Checklist of the Moth (Lepidopteran) Fauna of District Buner Khyber Pakhtunkhwa, Pakistan

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Abstract
An annotated checklist of the Moth (Lepidopteran) fauna of District Buner, KP, Pakistan were presented. In the current study 563 specimens of Moth were collected. Throughout entomological investigation a total of 28 species belonging to 25 genera names as*Cyana hemata* (Walker, 1854), *Aloa lactinea* (Cramer, 1777), *Creatonotos transiens* (Walker, 1855), *Olene mendosa* (Hubner, 1823), *Cyana puella* (Drury, 1773), *Syntomoides imaon* (Cramer, 1779),*Spilosoma obliqua* (Walker, 1855), *Stigmatophora palmata* (Moore, 1878),*Marumba sperchius* (Menetries, 1857), *Psilogramma increta* (Walker1865), *Leucophlebia lineata* (Westwood, 1847), *Polyptychus dentatus* (Cramer, 1777), *Theretra alecto* (Linnaeus, 1758),*Theretra oldenlandiae* (Fabricius, 1775), *Biston suppressaria* (Guenée, 1858), *Declana atronivea* (Walker, 1865), *Dysgonia torrida* (Guenee, 1852), *Polytela gloriosae* (Fabricius, 1781), *Chasmina candida* (Walker, 1865),*Anua tirhaca* (Cramer, 1777), *Aegocera venulia* (Cramer, 1777), *Anua coronata* (Fabricius, 1976), *Bradina diagonalis* (Guenee, 1852), *Archernis capitalis* (Fabricius, 1794), *Dinara combusta* (Walker, 1855), *Phalera raya* (Moore, 1849), *Euthrix potatoria* (Linnaeus, 1758) and *Ocinara varians* (Walker, 1855) were reported. The species recorded under 8 families. i.e.Family Erebidae, Family Sphingidae, Family Geometridae, Family Noctuidae, family Crambidae, Family Notodontidae, Family Lasiocampidae and Family Bombycidae. Among them the most abundant family was Family Erebidae.

Key words: Checklist, Lepidoptera, Moth, Fauna, Buner, KP.

INTRODUCTION

Moths and butterflies belongs to class Insecta and share single order called Lepidoptera[1]. Among the class Insecta, Lepidoptera is the second largest and the most diverse order[2]. Moths are not greatly better than butterflies, but the species of Moth is more than the species of butterfly by at minimum 10 to one[3]. In most groups of Moth mandibles are reduced. Moth consist of dense covering of scales on the two pairs of wings and most Moth are nocturnal[1]. They have decorated scales and which is organized with immeasurable forms. As of subtle and cryptic to bright and attractive[4]. They consist of clavate antennae which are thin or often feathery[5]. Antennae are used for to recognize different kinds of smells formed by animal and plant with high exactitude and sensitivity; therefore, permitting to find suitable breeding followers, nutrition and egg-laying places[6]. Moth also take place in several habitations, such as Desert region, sceneries, harvest grounds, green meadows and plants[7]. Distribution of moths are worldwide[7]. Weather aspect such as heat, moisture, precipitation, air moving speediness and route of current air similarly a very essential factors for persistence of the species[8]. Moth are Herbivorous insects which are tremendous classical organisms to examine the hereditary and environmental constituents of adaptation and morphological variance, since their host plants are one of the key ecological features prompting their initial lifecycle steps[9]. Moths play imperative roles in their lifecycle such as herbivorous during their caterpillar time, as pollinators during their adult stage as well as food for parasitoids and predators during their life cycle[10]. Due to super family of Pyraloidea. The level of crop destruction is from 10 to 100% all-over in the world[11].

The Moth fauna of District Buner Khyber Pakhtunkhwa, Pakistan are very important from biogeographically point of view. The study area is mountainous and some region are also plain. Cultivation in this area is mostly focused on maize,

wheat, tobacco and to some extent persimmon, conifer forests, Peach orchards and citrus plants. The current study was designed to study the checklist of Moth (Lepidoptera) biodiversity from selected localities of District Buner Khyber Pakhtunkhwa, Pakistan as well as the taxonomic identification of the collected specimens of Moth.

MATERIALS AND METHODS

District Buner is located in the northern part of Pakistan is at longitude of 72.48°to 72.5° Eastand latitude of 34.6°to 34.18°north[12]. Buner is the District of Malakand Division (Khyber Pakhtunkhwa) which is mostly mountainous areas. It is surrounded by Swat in north, Malakand agency in west, Shangla in east and Swabi and Mardan in south[13]. Buner comprises of Tehsil Daggar, Gagra, Totalai, Chagharzi, Chamla and Gadeze. The Daggar is the head quarter of the district[14].

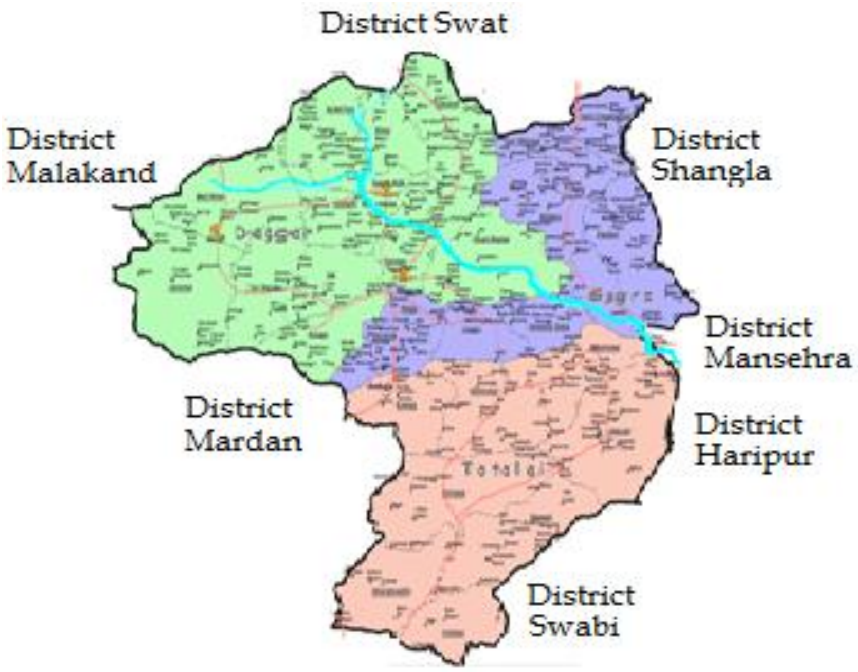

Figure 1.1: Map of District Buner[15]

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The Current research study was conducted to study a preliminary checklist ofthe Moth (Lepidopteran) fauna of District Buner Khyber Pakhtunkhwa, Pakistan. For an annotated checklist of the Moth biodiversity of District Buner KP, Pakistan, the specimens of Moth were collected from nineteen different localities of District Buner during 2018-19. List of sampled localities along with their latitude and longitude are shown in the following table.

Table 1: List of sampled localities along with longitude and latitude of District Buner.

S.NO	Name of Lacality	Longitude	Latitude
1	Kalail	34.675005° N	72.493134° E
2	Gokand	34.3455°N	72.3056° E
3	Nanser	34.4926° N	72.2527° E
4	Hisar	34.548842° N	72.503028° E
5	Daggar	34.511044° N	72.48396° E
6	Amnawar	34.509029° N	72.482739° E
7	Chagharzo	34.4680° N	72.7454° E
8	Ambela	34.399187° N	72.479478° E
9	Chinglai	34.3227° N	72.5116° E
10	Kawga	34.391255° N	72.511578° E
11	Malka	34.19188° N	72.41483° E
12	Jowar	34.554282° N	72.301465° E
13	Kingergali	34.5118° N	72.2374° E
14	Pir Baba	34. 50406° N	72.460983° E
15	KhodoKhail	34.2776° N	72.6181° E
16	Shaheede Sar	34.3746° N	72.3926° E
17	Bar Kaly	34.2831°N	72.2915°E
18	Nawagay	34.403437° N	72.562905° E
19	Budal	34.4929° N	34.4929° E

Sampling Methodology
The Moth specimens were collected by aerial netting, hand picking and by using light trap by using white screen (40 W - UV Lamp). The samples were collected 2 to 3 days per week, in evening 6 PM to morning 6 AM and the light trap was set as stable automatic mode that is on and off in the time interval system and the samples were collected from morning time. Some Moths were collected with a white sheet hanging up with a bright torch shining on it.

Sample preservation
After half an hour, the dead specimens were placed in wet butter paper in petri dish for soften the body parts especially the wings then these specimens stretched and pinned properly. Entomological pins were used for pinning the specimens. After pinning, specimens were spread on setting board for stretching the appendages. After proper drying of the moth specimens were then kept in wooden insect boxes. Coopex powder and mounted naphthalene balls were used to protect the specimens from ants and other predators. Specimens were deposited in museum of University of Buner, KP, Pakistan and National Insect Museum (NIM), National Agriculture Research Centre (NARC), Islamabad Pakistan.

Identification of the samples
All specimens of Moth were examined and identified up to species level with the help of old and latest available literature which are Furthermore, identified moth species were also confirmed with the help of identified Moth species already housed at NIM, NARC Islamabad, Pakistan[16-24].

Systematic account
In the systematic account, designation of the family, genus and species is assumed. For all the comprised genera, the first reference is provided however, for each of the comprised species: first reference, material examined, and picture of adults is provided.

RESULTS
The present preliminary checklist of Moth (Lepidoptera) fauna was conducted from September 2018 to September 2019 in nineteen different localities of District Buner Khyber Pakhtunkhwa, Pakistan. A total of 563 specimens of Moth were collected. Entomological survey revealed that a checklist of 28 species belonging to 25 genera under 8 families i.e. Family Erebidae, Family Sphingidae, Family Geometridae, Family Noctuidae, family Crambidae, Family Notodontidae, Family Lasiocampidae and Family Bombycidae were recorded. The checklist of Moth species sampled from different localities of District Buner are shown in Table 2.

Table 2: Checklist of Moth fauna of District Buner

S. No	Order	Family	Genus	Species
1	Lepidoptera	Erebidae	*Cyana*	*Cyana hemata* (Walker, 1854)
2	Lepidoptera	Erebidae	*Aloa*	*Aloa lactinea*(Cramer, 1777)
3	Lepidoptera	Erebidae	*Creatonotos*	*Creatonotos transiens*(Walker, 1855)
4	Lepidoptera	Erebidae	*Olene*	*Olene mendosa*(Hubner, 1823)
5	Lepidoptera	Erebidae	*Cyana*	*Cyana Puella*(Drury, 1773)
6	Lepidoptera	Erebidae	*Syntomoides*	*Syntomoides imaon* (Cramer, 1779)
7	Lepidoptera	Erebidae	*Spilosoma*	*Spilosoma obliqua* (Walker, 1855)
8	Lepidoptera	Erebidae	*Stigmatophora*	*Stigmatophora palmata*(Moore, 1878)
9	Lepidoptera	Sphingidae	*Marumba*	*Marumba sperchius*(Menetries, 1857)
10	Lepidoptera	Sphingidae	*Psilogramma*	*Psilogramma increta*(Walker, 1865)
11	Lepidoptera	Sphingidae	*Leucophlebia*	*Leucophlebia lineata*(Westwood, 1847)
12	Lepidoptera	Sphingidae	*Polyptychus*	*Polyptychus dentatus*(Cramer, 1777)
13	Lepidoptera	Sphingidae	*Theretra*	*Theretra alecto*(Linnaeus, 1758)
14	Lepidoptera	Sphingidae	*Theretra*	*Theretra oldenlandiae* (Fabricius, 1775)
15	Lepidoptera	Geometridae	*Biston*	*Biston suppressaria* (Guenee, 1858)
16	Lepidoptera	Geometridae	*Declana*	*Declana atronivea* (Walker, 1865)
17	Lepidoptera	Noctuidae	*Dysgonia*	*Dysgonia torrida* (Guenee, 1852)
18	Lepidoptera	Noctuidae	*Polytela*	*Polytela gloriosae* (Fabricius, 1781)
19	Lepidoptera	Noctuidae	*Chasmina*	*Chasmina candida* (Walker, 1865)

20	Lepidoptera	Noctuidae	*Anua*	*Anua tirhaca* (Cramer, 1777)
21	Lepidoptera	Noctuidae	*Aegocera*	*Aegocera venulia* (Cramer, 1777)
22	Lepidoptera	Noctuidae	*Anua*	*Anua coronata* (Fabricius, 1776)
23	Lepidoptera	Crambidae	*Bradina*	*Bradina diagonalis* (Guenee, 1852)
24	Lepidoptera	Crambidae	*Archernis*	*Archernis capitalis* (Fabricius, 1794)
25	Lepidoptera	Notodontidae	*Dinara*	*Dinara combusta* (Walker, 1855)
26	Lepidoptera	Notodontidae	*Phalera*	*Phalera raya* (Moore, 1849)
27	Lepidoptera	Lasiocampidae	*Euthrix*	*Euthrix potatoria* (Linnaeus, 1758)
28	Lepidoptera	Bombycidae	*Ocinara*	*Ocinara varians* (Walker, 1855)

Family wise distribution of Moth genera and species of District Buner.
During this study a preliminary checklist of 28 species belonging to 25 genera and 8 families were reported for the first time in District Buner which are presented in figure (1.2). The family Erebidae was highest number of 8 species (7 genera), Sphingidae 6 species (5 genera),Geometridae 2 species (2 genera), Noctuidae 6 species (5 genera), Crambidae 2 species (2 genera), Notodontidae 2 species (2 genera), Lasiocampidae 1 species and Bombycidae is also one species and one genus reported respectively.

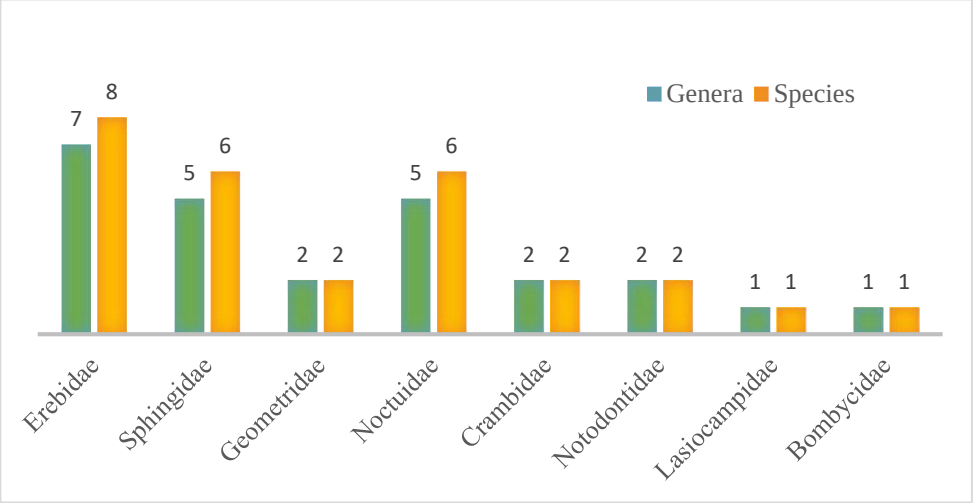

Figure 1.2: Shows Family wise distribution of genera and species of Moths**.**

Description of Moth species collected from District Buner.

1. *Cyana hemata* (Walker, 1854) (Plate 1, 1)

Material examined: Buner: Kalail, 25.iv.19, 2♀, leg. Zarin; Buner: Gokand, 10.xi.18, 1♀, leg. Zarin; Buner: Nanser, 17. xi.19, 2♀, leg. Zarin; Buner: Daggar, 5.vi.19, 1♀, leg. Zarin; Buner: Ambela, 12.vii.19, 1♀, leg. Zarin; Buner: Kawga, 12.x.18, 1♀, leg. Zarin; Buner: Malka, 5.v.19, 2♀, leg. Zarin; Buner: Jowar, 5.x.19, 2♀, leg. Zarin; Buner: Kingergali, 8.xi.18, 3♀, leg. Zarin; Buner: Khodokhail, 11.xi.19, 1♂, leg. Zarin; Buner: Nawagy 17.x.19, 1♀, leg. Zarin; Buner: Budal, 19.ix.19, 3♀, leg. Zarin;

General Characteristics: Color of this species is reddish brown and white. Their Palpi are narrow and overturned. As of the center of costa the upper side fronts wing of the male contains more or less toughly developed border of hair on upper side, and comprise lobe on inside. Male have no 5 vein. female generally lacking vein 6.

2. *Aloa lactinea* (Cramer, 1777) (Plate 1, 2)

Material examined: Buner: Kalail, 4.v.19, 4♀, leg. Zarin; Buner: Gokand, 14.v.19, 3♀, leg. Zarin; Buner: Bagra, 11. vi.19, 4♀, leg. Zarin; Buner: Hisar, 5.vii.19, 5♀, leg. Zarin; Buner: Daggar, 8.vi.19, 3♀, leg. Zarin; Buner: Amnawar, 20.ix.18, 5♀, leg. Zarin; Buner: Ambela, 25.viii.19, 5♀, leg. Zarin; Buner: Elai, 29.vi.19, 1♂, leg. Zarin; Buner: Kawga,

30.vi.18, 3♀, leg. Zarin; Buner: Jowar, 13.vi.19, 6♀, leg. Zarin; Buner: Kingergali, 8.x.18, 3♀, leg. Zarin; Buner: Pir Baba, 10.x.18, 4♀, leg. Zarin; Buner: Khodokhail, 7.x.18, 3♀, leg. Zarin; Buner: Bajkata, 3.vi.19, 5♀, leg. Zarin; Buner: Bar Kaly, 27.iv.19, 3♀, leg. Zarin; Buner: Nawagy 21.vi.19, 5♀, leg. Zarin; Buner: Budal, 19.ix.19, 6♀, leg. Zarin;
General Characteristics: It is also called red costate tiger Moth, Body color of this species is yellow. Their antennae are dark with a brilliant red color at basal joint. Palpi are white beneath and red color at sides. the ending bond is dark. White head with a red line back side it. Their thorax is white color. Mainly wings color are white. Front wings consist of a red fascia beside the costa. Front wings contain less black spots as compare to hindwings.

3. *Creatonotos transiens* (Walker, 1855) (Plate 1, 3)
Material examined: Buner: Kalail, 3.vi.19, 2♀, leg. Zarin; Buner: Gokand, 8.vi.19, 2♂, leg. Zarin; Buner: Nanser, 16. vi.19, 2♀, leg. Zarin; Buner: Daggar, 18.vi.19, 3♀, leg. Zarin; Buner: Amnawar, 20.vi.19, 1♂, leg. Zarin; Buner: Ambela, 27.vi.19, 2♀, leg. Zarin; Buner: Chinglai, 2.vi.19, 2♀, leg. Zarin; Buner: Malka, 5.viii.19, 1♀, leg. Zarin; Buner: Jowar, 13.viii.19, 1♀, leg. Zarin; Buner: Kingergali, 8.vii.19, 1♀, leg. Zarin; Buner: Pir Baba, 8.vii.19, 2♀, leg. Zarin; Buner: Shaheede Sar, 22.vii.19, 1♀, leg. Zarin; Buner: Bar Kaly, 21.viii.19, 1♀, leg. Zarin; Buner: Budal, 13.vii.19, 2♀, leg. Zarin;
General Characteristics: Palpi are very minute and orange in color. Antennae are meticulously ciliated in both genders. Head and thorax is dull white. Abdomen is white color below and orange color above, and contains with sequence of black spots on dorsal and ventral side. Front wings are slender, very pale and averaging a brownish gray. The base of inner side and costa are whitish in color. Hind wing pale and averaging a brownish gray.

4. *Olene mendosa* (Hubner, 1823) Plate 1, 4)
Material examined: Buner: Kalail, 16.xi.18, 1♀, leg. Zarin; Amnawar, 11.x.18, 1♀, leg. Zarin; Buner: Kawga, 23. xii.18, 2♀, leg
General Characteristics: This Moth is also called brown tussock moth or hairy tussock Moth. Sexual characteristics display by means of variable color of morphs. Dimorphism are present in fully-grown male. Front wings are equivalently brown in color and hind wings are very light greyish colored. Black and a very small spot are present in the forewing. The outside sub basal comprise of a pale patch. The common form has an unequal dark brown zone in the center of front wings. The other uncommon form has very light colors. The inside of the wings is identical in both male and female with less distinct marks.

5. *Cyanapuella* (Drury, 1773) (Plate 1, 5)
Material examined: Buner: Kalail, 4.vi.19, 2♀, leg. Zarin; Buner: Gokand, 9.vii.19, 1♂, leg. Zarin; Buner: Nanser, 15. v.19, 1♂, leg. Zarin; Buner: Daggar, 4.viii.19, 2♀, leg. Zarin; Buner: Chagharzo, 12.vi.19, 1♀, leg. Zarin; Buner: Ambela, 27.ix.18, 1♀, leg. Zarin; Buner: Malka, 7.viii.19, 1♀, leg. Zarin; Buner: Kingergali, 8.ix.18, 2♀, leg. Zarin; Buner: Pir Baba, 29.viii.19, 1♀, leg. Zarin; Buner: Khodokhail, 13.vi.19, 2♀, leg. Zarin; Buner: Nawagy, 20.viii.19, 2♀, leg. Zarin; Buner: Budal, 4.viii.19, 2♀, leg. Zarin;
General Characteristics: Color of this Moth species is white. Fleck arepresent on the part of metathorax which is a variable color that is vivid red but sometimes with an orange tinge. The dorsal location of abdomen is light scarlet omit of basal direction. The color of legs is white and crimson. The hindwings are turn pale scarlet. Three dots are present on hind wings.

6. *Syntomoides imaon* (Cramer, 1779) (Plate 1, 6)
Material examined: Buner: Gokand, 13.x.18, 3♀, leg. Zarin; Buner: Nanser, 18. x.18, 2♀, leg. Zarin; Buner: Daggar, 22.xi.18, 2♀, leg. Zarin; Buner: Amnawar, 16.ix.18, 3♀, leg. Zarin; Buner: Chagharzo, 25.viii.19, 2leg. Zarin; Buner: Chinglai, 28.vii.19, 2♀, leg. Zarin; Buner: Kawga, 23.vii.19, 1♂, leg. Zarin; Buner: Malka, 13.x.18, 3♀, leg. Zarin; Buner: Jowar, 16.x.18, 2♀, leg. Zarin; Buner: Pir Baba, 22.x.18, 1♀, leg. Zarin; Buner: Khodokhail, 27.x.18, 2♀, leg. Zarin; Buner: Shaheede Sar, 13.viii.19, 2♀, leg. Zarin; Buner: Bar Kaly, 28.viii.19, 1♀, leg. Zarin; Buner: Budal, 22.ix.18, 2♀, leg. Zarin;
General Characteristics: This Moth is also called the handmaiden Moth. The neckline and frons are yellow in color. Metathorax consist of a yellow line. The first segment of abdomen contains with a yellow band which is occasionally becoming obsolete. The forewing has enormous translucency; the cell is filling by one. One at link of veins 2 and 3. Two submarginal and two subapical. one more filling just about the total interspace of internomedian. The hindwing has a post basal translucency spot prolonging barely away from the cell. The fleck of the forewing diverges noticeably in size. As compare to female the male species has lengthy and slight abdomen.

7. *Spilosoma obliqua* (Walker, 1855) (Plate 1, 7)
Material examined: Buner: Kalail, 14.ix.18, 2♀, leg. Zarin; Buner: Gokand, 17.ix.18, 1♂, leg. Zarin; Buner: Nanser, 20.ix.18, 1♀, leg. Zarin; Buner: Hisar, 2.x.18, 3♀, leg. Zarin; Buner: Amnawar, 5.x.18, 1♀, leg. Zarin; Buner: Ambela 27.viii.19,2♀, leg. Zarin; Buner: Chinglai, 22.viii.19, 1♀, leg. Zarin; Buner: Kawga, 15.ix.18, 2♀, leg. Zarin; Buner: Malka, 10.viii.19, 1♀, leg. Zarin; Buner: Jowar, 16.viii.19, 1♀, leg. Zarin; Buner: Kingergali, 20.viii.19, 1♀, leg. Zarin; Buner: Khodokhail, 17.vii.19, 1♂, leg. Zarin; Buner: Shaheede Sar, 14.viii.19, 3♀, leg. Zarin; Buner: Nawagy 23.viii.19, 3♀, leg. Zarin; Buner: Budal, 20.vii.19, 2♀, leg. Zarin;

General Characteristics: Color of antennae are light black. Thorax is black in color. Abdomen is completely yellow, hairy and comprise of many black flecks. Color of wings is lightly yellow. Forewings contain many black spots, while hindwings consist of only three black spots.

8. *Stigmatophora palmata* (Moore, 1878) (Plate 1, 8)
Material examined: Buner: Kalail, 13.viii.19, 2♀, leg. Zarin; Buner: Gokand, 23.viii.19, 1♂, leg. Zarin; Buner: Hisar, 12.vii.19, 2♀, leg. Zarin; Buner: Daggar, 17.vii.19, 1♀, leg. Zarin; Buner: Amnawar, 15.vii.19, 2♀, leg. Zarin; Buner: Chagharzo, 24.vii.19,1♀, leg. Zarin; Buner: Chinglai, 20.vii.19, 4♀, leg. Zarin; Buner: Kawga, 25.vii.19, 2♀, leg. Zarin; Buner: Malka, 2.viii.19, 1♀, leg. Zarin; Buner: Jowar, 5.viii.19, 1♀, leg. Zarin; Buner: Kingergali, 7.viii.19, 2♀, leg. Zarin; Buner: Khodokhail, 9.viii.19, 1♀, leg. Zarin; Buner: Shaheede Sar, 12.viii.19, 3♀, leg. Zarin; Buner: Nawagy 16.viii.19, 1♀, leg. Zarin; Buner: Budal, 22.viii.19, 2♀, leg. Zarin;

General Characteristics: Antennae and head region are yellow in color. Thorax is light brown and hairy. Wings and abdomen are light yellow. Their forewings totally consist of many black spots except mid portion. Hindwings comprises in only three dots. Abdomen has also black spots.

9. *Marumba sperchius* (Menetries, 1857) (Plate 1, 9)
Material examined: Buner: Kalail, 8.vii.19, 2♀, leg. Zarin; Buner: Nanser, 15. vi.19, 2♀, leg. Zarin; Buner: Hisar, 3. vii.19, 2♀, leg. Zarin; Buner: Daggar, 11.vii.19, 1♀, leg. Zarin; Buner: Amnawar, 19.viii.19, 1♀, leg. Zarin; Buner: Kawga, 21.vii.19, 2♀, leg. Zarin; Buner: Jowar,24.ix.18, 2♀, leg. Zarin; Buner: Kingergali, 5.ix.18, 1♀, leg. Zarin; Buner: Bar Kaly 2.ix.18, 1♀, leg. Zarin; Buner: Budal, 20.v.19, 1♂, leg. Zarin;

General Characteristics: The ground color of the back wing and the lines of the front wing are more reddish and the lines on each side of the fragile discal spot are hardly unite. Antennae are hairy like.The larvae of this species have been recorded from *Quercus* (including *Q. mongolica Q. glauca*; *Castanea* (including *C. crenata*).

10. *Psilogramma increta* (Walker, 1865) Plate 2, 10)
Material examined: Buner: Kalail, 3.x.18, 1♀, leg. Zarin; Buner: Gokand, 8.ix.18, 1♀, leg. Zarin; Buner: Nanser, 25. vii.19, 2♀, leg. Zarin; Buner: Daggar, 18.vi.19, 1♀, leg. Zarin; Buner: Amnawar, 4.vii.19, 1♀, leg. Zarin; Buner: Ambela, 17.viii.19, 2♀, leg. Zarin; Buner: Kawga, 16.vi.19, 2♀, leg. Zarin; Buner: Jowar, 13.viii.19, 1♀, leg. Zarin; Buner: Khodokhail, 10.viii.19, 1♀, leg. Zarin; Buner: Nawagy, 23.xi.18, 1♀, leg. Zarin;

General Characteristics: This Moth also called dark bordered hawk Moth. This Moth belonged to the sub family Sphinginae under family Sphingidae. Body portions displayed brown color of abdomen, thorax and head. Color pattern of the wing is brownish. Male have ciliated antennae while female have filiform. Thorax and head are dirty black. A dark line on ventral abdomen with blackish grey color present to each side. The anterior part of the abdomen consists of a long black strip in the medium.

11. *Leucophlebia lineata*(Westwood, 1847) (Plate 2, 11)
Material examined: Buner: Kalail, 24.vii.19, 2♀, leg. Zarin; Buner: Gokand, 28.v.19, 2♀, leg. Zarin; Buner: Daggar, 15.vii.19, 2♀, leg. Zarin; Buner: Chagharzo, 20.xi.18, 2♀, leg. Zarin; Buner: Chinglai, 19.vii.19, 2♀, leg. Zarin; Buner: Malka, 30.vi.18, 2♀, leg. Zarin; Buner: Pir Baba, 3.viii.19, 1♂, leg. Zarin; Buner: Shaheede Sar, 11.viii.19, 1♀, leg. Zarin; Buner: Nawagy 21.vi.19, 1♀, leg. Zarin;

General Characteristics: Having brown color of Palpi. Ochreous like antennae. Borders of thorax, top of head and abdomen very light pink color. Forewings having cheerful pink color. From the base of cell to top contain a yellow streak. The internal median Consist of a short narrow yellow stripe. Veins 4, 3 and 2 are white in color by means of some dispersed and having a dusky brownish grey colorbeneath them. Hindwings having light brown to brownish orange color.

12. *Polyptychus dentatus* (Cramer, 1777) (Plate 2, 12)
Material examined: Buner:Gokand, 12.viii.19, 1♀, leg. Zarin; Buner: Nanser, 4. vii.19, 1♂, leg. Zarin; Buner: Ambela, 23.viii.19, 1♀, leg. Zarin; Buner: Kawga, 2.vii.19, 1♀, leg. Zarin; Buner: Kingergali, 27.vii.19, 2♀, leg. Zarin; Buner: Bar Kaly, 26.viii.19, 1♀, leg. Zarin; Buner: Budal, 13.vii.19, 2♀, leg. Zarin;

General Characteristics: This Moth is also called the straight-lined crenulated hawkmoth. The upper side of front wing ground color is grey brown, consist of transverse lines by way of blacker chocolate like color. The sub marginal, post median and antemedian streaks are well-built and nearly straightforward. The middle stripe having many curves and turns, and not conspicuous. There is a toughly notch stripe existing between the sub marginal and post median streaks.

13. *Theretra alecto* (Linnaeus, 1758) (Plate 2, 13)
Material examined: Buner: Gokand, 24.vii.19, 1♀, leg. Zarin; Buner: Nanser, 15.ix.18, 2♀, leg. Zarin; Buner: Daggar, 13.viii.19, 2♀, leg. Zarin; Buner: Chagharzo, 18.ix.18, 1♀, leg. Zarin; Buner: Chinglai, 7.viii.19, 1♀, leg. Zarin; Buner: Malka, 10.vii.19, 1♀, leg. Zarin; Buner: Kingergali, 28.vi.19, 1♀, leg. Zarin; Buner: Pir Baba, 22.ix.18, 2♀, leg. Zarin;

Buner: Khodokhail, 17.viii.19, 1♂, leg. Zarin; Buner: Bar Kaly, 11.vi.19, 2♀, leg. Zarin; Buner: Nawagy, 9.ix.18, 2♀, leg. Zarin;

General Characteristics: Abdomen, thorax and head are very light brown in color. The flanks of thorax and antennae are whitish in color. Front wing are very light brown in color and consist of a dark spot at termination of cell. six pale slanted streaks from nearby top to inside margin. Color of hind wing are pink and contain with enormous dark spot at base. Boundary of outside is black.

14. *Theretra oldenlandiae* (Fabricius, 1775) (Plate 2, 14)
Material examined: Buner: Kalail, 20.vii.19, 2♀, leg. Zarin; Buner: Gokand, 9.vi.19, 2♀, leg. Zarin; Buner: Daggar, 22.ix.18, 2♀, leg. Zarin; Buner: Ambela, 29.ix.18, 1♀, leg. Zarin; Buner: Malka, 12.viii.19, 2♀, leg. Zarin; Buner: Jowar, 21.viii.19, 1♀, leg. Zarin; Buner: Pir Baba, 4.viii.19, 2♀, leg. Zarin; Buner: Shaheede Sar, 27.ix.18, 1♀, leg. Zarin; Buner: Nawagy, 11.vii.19, 1♀, leg. Zarin; Buner: Budal, 18.ix.18, 1♀, leg. Zarin;

General Characteristics: This species is greyish-brown in color. The two dorsal streaks on the abdomen are shiny white. Forewing contain slanted lines. The sides of abdomen are moderate yellow-orange to orange color. The sub marginal band with Hind wing are moderate yellow-orange to orange in color as well as slender.

15. *Biston suppressaria* (Guenee, 1858) (Plate 2, 15)
Material examined: Buner: Kalail, 12.v.19, 1♀, leg. Zarin; Buner: Gokand, 27.vi.19, 2♀, leg. Zarin; Buner: Nanser, 3.viii.19, 1♀, leg. Zarin; Buner: Hisar, 11.v.19, 3♀, leg. Zarin; Buner: Amnawar, 8.vi.19, 2♀, leg. Zarin; Buner: Chinglai, 15.viii.19, 2♀, leg. Zarin; Buner: Malka, 7.vi.19, 3♀, leg. Zarin; Buner: Jowar, 25.vii.19, 1♀, leg. Zarin; Buner: Pir Baba, 19.v.19, 4♀, leg. Zarin; Buner: Khodokhail, 10.viii.19, 2♀, leg. Zarin; Buner: Bar Kaly, 20.vii.19, 2♀, leg. Zarin; Buner: Nawagy 14.vii.19, 1♂, leg. Zarin; Buner: Budal, 28.viii.19, 2♀, leg. Zarin;

General Characteristics: The antenna is highly well build. Fore head not as much of hairy. Hind tibia with the first pair of spurs medial. Wings with the outer boundaries are non-crenulated. Male antennae are comb like on both sides mean of bipectinate, with tiny rigid twigs. Head color is moderate yellow-orange to orange Body color is grey with black scatterings. Yellow bars present on thorax and abdomen. Yellow antemedial band present in forewings in the form of waved. There is an ill-defined post medial maculate band angled at vein 5 of both wings, with some outer margin of forewing. A borderline consist of yellow speck sequences.

16. *Declana atronivea* (Walker, 1865) (Plate 2, 16)
Material examined: Buner: Kalail, 4.v.19, 3♀, leg. Zarin; Buner: Gokand, 8.ix.18, 1♀, leg. Zarin; Buner: Hisar, 9.viii.19, 1♀, leg. Zarin; Buner: Daggar, 18.viii.19, 3♀, leg. Zarin; Buner: Chagharzo, 18.vi.19, 2♀, leg. Zarin; Buner: Chinglai, 23.vii.19, 1♂, leg. Zarin; Buner: Kawga, 16.viii.19, 2♀, leg. Zarin; Buner: Jowar, 12.vi.19, 2♀, leg. Zarin; Buner: Kingergali, 20.ix.18, 1♀, leg. Zarin; Buner: Shaheede Sar, 11.viii.19, 2♀, leg. Zarin; Buner: Budal, 9.ix.18, 3♀, leg. Zarin;
General Characteristics: Generally known as the North Island zebra moth or North Island lichen. Color of this moth species is white with black or dark brown patterns. This species of moth gives extra spots or patches of color. Having dark quadrilateral mark on the posterior of the thorax. This species of moth remarkable for unbalanced patterning in the all species of moth. This is only one species of Moth which have asymmetric pattern of wings.

17. *Dysgonia torrida* (Guenee, 1852) (Plate 2, 17)
Material examined: Buner: Kalail, 11.vi.19, 2♀, leg. Zarin; Buner: Gokand, 23.viii.19, 1♀, leg. Zarin; Buner: Nanser, 7.ix.18, 1♀, leg. Zarin; Buner: Hisar, 25.vii.19, 2♀, leg. Zarin; Buner: Daggar, 29.vii.19, 1♀, leg. Zarin; Buner: Amnawar, 9.ix.18, 1♂, leg. Zarin; Buner: Ambela, 4.viii.19, 1♀, leg. Zarin; Buner: Kawga, 28.vi.18, 2♀, leg. Zarin; Buner: Malka, 18.ix.18, 1♀, leg. Zarin; Buner: Pir Baba, 10.v.19, 1♀, leg. Zarin; Buner: Khodokhail, 15.v.19, 1♀, leg. Zarin; Buner: Shaheede Sar, 14.viii.19, 1♀, leg. Zarin; Buner: Bar Kaly, 6.viii.19, 2♀, leg. Zarin; Buner: Budal, 20.ix.18, 1♂, leg. Zarin;

General Characteristics: The color of this Moth are very much fickle. Body color is red brown. Antemedial stripe of the front wings being rigid and having wide-ranging, Have white and somewhat covered band away from it. Two patch are present on apical streak. Hind wings consist of a white medial band and exterior boundary greyish at midpoint.

18. *Polytela gloriosae* (Fabricius, 1781) (Plate 2, 18)
Material examined: Buner: Kalail, 12.vi.19, 3♀, leg. Zarin; Buner: Hisar, 29.vii.19, 1♀, leg. Zarin; Buner: Amnawar, 18.viii.19, 3♀, leg. Zarin; Buner: Chagharzo, 9.vii.19, 1♀, leg. Zarin; Buner: Chinglai, 28.vii.19, 1♀, leg. Zarin; Buner: Kawga, 30.vii.19, 1♀, leg. Zarin; Buner: Jowar, 14.viii.19, 1♂, leg. Zarin; Buner: Kingergali, 13.viii.19, 2♀, leg. Zarin; Buner: Khodokhail, 9.viii.19, 3♀, leg. Zarin; Buner: Bar Kaly, 25.viii.19, 1♀, leg. Zarin; Buner: Nawagy 10.viii.19, 2♀, leg. Zarin; Buner: Budal, 19.ix.19, 2♀, leg. Zarin;

General Characteristics: The proboscis of this species is totally well developed. Bushy kind of eyes. Palpi are crudely scaled and prolonging frontward. Thorax and Head are blue dark in color. Antennae orange. Metathorax consist of three dots which is orange in color. Color of abdomen is blackish and ending divisions of abdomen is orange in color. Blue black color of forewings. The base of wings comprises of an orange dot. Towards the inner margin outing of two pink and black lunules. Orbicular is yellow and consist of a ring mark. Reni form is yellowish in color. Huge orange marks are set up at the top on the outside direction. Having dusky brownish grey color of hindwings

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19. *Chasmina candida* (Walker, 1865) (Plate 3, 19)

Material examined: Buner: Kalail, 10.viii.19, 1♀, leg. Zarin; Buner: Gokand, 18.viii.19, 2♀, leg. Zarin; Buner: Nanser, 13.17.18, 1♀, leg. Zarin; Buner: Hisar, 8.vii.19, 3♀, leg. Zarin; Buner: Daggar, 20.vii.19, 2♀, leg. Zarin; Buner: Amnawar, 16.ix.18, 1♀, leg. Zarin; Buner: Ambela, 29.viii.19, 2♀, leg. Zarin; Buner: Chinglai, 4.viii.19, 1♀, leg. Zarin; Buner: Kawga, 12.viii.19, 2♀, leg. Zarin; Buner: Malka, 15.viii.19, 1♀, leg. Zarin; Buner: Kingergali, 10.vii.19, 1♀, leg. Zarin; Buner: Pir Baba, 17.vii.19 3♀, leg. Zarin; Buner: Khodokhail, 19.vii.19, 1♀, leg. Zarin; Nawagy 24.ix.18, 1♂, leg. Zarin;

General Characteristics: Male forewings are square shaped, wherever the costa slightly cut out. Color of male species is clean white. Antennae and Palpi are moderate yellow-orange to orange color. Tarsi and fore tibia contain orange plus black spotted. Mid tibia has orange color.

20. *Anua tirhaca* (Cramer, 1777) Plate 3, 20)

Material examined: Buner: Gokand, 17.ix.18, 1♀, leg. Zarin; Buner: Nanser, 12. viii.19, 2♀, leg. Zarin; Buner: Hisar, 7.viii.19, 1♀, leg. Zarin; Buner: Daggar, 20.ix.18, 1♀, leg. Zarin; Buner: Amnawar, 24.ix.18, 2♀, leg. Zarin; Buner: Chagharzo, 27.ix.18, 1♂, leg. Zarin; Buner: Ambela, 26.viii.19, 1♀, leg. Zarin; Buner: Malka, 21.viii.19, 1♀, leg. Zarin; Buner: Jowar, 22.viii.19, 1♀, leg. Zarin; Buner: Kingergali 21.ix.18, 3♂, leg. Zarin; Buner: Shaheede Sar, 10.viii.19, 1♀, leg. Zarin; Buner: Budal, 15.viii.19, 2♀, leg. Zarin;

General Characteristics: The head and thorax are very light colored and darkly brownish. Color of abdomen is orange. Forewings are splash with black specks. Hindwings orange with wide medial having a dusky brownish grey color of black band.

21. *Aegocera venulia* (Cramer, 1777) Plate 3, 21)

Material examined: Buner: Kalail, 14.ix.18, 2♀, leg. Zarin; Buner: Gokand, 116.ix.18, 1♀, leg. Zarin; Buner: Hisar, 17.ix.18, 2♀, leg. Zarin; Buner: Daggar, 18.ix.18, 1♀, leg. Zarin; Buner: Ambela, 26.viii.19, 1♀, leg. Zarin; Buner: Kawga, 27.viii.19, 3♀, leg. Zarin; Buner: Jowar, 13.viii.19, 6♀, leg. Zarin; Buner: Kingergali, 18.viii.19, 1♀, leg. Zarin; Buner: Khodokhail, 20.viii.19, 2♀, leg. Zarin; Bar Kaly, 22.viii.19, 1♂, leg. Zarin; Buner: Nawagy 16.ix.18, 1♀, leg. Zarin;

General Characteristics: Abdomen is yellow with black segments. Front wings consist fully of white band with running lengthwise. A small dark spots existing nearby its subordinate border. A carmine borderline is also found. Cilia of both wings white. The border of hindwings is darkly brown with pale line of its end. The remaining of hindwings is brightly pale. Male front wings deprived of costal vesicles.

22. *Anua coronata* (Fabricius, 1776) (Plate 3, 22)

Material examined: Buner: Kalail, 14.viii.19, 1♀, leg. Zarin; Buner: Gokand, 14.viii.19, 1♀, leg. Zarin; Buner: Nanser, 16. viii.19, 1♀, leg. Zarin; Buner: Hisar, 18.viii.19, 3♀, leg. Zarin; Buner: Amnawar, 20.viii.19, 1♀, leg. Zarin; Buner: Ambila, 22.viii.19, 3♀, leg. Zarin; Buner: Chinglai, 26.ix.18, 1♀, leg. Zarin; Buner: Kawga, 17.ix.18, 1♀, leg. Zarin; Buner: Jowar, 18.ix.18, 3♀, leg. Zarin; Buner: Pir Baba, 12.x.18, 1♀, leg. Zarin Buner: Bar Kaly, 25.ix.18, 1♀, leg. Zarin; Buner: Budal, 19.ix.19, 2♀, leg. Zarin;

General Characteristics: Color of thorax and head of this Moth species are very light colored with crimson brownness. Abdomen have orangeness with dark segments. Front wings are speckled by dark dots. A small sub basal black streak is existing. There is an externally slanted somewhat covered antemedial stripe and slightly intermediate between the extremes of white and black sphericorbicular are present. Colored of back wings is orange with wide medial and sub-marginal having a dusky brownish grey dark bands. Costal and exterior regions of both wings are black freckled and with a small reddish Pervasion.

23. *Bradina diagonalis* (Guenee, 1852) (Plate 3, 23)

Material examined: Buner: Kalail, 13.vii.19, 3♀, leg. Zarin; Buner: Gokand, 14.vii.19, 1♀, leg. Zarin; Buner: Hisar, 3.vii.19, 1♀, leg. Zarin; Buner: Daggar, 9.vii.19, 1♀, leg. Zarin; Buner: Amnawar, 20.vii.20, 1♂, leg. Zarin; Buner: Ambela, 22.viii.19, 1♂, leg. Zarin; Buner: Kawga, 27.viii.19, 2♀, leg. Zarin; Buner: Jowar, 15.viii.19, 1♀, leg. Zarin; Buner: Kingergali, 26.viii.19, 2♀, leg. Zarin; Buner: Khodokhail, 17.vii.19, 1♀, leg. Zarin; Buner: Shaheede Sar, 8.ix.18, 1♀, leg. Zarin; Buner: Bar Kaly, 10.ix.18, 1♀, leg. Zarin; Buner: Nawagy 22.ix.18, 2♀, leg. Zarin; Buner: Budal, 28.vii.19, 1♀, leg. Zarin;

General Characteristics: Palpi are roughly scaled and prolonging frontward. The proboscis of this species is totally well developed. Head are blackish in color. The outer portion of wings are also blackish in color, while inner portion of wings are pinkish white in color. The midpoint of wings consists of a line.

24. *Archernis capitalis* (Fabricius, 1794) (Plate 3, 24)
Material examined: Buner: Kalail, 4.ix.18, 1♀, leg. Zarin; Buner: Gokand, 6.ix.18, 1♀, leg. Zarin; Buner: Nanser, 8.ix.18, 3♀, leg. Zarin; Buner: Hisar, 10.ix.19, 2♀, leg. Zarin; Buner: Daggar, 14.ix.18, 1♀, leg. Zarin; Buner: Amnawar, 19.ix.18, 1♀, leg. Zarin; Buner: Buner: Chagharzo, 21.ix.18, 1♀, leg. Zarin; Ambela, 25.ix.18, 1♀, leg. Zarin; Buner: Kawga, 28.ix.18, 2♀, leg. Zarin; Buner: Malka, 20.viii.19, 1♂, leg. Zarin; Buner: Kingergali, 15.viii.19, 2♀, leg. Zarin Buner: Shaheede Sar, 18.viii.19, 2♀, leg. Zarin; Nawagy 21.viii.19, 2♀, leg. Zarin;

General Characteristics: This Moth has well developed proboscis. Forewings consist of two white spots, while hindwings consist of small marking as compared to forewings. Color of whole moth is lighter brownish. Their legs are lengthy and pale brownish in color. Exterior portion of hindwings contain with cherry white band.

25. *Dinara combusta* (Walker, 1855) (Plate 3, 25)
Material examined: Buner: Kalail, 6.vii.19, 1♀, leg. Zarin; Buner: Gokand, 8.vii.19, 3♀, leg. Zarin; Buner: Nanser, 13.vii.19, 1♀, leg. Zarin; Buner: Hisar, 15.vii.19, 1♀, leg. Zarin; Buner: Amnawar, 18.vii.19, 1♀, leg. Zarin; Buner: Chagharzo, 20.viii.19,1♀, leg. Zarin; Buner: Chinglai, 25.vii.19, 1♀, leg. Zarin; Buner: Kawga, 15.viii.19, 2♀, leg. Zarin; Buner: Jowar, 17.viii.19, 2♀, leg. Zarin; Buner: Kingergali, 23.viii.19, 1♂, leg. Zarin; Buner: Pir Baba, 27.viii.19, 1♀, leg. Zarin; Buner: Shaheede Sar, 3.ix.18, 2♀, leg. Zarin; Buner: Bar Kaly, 4.ix.18, 1♀, leg. Zarin; Buner: Budal, 26.viii.19, 3♀, leg. Zarin;

General Characteristics: Antennae and head region are light yellow and hairy. Thorax is somewhat black. Forewings has mix color. Some portion is slightly yellow while some portion is black. Hindwings are totally light yellow. The outer side of both wings comprise of black marking. Abdomen is crimson yellow. Back portion of abdomen is light yellow. Both sides of abdomen comprise of black marking.

26. *Phalera raya* (Moore, 1849) (Plate 3, 26)
Material examined: Buner: Kalail, 11.vi.19, 1♀, leg. Zarin; Buner: Gokand, 20.vi.19, 2♀, leg. Zarin; Buner: Hisar, 23.vi.19, 3♀, leg. Zarin; Buner: Daggar, 26.vii.19, 1♂, leg. Zarin; Buner: Amnawar, 24.vii.18, 2♀, leg. Zarin; Buner: Chagharzo, 27.vi.19, 2♀, leg. Zarin; Buner: Ambela, 28.viii.19, 2♀, leg. Zarin; Buner: Jowar, 15.vii.19, 3♀, leg. Zarin; Buner: Kingergali, 19.ix.18, 1♀, leg. Zarin; Buner: Pir Baba, 18.vii.19, 1♀, leg. Zarin; Buner: Khodokhail, 20.viii.18, 2♀, leg. Zarin; Buner: Shaheede Sar, 20.viii.19, 1♀, leg. Zarin; Buner: Bar Kaly, 16.vii.19, 2♀, leg. Zarin; Buner: Nawagy 13.vii.19, 1♀, leg. Zarin;

General Characteristics: Most the color of this moth is greyish brown. Antennae and head are light yellow. There are two white spots present in forewings. Hindwings has pale white in color. Forewings consist of transverse lines. The outer margin of forewings is pale yellow in color. Abdomen and thorax are hairy. Abdomen is also brownish yellow.

27. *Euthrix potatoria* (Linnaeus, 1758) (Plate 3, 27)
Material examined: Buner: Kalail, 16.vi.19, 1♀, leg. Zarin; Buner: Nanser, 18.vi.19, 1♀, leg. Zarin; Buner: Hisar, 19.vi.19, 2♀, leg. Zarin; Buner: Chagharzo, 2.vii.19, 1♀, leg. Zarin; Buner: Ambela, 5.vii.19, 2♀, leg. Zarin; Buner: Chinglai, 7.vii.19, 1♀, leg. Zarin; Buner: Kawga, 12.viii.19, 1♀, leg. Zarin; Buner: Malka, 10.vii.19, 1♀, leg. Zarin; Buner: Pir Baba, 18.vii.19, 2♀, leg. Zarin; Buner: Shaheede Sar, 12.viii.19, 1♀, leg. Zarin; Buner: Bar Kaly, 24.vi.19, 1♀, leg. Zarin; Buner: Budal, 17.vii.19, 1♀, leg. Zarin;

General Characteristics: Color of this Moth is completely orangeness. The outer margin of hindwings is somewhat white. Palpi are roughly scaled and prolonging frontward. The proboscis of this species is totally well developed.

28. *Ocinara varians* (Walker, 1855) (Plate 3, 28)
Material examined: Buner: Gokand, 11.x.18, 1♀, leg. Zarin; Buner: Hisar, 15.ix.18, 2♀, leg. Zarin; Buner: Amnawar, 16.ix.18, 1♀, leg. Zarin; Buner: Chagharzo, 20.ix.19, 1♀, leg. Zarin; Buner: Kawga, 13.x.18, 1♀, leg. Zarin; Buner: Jowar, 18.ix.19, 1♂, leg. Zarin; Buner: Khodokhail, 28.ix.19, 1♀, leg. Zarin; Buner: Bar Kaly, 4.x.18, 1♀, leg. Zarin; Buner: Budal, 4.ix.19, 2♀, leg. Zarin;

General Characteristics: Males abdomen, thorax and head are very light in color or black crimson earthy color. Color of hindwings are also turning pale or black scarlet woody. Forewings consist of two antemedial bent flapped streaks. The wingspans 25–27 mm. Antennae are feathery like and head region is rounded in hairy form.

DISCUSSION
The current preliminary survey about the checklist of Moth (Lepidopteran) fauna was conducted in District Buner Khyber Pakhtunkhwa, Pakistan. The study area was highly neglected up till now. In present preliminary checklist a total of 563

specimens of Moth were collected. During entomological survey an annotated checklist of 28 species belonging to 25 genera under 8 families. i.e. Family Erebidae, Family Sphingidae, Family Geometridae, Family Noctuidae, family Crambidae, Family Notodontidae, Family Lasiocampidae and Family Bombycidae were recorded[3]. Documented the Lepidoptera species in Lithuania Iceland, Estonia, Finland, Norway, LatviaSweden and Denmark are check listed. The account of Lepidopteraspecies in the Nordic-Baltic region and in each state is delineated. The check list shelterstotally species of Lepidoptera reported in the eight treated countries. A total of 3, 259 species were recorded. The amount of species noted in each country is Lithuania 2, 423, Latvia 2, 556, Norway 2, 286, Denmark 2, 583, Iceland 96, Finland 2, 588, Estonia 2, 454and Sweden 2, 804.Overall description of species was given.

Our Moth (Lepidoptera) checklist was documented from 2018-2019 in District Buner, KP Pakistan. Study revealed that a total of 28 species belonging to 25 genera and families were recorded for the first time in district Buner. Description of the species and statistical analysis is given. Study donates in the eastern Turkey about to the biodiversity. The research paper deals a diversified checklist of 208 (Heterocera) Moth species belonging to 15 Moth families, Cossidae, Drepanidae, Notodontidae, Noctuidae, Lasiocampidae, Pyralidae, Ctenuchidae, Sphingidae, Thyatiridae Zygaenidae, Thaumetopoeidae Lemoniidae, Arctiidae, Lymantriidae and Psychidae as of Elazig Province of district Maden. Surrounded by these species of Moths, 150 species of Moth were documented for the first time in Elazig Province[25].

Our survey is recorded from Buner district in the period of 2018-2019. Study measured that 28 species of Moths belonging to 8 families, Family Erebidae, Family Sphingidae, Family Geometridae, Family Noctuidae, Family Crambidae, Family Notodontidae, Family Lasiocampidae and Family Bombycidae are reported for the first time in Buner district.
An annotated checklist of the Moth (Lepidoptera) of British Isles were recently reported. A total of 2547 species were currently reported. Among them 57 species have no longer in existence. Furthermore 184 species are adventive species[26]. In a similar way currently the checklist of Moth Lepidoptera of District Buner, KP, Pakistan was studied. A total of 563 specimens of Moth were collected, which consist of 28 species with 25 genera of 8 families.

More recently discussed the Moth (Lepidoptera) biodiversity of Nenets Autonomous Okrug (NAO) which are situated in the northeastern part of European Russia. The earliest local checklist of Moths and Butterflies of the continental portion of Nenets Autonomous Okrugcomprises 324 species (155 species of macrolepidoptera and 169 species of Microlepidoptera). Among them 178 recorded for the first time in Nenets Autonomous Okrug. Approximation of 40 to 180 species persist in the research area[27].

Our initial regional checklist of Moth (Lepidoptera) of District Buner, KP, Pakistan which comprise of 28 species belonging to 25 genera and 8 families were identified. Moreover, this checklist of Moth fauna ware reported for the first time in District Buner. We estimate that 30-80 species preserve to be found in this region. Up to the end of year 2018 Moths (Lepidoptera, excluding Papilionoidea) are listed for the first time. Species well-known to be found at minimum early in Watsonian vice-county 21 (Middlesex). The region surveyed comprises the Greater London region. Totally 1,526 species are expressed, of which demonstrating 65% of the British Moth biodiversity. For each taxon, the amount of accounts in the catalogue is assumed and the first and last year in which each species was documented is distinguished. Almost all documented species are under recorded in terms of their scattering in the county, whereas the checklist is considered such as a near complete summary of the current condition, however further species are probable to be added over the next few years[28].

Our preliminary survey about checklist of Moth (Lepidoptera) was conducted in the period of 2018-2019 for the first time in District Buner. A total of 28 species were listed. The species was also represented in statistical form, which include the family wise distribution of Moth genera and species.

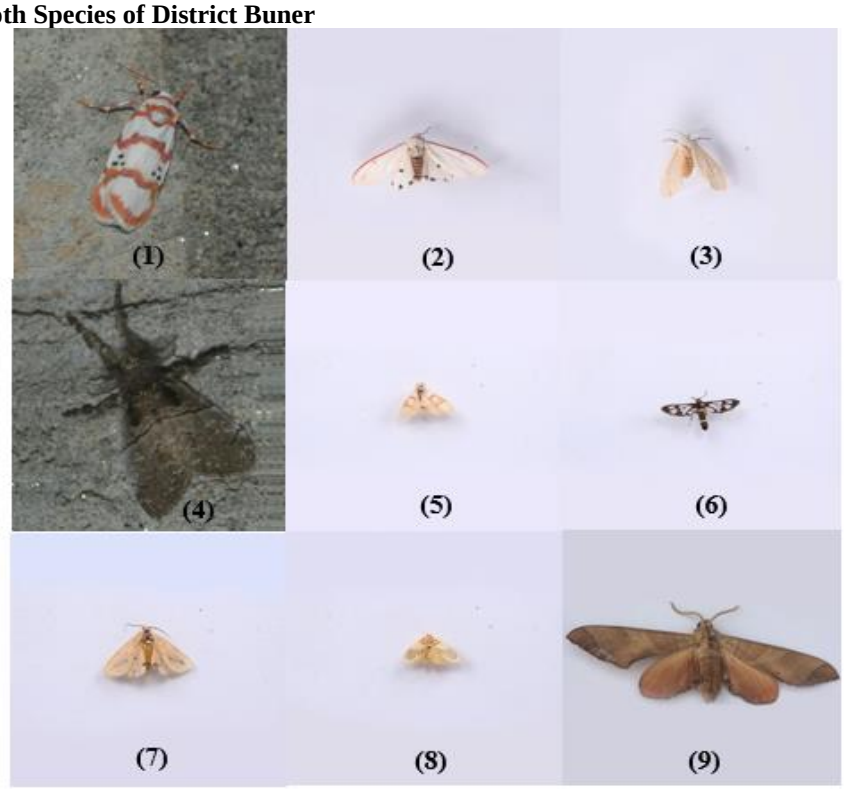
CONCLUSION

It was concluded from the current study of Checklist of Moth (Lepidopteran) fauna of District Buner KP, Pakistan that a total of 28 species belonging to 25 genera and 8 families were listed. However, this checklist is by no means inclusive, it objectives is to accommodate a comprehension of checklist of the Moth biodiversity of District Buner and the adjacent regions, and turn as a classical for further sketch and inclusive studies of the Moths of this area. The Conservation flora of this area's will help for reservoir of Moth and other insects.

CONFLICTS OF INTEREST

The authors declare that there are no conflicts of interest.

Color Plates of Moth Species of District Buner



ate 1: (1) *Cyana hemata* (Walker, 1854) (2) *Aloa lactinea* (Cramer, 1777) (3) *Creatonotos transiens* (Walker, 1855) (4) *Olene mendosa* (Hubner, 1823)
(5) *Chionaema puella* (Drury, 1773) (6) *Syntomoides imaon* (Cramer, 1779) (7) *Spilosoma obliqua* (Walker, 1855) (8) *Stigmatophora palmata* (Moore, 1878) (9) *Marumba sperchius* (Menetries, 1857)

Color Plates of Moth Species of District Buner

Plate 2: (10) Psilogramma increta (Walker, 1865) (11) Leucophlebia lineata (Westwood, 1847) (12) Polyptychus dentatus (Cramer, 1777) (13) Theretra alecto (Linnaeus, 1758) (14) Theretra oldenlandiae (Fabricius, 1775) (15) Biston suppressaria (Guenee, 1852) (16) Declana atronivea (Walker, 1865) (17) Dysgonia torrida (Guenee, 1852) (18) Polytela gloriosae (Fabricius, 1781)

Color Plates of Moth Species of District Buner

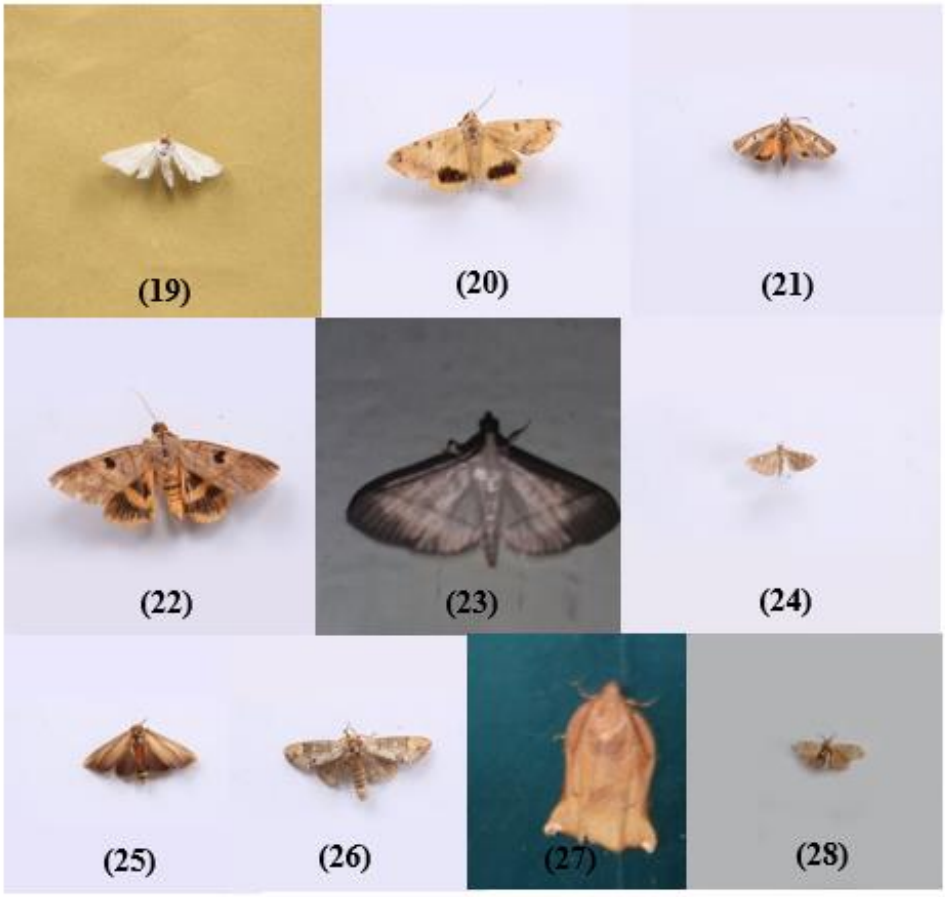


Plate 3:(19) *Chasmina candida* (Walker, 1865) (20) *Anua tirhaca* (Cramer, 1777) (21) *Aegocera venulia* (Cramer, 1777) (22) *Anua coronata* (Fabricius, 1976) (23) *Bradina diagonalis* (Guenee, 1852) (24) *Archernis capitalis* (Fabricius, 1794) (25) *Dinara combusta* (Walker, 1855) (26) *Phalera raya* (Moore, 1849) (27) *Euthrix potatoria* (Linnaeus, 1758) (28) *Ocinara varians* (Walker, 1855

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