



ISSN
Online 0974–7907
Print 0974–7893

OPEN ACCESS

A PRELIMINARY CHECKLIST OF BUTTERFLIES (LEPIDOPTERA: RHOPHALOCERA) OF MENDRELGANG, TSIRANG DISTRICT, BHUTAN

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Abstract: The survey was conducted to prepare a preliminary checklist of butterflies of Mendrelgang, Bhutan. Butterflies were sampled from February 2012 to February 2013 to assess the species richness in a degraded forest patch of a sub-tropical broadleaf forest. This short-term study recorded 125 species of butterflies in 78 genera from five families. Of these, Sordid Emperor *Apatura sordida* Moore, Black-veined Sergeant *Athyma ranga ranga* Moore, Sullied Sailor *Neptis soma soma* Linnaeus, Blue Duke *Euthalia durga durga* Moore, Pea Blue *Lampides boeticus* Linnaeus and Chocolate Albatross *Appias lynxida* Cramer are listed in Schedule II of the Indian Wildlife (Protection) Act (IWPA) 1972. This study provides the baseline data of butterfly species richness of Mendrelgang.

Keywords: Bhutan, butterfly, Schedule II, species richness, subtropical broadleaf forest, Wildlife (Protection) Act 1972.

Bhutan forms a part of the eastern Himalaya Biodiversity Hotspot which covers parts of Nepal, Bhutan, the northeastern Indian states of West Bengal, Sikkim, Assam, and Arunachal Pradesh, southeastern Tibet (Autonomous Region of China), and northern Myanmar (http://www.conservation.org/where/priority_areas/hotspots/asia-pacific/Himalaya/Pages/default.aspx). Bhutan, along with northeastern India, is the meeting place of the central Asia, and Chinese subdivision of the palearctic region and hence considered very rich in terms of lepidopteran diversity. The country has a

variety of forest types, from tropical evergreen forests to alpine meadows, which provide a vast range of habitat niches for butterflies (Wangdi et al. 2012). Evans (1932) identified 962 taxa of butterflies from northeastern India from Sikkim, Assam, Manipur, Meghalaya, Nagaland, Mizoram to northern Myanmar. Wynter-Blyth (1957) listed 835 species of butterflies from northeastern India including Sikkim, Bhutan and Assam up to Chittangong. However, there is paucity of information on butterflies of Bhutan. One estimate puts the range between 800–900 species with the largest number being found in the sub-tropical zone of Bhutan (van der Poel & Wangchuk 2007). Previous studies on the butterfly fauna of Bhutan (e.g., Bingham 1905; Talbot 1939, 1947; Wynter-Blyth 1957) are not comprehensive. More recent studies by van der Poel & Wangchuk (2007), Singh (2012), Wangdi et al. (2012), Wangdi & Sherub (2012), have indicated the diversity and uniqueness of butterflies found in Bhutan. However, there are no records of butterflies from Mendrelgang in Tsirang District. The nearest records comprise the study carried out by Singh (2012) in the lowland forests of the Sankosh River catchment lying below 200m in the western-most corner of this district. The present study therefore provides baseline

DOI: <http://dx.doi.org/10.11609/JoTT.o3632.5755-68> | **ZooBank:** urn:lsid:zoobank.org:pub:CEB70FB0-3B4E-40AD-AE2E-DC5C6CC9A70C

Editor: Arthur Chung, Forest Research Centre, Sabah, Malaysia.

Date of publication: 26 May 2014 (online & print)

Manuscript details: Ms # o3632 | Received 22 May 2013 | Final received 12 April 2014 | Finally accepted 19 April 2014

Citation: Singh, I.J. & M. Chib (2014). A preliminary checklist of butterflies (Lepidoptera: Rhopalocera) of Mendrelgang, Tsirang District, Bhutan. *Journal of Threatened Taxa* 6(5): 5755–5768; <http://dx.doi.org/10.11609/JoTT.o3632.5755-68>

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Funding: Self funded.

Competing Interest: The authors declare no competing interests.

Acknowledgements: The authors are highly thankful to Mr. Dorji Wangchuk, Ex-Principal, Mendrelgang Middle Secondary School for giving us permission to conduct the study. Sincere thanks to Mr. Peter Smetacek, Butterfly Research Centre, Bhimtal (India), Mr. Monsoon Jyoti Gogoi, Assam University, Silchar (India) and Mr. Saito Motoki, The Butterfly Society of Japan, Tokyo (Japan) for providing help during the identification of the specimens and their valuable suggestions. Thanks to Mr. Sonam Dorji, Mountainhawk Adventures (Thimphu, Bhutan) for providing photographs and Mr. Shikhin B. Kolhe, Ahmednagar College, Ahmednagar (Maharashtra, India) for corrections and suggestions during the preparation of manuscript.



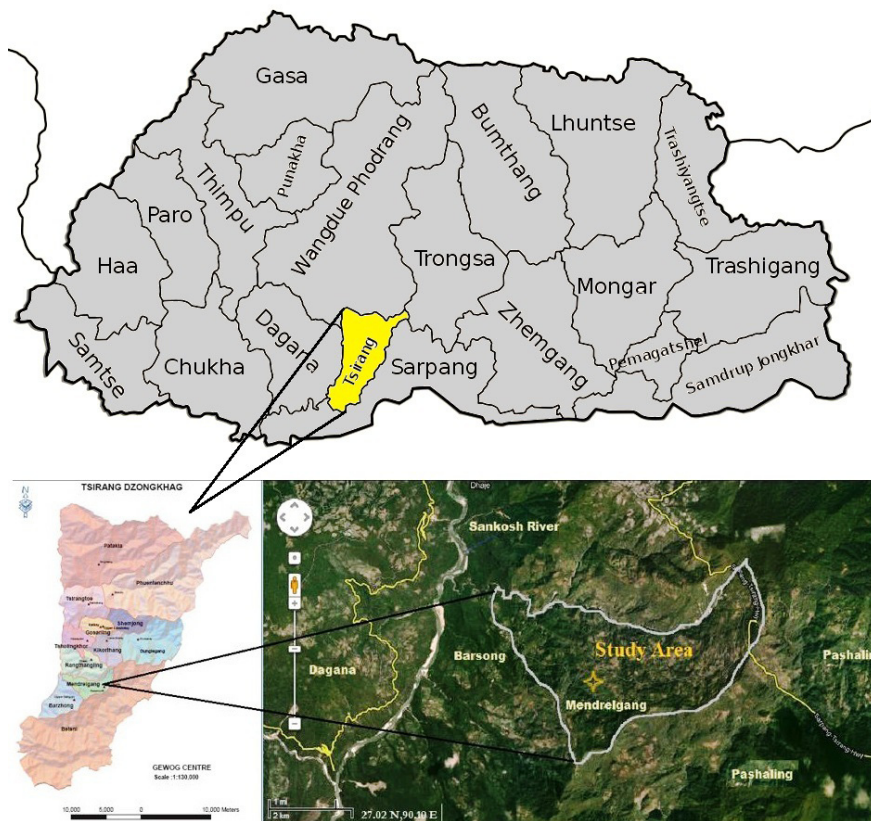


Image 1. Study area - Mendrelgang division, Bhutan

data of the butterfly fauna of a part of Tsirang District.

Study Area

Mendrelgang is a division of Tsirang District, Bhutan situated at 27°02'N & 90°10'E (Image 1) between 700–1750 m elevation, covering an area of about 15km². The region has a temperate climate with the temperature ranging between 20°C and 35°C. The cold season extends from October to March, followed by summer season from April to June and rainy season from June to September (NSB 2010). The forest type found in this region is subtropical broad-leaf forest in the lower valley and mixed Chir Pine (*Pinus roxburghii*, Sarg.) forest at higher altitude (Image 2).

Material and Methods

Butterfly fauna of Mendrelgang was surveyed during February 2012 to February 2013. The survey was done every Sunday between 10.00–16.00 hr on the forest trails, hill streams, near residential areas and open fields. The butterflies were photographed in their natural habitat. The specimens which were difficult to identify in the field were collected as voucher specimens using a hand net. Identifications were carried out with the help of Evans (1932), Talbot (1947), photographic guides of

Smith (2006), van der Poel & Wangchuk (2007), Kehimkar (2008) and internet references (www.flutters.org; www.ifoundbutterflies.org). Photographs of species that were still left unidentified or were taxonomically challenging were sent to Peter Smetacek, Butterfly Research Centre, Bhimtal (India), Mr. Saito Motoki, The Butterfly Society of Japan (BSJ), Tokyo (Japan) and Mr. Monsoon Jyoti Gogoi, Assam University, Silchar (India) for confirmation.



Image 2. Photograph showing degraded forest habitat along with agricultural land in study area, Mendrelgang.

Results and Discussion

April to November was found to be best months for recording butterflies in Mendrelgang. Altogether, a total of 125 species of butterflies were recorded (Images 3–127). The recorded species belong to 78 genera representing five families and are illustrated in Appendix 1. The present study further appends 45 species of butterflies to the known list of butterflies reported by van der Poel & Wangchuk (2007), Singh (2012), and Wangdi et al. (2012, 2013). The most significant results were the sightings of *Apatura sordida* Moore, *Athyma ranga ranga* Moore, *Neptis soma soma* Linnaeus, *Euthalia durga durga* Moore, *Lampides boeticus* Linnaeus and *Appias lyncida* Cramer which were included in Schedule II of the Indian Wildlife (Protection) Act (IWPA) 1972 but none of the species are mentioned in the Forest Nature and Conservation Act of Bhutan 1995 or the IUCN Red List of Threatened Species (IUCN 2010). The sightings of rare species like Siren *Hestina persimilis* Westwood, Spotted Palmfly *Elymnias malelas malelas* Hewitson, Straight-Banded Treebrown *Lethe verma sintica* Fruhstorfer, Blackvein Sergeant *Athyma ranga ranga* Moore, Blue Duke *Euthalia durga durga* Moore, Scarce White Commodore *Sumalia zulema* Doubleday, etc. shows the importance and the urgent need to protect the habitat of these species of butterflies in subtropical broadleaf forest of Mendrelgang. Further notes on selected species are appended below.

Spotted Palmfly *Elymnias malelas malelas* Hewitson (Image 14): Three individuals were encountered in an orange orchard in different months (03.iv.2012, 08.viii.2012, 12.x.2012) at 1179m. This species has been commonly sighted in the neighboring states of northeastern India at Dibang Valley (Arunachal Pradesh) (Gogoi 2012), Namdapha (Arunachal Pradesh), Siju WS south Garo Hills (Meghalaya), Nagaland and Mizoram (<http://www.ifoundbutterflies.org/425-elymnias/elymnias-malelas>) but no reports from other parts of Bhutan. The subspecies *E. malelas malelas* is distributed from Sikkim to Burma (Dawna Range) and is not rare as per Talbot (1947).

Banded Treebrown *Lethe confusa confusa* Aurivillius (Image 15): Many individuals were encountered from March to October in degraded forest of Mendrelgang (1,100m). They mainly prefer the shaded areas under the forest. The species is reported from other locations of Bhutan and is common (Singh 2012; van der Poel & Wangchuk 2007). The habitat of the species was from Murree to Sikkim, Assam and Burma and was common (Talbot 1947).

Straight-Banded Treebrown *Lethe verma sintica*

Fruhstorfer (Image 19): Many species were encountered in the orange orchards and forest clearings from April to October in the study area. The species was very common in Bhutan and also reported from other parts of Bhutan (Singh 2012; van der Poel & Wangchuk 2007). The habitat of the species is from Sikkim to Assam and northern Burma (Talbot 1947). The species is also recorded from Nepal at 2,133.6m and is rare as per Gough (1935).

Lilacine Bushbrown *Mycalesis francisca sanatana* Moore (Image 22): Many individuals were encountered in October and November 2012 under the orange trees and forest undergrowth. They show weak flight pattern and are seen sipping exudes from the bark of orange trees. The species occurs from Kulu-Burma and were not rare (Evans 1927; Talbot 1947). However, the species is distributed through Himachal Pradesh to Arunachal Pradesh, northeastern India, Nepal, Bhutan, Bangladesh, Burma (Myanmar) and is not rare (Kehimkar 2008).

Jungle Brown *Orsotriaena medus medus* Fabricius (Image 24): One individual was photographed in December 2012 near a forest stream at Mendrelgang (1,179m). They remain in the shade and fly close to the ground. This species has been reported from subtropical lowland forests of Bhutan along the Sankosh River (118–220 m) (Singh 2012). The subspecies is distributed from Nepal and Sikkim to Burma and Andaman Islands and was common as per Talbot (1947).

Blackvein Sergeant *Athyma ranga ranga* Moore (Image 36): One male was encountered near a forest stream in August (8.viii.2012) and one female was encountered in December (16.xii.2012). The species was also encountered by Singh (2012) in the lowland forest of Bhutan along Sankosh River. The species is rare and distributed from Sikkim to Burma (Evans 1927). The species is protected under Schedule II of IWPA, 1972 in India. The status of this species is unknown in Bhutan.

Blue Duke *Euthalia durga durga* Moore (Image 37): Many individuals were encountered from July to October in the study area. Often seen feeding on bird droppings and rotten fruits. They fly above the canopy and sit on the upper surface of the leaves with open wing. It was also reported from Eastern Bhutan (van der Poel & Wangchuk 2007). The subspecies was distributed through Sikkim-Abors and was rare as per Evans (1927). The species is protected under Schedule II of IWPA, 1972 in India. The status of this species is unknown in Bhutan.

Extra Lascar *Pantoporia sandaka davidsoni* Eliot (Image 43): One individual was encountered during April (03.iv.2012), sitting on the leaf of Black Cardamom (*Amomum subulatum* Roxb.) near a small forest stream.

This species has been reported from Jeypore-Dehing Forest, Eastern Assam (Gogoi 2013) and Khasi hills, Meghalaya (<http://www.flutters.org/home/photogallery/?level=picture&id=1109>).

Scarce White Commodore *Sumalia zulema* Doubleday (Image 44): One individual was encountered in August (19.viii.2012) of around 1,179m near a water tap. The species has been photographed and sighted recently from East Sikkim District and Namdapha (Arunachal Pradesh) (<http://www.ifoundbutterflies.org/sp/1091/Sumalia-zulema>). The species was distributed through Sikkim-N. Burma and was very rare as per Evans (1927). The status of this species is unknown in Bhutan.

Indian Purple Emperor *Apatura ambica ambica* Kollar (Image 48): One female and one male were encountered in July (17.vii.2012) at noon chasing each other on the black topped road. Another female was also spotted in the same month (29.vii.2012) basking on rocks. This species has been reported from sub-tropical lowland forests of Bhutan along the Sankosh River (118–220 m) (Singh 2012) and eastern Bhutan (van der Poel & Wangchuk 2007). It is a fast flier and often settles on damp rocks with open wing. The subspecies occurred in Kashmir-Dawnas and was not rare (Evans 1927).

Sordid Emperor *Apatura sordida* Moore (Image 49): This species is commonly seen in the month of October (14.x.2012, 20.x.2012, 29.x.2012). Several individuals were seen sipping on exudes of orange tree along with other butterflies like *H. marathus* and *M. francisca sanatana*. It was found to be locally common (1,179m) near the orange orchards. The species is on the wing from April to November and flies at low elevation around 2,000m (Naga Hills) (Kehimkar 2008). The species is reported from Manipur throughout the summer and autumn. A single specimen was also collected on Silchar road in October and was extremely local (Tytler 1915). The species is protected under Schedule II of IWPA, 1972 in India but the status of this species is unknown in Bhutan.

Pasha Heron *marathus marathus* Doubleday (Image 50): Many individuals were seen commonly from July–October, sipping on exudes of orange tree along with other butterflies like *A. sordida* and *M. francisca sanatana*. The subspecies was not rare and distributed from Sikkim-Shan States (Evans 1927).

Siren *Hestina persimilis* Westwood (Image 52): One female was encountered feeding on flower of *Callistemon* species (Bottle Brush plant) at Mendrelgang middle secondary school campus (1179m) in October (17.x.2012). The species is distributed through India (Himachal Pradesh to Arunachal Pradesh, northeast,

Orissa), Nepal and Bhutan (Kehimkar 2008). Recently, it has been reported from Jones Estate (Uttarakhand) where it is quite common (Smetacek 2012), rare in the study area. The species is protected under Schedule II of IWPA, 1972 in India but the status of this species is unknown in Bhutan.

Red Helen *Papilio helenus helenus* Linnaeus (Image 72): Many individuals were encountered nectaring on flowers of *Asclepias curassavica* (Scarlet Milkweed) in October. The species was common up to 2100m and distributed from Mussoorie to Burma, extending also to Siam and the Malay Peninsula (Talbot 1939).

Common Birdwing *Troides helena cerberus* Felder & Felder (Image 76): One female was encountered feeding on the nectar of *Callistemon* species (Bottle Brush plant) at Mendrelgang middle secondary school campus (1,179m) in September (23.ix.2012). The species was common up to 914.3m from spring until autumn and was distributed from Sikkim to Orissa and Burma (Talbot 1939). It also occurs in Tong-king, the Malay Peninsula, the Natuna Islands and Borneo.

Green Oakblue *Arhopala eumolphus eumolphus* Cramer (Image 95): One female was encountered in Mendrelgang during the field study near a forest stream (9.xii.2012). It is rare and probably first report of this species from Bhutan. The species was reported from Sikkim, Nepal, Assam and not rare as per Evans (1932).

Jynte Hedge Blue *Celastrina argiolus jynteana* de Niceville (Image 106): One individual was encountered once on an abandoned rice field near forest in March (10.iii.2012). The subspecies was distributed from Sikkim-Burma and was common (Evans 1927).

Water Snow Flat *Tagiades litigiosa litigiosa* Moschler (Image 121): One individual was encountered near a forest stream in March (29.iii.2012) and another individual was also encountered at the same place in September (10.ix.2012). Mainly prefers shade in moist patches close to water. It flies around and often returns to same perch or settles on undersurface of leaf. The subspecies was distributed from Sikkim to Burma, Andamans, western China, Siam, Hainan and was not rare (Evans 1927).

Black-veined Redeye *Matapa sasivarna* Moore (Image 124): One individual was encountered nectaring on *Carica papaya* flower near a residential house in October (20.x.2012). Singh (2012) also reported this species from subtropical lowland forests of Bhutan along the Sankosh River (118–220 m) but not reported from Trashiyangtse Valley, eastern Bhutan (1200–2700 m) (Wangdi et. al. 2012). The habitat of this species is from Sikkim to Burma extending towards Malay Peninsula,

Appendix 1. Preliminary checklist of butterflies recorded by the authors during February 2012 to February 2013 in Mendrelgang division of Tsirang District (Bhutan)

Family / Subfamily	Scientific name	Common name	IWPA 1972	Image
Nymphalidae				
Libytheinae	1. <i>Libythea myrrha</i> Godart	Club Beak		3
Danaidae	2. <i>Danaus chrysippus chrysippus</i> Linnaeus	Plain Tiger		4
	3. <i>Danaus genutia</i> Cramer	Striped Tiger		5
	4. <i>Euploea algea</i> Godart	Long-branded Blue Crow		6
	5. <i>Euploea mulciber mulciber</i> Cramer	Striped Blue crow		7
	6. <i>Parantica aglea</i> Stoll	Glassy Tiger		8
	7. <i>Parantica sita</i> Kollar	Chestnut Tiger		9
	8. <i>Tirumala septentrionis</i> Butler	Dark Blue Tiger		10
	9. <i>Tirumala limniace mertina</i> Fruhstorfer	Blue Tiger		11
Charaxinae	10. <i>Charaxes athamas athamas</i> Drury	Common Nawab		12
Satyrinae	11. <i>Elymnias hypermnestra</i> Linnaeus	Common Palmfly		13
	12. <i>Elymnias malelas malelas</i> Hewitson	Spotted Palmfly		14
	13. <i>Lethe confusa confusa</i> Aurivillius	Banded Treebrown		15
	14. <i>Lethe kansa</i> Moore	Bamboo Forester		16
	15. <i>Lethe mekara mekara</i> Moore	Common Red Forester		17
	16. <i>Lethe rohria rohria</i> Fabricius	Common Brown		18
	17. <i>Lethe verma sintica</i> Fruhstorfer	Straight-banded Treebrown		19
	18. <i>Melanitis leda</i> Linnaeus	Common Evening Brown		20
	19. <i>Melanitis phedima bela</i> Moore	Dark Evening Brown		21
	20. <i>Mycalesis francisca sanātana</i> Moore	Lilacine Bushbrown		22
	21. <i>Mycalesis visala</i> Moore	Long Brand Bushbrown		23
	22. <i>Orsotriaena medus medus</i> Fabricius	Jungle Brown		24
	23. <i>Ypthima newara</i> Moore	Newar Three Ring		25
	24. <i>Ypthima baldus baldus</i> Fabricius	Common Five Ring		26
Heliconiinae	25. <i>Acraea issoria</i> Hübner	Yellow Coster		27
	26. <i>Argynnis hyperbius</i> Linnaeus	Indian Fritillary		28
	27. <i>Cethosia biblis</i> Drury	Red Lacewing		29
	28. <i>Cethosia cyane</i> Drury	Leopard Lacewing		30
	29. <i>Cirrochroa aoris</i> Doubleday	Large Yeoman		31
	30. <i>Phalanta phalantha</i> Drury	Common Leopard		32
	31. <i>Vindula erota erota</i> Fabricius	Cruiser		33
Limenitinae	32. <i>Athyma cama</i> Moore	Orange Staff Sergeant		34
	33. <i>Athyma ranga ranga</i> Moore	Black-veined Sergeant	Schedule II	35
	34. <i>Athyma selenophora</i> Kollar	Staff Sergeant		36
	35. <i>Euthalia durga durga</i> Moore	Blue Duke	Schedule II	37
	36. <i>Neptis pseudovikasi</i> Moore	False Dingy Sailer		38
	37. <i>Neptis hylas varmona</i> Moore	Common Sailer		39
	38. <i>Neptis sappho</i> Pallas	Pallas Sailer		40
	39. <i>Neptis soma soma</i> Linnaeus	Sullied Sailer	Schedule II	41
	40. <i>Pantoporia hordonia</i> Stoll	Common Lascar		42
	41. <i>Pantoporia sandaka davidsoni</i> Eliot	Extra Lascar		43
	42. <i>Sumalia zulema</i> Doubleday	Scarce White Commodore		44

Family / Subfamily	Scientific name	Common name	IWPA 1972	Image
Cyrestinae	43. <i>Cyrestis thyodamas</i> Boisduval	Common Map		45
	44. <i>Stibochiona nicea</i> Gray	Popinjay		46
Biblidinae	45. <i>Ariadne merione</i> Cramer	Common Castor		47
Apaturinae	46. <i>Apatura ambica ambica</i> Kollar	Indian Purple Emperor		48
	47. <i>Apatura sordida</i> Moore	Sordid Emperor	Schedule II	49
	48. <i>Herona marathus marathus</i> Doubleday	Pasha		50
	49. <i>Hestina nama</i> Doubleday	Circe		51
	50. <i>Hestina persimilis</i> Westwood	Siren		52
Nymphalinae	51. <i>Aglais caschmirensis</i> Kollar	Indian Tortoiseshell		53
	52. <i>Doleschallia bisaltide</i> Cramer	Autumn Leaf		54
	53. <i>Hypolimnas bolina</i> Linnaeus	Great Eggfly		55
	54. <i>Junonia almana almana</i> Linnaeus	Peacock Pansy		56
	55. <i>Junonia atlites</i> Linnaeus	Gray Pansy		57
	56. <i>Junonia hierta magna</i> Evans	Yellow Pansy		58
	57. <i>Junonia lemonias lemonias</i> Linnaeus	Lemon Pansy		59
	58. <i>Junonia orithya ocyale</i> Hübner	Blue Pansy		60
	59. <i>Junonia iphita iphita</i> Cramer	Chocolate Pansy		61
	60. <i>Symbrenthia hypselis</i> Godart	Himalayan Jester		62
	61. <i>Symbrenthia lilaea</i> Hewitson	Common Jester		63
	62. <i>Vanessa indica</i> Herbst	Indian Red Admiral		64
	63. <i>Vanessa cardui</i> Linnaeus	Painted Lady		65
Papilionidae				
Papilioninae	64. <i>Papilio demoleus demoleus</i> Linnaeus	Common Lime		66
	65. <i>Papilio paris paris</i> Linnaeus	Paris Peacock		67
	66. <i>Papilio bianor polycctor</i> Boisduval	Common Peacock		68
	67. <i>Papilio polytes romulus</i> Cramer	Common Mormon		69
	68. <i>Papilio memnon agenor</i> Linnaeus	Great Mormon		70
	69. <i>Papilio nephelus</i> Boisduval	Yellow Helen		71
	70. <i>Papilio helenus helenus</i> Linnaeus	Red Helen		72
	71. <i>Papilio protenor euprotenor</i> Fruhstorfer	Spangle		73
	72. <i>Pachliopta aristolochiae</i> Fabricius	Common Rose		74
	73. <i>Byasa polyeuctes letincius</i> Fruhstorfer	Common Windmill		75
	74. <i>Troides helena cerberus</i> Felder & Felder	Common Bird wing		76
	Pieridae			
Coliadinae	75. <i>Colias fieldii fieldii</i> Menetries	Dark Clouded Yellow		77
	76. <i>Dercas verhuelli</i> Hoven	Tailed Sulphur		78
	77. <i>Eurema blanda silhetana</i> Wallace	Three Spot Grass Yellow		79
	78. <i>Eurema hecabe hecabe</i> Linnaeus	Common Grass Yellow		80
	79. <i>Eurema herla laeta</i> Boisduval	Spotless Grass Yellow		81
Pierinae	80. <i>Appias paulina</i> Cramer	Common Albatross		82
	81. <i>Appias lalage lalage</i> Doubleday	Spot Puffin		83
	82. <i>Appias libythea</i> Fabricius	Striped Albatross		84
	83. <i>Appias lyncida</i> Cramer	Chocolate Albatross	Schedule II	85
	84. <i>Cepora nadina nadina</i> Lucas	Lesser Gull		86
	85. <i>Delias descombesi</i> Boisduval	Red Spot Jezebel		87

Family / Subfamily	Scientific name	Common name	IWPA 1972	Image
	86. <i>Delias acalis pyramus</i> Wallace	Red Base Jezebel		88
	87. <i>Hebomoia glaucippe glaucippe</i> Linnaeus	Great Orangetip		89
	88. <i>Ixias pyrene</i> Linnaeus	Yellow Orange Tip		90
	89. <i>Leptosia nina nina</i> Fabricius	Psyche		91
	90. <i>Pieris brassicae nepalensis</i> Doubleday	Large Cabbage White		92
	91. <i>Pieris canidia indica</i> Evans	Indian Cabbage White		93
Lycaenidae				
Theclinae	92. <i>Arhopala bazalus</i> Hewitson	Powdered Oakblue		94
	93. <i>Arhopala eumolphus eumolphus</i> Cramer	Green Oakblue		95
	94. <i>Catapacilma major</i> Druce	Common Tinsel		96
	95. <i>Deudorix epijarbas</i> Moore	Cornelian		97
	96. <i>Rapala nissa</i> Kollar	Common Flash		98
	97. <i>Ticherra acte</i> Moore	Blue Imperial		99
	98. <i>Zeltus amasa</i> Hewitson	Fluffy Tit		100
Lycaeninae	99. <i>Acytolepis puspa</i> Horsfieldii	Common Hedge Blue		101
	100. <i>Heliophorus brahma</i> Moore	Golden Sapphire		102
	101. <i>Heliophorus epicles indicus</i> Fruhstorfer	Purple Sapphire		103
Polyommatainae	102. <i>Castalius rosimon rosimon</i> Fabricius	Common Pierrot		104
	103. <i>Catochrysops strabo</i> Fabricius	Forget-me-not		105
	104. <i>Celastrina argiolus jyntheana</i> de Niceville	Jynthea Hedge Blue		106
	105. <i>Celastrina lavendularis</i> Moore	Plain Hedge Blue		107
	106. <i>Celatoxia marginata</i> de Niceville	Margined Hedge Blue		108
	107. <i>Jamides alecto</i> Felder	Metallic Cerulean		109
	108. <i>Jamides bochus</i> Stoll	Dark Cerulean		110
	109. <i>Lampides boeticus</i> Linnaeus	Pea Blue	Schedule II	111
	110. <i>Leptotes plinius</i> Fabricius	Zebra Blue		112
	111. <i>Prosotas nora</i> Felder	Common Lineblue		113
	112. <i>Pseudozizeeria maha maha</i> Kollar	Pale Grass Blue		114
	113. <i>Taraka hamada</i> Druce	Jungle Pierrot		115
	114. <i>Zizeeria karsandra</i> Moore	Dark Grass Blue		116
Riodinidae	115. <i>Abisara fylla</i> Westwood	Dark Judy		117
	116. <i>Abisara neophron</i> Hewitson	Tailed Judy		118
	117. <i>Zemerus flegyas indicus</i> Fruhstorfer	Punchinello		119
Hesperiidae				
Pyrginae	118. <i>Pseudocoladenia dan</i> Fabricius	Fulvous Pied Flat		120
	119. <i>Tagiades litigiosa litigiosa</i> Moschler	Water Snow Flat		121
Hesperiinae	120. <i>Iambrix salsala salsala</i> Moore	Chestnut Bob		122
	121. <i>Potanthus pseudomaesa cleo</i> Evans	Common Dart		123
Heteropterinae	122. <i>Matapa asiarna</i> Moore	Black-veined Redeye		124
	123. <i>Notocrypta curvifascia</i> Felder & Felder	Restricted Demon		125
	124. <i>Udaspes folus</i> Cramer	Grass Demon		126
	125. <i>Pelopidas subochracea</i> Moore	Large Branded Swift		127



Image 3. *Libythea myrrha* Godart



Image 4. *Danaus chrysippus chrysippus* Linnaeus



Image 5. *Danaus genutia* Cramer



Image 6. *Euploea algea* Godart



Image 7. *Euploea mulciber mulciber* Cramer

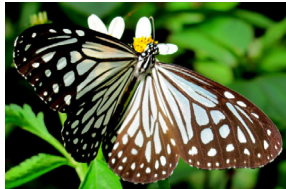


Image 8. *Parantica aglea* Stoll



Image 9. *Parantica sita* Kollar

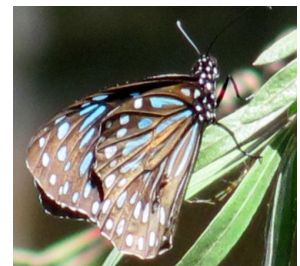


Image 10. *Tirumala septentrionis* Butler

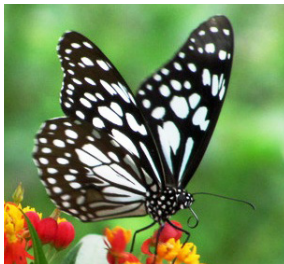


Image 11. *Tirumala limniace mertina* Fruhstorfer



Image 12. *Charaxes athamas athamas* Drury

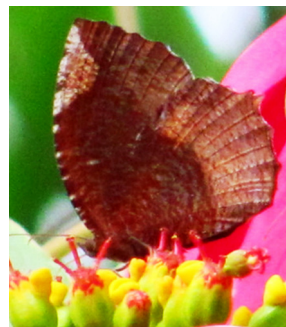


Image 13. *Elymnias hypermnestra* Linnaeus



Image 14. *Elymnias malelas malelas* Hewitson



Image 15. *Lethe confusa confusa* Aurivillius



Image 16. *Lethe kansa* Moore



Image 17. *Lethe mekara mekara* Moore

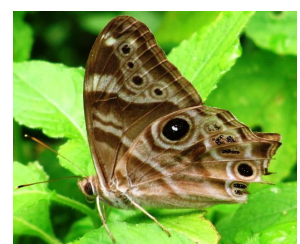


Image 18. *Lethe rohria rohria* Fabricius



Image 19. *Lethe verma sintica* Fruhstorfer

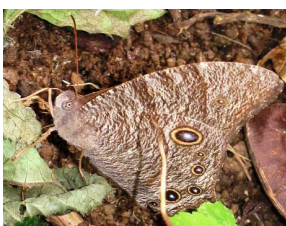


Image 20. *Melanitis leda* Cramer



Image 21. *Melanitis phedima bela* Moore



Image 22. *Mycalesis francisca sanatana* Moore



Image 23. *Mycalesis visala* Moore



Image 24. *Orsotriaena medus medus* Fabricius

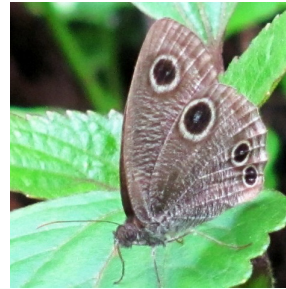


Image 25. *Ypthima newara* Moore



Image 26. *Ypthima baldus baldus* Fabricius



Image 27. *Acraea issoria* Hubner



Image 28. *Argynnis hyperbius* Linnaeus



Image 29. *Cethosia biblis* Fruhstorfer



Image 30. *Cethosia cyane* Drury



Image 31. *Cirrochroa aoris* Doubleday



Image 32. *Phalanta phalantha* Drury



Image 33. *Vindula erota erota* Fabricius



Image 34. *Athyma cama* Moore

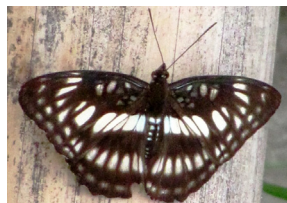


Image 35. *Athyma ranga ranga* Moore



Image 36. *Athyma selenophora* Kollar

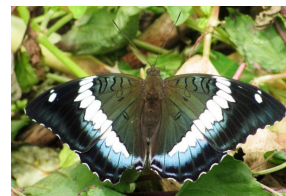


Image 37. *Euthalia durga durga* Moore



Image 38. *Neptis pseudovikasi* Moore



Image 39. *Neptis hylas varmona* Moore

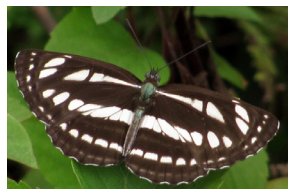


Image 41. *Neptis soma soma* Linnaeus



Image 42. *Pantoporia hordonia* Stoll



Image 40. *Neptis sappho* Pallas



Image 43. *Pantoporia sandaka davidsoni* Eliot

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Image 44. *Sumalia zulema*
Doubleday



Image 45. *Cyrestis thyodamas*
Boisduval



Image 46. *Stibochiona nicea*
Gray



Image 47. *Ariadne merione*
Cramer

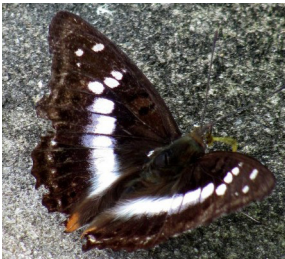


Image 48. *Apatura ambica*
ambica Kollar



Image 49. *Apatura sordida*
Moore

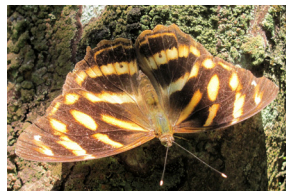


Image 50. *Herona marathus*
marathus Doubleday



Image 51. *Hestina nama*
Doubleday

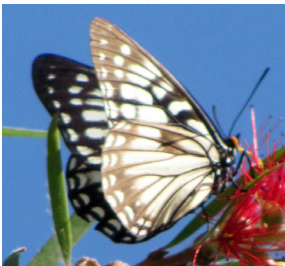


Image 52. *Hestina persimilis*
Westwood



Image 53. *Aglais caschmirensis*
Kollar



Image 54. *Doleschallia bisaltide*
Cramer

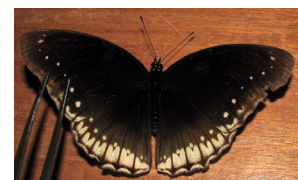


Image 55. *Hypolimnas bolina*
Linnaeus

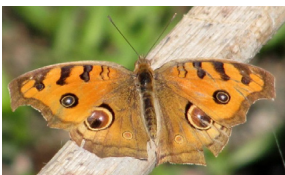


Image 56. *Junonia almana*
almana Linnaeus

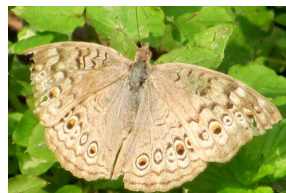


Image 57. *Junonia atlites*
Linnaeus



Image 58. *Junonia hierta magna*
Evans

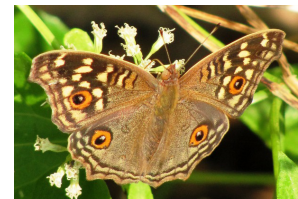


Image 59. *Junonia lemonias*
lemonias Linnaeus

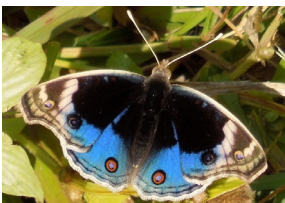


Image 60. *Junonia orithya*
ocyale Hubner



Image 61. *Junonia iphita iphita*
Cramer



Image 62. *Symbrenthia hypselis*
Godart

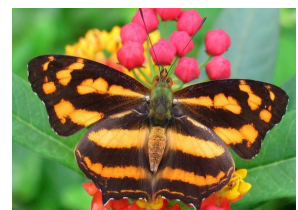


Image 63. *Symbrenthia lilaeca*
Hewitson



Image 64. *Vanessa indica* Herbst



Image 65. *Vanessa cardui* Linnaeus



Image 66. *Papilio demoleus demoleus* Linnaeus



Image 67. *Papilio paris paris* Linnaeus



Image 68. *Papilio bianor polyc-tor* Boisduval

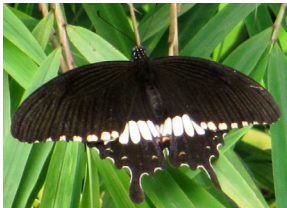


Image 69. *Papilio polytes romu-lus* Cramer



Image 70. *Papilio memnon agenor* Linnaeus



Image 71. *Papilio nephelus* Boisduval



Image 72. *Papilio helenus helenus* Linnaeus



Image 73. *Papilio protenor euprotenor* Cramer



Image 74. *Pachliopta aristolo-chieae* Fabricius



Image 75. *Byasa polyeuctes letincius* Fruhstorfer



Image 76. *Troides helena cer-berus* Felder & Felder



Image 77. *Colias fieldii fieldii* Menetries



Image 78. *Dercas verhuelli* Hoven



Image 79. *Eurema blanda silhetana* Wallace



Image 80. *Eurema hecabe hec-abe* Linnaeus



Image 81. *Eurema herla laeta* Boisduval



Image 82. *Appias paulina* Cramer



Image 83. *Appias lalage lalage* Doubleday



Image 84. *Appias libythea* Fabricius

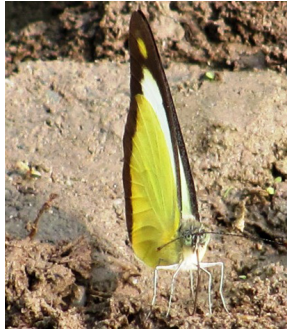


Image 85. *Appias lycida* Cramer



Image 86. *Cepora nadina nadina* Lucas



Image 87. *Delias descombesi* Boisduval



Image 88. *Delias acalis pyramus* Wallace



Image 89. *Hebomoia glaucippe glaucippe* Linnaeus



Image 90. *Ixias pyrene* Linnaeus



Image 91. *Leptosia nina nina* Fabricius



Image 92. *Pieris brassicae nepalensis* Doubleday



Image 93. *Pieris canidia indica* Evans



Image 94. *Arhopala bazalus* Hewitson



Image 95. *Arhopala eumolpus* Cramer



Image 96. *Catapaecilma major* Druce



Image 97. *Deudorix epijarbas* Moore



Image 98. *Rapala nissa* Kollar



Image 99. *Ticherra acte* Moore



Image 100. *Zeltus amasa* Hewitson



Image 101. *Acytolepis puspa* Horsfield



Image 102. *Heliophorus brahma* Moore



Image 103. *Heliophorus epicles indicus* Fruhstorfer



Image 104. *Castalius rosimon rosimon* Fabricius

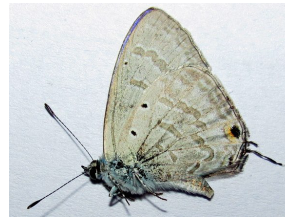


Image 105. *Catochrysops strabo* Fabricius



Image 106. *Celastrina argiolus jynteana* de Niceville



Image 107. *Celastrina lavendularis* Moore



Image 108. *Celatoxia marginata* de Niceville



Image 109. *Jamides alecto* C & R Felderz



Image 110. *Jamides bochus* Stoll



Image 111. *Lampides boeticus* Linnaeus



Image 112. *Leptotes plinius* Fabricius



Image 113. *Prosotas nora* C. Felder



Image 114. *Pseudozizeeria maha maha* Kollar



Image 115. *Taraka hamada* Druce

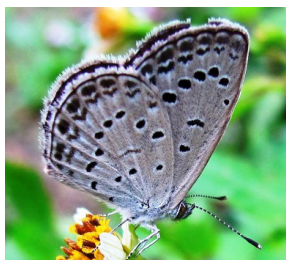


Image 116. *Zizeeria karsandra* Moore

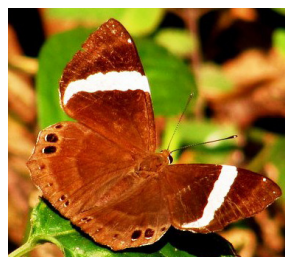


Image 117. *Abisara fylla* Westwood



Image 118. *Abisara neophron* Hewitson



Image 119. *Zemeros flegyas indicus* Fruhstorfer

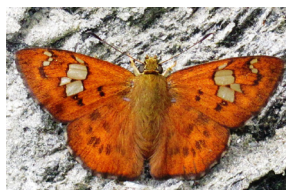


Image 120. *Pseudocoladenia dan* Fabricius

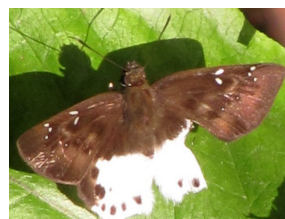


Image 121. *Tagiades litigiosa litigiosa* Moschler

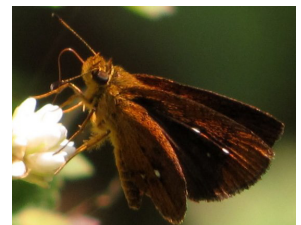


Image 122. *Iambrix salsala salsala* Moore



Image 123. *Potanthus pseudo-maesa cleo* Evans



Image 124. *Matapa sasiarna* Moore



Image 125. *Notocrypta curvifascia* Felder



Image 126. *Udaspes folus* Cramer



Image 127. *Pelopidas subochracea* Moore

Sumatra, Pulau Laut (Indonesia) and is not rare (Evans 1927).

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