

A Report on the Moths of Ghatigaon Wildlife Sanctuary, Madhya Pradesh

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Ghatigaon Wildlife Sanctuary was constituted in the year 1981 vide Government of Madhya Pradesh notification no. 15-16-75/X-(2) dated 21st May, 1981. Initially, a total area of 512.00 km² was notified as sanctuary of which 407.734 km² was Reserve Forest, 16.847 km² Protected Forests and the rest 88.429 km² revenue and privately owned land. Subsequently, in the year 1994, an area 1.35 km² was taken out of sanctuary vide Govt. of Madhya Pradesh notification no F-14-46/19/X/2 dated 21-4-94 for construction of Guna-Etawah railway line.

This wildlife sanctuary lies between N 26°03.349' latitude and E 077°56.211' longitude in Ghatigaon block of Gwalior district on NH-3. This wildlife sanctuary starts from Gwalior town and is easily approachable from Gwalior, Shivpuri and Datia. The entire area of the Ghatigaon WLS is undulating and interspersed with plains. The cultivated area inside the WLS is almost level to slightly sloping. There are a number of streams within the WLS but they dry upto during the summer. Tighara and Raipur reservoirs are the important water sources during the summer.

Forests : The Ghatigaon Wildlife Sanctuary has dry deciduous and thorn forest over a large area. The forests are poor in growth and open in density. Important trees species found in the sanctuary are kardhai (*Anogeissus pendula*), khair (*Acacia catechu*), mahua (*Madhuca latifolia*), salai (*Boswellia serrata*), reunja (*Acacia leucophloea*), kikar (*Prosopis juliflora*), neem (*Azadirachta indica*), gurjan (*Lannea camera*), jharber (*Zizyphus jujube*), ber (*Z. xylopyra*), karonda (*Carissa spinarum*) and ak (*Calotris gigantia*). This Sanctuary also contains three grass birs, they are: (i) military grass bir, (ii) Pavta grass bir, Raipur and (iii) grass bir. Panihar which contain sufficient food stock for herbivores.

Fauna : Ghatigaon wildlife sanctuary was established for the protection of Son Chiria or Great Indian bustard bird. Great Indian bustard was sighted here in large numbers around eighties. The area has other animals also. The mammals identified in the sanctuary include black buck, chital, fox, wolf, wild boar, jackal, hyena, porcupine, jungle cat, bear, chinkara, sambar, blue bull, chowsingha and mongoose. Bird fauna of

the sanctuary are the great Indian bustard, peacock, house sparrow, black drongo, koel, Bengal vulture, white vulture, kite, Indian nightjar, owl, house shift, partridge, jungle fowl, baya, bulbul, quail, woodpecker, babbler, warbler, blue jay, flycatchers, house crow, jungle crow, house sparrow, crow pheasants, lark, skylark, grey hornbill, owl, cuckoo, spotted dove, turtle dove, egrets, etc. In Tighara and Raipur reservoirs, a variety of water birds including a number of migratory birds are seen. These include spoonbill, herons, white stork, painted stork, white ibis, adjutant stork, Brahminy duck, pintail, sarus crane, etc. In this sanctuary, a variety of reptiles are also found. They are common garden lizard, python, cobra, krait, monitor lizard, etc.

Methodology

During faunistic survey conducted at Ghatigaon and Tighara forest range of Ghatigaon wildlife sanctuary in the year 2013, collection of moths were made with help of Light trap installed at different localities in and around this sanctuary. The light trap was operated just after sunset to sunrise with help of portable generator and 160w mercury vapor lamp was used as light source which is hung over the white muslin cloth. Moths attracted towards light trap were collected, and then were identified with the help of available literature. While studying the field collected moths, about 107 morpho species were collected and identified which resulted into 29 species and 27 genera in 8 families presented in the Table 1. Of which, members of the family Erebidae (10 species) dominated other moth families such as Geometridae (8 species), Crambidae (5 species), Noctuidae (2 species) and one species each is represented of Yponomeutidae, Lasiocampidae, Drepanidae, Sphingidae (Table 1).

Observations

Based on the frequency of observations, the moth species are classified as : Very Rare (VR) (<20%), Rare (R) (20% - 40%), Common (C) (>40% but <60%), Very Common (VC) (>60%). The observations also reveal that *Atteva fabriciella* Swederus, 1787 and *Pyrausta panopealis* Walker, 1859, were observed rarely, whereas *Hyperythra lutea* Stoll, 1781 is found to be very rare species. The study found that the moth diversity were recorded more in the Tighara forest

Table 1. Moths recorded from Ghatigaon Wildlife Sanctuary, Madhya Pradesh.

	Name of the species	Family: Subfamily	Collection locality	Status
1	<i>Atteva fabriciella</i> Swederus, 1787	Yponomeutidae: Atteviniae	Tighra Range, Gwalior	R
2	<i>Trabala siva</i> Lefebvre, 1827	Lasiocampidae: Lasiocampinae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	C
3	<i>Pyrausta panopealis</i> Walker, 1859	Crambidae: Pyraustinae	Tighara Range, Gwalior	R
4	<i>Maruca vitrata</i> Fabricius, 1787	Crambidae: Spilomelinae	Tighara Range, Gwalior	C
5	<i>Nausinoe geometralis</i> Guenee, 1854	Crambidae: Spilomelinae	Tighara Range, Gwalior	C
6	<i>Nausinoe neptis</i> (Cramer, 1779)	Crambidae: Spilomelinae	Tighara Range, Gwalior	C
7	<i>Palpita vitrealis</i> (Rossi, 1794)	Crambidae: Spilomelinae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	C
8	<i>Cyclidia substigmata</i> (Hübner, 1825)	Drepanidae: Cyclidiinae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	C
9	<i>Nephele hespera</i> Fabricius, 1775	Sphingidae: Macroglossinae	Tighara Range, Gwalior	C
10	<i>Pelagodes quadraria</i> Guenée, 1857	Geometridae: Geometrinae	Tighara Range, Gwalior	C
11	<i>Boarmia hybernaria</i> Swinhoe	Geometridae: Ennominae	Tighara Range, Gwalior	C
12	<i>Hyperythra lutea</i> Stoll, 1781	Geometridae: Ennominae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	VR
13	<i>Hyposidra talaca</i> Walker, 1860	Geometridae: Ennominae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	VC
14	<i>Antitrygodes cuneilinea</i> Walker, 1862	Geometridae: Sterrhinae	Tighara Range, Gwalior	VC
15	<i>Scopula</i> sp.	Geometridae: Sterrhinae	Tighara Range, Gwalior	C
16	<i>Scopula pulchellata</i> Fabricius, 1794	Geometridae: Sterrhinae	Tighara Range, Gwalior	C
17	<i>Traminda mundissima</i> Walker, 1861	Geometridae: Sterrhinae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	VC
18	<i>Orvasca subnotota</i> Walker, 1865	Erebidae: Lymantriinae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	C
19	<i>Argina cribaria</i> Clerck, 1759	Erebidae: Arctiinae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	C
20	<i>Syntomoides imaoon</i> Cramer, 1779	Erebidae: Arctiinae	Tighara Range, Gwalior	C
21	<i>Cosmophila flava</i> Fabricius, 1775	Erebidae: Scoliopteryginae	Tighara Range, Gwalior	VC
22	<i>Bastilla torrida</i> Guenée, 1852	Erebidae: Erebiniae	Tighara Range, Gwalior	C
23	<i>Chalciope mygdon</i> Cramer, 1777	Erebidae: Erebiniae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	VC
24	<i>Ercheia cyllaria</i> Walker, 1858	Erebidae: Erebiniae	Tighara Range, Gwalior	VC
25	<i>Ericeia inangulata</i> Guenée, 1852	Erebidae: Erebiniae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	VC
26	<i>Mocis frugalis</i> Fabricius, 1775	Erebidae: Erebinac	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	VC
27	<i>Ophiusa triphaenoides</i> Walker, 1858	Erebidae: Erebinac	Tighara Range, Gwalior	C
28	<i>Chrysodeixis eriosoma</i> (Doubleday, 1843)	Noctuidae: Plusiinae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	VC
29	<i>Spodoptera litura</i> Walker, 1857	Noctuidae: Noctuiniae	Sheethala Matha Mandir, Ghatigaon Range, Gwalior	VC

range (16 species) which lies at N 26°14.403' latitude and E 077°59.317' longitude with an elevation of 270.967m than that of Ghatigaon forest range (13 species) situated at N 26°03.274' latitude and E 077°59.025' longitude with an elevation of 280.721m, because of less biotic pressure and rich vegetation cover to influence the moth diversity observed.

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News

Dr. Kalam Computer Training Centre, Aligarh

Some senior citizen of Aligarh (U.P.) have recently formed a "Dr. A.P.J. Abdul Kalam Education and Innovation Foundation" to promote Dr. Kalam's ideas, ideals and fulfil his vision of "Developed India". It is a registered Trust. A successful innovator Vigyan Ratna Lakshman Prasad has been appointed its President. It is a Voluntary Charitable Non-Profitable Social Service Organisation.

To start with, the Trust has decided to organize the following activities :

1. "Bharat Ratna Dr. Kalam Computer Training Centre" has been set up to give training to empower poor female students, widows and divorcees.
2. To inculcate innovative culture amongst the students in schools, colleges, universities etc., a magazine on innovation, "Innovate@India", will be published shortly. This may germinate seeds of innovation for rapid economic growth, prosperity and social transformation of society.
3. The President and Prime Minister of India will be requested to declare 15th October as "National Innovation Day" to create awareness about scientific temper and innovative culture throughout the country. It should be cel-

ebrated every year in schools, colleges, universities, management and technical institutes etc.

4. To help and give financial assistance to poor students who have qualified in all India competitions of medical and engineering examinations, but are unable to take admission due to poor financial resources.

5. To help the physically and mentally challenged persons in their rehabilitation.

Inauguration

Bharat Ratna Dr. Kalam Computer Training Centre was inaugurated on 15th October 2016 on his 86th birthday, by a renowned UNESCO expert Shri Maheshwaracharya (Dr. M. P. Varshney). The function was presided over by Prof. Satish Chandra Jain, Vice-Chancellor, Mangalayatan University, Aligarh. "Navachar Visheshank" issue published by the Vigyan Parishad Prayag, Allahbad, was released by Dr. Ashok Kumar, Professor, Harvard Medical School and Former Vice-Chancellor, Satna University. The function was attended by educationists, renowned citizen and students.

The address is : 3/6, Marris Road, Mendu Compound, Aligarh - 202 001.