MOTH FAUNA (INSECTA: LEPIDOPTERA) OF A REMNANT TROPICAL DRY DECIDUOUS FOREST PATCH AT SELDA, MADHYA PRADESH, INDIA

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ABSTRACT

This paper presents a list of 504 species of moths (391 identified to species level, 95 identified to genus level and remaining 18 identified to subfamily / family level), from 32 moth families belonging to 14 superfamilies, based on an intensive, long-term study, carried out in the study area situated on the edge of a disturbed Tropical Dry Deciduous Forest adjoining village Selda, in the state of Madhya Pradesh in central India. The most dominant family was found to be Erebidae followed by Crambidae, Noctuidae and Geometridae. The study area measured just one square kilometer. All the reported moths were photographed live within one square kilometer of the study site from July 2017 to April 2021. The light trap consisted of a fixed location illuminated white sheet. The study area is presently one of the darkest areas of Madhya Pradesh (class 2 on Bartle scale of night sky brightness).

Keywords: Moths, dark night, Selda, Tropical Dry Deciduous Forest, central India, Narmada valley, Deccan Trap, Deccan Plateau.

INTRODUCTION

Insects are extremely important for the sustenance of life on Earth. Lepidoptera (moths and butterflies) is the second largest order in the class Insecta. There have been reports that insect population is declining dramatically all over the world (Eggleton, 2020). The causes of this decline are believed to be mainly anthropogenic. The main threat comes from the conversion of natural habitats to intensive agriculture and rapid urbanization. Other factors accelerating this decline are excessive use of pesticides, air and water pollution, light pollution and effects of climate change. It is estimated that globally there are approximately 5.5 million species of insects out of which only one million species have been described and this suggests that 80% remain to be discovered (Stork, 2018). It is feared that innumerable insect species will be extinct even before they are discovered by science. Conservation biologists agree that large numbers of species are going extinct before they are discovered (Wilson, 2014). There is a sense of urgency to

create an inventory of insect fauna of different habitats before they are lost forever. Creating this inventory is the first step in designing the appropriate conservation strategies.

With over 165,000 species in 127 families, moths and butterflies are among the most diverse insects in the world (Burnie & Wilson, 2017). There are over 127,000 species of moths in the world, of which over 12,000 are known to occur in India (K. Chandra, 2007). Chandra reports that major comprehensive work on the moths of central India (Madhya Pradesh and Chhattisgarh) was carried out before 1950 and the details of those works are contained in two main sources. The first source is a set of five volumes which form a part of the series "Fauna of British India" and includes 76 species of moths from Madhya Pradesh and Chhattisgarh (Chhattisgarh was part of Madhya Pradesh until November 1, 2000). These five volumes were published between 1892 to 1937 and authored by Hampson (Vol. 1,2,3 and 4), and Bell and Scott (vol. 5). Second source is a set of six volumes titled "A Catalogue of Moths of India" published between 1886 and 1889 and authored by Cotes and Swinhoe. This Catalogue includes 120 species of moths from Madhya Pradesh and Chhattisgarh. Subsequent workers in numerous studies on pests and other regional studies during the period 1980 to 2002 added another 73 species from the two states of Madhya Pradesh and Chhattisgarh. Details of all these studies are available in K. Chandra (2007). Considering all the previous studies, including historical records of the British period, Chandra finally reported the presence of 313 species of moths from Madhya Pradesh and Chhattisgarh (K. Chandra, 2007).

The present study was planned to document the moth fauna of a remnant tropical dry deciduous forest patch at Selda, Madhya Pradesh, India. This is the first study of moths from the area and no published records of moths exist from this area. A detailed description of the area is provided below to fully understand the factors influencing moth species richness of the study area.

STUDY AREA

Selda is a small village in the Khargone district of Madhya Pradesh in central India. Study area chosen for this work is a small patch of land, adjoining village Selda, measuring just one square km. All the moths reported in this paper were photographed within this one square km area of the study area. See Fig. 1 for the location map.

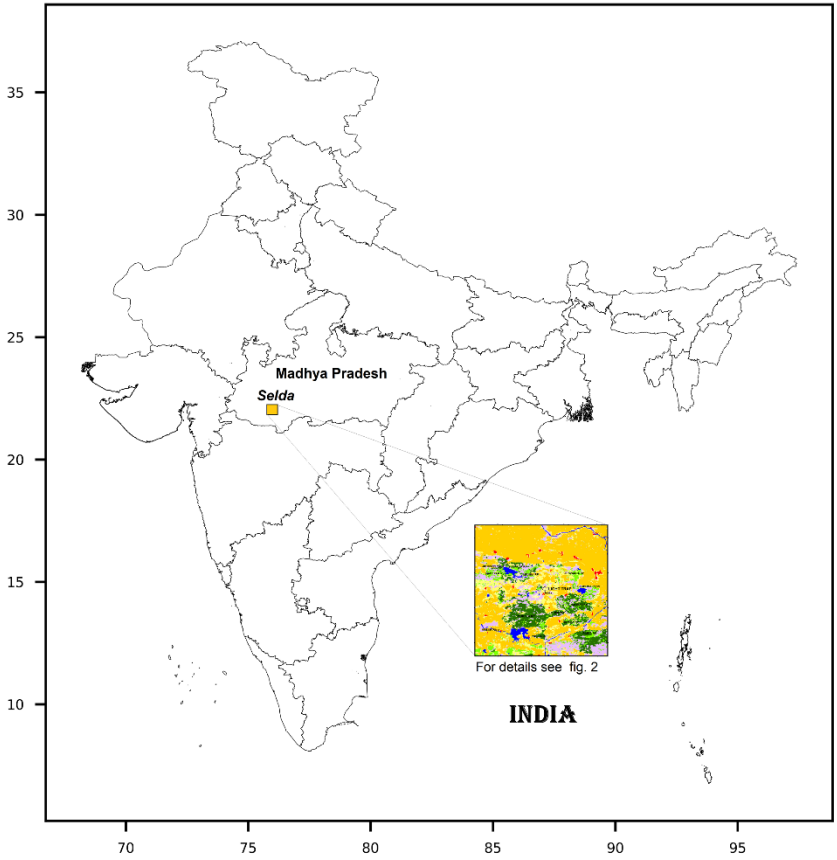

Fig 1: Location map

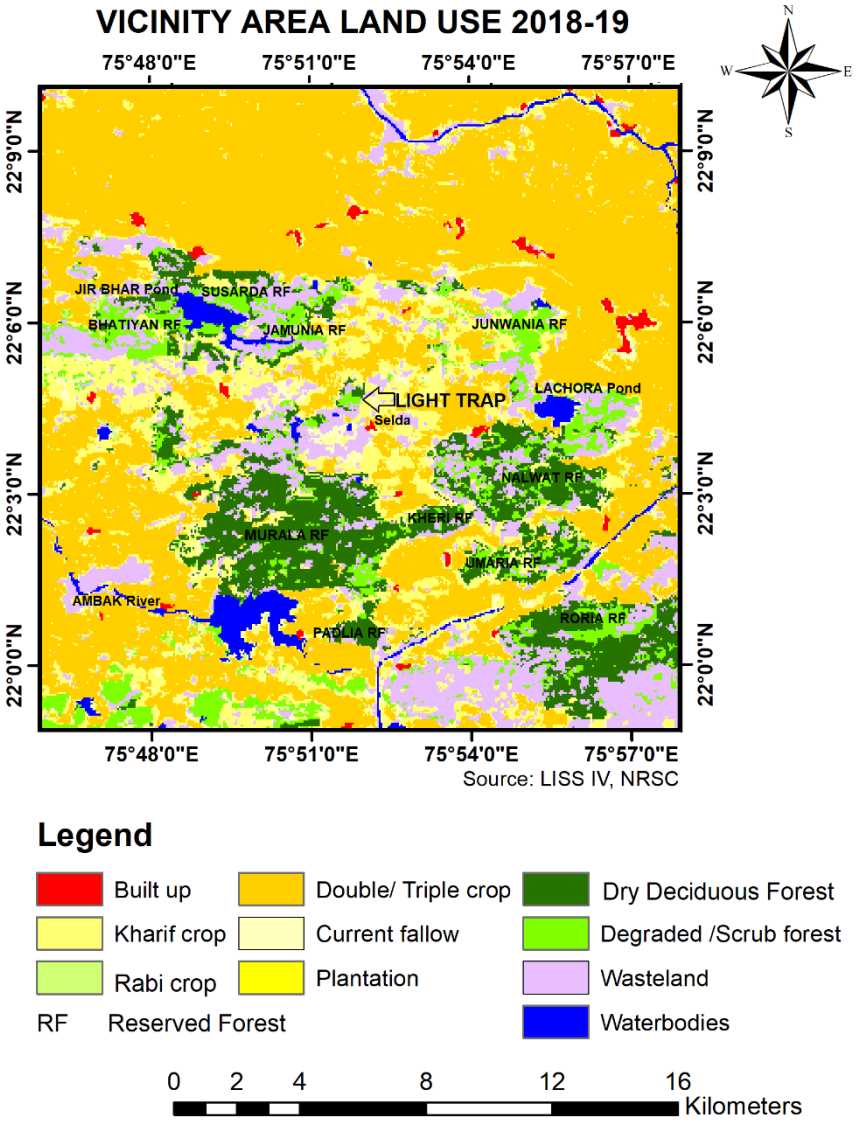

Fig. 2. Vicinity Area Land Use Pattern

Geographically, the study area is located in the Narmada valley with Vindhyachal mountain range to the north and the Satpura mountain range running to the south. Narmada river flows 11 km due north of the light trap location. The elevation of the area varies from 258 m to 274 m above mean sea level. Geologically, the study area is situated in the Deccan Plateau which is one of the most prominent continental flood basalt provinces of the world resulting from a series of volcanic eruptions that occurred 250 million years ago. These volcanic deposits, horizontally bedded lava flows, are also known as Deccan Trap. This feature of the landscape around the study area is important as presence of exposed lava flows at many places has made it very difficult to transform the natural rocky terrain into cultivable agricultural land. As a result, such rocky patches still support relics of the original forest and vegetation.

The study area is surrounded by agricultural fields in the immediate vicinity (Fig. 2). However, there are stretches of barren land not suitable for farming because of exposed weathered basalt rocks on the surface. Next to this first ring of agricultural fields, there exists a nearly unbroken ring of the Reserved Forests within a 10 km radius of the study area.

The study area lies in the Tropical Dry Deciduous type of forest (Champion & Seth, 1968). Within the broad category of Tropical Dry Deciduous Forest, the following categories are observed in the vicinity of the study area: Boswellia Forest (5/E2), Butea Forest (5/E5), Hardwickia Forest (5/E4) and Dry Bamboo Brakes (5/E9). These forests are in various stages of degradation (Fig. 3). Degradation Stage DS 1 has been called Dry Deciduous Scrub and then the next stage DS 2 has been described as Dry Savannah Forest. DS 1 results from long continued maltreatment, of which grazing and lopping may be chief factors. DS 2 is an open forest but the typical formation is lost and the trees stand far apart singly or in small groups in more or less heavy grass (Champion & Seth, 1968).

Flora of the Reserved Forests close to the study area is described in detail by Champion (Champion & Seth, 1968). Main trees of these forests are: *Butea monosperma*, *Hardwickia binata*, *Tectona grandis*, *Acacia catechu*, *Diospyros melanoxylon*, *Terminalia arjuna*, *Prosopis juliflora* and *Madhuca longifolia*. Main trees found in Selda and other nearby villages include Mango (*Mangifera indica*), Mahua (*Madhuca longifolia*), Neem (*Azadiractha indica*), Banyan (*Ficus religiosa*), Tamarind (*Tamarindus indica*), Jamun (*Syzigium cumini*), Sagwan (*Tectona grandis*), *Leucaena leucocephala* and *Acacia auriculiformis*.

Agricultural crops are taken in two seasons, namely Kharif and Rabi. Main cultivated crops are listed below:

Kharif Crops: Jowar (*Sorghum vulgare*), Groundnut (*Arachis hypogaea*), Cotton (*Gossypium hirsutum*), Maize (*Zea mays*), Chillies (*Capsicum annuum*), Arhar

(*Cajanus cajan*), Bajra or Pearl millet (*Cenchrus americanus*)

Rabi Crops: Wheat (*Triticum aestivum*), Barley (*Hordeum vulgare*), Mung (*Vigna radiata*), Pea (*Pisum sativum*), Mustard (*Brassica nigra*), Chana/Kabuli chana/Chickpea (*Cicer arietinum*).

Banana is an important fruit crop in the area. Other important fruit plants like Mango (*Mangifera indica*), Papaya (*Carica papaya*), Jamun (*Syzigium cumini*) and Chiku (*Achras sapota*) are also grown in Selda and other nearby villages. Vegetables grown in the area include Potato (*Solanum tuberosum*), Garlic (*Allium sativum*), Coriander (*Coriandrum sativum*), Ginger (*Zingiber officinalis*), Bitter gourd (*Momordica charantia*), Brinjal (*Solanum melongena*), Colocasia (*Colocasia antiquorum*), Pumpkin (*Cucurbita maxima*), Cabbage (*Brassica oleracea* var *capitata*), Spinach (*Spinacia oleracea*), Shepu (*Anethum graveolens*), Tomato (*Lycopersicum esculentum*) and Bhendi (*Abelmoschus esculentus*).

Study area has a tropical climate. Three distinct seasons are observed: summer, monsoon and winter. Summer season is from the middle of March to the middle of June when the maximum temperature can be as high as 47 °C though average temperatures are generally around 43 °C. Monsoon arrives towards the end of June and lasts till the middle of September. Average yearly rainfall is roughly 800 mm and most of it is received during the South West monsoon. Rainy season is humid with an average temperature of around 28 °C. October to November is a very pleasant post-monsoon season. Winter begins in December and lasts till the end of February. Average temperature during the winter season is 10 °C. But in exceptional years this low temperature may drop down to near zero degree Celsius.

Artificial lights are known to disrupt moth activities resulting in a reduction in species richness and abundance (Macgregor *et al.*, 2017). Study area is presently one of the darkest areas of Madhya Pradesh (class 2 on Bartle scale of night sky brightness) with relatively darker nights (‘Light pollution map’, 2015).

METHODOLOGY

A permanent light trap in the form of an illuminated white sheet was set up from July 2017 to April 2021 at a fixed location in the study area at Selda (22.073 N, 75.865 E). A white sheet of cloth measuring 90 cm x 150 cm was permanently fixed (Fig. 3 E) as a light sheet. A 200 Watt incandescent lamp connected to the electric mains, hung directly above, illuminated the sheet. The light was switched on after the sunset generally between 6.30 to 7.00 pm at least once in a week, throughout the year (except for the period from 5 March 2020 to 19 Jul 2020 due to COVID-19 pandemic). Attracted moths were photographed from 9.00 pm to 1.30 am and then the lamp was switched off. To ensure inclusion of the moths which fly late in the night, once in a fortnight/month, the lamp was switched off just before sunrise and the moths were photographed from 4.30 am to 5.30 am also. Once in a fortnight, moths attracted to street lights or other sources of illumination in the

immediate vicinity of the light sheet, all within one square km area, were also photographed from 9 pm to 11 pm. Canon 60D digital SLR camera with a 100 mm macro lens was used to photograph the moths. For including day flying moths, all the moths encountered during the routine activities of the day, within one square km of the light trap were opportunistically photographed on a daily basis using in-built camera of the mobile phone. This entire study was self-funded by the author.

As the purpose of the study was to document species richness and to photograph as many species of the moths as possible, sampling frequency was increased during the peak moth season which coincided with the South West monsoon. No data was collected for the relative abundance of the species. Also, no specimens were collected during the study.

IDENTIFICATION

Identification is carried out using published books, journals, papers and internet resources. Most important of them are: Cotes & Swinhoe (1887), Hampson (1891), Hampson (1892a), Hampson (1892b), Hampson (1893), Hampson (1895), Hampson (1896), Seitz (1912), Seitz (1920), Fletcher (1932), Fletcher (1933), Seitz (1933a), Seitz (1933b), Arora (2000), Editor-Director (2007), K. Chandra, (2007), Smetacek (2008), Shubhalaxmi *et al.* (2011), Sivasankaran *et al.* (2012), Gurule & Nikam (2013), Y. Sondhi & Sondhi (2016), George Beccaloni *et al.* (2018), 'African Moths Home Page' (n.d.), 'Bold Systems v4'(n.d.), 'The Moths of Borneo'(n.d.) and 'iNaturalist'(n.d.).

Additional information related to the current distribution pattern or specific identification clues came from the following: Drury & Westwood (1837a), Drury & Westwood (1837b), Wüllerstorf-Urbair *et al.* (1864), Obshchestvo (1867), Moore (1881), Swinhoe (1886), Hampson (1891), Maxwell-Lefroy (1909), Hampson (1910), Hampson (1912), Fletcher (1920), Meyrick & Clarke (1923), Seymour (1972), Haruta (1994), Smetacek (1994) Ponomarenko (1997), Sudheendrakumar & Mathew (1999), Dubatolov (2004), Kendrick (2004), Mathew *et al.* (2004), P.C. Pathania & Rose (2004), P. C. Pathania *et al.* (2006), Kailash Chandra & Nema (2008), Hou2Hun & Yun2Li (2009), P. Pathania *et al.* (2009), Roychoudhury (2009), Mathew (2010), Solovyev (2010), Koçak & Kemal (2012), Singh & Kirti (2012), Sanyal *et al.* (2013), Kirti *et al.* (2014), Park (2014), Sekhon & Singh (2015), Kandasamy (2016), Singh & Ranjan (2016), Martinez *et al.* (2017), Shashank & Sinha (2018), Singh *et al.* (2018), Irungbam & Irungbam (2019), Singh *et al.* (2019), Iyer & Kitching (2019), Katewa & Pathania (2019), Stobdan *et al.* (2019), Kaleka *et al.* (2020), Dar *et al.* (2020a), P. Pathania *et al.* (2020), P. Pathania, Das, *et al.* (2021), Prakash C. Pathania *et al.* (2021), P. Pathania, Gielis, *et al.* (2021), and Xiang *et al.* (2022).

Keeping in view the limitations of the photography-based identifications in mind; many species have been identified only up to genus level as *Genus* Sp. 1 *Genus* Sp. 2 etc. However, in few cases when the species in question visually appeared to be too close to a known species (including extralimital species), the same has been

identified as *Genus* cf. *species* (e.g. *Heteropalpia* cf. *cortytoides*). Similarly, some of the species could not be identified beyond subfamily / family level and the same have been retained as such.

CLASSIFICATION

Higher level classification is as per Nieukerken *et al.* (2011). GELECHIOIDEA classification is as per Heikkilä *et al.* (2014). Sub families are generally as per Handbook of Zoology, Vol. 2 Kristensen (2012). For a few families (Plutellidae, Eriocottidae), subfamilies are identified from Lepindex (George Beccaloni *et al.*, 2018) and BOLDSYSTEMS ('Bold Systems v4',n.d.) database. PYRALOIDEA classification is as per Regier *et al.* (2012) where Evergestinae and Noordinae subfamilies are synonymized with subfamily Glaphyriinae. Cybabmiinae is synonimized with Glaphyrinae as per Léger *et al.* (2021). NOCTUOIDEA classification is as per Lafontaine & Schmidt (2010), in conjunction with Fibiger & Lafontaine (2005), Zahiri *et al.* (2012) and Zahiri (2012). Species under the subfamilies are arranged in alphabetical order.

RESULTS

Table 1. List of recorded moth families and number of species

SN	FAMILY	No. of Species
1	ERIOCOTTIDAE	2
2	TINEIDAE	9
3	PLUTELLIDAE	1
4	AUTOSTICHIDAE	2
5	LECITHOCERIDAE	5
6	DEPRESSARIIDAE	1
7	COSMOPTERIGIDAE	1
8	SCYTHRIDIDAE	1
9	GELECHIIDAE	7
10	COLEOPHORIDAE	1
11	STATHMOPODIDAE	2
12	PTEROPHORIDAE	6
13	TORTRICIDAE	9
14	COSSIDAE	3

15	LIMACODIDAE	6
16	ZYGAENIDAE	1
17	THYRIDIDAE	8
18	HYBLAEIDAE	2
19	PYRALIDAE	32
20	CRAMBIDAE	88
21	LASIOCAMPIDAE	5
22	EUPTEROTIDAE	1
23	BOMBYCIDAE	1
24	SATURNIIDAE	1
25	SPHINGIDAE	14
26	URANIIDAE	2
27	GEOMETRIDAE	53
28	NOTODONTIDAE	3
29	EREBIDAE	125
30	EUTELIIDAE	9
31	NOLIDAE	22
32	NOCTUIDAE	81
	TOTAL	**504**

The study recorded 504 moth species (391 identified to species level, 95 identified to genus level and 18 identified to subfamily/family level) from 32 moth families belonging to 14 superfamilies. Highest species richness is recorded for the family Erebidae, followed by Crambidae, Nouctuidae and Geometridae (see Table 1). The ratio of geometrids (number of species in the family Geometridae) to noctuids (number of species in the family Noctuidae) present in a habitat is often used to measure the level of disturbance in the habitat. Undisturbed locations support more of geometrids and as the disturbance level increases, geometrids are replaced by noctuids. In the study area, a low Geometridae : Noctuidae ratio of 1: 1.53 indicates high level of human disturbance (Kitching *et al.*, 2000). For the sake of comparison, we can examine this ratio in some less disturbed areas of India. As an example, in comparatively much less disturbed Gangotri Landscape Area (GLA), in the North-Western part of Uttarakhand, in district Uttarkashi, India, number of geometrids are 113 and number of noctuids are 58 and thus this ratio, as an average for the entire landscape measuring

4000km^2 (with different disturbance levels at different locations), works out to be 1: 0.51 (Sanyal *et al.*, 2015).

List of the moths recorded during the study period within one square km around the fixed light sheet is given in Table 2. All the recorded species were photographed live (Image 1 to Image 504). Few identified species need explanations and the same are provided as under:

Pyrausta* cf. *signatalis

Hampson (1896) mentions *Pyrausta signatalis* from NW Himalaya and Nilgiris. *Pyrausta signatalis* is reported from the Gangotri landscape, Himalaya (Sanyal *et al.*, 2013). *Pyrausta* sp. nr. to *signatalis* is also reported from Kerala (Sudheendrakumar & Mathew, 1999). Image of this moth photographed in the study area matches with the photograph given in (Sanyal *et al.*, 2013) and the same is listed in this paper as *Pyrausta* cf. *signatalis*.

***Cleora* sp. 1**

Identifying *Cleora* spp. is difficult. Shubhalaxmi *et al.* (2011) reported *Cleora* sp. 1, *Cleora* sp. 2, *Cleora* sp. 3, *Cleora* sp. 4, *Cleora* sp. 5, *Cleora* sp. 6, *Cleora* sp. 7 and *Cleora* sp. 8 in addition to *Cleora injectaria* from Northern Western Ghats, Maharashtra, India. *Cleora injectaria* is a very variable species. Kendrick (2015), photographed nine different forms in two evenings at Mai Po Nature Reserve, Hon Kong. After comparing Selda images with the ones presented by Kendrick, only one image has been retained in this paper as *Cleora* sp. 1 in addition to *Cleora injectaria.* As per Kandasamy (2016), in India there are 20 species under the genus *Cleora*.

***Eulycia* sp. 1**

The genus *Eulysia* is presently restricted to the African savannah and there are no published records of this species from India. Presently four species are recognized (‘*Eulycia grisea* African Moths’n.d.):

Eulycia accentuata (Felder & Rogenhofer, 1875). Range: South Africa. Larval foodplants: Unknown.

Eulycia extorris (Warren, 1904). Range: South Africa. Larval foodplants: Unknown.

Eulycia grisea (Warren, 1897). Range: Botswana, DR Congo, Ethiopia, Kenya, Malawi, Mali, Mozambique, South Africa, Tanzania, Zambia, Zimbabwe. Larval foodplants: *Combretum queinzii*, *Combretum molle.*

Eulycia subpunctata (Warren, 1897). Range: Namibia, South Africa, Swaziland. Larval foodplants: Unknown.

However, in BOLDSYSTEMS database, one species namely *Eulycia* AH01Pk (Sample ID: BC ZSM Lep 22684) is identified from INDIA. As per the map of the collection sites, the Indian location appears to be somewhere in the state of Himachal Pradesh. (‘BOLD Systems: Taxonomy Browser - Eulycia AH01Pk {species}’,n.d.) Accessed on 20 Dec 2022.

In chapter 21, titled Biogeography of the Lepidoptera (Kristensen, 1999), Holloway

and Nielsen write that the Indian peninsula itself contains no major centres of genetic richness but the fauna is a composite one with contribution of species from a variety of genetic centres. The major contribution is from the South East Asia. African savannah genera are represented in the seasonal savannah of the plains of India. The authors also mention that in the peninsular India butterfly species from the African savannah (of Tanzania, Malawi, Kenya, DR Congo and Zambia) are replacing the butterfly species of the Tropical Oriental origin (Malaysia-Indonesia-Borneo region near equator). This implies that over a period of time peninsular India will have larger share of lepidopteran species contributed by the African savannah as compared to the ones contributed by the Tropical Oriental centre.

In view of the above, presence of *Eulycia* species in the drier parts of Indian peninsula now should not be an improbability as some larval host plants in the genus *Combretum* are present in the area. One published record (Gangopadhyay & Chakrabarty, 1997) recognizes 15 species of plants in the genus *Combretum* from the Indian subcontinent in the form of scandent shrubs or climbers or creepers, rarely trees or herbs or undershrubs. This record includes three from Madhya Pradesh namely *Combretum albidum*, *C. album* and *C. nanum*.

Eulycia sp. 1 photographed in the study area measured 34 mm (outstretched wings, as in image 222) from wing tip to wing tip which is roughly of the same size as *Eulycia* AH01Pk (36 mm).

***Eublemma ostrina* Hübner, [1808]**

Very few records exist for *Eublemma ostrina* from India. One such record is from the Himalayan district of Nainital (Smetacek, 2008).

***Eublemma* sp. 1**

Eublemma sp. 1 appears to be very close to *Eublemma* HH03 (‘BOLD Systems: Taxonomy Browser - Eublemma HH03 {species}’,n.d.).

***Garella nilotica* (Rogenhofer, 1881)**

Very few records exist for *Garella nilotica* from India. It is reported from Kashmir (Dar *et al.*, 2020b) in the Himalaya. It is also mentioned in Kononenko & Pinratana (2013) as a species found in India.

Heteropalpia* cf. *cortytoides

Heteropalpia cortytoides is a moth of Africa (Burkina Faso, Senegal, Arabia, Eritrea, Ethiopia, Kenya, Zaire, Tanzania, Botswana, Swaziland, Zambia, Zimbabwe, S. Africa, Namibia), (‘Heteropalpia’,n.d.). It has also been reported from Algeria, Turkey, Iran, Afghanistan and Pakistan (Koçak & Kemal, 2015). But there appears to be no published record of this species from India. A very similar species, almost identical, is now being reported from the study area as *Heteropalpia* cf. *cortytoides*.

***Acrobasis* cf. *minutalis* Asselbergs, 2008**

Acrobasis minutalis is known from United Arab Emirates and Oman (‘AfroMoths’,n.d.).

A similar species from the study area is reported in this paper as *Acrobasis* cf. *minutalis*.

***Timora radiata* (Moore, 1881)**

No photographs are available of *Timora radiata* for the purpose of comparison and identification. Identification has been done using original description and illustrations in Moore (1881), Hampson (1891), and Seymour (1972). Historical distribution records are from Mainpuri (Uttar Pradesh), Madras (presently known as Chennai), Nilgiris, Mysore, Mhow (Madhya Pradesh), Bombay (presently known as Mumbai), Belgaum, Deccan, Wynad, West Bengal and Sikkim. This is not a common species in the study area and it appears very briefly in the month of August.

***Micrapatesis pyrastis* Hampson, 1910**

No photographs of *Micrapatesis pyrastis* are available. Identification is based on the description as per Hampson (1910) and illustration as per Hampson (1903).

DISCUSSION

This study is a continuation of the studies carried out by other workers in different parts of India. Shubhalaxmi *et al.* (2011) carried out an extensive study of the moths in the northern Western Ghats during the period 2004-2008 collecting data from eight locations namely Sanjay Gandhi National Park, Bhimashankar Wildlife Sanctuary, Malshej Ghat, Matheran, Mahabaleshwar and Amboli. From these eight locations, Shubhalaxmi reported a total of 418 moth taxa (303 identified to species level and rest to the genus level). Shubhalaxmi has given details of all the previous studies on the moths of India beginning 1962 and none of those previous studies have reported more moths for any area than what is reported by Shubhalaxmi for the northern Westen Ghats (418 species).

Subsequently one study (Gurule & Nikam, 2013) reported 245 species of moths from north Maharashtra, based on data collected from 20 locations spread over an area of 40,346 km^2. This study (Gurule & Nikam, 2013) was conducted from June 2009 to June 2010. Uniyal *et al.* (2013) reported 468 species of moths for the period 2009-2012 from the Gangrotri Landscape (2390 km^2 under Gangotri National Park and 953 km^2 under Govind Wildlife Sanctuary). Another study (Sambath, 2014) reported 132 species from Dalma Wildlife Sanctuary, Jharkhand, spread over an area of 193 km^2. Sondhi & Sondhi (2016) reported 248 species of moths (215 identified to species level and 33 identified to genus level) from 11 locations around Dehradun, Mussoorie and Devalsari in Garhwal, Uttarakhand. Sondhi *et al.* (2018) reported 282 species (244 identified to species level and 38 to genus level) of moths for the period 2014-2016 from four locations situated within Agasthyamalai Biosphere Reserve in the southern Westen Ghats. Nayak (2021) reported 133 species of moths for the period 2017-2019 from two locations at Tadong, Sikkim. Alex *et al.* (2021) reported 503 species of moths (343 identified to species level and 160 identified to genus level) sampled during the period 2015-2017 at six locations in the Kavvai river basin (164.76 km^2) in Kerala. Sondhi *et al.* (2021) reported 497 moth species (460 identified to species

level and 37 to genus level) from multiple locations within Tale Wildlife Sanctuary, Arunachal Pradesh resulting from surveys conducted in 2011 and 2019.

Keeping in view that Chandra (2007), for the period 2001-2004, reported 142 moth species for the whole of Madhya Pradesh and Chhattisgarh (combined area 443437 km^2), results of the present study (504 species in just one km^2), point to an area exceptionally rich in the moth fauna.

Presently the study area and its surroundings are under tremendous anthropogenic pressure. Excessive grazing and encroachment on the forest land for non-forest activities are the main concerns. Moths are important bioindicators of the health of an ecosystem and therefore the baseline data presented in this paper may be used for the future developmental plans. Further studies are required to make this preliminary list more exhaustive.

Table 2. List of moths recorded in the study area at Selda, Madhya Pradesh, India.

SN	Family	Subfamily	Scientific Name	Author And Year
1	Eriocottidae	Compsocteninae	*Compsoctena* sp. 1	-
2	Eriocottidae	Compsocteninae	*Compsoctena* sp. 2	-
3	Tineidae	Hapsiferinae	*Dasyses* sp. 1	-
4	Tineidae	-	*Edosa* sp. 1	-
5	Tineidae	-	*Edosa* sp. 2	-
6	Tineidae	Perissomasticinae	*Edosa subochraceella*	(Walsingham, 1886)
7	Tineidae	Myrmecozelinae	*Gerontha* sp. 1	-
8	Tineidae	Tineinae	*Monopis monachella*	(Hübner, 1796)
9	Tineidae	Tineinae	*Tinea* sp. 1	-
10	Tineidae	Setomorphinae	*Setomorpha rutella*	Zeller, 1852
11	Tineidae	-	TINEIDAE_genus_sp. 6	-
12	Plutellidae	Plutellinae	*Plutella xylostella*	(Linnaeus, 1758)
13	Autostichidae	Autostichinae	*Autosticha cf. kyotensis*	(Matsumura, 1931)
14	Autostichidae	Autostichinae	*Procometis spoliatrix*	(Meyrick, 1916)
15	Lecithoceridae	Lecithocerinae	*Alciphanes clavata*	Park, 2001
16	Lecithoceridae	Lecithocerinae	*Homaloxestis* sp. 1	-
17	Lecithoceridae	Lecithocerinae	*Lecithocera* sp. 1	-
18	Lecithoceridae	Lecithocerinae	*Lecithocera* sp. 2	-
19	Lecithoceridae	-	LECITHOCERIDAE_ genus_sp. 3	-

20	Depressariidae	Ethmiinae	*Ethmia* sp. 1	-
21	Cosmopterigidae	Cosmopteriginae	*Stagmatophora* sp. 1	-
22	Scythrididae	-	*Eretmocera impactella*	(Walker, 1864)
23	Gelechiidae	Anacampsinae	*Mesophleps* sp. 1	-
24	Gelechiidae	Dichomeridinae	*Dichomeris acuminatus*	(Staudinger, 1876)
25	Gelechiidae	Dichomeridinae	*Dichomeris lamprostoma*	(Zeller, 1847)
26	Gelechiidae	Dichomeridinae	*Dichomeris* sp. 1	-
27	Gelechiidae	Dichomeridinae	*Dichomeris* sp. 2	-
28	Gelechiidae	Apatetrinae	*Pectinophora gossypiella*	Saunders, 1844
29	Gelechiidae	Gelechiinae	*Stegasta variana*	Meyrick, 1904
30	Coleophoridae	Coleophorinae	*Coleophora* sp. 1	-
31	Stathmopodidae	-	*Stathmopoda auriferella*	(Walker, 1864)
32	Stathmopodidae	-	*Stathmopoda* sp. 1	-
33	Pterophoridae	Deuterocopinae	*Deuterocopus socotranus*	Rebel, 1907
34	Pterophoridae	Pterophorinae	*Exelastis atomosa*	(Walsingham, 1885)
35	Pterophoridae	Pterophorinae	*Exelastis pumilio*	(Zeller, 1873)
36	Pterophoridae	Pterophorinae	*Megalorhipida defectalis*	(Walker, 1864)
37	Pterophoridae	Pterophorinae	*Platyptilia direptalis*	(Walker, 1864)
38	Pterophoridae	Pterophorinae	*Sphenarches anisodactylus*	(Walker, 1864)
39	Tortricidae	Olethreutinae	*Bactra venosana*	(Zeller, 1847)
40	Tortricidae	Tortricinae	*Clepsis* sp. 1	-
41	Tortricidae	Olethreutinae	*Dudua aprobola*	(Meyrick, 1886)
42	Tortricidae	Olethreutinae	*Fulcrifera* cf. *tricentra*	(Meyrick, 1907)
43	Tortricidae	Olethreutinae	*Leguminivora* sp. 2	-
44	Tortricidae	Olethreutinae	*Lobesia aeolopa*	Meyrick, 1907
45	Tortricidae	Olethreutinae	*Loboschiza koenigiana*	(Fabricius, 1775)
46	Tortricidae	Olethreutinae	Olethreutinae_genus_sp. 1	-
47	Tortricidae	Olethreutinae	Olethreutinae_genus_sp. 2	-

48	Cossidae	Zeuzerinae	*Azygophleps pusilla*	(Walker, 1856)
49	Cossidae	Zeuzerinae	*Azygophleps scalaris*	(Fabricius, 1775)
50	Cossidae	-	COSSIDAE_genus_sp. 1	-
51	Limacodidae	Limacodinae	*Aergina hilaris*	(Westwood, 1848)
52	Limacodidae	Limacodinae	*Altha subnotata*	(Walker, 1865)
53	Limacodidae	Limacodinae	*Aphendala tripartita*	(Moore, 1884)
54	Limacodidae	Limacodinae	*Iragoides nilgirica*	(Hampson, 1891)
55	Limacodidae	Limacodinae	*Miresa albipuncta*	(Herrich-Schäffer, [1854])
56	Limacodidae	Limacodinae	*Parasa lepida*	(Cramer, 1799)
57	Zygaenidae	Procridinae	*Thyrassia subcordata*	(Walker, 1854)
58	Thyrididae	Striglininae	*Banisia* cf. *myrtaea*	(Drury, 1773)
59	Thyrididae	Striglininae	*Banisia myrsusalis*	(Walker, 1859)
60	Thyrididae	Striglininae	*Banisia* sp. 1	-
61	Thyrididae	Striglininae	*Banisia* sp. 2	-
62	Thyrididae	Siculodinae	*Hypolamprus angulalis*	Moore, [1888]
63	Thyrididae	Siculodinae	*Hypolamprus bastialis*	(Walker, 1859)
64	Thyrididae	Siculodinae	*Hypolamprus* sp. 1	-
65	Thyrididae	Striglininae	*Striglina scitaria*	(Walker, 1862)
66	Hyblaeidae	-	*Hyblaea* sp. 1	-
67	Hyblaeidae	-	*Hyblaea puera*	(Cramer, 1777)
68	Pyralidae	Galleriinae	*Lamoria anella*	(Denis & Schiffermüller, 1775)
69	Pyralidae	Pyralinae	*Arippara indicator*	Walker, [1864]
70	Pyralidae	Pyralinae	*Bostra denticulata*	(Swinhoe, 1890)
71	Pyralidae	Pyralinae	*Bostra vibicalis*	(Lederer, 1863)
72	Pyralidae	Pyralinae	*Endotricha consocia*	(Butler, 1879)
73	Pyralidae	Pyralinae	*Endotricha ruminalis*	(Walker, 1859)
74	Pyralidae	Pyralinae	*Hypanchyla fuscibasalis*	(Snellen, 1880)
75	Pyralidae	Pyralinae	*Hypsopygia* cf. *nostralis*	(Guenée, 1854)
76	Pyralidae	Pyralinae	*Hypsopygia mauritialis*	(Boisduval, 1833)

77	Pyralidae	Pyralinae	Pyralinae_genus_sp. 1	-
78	Pyralidae	Pyralinae	*Pyralis pictalis*	(Curtis, 1834)
79	Pyralidae	Pyralinae	*Tamraca torridalis*	(Lederer, 1863)
80	Pyralidae	Epipaschiinae	*Salma* sp. 1	-
81	Pyralidae	Phycitinae	*Acrobasis* cf. *minutalis*	Asselbergs, 2008
82	Pyralidae	Phycitinae	*Anabasis obliquifasciella*	(Hampson, 1896)
83	Pyralidae	Phycitinae	*Cadra cautella*	(Walker, 1863)
84	Pyralidae	Phycitinae	*Epicrocis* sp. 1	-
85	Pyralidae	Phycitinae	*Epicrocis* cf. *anthracanthes*	Meyrick, 1934
86	Pyralidae	Phycitinae	*Epicrocis oegnusalis*	(Walker, 1859)
87	Pyralidae	Phycitinae	*Etiella zinckenella*	(Treitschke, 1832)
88	Pyralidae	Phycitinae	*Hypargyria metalliferella*	Ragonot, 1888
89	Pyralidae	Phycitinae	*Indomyrlaea ferreotincta*	Hampson, 1912
90	Pyralidae	Phycitinae	*Maliarpha separatella*	Ragonot, 1888
91	Pyralidae	Phycitinae	*Maliarpha* sp. 1	-
92	Pyralidae	Phycitinae	*Morosaphycita morosalis*	(Saalmüller, 1880)
93	Pyralidae	Phycitinae	Phycitinae_genus_sp. 1	-
94	Pyralidae	Phycitinae	Phycitinae_genus_sp. 2	-
95	Pyralidae	Phycitinae	Phycitinae_genus_sp. 3	-
96	Pyralidae	Phycitinae	Phycitinae_genus_sp. 4	-
97	Pyralidae	Phycitinae	Phycitinae_genus_sp. 5	-
98	Pyralidae	Phycitinae	*Phycitodes albatella*	(Ragonot, 1887)
99	Pyralidae	Phycitinae	*Spatulipalpia* cf. *effosella*	Ragonot, 1893
100	Crambidae	Pyraustinae	*Achyra coelatalis*	(Walker, 1859)
101	Crambidae	Pyraustinae	*Achyra nudalis*	(Hübner, 1796)
102	Crambidae	Pyraustinae	*Anania verbascalis*	(Denis & Schifferm üller, 1775)
103	Crambidae	Pyraustinae	*Crypsiptya coclesalis*	(Walker, 1859)

104	Crambidae	Pyraustinae	*Ecpyrrhorrhoe machoeralis*	(Walker, 1859)
105	Crambidae	Pyraustinae	*Euclasta vitralis*	Maes, 1997
106	Crambidae	Pyraustinae	*Pagyda salvalis*	Walker, 1859
107	Crambidae	Pyraustinae	*Pyrausta* cf. *signatalis*	(Walker, 1866)
108	Crambidae	Pyraustinae	*Pyrausta panopealis*	(Walker, 1859)
109	Crambidae	Pyraustinae	*Pyrausta testalis*	(Fabricius, 1794)
110	Crambidae	Pyraustinae	*Rehimena phrynealis*	(Walker, 1859)
111	Crambidae	Pyraustinae	*Thliptoceras* sp. 1	-
112	Crambidae	Spilomelinae	*Agathodes ostentalis*	(Geyer, 1837)
113	Crambidae	Spilomelinae	*Agrotera basinotata*	Hampson, 1891
114	Crambidae	Spilomelinae	*Antigastra catalaunalis*	(Duponchel, 1833)
115	Crambidae	Spilomelinae	*Bocchoris inspersalis*	(Zeller, 1852)
116	Crambidae	Spilomelinae	*Chabula acamasalis*	(Walker 1859)
117	Crambidae	Spilomelinae	*Cirrhochrista brizoalis*	(Walker, 1859)
118	Crambidae	Spilomelinae	*Cnaphalocrocis medinalis*	(Guenée, 1854)
119	Crambidae	Spilomelinae	*Cnaphalocrocis poeyalis*	(Boisduval, 1833)
120	Crambidae	Spilomelinae	*Cnaphalocrocis trapezalis*	(Guenée, 1854)
121	Crambidae	Spilomelinae	*Conogethes semifascialis*	(Walker, 1866)
122	Crambidae	Spilomelinae	*Cydalima laticostalis*	(Guenée, 1854)
123	Crambidae	Spilomelinae	*Diaphania indica*	(Saunders, 1851)
124	Crambidae	Spilomelinae	*Diasemia accalis*	(Walker, 1859)
125	Crambidae	Spilomelinae	*Diasemiopsis ramburialis*	(Duponchel, [1834])
126	Crambidae	Spilomelinae	*Eurrhyparodes bracteolalis*	(Zeller, 1852)
127	Crambidae	Spilomelinae	*Eurrhyparodes tricoloralis*	(Zeller, 1852)
128	Crambidae	Spilomelinae	*Glycythyma chrysorycta*	(Meyrick, 1884)
129	Crambidae	Spilomelinae	*Glyphodes onychinalis*	(Guenée, 1854)
130	Crambidae	Spilomelinae	*Herpetogramma bipunctalis*	(Fabricius, 1794)
131	Crambidae	Spilomelinae	*Herpetogramma*	(Walker, 1859)

			licarsisalis	
132	Crambidae	Spilomelinae	*Herpetogramma* cf. *luctuosalis*	(Guenée, 1854)
133	Crambidae	Spilomelinae	*Herpetogramma phaeopteralis*	(Guenée, 1854)
134	Crambidae	Spilomelinae	*Herpetogramma stultalis*	(Walker, 1859)
135	Crambidae	Spilomelinae	*Hydriris ornatalis*	(Duponchel, 1832)
136	Crambidae	Spilomelinae	*Hymenia perspectalis*	(Hübner, 1796)
137	Crambidae	Spilomelinae	*Ischnurges luteomarginalis*	(Hampson, 1891)
138	Crambidae	Spilomelinae	*Lamprophaia ablactalis*	(Walker, 1859)
139	Crambidae	Spilomelinae	*Lamprosema tampiusalis*	(Walker 1859)
140	Crambidae	Spilomelinae	*Leucinodes orbonalis*	Guenée, 1854
141	Crambidae	Spilomelinae	*Maruca vitrata*	(Fabricius, 1787)
142	Crambidae	Spilomelinae	*Metasia coniotalis*	Hampson, 1903
143	Crambidae	Spilomelinae	*Metoeca foedalis*	(Guenée, 1854)
144	Crambidae	Spilomelinae	*Nausinoe geometralis*	(Guenée, 1854)
145	Crambidae	Spilomelinae	*Nausinoe perspectata*	(Fabricius, 1775)
146	Crambidae	Spilomelinae	*Nomophila noctuella*	(Denis & Schiffermüller, 1775)
147	Crambidae	Spilomelinae	*Notarcha aurolinealis*	(Walker, 1859)
148	Crambidae	Spilomelinae	*Omiodes diemenalis*	(Guenée, 1854)
149	Crambidae	Spilomelinae	*Omiodes indicata*	(Fabricius, 1775)
150	Crambidae	Spilomelinae	*Omphisa anastomosalis*	Guenée, 1854
151	Crambidae	Spilomelinae	*Pachynoa sabelialis*	(Guenée, 1854)
152	Crambidae	Spilomelinae	*Palpita unionalis*	(Hübner, 1796)
153	Crambidae	Spilomelinae	*Parotis* sp. 1	-
154	Crambidae	Spilomelinae	*Parotis* sp. 2	-
155	Crambidae	Spilomelinae	*Patania balteata*	(Fabricius, 1798)
156	Crambidae	Spilomelinae	*Patania iopasalis*	(Walker, 1859)
157	Crambidae	Spilomelinae	*Patania* sp. 3	-
158	Crambidae	Spilomelinae	*Pygospila tyres*	(Cramer, [1780])
159	Crambidae	Spilomelinae	*Sameodes cancellalis*	(Zeller, 1852)

160	Crambidae	Spilomelinae	*Sameodes* sp. 1	-
161	Crambidae	Spilomelinae	*Spoladea recurvalis*	(Fabricius, 1775)
162	Crambidae	Spilomelinae	*Synclera traducalis*	(Zeller, 1852)
163	Crambidae	Spilomelinae	*Syngamia falsidicalis*	(Walker, 1859)
164	Crambidae	Spilomelinae	*Tatobotys biannulalis*	(Walker, [1866])
165	Crambidae	Odontiinae	*Aporodes floralis*	(Hübner, [1809])
166	Crambidae	Odontiinae	*Autocharis fessalis*	(Swinhoe, 1886)
167	Crambidae	Glaphyriinae	*Crocidolomia pavonana*	(Fabricius, 1794)
168	Crambidae	Glaphyriinae	*Hellula undalis*	(Fabricius, 1781)
169	Crambidae	Glaphyriinae	*Noorda blitealis*	Walker, 1859
170	Crambidae	Glaphyriinae	*Ptychopseustis* sp. 1	-
171	Crambidae	Glaphyriinae	*Ptychopseustis* sp. 2	-
172	Crambidae	Lathrotelinae	*Sufetula* sp. 1	-
173	Crambidae	Schoenobiinae	*Schoenobius dodatellus*	(Walker, 1864)
174	Crambidae	Schoenobiinae	*Scirpophaga* sp. 1	-
175	Crambidae	Schoenobiinae	*Scirpophaga* sp. 2	-
176	Crambidae	Acentropinae	*Eoophyla sejunctalis*	(Snellen, 1876)
177	Crambidae	Acentropinae	*Nymphicula* sp. 1	-
178	Crambidae	Acentropinae	*Parapoynx affinialis*	Guenée, 1854
179	Crambidae	Acentropinae	*Parapoynx bilinealis*	(Snellen, 1876)
180	Crambidae	Acentropinae	*Parapoynx diminutalis*	Snellen, 1880
181	Crambidae	Acentropinae	*Parapoynx fluctuosalis*	(Zeller, 1852)
182	Crambidae	Acentropinae	*Parapoynx stagnalis*	(Zeller, 1852)
183	Crambidae	Crambinae	*Ancylolomia indica*	Felder, 1875
184	Crambidae	Crambinae	*Calamotropha* cf. *paludella*	(Hübner, [1824])
185	Crambidae	Crambinae	*Charltona ortellus*	(Swinhoe, 1886)
186	Crambidae	Crambinae	*Chilo partellus*	(Swinhoe, 1885)
187	Crambidae	Crambinae	*Euchromius ocellea*	(Haworth, 1811)
188	Lasiocampidae	Lasiocampinae	*Chilena similis*	Walker, 1855
189	Lasiocampidae	Lasiocampinae	*Chilena* sp. 1	-

190	Lasiocampidae	Lasiocampinae	*Gastropacha* sp.	-
191	Lasiocampidae	Lasiocampinae	*Streblote dorsalis*	Walker, 1866
192	Lasiocampidae	Lasiocampinae	*Trabala vishnou*	(Lefèbvre, 1827)
193	Eupterotidae	Eupterotinae	*Eupterote undata*	Blanchard, [1844]
194	Bombycidae	Bombycinae	*Trilocha varians*	(Walker, 1855)
195	Saturniidae	Saturniinae	*Antheraea paphia*	Linnaeus, 1758
196	Sphingidae	Smerinthinae	*Agnosia microta*	(Hampson, 1907)
197	Sphingidae	Smerinthinae	*Clanis phalaris*	(Cramer, 1777)
198	Sphingidae	Sphinginae	*Acherontia styx*	Westwood, 1847
199	Sphingidae	Sphinginae	*Agrius convolvuli*	(Linnaeus, 1758)
200	Sphingidae	Sphinginae	*Psilogramma increta*	(Walker, [1865])
201	Sphingidae	Macroglossinae	*Cephonodes hylas*	(Linnaeus, [1771])
202	Sphingidae	Macroglossinae	*Daphnis nerii*	(Linnaeus, 1758)
203	Sphingidae	Macroglossinae	*Hippotion boerhaviae*	(Fabricius, 1775)
204	Sphingidae	Macroglossinae	*Hippotion celerio*	(Linnaeus, 1758)
205	Sphingidae	Macroglossinae	*Hippotion rosetta*	(Swinhoe, 1892)
206	Sphingidae	Macroglossinae	*Hyles livornica*	(Esper, 1780)
207	Sphingidae	Macroglossinae	*Macroglossum gyrans*	Walker, 1856
208	Sphingidae	Macroglossinae	*Nephele hespera*	(Fabricius, 1775)
209	Sphingidae	Macroglossinae	*Theretra oldenlandiae*	(Fabricius, 1775)
210	Uraniidae	Epipleminae	*Phazaca theclata*	(Guenée, 1857)
211	Uraniidae	Microniinae	*Micronia aculeata*	Guenée, 1857
212	Geometridae	Ennominae	*Astygisa albopunctata*	(Swinhoe, 1891)
213	Geometridae	Ennominae	*Chiasmia eleonora*	(Cramer, [1780])
214	Geometridae	Ennominae	*Chiasmia emersaria*	(Walker, 1861)
215	Geometridae	Ennominae	*Chiasmia fidoniata*	(Guenée, 1858)
216	Geometridae	Ennominae	*Chiasmia hebesata*	(Walker, 1861)
217	Geometridae	Ennominae	*Chiasmia nora*	(Walker, 1861)
218	Geometridae	Ennominae	*Chiasmia* sp. 2	-
219	Geometridae	Ennominae	*Chiasmia* sp. 3	-
220	Geometridae	Ennominae	*Cleora injectaria*	Walker, 1860
221	Geometridae	Ennominae	*Cleora* sp. 1	-

222	Geometridae	Ennominae	*Eulycia* sp. 1	-
223	Geometridae	Ennominae	*Heterostegane* sp. 1	-
224	Geometridae	Ennominae	*Heterostegane urbica*	(Swinhoe, 1885)
225	Geometridae	Ennominae	*Hyperythra lutea*	Stoll, 1781
226	Geometridae	Ennominae	*Isturgia disputaria*	(Guenée, [1858])
227	Geometridae	Ennominae	*Isturgia* sp. 1	-
228	Geometridae	Ennominae	*Isturgia* cf. *deerraria*	(Walker, 1861)
229	Geometridae	Ennominae	*Isturgia* sp. 3	-
230	Geometridae	Ennominae	*Scardamia metallaria*	Guenée, [1858]
231	Geometridae	Geometrinae	*Cacochloris uvidula*	(Swinhoe, 1885)
232	Geometridae	Geometrinae	*Comibaena cassidara*	(Guenée, 1857)
233	Geometridae	Geometrinae	*Eucrostes disparata*	(Walker, 1861)
234	Geometridae	Geometrinae	*Microloxia indecretata*	(Walker, [1863])
235	Geometridae	Geometrinae	*Microloxia* sp.	-
236	Geometridae	Geometrinae	*Pelagodes falsaria*	(Prout 1912)
237	Geometridae	Geometrinae	*Pingasa* sp. 1	-
238	Geometridae	Geometrinae	*Spaniocentra pannosa*	Moore, [1887]
239	Geometridae	Sterrhinae	*Anisodes obrinaria*	(Guenee, 1858)
240	Geometridae	Sterrhinae	*Chrysocraspeda* sp. 1	-
241	Geometridae	Sterrhinae	*Chrysocraspeda* sp. 2	-
242	Geometridae	Sterrhinae	*Idaea chotaria*	Swinhoe, [1886]
243	Geometridae	Sterrhinae	*Idaea macrospila*	(Prout, 1926}
244	Geometridae	Sterrhinae	*Idaea ptyonopoda*	(Hampson, 1895)
245	Geometridae	Sterrhinae	*Lophophleps phoenicoptera*	(Hampson, 1896)
246	Geometridae	Sterrhinae	*Rhodometra sacraria*	(Linnaeus, 1767)
247	Geometridae	Sterrhinae	*Scopula addictaria*	(Walker, 1861)
248	Geometridae	Sterrhinae	*Scopula caesaria*	(Walker, 1861)
249	Geometridae	Sterrhinae	*Scopula emissaria*	(Walker 1861)
250	Geometridae	Sterrhinae	*Scopula minorata*	(Boisduval, 1833)
251	Geometridae	Sterrhinae	*Scopula pulchellata*	(Fabricius, 1794)
252	Geometridae	Sterrhinae	*Scopula* sp. 2	-
253	Geometridae	Sterrhinae	*Scopula subpunctaria*	(Herrich-Schäffer,

				1847)
254	Geometridae	Sterrhinae	*Traminda mundissima*	(Walker, 1861)
255	Geometridae	Larentiinae	*Calluga costalis*	Moore, [1887]
256	Geometridae	Larentiinae	*Glaucoclystis immixtaria*	(Walker,1862)
257	Geometridae	Larentiinae	*Gymnoscelis fasciata*	(Hampson ,1891)
258	Geometridae	Larentiinae	*Gymnoscelis* sp. 1	-
259	Geometridae	Larentiinae	*Gymnoscelis* sp. 3	-
260	Geometridae	Larentiinae	Larentiinae_genus_sp. 1	-
261	Geometridae	Larentiinae	Larentiinae_genus_sp. 2	-
262	Geometridae	Larentiinae	Larentiinae_genus_sp. 3	-
263	Geometridae	Larentiinae	Larentiinae_genus_ sp. 4	-
264	Geometridae	Larentiinae	*Mesoptila melanolopha*	(Swinhoe, 1895)
265	Notodontidae	Spataliinae	*Spatalia argentifera*	(Walker, 1862)
266	Notodontidae	Phalerinae	*Antheua exanthemata*	Moore, 1883
267	Notodontidae	Phalerinae	*Phalera combusta*	(Walker, 1855)
268	Erebidae	Lymantriinae	*Artaxa guttata*	Walker, 1855
269	Erebidae	Lymantriinae	*Euproctis cervina*	(Moore, 1877)
270	Erebidae	Lymantriinae	*Euproctis leithiana*	(Moore, 1879)
271	Erebidae	Lymantriinae	*Euproctis lunata*	Walker, 1855
272	Erebidae	Lymantriinae	*Euproctis scintillans*	(Walker, 1856)
273	Erebidae	Lymantriinae	*Euproctis* sp. 2	-
274	Erebidae	Lymantriinae	*Laelia exclamationis*	(Kollar, 1848)
275	Erebidae	Lymantriinae	*Lymantria incerta*	Walker, 1855
276	Erebidae	Lymantriinae	*Nygmia icilia*	(Stoll, [1790])
277	Erebidae	Lymantriinae	*Olene mendosa*	Hübner, 1823
278	Erebidae	Lymantriinae	*Orvasca subnotata*	Walker, 1865
279	Erebidae	Lymantriinae	*Perina nuda*	(Fabricius, 1787)
280	Erebidae	Lymantriinae	*Sphrageidus similis*	(Fuessly, 1775)
281	Erebidae	Arctiinae	*Aloa lactinea*	(Cramer, [1777])
282	Erebidae	Arctiinae	*Amata passalis*	(Fabricius, 1781)

283	Erebidae	Arctiinae	*Amata* sp.	-
284	Erebidae	Arctiinae	*Amerila eugenia*	(Fabricius, 1794)
285	Erebidae	Arctiinae	*Argina astrea*	(Drury, 1773)
286	Erebidae	Arctiinae	*Brunia antica*	(Walker, 1854)
287	Erebidae	Arctiinae	*Creatonotos gangis*	(Linnaeus, 1763)
288	Erebidae	Arctiinae	*Eressa confinis*	(Walker, 1854)
289	Erebidae	Arctiinae	*Micraloa emittens*	(Walker, 1855)
290	Erebidae	Arctiinae	*Micraloa lineola*	(Fabricius, 1793)
291	Erebidae	Arctiinae	*Olepa (Pseudoolepa) clavatus*	(Swinhoe, 1885)
292	Erebidae	Arctiinae	*Olepa ricini*	(Fabricius, 1775)
293	Erebidae	Arctiinae	*Paramsacta moorei*	(Butler, 1875)
294	Erebidae	Arctiinae	*Utetheisa pulchelloides*	Hampson, 1907
295	Erebidae	Herminiinae	*Hipoepa fractalis*	(Guenée, 1854)
296	Erebidae	Herminiinae	*Naarda* sp. 1	-
297	Erebidae	Herminiinae	*Nodaria externalis*	Guenee, 1854
298	Erebidae	Herminiinae	*Progonia kurosawai*	Owada, 1987
299	Erebidae	Herminiinae	*Progonia oileusalis*	(Walker, [1859])
300	Erebidae	Pangraptinae	*Episparis liturata*	Fabricius, 1787
301	Erebidae	Hypeninae	*Hypena abducalis*	Walker, [1859]
302	Erebidae	Hypeninae	*Hypena iconicalis*	Walker, 1859
303	Erebidae	Hypeninae	*Hypena laceratalis*	Walker, 1859
304	Erebidae	Hypeninae	*Hypena lividalis*	(Hübner, 1796)
305	Erebidae	Hypeninae	*Hypena obacerralis*	Walker, 1859
306	Erebidae	Hypeninae	*Hypena* sp. 5	-
307	Erebidae	Hypeninae	Hypeninae_genus_sp. 3	-
308	Erebidae	Hypeninae	*Zekelita* cf. *pervulgaris*	(Swinhoe, 1885)
309	Erebidae	Hypeninae	*Zekelita* sp. 1	-
310	Erebidae	Hypeninae	*Zekelita* sp. 2	-
311	Erebidae	Scoliopteryginae	*Anomis flava*	(Fabricius, 1775)
312	Erebidae	Scoliopteryginae	*Anomis involuta*	(Walker, [1858])
313	Erebidae	Scoliopteryginae	*Anomis lyona*	(Swinhoe, 1919)

314	Erebidae	Scoliopteryginae	*Anomis sabulifera*	(Guenée, 1852)
315	Erebidae	Scoliopteryginae	*Dinumma placens*	Walker, 1858
316	Erebidae	Scoliopteryginae	*Rusicada fulvida*	(Guenée, 1852)
317	Erebidae	Calpinae	Calpinae_genus_sp. 1	-
318	Erebidae	Calpinae	*Culasta indecisa*	Moore, 1881
319	Erebidae	Calpinae	*Eudocima materna*	(Linnaeus, 1767)
320	Erebidae	Calpinae	*Gesonia inscitia*	(Swinhoe, 1885)
321	Erebidae	Calpinae	*Gesonia obeditalis*	Walker, [1859]
322	Erebidae	Calpinae	*Nagadeba indecoralis*	Walker, 1865
323	Erebidae	Calpinae	*Oraesia emarginata*	Fabricius, (1794)
324	Erebidae	Calpinae	*Radara subcupralis*	(Walker, [1866])
325	Erebidae	Aganainae	*Asota caricae*	(Fabricius, 1775)
326	Erebidae	Aganainae	*Asota ficus*	(Fabricius, 1775)
327	Erebidae	Aganainae	*Digama hearseyana*	Moore, [1878]
328	Erebidae	Hypocalinae	*Hypocala deflorata*	(Fabricius, 1794)
329	Erebidae	Hypocalinae	*Hypocala subsatura*	Guenée, 1852
330	Erebidae	Tinoliinae	*Calesia* sp. 1	-
331	Erebidae	Tinoliinae	*Calesia stillifera*	Felder & Rogenhofer, 1874
332	Erebidae	Hypenodinae	*Luceria oculalis*	(Moore, 1877)
333	Erebidae	Boletobiinae	*Araeopteron* sp. 2	-
334	Erebidae	Boletobiinae	*Autoba silicula*	(Swinhoe, 1897)
335	Erebidae	Boletobiinae	*Cretonia vegetus*	(Swinhoe, 1885)
336	Erebidae	Boletobiinae	*Daona cf. bilinealis*	(Leech, 1900)
337	Erebidae	Boletobiinae	*Daona cf. constellans*	(Lucas, 1898)
338	Erebidae	Boletobiinae	*Daona* sp. 1	-
339	Erebidae	Boletobiinae	*Eublemma accedens*	(Felder & Rogenhofer, 1874)
340	Erebidae	Boletobiinae	*Eublemma amabilis*	(Saalmüller, 1891)
341	Erebidae	Boletobiinae	*Eublemma baccalix*	(Swinhoe, 1886)
342	Erebidae	Boletobiinae	*Eublemma cochylioides*	(Guenée, 1852)
343	Erebidae	Boletobiinae	*Eublemma ostrina*	(Hübner, [1808])
344	Erebidae	Boletobiinae	*Eublemma parva*	(Hübner, [1808])

345	Erebidae	Boletobiinae	*Eublemma* sp. 1	-
346	Erebidae	Boletobiinae	*Raparna ochreipennis*	Moore, 1882
347	Erebidae	Boletobiinae	*Sarobides inconclusa*	(Walker, [1863])
348	Erebidae	Aventiinae	*Cerynea* sp. 1	-
349	Erebidae	Aventiinae	*Oruza divisa*	(Walker, 1862)
350	Erebidae	Anobinae	*Plecoptera reflexa*	Guenée, 1852
351	Erebidae	Anobinae	*Plecoptera* sp. 1	-
352	Erebidae	Anobinae	*Plecoptera* sp. 2	-
353	Erebidae	Erebinae	*Acantholipes circumdata*	(Walker, 1858)
354	Erebidae	Erebinae	*Acantholipes* sp. 1	-
355	Erebidae	Erebinae	*Acantholipes trajecta*	(Walker, 1865)
356	Erebidae	Erebinae	*Achaea janata*	(Linnaeus, 1758)
357	Erebidae	Erebinae	*Achaea serva*	Fabricius, 1775
358	Erebidae	Erebinae	*Artena dotata*	(Fabricius, 1794)
359	Erebidae	Erebinae	*Attatha regalis*	(Moore, 1872)
360	Erebidae	Erebinae	*Bastilla arctotaenia*	(Guenée, 1852)
361	Erebidae	Erebinae	*Bastilla joviana*	(Stoll, [1782])
362	Erebidae	Erebinae	*Chalciope mygdon*	(Cramer, [1777])
363	Erebidae	Erebinae	*Dysgonia stuposa*	(Fabricius, 1794)
364	Erebidae	Erebinae	*Dysgonia torrida*	(Guenée, 1852)
365	Erebidae	Erebinae	*Ercheia cyllaria*	(Cramer, [1782])
366	Erebidae	Erebinae	*Ercheia* sp. 1	-
367	Erebidae	Erebinae	*Erebus hieroglyphica*	(Drury, 1773)
368	Erebidae	Erebinae	*Ericeia inangulata*	(Guenée, 1852)
369	Erebidae	Erebinae	*Ericeia* sp.1	-
370	Erebidae	Erebinae	*Fodina stola*	(Guenée, 1852)
371	Erebidae	Erebinae	*Grammodes geometrica*	(Fabricius, 1775)
372	Erebidae	Erebinae	*Grammodes stolida*	(Fabricius, 1775)
373	Erebidae	Erebinae	*Heteropalpia* cf. *cortytoides*	Berio, 1939
374	Erebidae	Erebinae	*Homaea clathrum*	Guenée, 1852
375	Erebidae	Erebinae	*Hulodes drylla*	Guenée, 1852

376	Erebidae	Erebinae	*Hypospila bolinoides*	Guenée, 1852
377	Erebidae	Erebinae	*Mocis frugalis*	(Fabricius, 1775)
378	Erebidae	Erebinae	*Mocis undata*	(Fabricius, 1775)
379	Erebidae	Erebinae	*Ophiusa tirhaca*	(Cramer, [1777])
380	Erebidae	Erebinae	*Ophiusa triphaenoides*	(Walker, 1858)
381	Erebidae	Erebinae	*Pandesma quenavadi*	Guenee, 1852
382	Erebidae	Erebinae	*Pericyma cruegeri*	(Butler, 1886)
383	Erebidae	Erebinae	*Pericyma* sp. 1	-
384	Erebidae	Erebinae	*Pericyma umbrina*	(Guenée, 1852)
385	Erebidae	Erebinae	*Polydesma boarmoides*	Guenée, 1852
386	Erebidae	Erebinae	*Rhesala imparata*	Walker, 1858
387	Erebidae	Erebinae	*Rhesala* sp. 1	-
388	Erebidae	Erebinae	*Spirama retorta*	(Clerck, 1764)
389	Erebidae	Erebinae	*Tathorhynchus exsiccata*	(Lederer, 1855)
390	Erebidae	Erebinae	*Thyas coronata*	(Fabricius, 1775)
391	Erebidae	Erebinae	*Trigonodes hyppasia*	Cramer, [1779]
392	Erebidae	Eulepidotinae	*Anticarsia irrorata*	(Fabricius, 1781)
393	Euteliidae	Euteliinae	*Eutelia adulatricoides*	(Mell, 1943)
394	Euteliidae	Euteliinae	*Eutelia* sp. 1	-
395	Euteliidae	Euteliinae	*Eutelia* sp. 2	-
396	Euteliidae	Euteliinae	*Paectes subapicalis*	(Walker, [1858])
397	Euteliidae	Euteliinae	*Penicillaria jocosatrix*	Guenée, 1852
398	Euteliidae	Stictopterinae	*Lophoptera hemithyris*	(Hampson, 1905)
399	Euteliidae	Stictopterinae	*Lophoptera* sp. 1	-
400	Euteliidae	Stictopterinae	*Lophoptera* sp. 2	-
401	Euteliidae	Stictopterinae	*Lophoptera* sp. 3	-
402	Nolidae	Nolinae	*Nola analis*	(Wileman & West, 1928)
403	Nolidae	Nolinae	*Nola* sp. 4	-
404	Nolidae	Nolinae	*Nola* sp. 5	-
405	Nolidae	Nolinae	*Nola* cf. *squalida*	(Staudinger, 1870)

406	Nolidae	Nolinae	*Nola taeniata*	Snellen, 1875
407	Nolidae	Chloephorinae	*Aiteta rufoflava*	(Walker,[1857])
408	Nolidae	Chloephorinae	*Arcyophora* cf. *dentula*	(Lederer, 1869)
409	Nolidae	Chloephorinae	*Arcyophora icterica*	(Swinoe, 1886)
410	Nolidae	Chloephorinae	*Arcyophora* sp. 1	-
411	Nolidae	Chloephorinae	*Arcyophora* sp. 2	-
412	Nolidae	Chloephorinae	*Etanna breviuscula*	(Walker, 1863)
413	Nolidae	Chloephorinae	*Garella nilotica*	(Rogenhofer, 1881)
414	Nolidae	Chloephorinae	*Giaura sceptica*	(Swinhoe, 1885)
415	Nolidae	Chloephorinae	*Labanda semipars*	(Walker, 1858)
416	Nolidae	Chloephorinae	*Tathothripa* cf. *continua*	(Walker,1862)
417	Nolidae	Westermanniinae	*Westermannia superba*	Hübner, 1823
418	Nolidae	Eariadinae	*Earias cupreoviridis*	(Walker, 1862)
419	Nolidae	Eariadinae	*Earias insulana*	(Boisduval, 1833)
420	Nolidae	Eariadinae	*Earias* sp. 1	-
421	Nolidae	Eariadinae	*Earias vittella*	(Fabricius, 1794)
422	Nolidae	Risobinae	*Risoba obstructa*	Moore, 1881
423	Nolidae	Eligminae	*Selepa celtis*	Moore, [1860]
424	Noctuidae	Plusiinae	*Chrysodeixis* cf. *eriosoma*	(Doubleday, 1843)
425	Noctuidae	Plusiinae	*Chrysodeixis* sp. 1	-
426	Noctuidae	Plusiinae	*Ctenoplusia furcifera*	(Walker, [1858])
427	Noctuidae	Plusiinae	*Thysanoplusia daubei*	(Boisduval, 1840)
428	Noctuidae	Plusiinae	*Thysanoplusia lectula*	(Walker, [1858])
429	Noctuidae	Plusiinae	*Thysanoplusia orichalcea*	(Fabricius, 1775)
430	Noctuidae	Plusiinae	*Trichoplusia ni*	(Hübner, [1803])
431	Noctuidae	Bagisarinae	*Amyna axis*	(Guenée, 1852)
432	Noctuidae	Bagisarinae	*Brevipecten captata*	(Butler, 1889)
433	Noctuidae	Bagisarinae	*Chasmina judicata*	(Walker, 1858)
434	Noctuidae	Bagisarinae	*Sphragifera rejecta*	(Fabricius, 1775)
435	Noctuidae	Bagisarinae	*Xanthodes albago*	(Fabricius, 1794)
436	Noctuidae	Bagisarinae	*Xanthodes intersepta*	Guenée, 1852

437	Noctuidae	Bagisarinae	*Xanthodes transversa*	Guenée, 1852
438	Noctuidae	Eustrotiinae	*Eustrotia marginata*	(Walker, 1866)
439	Noctuidae	Eustrotiinae	*Maliattha quadripartita*	(Walker, 1865)
440	Noctuidae	Eustrotiinae	*Maliattha separata*	Walker, 1863
441	Noctuidae	Eustrotiinae	*Maliattha signifera*	(Walker, [1858])
442	Noctuidae	Eustrotiinae	*Micrapatetis pyrastis*	Hampson, 1910
443	Noctuidae	Eustrotiinae	*Ozarba brunnea*	(Leech, 1900)
444	Noctuidae	Eustrotiinae	*Ozarba mallarba*	Swinhoe, 1885
445	Noctuidae	Eustrotiinae	*Ozarba punctigera*	Walker, 1865
446	Noctuidae	Eustrotiinae	*Ozarba* sp. 2	-
447	Noctuidae	Eustrotiinae	*Ozarba* sp. 3	-
448	Noctuidae	Eustrotiinae	*Ozarba* sp. 4	-
449	Noctuidae	Eustrotiinae	*Ozarba venata*	Butler, 1889
450	Noctuidae	Eustrotiinae	*Pseudozarba opella*	(Swinehoe, 1855)
451	Noctuidae	Eustrotiinae	*Xanthograpta* cf. *trilatalis*	(Walker,1865)
452	Noctuidae	Acontiinae	*Acontia crocata*	Guenée, 1852
453	Noctuidae	Acontiinae	*Acontia marmoralis*	(Fabricius, 1794)
454	Noctuidae	Acontiinae	*Acontia* sp. 1	-
455	Noctuidae	Acontiinae	*Acontia* sp. 2	-
456	Noctuidae	Acontiinae	*Acontia upsilon*	(Walker, 1865)
457	Noctuidae	Acontiinae	*Eulocastra excisa*	(Swinhoe, 1885)
458	Noctuidae	Amphipyrinae	*Iambia transversa*	(Moore, 1882)
459	Noctuidae	Agaristinae	*Aegocera bimacula*	Walker, 1854
460	Noctuidae	Agaristinae	*Aegocera venulia*	(Cramer, [1777])
461	Noctuidae	Agaristinae	*Pseudcraspedia punctata*	Hampson, 1898
462	Noctuidae	Agaristinae	*Sarbanissa venosa*	(Moore, 1879)
463	Noctuidae	Aediinae	*Aedia acronyctoides*	(Guenée, 1852)
464	Noctuidae	Aediinae	*Aedia leucomelas*	(Linnaeus, 1758)
465	Noctuidae	Condicinae	*Condica dolorosa*	(Walker, 1865)
466	Noctuidae	Condicinae	*Condica illecta*	(Walker, 1865)
467	Noctuidae	Condicinae	*Condica* sp. 1	-

468	Noctuidae	Heliothinae	*Adisura atkinsoni*	Moore, 1881
469	Noctuidae	Heliothinae	*Adisura marginalis*	(Walker, 1858)
470	Noctuidae	Heliothinae	*Helicoverpa armigera*	(Hübner, [1808])
471	Noctuidae	Heliothinae	*Helicoverpa assulta*	(Guenée, 1852)
472	Noctuidae	Heliothinae	*Heliothis decorata*	(Moore, 1881)
473	Noctuidae	Heliothinae	*Heliothis peltigera*	(Denis & Schifferm uller, 1775)
474	Noctuidae	Heliothinae	*Timora radiata*	(Moore, 1881)
475	Noctuidae	Heliothinae	*Timora rosacea*	(Hampson, 1891)
476	Noctuidae	Eriopinae	*Callopistria rivularis*	Walker, [1858]
477	Noctuidae	Noctuinae	*Agrotis biconica*	Kollar, [1844]
478	Noctuidae	Noctuinae	*Athetis* sp. 3	-
479	Noctuidae	Noctuinae	*Athetis* sp. 5	-
480	Noctuidae	Noctuinae	*Athetis sincera*	(Swinhoe, 1889)
481	Noctuidae	Noctuinae	*Athetis transversa*	(Walker, 1858)
482	Noctuidae	Noctuinae	*Axylia dispalata*	Swinhoe, 1891
483	Noctuidae	Noctuinae	*Bagada spicea*	(Guenée, 1852)
484	Noctuidae	Noctuinae	*Brithys crini*	(Fabricius, 1775)
485	Noctuidae	Noctuinae	*Callyna siderea*	Guenée, 1852
486	Noctuidae	Noctuinae	*Callyna* sp. 1	-
487	Noctuidae	Noctuinae	*Caradrina* sp. 1	-
488	Noctuidae	Noctuinae	*Leucania* sp. 1	(Linnaeus, 1761)
489	Noctuidae	Noctuinae	*Leucania loreyi*	(Duponchel, 1827)
490	Noctuidae	Noctuinae	*Mythimna consanguis*	(Guenée, 1852)
491	Noctuidae	Noctuinae	*Mythimna decisissima*	(Walker, 1865)
492	Noctuidae	Noctuinae	*Mythimna separata*	(Walker, 1865)
493	Noctuidae	Noctuinae	*Mythimna* sp. 2	-
494	Noctuidae	Noctuinae	Noctuinae_genus_sp. 1	-
495	Noctuidae	Noctuinae	*Polytela gloriosae*	(Fabricius, 1781)
496	Noctuidae	Noctuinae	*Sesamia inferens*	(Walker, 1856)
497	Noctuidae	Noctuinae	*Spodoptera* cf. *pecten*	Guenée, 1852
498	Noctuidae	Noctuinae	*Spodoptera cilium*	Guenée, 1852
499	Noctuidae	Noctuinae	*Spodoptera exigua*	(Hübner, [1808])

500	Noctuidae	Noctuinae	*Spodoptera frugiperda*	(J.E. Smith, 1797)
501	Noctuidae	Noctuinae	*Spodoptera litura*	(Fabricius, 1775)
502	Noctuidae	Noctuinae	*Spodoptera mauritia*	(Boisduval, 1833)
503	Noctuidae	Pantheinae	*Thiacidas postica*	Walker, 1855
504	Noctuidae	-	*Elusa* sp. 1	-

Fig. 3. Surroundings of the Study Area. A – Catchment area of Jir Bhar pond; B – Wheat field and a mango tree near Bedia; C – Lachora pond; D – Mahua trees along an unnamed seasonal rain-fed stream; E – Moths attracted to the light trap; F – Butea forest, Kheri; G – Village commons, Selda; H – A small pond, 500 m from the light trap; I – Forest near Selda village.

Images 1 - 24. 1 – *Compsoctena* sp. 1; 2 – *Compsoctena* sp. 2; 3 – *Dasyses* sp. 1; 4 – *Edosa* sp. 1; 5 – *Edosa* sp. 2; 6 – *Edosa subochraceella*; 7 – *Gerontha* sp. 1; 8 – *Monopis monachella*; 9 – *Tinea* sp. 1; 10 – *Setomorpha rutella*; 11 – TINEIDAE_genus_sp. 6; 12 – *Plutella xylostella*; 13 – *Autosticha cf. kyotensis*; 14 – *Procometis spoliatrix*; 15 – *Alciphanes clavata*; 16 – *Homaloxestis* sp. 1; 17 – *Lecithocera* sp. 1; 18 – *Lecithocera* sp. 2; 19 – LECITHOCERIDAE_genus_sp. 3; 20 – *Ethmia* sp. 1; 21 – *Stagmatophora* sp. 1; 22 – *Eretmocera impactella*; 23 – *Mesophleps* sp. 1; 24 – *Dichomeris acuminatus*.

Images 25 - 48. 25 – *Dichomeris lamprostoma*; 26 – *Dichomeris* sp. 1; 27 – *Dichomeris* sp. 2; 28 – *Pectinophora gossypiella*; 29 – *Stegasta variana*; 30 – *Coleophora* sp. 1; 31 – *Stathmopoda auriferella*; 32 – *Stathmopoda* sp. 1; 33 – *Deuterocopus socotranus*; 34 – *Exelastis atomosa*; 35 – *Exelastis pumilio*;36 – *Megalorhipida defectalis*; 37 – *Platyptilia direptalis*; 38 – *Sphenarches anisodactylus*; 39 – *Bactra venosana*; 40 – *Clepsis* sp. 1; 41 – *Dudua aprobola*; 42 – *Fulcrifera* cf. *tricentra*; 43 – *Leguminivora* sp. 2; 44 – *Lobesia aeolopa*; 45 – *Loboschiza koenigiana*; 46 – Olethreutinae_genus_sp. 1; 47 – Olethreutinae_genus_sp. 2; 48 – *Azygophleps pusilla*.

Images 49 - 72. 49 – *Azygophleps scalaris*; 50 – COSSIDAE_genus_sp. 1; 51 – *Aergina hilaris*; 52 – *Altha subnotata*; 53 – *Aphendala tripartita*; 54 – *Iragoides nilgirica*; 55 – *Miresa albipuncta*; 56 – *Parasa lepida*; 57 – *Thyrassia subcordata*; 58 – *Banisia* cf. *myrtaea*; 59 – *Banisia myrsusalis*; 60 – *Banisia* sp. 1; 61 – *Banisia* sp. 2; 62 – *Hypolamprus angulalis*; 63 – *Hypolamprus bastialis*; 64 – *Hypolamprus* sp. 1; 65 – *Striglina scitaria*; 66 – *Hyblaea* sp. 1; 67 – *Hyblaea puera*; 68 – *Lamoria anella*; 69 – *Arippara indicator*; 70 – *Bostra denticulata*; 71 – *Bostra vibicalis*; 72 – *Endotricha consocia*.

Images 73 - 96. 73 – *Endotricha ruminalis*; 74 – *Hypanchyla fuscibasalis*; 75 – *Hypsopygia* cf. *nostralis*; 76 – *Hypsopygia mauritialis*; 77 – Pyralinae_genus_sp. 1; 78 – *Pyralis pictalis*; 79 – *Tamraca torridalis*; 80 – *Salma* sp. 1; 81 – *Acrobasis* cf. *minutalis*; 82 – *Anabasis obliquifasciella*; 83 – *Cadra cautella*; 84 – *Epicrocis* sp. 1; 85 – *Epicrocis* cf. *anthracanthes*; 86 – *Epicrocis oegnusalis*; 87 – *Etiella zinckenella*; 88 – *Hypargyria metalliferella*; 89 – *Indomyrlaea ferreotincta*; 90 – *Maliarpha separatella*; 91 – *Maliarpha* sp. 1; 92 – *Morosaphycita morosalis*; 93 – Phycitinae_genus_sp. 1; 94 – Phycitinae_genus_sp. 2; 95 – Phycitinae_genus_sp. 3; 96 – Phycitinae_genus_sp. 4.

Images 97 - 120. 97 – Phycitinae_genus_sp. 5; 98 – *Phycitodes albatella*; 99 – *Spatulipalpia* cf. *effosella*; 100 – *Achyra coelatalis*; 101 – *Achyra nudalis*; 102 – *Anania verbascalis*; 103 – *Crypsiptya coclesalis*; 104 – *Ecpyrrhorrhoe machoeralis*; 105 – *Euclasta vitralis*; 106 – *Pagyda salvalis*; 107 – *Pyrausta* cf. *signatalis*; 108 – *Pyrausta panopealis*; 109 – *Pyrausta testalis*; 110 – *Rehimena phrynealis*; 111 – *Thliptoceras* sp. 1; 112 – *Agathodes ostentalis*; 113 – *Agrotera basinotata*; 114 – *Antigastra catalaunalis*; 115 – *Bocchoris inspersalis*; 116 – *Chabula acamasalis*; 117 – *Cirrhochrista brizoalis*; 118 – *Cnaphalocrocis medinalis*; 119 – *Cnaphalocrocis poeyalis*; 120 – *Cnaphalocrocis trapezalis*.

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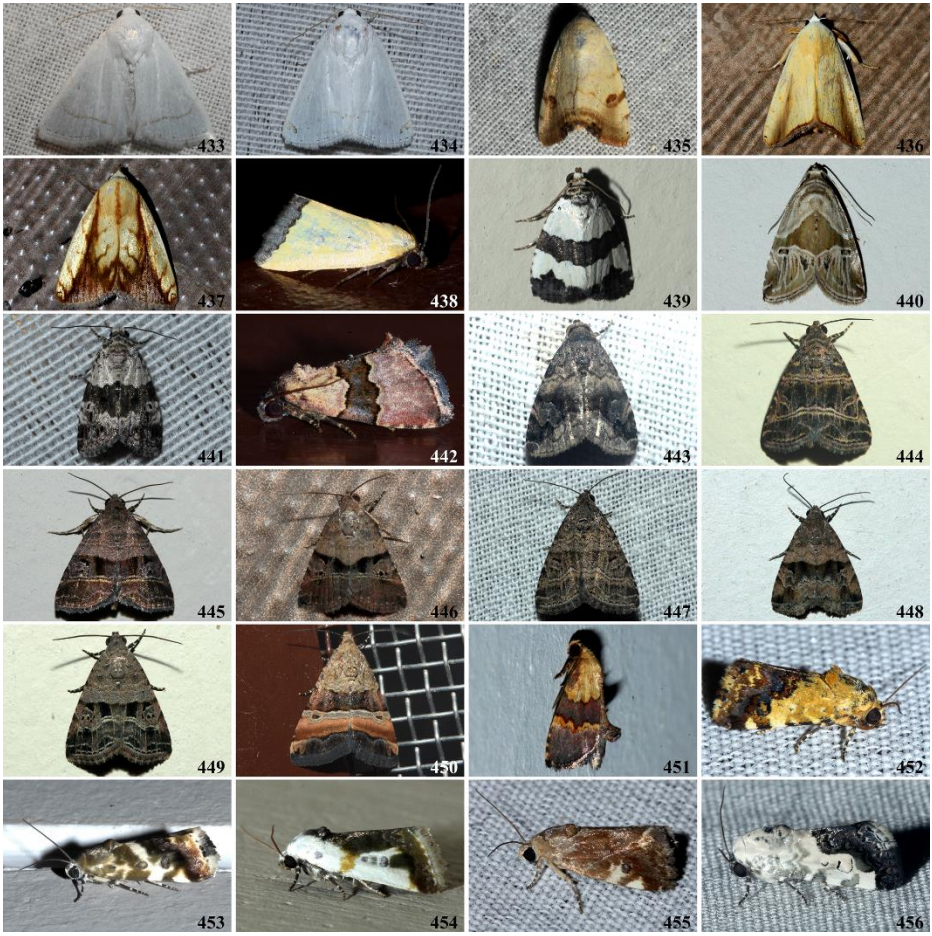

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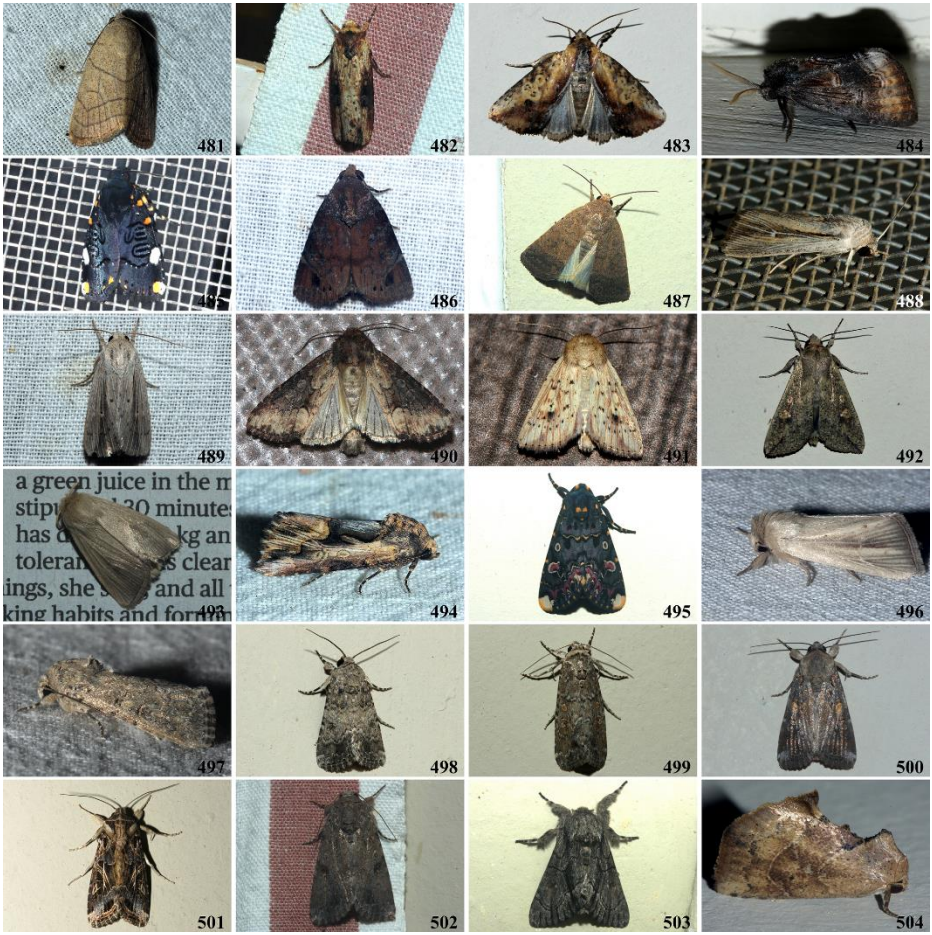

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