

A PRELIMINARY REPORT ON THE LEPIDOPTERA FAUNA OF NANDED, MARATHWADA REGION, MAHARASHTRA

APURVA A. SIRSIKAR, DINESH D. WANULE*
and ASHOK N. SIRSIKAR

Department of Life Sciences,
N.E.S. Science College, Nanded-431 602; and
*Zoology Department,

Birla College of Arts, Science and Commerce,
Kalyan (W), Dist. Thane (Maharashtra).

E-mail : apurva.sirsikar@gmail.com

Lepidoptera (butterflies and moths) is undoubtedly the most conspicuous insect Order having colorful and beautiful insects. Most of them possess distinctive color patterns. Butterfly fauna has been studied extensively from taxonomic viewpoint (Robbins & Opler, 1997). Ecologically they are important in the ecosystem and some species are known as pollution indicators also. Reproduction of many plants depend on butterflies for their pollination through symbiotic relation. Reduction in number or total loss of any of the species may affect the survival of the plants. As pollinators of many cultivated and wild plants, butterflies and moths play a vital role in human economy and even sustaining the greenery. Many of them are serious crop pests and are responsible for heavy loss. Lepidoptera is the second largest and most important Order of the insect pests.

The present study was undertaken to record the diversity of Lepidoptera fauna of Nanded city.

Material and Methods

Nanded city is located in southern part of India (19.15°N 77.30°E). The city is divided into two parts: old Nanded (20.62 Km²) and new Nanded (31.14 Km²). Annual average temperature is Max. 40.2°C. and Min. 12.1°C, while annual rainfall is 928.90 mm.

This study was mainly conducted in the campus of N.E.S Science College, Nanded and some surrounding areas within the city. Butterflies and moths were recorded by random periodical survey throughout the year i.e. from October 2014 to October 2015. The specimens were field identified by direct sighting and or using photographic evidence (Das et al., 2012). The specimens were photographed from different angles using digital camera Nikon Coolpix L830 (Zoom 34X 16.0 Megapixel) and Nikon Coolpix S3500 (Zoom 7X Megapixel 20.1). The photographs so obtained were compared with those found in the works of Kehimkar (2008, 2015), Kunte (2000), Gadhikar et al. (2015), Gaonkar (1996) and Sharma (2012). No live or dead specimen were collected from the field.

Results and Discussion

The Family-wise percentile status of the Lepidopteran fauna reported in the present study is as follows : Nymphalidae - (15 spp) - 39.47, Pieridae - (6 spp) - 15.78, Papilionidae - (5 spp) - 13.15, Lycaenidae - (3 spp) - 7.89, Noctuidae - (3 spp) - 7.89, Sphingidae - (2 spp) - 5.26, Erebidae - (1sp.) - 2.63, Crambidae - (1 sp.) - 2.63, Saturniidae - (1 sp.) - 2.63, Hesperidae - (1sp.) - 2.63.

A total of 38 Lepidoptera species were identified belonging to ten families (Table 1). This report indicates that family Nymphalidae dominates (39.47%) followed by Pieridae (15.78 %) and Papilionidae (13.15%) in the Lepidoptera fauna of Nanded city. Authors intend to continue further surveys of the area in future and reveal more species. The data recorded in this paper may serve as a baseline for further study and conservation of valuable Lepidoptera fauna. The data may also help to raise a butterfly garden in this area.

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Table 1. A preliminary list of the Lepidoptera found in Nanded city, Maharashtra.

Family	Scientific Name	Common Name	Found on
BUTTERFLIES			
Nymphalidae	<i>Acraea terpsicore</i> Linnaeus 1768	Tawny coster	<i>Cosmos</i> species
	<i>Ariadne ariadne</i> Linnaeus 1763	Angled caster	<i>Tragia cannabina</i>
	<i>Ariadne merione</i> Cramer 1779	Common castor	
	<i>Danaus chrysippus</i> Linnaeus 1758	Plain Tiger	<i>Tridax procumbens</i> (L.)
	<i>Euploea core</i> Cramer 1780	Common Indian Crow	<i>Tagetes patula</i> (L.)
	<i>Euthalia nais</i> Forester 1771	Baronet	
	<i>Hypolimnas misippus</i> Linnaeus 1764	Danaid eggfly	<i>Tagetes patula</i> (L.)
	<i>Ixias marianne</i> Cramer 1779	White Orange tip	
	<i>Junonia atlites</i> Linnaeus 1763	Gray pansy	<i>Zephyranthes ajax</i>
	<i>Junonia hierta</i> Fabricius 1798	Yellow pansy	
	<i>Junonia lemonias</i> Linnaeus 1758	Lemon pansy	<i>Cosmos</i> sp.
	<i>Junonia orithya</i> Linnaeus 1764	Blue pansy	
	<i>Melanitis leda</i> (Linnaeus, 1758)	Common evening brown	<i>Cosmos</i> sp.
	<i>Tirumala limniace</i> (Cramer, 1775)	Blue Tiger	<i>Turnera ulmifolia</i> (L.)
Papilionidae	<i>Graphium agamemnon</i> Linnaeus 1758	Tailed Jay	<i>Antigonon leptopus</i> (Hook. & Arn.)
	<i>Graphium doson</i> C&R Felder 1864	Common Jay	<i>Antigonon leptopus</i> (Hook. & Arn.)
	<i>Pachliopta aristolochiae</i> Fabr., 1775	Common rose	<i>Lantana camara</i> (L.)
	<i>Papilio demoleus</i> Linnaeus 1758	Lemon butterfly	<i>Catharanthus roseus</i> (L.) G. Don
Pieridae	<i>Papilio polytes</i> Linnaeus 1758	Common mormon	<i>Jacquemontia coerulea</i> (L.)
	<i>Catopsilia pomona</i> Fabricius 1775	Lemon emigrant	<i>Hibiscus rosasinensis</i> (L.)
	<i>Catopsilia pyranthe</i> (Linnaeus) 1758	Mottled emigrant	<i>Cassia fistula</i> (L.)
	<i>Cepora nerissa</i> Fabricius 1775	Common gull	<i>Catharanthus roseus</i> (L.) G. Don
Lycaenidae	<i>Delias eucharis</i> Drury 1773	Indian Jezebel	Jasmine flowers
	<i>Eurema hecabe</i> Linnaeus 1758	Common Grass yellow	<i>Tridax procumbens</i> (L.)
	<i>Euthalia aconthea</i> Hewitson 1874	Common Baron	Decaying custard apple fruit
	<i>Talicauda nyseus</i> Guerin 1843	Red Pierrot	<i>Jasminum sambac</i>
	<i>Chilades lajus lajus</i> Stoll, 1780	Indian Lime Blue	<i>Duranta</i> plant
Hesperiidae	<i>Chilades pandava</i> Horsfield 1829	Plains cupid	<i>Wedelia trilobata</i> Creeping Daisy
	<i>Udaspes folus</i> Cramer 1775	Grass Demon	-
MOTHS			
Noctuidae	<i>Achaea janata</i> Linnaeus 1758	Castor semilooper	-
	<i>Asota ficus</i> Fabricius 1775	-	-
	<i>Eudocima materna</i> Linnaeus 1767	Fruit Piercing moth	-
Erebidae	<i>Amata passalis</i> Fabricius 1781	Sandalwood Defoliator	-
Sphingidae	<i>Acherontia styx</i> Westwood 1847	Death's head moth	-
	<i>Daphnis nerii</i> Linnaeus 1758	Oleander Hawkmoth	-
Crambidae	<i>Palpita vitrealis</i> Rossi 1794	Olive tree Pearl	-
Saturniidae	<i>Antheraea mylitta</i> Drury 1773	Tussar moth	-