



Butterflies (Lepidoptera) of Dibang Valley, Mishmi Hills, Arunachal Pradesh, India

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The Mishmi Hills (95°49'–95°59' N & 28°06'–28°23'E) are located in the eastern region of Arunachal Pradesh. The altitude varies from 400–3568 m. The hill range lies to the north of the Assam Valley.

The major part of the Mishmi Hills is in the Dibang Valley districts of Arunachal Pradesh. The Dibang Valley districts have two divisions - Lower and Upper Dibang Valley. The headquarters of the two districts are Roing and Anini, respectively. Roing lies on the plains near the Lohit River while Anini is at an elevation in the mountains and near the international border with China. The valley is bounded on the north by China, on the east by Lohit District of Arunachal Pradesh, on the west by Siang District of Arunachal Pradesh and on the south by Tinsukia District of Assam. Part of the Lower Dibang Valley (281.5km²)

is protected under Mehao Wildlife Sanctuary (93°30'–95°45'N & 28°05'–28°15'E) (MWS) (Image 1).

The Dibang River originates in the western part of China and flows through this valley in a north-south direction. It is one of the main tributaries of the Brahmaputra.

The vegetation is characterized by tropical evergreen forests (up to 900m), subtropical and temperate forests (900–1800 m), temperate broad leaf forest (1800–2800 m) and temperate conifer forest (2800–3500 m) (Champion & Seth 1968).

Methods

Study Area: 1. Sally Lake (Image 2): The Lake is about 5km from Roing Town and lies at an altitude of about 400m. The lake is very close to the Deopani River and is surrounded by hills. Small streams flow through the bamboo forest into the open areas. The lake is protected under MWS.

2. Deopani River Bed: The river bed remains dry throughout the year. The river gets its water from the streams originating in the surrounding hills near Deopani. High elevation forest exists in this area. The plains have secondary forest growth.

3. Dibang River-bed (Image 3): It lies west of the Mishmi Hills and is not under the jurisdiction of MSW. There are several small villages like Chidu. The vast grassland of Nizamghat (elevation of 266m) is in this area.

4. Tiwarigaon (Image 4a): A small village on the way to Mayodia, lying at an elevation of around 1300m. The place is the perfect place for the study of high montane butterflies and is 28km from Roing Town.

5. Mayodia pass (Image 4b): The area lies on the way to Anini and is about 56km from Roing Town. This area is the highest elevated point on the way from Roing-Hunli at 2,666m and is distinguished by a cold rocky mountain.

Survey methods

The methodology involved checklist surveys on sunny days from 07 March–22 June, 2011 to determine the maximum number of species. Visual search and

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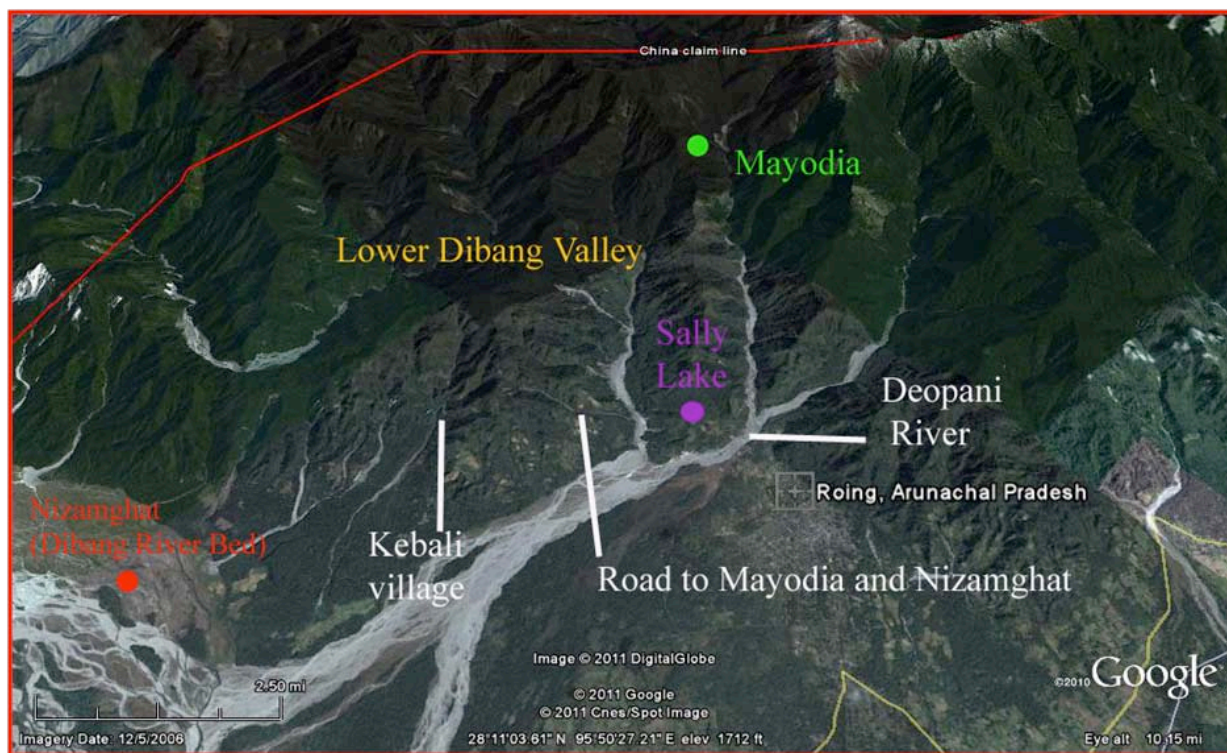


Image 1. Satellite imagery showing areas covered during field study (Map: Rakesh Saur)

photography were conducted on a regular basis during the day. Occasional surveys were undertaken after 16:00hr to locate shade loving butterflies. Searches were conducted near water sources, damp patches in the forest, open sunny areas, blossoming flowers and bird droppings. Searches were also conducted on hill tops, especially in the catchment areas of hill streams, as well as from top to bottom of hill streams to record the maximum number of species. Butterflies were photographed from different angles as often as possible to obtain sufficient photographs to enable positive identification of species. Butterfly species were identified using the identification keys of Watson (1897), Evans (1932), Talbot (1947), Smith (1994), Pinratana (1985), Haribal (1992), and photographic guides of Kehimkar (2008).

Results and Discussion

The field study resulted in the recording of 294 butterfly species belonging to 156 genera, from Dibang Valley (Table 1). This includes 33 species of Papilionidae, 26 species of Pieridae, 59 species of Lycaenidae, 115 species of Nymphalidae and 61 species belonging to Hesperiiidae. Noteworthy

rare and endangered species encountered were de Nicéville's Windmill *Byasa polla* which is included on Schedule I of the Indian Wildlife (Protection) Act (IWPA), (1972); Khaki Silverline *Spindasis rukmini* is another interesting species which is also included on Schedule I of the IWPA, (1972).

The matter of greatest concern is that *Byasa polla*, *Spindasis rukmini* were recorded outside the protected area of MWS. The species were recorded in a small village called Chidu near Nizamghat. The area is undergoing deforestation due to increase of settlements in the area and clearing of land for agriculture. Logging has also been observed on a small scale in the area. The increasing use of pesticides in the citrus orchards is another concern in the area. Overall, the last remaining lowland forest of Lower Dibang Valley is facing a serious threat to its continued existence at present. All these raise serious concerns regarding the survival of butterflies in the area. The record of such rare species in the area shows the potential biodiversity of the area and reflects the need for notification of more protected areas in Arunachal Pradesh.

It is stressed that the present survey covered the period from March–June 2011. Doubtless, there will

Table 1. Annotated list of butterflies recorded in the Mishmi Hills, Arunachal Pradesh during the study period (March–June 2011).

Scientific name	Common name	Indian WPA 1972
Papilionidae		
1. <i>Pachliopta aristolochiae aristolochiae</i>	Common Rose	
2. <i>Troides helena cerberus</i>	Common Birdwing	
3. <i>Troides aeacus aeacus</i>	Golden Birdwing	
4. <i>Atrophaneura varuna astorion</i>	Common Batwing	
5. <i>Atrophaneura aidoneus</i>	Lesser Batwing	
6. <i>Byasa polla</i>	De Nicéville's Windmill	Schedule I Part IV
7. <i>Byasa polyeuctes polyeuctes</i>	Common Windmill	
8. <i>Byasa dasarada dasarada</i>	Great Windmill	Schedule II Part II
9. <i>Papilio agestor agestor</i>	Tawny Mime	
10. <i>Papilio epycides epycides</i>	Lesser Mime	
11. <i>Papilio clytia clytia</i>	Common Mime	
12. <i>Papilio polytes romulus</i>	Common Mormon	
13. <i>Papilio demoleus demoleus</i>	Lime Butterfly	
14. <i>Papilio castor castor</i>	Common Raven	
15. <i>Papilio helenus helenus</i>	Red Helen	
16. <i>Papilio nephelus chaon</i>	Yellow Helen	Schedule II Part II
17. <i>Papilio memnon agenor</i>	Great Mormon	Schedule I Part IV
18. <i>Papilio protenor euprotenor</i>	Spangle	
19. <i>Papilio alcmenor alcmenor</i>	Redbreast	
20. <i>Papilio polyctor ganesa</i>	Common Peacock	
21. <i>Papilio paris paris</i>	Paris Peacock	
22. <i>Graphium antiphates pompilius</i>	Fivebar Swordtail	
23. <i>Graphium agetes agetes</i>	Fourbar Swordtail	
24. <i>Graphium doson axion</i>	Common Jay	
25. <i>Graphium evemon albociliatis</i>	Lesser Jay	Schedule II Part II
26. <i>Graphium chironides chironides</i>	Veined Jay	
27. <i>Graphium agamemnon agamemnon</i>	Tailed Jay	
28. <i>Graphium sarpedon sarpedon</i>	Common Bluebottle	
29. <i>Graphium xenocles xenocles</i>	Great Zebra	
30. <i>Lamproptera curius curius</i>	White Dragontail	
31. <i>Lamproptera meges indistincta</i>	Green Dragontail	

Scientific name	Common name	Indian WPA 1972
32. <i>Meandrusa lachinus lachinus</i>	Brown Gorgon	Schedule II Part II
33. <i>Meandrusa payeni evan</i>	Yellow Gorgon	
Pieridae		
34. <i>Eurema andersoni andersoni</i>	One-Spot Grass Yellow	Schedule II Part II
35. <i>Eurema blanda silhetana</i>	Three-Spot Grass Yellow	
36. <i>Eurema brigitta rubella</i>	Small Grass Yellow	
37. <i>Eurema hecabe hecabe</i>	Common Grass Yellow	
38. <i>Gandaca harina assamica</i>	Tree Yellow	
39. <i>Dercas verhuelli doubledayi</i>	Tailed Sulphur	
40. <i>Catopsilia pomona pomona</i>	Common Emigrant	
41. <i>Catopsilia pyranthe pyranthe</i>	Mottled Emigrant	
42. <i>Colias fieldii fieldii</i>	Dark Clouded Yellow	
43. <i>Ixias pyrene familiaris</i>	Yellow Orange Tip	
44. <i>Pareronia avatar avatar</i>	Pale Wanderer	
45. <i>Appias lyncida hippoides</i>	Chocolate Albatross	
46. <i>Appias nero galba</i>	Orange Albatross	Schedule IV
47. <i>Appias albina darada</i>	Common Albatross	Schedule II Part II
48. <i>Appias lalage lalage</i>	Spot Puffin	
49. <i>Appias indra indra</i>	Plain Puffin	Schedule II Part II
50. <i>Pieris brassicae</i>	Large Cabbage White	
51. <i>Pieris napi montana</i>	Green-veined White	
52. <i>Pieris canidia indica</i>	Indian Cabbage White	
53. <i>Cepora nadina nadina</i>	Lesser Gull	Schedule II Part II
54. <i>Prioneris thestylis thestylis</i>	Spotted Sawtooth	
55. <i>Prioneris clemante</i>	Redspot Sawtooth	
56. <i>Delias belladonna lugens</i>	Hill Jezebel	
57. <i>Delias berinda</i>	Dark Jezebel	
58. <i>Delias acalis pyramus</i>	Red-breast Jezebel	
59. <i>Delias agostina agostina</i>	Yellow Jezebel	
Lycaenidae		
60. <i>Curetis dentata dentata</i>	Angled Sunbeam	
61. <i>Taraka hamada mendesia</i>	Forest Pierrot	
62. <i>Caleta roxus roxana</i>	Straight Pierrot	
63. <i>Caleta elna noliteia</i>	Elbowed Pierrot	
64. <i>Castalius rosimon rosimon</i>	Common Pierrot	Schedule I Part IV

Scientific name	Common name	Indian WPA 1972
65. <i>Tarucus indica</i>	Pointed Pierrot	
66. <i>Ancema ctesia ctesia</i>	Bi-Spot Royal	
67. <i>Remelana jangala ravata</i>	Chocolate Royal	
68. <i>Arhopala centaurus pirthous</i>	Centaur Oakblue	
69. <i>Flos adriana</i>	Variiegated Plushblue	
70. <i>Flos asoka</i>	Spangled Plushblue	
71. <i>Surendra vivarna</i>	Common Acacia Blue	
72. <i>Zinaspia todara distorta</i>	Silver Streaked Acacia Blue	Schedule II Part II
73. <i>Loxura atymnus continentalis</i>	Yamfly	
74. <i>Yasoda tripunctata tripunctata</i>	Branded Yamfly	Schedule II Part II
75. <i>Cheritra freja freja</i>	Common Imperial	
76. <i>Ticherra acte</i>	Blue Imperial	
77. <i>Hypolycaena erylus himavantus</i>	Common Tit	
78. <i>Chliaria kina cachara</i>	Blue Tit	Schedule II Part II
79. <i>Zeltus amasa</i>	Fluffy Tit	
80. <i>Rapala nissa ratna</i>	Common Flash	
81. <i>Rapala manea schistacea</i>	Slate Flash	
82. <i>Catapocilma elegans</i>	Common Tinsel	
83. <i>Spindasis nipalicus evansii</i>	Silvergry Silverline	Schedule II Part II
84. <i>Spindasis rukmini</i>	Khaki Silverline	Schedule I Part IV
85. <i>Spindasis lohita himalayanus</i>	Long-banded Silverline	Schedule II Part II
86. <i>Heliophorus epicles</i>	Purple Sapphire	
87. <i>Heliophorus brahma major</i>	Golden Sapphire	
88. <i>Anthene emolus emolus</i>	Common Ciliate Blue	
89. <i>Anthene lycaenina lycaenina</i>	Pointed Cilate Blue	
90. <i>Leptotes plinius plinius</i>	Zebra Blue	
91. <i>Nacaduba pactolus continentalis</i>	Large-4-Lineblue	Schedule II Part II
92. <i>Nacaduba hermus nabo</i>	Pale-4-Lineblue	Schedule II Part II
93. <i>Nacaduba kurava euplea</i>	Transparent 6-Lineblue	
94. <i>Prosotas aluta coelestis</i>	Banded Lineblue	
95. <i>Prosotas nora nora</i>	Common Lineblue	
96. <i>Lonolyce helicon merguiana</i>	Pointed Lineblue	
97. <i>Petrelaea dana</i>	Dingy Lineblue	
98. <i>Jamides celeno celeno</i>	Common Cerulean	
99. <i>Jamides bochus bochus</i>	Dark Cerulean	
100. <i>Jamides elpis pseudelpis</i>	Glistening Cerulean	Schedule II Part II

Scientific name	Common name	Indian WPA 1972
101. <i>Jamides alecto euryasces</i>	Metallic Cerulean	Schedule II Part II
102. <i>Catochrysops strabo strabo</i>	Forget-me-not	
103. <i>Lampides boeticus</i>	Peablu	Schedule II Part II
104. <i>Zizeeria karsandra</i>	Dark Grass Blue	
105. <i>Pseudozizeeria maha maha</i>	Pale Grass Blue	
106. <i>Freyeria putli</i>	Eastern Grass Jewel	
107. <i>Zizina otis otis</i>	Lesser Grass Blue	
108. <i>Megisba malaya</i>	Malayan	Schedule II Part II
109. <i>Acytolepis puspa gisca</i>	Common Hedge Blue	Schedule II Part II
110. <i>Udara cardia dilecta</i>	Pale Hedge Blue	
111. <i>Udara albocerulea</i>	Albocerulean	
112. <i>Celastrina lavendularis limbata</i>	Plain Hedge Blue	
113. <i>Celastrina argiolus sikkima</i>	Hill Hedge Blue	
114. <i>Celastrina huegelii oreana</i>	Large Hedge Blue	
115. <i>Chilades laius laius</i>	Lime Blue	
116. <i>Abisara fylla</i>	Dark Judy	
117. <i>Zemeros flegyas indicus</i>	Punchinello	
118. <i>Dodonia adonira naga</i>	Striped Punch	
Nymphalidae		
119. <i>Libythea myrrha sanguinalis</i>	Club Beak	
120. <i>Libythea lepita lepita</i>	Common Beak	Schedule II Part II
121. <i>Danaus genutia</i>	Striped Tiger	
122. <i>Tirumala limniace mutina</i>	Blue Tiger	
123. <i>Tirumala septentrionis</i>	Dark Blue Tiger	
124. <i>Parantica aglea melanoidea</i>	Glassy Tiger	
125. <i>Parantica sita</i>	Chestnut Tiger	
126. <i>Parantica melaneus plateniston</i>	Chocolate Tiger	
127. <i>Euploea mulciber mulciber</i>	Striped Blue Crow	Schedule IV
128. <i>Euploea algea deione</i>	Long-branded Blue Crow	
129. <i>Euploea midamus splendens</i>	Blue Spotted Crow	
130. <i>Euploea radamanthus radamanthus</i>	Magpie Crow	
131. <i>Charaxes athamas athamas</i>	Common Nawab	Schedule II Part II
132. <i>Charaxes eudamippus eudamippus</i>	Great Nawab	
133. <i>Charaxes arja arja</i>	Pallid Nawab	

Scientific name	Common name	Indian WPA 1972
134. <i>Charaxes bernardus hierax</i>	Tawny Rajah	Schedule II Part II
135. <i>Charaxes aristogiton</i>	Scarce Tawny Rajah	Schedule II Part II
136. <i>Charaxes kahruba</i>	Variiegated Rajah	Schedule II Part II
137. <i>Charaxes marmax marmax</i>	Yellow Rajah	Schedule II Part II
138. <i>Thaumantis diores diores</i>	Jungle Glory	
139. <i>Faunis canens</i>	Common Faun	
140. <i>Discophora sondaica</i>	Common Duffer	Schedule I Part IV
141. <i>Melanitis leda</i>	Common Evening Brown	
142. <i>Lethe europa niladana</i>	Bamboo Treebrown	Schedule I Part IV
143. <i>Lethe mekara zuchara</i>	Common Red Forester	
144. <i>Lethe chandica fianona</i>	Angled Red Forester	
145. <i>Lethe sinorix</i>	Tailed Red Forester	Schedule II Part II
146. <i>Lethe gulnihal</i>	Dull Forester	
147. <i>Lethe sidonis sidonis</i>	Common Woodbrown	
148. <i>Lethe nicetella</i>	Small Woodbrown	Schedule II Part II
149. <i>Ethope himachala</i>	Dusky Diadem	
150. <i>Penthema lisarda lisarda</i>	Yellow Kaiser	Schedule II Part II
151. <i>Elymnias hypermenestra undularis</i>	Common Palmfly	
152. <i>Elymnias malelas malelas</i>	Spotted Palmfly	
153. <i>Mycalesis anaxias aemate</i>	Whitebar Bushbrown	Schedule II Part II
154. <i>Mycalesis adamsoni</i>	Watson's Bushbrown	
155. <i>Mycalesis malsarida</i>	Plain Busbrown	Schedule II Part II
156. <i>Mycalesis perseus blasius</i>	Common Bushbrown	
157. <i>Mycalesis mineus mineus</i>	Dark-brand Bushbrown	Schedule II Part II?
158. <i>Mycalesis visala visala</i>	Long-brand Bushbrown	
159. <i>Mycalesis misenus misenus</i>	Salmon-branded Bushbrown	Schedule II Part II
160. <i>Mycalesis nicotia</i>	Bright-eye Bushbrown	
161. <i>Orsotrioena medus medus</i>	Nigger	
162. <i>Ragadia crisilda crisilda</i>	Striped Ringlet	Schedule II Part II
163. <i>Zipoetis scylax</i>	Dark Catseye	
164. <i>Hemadara narasingha</i>	Mottled Argus	
165. <i>Ypthima nareda newara</i>	Large Threering	
166. <i>Ypthima baldus baldus</i>	Common Fiverring	

Scientific name	Common name	Indian WPA 1972
167. <i>Acraea issoria issoria</i>	Yellow Coster	
168. <i>Acraea violae</i>	Tawny Coster	
169. <i>Cethosia biblis tisamena</i>	Red Lacewing	
170. <i>Cethosia cyane cyane</i>	Leopard Lacewing	
171. <i>Argynnis hyperbius hyperbius</i>	Indian Fritillary	
172. <i>Vindula erota erota</i>	Cruiser	
173. <i>Cirrochroa tyche mithila</i>	Common Yeoman	
174. <i>Cirrochroa aoris aoris</i>	Large Yeoman	
175. <i>Cupha erymanthis lotis</i>	Rustic	
176. <i>Vagrans egista sinha</i>	Vagrant	
177. <i>Phalanta phalantha phalantha</i>	Common Leopard	
178. <i>Sumalia daraxa daraxa</i>	Green Commodore	
179. <i>Auzakia danava danava</i>	Commodore	
180. <i>Parasarpa dudu dudu</i>	White Commodore	
181. <i>Limenitis zulema</i>	Scarce White Commodore	Schedule I Part IV
182. <i>Modusa procris procris</i>	Commander	
183. <i>Athyma asura asura</i>	Studded Sergeant	
184. <i>Athyma opalina orientalis</i>	Himalayan Sergeant	
185. <i>Athyma ranga ranga</i>	Blackvein Sergeant	Schedule II Part II
186. <i>Athyma selenophora selenophora</i>	Staff Sergeant	
187. <i>Athyma zeroca zeroca</i>	Small Staff Sergeant	
188. <i>Athyma cama</i>	Orange Staff Sergeant	
189. <i>Pantoporia hordonia hordonia</i>	Common Lascar	
190. <i>Pantoporia peraka</i>	Perak Lascar	
191. <i>Neptis radha radha</i>	Great Yellow Sailer	Schedule II Part II
192. <i>Neptis ananta ochracea</i>	Yellow Sailer	Schedule II Part II
193. <i>Neptis miah miah</i>	Small Yellow Sailer	
194. <i>Neptis manasa manasa</i>	Pale Hockeystick Sailer	Schedule I Part IV
195. <i>Neptis hylas astola</i>	Common Sailer	
196. <i>Neptis soma soma</i>	Creamy Sailer	Schedule II Part II
197. <i>Neptis clinia susruta</i>	Sullied Sailer	
198. <i>Neptis sankara amba</i>	Broad-banded Sailer	Schedule I Part IV
199. <i>Neptis pseudovikasi</i>	Dingy Sailer	
200. <i>Neptis cartica cartica</i>	Plain Sailer	
201. <i>Phaedyma columella ophiana</i>	Short-banded Sailer	
202. <i>Euthalia aconthea</i>	Common Baron	
203. <i>Euthalia lubentina</i>	Gaudy Baron	Schedule IV

Scientific name	Common name	Indian WPA 1972
204. <i>Euthalia francaiae</i>	French Duke	Schedule II Part II
205. <i>Lexias dirtea khasiana</i>	Dark Archduke	
206. <i>Cyrestis thyodamas thyodamas</i>	Common Map	
207. <i>Chersonesia risa</i>	Common Maplet	
208. <i>Pseuderholis wedah</i>	Tabby	
209. <i>Dichorhagia nesimachus</i>	Constable	
210. <i>Stibochiona nicea</i>	Popinjay	
211. <i>Ariadne ariadne pallidior</i>	Angled Castor	
212. <i>Ariadne merione tapestrina</i>	Common Castor	
213. <i>Mimathyma chevana</i>	Sergeant Emperor	Schedule II Part II
214. <i>Mimathyma ambica</i>	Indian Purple Emperor	
215. <i>Euripus nyctelius</i>	Courtesan	
216. <i>Hestinalis nama</i>	Circe	
217. <i>Sephisa chandra</i>	Eastern Courtier	Schedule I Part IV
218. <i>Symbrenthia lilaea khasiana</i>	Common Jester	
219. <i>Symbrenthia hypselis cotanda</i>	Spotted Jester	
220. <i>Vanessa indica indica</i>	Indian Red Admiral	
221. <i>Vanessa cardui</i>	Painted Lady	
222. <i>Kaniska canace canace</i>	Blue Admiral	
223. <i>Rohana parisatis</i>	Black Prince	
224. <i>Rohana parvata</i>	Brown Prince	Schedule II Part II
225. <i>Junonia iphita iphita</i>	Chocolate Pansy	
226. <i>Junonia atlites</i>	Grey Pansy	
227. <i>Junonia almana almana</i>	Peacock Pansy	
228. <i>Junonia lemonias lemonias</i>	Lemon Pansy	
229. <i>Hypolimnas bolina</i>	Great Eggfly	
230. <i>Kallima inachus inachus</i>	Orange Oakleaf	
231. <i>Doleschallia bisaltide indica</i>	Autumn Leaf	Schedule I Part IV
232. <i>Neurosigma doubledayi</i>	Panther	
Hesperiidae		
233. <i>Burara oedipodea aegina</i>	Branded Orange Awlet	
234. <i>Burara jaina vasundhara</i>	Orange Awlet	
235. <i>Burara amara</i>	Small Green Awlet	
236. <i>Burara vasutana</i>	Green Awlet	
237. <i>Burara gomata gomata</i>	Pale Green Awlet	
238. <i>Hasora anura danda</i>	Slate Awl	

Scientific name	Common name	Indian WPA 1972
239. <i>Hasora badra badra</i>	Common Awl	
240. <i>Hasora vita indica</i>	Plain Banded Awl	
241. <i>Hasora chromus</i>	Common Banded Awl	
242. <i>Hasora taminatus bhavara</i>	White-banded Awl	
243. <i>Badamia exclamationis</i>	Brown Awl	
244. <i>Bibasis sena sena</i>	Orange-tail Awl	Schedule II Part II
245. <i>Choaspes benjaminii</i>	Indian Awlking	
246. <i>Celaenorrhinus leucocera chinensis</i>	Common Spotted Flat	
247. <i>Celaenorrhinus aurivittata aurivittata</i>	Dark Yellow-banded Flat	
248. <i>Seseria dohertyi</i>	Himalayan White Flat	
249. <i>Pseudocoladenia dan</i>	Fulvous Pied Flat	
250. <i>Darpa hanria</i>	Hairy Angle	
251. <i>Gerosis sinica indica</i>	White Yellow-breast Flat	
252. <i>Tagiades litigiosa litigiosa</i>	Water Snow Flat	
253. <i>Mooreana trichoneura pralaya</i>	Yellow Flat	
254. <i>Odontoptilum angulata</i>	Chestnut Angle	
255. <i>Ctenoptilum vasava vasava</i>	Tawny Angle	
256. <i>Suastus minuta aditia</i>	Small Indian Palm Bob	
257. <i>Oriens gola gola</i>	Common Dartlet	
258. <i>Potanthus zatilla</i>	Common Dart	
259. <i>Potanthus trachala tytleri</i>	Broad Bident Dart	
260. <i>Potanthus tropica</i>	Tropic Dart	
261. <i>Potanthus mara</i>	Sikkim Dart	
262. <i>Telicota augias</i>	Pale Palm Dart	
263. <i>Telicota ancilla horisha</i>	Dark Palm Dart	
264. <i>Pithauria stramineipennis stramineipennis</i>	Light Straw Ace	
265. <i>Pithauria murdava</i>	Dark Straw Ace	
266. <i>Thoressa hyrie</i>	Chequered Ace	
267. <i>Thoressa sp.</i>		
268. <i>Thoressa cerata</i>	Northern Spotted Ace	
269. <i>Halpe zema zema</i>	Banded Ace	
270. <i>Halpe porus</i>	Moore's Ace	
271. <i>Halpe kumara</i>	Plain Ace	
272. <i>Halpe kusala</i>	Hill Ace	
273. <i>Sebastonyma dolopia</i>	Tufted Ace	
274. <i>Caltoris pagana</i>	Figure of 8 Swift	
275. <i>Caltoris cahira cara</i>	Colon Swift	

Scientific name	Common name	Indian WPA 1972
276. <i>Baoris farri</i>	Paintbrush Swift	Schedule IV
277. <i>Polytremis lubricans</i>	Contiguous Swift	
278. <i>Polytremis eltola</i>	Yellow-Spot Swift	
279. <i>Parnara</i> sp.		
280. <i>Pseudoborbo bevani</i>	Bevan's Swift	
281. <i>Hyarotis adrastus praba</i>	Tree Flitter	
282. <i>Zographetus satwa</i>	Purple and Gold Flitter	
283. <i>Matapa sasivarna</i>	Black-veined Redeye	
284. <i>Baracus vittatus septentrionum</i>	Hedge Hopper	
285. <i>Scobura cephaloides cephaloides</i>	Large Forest Bob	

Scientific name	Common name	Indian WPA 1972
286. <i>Koruthaialos butleri butleri</i>	Dark Velvet Bob	
287. <i>Ancistroides nigrita</i>	Chocolate Demon	
288. <i>Notocrypta paralysos alysia</i>	Common Banded Demon	
289. <i>Notocrypta feisthameli alysos</i>	Spotted Demon	
290. <i>Udaspes folus</i>	Grass Demon	
291. <i>Asticopterus jama kada</i>	Forest Hopper	
292. <i>Aeromachus stigmata stigmata</i>	Veined Scrub Hopper	
293. <i>Aeromachus jhora creta</i>	Grey Scrub Hopper	
294. <i>Baracus</i> sp.		

be numerous additions to the following list when surveys are conducted at other seasons. Also, much of the study was concentrated in and around Dibang River bed, the lowest altitude of Mishmi Hills. Very little survey was done between Tiwarigaon (1,300m) and Mayodia Pass (2,666m), proper survey in this area will yield more species.

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Image 2. Sally Lake near Roing Town



Image 3. Mishmi Hills from Dibang River Bed



Image 4a. Forest in Tiwarigaon



Image 4b. View of Mayodia



Image 5. *Graphium agetes agetes*



Image 6. *Graphium antiphates pompilius*



Image 7. *Lamproptera meges indistincta*

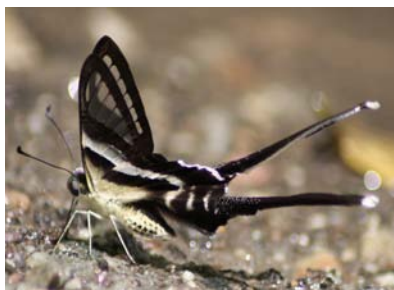


Image 8. *Lamproptera curius curius*



Image 9. *Lamproptera curius curius*



Image 10. *Meandrusa payeni evan*



Image 11. *Graphium sarpedon sarpedon*

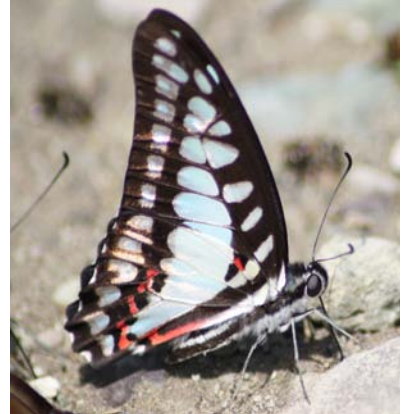


Image 12. *Graphium evemon albociliatis*

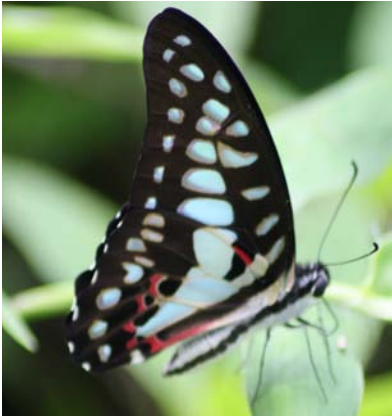


Image 13. *Graphium eurypylus acheron*



Image 14. *Graphium chironides chironides*



Image 15. *Graphium xenocles xenocles*



Image 16. *Papilio agestor agestor*



Image 17. *Papilio epycides epycides*



Image 19. *Byasa dasarada dasarada*



Image 20. *Byasa philoxenus polyeuctes*



Image 18. *Byasa polla*

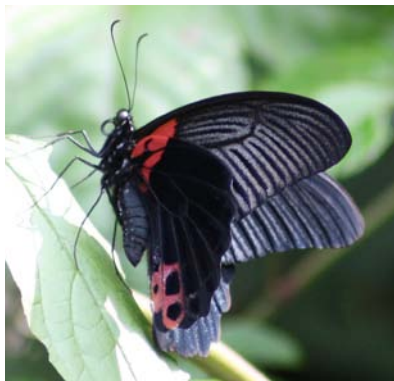


Image 22. *Papilio memnon agenor*



Image 23. *Papilio alcmenor alcmenor*

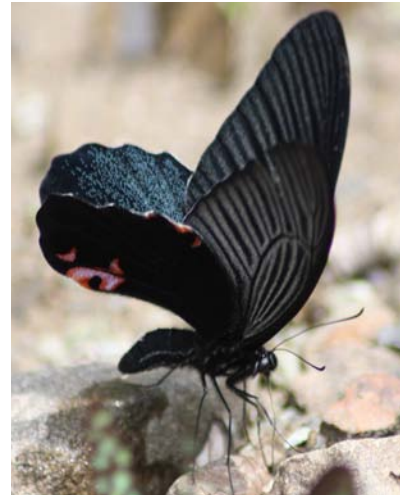


Image 21. *Papilio protenor euprotenor*



Image 24. *Papilio paris paris*



Image 25. *Papilio polyctor ganesa*



Image 26. *Troides aeacus* (male)



Image 27. *Troides aeacus* (female)



Image 28. *Troides helena cerberus*(male)



Image 29. *Troides helena cerberus* (female)



Image 30. *Eurema andersoni andersoni*



Image 31. *Eurema hecabe simulata*



Image 32. *Eurema brigitta rubella*



Image 33. *Gandaca harina assamica*



Image 34. *Dercas verhuelli doubledayi*



Image 35. *Pareronia avatar avatar*



Image 36. *Appias nero galba*



Image 37. *Delias belladonna lugens*

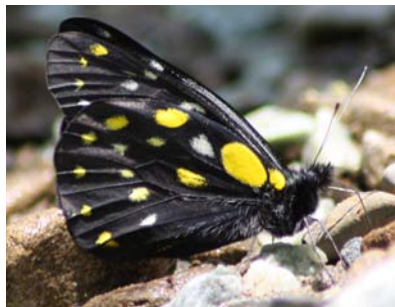


Image 38. *Delias berinda berinda*



Image 39. *Delias agostina*



Image 40. *Prioneris thestylis thestylis*



Image 41. *Prioneris clemathe*



Image 42. *Colias fieldii fieldii*



Image 43. *Delias thysbe pyramus*



Image 44. *Taraka hamada mendesia*



Image 45. *Curetis dentata dentata*



Image 46. *Ancema ctesia ctesia*

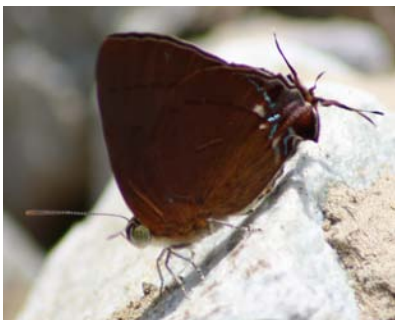


Image 47. *Remelana jangala ravata*



Image 48. *Flos asoka*



Image 49. *Zanaspia todara distorta*



Image 50. *Chilaria kina cachara*



Image 51. *Yasoda tripunctata tripunctata*



Image 52. *Spindasis nipalicus evansii*



Image 53. *Spindasis rukmini*



Image 54. *Spindasis lohita himalayanus*



Image 55. *Freyeria putli*



Image 56. *Ticherra acte*



Image 57. *Rapala nissa ratna*

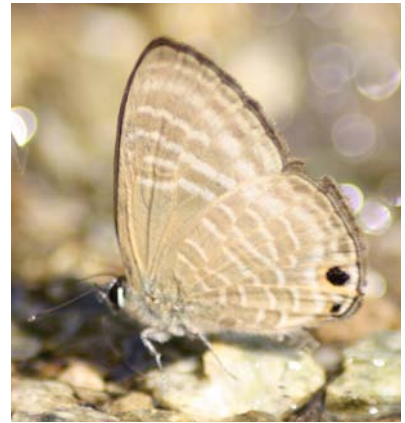


Image 58. *Nacaduba hermus nabo*



Image 59. *Tarucus indica*



Image 60. *Caleta roxus roxona*



Image 61. *Prosotas aluta coelestis*

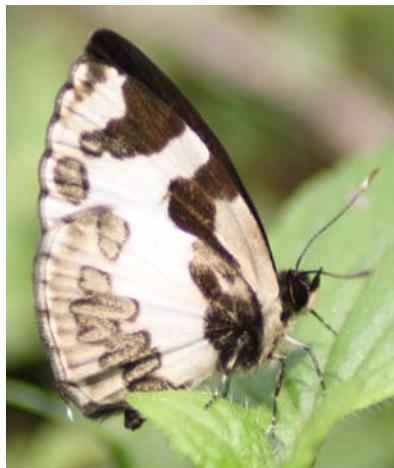


Image 62. *Caleta elna noliteia*



Image 63. *Jamides elepis pseudelpis*



Image 64. *Catapoecilma elegans*



Image 65. *Udara albocaerulea*



Image 66. *Udara cardia dilecta*



Image 67. *Celastrina argiolus sikkima*



Image 68. *Heliophorus brahma major*



Image 69. *Dodonia adonira naga*



Image 70. *Parantica tytia sita*



Image 71. *Parantica melaneus plateniston*



Image 72. *Danais melissa septentrionis*



Image 73. *Parantica aglea melanoides*



Image 74. *Hemadara narasingha*



Image 75. *Lethe gulnihal*



Image 76. *Lethe sinorix*



Image 77. *Lethe mekara zuchara*



Image 78. *Lethe chandica flanona*



Image 79. *Lethe sidonis sidonis*



Image 80. *Mycalesis adamsoni*



Image 81. *Mycalesis misenus misenus*



Image 82. *Zipoetis scylax*



Image 83. *Cethosia bibles tisamena*



Image 84. *Vindula erota erota*



Image 85. *Argyreus hyperbius hyperbius*

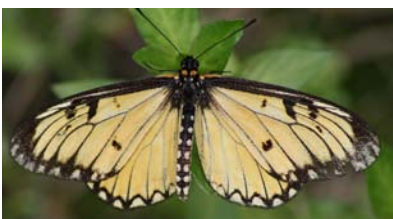


Image 86. *Acraea issoria issoria*



Image 87. *Cirrochroa tyche mithila*



Image 88. *Cirrochroa aoris aoris*



Image 89. *Vagrans gista sinha*



Image 90. *Cupha erymanthis lotis*



Image 91. *Charaxes marmax marmax*



Image 92. *Charaxes aristogiton*



Image 93. *Charaxes polyxena hierax*



Image 94. *Charaxes eudamippus*



Image 95. *Phalanta phalantha phalantha*



Image 96. *Chersonesia risa*



Image 97. *Cyrestis thyodamas thyodamas*



Image 98. *Apatura chevana*



Image 99. *Apatura chevana*



Image 100. *Apatura ambica ambica*



Image 101. *Penthema lisarda lisarda*



Image 102. *Lexias dirtea khasiana*

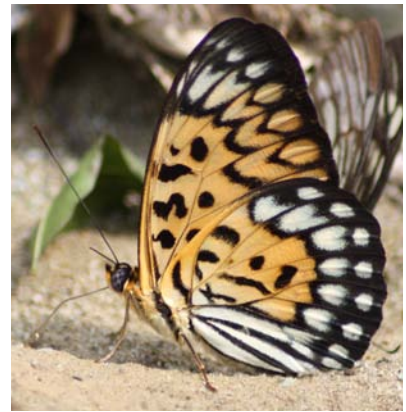


Image 103. *Neurosigma doubledayi*



Image 104. *Euthalia franciae*



Image 105. *Symbrenthia hypselis cotanda*



Image 106. *Parasarpa dudu dudu*



Image 107. *Sumalia zulema*



Image 108. *Auzakia danava danava*



Image 109. *Sumalia daraxa daraxa*



Image 110. *Neptis radha radah*



Image 111. *Neptis miah miah*



Image 112. *Neptis sankara quilta*



Image 113. *Neptis cartica cartica*



Image 114. *Phaedyma columella ophiana*



Image 115. *Neptis mansara*



Image 116. *Athyma asura asura*



Image 117. *Athyma opalina orientalis*



Image 118. *Athyma zeroa*



Image 119. *Athyma cama*



Image 120. *Euripus halitherses nyctelius*



Image 121. *Sephisa chandra*



Image 122. *Aparuta paristis paristis*



Image 123. *Aparuta parvata*



Image 124. *Euploea agleas deione*



Image 125. *Euploea mulciber mulciber*



Image 126. *Euploea midamus splendens*



Image 127. *Libythea lepita lepita*

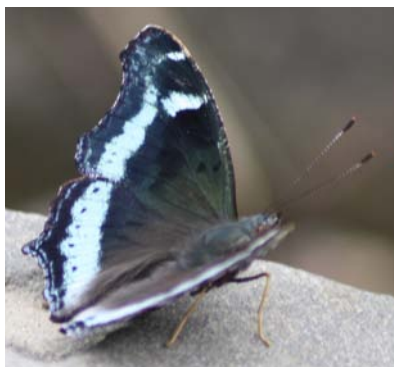


Image 128. *Kaniska canace canace*



Image 129. *Burara vasutana ?*

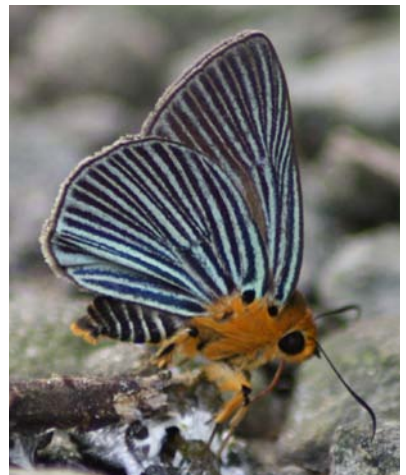


Image 130. *Burara amara*

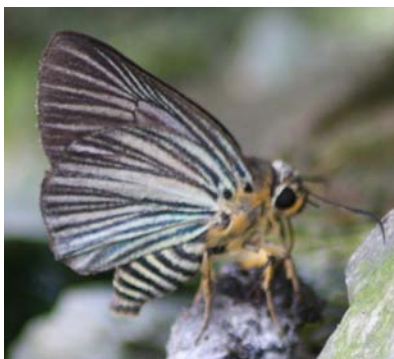


Image 131. *Burara gomata gomata*



Image 132. *Burara jaina vasundhara*



Image 133. *Burara oedipodea aegina*



Image 134. *Choaspes benjaminii*



Image 135. *Hasora anura danda*



Image 136. *Hasora taminatus bhavara*



Image 137. *Hasora alexis alexis*



Image 138. *Badamia exclamationis*



Image 139. *Celaenorrhinus aurivittata aurivittata*



Image 140. *Ctenoptilum vasava*



Image 141. *Odontoptilum angulata sura*

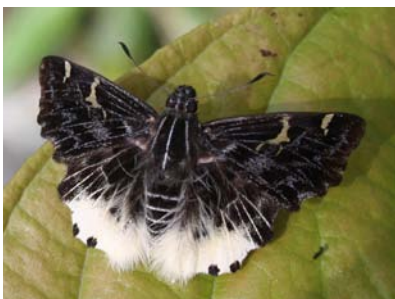


Image 142. *Darpa hanria*

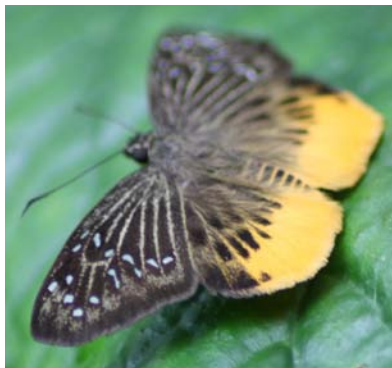


Image 143. *Mooreana trichoneura pralaya*

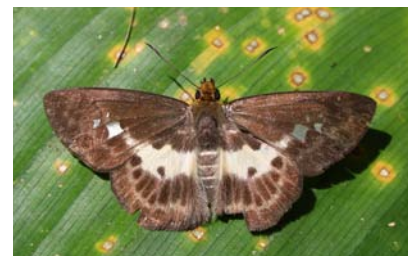


Image 144. *Gerosis phisara phisara*



Image 145. *Seseria dohertyi*



Image 146. *Tagiades litigiosa litigiosa*

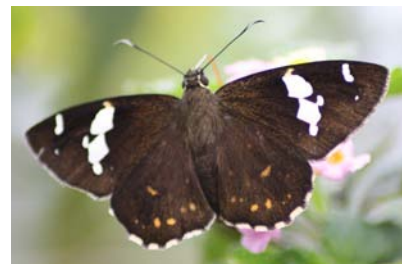


Image 147. *Celaenorrhinus leucocera chinensis*



Image 148. *Zographetus satwa*



Image 149. *Suastus minuta aditia*



Image 150. *Oriens gola gola*



Image 151. *Potanthus tropica* (male)

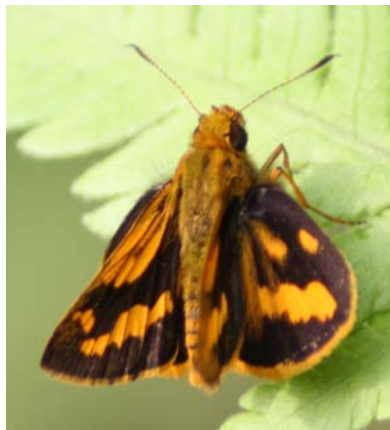


Image 152. *Potanthus tropica* (female)



Image 153. *Potanthus trachala tytleri* (underside)

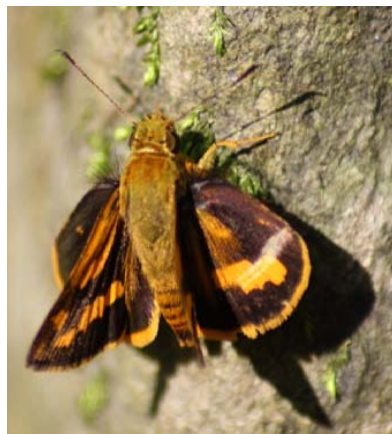


Image 154. *Potanthus trachala tytleri* (upperside)



Image 155. *Potanthus mara* (underside)



Image 156. *Potanthus mara* (upperside)



Image 157. *Koruthaialos butleri butleri*



Image 158. *Scobura cephaloides cephaloides*



Image 159. *Hyarotis adrastus praba*

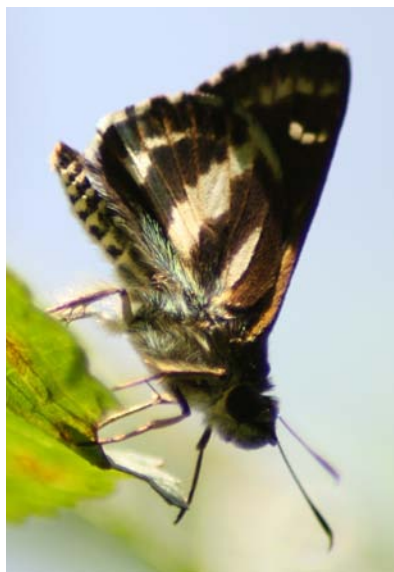


Image 160. *Sebastonyma dolopia*

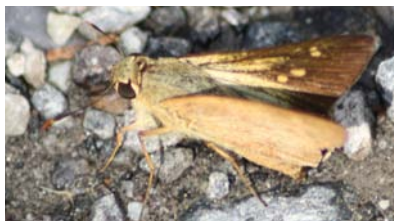


Image 161. *Pithauria stramineipennis*



Image 162. *Pithauria murdava*

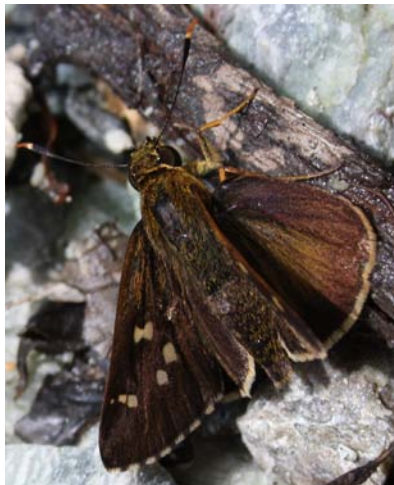


Image 164. *Thoressa hyrie* (upperside)

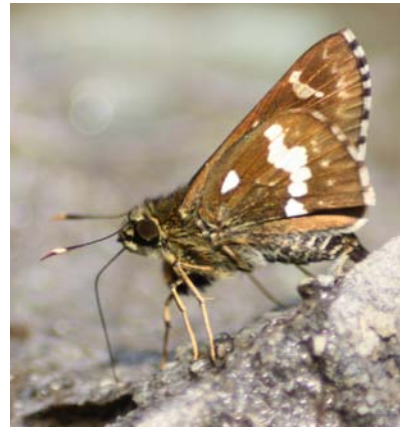


Image 165. *Thoressa cerata*



Image 163. *Thoressa hyrie* (underside)



Image 166. *Halpe porus*



Image 167. *Halpe* sp.



Image 168. *Halpe kusala*



Image 169. *Aeromachus stigmata stigmata*



Image 170. *Aeromachus jhora creta*



Image 171. *Baracus vittatus septentrionum*



Image 172. *Baracus sp.*

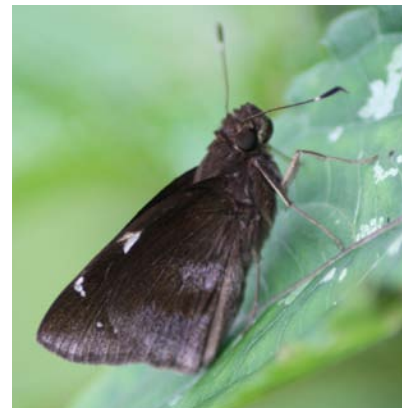


Image 173. *Notocrypta feisthameli alysos*



Image 174. *Asticopterus jama kada*



Image 175. *Polytremsis eltola*



Image 176. *Caltoris pagana* (underside)



Image 177. *Caltoris pagana* (upperside)



Image 178. *Caltoris cahira cara*



Image 179. *Baoris farri*



Image 180. *Pseudoborbo bevani*



Image 181. *Matapa sasivarna*

