on the data, Diptera (22.5%) with highest diversity founded the most dominant insects in Tehere, followed by Lepidoptera (16.1%), Blattodea and Hemiptera (12.9%), as well as Hymenoptera and Orthoptera (9.6%) also Coleoptera , Dermaptera , Odonata observed in a descending manner. Overall biodiversity indices show relatively high biodiversity in the present area. The present study provides base line information about the insect community in the Tehere Village.

Keywords - Insect, Biodiversity, Species, Tehere

Introduction -

Insects are most diverse, successful and dominant taxon of the animal kingdom. They are found in almost every habitat across the globe. They likely have the largest biomass of terrestrial animals. It is due to their diverse body size, habit, fecundity, different modes of respiration, food diversity etc. Most of the insects are collected from plants, flowers, grasses, weeds, shrubs, trees, etc. Insects play an important role as pollinators, bio-control agents of pest insects, predators, Decomposers of agrowastes in the agro-ecosystem, herbivores and parasites. Because of these diverse characteristics, they became an important component of our ecosystem.

This was the main reason for analyzing the status of insects. During this study various species of insects were collected and identified for estimating the insect species diversity.

Material And Method -

Study Area- Tehere village is located in Malegaon tehsil of Nashik district in Maharashtra, India. It is situated 11km away from sub-district headquarter Malegaon

(tehsildar office) and 100km away from district headquarter Nashik.

Geographical location of Tehere village is in between 20°52' North latitudes and 74°49' East longitude. The temperature varies from 15-41° C. The major freshwater source is Girna River. The region has a large area under crop cultivation.

This study was conducted at Tehere village from the 1 September to 20 September collection was done by taking the photographs of insects from 9.00am to 7.00pm. Insects

were recorded from various habitats like public park, gardens, fruits & vegetable market, agricultural fields etc. Photograph - specimens were identified with the help of identification literature as well as different websites from the internet.

Objective -

Aims of the study:

1. To identify the current status of insect diversity in the Tehere Village.
2. To study different orders of insects and their families.
3. To enhance public awareness and knowledge about insects.

Result And Discussion -

percentage of insect order in the Tehere.

Table: Total number of insects and the

<u>Order</u>	<u>Example</u>	<u>Percentage</u>
Diptera	Housefly, Mosquitoes Blackfly, Sciaridae, Botfly, Cheese fly, Common fly, Rhinophoridae.	22.5%
Blattodea	Cockroach, Ectobius, Brown Banded cockroach, Florida woods cockroach.	12.9%
Hymenoptera	Bees, Ants, Vespids.	9.6%
Lepidoptera	Caterpillar, Butterflies, Ruby tiger, Large White, Monarch Butterfly.	16.1%
Hemiptera	Water Striders, Hydrometra, Acrosternum Millierei, Membracinae.	12.9%
Orthoptera	Coelifera, House cricket, Tettigoniidae Grasshoppers	9.6%
Odonata	Dragonfly.	3.2%
Coleoptera	Scale insect, Darkling Beetle.	6.4%
Dermoptera	Anisolabidae, European Earwig.	6.4%

The ecological importance of insects cannot be underestimated: They form the basal part of the food pyramid and impact our agriculture ecosystems as well as human health.

Our result showed that Insects belongs to order Diptera (22.5%) with highest diversity founded the most dominant in Tehere, followed by Lepidoptera (16.1%), Blattodea (12.9%) and Hemiptera (12.9%), as well as both Hymenoptera and Orthoptera (9.6%) also Coleoptera(6.4%) ,Dermoptera(6.4%) , Odonata (3.2%) observed in a descending manner. Overall biodiversity indices show relatively high biodiversity in the present area.

In order Diptera, family culicidae, the omnivores species, yellow fever Mosquito (a. aegypti sp.) was collected from selected areas, cultivated areas and school ,parksites. The geographic distribution of this species is worldwide (Linnaeus et al., 1758). Order Lepidoptera, family pieridae , the omnivores species, Cabbage White butterfly (pieris rapae sp.) was collected from selected areas like school ,park ,fields sites. The geographic

distribution of this species is worldwide (Linnaeus et al., 1758).

Order Blattodea, belongs family blattidae, omnivores scavengers ,Cockroach (periplaneta

Americana sp.)was collected from House, Stores, parks and cultivated areas ,.The geographic distribution of this species is worldwide.In order Hymenoptera, family vespidae , omnivores species, wasps (vespa sp.) was collected from selected areas like cultivated flora ,school ,park ,fields sites. The geographic distribution of this species is worldwide (Linnaeus et al., 1758). In order Hemiptera, family nepidae , the carnivores species, water stick insect (ranatrafusca sp.) was collected from selected areas like school ,park ,fields sites. The geographic distribution of this species is worldwide (Linnaeus et al., 1758).

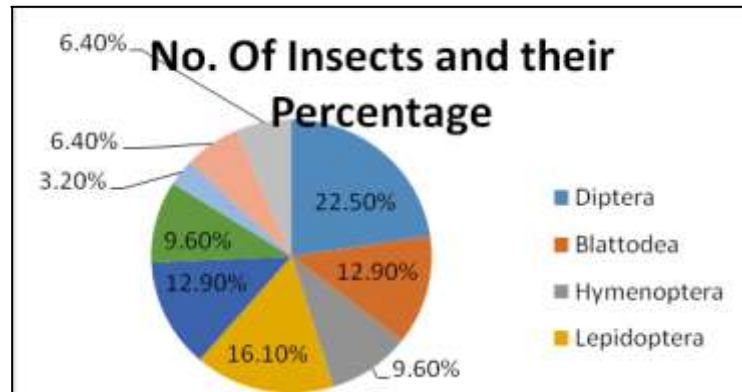
In order Orthoptera, family acrididae ,herbivores species, Grasshoppers (caelifera sp) collected from vegetation areas, also cultivated areas, field sites .The Geographic distributionof this species is worldwide.

In order Odonata, family Libellulidae ,exclusively carnivores species

,Dragonfly(anisotropic sp)was collected from selected areas like school, vegetation, Market place.

Dragonfly also distributed worldwide. In order Coleoptera ,family coccidae , highly invasive species, scale insect collected from

Sub urber Region,cultivated areas, which is distributed all over the world.In order Dermaptera, European Earwig collected from sub-urban areas, Market place,school,vegetation site all over distributed in world.





Conclusion -

Biodiversity of insects is good in Tehere due to ample quantity of different of different flora and fauna. Here good vegetation in villages area where kharif crops grown by the farmers and abundance of host plant and animals are area. Therefore availability of above flora and fauna is good shelter for survival of organisms which provide clarification of habit and habitat of different insect species and its impact on the biotic and abiotic factor which influence the conservation of biodiversity.

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