# III. On the Genus Deilemera, Hübner. By COLONEL CHARLES SWINHOE, M.A., F.L.S., F.Z.S.

[Read Feb. 4th, 1903.]

### PLATES III AND IV.

The genus Nyctemera was erected by Hübner in the Verzeichniss, p. 178, and diagnosed as "Die Flügel weiss und weissfleckig schwarz gesäumt." Under this genus Hübner put seven species in the following order:—

hesperia, Cram., Pap. Exot., iii, pl. 251, f. A. B. (1780).
caffra, Drury, Ill. Ex. Ent., iii, pl. 5, f. 1 (1780).
nerina, Drury, l. c., f. 2.
coleta, Cram., l. c., iv, pl. 368, f. D. H. (1782).
famula, Drury, l. c., ii, pl. 11, f. 3 (1773).
atralba, Hübner = tripunctaria, Linn., Syst. Nat., i, p. 523 (1758).
lacticinia, Cram., l. c., ii, pl. 128, f. E. (1779).

Walker in the 2nd vol. of his Catalogue, p. 402, erected the genus Otroeda, placing therein in the following order:—

hesperia, Cram., l. c., occidentis, Walker, ii, 403, vesperina, Walker, ii, 403, caffra, Drury, l. c., nerina, Drury, l. c.,

leaving coleta, Cram., as the type of Hübner's genus Nyctemera; and this seems to have been followed ever since, except that Hampson makes lacticinia, the seventh in the list of Hübner's named species, the type of the genus.

No author in erecting a new genus can be justified in removing the first three species, including of course the type, of a genus already in existence, yet this is what Walker did.

It is not only that hesperia, being the first species in the seven under the genus Nyctemera, is thus made the type of the genus, but Hübner's diagnosis, "wings white with white-spotted black borders," is a good description of hesperia, and not of any one of Walker's so-called Nyctemeras; consequently as hesperia is the type of the genus Nyctemera

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Walker's genus Otroeda becomes a synonym, and as hesperia is a Lymantrid, another name must be found for the species hitherto erroneously referred to Nyctemera.

This is not far to seek; Hübner's next genus Deilemera contains a single species only, evergista, Cram., and about

this type there can be no mistake.

For some of the other species in this genus five genera have been erected by different authors. I have had one or two examples of species in each genus denuded of their wing scales, and after carefully working through the species have come to the conclusion that structurally there is no essential difference\* between them, and that the genus Deilemera, Hübner, must include them all.

The scheme of neuration of the fore-wings is practically the same throughout; the length of the areole, by which Hampson separates *Deilemera* from the rest of the species, appears to be as variable as its breadth, in fact both its size and shape vary not only in individuals of the same species, but in the right and left wing of the same individual.

In the hind-wings veins 6 and 7 are generally stalked; in the few instances where 6 and 7 arise from the cell, this difference is found to be correlated with a difference in the structure of the antennæ and palpi, and may be legitimately employed for the purposes of sub-division; thus the species included under *Pitasila*, Moore, and *Atasca*, Swinhoe, which have veins 6 and 7 arising from the cell, agree in also having the palpi much shorter than the others, *Atasca* being separated from *Pitasila* by the antennæ in both sexes being simply pubescent, with a short bristle from each joint, whereas in *Pitasila* they are bipectinate in both sexes, the pectinations being short.

In the large majority of cases, those with veins 6 and 7 of the hind-wings stalked, with longer palpi and more fully pectinated antennæ, secondary sexual characters are available for sub-division; thus a few species with evergista, Cram., the type of the genus, have in the male the inner margin of the fore-wings strongly convex, and the inner margin of hind-wings amplified and containing a fold and furrow, the outer margin produced and straight from the anal angle, not rounded, so that the hind-wing becomes

oblong in shape.

Again in *coleta*, Cram., the fore tibia in the male bears a long pencil of hairs, and the species is further separated by

<sup>\*</sup> Except in coleta, where vein 11 is short stalked with 9 and 10.

a slight difference in neuration, vein 11 of fore-wings being stalked with 9 and 10.

A third sub-division of Section II is necessary for the African species, including leuconoë, Hopffer; in this the hind-legs of the male suffer great modification, the coxæ are greatly elongated, the femora still more so, the tibiæ are all but obsolete and without spurs, while the tarsi are much attenuated and almost equal to the femora in length, and are accompanied by a tuft of hairs as long as themselves, from the femore-tibial joint.

The fourth sub-division contains species without secondary sexual characteristics, and will include all the species heretofore placed under *Tripheromera*, *Zonosoma*, and *Leptosoma*, amongst which there is no difference whatever, except in the pattern and sometimes as in *cenis* in the

length of the wings.

As might be expected with moths of weak flight, nearly every island contains its own peculiar form; this of course does not of a necessity make each a good species, as in baulus, Boisd. = mundipicta, Walker, forms of which are found in nearly all the islands (probably in all), from the Philippines to the Solomon Group, and although one can generally trace some small difference in each, the differences are too slight for any attempt to make any distinctions.

The Family NYCTEMERIDÆ stood for many years by itself, next to the CALLIDULIDÆ, where Kirby puts it in his catalogue of Heterocera. Meyrick, in Proc. Linn. Soc. N.S.W. 1886, p. 687, put the members of this group into the Family HYPSIDÆ = AGANAIDÆ, and though Hampson, in his Moths of India, vol. ii, put them into the ARCTIIDÆ, they have now been put in the National Collection with the Aganaidæ, which is evidently their proper place, and they form a sub-division of that Family.

#### KEY TO THE SUB-DIVISIONS OF Deilemera.

Section I. Veins 6 and 7 of hind-wings not stalked, palpi short.

A. Antennæ not pectinated. . . . . . (Atasca)
B. Antennæ shortly pectinated. . . . . (Pitasila)

Section II. Veins 6 and 7 of hind-wings stalked, palpi longer, antennæ with long pectinations.

- A. Both wings of male abnormally developed. (Deilemera)
- B. Male with long tuft of hair to fore tibiæ. (coleta group)
- c. Male with abnormal hind-legs. . . . (leuconoë group)

  D. Without secondary sexual characters. (Tripheromera\*)

<sup>\*</sup> Leptosoma and Zonosoma being praeoccupied.

Genus Deilemera, Hübner, Verz. Schmett, p. 178 (1818).

Leptosoma, Boisd., Voy de l'Astrolabe Lep., p. 197 (1832) (praeocc.).

Pitasila, Moore, P. Z. S., 1877, p. 599.

Zonosoma, Butler, Ill. Het. B. M., v, p. 44 (1881) (praeocc.).

Tripheromera, Butler, l. c., p. 45.

Tristania, Kirby, Cat. Het., i, p. 423 (1892).

Atasca, Swinhoe, Cat. Het. Mus. Oxon., i, p. 139 (1892).

#### SECTION I.

Veins 6 and 7 of hind-wings not stalked, palpi short.

A. ANTENNÆ NOT PECTINATED. . . . (Atasca)

#### DEILEMERA PELLEX.

Phalæna (Noctua) pellex, Linn., Syst. Nat., x, p. 530 (1758). Leptosoma pellex, Aurivillius, Rec. Crit. in Sv. Ak. Handl., xix (5), p. 161, pl. 1, f. 5 (1882).

Atasca pellex, Swinhoe, l. c.

Nyctemera artemis, Walker, ii, 394 (1854).

Nyctemera separata, Walker, xxxi, 204 (1864).

Sixteen examples from Batjan, Ceram, Aru, N. Guinea, Fergusson Isl., and N. Ireland. Type separata from Gilolo is in Mus. Oxon.

Deilemera albipuncta. (Pl. III, f. 8.)

Deilemera albipuncta, Druce, P. Z. S., 1888, p. 573.

" Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 164.

Two examples from Guadalcanar Island (Meek). A very distinct species.

### DEILEMERA SIGNATA.

Deilemera signata, Butler, P. Z. S., 1878, p. 386.

Nyctemera signata, Pag., Jahrb. Nass. Ver. Naturk., 1891, p. 152.

The type female from Darnley Island; it may be an extreme form of *pellex*, but it is impossible to say, without seeing more examples.

### DEILEMERA ÆGROTA.

Leptosoma ægrotum, Swinhoe, Cat. Het. Mus. Oxon., i, p. 145, pl. v, f. 15 (1892).

Nyctemera ægrotum, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 135.

Two females from Queensland and one male from S.E. Australia. Type from N. S. Wales in Mus. Oxon.

### DEILEMERA SIMPLEX.

Nyctemera simplex, Walker, xxxi, 207 (1864).

Atasca simplex, Swinhoe, Cat. Het. Mus. Oxon., i, p. 140, pl. 5, f. 13 (1892).

Nyctemera doriæ, Oberth., Ann. Mus. Genov., xv, pl. 4, f. 2 (1883).

The type from N. Guinea is in Mus. Oxon. Oberthur's type came from the same locality.

It is not in the B. M.

### DEILEMERA QUADRIPLAGA.

Nyctemera quadriplaga, Walker, xxxi, 207 (1864).

Atasca quadriplaga, Swinhoe, Cat. Het. Mus. Oxon., i, p. 140, pl. 5, f. 9 (1892).

The type from New Guinea is in Mus. Oxon. It is not in the B. M.

B. ANTENNÆ SHORTLY PECTINATED . . . (Pitasila)

### DEILEMERA VARIANS.

Nyctemera varians, Walker, ii, 400 (1854).

Pitasila varians, Butler, Ill. Het. B. M., v, p. 46, pl. 88, f. 4 (1881).

Pitasila moolaica, Moore, P. Z. S., 1878, p. 847, pl. 53, f. 10.

Fourteen examples from Kashmir, Sikkim, Cachar, Karen Hills, Toungyen and Tenasserim, including both types.

### DEILEMERA INCONSTANS.

Pitasila inconstans, Butler, P. Z. S., 1880, p. 672.

" Swinhoe, Cat. Het. Mus. Oxon., i, p. 139. (1892).

Six examples from Formosa, including the type, one from Carniguen, and one from Tizard Bank, China.

# DEILEMERA SEMPERI, nov.

3. Palpi black, face, from, head and fore part of thorax ochreous, a black spot on the from, one on top of head, two on the collar, two

on each patagia, two transverse black bands on the thorax in front, and a black spot behind, lower half of thorax and abdomen white, the latter with a dorsal row of black spots, one on each segment, and lateral double rows of black dots, anal tuft ochreous; fore-wings black, with white markings, much as in *P. disrupta*, Butler, from the Solomon Islands, but there is an additional band of three white spots between the basal streak and the discal band, the latter is entire and is composed of five large spots: the hind-wings are white with a black marginal band containing two apical spots, and another a little below the middle, as in *disrupta*.

Expanse of wings  $2\frac{1}{10}$  inches.

Hab. Palawan (Doherty).

One example; there are several from the Philippines in Mr. Herbert Druce's coll. It is the insect figured by Herr Semper as *Pitasila leucospilota*, Moore, in his great work on the Phil. Schmett, Heterocera, pl. 59, f. 6; though of course allied to that species it is absolutely distinct from it.

#### DEILEMERA BIJUNCTELLA.

Nyctemera bijunctella, Walker, xxxv, 1880 (1866).

Pitasila bijunctella, Swinhoe, Cat. Het. Mus. Oxon., i, p. 139 (1892).

Leptosoma maculosum, Felder (nec Walker), Reise Nov. Lep., pl. 103, f. 2 (1869).

The type example from the Philippines.

### DEILEMERA BURICA.

Nyctemera burica, Holland, Nov. Zool., vii, p. 560 (1900). " Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 136.

One example from Sula Mangoli. The type came from Buru.

### Deilemera distincta, nov. (Pl. IV, f. 4.)

♂♀. White, head, thorax and tip of abdomen tinged with ochreous, last joint of palpi brown, one black spot on frons, two on collar and five on thorax, and a duplex row of black dots on the sides of the pure white abdomen; wings with pale black bands, very much thinner in the female than in the male; on the fore-wings the basal two-thirds of the subcostal vein is broadly black and is joined to a spot on the costa before its end, and connected with the hinder

margin by two bands, forming a circle; there is a spot on the costa near the base, another on the hinder margin beyond the middle, submarginal and marginal irregular bands, the former almost connected by a streak with a spot on the costa above the end of the cell; hind-wings with an outer marginal band, which is disconnected in its middle and has an apical white spot in the male, and is disconnected both at the middle and near the apex in the female.

Expanse of wings 2 inches.

Hab. SANGIR (Doherty). Two males and one female.

# DEILEMERA OROYA, nov. (Pl. IV, f. 8.)

Q. Palpi with the second and third joints black, first joint white, antennæ black; head, body, legs and wings white, a tinge of ochreous on face, head, shoulders, and tip of abdomen; a black spot on the frons, one on the head, two on the collar, five on the thorax, a black dot on each segment of the abdomen on the sides, and a black line below them divided by the segments: wings with the bands and spots pale black; fore-wings with a spot on costa before the middle, one at upper end of cell, a submarginal irregular band, ending at the hinder angle and joined to the outer margin below the apex, forming a large subapical white spot or space, a thickening on the basal half of subcostal vein, a slight thickening at the origin of vein 2 and another on the discoidal vein; hind-wings with an outer marginal band, containing two submarginal spots, subapical and medial.

Expanse of wings 1 s inches.

Hab. Sula Besi (Doherty). Two examples.

### DEILEMERA ABRAXOIDES.

Nyctemera abraxoides, Walker, Journ. Linn. Soc. Lond., vi, p. 93 (1862).

Pitasila abraxoides, Swinhoe, Cat. Het. Mus. Oxon., i, p. 139 (1892).

Two examples from Borneo, including the type.

# Deilemera amosa, nov. (Pl. IV, f. 6.)

3 \( \text{?. Palpi, head and thorax yellow, a black spot between the antennæ, another behind it, four on the collar and four on the thorax, abdomen white, anal tuft yellow; fore-wings pale chocolate-grey, a white spot before the middle divided by the median vein, a longer

white spot beneath it in the hinder margin, a broad discal white band, from the costa a little beyond the middle, widening in its centre and attenuated towards the hinder margin, three white submarginal spots as in *Atasca pellex*, Linn.; hind-wings white with a broad chocolate-grey even band, containing two submarginal white spots, one subapical, the other beyond the middle.

Expanse of wings  $1\frac{1}{2}$  inches.

Hab. Damma Island.

DEILEMERA DISRUPTA.

Pitasila disrupta, Butler, Ann. Mag. N. H. (5), xix, p. 223 (1887).

Six examples from the Duke of York Island, Kiriwini and Alu, including the type.

Deilemera selecta.

Nyctemera selecta, Walker, ii, 399 (1854).

" Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 156.

Six examples from Alu, and the type without locality.

DEILEMERA VARIOLOSA.

Nyctemera variolosa, Felder, Reise Nov. Lep., pl. 129, f. 15 (1875).

Pitasila variolosa, Cotes and Swinhoe, Cat. Het., p. 80 (1887).

Two examples from the Andaman Islands and one from the Nicobars.

Deilemera Leucospilota.

Nyctemera leucospilota, Moore, P. Z. S., 1887, p. 509, pl. 58, f. 7.

Pitasila leucospilota, Kirby, Cat., p. 422 (1892).

Eight examples from the Andaman Islands, including

the type.

This form and disrupta, Pagenstecher sinks as synonyms to selecta (p. 156): Sir George Hampson sinks abraxoides, bijunctella, and disrupta, omitting inconstans. I cannot agree with either. Semper reared some from larvæ, but there is nothing to show that the eggs of one female produced two forms: bijunctella and inconstans are nearest to each

other in pattern, and may be local forms of the same thing, abraxoides seems to be very distinct: the members of each species shown above do not vary, there is not one intermediate form amongst them, and therefore unless proved otherwise by breeding they must be kept distinct.

#### DEILEMERA GUTTULOSA.

Nyctemera guttulosa, Walker, xxxi, 201 (1864).

Pitasila guttulosa, Swinhoe, Cat. Het. Mus. Oxon., i, p. 138 (1892),

Nyctemera abraxata, Snellen, Tijd. v. Ent., xxii, p. 73, pl. 6, f. 6 (1879).

One example (the type) from Celebes; there are two from the same locality in Mus. Oxon.

#### DEILEMERA SPECULARIS.

Nyctemera specularis, Walker, vii, 1665 (1856).

Pitasila specularis, Swinhoe, Cat. Het. Mus. Oxon., i, p. 139 (1892).

Two examples including the type from Ceram; there are two also from the same locality in Mus. Oxon.

#### SECTION II.

Veins 6 and 7 of hind-wings stalked, palpi longer, antennæ with long pectinations.

A. BOTH WINGS OF MALE ABNORMALLY DEVELOPED. (Deilemera)

### DEILEMERA EVERGISTA.

Phalæna (Geometra) evergista, Cram., Pap. Exot., iv, p. 155, pl. 369, f. E (1781).

Deilemera evergista, Swinhoe, Cat. Het. Mus. Oxon., i, p. 147 (1892).

Two examples from Amboina.

### Deilemera uniplaga, nov. (Pl. III, f. 2.)

¿. Palpi with first joint ochreous, second and third joints black, ochreous inside and with ochreous tips; antennæ black; head, thorax and abdomen dark ochreous with black bands and spots, a spot on the frons, one behind base of antennæ, four on the collar, three on the thorax, and a band on each segment of the abdomen; fore-wings blackish-brown with a large white patch in the disc, extending from below vein 3 across the end of the cell to the costa where it is narrowest; hind-wings white with a broad blackish-brown

marginal border, which suddenly becomes diffuse and ends after rounding the angle: on the under-side the wings are as on the upperside, quite as dark, the veins in the fore-wings pale and a subapical white dot.

Expanse of wings  $2\frac{1}{10}$  inches.

Hab. Fergusson Isl. (A. S. Meek).

Two examples; wings shaped as in D. evergista, Cram.

Pagenstecher in Jahrb. Nass. Ver. Naturk., 1901, p. 165, sinks mutabilis, Walker, from Ternate (noted in Cat. Het. Mus. Oxon., i, p. 147), to evergista, Cram., but this cannot hold, the white patch in the disc of fore-wing inclines inwards, whereas in evergista it inclines outwards and is altogether of a different nature.

#### DEILEMERA INTERCISA.

Nyctemera intercisa, Walker, xxxi, 205 (1864).

Deilemera intercisa, Swinhoe, Cat. Het. Mus. Oxon., i, p. 147 (1892).

The type from Amboina is in Mus. Oxon. It is not in the B. M.

#### DEILEMERA MACULATA.

Nyctemera maculata, Walker, ii, 396 (1854).

Pag., Jahrb. Nass. Ver. Naturk., 1901,

p. 168, pl. 2, f. 10.

Nyctemera noviespunctatum, Voll., Tijd. v. Dierk., i, p. 42 (1863).

One example (the type) without locality, from Children's coll., probably Java.

### DEILEMERA ÆRES.

Leptosoma æres, Boisd., Voy. de l'Astrolabe Lep., p. 198 (1832).

Nyctemera mutabilis, var., Walker, xxxi, 206 (1864).

Deilemera mutabilis, Swinhoe (note), Cat. Het. Mus. Oxon., i, p. 147 (1892).

Walker's type from Ternate and one example from Buru.

### Deilemera Leuctra, nov. (Pl. IV, f. 5.)

3 9. Palpi with the first joint yellow, second and third black, head, thorax and abdomen ochreous yellow, with black spots and

bands, a spot on the frons, one behind the base of the antennæ, four on the collar, five on the thorax and broad segmental bands on the abdomen; fore-wings black, with a large white patch (as in *D. mülleri*, Voll.) at the base, a larger white patch covering the whole of the disc, extending from near the costa to near the hinder margin, its inner margin recurved, its outer margin outwardly dentated, its lower side having a small square projection, two submarginal white spots, one a little above the middle, the other larger and subapical; hind-wings white with a broad black band, with two white spots as in the forewings, the band complete in the female, but in the male it terminates abruptly at vein 2, and is followed by two black spots.

Expanse of wings  $2\frac{1}{10}$  inches.

Hab. SANGIR (Doherty); TALAUT (Doherty).

Allied to *D. mülleri*, Voll., from Borneo, which is very distinct from *D. carissima*, Swinhoe, from Assam. Pagenstecher on p. 164 puts them together; though the pattern of the wings is somewhat similar the shape of the two insects is very different, *carissima* having long narrow wings and in the male an excavation in the hind-wings a little before the anal angle, making the angle produced hindwards.

# Deilemera Gerra, nov. (Pl. IV, f. 1.)

 $\mathcal{F}$ . Palpi, head and body as in D. leuctra; fore-wings blackish-brown, a white basal patch narrower than in leuctra, a narrow discal white patch with a round excavation on its inner side, toothed on its outer side, but with no square projection hind-wards; hind-wings white with a broad blackish-brown band with the white spots as in leuctra, but without the two black spots in the male in continuation of the marginal band.

Expanse of wings 2 inches.

Hab. TALAUT (Doherty).

The white bands on the fore-wings of the female are rather broader than those in the male.

### DEILEMERA MÜLLERI.

Leptosoma mülleri, Voll., Tijd. v. Dierk, i, p. 41 (1863). Deilemera mülleri, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 164.

Two males and three females from Borneo.

#### Deilemera Carissima.

Deilemera carissima, Swinhoe, Trans. Ent. Soc., Lond., 1891, p. 447, pl. 19, f. 1.

Deilemera carissima, Hampson, Moths, India, ii, p. 46 (1894).

One male and one female (types) from the Khasia Hills; I have also a pair from the same locality in my museum.

#### DEILEMERA ZERENOIDES.

Tripheromera zerenoides, Butler, Ann. Mag. N. H. (5), viii, p. 380 (1881).

One female (the type) from Sumatra.

It more nearly resembles carissima, Swinhoe, than anything else.

#### DEILEMERA ARCTATA.

Nyctemera arctata, Walker, vii, 1664 (1856).

Deilemera arctuta, Hampson, Moths, India, ii, p. 45, f. 21 & (1894).

Nyctemera maculosa, Walker, xxxi, 198 (1864).

Five examples from Sikkim, Assam, and Burma; the type from Cherra Punji in the Khasia Hills, Assam, is in Mus. Oxon.

### B. MALE WITH LONG TUFT OF HAIR TO FORE TIBLE.

 $(coleta\ group)$ 

### DEILEMERA COLETA.

Phalæna coleta, Cram., Pap. Exot., iv, pl. 368, f. H (1781).

Nyctemera coleta, Hübner, Verz. Schmett., p. 178 (1818).

", Pag., Jahrb. Nass. Ver. Naturk., 1901,

p. 142.

Sixteen examples from Tenasserim, Singapore, Sumatra, Borneo, Java, Amboina and Ceram.

### DEILEMERA NIGROVENOSA.

Nyctemera nigrovenosa, Moore, P. Z. S., 1879, p. 394. " Swinhoe, Cat. Het. Mus. Oxon., i, p. 141 (1892). Seven examples from Ceylon, including the type; Pagenstecher following Hampson has put it as a synonym to coleta.

#### DEILEMERA MELANEURA.

*Leptosoma melaneura*, Butler, Ann. Mag. N. H. (5), xii, p. 160 (1883).

Weymer, Stett. Ent. Zeit., xlvi, p. 274 (1885).

The type example from Nias.

In my collection are two from Nias and some in Mr. Herbert Druce's collection; it seems to be confined to the Island and is quite distinct from either coleta or nigrovenosa.

C. MALE WITH ABNORMAL HIND LEGS. . (leuconoë group)

#### DEILEMERA LEUCONOË.

Nyctemera leuconoë, Hopffer, Berl. Mon. Acad., p. 422 (1857).

Leptosoma leuconoë, Butler, P. Z. S., 1898, p. 419.

Three examples from Abyssinia, one from Foda, four labelled E. Africa, two from Nyassa Land, two from Zomba, one from Delagoa Bay, and six from Natal.

### DEILEMERA INSULARIS.

Leptosoma insulare, Boisd., Faun. Madag., p. 84, pl. 12, f. 1 (1833).

Three examples from Madagascar.

### DEILEMERA CONSORS.

Leptosoma consors, Butler, Ann. Mag. N. H. (5), xv, p. 192 (1879).

The type from the Island of Johanna.

### DEILEMERA FALLAX.

Nyctemera fallax, Holland, Ent. News. and Proc. Ent. Soc. Ac. Nat. Sci. Phil., iv, p. 59 (1893).

Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 147.

One example from Ogove River; the type came from the same locality and is in coll. Holland.

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#### DEILEMERA PERSPICUA.

Nyctemera perspicua, Walker, ii, 398 (1854).

Ten examples from Sierra Leone, Old Calabar, and the Congo, including the type.

#### Deilemera biformis.

Nychthemera biformis, Mab., Bull. Soc. Zool. Fr., iii, p. 87 (1878).

Nyctemera biformis, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 149.

Nyctemera mabillei, Butler, Ent. Mo. Mag., xix, p. 57 (1882).

Two males and one female (Butler's type) from

Madagascar.

In Ent. Mo. Mag., xix, p. 57, Butler says, that as they have received in the B. M. a black female from Madagascar almost exactly like the male, the white insect described by Mabille cannot be the female of biformis. I have carefully examined this so-called black female; it is not a female, but a male with frenulum and retinaculum complete, and I cannot therefore see why this white female should not be the female of biformis, and it must stand as such until proved otherwise.

#### DEILEMERA APICALIS.

Nyctemera apicalis, Walker, ii, 395 (1854).

", Waterhouse, Aid, pl. 178, f. 4 (1880).
"Pag., Jahrb. Nass. Ver. Naturk., 1901,
p. 145.

One example (type) from W. Africa, and one from Ashanti.

Kirby put tricolor, Felder, as a var. of this species, and Pagenstecher does the same; but judging from Felder's figure I do not believe this to be correct, apicalis having a very broad discal pure white band.

#### DEILEMERA RESTRICTA.

Leptosoma restrictum, Butler, P. Z. S., 1894, p. 585. Nyctemera restrictum, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 146.

Four examples from E. Africa, including the type.

DEILEMERA ANTINORII.

Nyctemera antinorii, Oberthür, Ann. Mus. Genova, xv, p. 174, pl. 1, f. 1 (1880).

Two from Sierra Leone, two from Mongo-ma-Lobak, nine from Old Calabar, three from the River Nigra, and one from the Cameroons.

DEILEMERA ACRÆINA.

Nyctemera acræina, Druce, P. Z. S., 1882, p. 780.

Type, Calabar in coll. Druce. It is not in the B. M.

DEILEMERA CHROMIS.

Nyctemera chromis, Druce, P. Z. S., 1882, p. 780, pl. 65, f. 2. The type from W. Africa is in coll. Druce. It is not in the B. M.

DEILEMERA FULLERI.

Nyctemera fulleri, Druce, Ent. Mo. Mag., xx, p. 157 (1883).

The type from the Cameroons is in coll. Druce.
It is not in the B. M.

D. WITHOUT SECONDARY SEXUAL CHARACTERS. (Tripheromera)

DEILEMERA PLAGIFERA.

Nyctemera plagifera, Walker, ii, 400 (1854). Tripheromera plagifera, Butler, Ill. Het. B. M., v, p. 45, pl. 88, f. 3 (1881).

Twenty-five examples from W. China, Loochoo, Hong Kong, Nepaul, Darjiling, Assam, Silhet (type), and the Nilgiri Hills.

DEILEMERA LUDEKINGII.

Leptosoma ludekingii, Voll., Tijd. v. Dierk., i, p. 49 (1863).
", Snellen, Tijd. v. Ent., xlii, p. 108,
pl. 5, B., f. 1 (1899).
", Pag., Jahrb. Nass. Ver. Naturk.,
1901, p. 141, pl. 2, f. 11.

One example from Sumatra. Pagenstecher's figure is better than Snellen's. Pagenstecher puts zerenoides,

Butler, as a synonym, but that species belongs to a different section of the Family.

#### DEILEMERA CENIS.

Phalæna cenis, Cram., Pap. Exot., ii, pl. 147, f. E (1777). Nyctemera interlectum, Walker, ii, 400 (1854).

Fifteen examples from Loo Choo, Shan States, Kashmir, Dera Dhun, Chin Hills, Jawai Hills, Darjiling, Sikkim, Assam, and Walker's type from Silhet.

#### DEILEMERA ANNULATA.

Leptosoma annulatum, Boisd., Voy. de l'Astrolabe Lep., p. 197, pl. 5, f. 9 (1832).

Nyctemera annulata, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 111.

Nyctemera doubledayi, Walker, ii, 392 (1854).

Fourteen examples from New Zealand including Walker's type.

#### DEILEMERA AMICA.

Aglages amicus, White in Grey's Journ. Exped. Austral., ii, p. 482 (1841).

Nyctemera amica, Meyrick, Proc. Linn. Soc. N.S.W. (2), i, p. 760 (1886).

Nyctemera annulata, Walker (nec Boisd.), ii, 391 (1854).

Leptosoma plagiatum, Guen., Ent. Mo. Mag., v, p. 2 (1868). Nyctemera conica, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 112.

Eleven examples from S.E. Australia; Pagenstecher's conica is evidently a misprint for amica.

### Deilemera secundaria.

Leptosoma secundarium, Lucas, Proc. Linn. Soc. N.S.W., vi, p. 280 (1891).

Four examples from Queensland, differing nearly as much from amica as amica does from annulata.

# DEILEMERA LATEMARGINATA. (Pl. III, f. 4.)

Nyctemera latemarginata, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 114.

One example from N. Guinea.

It has only two spots on the fore-wings, and is therefore not absolutely identical with Pagenstecher's type, but I am convinced it must belong to the same species.

#### DEILEMERA DISTINCTA.

Nyctemera distincta, Walker, ii, 392 (1854).

" Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 108, pl. 2, f. 1.

Five examples from Java including the type. Pagenstecher's figure does not well represent the typical form; the type has hardly an indication of the white discal band of fore-wings, and in none of the examples in this Museum is the band plainly shown, and the yellow streaks are very faintly indicated.

# Deilemera Popiya, nov. (Pl. III, figs. 3 and 7.)

A Priest joint of palpi bright ochreous, second and third black, a large black spot on frons, one behind the base of antennæ, two on collar, one on each shoulder, three black longitudinal stripes on the thorax, all the spots and stripes edged with bright ochreous; fore-wings dark blackish-brown above and below, a broad white discal band on the under-side, from vein 2 to the costa; vein 1, the median and sub-costal veins white; on the upper-side the broad white band can be very distinctly seen, and all the veins on the basal third are yellow; the hindwings are white with a broad blackish-brown border and with some brown suffusion at the base; cilia whitish; abdomen grey with white segmental bands and gold tip.

Expanse of wings 1 inches.

Hab. JAVA, six examples.

On the upper-side it is something like distincta, but the band on the hind-wings is much narrower, and the abdomen is whiter, pure white beneath, with a double row of black spots on each side; underneath the markings of fore-wings are very distinctive.

### DEILEMERA TRITA.

Nyctemera trita, Walker, ii, 394 (1854).

" " Moore, Cat. Lep. E.I.C., ii, p. 331, pl. 8a, f. 9 (1858).

Leptosoma tritum, Swinhoe, Cat. Het. Mus. Oxon., i, p. 143 (1892).

Nine examples from Java, including the type.

#### DEILEMERA SUBVELATA.

Nyctemera subvelata, Walker, xxxi, 200 (1864).

Leptosoma subvelatum, Swinhoe, Cat. Het. Mus. Oxon., i, p. 144 (1892).

Leptosoma infuscata, Hopffer, Stett. Ent. Zeit., xxxv, p. 44 (1874).

Nyctemera infuscata, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 129.

Three examples from Celebes, including Walker's type. I have examples in my own Museum from Celebes that have been identified as *infuscata* by Pagenstecher.

#### DEILEMERA CLATHRATA.

Leptosoma clathratum, Voll., Tijd. v. Dierk., i, p. 48 (1863). Nyctemera clathratum, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 137, pl. 2, f. 2.

One male from Ceram which seems identical with Pagenstecher's figure is in my coll.

It is not in the B. M.

### DEILEMERA ASSIMILE.

Leptosoma assimile, Voll. Tijd. v. Dierk., i, p. 39 (1863). Nyctemera assimile, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 108, pl. 2, f. 3.

Leptosoma confusum, Swinhoe, Cat. Het. Mus. Oxon., i, p. 144 (1892)

One example from Java. The types of *confusum* from Java are in Mus. Oxon.

### DEILEMERA ALTERNATA.

Nyctemera alternata, Walker, xxxv, 1879 (1866). " , , Semper, Phil. Schmett., p. 495, pl. 58, f. 9, 10 (1899).

The type example from the Philippines.

### DEILEMERA RADIATA.

Nyctemera radiata, Walker, vii, 1664 (1856).

" , Semper, Phil. Schmett., p. 494, pl. 58, f. 8, ♀ (1899).

Leptosoma radiata, Swinhoe, Cat. Het. Mus. Oxon., i, p. 142, pl. 5, f. 10 (1892).

Two females from the Philippines. The type from Manilla is in Mus. Oxon.

### DEILEMERA VELANS.

Nyctemera velans, Walker, xxxi, 200 (1864).

Leptosoma velans, Swinhoe, Cat. Het. Mus. Oxon., i, p. 144, pl. 5, f. 7 (1892).

Nyctemera velans, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 131.

The type from Celebes is in Mus. Oxon. It is not in the B. M.

### DEILEMERA LOMBOKIANA, nov.

¿ Palpi with first joint ochreous, second and third black, frons and head pale ochreous, nearly white, a black spot on frons, one on head and two on collar, all large; thorax and abdomen dark brown, the former with longitudinal pale yellow lines, the latter with white hairs and indistinct whitish segmental bands and ochreous tip; wings of a uniform dark brown; fore-wings with veins yellowish on basal third, an indistinct discal band of six inconspicuous small spots, the last two the largest, the others uniform in size and very small, all of them suffused more or less with brown; hind-wings with a small central space whitish.

Expanse of wings 1,6 inches.

Hab. Lombock, one pair.

Received from a Continental dealer as N. lombokiana, Fruhstorfer; but I can find no reference: it is allied to assimile, Voll., and propria, Swinhoe.

### DEILEMERA PROPRIA.

Leptosoma proprium, Swinhoe, Cat. Het. Mus. Oxon., i, p. 144, pl. 5, f. 12 (1892).

Nyctemera proprium, Semper, Phil. Schmett., p. 495, pl. 58, f. 11  $\Im$ , 12, 13, 14  $\Im$  (1899).

The types  $\Im$   $\Im$  from the Philippines are in Mus. Oxon. Semper records it from the Babuyan Islands, Bohol, Camotes, and East Mindanao. It is not in the B. M.

### DEILEMERA QUADRIGUTTATA.

Leptosoma quadriguttatum, Voll., Tijd. v. Dierk., i, p. 40 (1863).

Nyctemera quadriguttatum, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 114, pl. 2, f. 9.

One example from Java.

Not the same as kondekum, Swinhoe, as Pagenstecher says: that species being more nearly allied to distincta, Walker.

#### DEILEMERA SEXMACULATA.

Leptosoma sexmaculatum, Butler, Ann. Mag. N. H. (5), xix, p. 222 (1887).

Nyctemera aolensis, Druce, P. Z. S., 1888, p. 573.

Two males and four females, Alu, Solomon Islands, including Butler's type; Druce's type came from Guadalcanar, Solomon Islands; there is much less white in the females than in the males, especially on the hind-wings.

#### DEILEMERA EXTENDENS.

Nyctemera extendens, Walker, vii, 1666 (1856).

" Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 127, pl. 2, f. 7.

Nyctemera horites, Druce, P. Z. S., 1888, p. 573.

Walker's type from New Hebrides and nine examples from Alu, Solomon Islands; Druce's type, a female, also came from the Solomon Islands. I have it in my coll. from Treasury Isl. and New Georgia.

### DEILEMERA SYRNIA, nov. (Pl. III, f. 6.)

Q. Palpi with the first joint dull orange, second and third joints black, large deep black spots edged with pale orange, filling up all the spaces, one on the frons, one behind the base of antennæ, two on the collar, one on each shoulder, and three longitudinal stripes similarly edged filling up the entire surface of the thorax; abdomen black, tip ochreous, segmental bands thin and white above, broad and ochreous beneath; fore-wings deep black, vein 1 and the median vein slightly ochreous towards the base, a discal white band, divided by the veins into seven spots, much indented, almost dislocated at the lower end of the cell, the upper spot near the costa very small, the fourth and seventh much smaller than the rest, the seventh just below vein 2; hind-wings with a broad deep black marginal band, scooped inwards from veins 2 to 5, extending along the costa and partly up the abdominal margin.

Expanse of wings  $1\frac{s}{10}$  inches.

Hab. Fergusson Island (Meek). Two examples.

# DEILEMERA KAPAURENSIS, nov. (Pl. III, f. 1.)

Q. Allied to syrnia, fore-wings not quite so deep black, all the veins in the basal half whitish, the discal band similarly shaped, but broader, the subcostal spot as large as the lowest spot, the band extending below vein 1 forming eight spots, a white stripe in the basal two-thirds of the hinder margin; hind-wings as in syrnia, but the costal band with a short production hindwards in its centre; the abdomen also differs in being ochreous below, with black segmental macular bands.

Expanse of wings 1 s inches.

Hab. Kapaur, N. Guinea (Doherty). One example.

### DEILEMERA DRUCEI, nov.

Palpi black, ochreous beneath and at the base, face and head ochreous, but with the spots so large as to make them look black, thorax black with ochreous longitudinal stripes, abdomen black; with ochreous segmental bands and ochreous tip; fore-wings deep black, in the male there is a white mark below end of cell which looks like the termination of a stripe from the base, this is wanting in the female; a white discal band, not macular, fairly uniform in width, curved inwards, with two indentations on its inner side; on the basal third the veins are slightly ochreous, and there is a white streak on the hinder margin, from the base to two-thirds its length; hind-wings white with the usual black marginal band, without any spots.

Expanse of wings 1 to inches.

Hab. N. Australia, types in Mus. Druce; not in B. M. The only species in the Family I have yet seen with the discal band of fore-wings curving inwards.

### DEILEMERA DISPAR, nov.

J. Palpi with first and second joints ochreous, last joint black, frons, head and collar ochreous, frons with one black spot, head with a large black spot, and the collar with two, occupying nearly the whole space, thorax and abdomen black, the former with ochreous longitudinal stripes, the latter with segmental white bands, which go completely round the abdomen, are ochreous in the last two segments, and there is an ochreous stripe along each side containing black spots; tip orange; fore-wings black, veins without markings, the discal white band broad, extending almost to the hinder margin near the angle, divided by the veins into seven spots, much as in D. aluensis,

Butler, but closer together and more compact; hind-wings white, with the usual black band on the margins.

Expanse of wings 1 s inches.

Hab. Rossel Island, Louisiade Group.

Its black colour, without any vein markings, separates it from the *mundipicta* group, which it otherwise somewhat resembles.

#### DEILEMERA LACTICINIA.

Phalæna (Geometra) lacticinia, Cram., Pap. Exot., ii, pl. 128, f. E (1777).

Leptosoma lacticinia, Swinhoe, Cat. Het. Mus. Oxon., i, p. 141 (1892).

Fifteen examples from Hong Kong, Canara, Cachar, Malabar, Nilgiri Hills, Ceylon, and Penang; the Penang examples have the discal band of the fore-wings rather wide, but seem otherwise identically the same as those from India.

#### DEILEMERA SIMULATRIX.

Nyctemera simulatrix, Walker, xxxi, 198 (1864). Leptosoma simulatrix, Swinhoe, Cat. Het. Mus. Oxon., i, p. 143 (1892).

One example from Celebes. The type from Celebes is in Mus. Oxon.

# Deilemera Nigrovena, nov. (Pl. IV, fig. 2.)

Q. First two joints of palpi dull orange-yellow, last joint black, head and thorax orange-yellow, one black spot on the frons, one behind the base of antennæ, two black bands on the collar, a spot on each shoulder, and three longitudinal bands on the thorax; abdomen white above with black segmental bands, below slightly yellow tinged, with the bands macular; fore-wings black, the veins on the basal half white, discal band composed of eight spots as in mundipicta, but well separated from each other by the veins, except the spot at the end of the cell, which is joined to the spot outside the end; hind-wings white, with the usual broad marginal band, with all the veins black; veins 1, 1a, the median, and subcostal veins with a thin band of black suffusion on each side.

Expanse of wings  $2\frac{3}{10}$  inches.

Hab. South Celebes (Fruhstorfer). One example.

#### DEILEMERA KALA.

Leptosoma kala, Swinhoe, Cat. Het. Mus. Oxon., i, p. 143, pl. 5, f. 8 (1892).

The type from Ké Island is in Mus. Oxon. It is not in the B. M.

### DEILEMERA BAULUS.

Leptosoma baulus, Boisd., Voy. de l'Astrolabe Lep., p. 200 (1832).

Nyctemera mundipicta, Walker, Journ. Linn. Soc. Lond., iii, p. 184 (1859).

Leptosoma mundipicta, Swinhoe, Cat. Het. Mus. Oxon., i, p. 141, pl. 5, f. 14 (1892).

Nyctemera herklotsii, Voll., Tijd. v. Dierk., i, p. 39 (1863). " Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 113, pl. 2, f. 5.

Thirty-five examples from New Britain, New Ireland, Borneo, Singapore, Ternate, Amboina, Trobriand Island, Fergusson Island, Sumatra, Java and Ceram; in the Oxford Museum it is also from Flores, Gilolo, New Guinea, Mysol, and New Caledonia. It seems to have a very wide range, and is variable as to the width of the discal white macular band of the fore-wings and the marginal band of hind-wings. There are in the B. M. ten examples from Java, some identical with Pagenstecher's figure of herklotsii, and none of them separable from baulus, and also many examples from Buru (where Boisduval's type came from) are in the Tring Museum, some of which I have examined.

### DEILEMERA FASCIATA.

Nyctemera fasciata, Walker, vii, 1665 (1856).

Nyctemera latistriga, Snellen (nec Walker), Tijd. v. Ent., xxii, p. 72, pl. 6, f. 5 (1879).

,, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 120.

Nyctemera latistriga, var. fasciata, Rober, Tijd. v. Ent., xxxiv, p. 325 (1891).

Nyctemera tertiana, Meyrick, Ent. Mo. Mag., xxiii, p. 15 (1886).

Pag., l. c., p. 121.

The type from Aneitum, and six examples from Fiji

and Adelaide: it has been recorded from Celebes, Ceram, Aru, N. Guinea, Flores, Timorlaut, Uliasser, Shortland Island, and Solomon Islands; it is very doubtfully distinct from baulus.

### Deilemera integra. (Pl. III, f. 5.)

Nyctemera integra, Walker, xxxv, 1879 (1866).

Leptosoma integra, Kirby, Ann. Mag. N. H. (6), iii, p. 187 (1889).

Leptosoma mundipicta, Swinhoe (part), Cat. Het. Mus. Oxon., i, p. 141, pl. 5, f. 14 (1892).

Semper, Phil. Schmett., p. 493, pl. 50, f. 4 ? (1899).

One female example (the type) from the Philippines, one from Alu, Solomon Islands, and two from the Caroline Islands.

This species is very similar in some respects to mundipicta, Walker, but it is blacker, and the spots forming the discal band of the fore-wings are closer together and more compact, the veins dividing them being white, not black; the latter have the abdomen yellower, but are otherwise identical. The figure represents one of the Caroline Island examples.

#### Deilemera aluensis.

Nyctemera aluensis, Butler, Ann. Mag. N. H. (5), xix, p. 222 (1887).

Pag., Jahrb. Nass. Ver. Naturk., 1901,p. 121.

Two male and three female examples from Alu, Solomon Islands, including the types.

### DEILEMERA KINAGANANGA, nov.

 $\mathcal{F}$ . Palpi with first joint ochreous, last two black; from, head and thorax ochreous, the first with one spot, one on the head, two on the collar; thorax with longitudinal black stripes, and a black spot at the base; abdomen white with black segmental bands above, three rows of black spots on each side; wings very much as in D. baulus, Boisd. = mundipicta, Walker, except that the hinder margin of fore-wings has a white stripe from base to below the discal band, and

a prominent white streak in the interno-median interspace, also from the base to near the discal band; the black band on the hind-wings is as narrow as it is in *lacticinia*, Cram.

Expanse of wings 1 10 inches.

Hab. KINAGANANG, New Britain.

#### DEILEMERA KONDEKA.

Leptosoma kondekum, Swinhoe, Cat. Het. Mus. Oxon., i, p. 144 (1892).

One example from Java. Types from Java in Mus. Oxon.

### DEILEMERA ILLUSTRIS, nov.

depth 2. Last joint of palpi black, first and second joints, the head and collar bright ochreous, a black spot on the frons, one on top of head and four on the collar; thorax and abdomen white, tinged with yellow in parts, the last two joints of abdomen bright ochreous; thorax with three longitudinal black bands, abdomen with a black band on each segment; fore-wings brown, blackish on the outer half, pale and tinged with green on the basal half; a white streak on hinder margin for two-thirds its length, the veins on the basal half white, a white streak through the middle of the cell, another white streak much broader in the interno-median interspace from the base to the discal band, where it runs into and forms the lowest spot of the six that form the band; the second spot is large and kidney-shaped, the first and third are the smallest, the fourth longer, the fifth longest; hind-wings with a black outer border, as in mundipicta.

Expanse of wings 2 inches.

Hab. ALU, Solomon Islands.

Two pairs, described by Dr. Butler as aluensis, var., but they are certainly quite distinct from that species.

# DEILEMERA NISA, nov. (Pl. IV, f. 7.)

Palpi with the first joint ochreous, second and third black, head and collar ochreous, a black spot on the frons, one on top of head, two on the collar, one on each shoulder; thorax and abdomen white, the hind part of the former and the last two segments of the latter ochreous; three longitudinal black bands on thorax, and a black spot on the yellow part; abdomen with black segmental bands above, and a double row of black spots on each side; fore-wings black, veins on the basal half pure white, a white streak throughout the middle of

the cell to the discal band, a much broader and prominent white streak in the interno-median interspace, also from base to discal band, the latter composed of white spots much as in *baulus*, but broader than usual, the large spot second from the costa nearly round, hinder marginal border with a white streak for two-thirds its length; hind-wings white with marginal black band as in *baulus*.

Expanse of wings  $1\frac{9}{10}$  inches.

Hab. SANGIR (Doherty).

Male and female, the types, and one male marked Celebes.

It somewhat resembles aluensis, Butler.

#### DEILEMERA OBTUSA.

Nyctemera obtusa, Walker, vii, 1666 (1856).

" Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 115.

Three examples from Celebes, including the type.

In Kükenthal's Reise (Abhandl. Senckenbergschen Gesellschaft), p. 440, pl. 18, f. 4, Pagenstecher described and figured N. consobrina, Hopffer. In Jahrb. Nass. Ver. 1901, p. 115, he says that this was a mistake, and that the description and figure represent N. obtusa, Walker; but this also is an error, the figure being very unlike Walker's species, and representing a species with which I am not acquainted.

### DEILEMERA LATISTRIGA.

Nyctemera latistriga, Walker, ii, 397 (1854).

Leptosoma latistriga, Butler, Ill. Het. B. M., v., p. 44, pl. 88, f. 1 (1881).

Nyctemera inconstans, Voll., Tijd. v. Dierk., i, p. 47 (1863). Nyctemera consobrina, Hopffer, Stett. Ent. Zeit., 1874, p. 45.

Nyctemera arcuatum, Swinhoe (nec Voll.), Cat. Het. Mus. Oxon., i, p. 142 (1892).

Twenty-two examples from Borneo, Silhet, Ceylon, Burma, Sumatra, Java, Pulo Laut, and the type from Maulmein.

Arcuatum, Voll., was wrongly identified in the B. M., and this led me to sink it as a synonym to latistriga in Cat. Het. Mus. Oxon. Snellen in Tijd. v. Ent., xli, p. 26, pl. 1, f. 3, 4, 5 (1898), says it belongs to the Chalcosiidæ; Pagenstecher (p. 114) makes consobrina, Hopffer, a distinct species; he

does not say he has seen Hopffer's type, but the description exactly fits latistriga: "Der Raum zwischen mediana und submediana ist auf der innern Flügelhälfte durch eine spindelförmige oder ein langgezogenes Dreieck bildende Längsbinde ausgefüllt die aber die weisse Querbinde nicht erreicht." If this does not describe latistriga it describes something very near it; the elongated white triangle in the interno-median interspace together with the description of the discal band of fore-wings is peculiarly distinctive to latistriga.

#### DEILEMERA ACCEPTA.

Leptosoma acceptum, Swinhoe, Cat. Het. Mus. Oxon., i, p. 143, pl. 5, f. 5 (1892).

" Pag., Kükenthal's Reise in Abh.

Senckenb. Naturf. Ges., 1897, p. 440.

The type from Celebes, a female, is in Mus. Oxon.

I have in my collection a male from Flores (Everett), which seems to me to be identical.

It is not in the B. M.

### DEILEMERA SONTICA.

Leptosoma sonticum, Swinhoe, Cat. Het. Mus. Oxon., i, p. 142 (1892).

Nyctemera sonticum, Semper, Phil. Schmett., p. 494, pl. 58, f. 5 ♀ (1898).

The types \$\frac{1}{2}\$ from the Philippines are in Mus. Oxon.; it is recorded by Semper from Luzon, Mindoro and Bohol; I have in my collection a male from Mindoro and a female from Palawan.

It is not in the B. M.

### DEILEMERA ABSURDA.

Leptosoma absurdum, Swinhoe, Cat. Het. Mus. Oxon., i, p. 143 (1892).

Nyctemera absurdum, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 135.

The male type, from Salawatti Island, is in Mus. Oxon.; it is not in the B. M.

#### Deilemera luctuosa.

Leptosoma luctuosum, Voll., Tijd. v. Dierk., i, p. 42 (1863). " Swinhoe, Cat. Het. Mus. Oxon., i, p. 146 (1892).

Nyctemera crescens, Walker, xxxi, 204 (1864).

One example from Morova, one from Batjan, and one from Sula; the type of *crescens* from Morty is in Mus. Oxon.

#### DEILEMERA GALBANA.

Leptosoma galbanum, Swinhoe, Cat. Het. Mus. Oxon., i, p. 146 (1892).

Nyctemera galbanum, Semper, Phil. Schmett., p. 429, pl. 58, f. 2 ♀ (1899).

The types \$\foata \cong \text{from the Philippines are in Mus. Oxon. Semper records it from Luzon.

It is not in the B. M.

# DEILEMERA ONETHA.

Leptosoma onetha, Swinhoe, Ann. Mag. N. H. (7), vii, p. 466 (1901).

The type example from New Britain.

### DEILEMERA TRIPUNCTARIA.

Phalæna tripunctaria, Linn., Syst. Nat., x, p. 523 (1758).
Phalæna petulca, Sparrm. Amæn. Acad., xii, p. 500 (1769).
Nyctemera atralba, Hübn., Verz. Schmett., p. 178 (1818).
Nyctemera sumatrensis, Heylarts, Compt. Rend. Soc. Ent.
Belg., xxxiv, p. xvii (1890).

Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 139, pl. 2, f. 6.

Eleven examples from Penang, Malacca, Lankawi, Singa-

pore, Sumatra, Borneo, and Siam.

The example from Sumatra in the National Collection is identical with Pagenstecher's figure of *sumatrensis* and is not separable from the other examples of *tripunctaria*.

#### DEILEMERA CELSA.

Nyctemera celsa, Walker, xxxi, 199 (1864).

Leptosoma celsum, Swinhoe, Cat. Het. Mus. Oxon., i, p. 144 (1892).

Four examples from Hong Kong and Foo-Chow; the type from Siam is in Mus. Oxon.; it is the extreme Eastern form of *tripunctaria*.

#### DEILEMERA PICATA.

Secusio picatus, Butler, Ann. Mag. N. H. (5), viii, p. 380 (1881).

The type example from Sumatra.

This is much like regularis, but it is I think distinct; the type example is that of a female with a white streak in the interno-median interspace on fore-wings, and the discal band is much broader; regularis, of which there are both sexes in the National Collection, has no sign whatever of a discal streak and is well figured by Pagenstecher.

#### DEILEMERA REGULARIS.

Leptosoma regularis, Snellen, Mid. Sum. Lep., p. 34 (1880).

Nyctemera regularis, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 139, pl. 2, f. 8.

Three examples from Sumatra.

### DEILEMERA KINABALINA.

Nyctemera kinabalina, Snellen, Tijd. v. Ent., xlii, p. 110, pl. 5 B, f. 2 (1899).

One female example marked Borneo; it is considerably larger then Snellen's figure of the male, but is undoubtedly the same species.

# DEILEMERA HARCA.

Leptosoma harca, Swinhoe, Ann. Mag. N. H. (6), xii, p. 215 (1893).

Nyctemera herce (sic), Holland (sic), Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 138.

Nine examples from Malacca, including the type.

There are some curious printer's errors in Pagenstecher's paper.

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### DEILEMERA OVADA, nov.

Q. Palpi white, third joint and top of second black; from, thorax and abdomen white, slightly tinged in parts with yellow, a black spot on from, one on head, two on collar and one on each shoulder; thorax with brown longitudinal stripes, abdomen with no markings above, a double row of brown stripes on each side, tip ochreous; forewings pale bronzy-brown, a white spot on the costa with an indistinct small streak below it, indicating the commencement of the usual discal band, no other markings above; below, the discal band is more apparent, consisting of two large wedge-shaped spots disconnected from each other; hind-wings white, with the usual marginal band, of the same colour as the fore-wings.

Expanse of wings  $1\frac{1}{2}$  inches.

Hab. WAINGAPO, Sumba Isls.

I have also a female from the same locality in my coll.; it is allied to nothing I know of.

### DEILEMERA OPTATA. (Pl. IV, f. 3.)

First joint of palpi ochreous, second and third brown, frons pure white with a black spot, top of head and collar ochreous, the former with one black spot, the latter with two; thorax white with three longitudinal black stripes, abdomen white with grey dorsal spots and some blackish spots on the sides towards the tip, which is ochreous; fore-wings pale greyish-fawn colour, a white stripe in the interno-median interspace from base to near hinder angle, the discal band white, divided by the fawn-coloured veins and all running on to the margin, with the exception of the costal spot above end of cell which is small; hind-wings white with short fawn-coloured indistinct streaks in the interspaces near the outer margin; under-side same as above but with the fawn-coloured parts darker.

Expanse of wings 1 to inches.

Hab. SUMATRA, one example.

### DEILEMERA AMPLIFICATA.

Tanada (?) amplificata, Walker, xxxii, 377 (1865). Tripheromera amplificata, Kirby, Cat. Moths, i, p. 423 (1892).

Nyctemera cydippe, Weymer, Stett. Ent. Zeit., xlvi, p. 274, pl. 2, f. 8 (1885).

" Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 134.

Three examples from Nias and the type without locality;

seems to be confined to the Island of Nias; there are a number in Mr. Herbert Druce's collection and in mine.

#### DEILEMERA ALBA.

Nyctemera alba, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 135.

Three examples from Viti and Samoa.

The following species, described as such, do not belong to this Genus or Family:—

Nyctemera (?) vagata, Walker, xxxi, 208 (1864), N. Australia.

Is a Noctuid near the genus Ipana, Jordan, Nov. Zool., iii, p. 54 (1896).

Nyctemera arcuatum, Voll., Tijd. v. Dierkunde, i, p. 45 (1863), Lombok.

This is said to be a Chalcosia, vide Snellen, Tijd. v. Ent., xli, p. 26, pl. i, f. 3 (1898); it was wrongly identified in the B. M. collection.

Nyctemera (?) contracta, Walker, xxxi, 208 (1864), Mysol. This is a Boarmid belonging to the genus Bursada.

The following species are not in the National Collection, and are unknown to me:—

Nyctemera confluens, Felder, Sitz. Ac. Wien., xliii, p. 38 (1861), Amboina.

Nyctemera aurivillii, Pag., Jahrb. Nass. Ver. Naturk., 1901, p. 154 (note) = N. fasciata, Aurivillius, Ent. Tidskrift, 1897, p. 220, text f. 5 (praeocc.), Nyasaland.

Nyctemera melaneura, var. melas, Rober, Tijd. v. Ent., 1891, p. 326, Ceram.

Nyctemera mesolychna, Meyrick, Trans. Ent. Soc. Lond., 1889, p. 466, N. Guinea.

Nyctemera pagenstecheri, Pag., Jahrb. Nass. Ver. Naturk., 1898, p. 199, Lombok.

Nyctemera quaternarium, Pag., Lep. Fauna, Bismark-Arch., ii, p. 54, pl. 2, f. 29 (1900), N. Ireland.

Leptosoma pallens, Voll., Tijd. v. Dierk., i, p. 45 (1863), Java.

Nyctemera apensis, Semper, Phil. Schmett., p. 496, pl. 55, f. 9, Mindanao.

Leptosoma fuscipenne, Wallgn., Wien. Ent. Mon., iv., p. 161 (1860), Caffraria.

Leptosoma tricolor, Felder, Reise Nov. Lep., pl. 103, f. 3 (1874), Africa.

Nyctemera rasana, Mab., Ann. Soc. Ent. Fr., 1879, p. 304, Madagascar.

Nyctemera vollenhovii, Snellen, Tijd. v. Ent., xxxiii, p. 276, pl. ii, f. 4 (1890), Tanah Djampea.

Nyctemera tenuifascia, Snellen, Tijd. v. Ent., xli, p. 26, pl. 1, f. 2 (1898), Lombok.

Nyctemera dentifascia, Snellen, l. c., p. 24, f. 1, Sumatra.

Leptosoma anthracinum, Voll., Tijd. v. Dierk, i, p. 38 (1863), Java.

Nyctemera tritoides, Heylarts, Compt. Rend. Soc. Ent. Belg., xxxiv, p. xvii (1890), Sumatra.

Leptosoma macklotti, Voll., Tijd. v. Dierk., i, p. 18 (1863), = N. latifascia, Hopffer (teste Pag.), Stett. Ent. Zeit., 1874, p. 45, recorded from Ceram, Flores, Amboina, and Celebes and is probably some well-known species, but I am unable to identify it.

Nyctemera menes, Felder, Sitz. Ac., Wiss. Wien., xliii, p. 38 (1861), Amboina.

Leptosoma agagles, Boisd., Voy. de l'Astrolabe Lep., p. 198 (1832), Amboina.

Deilemera uniformis, Plötz, Stett. Ent. Zeit., xli, p. 38 (1880), W. Africa.

Leptosoma flavescens, Voll., Tijd. v. Dierk., i, p. 64 (1863), Sumatra.

Leptosoma leucostigma, Voll., l. c., p. 44, Java.

= Leptosoma nubecula, Voll. (teste Pag.), l. c., p. 49.

Nyctemera McKieana, Lucas, Proc. Roy. Soc., Queensland, xiii, p. 60 (1898).

#### EXPLANATION OF PLATE III.

Fig. 1. Deilemera ka	paurensis, Swinnoe.
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- 2. ,, uniplaga, Swinhoe.
- 3. , popiya, Swinhoe.
- 4. ,, latemarginata, Pag.
- 5. ,, integra, Walker.
- 6. ,, syrnia, Swinhoe.
- 7. , popiya, Swinhoe (under-side).
- 8. ,, albipuncta, Druce.

### EXPLANATION OF PLATE IV.

### Fig. 1. Deilemera gerra, Swinhoe.

- 2. ,, nigrovena, Swinhoe.
- 3. " optata, Swinhoe.
- 4. ,, distincta, Swinhoe.
- 5. ,, leuctra, Swinhoe.
- 6. ,, amosa, Swinhoe.
- 7. ,, nisa, Swinhoe.
- 8. ,, oroya, Swinhoe,



Swinhoe, Charles. 1903. "III. On the Genus Deilemera, Hübner." *Transactions of the Entomological Society of London* 51, 53–85.

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