

Butterfly diversity of sericultural training institute (proposed college of Sericulture) Campus, Titabar, Assam (India)

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ABSTRACT

The Sericultural Training Institute, Titabar, Assam is the first institution in the North-East India and more particularly in the world who is imparting technical and scientific knowhow to the students and trainees in the non-mulberry sector like Eri and Muga in particular and Mulberry sector in general. Through this study a checklist of butterfly diversity in the said area along with proposed area of the College of Sericulture, Titabar, Assam Agricultural University has been prepared. This is the first attempt to explore the butterfly diversity of this area. This list includes 65 species of butterflies belonging to 37 genera.

Key words: Sericultural Training Institute, butterfly, mulberry, non-mulberry, proposed College of Sericulture.

Introduction

Butterflies belong to the order Lepidoptera, second largest order among insects, made up of approximately 1,50,000 species, of which 17,820 are butterflies (Shields, 1989). North-Eastern region of India is a hotspot for butterfly diversity comprising of two-third (962) species of Indian butterflies (Evans, 1932). Surveys conducted by experts time to time in this region to explore the butterfly diversity (Manson and Niceville, 1886; Doherty, 1889; Talbot, 1939, 1947; Wynter-Blyth, 1957; Saharia, 1967; Varhney & Chanda, 1971). But till now the attempts remain fragmented. Through this study we have tried to prepare a checklist of butterfly diversity of the proposed College of Sericulture, Titabar, Assam Agricultural University. We have chosen this area for our study because Govt. Sericulture Farm was established in 1919, Sericultural Training Institute, Titabar was established in 1944 and Field Laboratory of Central Silk board (formerly known as Regional Sericultural Research Station) was established

in 1953; but till now nobody studied the butterfly diversity of this area.

About The Study Area

The Sericultural Training Institute in Assam is located at Titabar in the district of Jorhat, twenty kms. from Jorhat town. It is situated on the main line of the N.F. railway and about 16 kms. towards east is situated the Naga Hills, and the famous Hoollongapar Gibbon Sanctuary is only twenty kms. away from this institution. Though it is situated in the plain, the neighboring area is covered by good vegetation along with agricultural field. Sericultural Training Institute covers an area of 60 bigha 2 kotha 17 locha land with silkworm host plants and other trees, shrubs, herbs. On the other hand, Govt. Sericulture Farm covers an area of 68 bigha 10 locha and Field Laboratory of Central Silk Board covers an area of 61 bigha 3 kotha 7 locha lands. Proposed College of Sericulture, Titabar, Assam Agricultural University will cover a total area of 190 bigha 1

kotha 14 locha. Our study was limited within the area of the proposed College of Sericulture, Titabar, Assam Agricultural University.

Material and Methods

This study was carried out during the period 2012-13. During the study period butterflies were collected by net from study area for identification. The eggs and larvae which were observed during the time of survey were collected and reared in their respective host plants in the STI Laboratory up to adult emergence. Accordingly, the adult butterflies were identified from that. Binoculars (7 × 35) were used for watching butterflies. All identification was based on Antram (1924); Evans (1932); Talbot (1939, 1947), Wynter-Blyth (1957); Haribal (1992); Kunte, (2000); Kehimkar (2011).

Findings of the Study

A checklist of butterfly fauna of Sericultural Training Institute, Titabar, Titabar, Assam Agricultural University (proposed College of Sericulture, Assam) has been prepared on the basis of this study. Through this study a total number of 65 species of butterflies belonging to 37 genera were recorded. Maximum numbers of species were encountered in

the family Nymphalidae (25) followed by Papilionidae (17), Pieridae (15), Lycaenidae (06) and

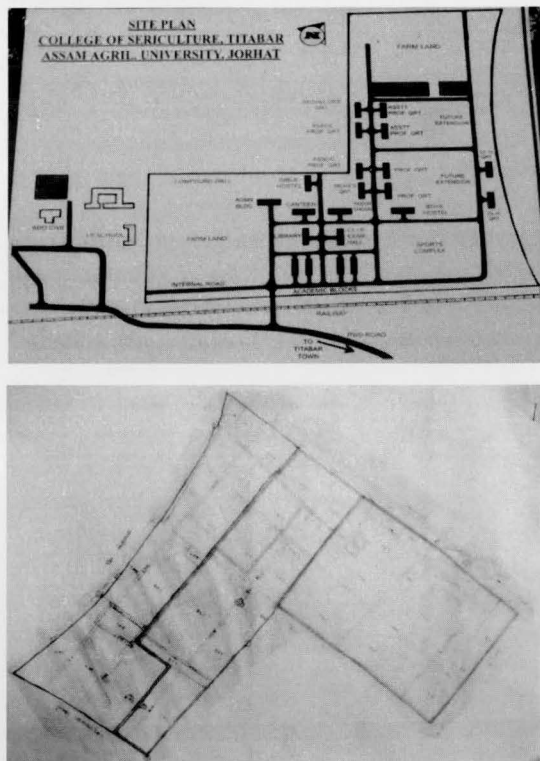


Fig. 1. Map of the Study Area (Proposed College of Sericulture, Titabar)

Table 1. Butterfly larval host plants in the Sericultural Training Institute Campus (Proposed College of Sericulture, Titabar, Assam Agricultural University).

Scientific Name of Butterfly	Common Name of Butterfly	Host Plant
<i>Hasora chromus</i> (Cramer)	Common Banded Awl	<i>Ricinus communis</i> (Euphorbiaceae)
<i>Iambrix salsala</i> (Moore)	Chestnut Bob	Grasses (Poaceae)
<i>Papilio demoleus</i> Linnaeus	Lime Butterfly	Limes, Lemons and other Rutaceae
<i>Papilio paris</i> Linnaeus	Paris Peacock	<i>Citrus spp.</i>
<i>Papilio polytes</i> Linnaeus	Common Mormon	Limes, Curry leaf plant
<i>Catopsilia pomona</i> (Fabricius)	Common Emigrant	<i>Butea monosperma</i> ,
<i>Pieris brassicae</i> (Linnaeus)	Large Cabbage White	Cabbage, mustard
<i>Pieris canidia</i> (Sparrman)	Indian Cabbage White	Cabbage ,mustard
<i>Castalius rosimon</i> (Fabricius)	Common Pierrot	<i>Zizyphus jujuba</i>
<i>Jamides bochus</i> (Stoll)	Dark Cerulean	<i>Butea monosperma</i> ,
<i>Jamides celeno</i> (Cramer)	Common Cerulean	<i>Butea monosperma</i> ,
<i>Ariadne merione</i> (Cramer)	Common Castor	<i>Ricinus communis</i>
<i>Elymnias hypermnestra</i> (Linnaeus)	Common Palmfly	<i>Areca catechu</i> , <i>Cocos nucifera</i>
<i>Euthalia aconthea</i> (Cramer)	Common Baron	<i>Mangifera indica</i>
<i>Hypolimnas misippus</i> (Linnaeus)	Danaid Eggfly	<i>Hibiscus sp.</i>
<i>Junonia orithiya</i> (Linnaeus)	Blue Pansy	<i>Mimosa pudica</i>
<i>Neptis hylas</i> (Linnaeus)	Common Sailer	<i>Zizyphus sp.</i>
<i>Tanaecia lepidea</i> (Butler)	Grey Count	<i>Melastoma malabathricum</i>
<i>Ypthima asterope</i> (Klug)	Common Threering	<i>Cynodon spp.</i>

Table 2. Butterflies recorded from the Sericultural Training Institute Campus (Proposed College of Sericulture, Titabar, Assam Agricultural University).

Sl. No I	Family and Species Ii	Common Name Iii
Family: HesperIIDae (SKIPPERS)		
1	<i>Hasora chromus</i> (Cramer)	Common Banded Awl
2	<i>Iambrix salsala</i> (Moore)	Chestnut Bob
Family: Papilionidae (SWALLOWTAILS)		
3	<i>Atrophaneura aristolochiae</i> (Fabricius)	Common Rose
4	<i>Atrophaneura aristolochiae</i> (Fabricius)	Common Rose
5	<i>Atrophaneura hector</i> (Linnaeus)	Crimson Rose
6	<i>Chilasa clytia</i> (Linnaeus)	Common Mime
7	<i>Graphium agamemnon</i> (Linnaeus)	Tailed Jay
8	<i>Graphium doson</i> (C. & R. Felder)	Common Jay
9	<i>Graphium sarpedon</i> (Linnaeus)	Common Bluebottle
10	<i>Papilio alcmenor</i> C. & R. Felder	Redbreast
11	<i>Papilio castor</i> Westwood	Common Raven
12	<i>Papilio demoleus</i> Linnaeus	Lime Butterfly
13	<i>Papilio helenus</i> Linnaeus	Red Helen
14	<i>Papilio memnon</i> Linnaeus	Great Mormon
15	<i>Papilio paris</i> Linnaeus	Paris Peacock
16	<i>Papilio polyctor</i> Fabricius	Common Peacock
17	<i>Papilio polytes</i> Linnaeus	Common Mormon
18	<i>Troides aeacus</i> (C & R. Felder)	Golden Birdwing
19	<i>Troides Helena</i> (Linnaeus)	Common Birdwing
Family: Pieridae (WHITES & YELLOWS)		
20	<i>Catopsilia pomona</i> (Fabricius)	Common Emigrant
21	<i>Cepora nadina</i> (Lucas)	Lesser Gull
22	<i>Delias eucharis</i> (Drury)	Common Jezebel
23	<i>Delias pasithoe</i> (Linnaeus)	Red-base Jezebel
24	<i>Eurema andersoni</i> (Moore)	One Spot Grass Yellow
25	<i>Eurema blanda</i> (Boisduval)	Three Spot Grass Yellow
26	<i>Eurema brigitta</i> (Cramer)	Small Grass Yellow
27	<i>Eurema hecabe</i> (Linnaeus)	Common Grass Yellow
28	<i>Eurema sari</i> (Horsfield)	Chocolate Grass Yellow
29	<i>Hebomoia glaucippe</i> (Linnaeus)	Great Orange Tip
30	<i>Ixias Marianne</i> (Cramer)	White Orange Tip
31	<i>Ixias pyrene</i> (Linnaeus)	Yellow Orange Tip
32	<i>Leptosia nina</i> (Fabricius)	Psyche
33	<i>Pieris brassicae</i> (Linnaeus)	Large Cabbage White
34	<i>Pieris canidia</i> (Sparrman)	Indian Cabbage White
Family: Lycaenidae (BLUES)		
35	<i>Castalius rosimon</i> (Fabricius)	Common Pierrot
36	<i>Cheritra freja</i> (Fabricius)	Common Imperial
37	<i>Freyeria trochylus</i> (Freyer)	Grass Jewel
38	<i>Jamides bochus</i> (Stoll)	Dark Cerulean
39	<i>Jamides celeno</i> (Cramer)	Common Cerulean
40	<i>Loxura atymnus</i> (Stoll)	Yamfly
Family: Nymphalidae (BRUSH – FOOTED)		

Table 2. Butterflies recorded from the Sericultural Training Institute Campus (Proposed College of Sericulture, Titabar, Assam Agricultural University).

Sl. No I	Family and Species II	Common Name III
41	<i>Ariadne merione</i> (Cramer)	Common Castor
42	<i>Athyma nefte</i> (Cramer)	Colour Sergeant
43	<i>Athyma perius</i> (Linnaeus)	Common Sergeant
44	<i>Cethosia biblis</i> (Drury)	Red Lacewing
45	<i>Danaus chrysippus</i> (Linnaeus)	Plain Tiger
46	<i>Elymnias hypermnestra</i> (Linnaeus)	Common Palmfly
47	<i>Euthalia aconthea</i> (Cramer)	Common Baron
48	<i>Hypolimnias misippus</i> (Linnaeus)	Danaid Eggfly
49	<i>Junonia almanac</i> (Linnaeus)	Peacock Pansy
50	<i>Junonia atlites</i> (Linnaeus)	Grey Pansy
51	<i>Junonia hierta</i> (Fabricius)	Yellow Pansy
52	<i>Junonia iphiita</i> (Cramer)	Chocolate Pansy
53	<i>Junonia lemonias</i> (Linnaeus)	Lemon Pansy
54	<i>Junonia orithiya</i> (Linnaeus)	Blue Pansy
55	<i>Kaniska canace</i> (Linnaeus)	Blue Admiral
56	<i>Melanitis leda</i> (Linnaeus)	Common Evening Brown
57	<i>Neptis hylas</i> (Linnaeus)	Common Sailer
58	<i>Parantica aglea</i> (Stoll)	Glassy Tiger
59	<i>Parantica sitta</i> (Kollar)	Chestnut Tiger
60	<i>Parthenos sylvia</i> (Cramer)	Clipper
61	<i>Phalanta phalantha</i> (Drury)	Common Leopard
62	<i>Symbrenthia hippocclus</i> (Cramer)	Common Jester
63	<i>Tanaecia lepidea</i> (Butler)	Grey Count
64	<i>Ypthima asterope</i> (Klug)	Common Threering
65	<i>Ypthima baldus</i> (Fabricius)	Common Fivering

Hesperiidae (02). This study will provide information to the authority of proposed College of Sericulture and others for future conservation activities and study. On the otherhand, this study will update the database related to the study area.

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