

THE LEPIDOPTERA OF BURU.

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PART II.—HETEROCERA.

FAMILY EUPTEROTIDÆ.

GENUS CALAPTEROTE gen. nov.

♂. Palpi minute, erect, appressed to front; antennae short, rather heavily bipectinate, the setae depressed; legs short and moderately hairy. Forewing broad, the outer margin evenly rounded, the inner margin straight; the discocellulars evenly curved; vein 6 from near the upper angle of the cell; veins 7, 8, and 9 issuing from the extremity of a long stalk, rising from the upper angle of the cell, which also carries veins 10 and 11 at its anterior extremity just beyond the cell;



NEURATION OF *Calapterote butleri* ♂.

veins 10 and 11 are parallel to each other and to the extremity of vein 12. Hindwing subtriangular, with its outer margin rounding into the anterior margin, the inner margin straight, with the edge folded over on the upper surface of the wing; discocellulars angled at the origin of vein 5; vein 4 from lower angle of cell and vein 6 from upper angle; veins 3 and 7 from before angle of cell; in the cell near the base is a small oval depression, or pit, with incrassated edges.

150. *C. butleri* sp. nov.

♂. Uniformly pale ochreous, shading on the upperside of the primaries into very pale brown.

Expanse : 42 mm.

FAMILY SPHINGIDAE.

GENUS CHAEROCAMPA Duponchel.

151. *Ch. lucasi* Walker, *Cat. Lep. Het. B. M.* VIII. p. 151.

152. *Ch. punctivenata* Butler, *P.Z.S. London*, 1875, p. 248.

This I consider a variety of *butus* (Cramer).

GENUS ANGONYX Boisduval.

- 153.
- A. testacea*
- (Walker),
- Cat. Lep. Het. B. M.*
- VIII. p. 102.

GENUS PROTOPARCE Burmeister.

- 154.
- P. convolvuli*
- (Linnaeus),
- Syst. Nat.*
- I. p. 490.

- 155.
- P. triangulifera*
- , sp. nov.

♂. Head, thorax, and abdomen on the upperside grey, the abdomen black on the sides with white segmental streaks. There are a few rufous hairs on the first segment near the insertion of the hindwing. The underside of the abdomen is white with a series of triangular black spots marking the anterior segments. The forewings are dark grey, banded by basal, subbasal, and median curved blackish lines, and marked with a similarly coloured spot on the outer margin and at the apex. There is a distinct circular white spot at the end of the cell. The hindwing is pale grey, somewhat clouded on the inner margin by obscure black lines. There is a whitish grey triangular mark at the anal angle. The fringes of both wings are black, checkered with white. On the underside the wings are grey, slightly paler toward the base. The hindwing is crossed by an obscure dark median line parallel to the outer border. The antennae are white, with the setae dark brown.

Expanse: 98 mm.

GENUS PSEUDOSPHEX Burmeister.

- 156.
- P. discistriga*
- (Walker),
- Cat. Lep. Het. B. M.*
- VIII. p. 209.

GENUS MACROGLOSSUM Scopoli.

- 157.
- M. alcedo*
- Boisduval,
- Voyage Astrolabe, Lép.*
- p. 188.

158. (?)
- M. sitiene*
- (Walker),
- Cat. Lep. Het. B. M.*
- VIII. p. 92.

- 159.
- M. buruensis*
- sp. nov.

♂. The palpi on the upperside, the collar, and the anterior portion of the thorax are dull olive green, shading on the posterior portion of the thorax into deep black. The upperside of the abdomen is deep black, the segments being lightly marked on the anterior edge with white. The palpi on the underside and the pectus as well as the anterior pair of legs are pure white. The abdomen on the underside is black with lateral tufts of black hair tipped with snow white. There are a few minute white spots on the median line of the abdomen on the underside. There are two tufts of coal black hairs at the end of the abdomen. The anterior wings on the upperside are violet brown crossed by a basal, median, and postmedian band of dark brown, the latter band invaded and interrupted in the region of the median nervules and at the apex by patches of the prevalent ground colour. The hindwing is jet black, on the anterior margin pale purplish brown. On the underside both wings are smoky except at the base, where they are pure white.

Expanse: 53 mm.

This distinctly marked species is represented by a single specimen which does not agree with the description of any species known to me, and is not represented, so far as I am aware, in any other collection. Sir George Hampson informs me that it is not contained in the British Museum, and is entirely unknown to him.

FAMILY SYNTOMIDAE.

GENUS ERESSA Walker.

160. **E. furva** Hampson, *Cat. Lep. Phal.* I. p. 115.

The collection contains twenty or more specimens of this species.

GENUS EUCHROMIA Hübner.

161. **E. bourica** (Boisduval), *Voyage Astrolabe, Lép.* p. 194.

Apparently very common.

162. **E. creusa** (Linnaeus), *Syst. Nat.* I. p. 494.

Not nearly so common as the preceding species.

FAMILY ZYGAENIDAE.

GENUS HETEROPAN Walker.

163. **H. scintillans** Walker, *Cat. Lep. Het. B. M.* II. p. 441.

Three specimens.

GENUS HETERUSIA Hope.

164. **H. hampsoni** sp. nov.

♂. Head black, upperside of thorax and abdomen black, shot with deep violet blue, the collar and patagia being deep iridescent blue. Legs black, margined with iridescent green. Forewing elongated and narrow, black, shot at the base with iridescent purplish blue, crossed at the middle by a band of vermilion extending from the costa across the cell to the inner angle, diminishing in width from the cell to the inner angle. There is a subapical band of deep violet blue, divided into six linear spots by the nervules. The hindwing on the upperside is velvety black, marked lightly with blue on the costal margin and broadly marked with lustrous blue on the inner margin. On the underside the wings are marked as on the upperside, but the bands of vermilion and blue on the primaries are more diffuse and the violet blue of the secondaries is more extended, covering almost the entire under surface of the wing.

Expanse : 50 mm.

FAMILY COSSIDAE.

GENUS DUOMITUS Butler.

165. **D. hyphinoë** (Cramer), *Pap. Exot.* II. t. 154.

A single pair.

FAMILY CALLIDULIDAE.

GENUS CLEOSIRIS Boisduval.

166. **C. catamita** (Geyer), *Zutr. Exot. Schmett.* IV. f. 653. 654.

Apparently not common in Buru.

GENUS *CLEIS* Guérin.

167. *C. dichroa* (Boisduval), *Voyage Astrolabe*, *Lép.* p. 260.

168. *C. propinqua* Butler, *Ann. Nat. Hist.* (4), XIX. p. 394.

There are two species of *Cleis* in the collection, each represented by both sexes. The determination of these is a matter of some difficulty. Boisduval, l.c., describes a species of this genus from Buru under the name *dichroa*. His description is as follows: "Ailes d'un noir brun; les supérieures avec une bande transverse orangée, commençant à la côte; les inférieures sans taches *; (femelle) ayant les inférieures avec une bande terminale orangée; dessous semblable; celui des supérieures avec quelques petits traits violets."

Now this description of the *male* given by Boisduval exactly applies to the *male* of one species, and of the *female* to the *female* of the other species.

I solve the problem by taking the name *dichroa* Boisduval for the *male*, the *female* of which is exactly like the *male* in the colouration and markings of the wings, except that the orange band of the primaries is reduced in width and not so conspicuous.

The other species, of which I have five *males* and six *females*, has an orange band on the secondaries, obsolescent on the upperside in most examples, though always indicated, but very conspicuous on the lowerside. The *female* has this band enlarged and conspicuous on both the upper- and lowersides of the secondaries, while there is a strong tendency in the transverse band of the primaries to become obsolete in this sex. In one example it is broad and conspicuous, and in another it is reduced to a small orange spot near the outer angle, and the two are connected by intermediate forms. Both *males* and *females* are exactly alike on the underside.

This species is, I think, without doubt *Cleis propinqua* Butler, see Pagenstecher, *Jahrb. Nass. Ver. Nat.* XL. p. 222.

The synonymy works out thus:—

a. *Cleis dichroa* Boisduval; *male*.

b. *Cleis propinqua* Butler; *male*.

„ *dichroa* Boisduval; *female*.

The species figured as *dichroa* by Pagenstecher, *Jahr. Nass. Ver. Nat.* XL. t. 1. f. 7. 8, is not the insect found in Buru, whence Boisduval obtained his types. Unfortunately, Dr. Pagenstecher does not indicate the sex of the specimens figured.

FAMILY *THYRIDIDAE*.GENUS *ADDAEA* Walker.

169. *A. polygraphalis* (Walker), *Cat. Lep. Het. B. M.* XXXIV. p. 1245.

A single specimen.

GENUS *STRIGLINA* Guenée.

170. *S. scitaria* (Walker), *Cat. Lep. Het. B. M.* XXVI. p. 1488.

Five examples.

* Italics mine.

GENUS RHODONEURA Guenée.

171. **R. intimalis** (Moore), *Lep. Atk.* p. 213.

One poor specimen, so determined by Sir George Hampson.

172. **R. atriclathrata** (Warren), *Nov. Zool.* III. p. 340.

A single example.

173. **R. polygraphalis** (Walker), *Cat. Lep. Het. B. M.* XXXIV. p. 1240.

A solitary male.

FAMILY LYMANTRIIDAE.

GENUS EUPROCTIS Hübner.

174. **E. varians** (Walker), *Cat. Lep. Het. B. M.* IV. p. 796.

Apparently not scarce.

GENUS CAVIRIA Walker.

175. **C. buruana** sp. nov.

♂. Pure silvery white; palpi creamy yellow; legs white; antennae pale grey.
Expanse: 30 mm.

FAMILY AGANAIDAE.

GENUS NEOCHERA Hübner.

176. **N. stibostethia** (Butler), *Trans. Ent. Soc. Lond.* 1875 p. 329.

Seven specimens. One female has the hindwings almost entirely black, showing a tendency to melanism in the species.

GENUS ASOTA Hübner.

177. **Asota alciphron** (Cramer), *Pap. Exot.* II. t. 133. f. E.

178. **Asota australis** (Boisduval), *Voy. Astrolabe, Léop.* p. 252. t. 5. f. 3.

179. **Asota heliconia** (Linnaeus), *Syst. Nat.* p. 511.

180. **Asota** sp. (?).

A single specimen, resembling a dwarfed specimen of *heliconia*, but wholly without the orange markings at the base of the primaries. The abdomen is black with the outer edges of the segments very narrowly edged with yellow.*

FAMILY ARCTIIDAE.

GENUS RHODAREAS Butler.

181. **R. niceta** (Stoll), *Pap. Exot.* IV. t. 368. f. C.

A single female.

GENUS PANGORA Moore.

182. **P. pasinuntia** (Stoll), *Pap. Exot.* IV. t. 367. f. H.

One female.

* See *Nov. Zool.* IV. p. 352. 353.—EDITORS.

183. *P. burica* sp. nov.

♂. Palpi and front dark brown; antennae black; collar white, bordered broadly behind with dark brown; patagia creamy white, with a black spot in their centres. Thorax on the upperside white, marked with four black spots; abdomen crimson, with a broad black dorsal stripe. The pectus, thorax, and abdomen on the underside are vermilion, the latter with some small black spots on the sides of the segments. The legs are brown, tinged with light red. On the upperside the wings are dark brown; the primaries have two small white spots at the base; there is a larger white spot towards the end of the cell, and two small subapical white spots. The secondaries have a patch of red at the base; which is confluent with the somewhat broad red band of colour which extends two-thirds of its length along the upper border of the costa, sharply defined at its extremity and on its inner margin by the dark brown ground colour of the wing. The wings on the underside are somewhat paler than on the upperside, and all the lighter spots of the upperside are reproduced, but are throughout pale vermilion in colour.

Expanse: 40 mm.

Sir George Hampson writes me that this species is not in the British Museum, but may be allied to *Meringocera plutonica* Felder. The latter species is represented in my collection by specimens from Macassar, and is evidently distinct from the species we are considering. It also does not agree with the description of *Meringocera tricolor* Pagenstecher.

GENUS NYCTEMERA Hübner.

184. *N. aeres* (Boisduval), *Voyage Astrolabe*, *Lép.* p. 198.

Four specimens.

185. *N. baulus* (Boisduval), *Voyage Astrolabe*, *Lép.* p. 200.

Only one specimen.

186. *N. mundipicta* Walker, *Journ. Linn. Soc.* III. p. 184; Swinhoe, *Cat. Lep. Het. Mus. Oxf.* I. p. 141. t. 5. f. 14.187. *N. burica* sp. nov.

♂. Palpi black, front white, antennae blackish; vertex white; patagia white, with a black spot on the centre; upperside of thorax white, with a large black spot; upperside of abdomen white, with a row of small black spots forming a dorsal line; the pectus and underside of the abdomen white, the latter with a row of small black lateral brown spots; legs white, margined with blackish. The primaries on the upperside are black, with a large oblong white spot near the base, contiguous to the inner margin, and two small lenticular white spots near the base along the costa; beyond the oblong white spot at the origin of vein 2 is a small white spot; across the middle of the wing is a broad and very irregular white band, extending from the costa towards the inner margin, near the outer angle, which it does not reach; the lower part of this band is divided, the outer portion being rounded at its extremity, and the inner portion extending as a sharp tooth-like projection toward the middle of the inner margin, from which there arises a small triangular white spot, in some specimens coalescing with the tooth-like projection; beyond this band, near the

costa, are two subapical white spots and a large suboval apical spot; on the middle of the outer margin is a large subtriangular white spot. The secondaries on the upperside are white, margined broadly with black, marked at the outer angle by two small white spots, and on the middle of the margin by a subtriangular white spot which runs through the black margin and coalesces with the white surface of the wing. On the lowerside the spots and markings are reproduced as on the upperside. The *female* like the *male*. Expanse: ♂ 38 mm., ♀ 42 mm. Described from thirty-four examples, which show some variation in the size of the white spots and markings.

The species is evidently common, but quite different from any other species known to me, either by figures or descriptions of authors.

GENUS ARGINA Hübner.

188. **A. cribraria** (Clerck), *Icon. Ins.* II. t. 54. f. 4.

Two examples.

GENUS DEIOPEIA Stephens.

189. **D. pulchella** (Linnaeus), *Syst. Nat.* p. 534.

Quite common.

GENUS EILEMA Hübner.

190. **E. apicalis** (Walker), *Journ. Linn. Soc., Zool.* VI. p. 104.

A single specimen.

GENUS NISHADA Moore.

191. **N. flabrifera** Moore, *P.Z.S. Lond.* p. 23 (1878).

Two specimens.

GENUS SICCIA Walker.

192. **S. niasica** (Pagenstecher), *Jahrb. Nass. Ver. Nat.* XXXVIII. p. 25.

GENUS ASURA Walker.

193. **A. quadrilineata** (Pagenstecher), *l.c.* XXXIX. p. 126.

Two specimens.

GENUS MILTOCHRISTA Hübner.

194. **M. multidentata** Hampson, *Cat. Lep. Phal.* II. p. 493. t. 32. f. 24.

The type, which was submitted to Sir George Hampson, has been already described and figured by him, and there is therefore no need of characterising the species except to say that the figure given in Plate 32 of Hampson's Catalogue would never be recognised as a representation of the type without positive information to that effect, the dark lines being altogether too dark, and their outline being only a very rough approximation to nature. In most specimens the lines are very fine and quite faintly indicated.

195. **M. vepallida** sp. nov.

♂. Resembling the preceding species in size and outline. The anterior wings are pale stramineous, with only the faintest indication of transverse lines on the limbal area. The posterior wings are pure white. The body and legs are pale ochreous.

Expanse : 23 mm.

GENUS OCROSIA Hampson.

196. **O. reversa** (Walker), *Journ. Linn. Soc., Zool.* VI. p. 105.

GENUS DARANTASIA Walker.

197. **D. triplagiata** Hampson, *Cat. Lep. Phal.* II. p. 274. t. 25. f. 21.

The type, which is unique, has been already described and well figured by Sir George Hampson.

GENUS CACYPARIS Walker.

198. **C. elegans** (Butler), *Ann. Nat. Hist.* 5. XIX. p. 439.

FAMILY AGARISTIDAE.

GENUS IMMETALIA Jordan.

199. **Immetalia saturata** (Walker), *Lep. Het. B. M.* XXXI. p. 54.
(1864) (Buru).

Twelve specimens, nine *males* and three *females*.

Swinhoe's figure of *saturata* in *Cat. Lep. Het. Oxf.* I. t. 5. f. 1. is apparently incorrect, the abdomen in my specimens not being ringed with blue as in the figure ; the hindwing also is too blue in the figure.

GENUS PHALAENOIDES Lewin.

200. **P. micaceus** (Walker), *Cat. Lep. Het. B. M.* XXXI. p. 48.

One specimen.

GENUS OPHTHALMIS Hübner.

201. **O. lincea** (Cramer), *Pap. Exot.* III. t. 228. f. B.

Two examples.

GENUS DAHLIA Pagenstecher.

202. **D. hesperioides** (Pagenstecher), *Lep. Fauna Bismarck-Archipel*, in *Zoologica* II. p. 120. t. 1. f. 13.

FAMILY NOCTUIDAE.

GENUS PRODENIA Guenée.

203. **P. littoralis** (Boisduval), *Faun. Ent. Madag., Léop.* p. 91. t. 13. f. 8.

204. **P. synstictis** Hampson, *Fauna Brit. Ind., Moths* IV. p. 511.

GENUS AMYNA Guenée.

205. **A. selenampha** Guenée, *Noct. I.* p. 406.
206. **A. octo** id., *l.c.* p. 233.

GENUS CALLOPISTRIA Hübner.

207. **C. pulchrilinea** (Walker), *Journ. Linn. Soc., Zool. VI.* p. 190.
208. **C. recurvata** (Moore), *Lep. Atk.* p. 144.

GENUS ELUSA Walker.

209. **E. ceneusalis** (Walker), *Cat. Lep. Het. B. M. XVI.* p. 202.
210. **E. cyathicornis** Walker, *Journ. Linn. Soc., Zool. VI.* p. 194.

GENUS CARADRINA Ochsenheimer.

211. **C. exigua** (Hübner), *Samml. Eur. Schmett., Noct. f.* 362.

GENUS LEOCYMA Guenée.

212. **L. tibialis** (Fabricius), *Ent. Syst. III. 1.* p. 661.

GENUS RIVULA Guenée.

213. **R. proleuca** sp. nov.

♂. Thorax and abdomen pale brown ; palpi pale brown ; underside of body and legs whitish. Primaries rich brown ; a silvery white line runs from the base to the apex, parallel to the costal margin, and an inner line of the same colour runs along the outer margin, defined outwardly by the dark plumbeous fringes. The hindwing on the upperside is uniformly fuscous ; both wings on the underside are pale testaceous, without lines or markings.

Expanse : 17 mm.

GENUS EUBLEMMA Hübner.

214. **E. virginea** (Guenée), *Noct. II.* p. 248.

GENUS ZAGIRA Walker.

215. **Z. divisa** (Walker), *Trans. Ent. Soc. Lond. (3) I.* p. 107.

GENUS DINUMMA Walker.

216. **D. placens** Walker, *Cat. Lep. Het. B. M. XV.* p. 1806.

GENUS DORANAGA Moore.

217. **D. leucospila** (Walker), *l.c. XXXIII.* p. 788.

GENUS HYBLAEA Fabricius.

218. **H. aterrima** sp. nov.

♂. Palpi black, margined below with white ; front and collar black ; patagia black, margined with deep chestnut brown ; upperside of thorax black, with a tuft

of chestnut brown hairs rising from either side of the metathoracic segment ; abdomen black on the upperside, on the underside the segments are narrowly margined with white ; the legs are black, margined inwardly with white ; the tarsi ringed with white. The forewings on the upperside are black, with the region of the outer angle broadly marked with chestnut brown ; there is also a broad and indistinct median and subapical oblique transverse shade of dark purplish grey visible on the wings ; the fringe, just at the apex of the primaries is white. The hindwings on the upperside are jet black, the fringe at the outer angle being for a short distance pure white. On the underside the primaries are a dark purplish brown, with three equidistant patches of white raised scales along the costa. The secondaries are black, with the inner margin as far as the cell bluish green ; a small spot of the same colour is situated near the base on the costa, and an irregular figure resembling the figure 6 placed on its side (∞) is located on the upper middle of the wing, extending from the costa to the cell. The *female* is like the *male*.

Expanse : 38—42 mm.

GENUS BLENINA Walker.

219. **B. chrysochlora** (Walker), *l.c.* XXXIII. p. 935.

GENUS EUTELIA Hübner.

220. **E. scelerata** sp. nov.

♂. Antennae almost simple. Forewing with the outer margin slightly angled ; cilia crenulate. Tibiae almost naked ; palpi whitish ; head, collar, and upperside of thorax and abdomen purplish brown. Lower side of abdomen grey. Legs grey. On the upperside the forewing is purplish brown, with a small oval spot at the end of the cell, narrowly margined with pale grey. A number of indistinct transverse bands of dark brown traverse the wing, those on the limbal and apical areas being most conspicuous and being composed in part of raised scales. The hindwings are uniformly fuscous, slightly paler at the base. On the underside both wings are pale fuscous ; both are crossed by curved geminated limbal lines ; the secondaries have in addition an angulated median dark transverse line beyond the end of the cell, and a black spot in the cell at its extremity.

Expanse : 22 mm.

GENUS STICTOPTERA Guenée.

221. **S. costata** (Moore), *Lep. Ceyl.* III. p. 123. t. 159. f. 8.

222. **S. cucullioides** Guenée, *Noct.* III. p. 52.

223. **S. brunneipennis** sp. nov.

♀. Front, collar, patagia, and the upperside of the thorax pale chestnut ; upperside of the abdomen fuscous ; lowerside of the abdomen pale yellowish grey. Primaries on the upperside are pale chestnut brown, crossed from the middle of the costa toward the inner angle with a darker brown shade, becoming deep black between veins 1 and 2. There is a submarginal band of small black spots extending parallel to the outer margin from the costa to the inner angle. Of these spots the one situated between veins 4 and 5 is quite large, and extends inwardly toward the base. Fringes concolorous. The secondaries on the upperside are fuliginous, the fringes pale grey. On the underside both wings are uniformly pale brown

the primaries being marked by a few pale spots on the outer edge of the costa, and having a narrow and very distinct subapical brown transverse line near the extremity, defined inwardly by pale ochraceous.

Expanse: 35 mm.

This species seems to be near *Stictoptera anthyalos* Swinhoe, but does not agree with his description.

224. *S. buruana* sp. nov.

♂ Palpi, front, head, and upperside of thorax and abdomen black; lower side of abdomen slightly paler. The primaries on the upperside are dark purplish grey, clouded over the basal half and on the limbal area by black. The fringes are fuscous, checkered with white. The hindwings are uniformly blackish, the fringes the same colour, checkered uniformly with white. On the underside both wings are fuscous, shading into blackish on the outer margins; a few indistinct lines, corresponding in location to those on the upper surface of the primaries appear on this side of the wings. *Female* like the *male*.

Expanse: 30 mm.

This appears to be a common species. The collection contains over twenty specimens which do not vary in the least.

225. *S. paranthyala* sp. nov.

♂. Palpi brown; front, collar, and thorax dark brown; upperside of the abdomen fuscous; lowerside of the thorax and abdomen ochraceous; legs ochraceous. The primaries are dark brown, crossed beyond the base by a pale brown band, somewhat irregular on its outer margin, and diminishing in width from the costa to the inner margin. This pale band is succeeded by a still broader band, which is parallel to it and to the inner margin, and extends from the costa two-thirds of its length from the base, gradually diminishing in width to the inner margin. Beyond this pale band is a dark, blackish brown shade, followed by lighter lines and waving dark lines. The fringes are uniformly dark fuscous, and crenulate. The hindwings on the upperside are dark fuscous, the fringes pale fuscous. On the underside the wings are uniformly pale fuscous, with a few paler marks on the costa and a quite distinct subapical transverse whitish line, which runs from the costa as far as vein 6. The *female* does not differ from the *male*.

Expanse: 28—30 mm.

This species appears to be common, the collection containing fourteen or fifteen specimens which do not vary at all and are quite uniform in their markings.

GENUS GYRTONA Walker.

226. *G. hylusalis* Walker, *Cat. Lep. Het. B. M.* XXVII. p. 93.

GENUS CAREA Walker.

227. *C. costiplaga* Swinhoe, *Ann. Nat. Hist.* (6) XII. p. 262.

GENUS ERCHEIA Walker.

228. *E. cyllaria* (Cramer), *Pap. Exot.* III. t. 251. f. C. D.

229. *E. fusifera* (Walker), *Cat. Lep. Het. B. M.* XIV. p. 1398.

GENUS ANISONEURA Guenée.

230. **A. hypocyanea** Guenée, *Noct.* III. p. 162.231. **A. salebrosa** Guenée, *Noct.* III. p. 161.

GENUS SPIREDONIA Hübner.

232. **S. diops** (Walker), *l.c.* XIV. p. 1297.

GENUS NYCTIPAO Hübner.

233. **N. crepuscularis** (Linnaeus), *Syst. Nat.* ed. XII. p. 811.234. **N. ephesperis** Hübner, *Verz.* p. 272.

This species or form has a broad white median band running from before the middle of the costa of the forewing to near the middle of the inner margin of the hindwing. It is otherwise very near *crepuscularis*, with which Sir George Hampson makes it synonymous.

GENUS HYLODES Guenée.

235. **H. caranea** (Cramer), *Pap. Exot.* III. t. 269. f. E. F.

GENUS POLYDESMA Boisduval.

236. **P. metaspila** (Walker), *l.c.* XIII. p. 1032.237. **P. inangulata** (Guenée), *Noct.* III. p. 210.238. **P. graphica** sp. nov.

♂. Palpi erect, divergent; antennae simple; the forelegs with the femur very hairy; tibiae provided with a very long, dense, wide-spreading fascicle of hair almost reaching to the extremity of the tarsi and concealing them; front and head pale brown; eyes black; patagia and upperside of thorax pale wood brown; upperside of abdomen pale brown, underside lighter in colour; the legs wood brown. The primaries on the upperside are wood brown, traversed by a dark median band, with a dark brown shade on the limbal area; a dark brown spot is found on the costa a little before the base; a dark brown spot, made up of zigzag lines blending with each other, is found near the base, just below the cell, between the median and submedian nervules; beyond the brown shade which crosses the middle of the wing, and located on the submedian vein, is a dark brown or black spot, irregular in shape; a multitude of minute waved lines and dots appear upon the lighter surface of the wing; a crenulated dark brown line defines the outer margin; the cilia are wood brown. The secondaries on the upperside have the anterior margin immaculate and pale fuscous; the inner half of the wing is marked with spots and strigae, a prominent dark brown spot being located between the second and third median nervules; the outer margin of this wing is, like the primaries, defined by a crenulated dark brown line; the fringes are as on the primaries. On the underside both wings are uniformly pale fuscous, with only a slight trace of a median transverse band.

Expanse: 42 mm.

Sir George Hampson informs me that this interesting insect should constitute the type of a new subgenus under *Polydesma*, but I leave the honour of erecting the subgenus to others, as the weather is too hot to bother with it just now.

GENUS CYCLODES Guenée.

239. **C. omma** (Hoeven), *Tijd. Nat. Gesch.* VII. p. 281. t. 7. f. a. b.

GENUS OPHIUSA Ochsenheimer.

240. **O. melicerte** (Drury), *Ill. Exot. Ins.* I. p. 46. t. 33. f. 1.

241. **O. joviana** (Cramer), *Pap. Exot.* IV. t. 399. f. B.

GENUS HYPAETRA Guenée.

242. **H. includens** (Walker), *Cat. Lep. Het. B. M.* XIII. p. 1107.

GENUS PLECOPTERA Guenée.

243. **P. antigona** sp. nov.

♂. Front, collar, patagia, and upperside of thorax ochraceous; upperside of abdomen rufous grey; the underside of the abdomen whitish; legs whitish, with the hairs on the tibiae dark grey. The primaries on the upperside are pale grey, tinged near the costa with yellowish; at the end of the cell there is a small annular spot; a broad submarginal brown line runs from the costa before the apex to the inner margin before the inner angle, followed outwardly by a brown shade, irregularly defined on its outer margin; a series of small dark brown points accentuates the extremity of the nervules; the fringes are concolorous; two minute brown spots are located on the interspace between the median and submedian veins, one below the cell near the origin of the first median nervule, the other about the middle of the interspace behind the brown submarginal line. The secondaries on the upperside are pale ashen grey, with the outer third covered by a blackish band; the inner margin is shaded with darker grey; there is a minute discocellular spot on the underside. Both wings are pale grey, laved with ochraceous at the base and on the costa. The outer thirds of both primaries and secondaries are blackish. There is a lunate black spot at the end of the cell of the primaries, and a round discocellular spot at the end of the cell of the secondaries; between this spot on the secondaries and the outer margin there is an irregular, fine, zigzag, black line.

♀. The *female* is marked exactly like the *male*. The specimen before me is, however, a trifle smaller than the *male*.

Expanse: *male*, 35 mm.; *female*, 30 mm.

Described from a single *male* and a single *female*.

GENUS ACANTHOLIPES Lederer.

244. **A. similis** (Moore), *Lep. Atk.* p. 174. t. 6. f. 5.

GENUS REMIGIA Guenée.

245. **R. archesia** (Cramer), *Pap. Exot.* III. t. 273. f. F. G.

GENUS TRIGONODES Guenée.

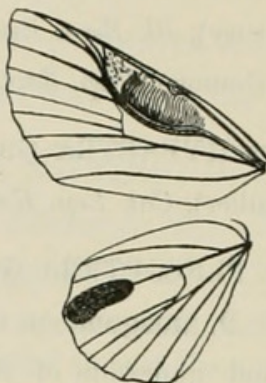
246. **T. cephise** (Cramer), *l.c.* III. t. 227. f. C.

GENUS GRAMMODES Guenée.

247. **G. oculata** Snellen, *Tijd. v. Ent.* XXIII. p. 103. t. 8. f. 6.

GENUS *PTEROCHAETA* gen. nov.

♂. Antennae simple, filiform, two-thirds the length of the costa; palpi ascending, the third joint produced forward, aciculate; legs with the tibiae more or less hairy,

NEURATION OF *Pterochaeta dohertyi* ♂, 1½.

the hind pair quite densely covered with hair and provided with double spurs at the extremity of the tibiae; the first and second pairs of legs are likewise armed at the end of the tibiae with short spurs. In the primaries vein 4 is emitted a little above the lower outer angle of the cell; vein 5 is nearer vein 4 than vein 6; the costal vein is greatly bent downward toward the inner margin, crowding the cell into a narrow space about the middle of the wing; the precostal follows the normal line of the costal, and between the costal and precostal is included a superior areole considerably larger than the cell, heavily clothed on the underside with erect hair-like scales; the precostal is incrassated about the middle of the costal margin, forming a projection which is bent backwards; veins 11 and 12 are emitted from a common stalk which springs from the costal not far beyond the base and forms the lower margin of the superior areole; veins 6, 7, 8, and 10 spring from a common stalk which arises at the same point as the stalk which supports veins 11 and 12, and follows the course of the latter until it reaches the point where vein 10 is emitted; vein 9 is emitted from vein 8 half way between the outer margin and the origin of vein 10. Hindwing: veins 1 and 1a bifurcate a little beyond the base; vein 5 springs from the lower angle of the cell, which is acutely produced a little above the common origin of veins 3 and 4; the origin of vein 6 is widely distant from the origin of vein 5; vein 6 at its outer extremity is marked by an oblong oval patch of heavy raised scales.

Type: *Pterochaeta dohertyi* Holland.

248. *P. dohertyi* sp. nov.

♂. Palpi black on the upperside, white on the lowerside; head, patagia, and upperside of body pale purplish brown; the underside of the body whitish; legs grey, margined externally with black; tarsi black, ringed with white. The primaries on the upperside are purplish brown, crossed about the middle by a broad pale band, running obliquely from the costa, one-third of its length from the base, to about the middle of the inner margin; beyond this band are a number of brown spots and markings, forming an irregular submarginal series; of these spots those which are just beyond the end of the cell are the largest and most distinct, two of them being pupiled by paler oval centres; at the tip of each nervule on the outer margin is a small pale spot; there are some subapical dark brown spots. The secondaries are

fuscous, marked near the anal angle by transverse spots and strigae. The primaries and secondaries on the underside are pale fuscous. Along the lower edge of the cell of the primaries there are ranged three fascicles of raised hairs, and the cell is profusely clothed with raised scales; beyond the end of the cell are two pale oval marks. The secondaries at the end of the cell have a pale lunate mark margined with dark grey, and there are traces of an interrupted median band of dark brown spots.

Expanse: 35—40 mm.

Described from five *males*.

This insect has been assigned (*in litt.*) to the genus *Thermesia* by Sir George Hampson, who in writing to me adds in his notes the words "subgenus novum." The insect differs structurally from any species of *Thermesia* known to me, and at a glance separates itself from all others by the very peculiar squamulation of the lowerside of the primaries and secondaries and the large tufts of hair projecting from the lower margin of the upper areole. The neurulation is also widely different. The facies of the insect is wholly unthermesiid.

GENUS THERMESIA Hübner.

249. *T. lichenea* sp. nov.

♂. Body brown on the upperside, pale chestnut brown on the lowerside; legs reddish; tarsi ringed with white. The primaries on the upperside are rich reddish brown, crossed by indistinct median, submedian, and submarginal dark brown bands, accentuated on the interspaces by minute grey dots; at the end of the cell, covering its extremity and extending over the region of the median and radial nervules, is a large, oval, sharply defined, glaucous spot, marked at the origin of vein 5 by a small black dot; above this oval spot are two small triangular spots of the same colour; the apex of the wing and the base are a trifle paler than the rest of the wing, being tinged with ochraceous. The secondaries on the upperside have the anterior half fuscous; the inner half, especially in the region of the anal angle is tinged with rich brown, of the same tint as that of the primaries; a number of minute spots and strigae adorn this portion of the wing. On the underside the wings are fuscous, tinged with reddish ochraceous at the base and on the costae. The primaries are traversed by an indistinct median band, followed by an even less distinct submarginal transverse band. The secondaries have a distinct circular black spot at the end of the cell, the median and submarginal transverse bands being more distinct on this wing than on the primaries.

Expanse: 40 mm.

The type is unique.

250. *T. bolinoides* Guenée, *Noct.* III. p. 358.

251. *T. creberrima* Walker, *Cat. Lep. Het. B. M.* XV. p. 1574.

GENUS ISCHYA Hübner.

252. *I. manlia* (Cramer), *Pap. Exot.* I. t. 92. f. A.

One specimen.

GENUS EPISPARIS Walker.

253. **E. varialis** (Walker), *Cat. Lep. Het. B. M.* XVI. p. 7.

Two examples.

GENUS OXYODES Guenée.

254. **O. scrobiculata** (Fabricius), *Spec. Ins.* II. p. 212.

Four specimens.

GENUS OMMATOPHORA Guenée.

255. **O. luminosa** (Cramer), *l.c.* III. t. 274. f. D.

Four specimens.

GENUS OPHIDERES Boisduval.

256. **O. fullonica** (Linnaeus), *Syst. Nat.* ed. XII. p. 812.

Apparently common.

257. **O. jordani** sp. nov.

♂. Head, collar, and thorax dark brown; abdomen orange, shaded with brown on the upperside just behind the thorax. There are a few brown hairs at the tip of the abdomen; legs brown, shading at the extremities of the tibiae into orange; tarsi dark brown, ringed with white. The primaries on the upperside are dark purplish brown, profusely marked with minute dark brown or blackish points and strigae, uniformly distributed over the entire surface; there are a few greenish scales below the apex; margins crenulate. The posterior wings on the upperside are orange, covered with brown hairs at the base; the outer third as far as vein 2 is marked by a black marginal border; behind this, above the anal angle, is a large sublunate black spot. On the underside the species closely resembles *O. fullonica*.

Expanse: 80—85 mm.

Described from two *males*.

This species is very easily distinguished from all other species of the genus known to me by the almost absolutely uniform colour of the primaries, which appear, unless closely inspected, to be of uniform dark brown, almost black, the minute points and dots being so closely crowded together as to present the appearance of an almost unbroken surface of dark brown.

GENUS ARSACIA Walker.

258. **A. saturatalis** Walker, *Cat. Lep. Het. B. M.* XXXIV. p. 1260.

One specimen.

GENUS PLUSIA Ochsenheimer.

259. **P. eriosoma** Doubleday, Dieffenbach's *New Zealand*, II. p. 285.

One example.

GENUS CALESIA Guenée.

260. **C. dasyptera** (Kollar), Hügel's *Kaschmir*. IV. p. 476

Three *males* and two *females*.

GENUS MECODINA Guenée.

261. **M. praecipua** (Walker), *Cat. Lep. Het. B. M.* XXXIII. p. 1056.

Three examples.

GENUS ZETHES Rambur.

262. **Z. grisea** sp. nov.

♂. Palpi pale yellowish brown; front whitish; thorax and upperside of abdomen pale wood brown; the underside of the thorax and abdomen white; legs whitish, marked externally by brown dots; tarsi pale brown ringed with white. The primaries and secondaries on the upperside are pale wood brown with an indistinct reniform spot in the cell of the primaries; a pale ochreous line, defined externally and internally by darker brown, runs from the costa of the primaries, near the middle, obliquely outwardly to beyond the end of the cell, and then returns at a sharp angle to the inner margin of the primaries, and is continued as a straight line across the secondaries to the inner angle. Beyond this sharply defined line, near the apex of the primaries and near the outer angle of the secondaries, are some clouded brown markings. Both wings on the underside are pale grey, tinted with ochreous near the base and laved with purplish grey externally. Upon the primaries there are some faint traces of a transverse median and transverse submarginal dark line, and in one specimen a black point at the end of the cell of the primaries.

Expanse: 30—38 mm.

GENUS MASCA Walker.

263. **M. leucogastralis** (Walker), *l.c.* XXXIV. p. 1508.

GENUS HYPERLOPHA Hampson.

264. **H. cristifera** (Walker), *l.c.* XXXIII. p. 1071.

GENUS CAPNODES Guenée.

265. **C. umbrifera** sp. nov.

♂. Palpi brown, marked outwardly with white spots; front, collar, thorax, and upperside of abdomen brown, lowerside of thorax and abdomen whitish; legs pale brown; tarsi dark brown, ringed with white. The primaries on the upperside are dark purplish brown, crossed from the apex to the middle of the inner margin by a dark brown line darker than the ground colour. This dark brown line is continued across the secondaries to the middle of the inner margin, being interrupted only on the costa. The apex of the primaries below this dark brown line and as far as vein 4 is ochreous. The secondaries beyond the dark brown transverse line are pale ochreous, marked near the inner angle by some dark brown shades; there are also a few obscure submarginal spots and lines; the fringes are brown checkered with paler brown. Both primaries and secondaries on the underside are pale yellowish fuscous, traversed by an obscure median and limbal transverse line and marked at the end of the cell by an obscure brown oval spot.

Expanse: 32 mm.

Type unique.

GENUS RAPARNA Moore.

266. *R. palpalis* (Walker), *l.c.* XXXIV. p. 1180.267. *R. costiplaga* sp. nov.

♂. Palpi, head, and collar dark brown, the upperside of the thorax and the abdomen of the same colour as the wings; the abdomen at the extremity has some whitish hairs; on the underside the thorax and abdomen are a little paler; legs concolorous. The primaries and the secondaries on the upperside are dark purplish grey, with a few minute pale dots and lines, suggesting a transverse median and submarginal series. On the costa of the primaries, beyond the end of the cell and also at the apex, are black subtriangular spots. On the underside both wings are fuscous, and both are marked in the cell by two minute white spots defined on both sides by blackish lines.

Expanse : 25 mm.

This species appears to be quite common.

GENUS ADRAPSA Walker.

268. *A. ereboides* Walker, *Journ. Linn. Soc. Zool.* VII. p. 196.269. *A. scopigera* (Moore), *Lep. Ceyl.* III. p. 195. t. 172. f. 9.270. *A. manifestalis* (Walker), *Cat. Lep. Het. B. M.* XVI. p. 171.271. *A. albapicata* sp. nov.

♂. Palpi, head, and collar blackish; upperside of thorax brown sprinkled with grey; upperside of abdomen blackish, abdomen on the lowerside pale brown; there are some whitish hairs at the tip of the abdomen; legs brown, marked with white lines at the joints. The primaries and secondaries on the upperside are dark brown; there is a fine whitish curved basal line and a small white spot beyond it in the cell and a large oval white spot at the end of the cell; beyond the cell is a curved and zigzag fine whitish line, followed by a similar submarginal line, most distinct at the apex; between this submarginal line and the margin below the apex is a large irregular white spot, succeeded by four small marginal points; the fringes are brown, of the same colour as the body of the wing, checkered with white, the spots of the fringe being most conspicuous in immediate proximity to the large white subapical spot. The secondaries are crossed by zigzag median and submarginal lines; there are traces of a zigzag marginal line between veins 4 and 5; the fringes of the secondaries are checkered like the fringes of the primaries, but less conspicuously. On the underside both wings are greyish, the light spots and markings of the upperside reappear on this side with the exception of the large white spot at the end of the cell of the primaries, which is not indicated. All these light transverse lines on the underside are defined internally by dark brown shades. The *female* is like the *male*, but somewhat paler.

Expanse : 40 mm.

272. *A. albibasalis* sp. nov.

♀. The body of this species is like that of the preceding species. The primaries on the upperside are dark brown, with some obscure lighter transverse lines; the base is broadly chalky white, and there is a small subtriangular chalky white spot at the apex. The secondaries on the upperside are uniformly pale fuscous. On the

underside both wings are dark fuscous without any lines or markings whatever. The fringes of both primaries and secondaries are uniformly dark brown.

Expanse: 34 mm.

Unfortunately, there are only two *female* specimens of this species.

273. *A. scotosa* sp. nov.

♂. Antennae, palpi, legs and body and all its appendages wood brown, with a few whitish hairs at the tip of the abdomen. The primaries on the upperside are wood brown, marked with curved basal and median dark brown lines between which, in the middle of the cell, is a minute white point margined by dark brown; there is a very irregular submarginal pale transverse line, shaded internally by dark brown. This dark submarginal shading on the primaries is continued across the secondaries as a straight transverse median band, gradually widening to the middle of the inner margin of the hindwing. The irregular submarginal light line of the primaries is repeated on the secondaries, diverging from the brown shade which follows it on the primaries, and running nearly parallel to the outer margin of the secondaries to the inner angle. The fringes of both primaries and secondaries are dark brown. On the underside both wings are fuscous. Both primaries and secondaries on this side are crossed by a moderately broad median brown band, and both have the pale zigzag submarginal line of the upperside faintly repeated upon the lowerside. There is a black discocellular point at the end of the cell of the secondaries. The *female* is like the *male*.

Expanse: 30 mm.

Described from two specimens.

274. *A. speculifera* sp. nov.

♂. Palpi with the first joint black, the second and third white; front white; eyes black; collar, patagia, and upperside of thorax and abdomen dark brown; the underside of the thorax and abdomen, together with the legs on the lowerside, brilliantly white; tarsi pale brown. The primaries on the upperside are wood brown, with a lunate white spot at the end of the cell and two minute white spots on the costa, one a little beyond its middle and the other near the apex; there are faint traces of darker transverse median and submarginal lines. The secondaries have the costal margin whitish, the remainder of the wing of the same colour as the primaries, traversed by distinct transverse median and submarginal dark lines. On the underside both wings are white at the base, shading outwardly into fuscous. Both the primaries and the secondaries have distinct black spots on the cell, and both are traversed by faint median and very distinct submedian dark brown transverse lines.

Expanse: 27 mm.

GENUS PSEUDAGLOSSA Grote.

275. *P. fulvipicta* Butler, III. *Het. B. M.* VII. p. 87. t. 134. f. 5.

276. *P. antipodalis* sp. nov.

♂. The entire body, the legs, and the antennae fuscous. The primaries on the upperside are dark fuscous, with distinct subbasal and median transverse lines of dark brown, the median line thrice curved, and defined outwardly by a pale whitish

line; the marginal area is traversed by an irregular submarginal band sharply defined externally but melting into the ground colour internally; the fringes are dark fuscous checkered with white. The secondaries on the upperside are uniformly pale fuscous. On the underside the primaries and secondaries are pale fuscous; there is an indistinct subapical whitish line on the costa of the primaries, a linear transverse whitish line at the end of the cell in the secondaries, and following this a well-defined curved transverse median dark line, defined externally by a paler line.

Expanse: 26 mm.

277. *P. (?) buruensis* sp. nov.

♂. The body, the legs, and the antennae are pale wood brown; the eyes darker brown. The primaries on the upperside are wood brown, with an obscure darker brown circular dot in the cell and a somewhat larger oval spot at the end of the cell ringed by pale brown lighter than the ground colour of the wing. There is a fine, irregular, submarginal light line, clouded inwardly with darker brown; beyond this light submarginal line the wing is very pale wood brown, several shades lighter than the ground colour of the remainder of the wing. The secondaries on the upperside are pale wood brown, lighter than the primaries, with a small dark spot at the end of the cell, and traces of obscure curved transverse median and transverse submarginal lines. On the underside the wings are pale grey, the primaries without markings; the secondaries at the base on the cell and near the inner margin have two tufts of coal black hairs extending a short distance in the direction of the outer margin; beyond the black tuft on the cell is a minute black spot at its end, beyond this a well-defined curved median and curved submarginal band.

Expanse: 25—27 mm.

Described from two *male* specimens.

This species is readily distinguished from all others by the little fascicles of jet black hair near the base of the underside of the secondaries.

GENUS BLEPTINA Guenée.

278. *B. nigella* (Swinhoe), *Trans. Ent. Soc. Lond.* p. 265 (1890).

GENUS HYDRILLODES Guenée.

279. *H. abavalis* (Walker), *Cat. Lep. Het. B. M.* XVI. p. 196.

GENUS NODARIA Guenée.

280. *N. tacta* sp. nov.

♂. Front white; head, thorax, and abdomen wood brown, both on the upper side and underside; legs concolorous. Primaries on the upperside reddish fuscous, traversed by two very irregular fine dark brown lines running obliquely from the costa outwardly to the median vein about the middle of the wing, and then returning obliquely towards the middle of the inner margin, being sharply crenulated; between these two lines on the costa is a dark brown shade, limited before and behind by these lines, and accentuated on either side by a pale light yellowish line; beyond these lines near the margin it is a very fine waved light submarginal line, clouded on the inner side by dark brown. The secondaries on the upperside are pale fulvous, marked by a straight transverse dark line running from the inner margin just above the anal

angle toward the middle of the wing, where it disappears; succeeding this outwardly along the outer margin is a pale submarginal light line similar to that upon the primaries. On the underside both wings are fuscous, the primaries lighter on the inner margin; both are crossed by narrow and somewhat indistinct curved median and curved submarginal transverse lines. On the primaries the median transverse line is accentuated near the costa by a white line defining it outwardly for a short distance. The curved transverse submarginal lines of both wings are defined outwardly by a very fine white line. The *female* is like the *male*.

Expanse: 18—20 mm.

Described from twenty-five specimens, none of them in absolutely perfect condition.

The species appears to be common.

281. *N. clathrata* sp. nov.

♂. The entire body, the antennae, and legs are grey. The primaries on the upperside are pale greyish brown, marked by a straight transverse subbasal, somewhat narrow, dark line; there is a small dark brown spot at the end of the cell; following this is a transverse median brown line, produced in a sharp angle beyond the end of the cell, otherwise straight, and parallel for the latter half of its length to the subbasal line; from the apex to near the inner angle is a fine dark brown line, slightly curved inwardly toward the base. The secondaries on the upperside have a faint trace of a prolongation of the transverse median line of the primaries, and the transverse submarginal line of the primaries is projected across the secondaries, making a sharp angle on the outer margin after its middle, and returning toward the anal angle, vanishing before it reaches it. On the underside both wings are much paler, with the spots and transverse lines of the upperside very faintly indicated. The female is very much like the male, but darker in the specimen before me, and with all the spots and lines somewhat more clearly defined, both on the upperside and underside.

Expanse: ♂, 23 mm.; ♀, 26 mm.

282. *N. rugosa* sp. nov.

♂. Palpi, head, upperside of thorax dark brown; abdomen and legs pale fuscous. The primaries on the upperside are dark brown, with a small white point at the end of the cell, beyond which is a mass of raised dark brown scales; there is a faint, pale submarginal transverse line formed by the coalescence of semilunate pale lines, of which the two uppermost, nearest the costa, are white and conspicuous; the fringes are dark brown lightly checkered with pale fuscous. On the upperside the hind wings are uniformly greyish fuscous, the fringes uniformly dark brown. Both wings on the underside are uniformly fuscous without any markings.

Expanse: 33 mm.

Type: unique.

GENUS CATADA Walker.

283. *C. vagalis* (Walker), *Cat. Lep. Het. B. M.* XVI. p. 172.

GENUS MARAPANA Moore.

284. *M. plagifera* (Walker), *Journ. Linn. Soc., Zool.* VII. p. 187.

285. *M. ilatana* sp. nov.

Head, thorax, and abdomen luteous; legs concolorous. The primaries on the upperside are pale reddish fuscous, slightly clouded with brown at the base, marked with two spots composed of raised dark brown scales at the end of the cell; there is a transverse subbasal straight brown line running from the costa to the inner margin; beyond the cell, running obliquely from the costa just before the apex to the inner margin about the middle is a dark brown shade, gradually broadening from the costa to vein 1, where it terminates in a fine line which runs outwardly to the inner margin; externally this shade is defined by a pale yellowish line. A fine yellowish line runs from the apex to the inner angle, being defined outwardly by a dark brown line. The fringes are brown, checkered between the nervules by pale fuscous. The secondaries on the upperside are pale reddish fuscous, slightly darker on the outer third. On the underside the primaries are pale reddish fuscous, slightly laved with yellow about the apex. The secondaries on the underside are pale grey laved with pale reddish brown on the costa, with a small black dot at the end of the cell and traces of an incomplete curved transverse median band of brown.

Expanse: 20 mm.

Described from two specimens, in one of which the markings on the upperside of the primaries are less clearly defined than in the other.

GENUS HYPENA Schrank.

286. *H. gonospilalis* (Walker), *l.c.* XXXIV. p. 1516.

287. *H. obstupidalis* (Swinhoe), *Proc. Zool. Soc. Lond.* p. 471. t. 28. f. 7 (1885).

288. *H. indicatalis* (Walker), *l.c.* XVI. p. 61.

289. *H. albifascialis* (Pagenstecher), *Jahrb. Nass. Ver. Nat.* XXXVII. p. 97.

290. *H.* sp. (?).

Several specimens of a species which I think is new to science, but which, without more and better material, I hesitate to describe.

BRONTYPENA gen. nov.

First joint of palpi short; second joint elongated, subtriangular; third joint greatly produced, elongated, subtriangular; palpi compressed, projecting beyond the head, longer than the abdomen; antennae simple; the hind legs armed with double spurs on the middle and at the end of the tibiae; second pair of legs armed with a long spur at the end of the tibiae. The primaries with the termen and inner margin evenly rounded; vein 5 nearer vein 4 than vein 6; a small areole above the end of the cell; veins 8, 9, and 10 arising from a common stalk, which, together with vein 7, springs from the outer extremity of the areole; vein 11 arising from the upper outer margin of the areole between vein 12 and the origin of vein 7. Hindwing with the cell open, or closed with defective discocellular veinlets running from a little beyond the origin of vein 8 obliquely outwardly to the origin of vein 3 and 4.

Type: *Brontypena eximia* Pagenstecher.

291. *B. eximia* (Pagenstecher), *Iris*, p. 44. t. 3. f. 8. (1886).

FAMILY URANIIDAE.

GENUS NYCTALEMON Dalman.

292. **N. patroclus** (Linnaeus), *Syst. Nat.* p. 462 (1758).

GENUS ALCIDIS Hübner.

293. **A. orontes** (Clerck), *Icon. Ins.* t. 26. f. 1.

GENUS URAPTEROIDES Moore.

294. **U. astheniata** (Guenée), *Phal.* II. p. 24.

GENUS ACROPTERIS Hübner.

295. **A. striataria** (Clerck), *Icon. Ins.* t. 55. f. 4.
296. **A. obliquaria** (Moore), *Proc. Zool. Soc. Lond.* p. 622. t. 60. f. 17. (1877).

GENUS PSEUDOMICRONIA Moore.

297. **P. advocataria** (Walker), *Cat. Lep. Het. B. M.* XXIII. p. 822.

GENUS MICRONIA Guenée.

298. **M. aculeata** (Guenée), *Phal.* II. p. 26. t. 13. f. 8.

FAMILY EPIPLEMIDAE.

GENUS EPIPLEMA Herrich-Schäffer.

299. **E. quadricaudata** (Walker), *l.c.* XXIII. p. 847.
300. **E. rhagavata** (id.), *l.c.* p. 848.
301. **E. conflictaria** (id.), *l.c.* p. 851.
302. **E. instabilata** (id.), *l.c.* XXXV. p. 1646.
303. **E. nivosaria** (id.), *l.c.* p. 1644.
304. **E. lacteata** sp. nov.

♂. Eyes black, antennae fuscous, thorax light brown, abdomen grey, legs creamy. Primaries snow white, with a small black dot at the end of the cell, a larger black spot between veins 4 and 5 beyond the cell on the limbal space, and a similar spot just above vein 1, a little beyond the middle of the inner margin; there are a few faint geminate marginal lines on the interspaces, most conspicuous near the inner angle, and three minute black dots on the outer margin just below the apex. The secondaries on the upperside have a moderately large and conspicuous black spot at the end of the cell; a narrow curved brownish line runs from the middle of the costa toward the outer margin, terminating between veins 2 and 3; a pale curved line runs from beyond the middle of the inner margin, joining the other line at the point where it terminates; a similar faint brown line runs from the costa near the outer angle to the same point, and is joined by a geminate pale brown line running from the inner angle to the same point; at this point there is a conspicuous

black spot; the fringes are whitish, defined inwardly, above the point where the various lines coalesce, by pale, dark brown lunulate marginal markings. On the underside both wings are pure white without markings.

Expanse: 25 mm.

Type: unique.

305. **E. buruana** sp. nov.

♂. The eyes are black; body, abdomen, and legs pale grey. The primaries are grey, with a minute black dot about the middle of the cell, and a larger, somewhat diffused brownish dot at the end of the cell; above the latter spot, toward the costa, are three minute black points; the costa near the apex is touched with three black dots, and the outer margin, below the subfalcate apex, is ornamented with four black dots; the fringes are dark brown on the outer margin. The secondaries are darker grey, with small points of dark brown in the cell and a larger dark brown spot at the end of the cell; a dark brown band runs from the inner margin near the anal angle to the middle of the wing, where it bends outwardly to the outer margin, and then ascending as a double brown line, extends to the upper angle of the wing; this band is defined outwardly by a narrow white line; the fringes on the inner half of the outer margin are white, defined inwardly by a fine black line, and on the upper half of the outer margin the fringes are dark brown. On the underside the primaries are dark grey with the costa and the outer margin pale luteous. The secondaries are whitish, with a small black dot at the end of the cell and a moderately broad transverse submarginal grey shade extending from the costa as far as the middle of the wing, and then terminating.

Expanse: 17 mm.

Type: unique.

FAMILY GEOMETRIDAE.

GENUS URAPTERYX.

306. **U. geminia** (Cramer), *Pap. Exot.* t. 133. f. C.

GENUS NADAGARA Walker.

307. **N. obrussata** sp. nov.

Eyes black; thorax pale ochreous; abdomen greyish fuscous on the upperside; the thorax and abdomen paler on the underside; legs stramineous. The primaries on the upperside are pale ochraceous, with three equidistant pale brown markings on the costa; parallel to the outer margin, extending from the inner margin beyond its middle to the middle of the wing, is a dark brown clouded spot, somewhat constricted about its middle; above it two smaller brown spots. The secondaries on the upperside are coloured like the primaries, and from the inner margin above the anal angle, toward the middle of the wing, extends a clouded brown spot, repeating on this wing the pattern of the primaries. Both wings on the underside are very pale luteous, with the dark brown spots of the upperside faintly reappearing.

Expanse; 34 mm.

Type: unique.

GENUS LUXIARIA Walker.

308. **L. exclusa** (Walker), *Cat. Lep. Het. B. M.* XXI. p. 320.

309. *L. euchlorata* sp. nov.

♂. Eyes black, vertex white, upperside of thorax and abdomen greyish brown; underside of thorax and abdomen paler; legs grey. The basal third of both wings on the upperside is greyish brown, traversed by some waved lines; following this is a broad white band, entirely crossing the secondaries, but lost on the primaries, near the costa, in grey cloudings, which completely cover the costa of this wing. Following this white band outwardly is a crenulate dark brown line, followed immediately by a parallel crenulate white line; this white line is followed outwardly by a greyish brown shade which covers the entire outer margin of both wings, being interrupted on the margin by a series of pale whitish lunules defined outwardly by darker brown lunules. On the underside the primaries have the costal area and the outer third greyish brown, irrorated with minute brownish transverse striae; the white band of the upperside reappears below, defined outwardly and inwardly by heavy dark lines; the apex of the wing is white. The secondaries are white from the base as far as the outer third, which is dark brown; a narrow subbasal brown line extends from the costa to the inner margin, and the outer margin and the anal angle are somewhat broadly whitish.

Expanse: 27 mm.

Type: unique.

GENUS *MACARIA* Curtis.

310. *M. perfusaria* Walker. *Cat. Lep. Het. B.M.* XXXV. p. 1659.

311. *M. albapicaria* sp. nov.

♂. Front brown; vertex whitish; eyes black; upperside of thorax and abdomen iron grey; underside of thorax and abdomen whitish; legs grey. Both wings on the upperside have the inner half reddish grey, profusely marked with minute spots of darker brown and crossed by subbasal and submedian narrow brown lines; beyond the outer half is a very sharply defined and quite regular dark brown line, running from the costa of the primaries to about the middle of the inner margin of the secondaries; beyond this the wings are solidly and uniformly dark purplish grey, except as they are marked near the outer margin by a few pale, indistinct light grey submarginal spots, and at the apex of the primaries have two chalky white confluent spots. On the underside the wings have the inner half profusely mottled with dark brown and white spots, the costa of the primaries being almost clear white; the outer half of both wings is dark reddish grey, with the margins and the apex reproducing more distinctly than on the upper surface the whitish marginal spots.

Expanse: 23 mm.

Type: unique.

GENUS *HYPOSIDRA* Guenée.

312. *H. talaca* (Walker), *Cat. Lep. Het. B. M.* XX. p. 59.

GENUS *HYPEPHYRA* Butler.

313. *H. subfasciata* (Warren), *Nov. Zool.* III. p. 143 (1896).

GENUS *PSAMATODES* Guenée.

314. *P. nunctata* Felder & Rogenhofer, *Novara Reise, Lep.* t. 129. f. 20.

GENUS AMBLYCHIA Guenée.

315. **A. angeronaria** Guenée, *Phal.* I. p. 215. t. 4. f. 9.
316. **A. tetragonata** (Walker), *Cat. Lep. Het. B. M.* XXVI. p. 1651.

GENUS BOARMIA Treitschke.

317. **B. acaciaria** Boisduval, *Faun. Ent. Madag. Lep.* 116. t. 16. f. 4.
318. **B. detractaria** Walker, *l.c.* XXI. p. 385.
319. **B. sublavaria** Guenée, *Phal.* I. p. 256.
320. **B. concentraria** Snellen, *Tijd. v. Ent.* XX. p. 40. t. 3. f. 20.
321. **B. bhurmitra** Walker, *l.c.* p. 381.

GENUS ABRAXAS Leach.

322. **A. hypsata** Felder & Rogenhofer, *Novara Reise, Lep.* t. 130. f. 16.

GENUS MILIONIA Walker.

323. **M. glauca** (Stoll), in *Cram. Pap. Exot.* IV. p. 152. t. 368. f. D.

GENUS CRASPEDOSIS Butler.

324. **C. sobria** Walker, *l.c.* XXXI. p. 164.

GENUS BRACCA Hübner.

325. **B. bajularia** (Clerck), *Icon. Ins.* t. 54. f. 6 7.

GENUS EUMELEA Duncan.

326. **E. rosalia** (Stoll), in *Cram. Pap. Exot.* IV. t. 368. f. F.
327. **E. eugeniata** Guenée, *Phal.* II. p. 394.

GENUS NOREIA Walker.

328. **N. perdensata** Walker, *Cat. Lep. Het. B. M.* XXIV. p. 1092.

GENUS RAMBARA Moore.

329. **R. luminaria** (Hübner), *Zutr. Exot. Schmett.* IV. p. 35. ff. 757. 758.

GENUS OZOLA Walker.

330. **O. productata** Zeller.
331. **O. macariata** (Walker), *Cat. Lep. Het. B. M.* XXVI. p. 1637.

GENUS PHIBALAPTERYX Stephens.

332. **P. ghosha** (Walker), *l.c.* XXIV. p. 1249.

GENUS SAURIS Guenée.

333. **S. eupitheciata** Snellen, *Tijd. v. Ent.* XXIV. p. 94. t. 10. f. 7. 8.

GENUS CRASPEDIA Hübner.

334. **C. perlineata** (Walker), *l.c.* XXIII. p. 775.
335. **C. remotata** (Guenée), *Phal.* I. p. 458.
336. **C. actuaria** (Walker), *l.c.* XXII. p. 752.
337. **C. crossophragma** Meyrick, *Trans. Ent. Soc. Lond.* p. 206 (1886).

GENUS ANISODES Guenée.

338. **A. argentispila** Warren, *P. Z. S. Lond.* p. 361 (1893).

GENUS TIMANDRA Duponchel.

339. **T. aventiaria** Guenée, *Phal.* II. p. 3.

GENUS PSEUDOTERPNA Hübner.

340. **P. ruginaria** (Guenée), *l.c.* p. 278.
341. **P. chlora** (Stoll), in *Cram. Pap. Exot.* IV. t. 398. f. C.

GENUS HEMITHEA Duponchel.

342. **H. tritonaria** (Walker), *Cat. Lep. Het. B. M.* XXVI. p. 1560.

GENUS THALASSODES Guenée.

343. **Thalassodes avicularia** (Guenée), *Phal.* I. p. 342.

GENUS THALERA Hübner.

344. **Thalera** sp. ?

A single damaged specimen, too poor to determine.

FAMILY PYRALIDAE.

GENUS HARPAGONEURA Butler.

345. **H. complana** (Felder & Rogenhofer), *Novara Reise, Lep.* t. 137. f. 6.

GENUS MELISSOBLAPTES Zeller.

346. **M. burellus** sp. nov.

♂. Body throughout grey, legs whitish, eyes black. The primaries on the upper side are grey, marked with two small black points, succeeding each other toward the end of the cell, and one small black point near vein 3 at its origin; on the costa just before the apex is a brown mark shaped like the figure 2. The fringes are pale grey, checkered with darker grey. The secondaries on the upper side are pale ashen grey, slightly darker at the outer angle; fringes concolorous. On the under side both wings are lustrous grey, shaded by a darker tint about the middle.

Expanse: 27 mm.

GENUS CRAMBUS Fabricius.

347. **C. malacellus** Duponchel, *Lép. France* X. p. 61. t. 270. f. 5.

GENUS ESCHATA Walker.

348. **E. chrysargyria** (Walker), *Cat. Lep. Het. B. M.* XXXII. p. 634.

GENUS CIRRHOCRISTA Lederer.

349. **C. mnesidora** (Meyrick), *Trans. Ent. Soc. Lond.* p. 475 (1894).
350. **C. punctulata** Hampson, *Proc. Zool. Soc. Lond.* p. 919 (1895).
351. **C. pulchellalis** Lederer, *Wien. Ent. Monats.* VII. p. 441. t. 17.
f. 10 (1863).
352. **C. aetherialis** *id.*, *l.c.* f. 9.

GENUS EMMALOCERA Ragonot.

353. **E. leucocincta** (Walker), *l.c.* p. 169.

GENUS HOMOEOSOMA Curtis.

354. **H. cataphaea** (Meyrick), *Trans. Ent. Soc. Lond.* p. 88 (1897).

GENUS HYPHANTIDIUM Scott.

355. **H. albicostale** (Walker), *l.c.* XXVII. p. 80.

GENUS ETIELLA Zeller.

356. **E. zinckenella** (Treitschke), *Schmett. Eur.* IX. 1. p. 201.

GENUS CURICTA Walker.

357. **C. lutealis** (Snellen), *Tijd. v. Ent.* XXXVII. p. 75. t. 3. f. 7. 8.

GENUS ENDOTRICHA Zeller.

358. **E. buralis** sp. nov.

♂. Palpi yellowish, eyes brown, collar and upperside of thorax brown; upperside of abdomen pale rufous; pectus and anterior legs brown; lowerside of abdomen pale yellowish. The primaries and secondaries are plumbeous at the base, each crossed by a waxy yellow transverse band from the costa to the inner margin; this band is constricted about its middle on the primaries, and broadens on the secondaries as it approaches the inner margin. The outer third of the primaries and the upper portion of the outer third of the secondaries are rosy. On the costa of the primaries just before the apex is a small subtriangular yellowish spot. The markings on the upperside of the wings are repeated upon the lowerside, but more diffused and paler.

Expanse: 17 mm.

GENUS COTACHENA Moore.

359. **C. histricalis** (Walker), *Cat. Lep. Het. B. M.* XVIII. p. 655.

GENUS VITESSA Moore.

360. **V. sarumensis** sp. nov.

♂. Palpi black, marked with yellowish on the sides; front bright orange; vertex orange; collar black; patagia black, striped on both sides with orange yellow; there

is a small triangular white spot on the thorax just before the abdomen; the abdomen black, each segment lightly margined with pale grey; a bunch of orange yellow hairs at the anal extremity; legs grey, the last pair having the femur margined with white and the ends of the tibiae whitish. The primaries on the upperside are black, showing a bluish green iridescence in certain lights; at the base are three orange yellow spots succeeded between veins 1 and 2 by two equidistant subtriangular white spots with their apices pointing toward each other; above the outermost of these spots is a large round white spot, and beyond these two spots the outer margin has the course of the nervules defined by fine white lines, which show conspicuously upon the darker ground. The secondaries on the upperside are black, with a large irregular oval white spot filling the middle of the wing. On the lowerside the primaries are blackish, the large round spot at the end of the cell and the subtriangular spot below it, between veins 1 and 2, being reproduced, but less sharply defined. There are some white rays near the apex. The secondaries on the underside are as on the upperside, but in addition the nervules near the outer angle are margined with white. The fringes on the secondaries are whitish near the outer angle. The fringes of the primaries are black. The *female* quite like the *male*.

Expanse: 37—43 mm.

Described from five specimens.

This species somewhat resembles *Vitessa tomatoca* Lederer, but is manifestly distinct.

GENUS HERCULIA Walker.

361. *H. nigrivitta* (Walker), *l.c.* p. 125.

GENUS SACADA Walker.

362. *S. rubralis* sp. nov.

♀. This insect is uniformly rosy red, paler on the hindwings than on the forewings. The primaries have a fine white line closing the end of the cell, followed by a transverse discal fine white line running at right angles from the costa as far as vein 5, and then making an obtuse angle, running parallel to the outer margin to the inner margin, which it reaches a little beyond its middle. On the underside both wings are a trifle paler than in the upperside, and only the white mark at the end of the cell of the primaries and the costal portion of the transverse limbal line are faintly indicated.

Expanse: 38 mm.

GENUS NYMPHULA Schrank.

363. *N. seriopunctalis* Hampson, *Trans. Ent. Soc. Lond.* p. 144 (1897).

GENUS AMBIA Walker.

364. *A. interstrigalis* Hampson, *l.c.* XVIII. p. 162.

GENUS AULACODES Guenée.

365. *A. basilissa* Meyrick, *Trans. Ent. Soc. Lond.* p. 474 (1894).

GENUS ORPHNOPHANES Lederer.

366. **O. thoasalis** (Walker), *l.c.* p. 692.

GENUS PERISYNTROCHA Meyrick.

367. **P. anialis** (Walker), *l.c.* p. 710

GENUS DRACAENURA Meyrick.

368. **D. horochroa** Meyrick, *Trans. Ent. Soc. Lond.* p. 229 (1886).

GENUS HYMENOPTYCHIS Zeller.

369. **H. sordida** Zeller, *Lep. Caffr.* p. 65.

GENUS TATOBOTYS Butler.

370. (?) **T. albovenalis** Hampson.

"Like two females from Ceylon. I am not sure that they are this species, or a dark form of *picrogramma* Meyrick." Hampson *in litt.*

371. **T. aurantialis** Hampson, *Trans. Ent. Soc. Lond.* p. 197 (1897).

GENUS BRADINA Lederer.

372. **B. impressalis** Lederer, *Wien. Ent. Monats.* VII. p. 425. t. 15. f. 16. (1863).

373. **B. selectalis** *id.*, *l.c.* t. 16. f. 1.

374. **B. modestalis** *id.*, *l.c.* p. 426. t. 16. f. 3.;

GENUS DIATHRAUSTA Lederer.

375. **D. profundalis** *id.*, *l.c.* p. 438. t. 17. f. 7.

GENUS STENIA Guenée.

376. **S. spodinopha** (Meyrick), *Trans. Ent. Soc. Lond.* p. 469. (1895).

GENUS PILETOCERA Lederer.

377. **P. nigrescens** (Butler), *Trans. Ent. Soc. Lond.* p. 424 (1886).

378. **P. reducta** (Walker), *Cat. Lep. Het. B. M.* XXXIV. p. 1296.

379. **P. aegimiussalis** (Walker), *l.c.* XIX. p. 929.

GENUS SCOPARIA Haworth.

380. **S. sp.** (?).

GENUS ENTEPHRIA Lederer.

381. **E. jaguaralis** (Guenée), *Delt. & Pyral.* p. 283.

382. **E. meritalis** (Walker), *l.c.* XVII. p. 479.

383. **E. sarumalis** sp. nov.

♂. Palpi whitish, tipped with black, front and vertex grey; upperside of abdomen whitish, with the anal extremity narrowly marked with black at the base of the anal tuft of white hairs; the underside of the thorax, abdomen, and legs is white. The wings on the upperside are shining white, crossed by a subbasal transverse brown line; at the end of the cell is a pale linear brown line, below it a similar brown line, and just beyond the latter, on the inner margin about its outer third, a well-defined black point; a narrow brown line runs from the costa before the apex toward the inner angle, which it does not quite reach. The secondaries on the upperside are traversed by an irregularly curved narrow pale brown median transverse line. The fringes of both wings are white. On the underside the wings are whitish, tinged outwardly with pale ochraceous, the markings of the underside being very faintly repeated.

Expanse : 21 mm.

GENUS RAVANOA Moore.

384. **R. xiphialis** (Walker), *Cat. Lep. Het. B. M.* XVII. p. 483.

GENUS ZINCKENIA Zeller.

385. **Z. perspectalis** (Hübner), *Europ. Schmett. Pyr.* f. 101.

386. **Z. fascialis** (Stoll), in *Cram. Pap. Exot.* IV. t. 398. f. O.

GENUS TABIDIA Snellen.

387. **T. insanalis** Snellen, *Tijd. v. Ent.* p. 220 (1880); *id.*, *l.c.* t. 8. f. 6 (1883).

GENUS EURRHYPARODES Snellen.

388. **E. bracteolalis** Zeller, *Lep. Caffr.* p. 30.

GENUS RHIMPHALEA Lederer.

389. **R. scelatalis** Lederer, *Wiener Ent. Monats.* VII. p. 411. t. 15. f. 3 (1863).

GENUS SYNGAMIA Guenée.

390. **S. ampliatalis** Lederer, *l.c.* p. 428. t. 16. f. 6.

GENUS BOCCHORIS Moore.

391. **B. adipalis** Lederer, *l.c.* p. 475. t. 11. f. 16.

392. (?) **B. aptalis** (Walker), *Cat. Lep. Het. B. M.* XXXIV. p. 1425.

I am not quite sure of my identification.

393. *B. lumaralis* sp. nov.

♂. Palpi in front white, eyes black, vertex white; upperside of thorax fuscous; two anterior segments of abdomen white; remaining segments pale grey; underside of thorax, abdomen, and legs white. Both wings on the upperside are white, with a lustrous violet reflection. On the primaries there are two small brown spots on the costa near the base; there is a small brown spot in the middle of the cell, and a larger brown spot at the end of the cell; below the first, at the origin of vein 2, between vein 2 and vein 1, is a large subquadrate brown spot, and beyond this, not far from the middle of the inner margin and situated thereon, is another large subquadrate brown spot; there is a narrow submarginal transverse brown band running from the costa as far as vein 2, succeeded by a very narrow whitish series of lunules; this series of lunulate spots is succeeded by a broad dark brown marginal band of uniform width; the fringes are white, checkered at the ends of the nervules with dark brown. The secondaries have two dark brown spots at the base and a large dark brown spot at the end of the cell; there is a curved submarginal dark brown band, broadening on the costa and on the inner margin, succeeded by a narrow light line of lunulate markings on the primaries, and this again succeeded, as on the primaries, by a broad dark brown marginal band; the fringes are white, checkered with dark brown less conspicuously than on the primaries. On the underside both wings are pale grey, with the costae broadly pale ochraceous; the outer margin and apex of the primaries are also lightly laved with pale ochraceous; the spots and markings of the upperside reappear on the lowerside, but much less distinct, and quite diffuse, the spots on the cell of the primaries and the submarginal band being most conspicuous, and even heavier than on the upperside.

Expanse: 24 mm.

GENUS NOSOPHORA Lederer.

394. *N. althealis* (Walker), *Cat. Lep. Het. B. M.* XVIII. p. 697.

395. *N. flavibasalis* Hampson, *P. Zool. Soc. Lond.* p. 663. t. 50. f. 3 (1898).

GENUS CHALCIDOPTERA Butler.

396. *C. emissalis* (Walker), *l.c.*, XXXIV. p. 1421.

GENUS PHRYGANODES Guenée.

397. *P. basalticalis* Lederer, *Wien. Ent. Monats.* VII. p. 407. t. 14. f. 11 (1863).

398. *P. albipedalis* Hampson, *Proc. Zool. Soc. Lond.* p. 686 (1898).

399. *P. attenuata* *id.*, *l.c.* p. 680.

400. *Phryganodes baratalis* sp. nov.

♂. Palpi and head dark brown; the eyes dark brown; the remainder of the body, the antennae, and the legs are ochraceous. The wings, both on the upperside and underside are uniformly ochraceous, the costa of the primaries being margined with plumbeous from the base almost to the apex. The *female* is in its markings not different from the *male*.

Expanse: *male*, 35 mm.; *female*, 42 mm.

Described from nine specimens.

GENUS DICHOCROCIS Lederer.

401. **D. tripunctapex** Hampson, *Proc. Zool. Soc. Lond.* p. 691. t. 50. f. 5 (1898).
 402. **D. pandamalis** (Walker), *Cat. Lep. Het. B. M.* XIX. p. 999.
 403. **D. surusalis** (Walker), *l.c.* XVIII. p. 695.
 404. **D. evaxalis** (Walker), *l.c.* XIX. p. 995.

GENUS NACOLEIA Walker.

405. **N. marionalis** (Walker), *l.c.* XIX. p. 930.
 406. **N. perdentalis** Hampson, *Proc. Zool. Soc. Lond.* p. 697 (1898).
 407. **N. cuprealis** (Moore), *ibid.* p. 616. t. 60. f. 13 (1877).

GENUS GONIORHYNCHUS Hampson.

408. **G. obscurus** Hampson, *l.c.* p. 704.
 409. **Goniorhynchus gulielmalis** sp. nov.

♂. Palpi, front, and antennae whitish, eyes black, upperside of thorax and abdomen pale grey; lowerside of thorax and abdomen, together with the legs, white. Both wings on the upperside are white, broadly margined externally with plumbeous. The primaries have a dark brown spot at the base near the costa, succeeded by a round brown dot near the base on the inner margin; there is a transverse linear streak and a round dot about the middle of the cell, followed at the end of the cell by a large subquadrate brown spot; below the spots which mark the middle of the cell, between veins 1 and 2, is a subtriangular brown spot, coalescing with a short transverse line running downwardly to the inner margin; there is a transverse limbal line running from the costa to the inner margin, interrupted just below the costa and bowed outwardly like the capital letter "U," beyond the lower outer angle of the cell; the dark brown outer margin of the primaries is relieved by two small white spots at the apex, and by a whitening of the fringes of the outer margin just below the apex. The secondaries on the upperside have a subtriangular dark brown spot at the end of the cell, followed by a transverse median brown band, running from the costa and bending outwardly after vein 2 to the anal angle; this band is succeeded by a somewhat obscure and broken transverse limbal band, coalescing at either extremity with the dark brown marginal shade; the fringes are brown, accentuated with a point of white just at the outer angle and at a point a little below this angle; the fringes become whitish also toward the anal angle. The underside of the wings is much paler and all the markings of the upperside are reproduced, but very faintly and with poor definition.

Expanse: 17 mm.

Type: unique.

GENUS SYLEPTA Hübner.

410. **S. fabiusalis** (Walker), *Cat. Lep. Het. B. M.* XVIII. p. 715.
 411. **S. abyssalis** (Snellen), *Tijd. v. Ent.* XXXV. p. 172. t. 10. f. 11. 12.
 412. **S. balteata** (Fabricius), *Ent. Syst. Suppl.* p. 457.

413. *S. sellalis* (Guenée), *Delt. & Pyr.* p. 330.
 414. *S. sabinusalis* (Walker), *Cat. Lep. Het. B. M.* XVIII. p. 708.
 415. *S. derogata* (Fabricius), *Syst. Ent.* p. 641.
 416. *S. iopasalis* (Walker), *l.c.* p. 652.
 417. *S. dissipitalis* Lederer, *Wien. Ent. Monats.* VII. p. 474. t. 11. f. 13 (1863).
 418. *S. benedictalis* sp. nov.

♀. Head, thorax, and abdomen on the upperside dark brown, antennae brown; lower side of thorax and abdomen pale brown; legs pale brown, the anterior pair marked with white dots on the tibiae. The primaries on the upperside are dark brown, with a purplish lustre; at the end of the cell is a minute oval pearly white spot; beyond the cell, running from the apex to the middle of the inner margin, is a very obscure curved transverse brown line, which is connected with the costa by a short brown line running diagonally outward from the costa two-thirds of its distance from the base until it meets the first line. The secondaries are pale yellowish fuscous, with the outer margin shading into brown. On the underside both wings are uniformly pale yellowish fuscous, slightly clouded with brownish beyond the ends of the cells.

Expanse : 31 mm.

GENUS LYGROPIA Lederer.

419. *L. obrinusalis* (Walker), *Cat. Lep. Het. B. M.* XVIII. p. 549.
 420. *L. poltialis* (Walker), *l.c.* p. 714.
 421. *L. holoxanthalis* sp. nov.

♂. Palpi yellowish, vertex white, antennae pale testaceous; upperside of thorax and abdomen very pale ochraceous; underside of thorax, abdomen, and legs whitish. Both wings on the upperside are uniformly pale ochraceous with a silky lustre; on the underside they are uniformly ochraceous, but without the silky lustre of the upper surface.

Expanse : 25 mm.

GENUS GLYPHODES Guenée.

422. *G. vertumnalis* (Guenée), *Delt. & Pyr.* p. 309.
 423. *G. indica* (Saunders), *Trans. Ent. Soc. London* p. 163. t. 12. f. 5. 6. 7. (1851).
 424. *G. suralis* Lederer, *Wien. Ent. Monats.* VII. p. 405. t. 14. f. 7 (1863).
 425. *G. cupripennalis* Hampson, *Moths of India* IV. p. 351.
 426. *G. glauculalis* (Guenée), *Delt. & Pyr.* p. 306.
 427. *G. itysalis* Walker, *Cat. Lep. Het. B. M.* XVII. p. 501.
 428. *G. jovialis* Felder & Rogenhofer, *Novara Reise, Lep.* II. 2. t. 136. f. 25.

GENUS PYGOSPILA Guenée.

429. *P. bivittalis* Walker, *l.c.* XXXIV. p. 1365.
 430. *P. tyres* (Cramer), *Pap. Exot.* III. t. 263. f. C.

GENUS LEPYRODES Guenée.

431. **L. geometralis** Guenée, *Delt. & Pyr.* p. 278. t. 8. f. 6.

GENUS ANALYTA Lederer.

432. **A. sigulatis** (Guenée), *Delt. & Pyr.* p. 223.

GENUS SAMEODES Snellen.

433. **S. cancellalis** Zeller, *Lep. Caffr.* p. 34.

GENUS MEROCTENA Lederer.

434. **M. tullalis** (Walker), *l.c.* XVIII. p. 649.

GENUS ARCHERNIS Meyrick.

435. **A. dolopsalis** (Walker), *l.c.* XVIII. p. 692.

GENUS OMPHISA Moore.

436. **O. anastomalis** (Guenée), *Delt. & Pyr.* p. 373.

GENUS HYALOBATHRA Meyrick.

437. **H. illectalis** (Walker), *l.c.* p. 658.

GENUS MARUCA Geyer.

438. **M. testulalis** (Geyer), in Hübner, *Samml. Exot. Schmett.* IV. 4. p. 12.
f. 629. 630.

GENUS TETRIDIA Warren.

439. **T. caletoralis** (Walker), *l.c.* p. 651.

GENUS POLYGRAMMODES Guenée.

440. **P. purpuralis** (Walker), *l.c.* XXXIV. p. 1482.

GENUS PACHYZANCLA Meyrick.

441. **P. hipponalis** (Walker), *l.c.* XVII. p. 724.

442. **P. dilatipes** (Walker), *l.c.* XXXIV. p. 1419.

GENUS PROOEDEMA Hampson.

443. **P. inscisale** (Walker), *l.c.* XXXIV. p. 1410.

GENUS CALAMOCHROUS Lederer.

444. **C. tranquillalis** Lederer, *Wien. Ent. Monats.* VII. p. 371. t. 9. f. 16 (1863).

GENUS PIONEA Guenée.

445. **P. clavifera** Hampson, *Proc. Zool. Soc. Lond.* p. 241 (1899).

446. **P. aureolalis** Lederer, *l.c.* p. 375.

GENUS PYRAUSTA Schrank.

447. *P. ceadesalis* (Walker), *l.c.* XVIII. p. 639.
 448. *P. incoloralis* (Guenée), *Delt. & Pyr.* p. 332.
 449. *P. salentialis* (Snellen), *Tijd. v. Ent.* p. 207 (1880); *id.*, *l.c.* t. 7. f. 1 (1883).
 450. *P. cajelalis* sp. nov.

♀. Palpi whitish, margined externally with brown; eyes dark brown; vertex, collar, upperside of thorax and abdomen pale wood brown; pectus white; underside of thorax and abdomen greyish white; legs concolorous. The primaries on the upperside are wood brown, darker towards the base; there are two small equidistant dots on the cell, and a larger ocelliform brown spot at the end of the cell; there is a submarginal series of dark brown sagittate points extending from the costa before the apex in a straight line parallel to the outer margin as far as the space between veins 2 and 3; between veins 1 and 2, nearer the base, and a little beyond the middle of the inner margin, is a similar spot. The secondaries on the upperside are pale testaceous, shaded into wood brown on the outer margin; a submarginal series of points similar to those upon the primaries extends across the limbal area of this wing, and a small black point occurs nearer the base, above the anal angle. On the underside both wings are whitish, tinged with greyish toward the outer margin; the dark spots on the underside are repeated upon the lowerside with greater distinctness.

Expanse: 40 mm.

Type: unique.

FAMILY TORTRICIDAE.

GENUS SIMAETHIS Zeller.

451. *S. sp.* (?).

Very near *Simaethis taprobanes* Zeller, *Hor. Soc. Ent. Ross.* XIII. p. 178. t. 2. f. 65, but the lines on the primaries are slightly different in their arrangement.

FAMILY TINEIDAE.

GENUS TORTRICOMORPHA Felder.

452. *T. bilineella* Snellen, *Tijd. v. Ent.* p. 27. t. 2. f. 16. 17 (1885).

453. *T. hemixanthella* sp. nov.

♂ Palpi orange yellow, vertex whitish; upperside of thorax very pale yellow; upperside of abdomen pale grey, the upper tufts of the anal hairs brown, and the lower tufts white; the underside of thorax, abdomen, and legs whitish. The forewings are broadly pale yellow from the base to beyond the middle, they are then broadly purplish brown; the line of demarcation between the yellow and the brown is sharply defined by a straight line running from the costa to the inner margin a little before the inner angle; the costa near the apex is marked by yellow of the same shade as the basal half of the wing, the yellow widening toward the outer margin and covering the entire apex; the fringes are dark brown, their origin being accentuated by a series of minute yellow dots. The secondaries on the upperside are uniformly dark brown. On the underside both wings are pale brown, slightly lighter

on the inner margin, with traces of an obscure whitish median transverse band on the primaries.

Expanse : 20 mm.

GENUS ADELA Latreille.

454. *A. sp. (?)*.

Probably undescribed. Several specimens.

GENUS ATTEVA Walker.

455. *A. basalis* Vollenhoven, *Tijd. v. Ent.* VI. p. 140. t. 9. f. 6.

In addition to the foregoing there are six other small and obscure species which are represented by solitary specimens, and which neither Sir George Hampson nor I have as yet determined. The collection numbers four hundred and sixty-one species, by far the largest number ever received from Buru at one time.

ADDITIONS TO THE LIST OF BIRDS OF SOUTHERN ARABIA.

By W. R. OGILVIE-GRANT.

THE following species recorded from Aden were accidentally omitted from the list of birds of South Arabia published in the *NOVITATES ZOOLOGICAE* VII. pp. 243—273.

189. *Buteo vulgaris*.

Buteo vulgaris Leach, Yerbury, *J. Bombay Nat. Hist. Soc.* XI. p. 75 (1897).

190. *Casarca rutila*.

Casarca rutila (Linn.), Yerbury, *l.c.*, p. 76 (1897).

191. *Mareca penelope*.

Mareca penelope (Linn.), Yerbury, *l.c.*, p. 76 (1899).

192. *Fuligula fuligula*.

Fuligula fuligula (Linn.), Yerbury, *l.c.*, p. 76 (1897).

193. *Phalaropus hyperboreus*.

Phalaropus hyperboreus (Linn.), Blanford, *Faun. Brit. Ind.* IV. p. 282 (1898).

On p. 264, 102. *Pelecanus onocrotalus* should be 102. *Pelecanus rufescens* [see Grant, *Cat. B. Brit. Mus.* XXVI. p. 475. Specimen *i.* (1898)].



Holland, W. J. 1900. "The Lepidoptera of Buru. Part II.—Heterocera." *Novitates zoologicae : a journal of zoology in connection with the Tring Museum* 7, 555–591.

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