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INCLUDING

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BY

SIR G. F. HAMPSON, BART.

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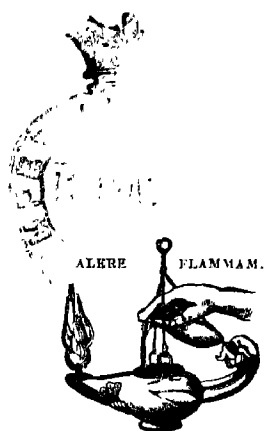
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PREFATORY NOTE.

WITH the present volume the first group of Indian Invertebrata included in the present Series is completed. Of the remaining Lepidoptera, the Butterflies are being fully described elsewhere, whilst the Tineas, Tortrices, and a few other lowly organized forms are not sufficiently known for a general description to be practicable at present. The magnitude of the work is shown by the fact that the four volumes of Moths, with the Appendix to the last volume, contain descriptions of 5618 species regarded as valid, exclusive of races or subspecies.

The number of Indian Insects and other Invertebrata is so large, and that of students and collectors of the majority of the groups so small, that it is very difficult to deal with most of the orders. I am therefore fortunate in being able to announce that the next volume (to be published, it is hoped, early in 1897) will commence the description of the Hymenoptera, and contain the Bees and Wasps by Col. C. T. Bingham.

W. T. BLANFORD.

October 1896.

PREFACE.

THE Fourth Volume of the Moths in the 'Fauna of British India' deals with the subfamilies, genera, and species of Indian *Pyalidæ*.

In the lowest subfamily, the *Pyraustinæ*, the least specialized form is *Simæthistis tricolor*, with vein 5 of each wing from the middle of the discocellulars, all the subcostals of the fore wing from the cell, vein 8 of the hind wing free, and the palpi porrect with the 3rd joint naked—a combination of generalized characters which would almost allow this species to be regarded as the ancestor of the whole family. Almost all other *Pyalidæ* have veins 8 and 9 of the fore wing stalked. From *Simæthistis* the *Pyraustinæ* diverge in two directions—firstly, to forms with porrect triangularly scaled palpi, the 3rd joint concealed, from low down in which series originated the *Scopariinæ*, with raised tufts of scales on the fore wing; and, secondly, to forms with upturned palpi, the 3rd joint long and acuminate. From the lower *Pyraustinæ*, with porrect palpi and the 3rd joint naked, arose also the other groups of *Pyalidæ*:—

The *Hydrocampinæ* with vein 10 of the fore wing stalked with 8 and 9:

The *Pyalinæ*, with vein 7 stalked with 8 and 9, and vein 8 of the hind wing free; giving rise to (a) the *Endotrichinæ*, with vein 8 of the hind wing anastomosing with 7, from which arose the *Chrysauginæ*, with the maxillary palpi absent; and (b) the *Epipaschiinæ*, with raised tufts of scales on the fore wing and vein 8 of the hind wing either free or anastomosing with 7, giving rise to the *Phycitinæ*, with vein 7

of the fore wing absent and the median nervure of the hind wing pectinate above: from these again spring the *Anerastiinae*, with the proboscis absent:

The *Schænobiinae*, with the proboscis absent:

And the *Crambinae*, with the median nervure of the hind wing pectinate above, and the maxillary palpi triangularly dilated with scales; from this subfamily were developed the *Galleriinae*, with the maxillary palpi filiform or very slightly dilated. (See Phylogeny, p. 1.)

The Appendix contains the additions made to the list of Indian species since the volumes dealing with the families to which they belong were published, and is complete up to date, with the exception of a few species of *Geometridæ* and *Pyralidæ* described by Mr. Warren, in the 'Annals and Magazine of Natural History' and the 'Novitates Zoologicae,' too late to be included: these will be dealt with in the first of a series of supplementary papers which I hope to publish annually in the Proceedings of one of the Scientific Societies, so as to keep pace with the development of the subject. There will also be found in the Appendix a number of corrections which I have been enabled to make whilst working at the fresh material sent to me from time to time. All criticisms published or made to me personally have been carefully considered, and where acceptable the alterations suggested are adopted. I have also corrected, where necessary, the position assigned to species described by Mr. Moore in the Atkinson collection, as, by the kindness of Dr. Staudinger, I have had the opportunity of seeing the types of the species with which I was unacquainted, and there now remain but very few described Indian species which I have not examined.

The publication of the present volume brings to a conclusion the whole of the original scheme for the work on Indian Moths, with the addition of the Pyralid subfamilies *Galleriinae*, *Crambinae*, *Schænobiinae*, *Anerastiinae*, and *Phycitinae*, leaving only the Tortrices, Tineas, and Plumes for future study.

The Council of the Zoological Society have kindly allowed me the use of figures 10, 11, and 13 to 33, which appeared in a paper in the 'Proceedings' for 1895 on the classification of the *Schænobiniæ* and *Crambiniæ*; and the Council of the Entomological Society have lent me figures 241, 243, 244, 248, 251, 253, 254, 259, 262, 268, 270, 272, 274, 279, 282, and 287, which appeared in their 'Transactions' for 1895.

I have again to thank all those who have so kindly assisted me during the progress of the work—both the Collectors in India, who have liberally supplied me with specimens and information, and the owners of Collections in England, who have put the whole of their material freely at my disposal. The names of most of those who have aided me have been mentioned in the prefaces to the other three volumes, and I have also to express my thanks to Surg.-Col. J. G. Pilcher in Sikhim and Mr. J. Pole in Ceylon, who have sent to me valuable collections during the last two years.

G. F. HAMPSON.

October 15th, 1896.

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PYRALIDÆ.

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Family PYRALIDÆ.

Proboscis and maxillary palpi usually developed. Fore wing with vein 1 *a* usually free, sometimes forming a fork with 1 *b*; 1 *c* absent; 5 from near lower angle of cell; 8, 9 almost always

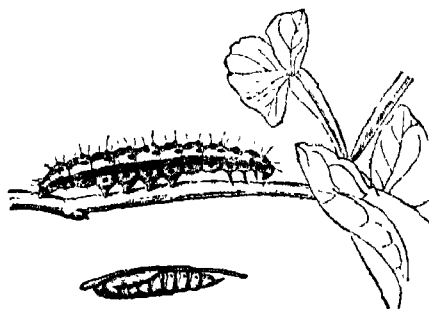
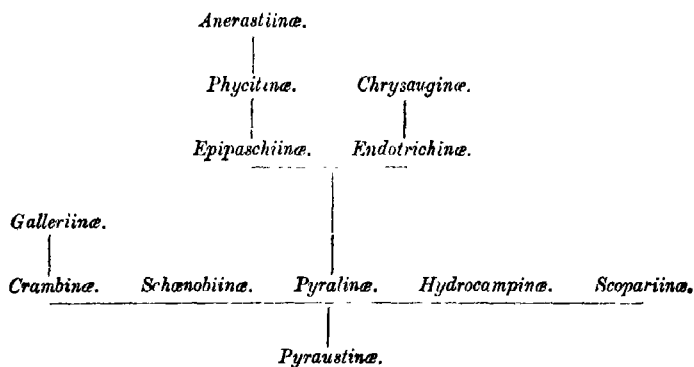


Fig. 1.—Larva and Pupa of *Filodes fulvidorsalis*. 1.

stalked. Hind wing with vein 5 usually from near lower angle of cell; 8 approximated to 7 or anastomosing with it beyond the end of cell; 1 *a*, *b*, *c* present; frenulum developed.

PHYLOGENY OF THE PYRALIDÆ.



Moths usually of slender build, with long thin legs. Larva elongate, with five pairs of prolegs. Pupa with segments 9–11, sometimes also 8 and 12, movable, not protruding from cocoon on emergence.

Key to the Subfamilies.

- A. Hind wing with the median nervure pectinated on upperside.
- a. Fore wing with vein 7 present
- a'. Maxillary palpi not triangularly scaled 1. *Galleriinae*.
- b'. Maxillary palpi triangularly scaled 2. *Crambinae*.
- b. Fore wing with vein 7 absent.
- a'. Proboscis absent 4. *Anerastiinae*.
- b'. Proboscis present 5. *Phycitinae*.
- B. Hind wing with the median nervure not pectinated on upperside†.
- a. Proboscis absent 3. *Schœnobiinae*.
- b. Proboscis present‡.
- a'. Fore wing with vein 7 stalked with 8, 9.
- a². Fore wing with tufts of raised scales in the cell 6. *Epipaschiinae*.
- b². Fore wing with no tufts of raised scales in the cell.
- a³. Hind wing with vein 8 anastomosing with 7.
- a⁴. Maxillary palpi absent 7. *Chrysauginae*.
- b⁴. Maxillary palpi present 8. *Endotrichinae*.
- b³. Hind wing with vein 8 free 9. *Pyrulinae*.
- b'. Fore wing with vein 7 from the cell.
- a². Fore wing with vein 10 stalked with 8, 9§. 10. *Hydroecampinae*.
- b². Fore wing with vein 10 from the cell.
- a³. Fore wing with tufts of raised scales in the cell 11. *Scopariinae*.
- b³. Fore wing with no raised tufts of scales in the cell 12. *Pyraustinae*.

* Except in *Culladia*.

† Except in *Macaretæra*.

‡ Except in a few genera of *Pyrulinae*, to be distinguished from the *Schœnobiinae* by vein 8 of the hind wing being free.

§ Except in a small percentage of specimens of *Nymphula* and *Oligostigma* and a few non-Indian species, to be distinguished from nearly all *Pyraustinae* by their long maxillary palpi dilated at extremity.

Subfamily GALLERIINÆ.

Proboscis usually well developed; maxillary palpi filiform. Fore wing with vein 1 *a* separate from 1 *b*; 7 present. Hind wing with the median nervure pectinated on upperside; 7 usually anastomosing with 8; the frenulum multiple in female.

Key to the Genera.

- A. Fore wing with veins 7, 8 stalked.
 - a. Hind wing with three veins arising from median nervure.
 - a'. Hind wing with the cell open, vein 7 anastomosing with 8 to about two-thirds of wing
 - a². Fore wing with vein 10 stalked with 7, 8, 9 1. TRACHYLEPIDIA, p. 3.
 - b². Fore wing with vein 10 from cell.
 - a³. Fore wing with vein 7 arising from 8 after 9 2. THAGORA, p. 4.
 - b³. Fore wing with vein 7 arising from 8 before 9 3. MUCIALIA, p. 5.
 - b'. Hind wing with the cell closed; vein 7 anastomosing with 8 almost to apex 4. ACHIROIA, p. 6.
 - b. Hind wing with four veins arising from median nervure.
 - a'. Hind wing with the cell open 5. LAMORIA, p. 6.
 - b'. Hind wing with the cell closed.
 - a². Palpi clothed with very long hair; fore wing with the outer margin evenly curved 6. ACARA, p. 7.
 - b². Palpi smoothly scaled; fore wing with the outer margin angled . 7. GALLERIA, p. 8.
- B. Fore wing with vein 7 arising from cell; hind wing with four veins from median nervure, 7 joined to 8 by an oblique bar; the head with enormous frontal swelling 8. BALÆNIFRONS, p. 9.

Genus TRACHYLEPIDIA.

Trachylepidia, *Rag. Ann. Soc. Ent. Fr.* 1887, p. 260.

Type, *T. fructicassella*, *Rag.*

Range. Syria; Egypt; Punjab.

Palpi of male minute, of female projecting about the length of head; maxillary palpi filiform; antennæ of male simple, with a tuft on basal joint; frons with a conical tuft. Fore wing with the costa arched; the outer margin nearly straight; vein 3 from before angle of cell; 4 stalked with 5 in female, in male from angle of cell which is produced; 6 from upper angle; 8, 9, 10

given off at intervals from 7; 11 free. Male with a large glandular swelling at base of costa below; the cell narrow and clothed with hair. Hind wing with the cell open; vein 4 absent; 7 anastomosing with 8.

4142. *Trachylepidia fructicassella*, Rag. Ann. Soc. Ent. Fr. 1887, p. 260.

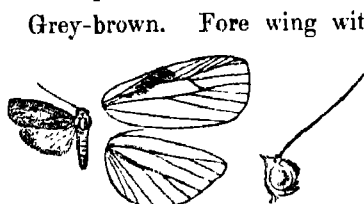


Fig 2

Trachylepidia fructicassella. ♂.

Grey-brown. Fore wing with the median area darker and clothed with rough erect scales, especially towards costa; indistinct ante- and post-medial lines of raised dark scales, the former oblique and obsolete towards costa, the latter oblique and angled inwards on vein 5; a very indistinct discocellular spot; a

marginal series of specks. Hind wing dull brownish yellow.

The larva bores in the pods of *Cassia fistula*.

Hab. Beyrout; Egypt; Punjab. Exp., ♂ 20-27, ♀ 29-34 millim.

Genus **THAGORA**.

Thagora, Wlk. Cat. xxvii, p. 205 (1863).

Type, *T. figurana*, Wlk.

Range. Ceylon; Borneo; Java.

Differs from *Mucialla* in veins 8 and 9 being given off at intervals from 7. Male with a fascia of black scales on underside of fore wing in and beyond cell, and a similar subcostal fascia on upperside of hind wing.

4143. *Thagora castanella*, n. sp.

♂. Very pale chestnut.



Fig. 3.

Thagora castanella, ♂. ♀.

Fore wing with curved antemedial line, the area beyond it suffused with rufous; a black discocellular speck; an obliquely curved post-medial line; the fasciæ on underside of fore wing and upperside of hind wing deep black.

♀ with the base and costa of fore wing deeper rufous, the rest of the wing pale; the ante- and postmedial lines and discocellular speck almost obsolete.

Hab. Colombo, Ceylon (Pole). Exp., ♂ 18, ♀ 20 millim. Type in B.M.

4144. *Thagora figurana*, *Wlk. Cat.* xxvii, p. 205; *Hmpen. Ill. Het.* ix, pl. 157, fig. 8; *C. & S.* no. 511.

♀. Head and thorax pale brown; abdomen whitish. Fore wing emerald-green, the base and costa brown; an antemedial brown speck below costa and another in cell: an oblique series of brown patches from discocellulars to inner margin; postmedial and submarginal minutely dentate brown bands from vein 6 to inner margin, the former excurved between veins 5 and 2; cilia brown. Hind wing white; the margin tinged with brown.

Hab. Ceylon; Java. *Exp.* 24 millim.

Genus MUCIALLA.

Mucialla, *Wlk. Cat.* xxxv, p. 1739 (1866).

Type, *M. mundella*, *Wlk.*, from Borneo.

Range. Bhután; Khásis; Ceylon; Borneo; Sula; New Guinea.

Differs from *Lamoria* in vein 4 of the hind wing being absent.

4145. *Mucialla rufivena*, *Wlk. Cat.* xxx, p. 960.

Lamoria ruptilina, *Wlk. Cat.* xxxv, p. 1723.

Pale brown; yellowish or reddish brown. Fore wing with more or less developed annuli at middle and end of cell connected by a white streak; sometimes with a spot in base of cell also joined by the white streak; the inner margin, vein 1, the interno-median interspace, and veins beyond lower angle

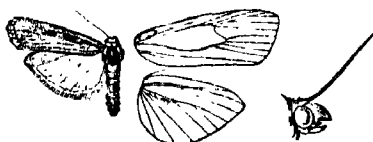


Fig. 4.—*Mucialla rufivena*, ♂. 1.

of cell streaked with crimson: a dark marginal line. Hind wing pale fuscous, dull yellow, or orange-yellow.

Hab. Ceylon; Shán States; Borneo; New Guinea. *Exp.* 26–30 millim.

4146. *Mucialla semifœdalis*, *Wlk. Cat.* xxxiv, p. 1439.

♀. Head pale; thorax greenish; abdomen yellow. Fore wing olive-green, with black spots in and at end of cell connected by a white mark; a dark marginal line. Hind wing yellow; the apical area greenish; a fine dark marginal line.

Hab. Bhután; Sula. *Exp.* 28 millim.

4147. *Mucialla unicolorella*, n. sp.

♀. Uniform pale olive-green. Fore wing with few scattered black scales; small raised specks of black scales at middle and end of cell; an indistinct minutely dentate curved postmedial line. Hind wing slightly paler.

♂. With the fore wing long, narrow, produced and acute at apex; a rufous speck in cell and another on discocellulars; cilia rufous.

Hub. Bhután, 2500 ft. (*Dudgeon*); Khásis. *Exp.* 34 millim. Type in B.M.

Genus **ACHROIA**.

Achroia, *Hüb. Verz.* p. 163 (†1818).

Type, *A. grisella*, Fabr.

Range. Palæarctic, Oriental, and Australian regions.

Palpi minute and porrect; maxillary palpi minute; frons rounded; antennæ minutely serrate; tibiæ roughly scaled. Fore wing short and rounded; male with a glandular fold fringed with hair at base of costa below; vein 3 from near angle of cell; 4, 5 stalked; 6 from below upper angle; 7, 8 stalked, 9 stalked with 7, 8, from cell, or abnormally absent; 10 from cell; 11 absent. Hind wing with the apex acute; vein 2 from close to angle of cell; 4 absent; 3, 5 stalked; 6, 7 stalked; 7 anastomosing with 8 to near apex.

4148. *Achroia grisella*, *Fabr. Ent. Syst.* iii, pt. 2, p. 289.

Achroia cinereola, *Hüb. Samml. eur. Schmett., Bombyces*, fig. 91.

Uniform grey-brown; the head yellow.

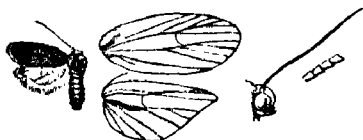


Fig. 5.—*Achroia grisella*, ♂. †.

The larva feeds on the wax in bee-hives.

Hab. Europe; Calcutta; Australia. *Exp.* 18–20 millim.

Genus **LAMORIA**.

Lamoria, *Wlk. Cat.* xxvii, p. 87 (1863).

Type, *L. planalis*, Wlk.

Range. Palæarctic, Ethiopian, and Oriental regions.

Palpi of male minute; of female projecting about the length of head and downcurved at extremity; maxillary palpi filiform; frons with a conical tuft; antennæ simple. Fore wing of male with a large glandular swelling at base of costa below; vein 3 from before angle of cell; veins 4, 5 from angle, which is much produced; 8, 9 stalked from 7; 10, 11 free; female with vein 3 from angle of cell, which is not produced; 4, 5 stalked. Hind wing with the cell open; veins 2, 3, 4, 5 at regular intervals; 7 anastomosing with 8.

4149. *Lamoria planalis*, *Wlk. Cat.* xxvii, p. 88; *C. & S.* no. 4734.
Acrobasis imbella, *Wlk. Cat.* xxx, p. 955.
Melissoblaptes bipunctanus, *Moore, Lep. Ceyl.* iii, p. 375 (*nee Haw.*).

Pale brown. Fore wing irrorated with fuscous; traces of an irregularly dentate antemedial dark line; a speck, spot, or small

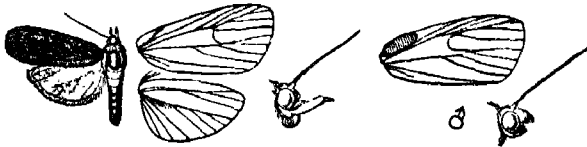


Fig. 6.—*Lamoria planalis*, ♀. ½.

annulus in cell and larger discocellular spot or annulus; a highly dentate, postmedial, more or less prominent line oblique from costa to vein 4, where it is sharply angled, then inwardly oblique; a marginal series of black specks. Hind wing pale brownish.

Hab. S. Africa; throughout India, Ceylon, and Burma. *Exp.* 30–34 millim.

4150. *Lamoria anella*, *Schiff. Wien. Verz.* p. 135; *C. & S.* no. 4732.
Tinea sociella, *Hubn. Samml. eur. Schm.*, *Tin.* fig. 24 (*nee Linn.*).
Pempelia adaptella, *Wlk. Cat.* xxvii, p. 74; *C. & S.* no. 4631.

Head, thorax, and abdomen grey-brown. Fore wing grey-brown, often entirely suffused with red or fuscous; an indistinct highly dentate antemedial line; a more or less developed speck in cell and discocellular spot; a highly dentate postmedial line sharply angled on vein 4 and often reduced to streaks on the veins; a marginal series of specks. Hind wing pale semihyaline, suffused with fuscous towards margin.

Hab. Europe; Africa; Afghanistan; Punjab; Poona; Ceylon. *Exp.*, ♂ 18–28, ♀ 30–40 millim.

Genus ACARA.

Acara, *Wlk. Cat.* xxvii, p. 198 (1863).
Ertzica, *Wlk. Cat.* xxxv, p. 1768 (1866).

Type, *A. morosella*, *Wlk.*

Range, Sylhet; Ceylon; Java.

Palpi of male short and upturned, fringed with very long hair in front reaching far in front of head; of female with the 2nd joint oblique, reaching above vertex of head and fringed with very long hair in front, the 3rd long and porrect; maxillary palpi filiform; frons with a long straight tuft of hair; antennæ short and simple, in male with a tuft of hair from basal joint; mid and hind tibiae fringed with hair. Fore wing with the apex produced and acute; male with a very large glandular fold at base of costa below:

veins 2, 3, 4, 5 given off at regular intervals in male, the lower angle of cell being very much produced, in female less produced and veins 4, 5 from the angle; discocellulars very highly angled; 6 from upper angle; 8 and 9 given off at intervals from 7; 10 and 11 free. Hind wing with the cell short; the discocellulars highly angled and the lower angle produced; vein 3 from angle; 4, 5 shortly stalked; 6, 7 stalked; 8 free.

4151. *Acara morosella*, *Wlk. Cat.* xxvii, pl. 199; *C. & S.* no. 4667.

Ertzica maximella, *Wlk. Cat.* xxxv, p. 1768.

Pale red-brown; abdomen suffused with fuscous. Fore wing irrorated with fuscous; traces of an antemedial line, oblique from costa to below median nervure, where it is angled; a dark speck

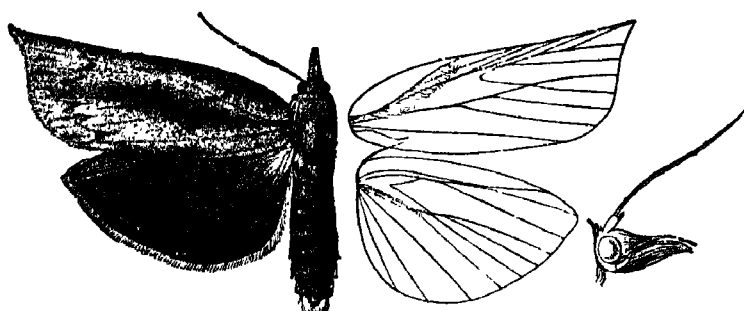


Fig. 7.—*Acara morosella*, ♀. †.

in end of cell and discocellular speck; an indistinct minutely dentate postmedial line excurved between veins 5 and 2; a marginal series of black specks. Hind wing very dark brown; the cilia grey at tips.

Hab. Sylhet; Ceylon; Java. *Exp.*, ♂ 50, ♀ 56–86 millim.

Genus **GALLERIA**.

Galleria, *Fabr. Ent. Syst. Suppl.* p. 462 (1798).

Type, *G. mellonella*, Linn.

Range. Neotropical and Palearctic regions; W. India.

Palpi of male minute; of female porrect and extending just beyond the sharp frontal tuft; maxillary palpi filiform; antennæ simple, in male with a tuft on basal joint. Fore wing with the costa highly arched; the outer margin excised from apex to vein 2, where it is angled, then very oblique; veins 2, 3, 4 at intervals before angle of cell; 5 from angle; 6 from upper angle; 7, 8 stalked from before angle; 9, 10, 11 free; female with vein 4 from angle of cell, 9 given off from 7, 8. Hind wing with vein

2 from angle of cell; 3 approximated for nearly half its length to 4, 5, which are on a long stalk; 6, 7 from upper angle, which is very much produced, 7 anastomosing slightly with 8.

4152. *Galleria mellonella*, Linn. *Syst. Nat.* (ed. x), i, p. 537; C. & S. no. 4725.

Phalæna cereana, Linn. *Syst. Nat.* (ed. xii), i, p. 874.

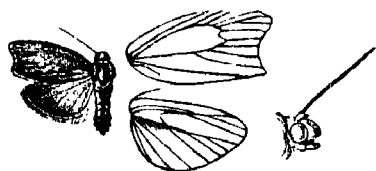


Fig. 8.—*Galleria mellonella*, ♂. 1.

Head, thorax, and abdomen ochreous brown. Fore wing grey, irrorated slightly with black and purple; the inner area ochreous, variegated with purple and black; a ridge of raised rough scales below the cell. Hind wing fuscous brown; the base and

inner area paler, or almost wholly pale.

The larva is parasitic in bee-hives.

Hab. Europe; Syria; Poona; West Indies. *Exp.* 20-40 millim.

Genus **BALÆNIFRONS**, nov.

Type, *B. homopteridia*, Hmps.

Range. Burma.

Head enormously swollen and produced to a large rounded frontal cone, grooved on lower side, the proboscis and filiform maxillary palpi arising from its middle; palpi slender, curved and extending to end of frontal projection; antennæ simple; legs smoothly scaled. Fore wing broad and rounded; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 from upper angle; 8, 9 stalked; 10 free; 11 curved. Hind wing with lower part of cell very much produced; vein 3 from before angle; 4, 5 well separated at origin; 6, 7 stalked; 7 well separated from 8 and joined to it by an oblique bar; retinaculum bar-shaped.

4153. *Balænifrons homopteridia*, n. sp.

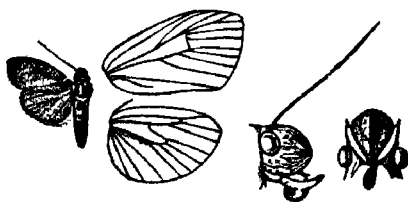


Fig. 9.—*Balænifrons homopteridia*, ♂. 1.

♂. Head and thorax purplish red and ochreous; abdomen ochreous, with some red and fuscous on dorsum. Fore wing purplish red, irrorated with ochreous; a diffused dusky shade arising from costa at middle diffused over the disk. Hind wing yellowish brown.

Another specimen has a broad irregular yellow subbasal band on the fore wing and two postmedial patches on the costa.

Hab. Moulemein; Rangoon. *Exp.* 20 millim. Type in B.M.

Subfamily CRAMBINÆ.

Proboscis well developed or minute; palpi porrect; the maxillary palpi well developed and dilated with scales at extremity. Fore wing with vein 7 present*; vein 1 *a* separate from 1 *b*. Hind wing with the median nervure pectinated on upperside; vein 7 usually anastomosing with 8.

The larvæ are usually grass or reed feeders.

Key to the Genera.

- A. Hind wing with vein 6 from upper angle of cell or stalked with 7.
 - a. Palpi hardly reaching beyond the frons, which is produced to a corneous point 9. *ESCHATA*, p. 28.
 - b. Palpi extending two or three times length of head.
 - a'. Fore wing with veins 8, 9 stalked; 7 separate.
 - a². Hind wing with vein 4, 5 from a point or stalked.
 - a³. Frons rounded and not produced 4. *PLATYTES*, p. 19.
 - b³. Frons with a conical projection.
 - a⁴. Fore wing with veins 6, 7 stalked 6. *STENOCCULO*, p. 24.
 - b⁴. Fore wing with veins 6, 7 from cell.
 - a⁵. Palpi about three times length of head; fore wing with the apex produced 8. *CHILO*, p. 26.
 - b⁵. Palpi about twice the length of head; fore wing with the apex rounded; male with a slight fovea in the cell . 5. *EBOMENE*, p. 23
 - b². Hind wing with veins 4, 5 well separated at origin; fore wing with the outer margin indented below apex 3. *DIPTYCHOPHORA*, p. 18.
 - b'. Fore wing with veins 7, 8, 9 stalked.
 - a². Both wings with vein 3 absent; fore wing with the outer margin indented at vein 5 10. *MESOLIA*, p. 30.

* Except in *Culladia*.

- δ^2 . Both wings with vein 3 present.
 a^3 . Fore wing with vein 10 from the cell 2. CRAMBUS, p. 12.
 δ^3 . Fore wing with vein 10 stalked with 7, 8, 9 7. MACROCHILO, p. 25.
 c^4 . Fore wing with vein 7 absent 1. CULLADIA, p. 11.
 B. Hind wing with vein 6 from below angle of cell and rudimentary.
 a . Fore wing with vein 7 from the cell.
 a' . Hind wing with vein 5 present .. 13. CHARLTONA, p. 35.
 b' . Hind wing with vein 5 absent 11. SURRATHA, p. 31.
 b . Fore wing with vein 7 stalked with 8, 9 12. ANCYLOLOMIA, p. 33.

Genus **CULLADIA**.

Culladia, Moore, *Lep. Ceyl.* iii, p. 383 (1880).

Type, *C. admigratella*, Wlk.

Range. Madagascar; China; S. India; Ceylon; Borneo.

Palpi porrect, thickly scaled and extending about twice the length of head; maxillary palpi triangularly scaled; frons rounded; antennæ of male somewhat thickened and flattened; spurs long and equal. Fore wing long and narrow; vein 3 from angle of cell: 6 from below upper angle; 7 absent; 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from near angle of cell; 6, 7 from upper angle; 7 anastomosing with 8.

SECT. I. Both wings with veins 4, 5 stalked.

4154. *Culladia admigratella*, Wlk. *Cat.* xxvii, p. 192; *C. & S.* no. 4680.
Araxes casella, Wlk. *Cat.* xxvii, p. 193; *C. & S.* no. 4687.
Scopula hastiferalis, Wlk. *Cat.* xxxiv, p. 1473.

Head and thorax white marked with fuscous; palpi banded with fuscous; abdomen pale fuscous. Fore wing white suffused with fuscous; an indistinct postmedial line running out to an angle on vein 5, retracted along vein 2 to below middle of cell, then bent outwards again, the area beyond it whiter; an indistinct highly dentate submarginal line. Hind wing whitish; the apical area tinged with fuscous.

Hab. China; Ceylon; Borneo. *Exp.* 16 millim.

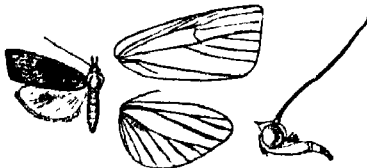


Fig. 10.—*Culladia admigratella*, ♂. ♀.

SECT. II. Both wings with veins 4, 5 coincident.

4155. *Culladia suffusella*, *Hmps.* *P. Z. S.* 1895, p. 925.

Head, thorax, and abdomen brownish fuscous. Fore wing fuscous; the costal area brownish; the veins beyond lower angle of cell streaked with fuscous; traces of a submarginal series of dark specks; a marginal series of dark specks. Hind wing pale; the costal and apical areas tinged with fuscous.

Hab. Madagascar; Nilgiris. *Exp.* 20–26 millim.

Genus CRAMBUS.

Crambus, *Fabr. Ent. Syst. Suppl.* p. 464 (1798).

Calamotropha, *Zell. Mon. Chil. & Cramb.* p. 8 (1863).

Myeza, *Wlk. Cat.* xxvii, p. 190 (1863).

Epichilo, *Rag. Ann. Soc. Ent. Fr.* 1888, p. 278.

Type, *C. pascuellus*, *Linna.*, from Europe.

Range. Universally distributed.

Palpi porrect, extending about three times the length of head and clothed with long hair; maxillary palpi triangularly scaled, with long hair; frons rounded; antennæ of male thickened and flattened, with appressed serrations; tibiæ with the outer spurs about half the length of inner. Fore wing with the apex acute; vein 3 from before angle of cell; 7, 8, 9 stalked; 10 free. Hind wing with vein 3 from near angle of cell.

SECT. I. Fore wing with vein 11 curved and approximated to 12; hind wing with veins 4, 5 from angle of cell.

A. *Fore wing with the apex rectangular.*

4156. *Crambus atkinsoni*, *Zell. Mon. Chil. & Cramb.* p. 9; *C. & S.* no. 4691.

♂. Head and thorax brownish grey. Fore wing with the costal and inner areas grey irrorated with fuscous, leaving a golden brown and fuscous streak along median nervure, expanding in the interspaces between veins 3 and 5; a black discocellular spot; traces of a curved submarginal series of dark specks; a marginal series of black specks. Hind wing nearly pure white. Abdomen and underside whitish.

♀ with the head, thorax, and fore wing much more uniformly coppery golden brown, irrorated with white scales; the costal area of fore wing darker red-brown; the discocellular spot more prominent; no trace of submarginal dark specks. Hind wing pure white.

Hab. Calcutta; Ceylon; Thayetmyo, Burma; Borneo. *Exp.*, ♂ 28, ♀ 28–34 millim.

4157. *Crambus chalcipterus*, n. sp.

Head, thorax, and abdomen bronze-brown and ochreous, the vertex of head pale. Fore wing ochreous white, with bronze-brown fasciæ in and below the cell and on inner area and streaks between the veins of outer area, leaving the costa pale; male with a dark submarginal mark on vein 2. Hind wing pale fuscous, the inner area whitish.

Hab. Khâsis. *Exp.*, ♂ 20, ♀ 23 millim. Types in coll. Rothschild and B.M.

4158. *Crambus delatalis*, *Wlk. Cat.* xxvii, p. 176.

Pale grey-brown; vertex of head whitish. Fore wing with the veins and interspaces finely streaked with brown; a black discocellular speck, a marginal series of brown specks. Hind wing fuscous brown.

Hab. Ceylon; Moreton Bay, Australia. *Exp.*, ♂ 26, ♀ 30 millim.

*4159. *Crambus parvellus*, *Ray. Ann. Soc. Ent. Fr.* 1888, p. 278; *C. & S.* no. 4690.

Pale ochreous grey irrorated with fuscous; thorax and abdomen ochreous. Fore wing with a few dark scales forming traces of an oblique postmedial line from apex to inner margin beyond middle, the area beyond it greyer. Hind wing white.

Hab. Trichinopoly. *Exp.* 10-13 millim.

4160. *Crambus anticellus*, *Wlk. Cat.* xxxv, p. 1751.

♂. Head and thorax grey, suffused with coppery brown; abdomen whitish. Fore wing with the costal and inner areas grey irrorated with fuscous; the median area streaked with coppery brown; a black speck at origin of vein 2; a postmedial line excurved from costa to vein 6, then reduced to a series of specks; the interspaces of outer area streaked with white; a marginal series of black specks. Hind wing white slightly tinged with brown.

♀ with the hind wing pure white.

Hab. Natal; Travancore; Ceylon; Port Darwin, Australia. *Exp.* 24-26 millim.

4161. *Crambus unicolorellus*, *Zell. Mon. Chil. & Cramb.* p. 7; *C. & S.* no. 4678.

Crambus abbreviatellus, *Wlk. Cat.* xxxv, p. 1756; *C. & S.* no. 4692.

Crambus luteellus, *C. & S.* no. 4696 (*nev Schiff.*).

♂. Head, thorax, and abdomen grey and pale fulvous brown. Fore wing grey suffused with pale fulvous brown, leaving very ill-defined grey fasciæ below median nervure and on inner margin; the outer area grey; very faint traces of oblique medial and sub-

marginal lines; three black specks on margin below middle, the cilia silvery at that point. Hind wing whitish, suffused with very pale fuscous.

♀. Fore wing with the interspaces uniformly suffused with fuscous; the medial and submarginal lines better marked and dentate from the cell and vein 3 to inner margin. Hind wing pure white.

Hab. Dharmasāla and Meean Meer, Punjab; Nilgiris. *Exp.* 20-28 millim.

4162. *Crambus famulellus*, *Wlk. Cat.* xxxv, p. 1765; *C. & S.* no. 4688.

♂. Pale reddish brown slightly irrorated with fuscous. Fore wing with outwardly oblique rufous line from middle of costa to upper angle of cell; a rufous patch on median nervure at end of cell; an indistinct submarginal rufous line highly angled at vein 6; a marginal series of black spots. Hind wing whitish.

Hab. Ceylon; Rangoon; Tongking. *Exp.* 14 millim.

4163. *Crambus dividellus*, *Snell. Trans. Ent. Soc.* 1890, p. 645, & *Tijd. v. Ent.* 1893, pl. 3, fig. 8.

♂. Head ochreous, thorax rufous; abdomen pale fuscous, the anal tuft ochreous. Fore wing with the costal half ochreous, slightly tinged with rufous; the inner half rufous, with an ochreous streak from base below median nervure and a dark speck below middle of cell; a marginal series of dark specks. Hind wing whitish with a slight fuscous tinge.

Hab. Sikhim. *Exp.* 30 millim.

4164. *Crambus punctivenellus*, *Hmps. P. Z. S.* 1895, p. 934.

♂. White; palpi fulvous at sides; thorax and abdomen irrorated with brown. Fore wing with the interspaces suffused with brown scales, leaving the base of cell and costal area whitest; a black spot at origin of vein 2; an oblique medial brown striga from costa; an indistinct submarginal brown line, double and very highly angled below costa; a marginal black line somewhat maculate at the veins. Hind wing white.

Hab. Ceylon; Tongking. *Exp.* 20 millim.

4165. *Crambus latellus*, *Snell. Trans. Ent. Soc.* 1890, p. 644, & *Tijd. v. Ent.* 1893, pl. 3, fig. 7.

Pure white; palpi fulvous yellow at base and black at tip; antennæ yellow; tarsi ringed with fulvous. Fore wing with oblique black streak across origin of vein 2; an oblique orange medial streak from costa and traces of medial line; a submarginal orange line oblique from costa to near margin, then sinuous; a crenulate marginal line enclosing an orange apical spot, and spot with two black specks on it above outer angle; cilia golden.

Underside of fore wing suffused with fuscous except marginal area.

Hab. Japan ; Dharmasála ; Khásis ; Nágas. *Exp.* 20 millim.

4166. *Crambus melanostictus*, *Hmps.* *P. Z. S.* 1895, p. 937.

Differs from *latellus* in the palpi being white at tips. Fore wing with two oblique medial costal brown strigæ continued as a single medial line angled below costa, with a black spot on it at vein 2 ; the submarginal line brown, further from the margin, double from the costa to its angle at vein 6 and incurved at vein 2 ; no orange on marginal area ; a slight brown marginal line ; the cilia silvery.

Hab. Nágas ; Ceylon. *Exp.* 16–20 millim.

4167. *Crambus oculalis*, *Snell. Tijd. v. Ent.* 1893, p. 64, pl. 3, fig. 6.

♂. White ; palpi fulvous at sides except the 3rd joint ; abdomen yellowish. Fore wing with the costa brown, with a broad fulvous fascia below it ; an indistinct medial brown line oblique and highly angled below costa, then waved and with black specks on it at lower angle of cell and vein 2 ; a submarginal line double and highly angled below costa, then obsolescent, sinuous, and reduced to specks ; the apex white with a large brown spot ; three black specks on margin below middle ; the cilia silvery. Underside of fore wing suffused with fuscous.

Hab. Ceylon ; Java. *Exp.* 18 millim.

4168. *Crambus argenticilia*, *Hmps.* *P. Z. S.* 1895, p. 937.

♂. Pure silvery white ; palpi tinged with fulvous at base. Fore wing with fine pale fuscous, slightly sinuous erect medial line ; a similar submarginal line slightly excurved between veins 6 and 3 ; a black marginal line ; cilia silvery.

Hab. Bhután ; Ceylon. *Exp.* 16 millim.

4169. *Crambus ænescentellus*, *Hmps.* *P. Z. S.* 1895, p. 933.

♂. Head white, base of palpi and antennæ brown ; thorax brown, the patagia white ; abdomen white. Fore wing white ; an æneous fascia along basal two-thirds of costa and broader fasciæ below median nervure and on inner margin ; a fascia in end of cell, then bent upwards to apex ; a series of marks in the interspaces beyond lower angle of cell ; a marginal line. Hind wing white, the costal area with an æneous tinge.

♀ with the fore wing more wholly suffused with bronze.

Hab. Ceylon ; E. Africa. *Exp.* 16 millim.

4170. *Crambus argyrophorus*, *Butl. Ill. Het.* ii, p. 61, pl. 40, fig. 5.

Head white ; palpi fuscous at sides ; thorax and abdomen fuscous, the former with white dorsal stripe. Fore wing pale

fuscous, with a broad silvery white fascia with dark line on its lower edge from base widening in end of cell, toothed on base of vein 2, then tapering, the area below it tinged with rufous; a submarginal brown line, oblique, angled, and double below *costa*, the area beyond it whitish with a series of short black *striz* just inside the margin. Hind wing pale fuscous.

Hab. Japan; Sikhim. *Exp.* 22–26 millim.

4171. *Crambus hemileucalis*, n. sp.

♀. Differs from *argyrophorus* in the abdomen being paler. Fore wing with the whole costal half silvery white, leaving a narrow fulvous fascia on basal two-thirds of *costa*; the inner area much more fulvous: the submarginal line more orange, not double below *costa*; the black submarginal *striz* on white spots, those on costal half quite obsolete. Hind wing whiter.

Hab. Manipur (*Doherty*). *Exp.* 26 millim. Type in coll. Elwes.

4172. *Crambus nivellus*, Koll. *Hügel's Kaschmir*, iv, p. 495; *C. & S.* no. 4676.

Crambus todarius, *Butl. P. Z. S.* 1883, p. 173; *C. & S.* no. 4702.

Crambus survittatus, *Moore, Lep. Atk.* p. 226; *C. & S.* no. 4693.



Fig. 11.—*Crambus nivellus*, ♂. 1.

Differs from *hemileucalis* in the fore wing having no fulvous on *costa*; the lower edge of the white fascia straight throughout; a white fascia on inner margin; no submarginal line.

Hab. Dharmasála; Sikhim; Nilgiris. *Exp.* 24 millim.

4173. *Crambus perlellus*, *Scop. Ent. Carn.* 620, p. 243.

Crambus warringtonellus, *Staint. Man.* ii, p. 184.

Head, thorax, and abdomen white, more or less tinged with fuscous. Fore wing silvery white, more or less tinged with ochreous or fuscous, and in the form *warringtonellus* all the veins streaked with fuscous. Hind wing more or less suffused with fuscous and the veins streaked with fuscous.

Hab. Europe; Kashmir. *Exp.* 30 millim.

4174. *Crambus impurellus*, *Hmpm. P. Z. S.* 1895, p. 938.

White. Fore wing with the costal area slightly tinged with ochreous fuscous; the outer margin usually with a more or less developed series of black specks. Hind wing tinged with fuscous.

Hab. Afghanistan; Kashmir. *Exp.* 26 millim.

B. Fore wing with the apex acute and produced ; the outer margin not excised below apex.

4175. *Crambus nigricosta*, *Hmpen. Ill. Het.* viii, p. 143, pl. 150, fig. 22.

White; palpi at sides and antennæ rufous; thorax striped with rufous; abdomen blackish. Fore wing silvery white; the costal and outer margins narrowly black; cilia pale rufous.

Hab. Nilgiris. *Exp.* 24 millim.

4176. *Crambus nigriciliellus*, *Zell. Mon. Chil. & Cramb.* p. 52; *C. & S.* no. 4707.

Cramb is *inclaralis*, *Wlk. Cat.* xxvii, p. 166; *C. & S.* no. 4664.

Crambus brachypterellus, *Wlk. Cat.* xxxv, p. 1757.

White, very slightly sullied with fuscous. Fore wing usually with a marginal series of dark specks from apex to vein 3; the underside suffused with fuscous.

Hab. Japan; China; Dharmasala; Bombay. *Exp.* 22-28 millim.

C. Fore wing with the apex acute and produced, the outer margin excised below apex; hind wing with the lower part of cell very long.

4177. *Crambus malacellus*, *Dup. Lep. Fr.* vii, p. 61, pl. 270, fig. 5; *C. & S.* no. 4697.

Crambus hapaliscus, *Zell. K. Vet.-Ak. Handl. Stockholm*, 1854, p. 71; *C. & S.* no. 4695.

Crambus concinellus, *Wlk. Cat.* xxvii, p. 165.

Head white; palpi cupreous black at sides; thorax black with white dorsal stripe; abdomen fuscous, whitish towards extremity. Fore wing cupreous black, with broad silvery white fascia from base, tapering beyond the cell; the inner margin more or less broadly white; two oblique white postmedial streaks from costa to apex of medial fascia, from which a line, angled outwards on vein 2, runs to inner margin; the area beyond it grey with four black streaks at middle; an apical black spot with white line on its inner edge and white patch below it. Hind wing white, tinged with fuscous towards outer margin.

Hab. Palaearctic, Ethiopian, Oriental, and Australian regions. *Exp.* 20 millim.

SECT. II. Fore wing with vein 11 becoming coincident with 12; hind wing, and often the fore wing, with veins 4, 5 stalked.

4178. *Crambus ochristrigellus*, *Hmpen. P. Z. S.* 1805, p. 688.

♂. Ochreous. Fore wing with the interspaces irrorated with fuscous scales, forming obscure streaks from base to beyond middle and obscure postmedial and submarginal series of short streaks; two dark specks on the margin below middle. Hind wing ochreous white.

Hab. Lahore; Ceylon. *Exp.* 14-22 millim.

Genus **DIPTYCHOPHORA.**

Diptychophora, Zell. *Stettin. ent. Zeit.* 1866, p. 153.

Ditomotera, *Hmps. Ill. Het.* ix, p. 179 (1803).

Type, *D. kuhlweini*, Zell., from Brazil.

Range. Neotropical, Oriental, and Australian regions.

Palpi porrect, clothed with long hair and extending about the length of head; maxillary palpi triangularly scaled; frons rounded; antennæ of male somewhat thickened and flattened; tibiæ with the spurs long and equal. Fore wing with the outer margin deeply excised below apex and slightly below vein 5; vein 3 from near angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9; 10 free; 11 free or becoming coincident with 12. Hind wing with veins 3, 4 from angle of cell; 5 from well above angle; 6, 7 from upper angle.

4179. *Diptychophora minutalis*, *Hmps. Ill. Het.* ix, p. 179, pl. 174, fig. 31.

Diptychophora pramaturella, *Snell. Trans. Ent. Soc.* 1890, p. 643 (*nec Meyr.*).

Head, thorax, and abdomen grey and fulvous; palpi yellowish. Fore wing grey suffused with brown; an indistinct curved antemedial line; a yellowish-brown or bright yellow patch from costa beyond middle embracing the blackish discocellular spot; an indistinct curved double submarginal line; the apical area bright yellow, with a white streak on it; some yellow on margin and three black spots below middle. Hind wing pale fuscous.

Hab. Dharmasala; Sikhim; Bhutan; Ceylon. *Exp.* 10 millim.

4180. *Diptychophora tripunctata*, *Moore, Lep. Atk.* p. 226; *C. & S.* no. 4681.

♂. Orange fulvous, irrorated with fuscous. Fore wing with traces of dark specks on middle of costa; the apex orange, with a fuscous line across it and a white spot on it; the margin orange, with three black spots at middle; cilia fuscous, black at base. Hind wing yellowish white.

Hab. Sikhim; Khasis. *Exp.* 16 millim.

4181. *Diptychophora euzonella*, n. sp.

Head, thorax, and abdomen almost pure white. Fore wing white, the basal area irrorated with brown, forming a large patch on basal part of costa and a subbasal patch below the cell; a brown-edged bright fulvous antemedial band angled below costa; the discal area prominently irrorated with black-brown; two oblique fulvous fasciæ across apex; a fulvous marginal band enclosing four black spots towards outer angle; cilia silvery. Hind wing white tinged with fuscous; the cilia white.

Hab. Khasis. *Exp.* 14 millim. Types in coll. Rothschild and B.M.

4182. *Diptychophora albilinealis*, n. sp.

♂. Head, thorax, and abdomen fuscous. Fore wing reddish brown, with diffused fuscous black on basal area; a white antemedial line slightly indented below costa and with a black line on its outer edge; two dark-edged yellow discocellular spots; a dark-edged white postmedial line angled below costa, then oblique and sinuous to inner margin; a curved white streak on a yellowish mark on apical area; three marginal black spots below middle; the bases of cilia fuscous. Hind wing fuscous.

Hab. E. Pegu (*Doherty*). *Exp.* 14 millim. Type in coll. Elwes.

4183. *Diptychophora griseolalis*, *Hmps.* *P. Z. S.* 1895, p. 943.

♀. Whitish, thickly irrorated with brown. Fore wing with the costa pale fulvous at middle; an antemedial white line with dark line on its outer edge and angled below costa; a slight yellowish discocellular spot; a postmedial line highly excurved below costa, then oblique, crenulate, and with white spots on its outer edge to inner margin; the apical area yellow, with a white fascia; a dark line through the cilia.

Hab. Jubbulpore. *Exp.* 14 millim.

4184. *Diptychophora adspersella*, *Snell. Tijd. v. Ent.* 1893, p. 61, pl. 3, fig. 4.

♂. Head white; palpi brown at sides; thorax yellowish brown; abdomen pale. Fore wing yellowish white; the basal

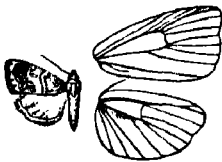


Fig 12.

Diptychophora adspersella, ♂. $\frac{1}{2}$.

area irrorated with dark scales; a slightly oblique double medial dark line becoming orange at costa, the area beyond it whitish, followed by a series of dark streaks in the interspaces, then a series of orange streaks on the veins on the inner side of the fuscous submarginal line, which is angled outwards to the margin at vein 5; two black marginal specks below middle; cilia silvery fuscous. Hind wing yellowish white, with dark marginal line on apical area. Underside of fore wing fuscous, the marginal area pale, yellow at apex.

Hab. Dharmasala; Ceylon. *Exp.* 10 millim.

Genus **PLATYTES**.

Platytes, *Guen. Eur. Microlep. Ind. Meth.* p. 86 (1845).

Ptychopseustis, *Meyr. Trans. Ent. Soc.* 1889, p. 521.

Type, *P. cerussella*, *Schiff.*, from Europe.

Range. Universally distributed.

Proboscis well developed. *Palpi* porrect, extending two to

three times length of head and clothed with rough hair; maxillary palpi triangularly scaled; frons rounded; antennæ of male minutely serrate and ciliated; tibia with the spurs nearly equal. Fore wing with vein 3 from before angle of cell; 4, 5 from angle, 7 straight and well separated from 8, 9, which are sometimes coincident; 10 free; 11 usually oblique. Hind wing with vein 3 from before angle of cell; 4, 5 from angle or stalked; 6 from upper angle; 7 anastomosing with 8.

SECT. I. (*Platytes*). Fore wing with the outer margin not indented at vein 6.

A. Fore wing with vein 11 anastomosing with 12.

4185. *Platytes diatræella*, n. sp.

Head, thorax, and abdomen white tinged with olive-brown. Fore wing white, the interspaces streaked with olive-brown and irrorated with long olive-brown scales, leaving the veins broadly white; a marginal series of dark specks. Hind wing white, slightly suffused with olive fuscous.

Hab. Khâsis. *Exp.* 40 millim. Types in coll. Rothschild and B.M.

B. Fore wing with vein 11 free and oblique.

4186. *Platytes paralella*. *Zell. Stettin. ent. Zeit.* 1867, p. 389, pl. ii, fig. 1; *C. & S.* no. 4699.

Head white; palpi rufous at sides; antennæ rufous; thorax white striped with rufous; abdomen pale fuscous. Fore wing whitish suffused with rufous, leaving the inner and outer areas white; a dark line from costa just beyond middle, very acutely angled below costa, then very oblique and with a black discocellular speck on it; a similar postmedial line excurved below costa instead of angled; a marginal series of black specks; cilia pale rufous, fuscous at base. Hind wing whitish, with fine brown marginal line towards apex.

Hab. Sikkim; Khâsis. *Exp.* 20 millim.

4187. *Platytes marginipunctalis*, *Hmps.* *P. Z. S.* 1895, p. 945.

Pure white: palpi rufous at sides; collar with two rufous lines. Fore wing with slight rufous streaks from base along costa, median nervure, and vein 1; a medial rufous line very highly angled below costa and with a black discocellular spot on it; a double submarginal rufous line highly angled on vein 6, its outer portion indistinct and minutely crenulate near the angle; a marginal series of black specks; the cilia silvery at base, the tips fuscous. Hind wing pure white. Underside of fore wing suffused with fuscous.

Hab. Dharmasâla. *Exp.* 18 millim.

4188. *Platytes niveifascialis*, *Hmps.* *P. Z. S.* 1895, p. 945.

♂. Head white; palpi brown at sides; thorax white and brown; abdomen ochreous white. Fore wing pale ochreous

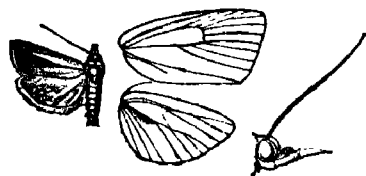


Fig. 13.

Platytes niveifascialis, ♂. 4.

brown, with silvery white fascia from base through the cell, terminating in a point beyond the cell and edged by brown lines; some dark brown scales on inner area; a brown line from costa beyond middle, double to vein 6, where it is highly angled near the margin, then inwardly oblique, sinuous

and obsolescent; a fuscous triangular shade on outer area meeting the apex of the silvery fascia; a fine crenulate dark marginal line. Hind wing ochreous white, slightly tinged with fuscous on marginal area.

Hab. Nilgiris. *Exp.* 22 millim.

4189. *Platytes strigulalis*, *Hmps.* *P. Z. S.* 1895, p. 946.

♂. White; palpi fuscous at sides; abdomen with the two basal segments yellow above. Fore wing with oblique yellow-brown strigæ from costa; slight brown streaks below costa and in cell; the inner area irrorated with a few brown scales and with traces of a medial oblique line; a dark discocellular speck; the outer area prominently streaked with yellow-brown; an indistinct waved submarginal line bent inwards to costa and inner margin; a marginal series of black specks. Hind wing white.

Hab. Murree; Meean Meer, Punjab; Nágas; Ceylon. *Exp.* 20 millim.

4190. *Platytes albipennella*, *Hmps.* *P. Z. S.* 1895, p. 946.

♂. Cretaceous white; palpi brownish at sides; abdomen with the two basal segments ochreous above. Fore wing with traces of pale fulvous streaks in the interspaces, and of a pale fulvous spot at lower angle of cell; a marginal series of dark specks; cilia with three brown lines through them. Hind wing pure white.

Hab. Murree. *Exp.* 18 millim.

4191. *Platytes fulvizonella*, n. sp.

Head, thorax, and abdomen white irrorated with black. Fore wing white irrorated with black; a broad rather ill-defined medial fulvous band; the black irroration on disk taking the form of three diffused obliquely placed spots; a curved fulvous postmedial line expanding towards costa; a fulvous marginal band. Hind wing pale fuscous.

Hab. Khásis. *Exp.* 13 millim. Types in coll. Rothschild and B.M.

4192. *Platytes interstriatella*, *Hmps.* *P. Z. S.* 1895, p. 945.

♂. White; palpi rufous at sides; the thorax marked with rufous; abdomen brownish. Fore wing with the interspaces suffused with rufous, the veins white; a blackish patch below base of cell and a streak on base of inner margin; an ill-defined very oblique white band from lower angle of cell to inner margin, with blackish patches beyond discocellulars and below cell; an oblique submarginal white line from vein 3 to inner margin; a series of blackish marginal marks. Hind wing whitish.

Hab. Dharmasála. *Exp.* 24 millim.

4193. *Platytes apicella*, n. sp.

Head, thorax, and abdomen white and reddish brown; antennæ annulated with brown. Fore wing whitish, the base of costa, cell, disk, and inner area suffused with rufous and irrorated with brown, leaving a streak below costa white; traces of a highly dentate antemedial line: a black spot at lower angle of cell; outer area white, the veins streaked with brown; an oblique brown line across apex, then becoming sinuous and slightly waved, with a prominent semicircular brown mark beyond it on apical part of costa; a brown marginal line becoming macular at middle. Hind wing white tinged with fuscous.

Hab. Khásis; Ceylon (*Pole*). *Exp.* 24 millim. Type in B.M.

4194. *Platytes ictericalis*, *Swinh.* *P. Z. S.* 1885, p. 876, pl. 57, fig. 16;
C. & S. no. 4534.

♂. Ochreous suffused with fuscous. Fore wing with indistinct minutely waved fuscous antemedial line; three dark specks on costa before middle; an ochreous discocellular spot; a minutely waved fuscous submarginal line excurved from costa to vein 5, then oblique to inner margin. Hind wing pale fuscous.

Hab. Aden; Poona. *Exp.* 16 millim.

4195. *Platytes fuscivenalis*, *Hmps.* *P. Z. S.* 1895, p. 947.

Ochreous. Fore wing with the veins streaked with brown; an obsolescent bisinuate very oblique leaden-coloured antemedial line; two leaden-coloured discocellular specks; a postmedial leaden-coloured line very oblique from costa to vein 6, then waved and obsolescent: a marginal series of dark specks. Hind wing pale ochreous, with dark marginal specks from apex to vein 3.

Hab. Ceylon. *Exp.* 18 millim.

4196. *Platytes plumbeolinealis*, *Hmps.* *P. Z. S.* 1895, p. 947.

Differs from *fuscivenalis* in being uniform ochreous irrorated with fuscous. Fore wing with the antemedial and postmedial lines prominently silvery, oblique from costa to above middle, then

waved and nearly erect to inner margin. Hind wing with traces of submarginal line.

Some specimens have the fore wing strongly suffused with leaden-grey before the antemedial and beyond the postmedial lines.

Hab. Punjab; Khâsis; Ceylon. *Exp.* 18 millim.

SECT. II. Fore wing with the outer margin slightly indented at vein 6.

4197. *Platytes argentisparsalis*, *Hmps.* *P. Z. S.* 1895, p. 948.

♀. Differs from *plumbeolinealis* in being more fuscous and prominently irrorated with black scales. Fore wing with brilliant silver line from base of costa to median nervure near angle of cell, then erect to inner margin, with a black spot inside it below cell; a curved silver fascia on subcostal nervure at end of cell and a spot at lower angle; the silvery submarginal line more excurved below costa and nearer the margin; the marginal specks more prominent and on a grey band.

Hab. Ceylon. *Exp.* 18 millim.

SECT. III. (*Ptychopseustis*). Fore wing with the outer margin slightly indented at veins 6 and 2.

4198. *Platytes amœnella*, *Snell. Tijds. v. Ent.* 1880, p. 247, and 1884, pl. v, fig. 9.

♀. Grey-brown. Fore wing with sinuous fuscous antemedial line with ochreous spot on its outer edge below median nervure; an ochreous discocellular speck; a fuscous postmedial line defined by ochreous, oblique from costa to vein 6, then sinuous; a series of dark specks just inside the margin; a dark line at base and through middle of cilia. Hind wing paler, with diffused fuscous postmedial line.

Hab. Sulu States; Celebes; New Guinea. *Exp.* 16 millim.

Genus **EROMENE**.

Eromene, *Hübner. Verz.* p. 366 (? 1818).

Euchromius, *Guen. Eur. Microlep. Ind. Meth.* p. 86 (1845), præocc.

Type, *E. bella*, *Hübner*, from Europe.

Range. Neartic and Palearctic regions; N.W. India.

Palpi correct, extending about twice the length of head and thickly scaled; maxillary palpi triangularly scaled; frons produced to a conical process; antennæ of male thickened and flattened; tibiæ with the outer spurs about two-thirds length of inner. Fore wing with the apex usually rounded; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 well separated from 8, 9; 10 free; 11 oblique, not approximated to 12; male with a

shallow fovea in cell. Hind wing with vein 3 from before angle of cell; 4, 5 from angle: 6, 7 from upper angle.

4199. *Eromene superbella*, Zell. *Stettin. ent. Zeit.* 1849, p. 314.

Grey, suffused with pale yellowish brown. Fore wing irrorated with dark brown scales; a straight dark-edged yellow band just beyond middle, with a white band on its inner edge; a thickly irrorated brown patch just beyond cell; a white line from costa towards apex to near outer margin on vein 6, then to inner margin as a submarginal line; the apical area with oblique yellow fascia and triangular white costal mark; black marginal spots from vein 5 to outer angle connected by silvery spots on their outer edges into sets of 2, 2, 3, and 2 spots. Hind wing white, with traces of curved submarginal line.

Hab. Europe; Sind; Punjab. *Exp.* 16 millim.

4200. *Eromene ocella*, Haw. *Lep. Brit.* p. 486; C. & S. no. 4680.

Eromene bella, C. & S. no. 4679 (*nec Hübn.*).

Brownish ochreous. Fore wing rather long and narrow, with postmedial somewhat oblique fulvous-yellow band with silvery line on it, the area beyond it greyish irrorated with black scales; a fulvous-yellow fascia traversed by a silvery line across apical area con-

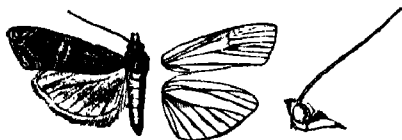


Fig. 14. — *Eromene ocella*, ♂. 1.

tinued as double brown lines to inner margin; the marginal spots as in *superbella*. Hind wing whitish, tinged with fuscous towards outer margin.

Some specimens have a fuscous tinge.

Hab. Europe; Aden; Afghanistan; Punjab; Karachi; Mhow; Poona. *Exp.* 20 millim.

Genus **STENOCHILO.**

Stenochilo, Hmps. *P. Z. S.* 1895, p. 950.

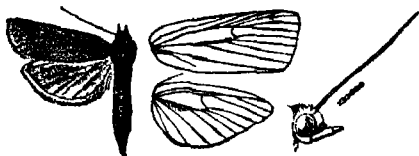
Type, *S. canicostalis*, Hmps.

Range. Sind; Calcutta.

Palpi porrect, extending about one and a half times length of head and smoothly scaled; maxillary palpi dilated with scales at extremity; frons with a conical prominence; antennæ of female somewhat annulate; tibiae with the outer spurs about two-thirds length of inner. Fore wing long and very narrow; the apex rectangular; the inner margin lobed towards base; vein 3 from near angle of cell; 4, 5 well separated at origin; 6, 7 shortly stalked; 10 and 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 from a point in female, 5 absent in male; 6, 7 shortly stalked.

4201. *Stenochilo canicostalis*, *Hmpen.* P. Z. S. 1895, p. 950.

Reddish brown irrorated with grey; the head, collar, and costal area of fore wing very thickly irrorated, the last with white spot below middle of cell; traces of a submarginal line and marginal series of specks. Hind wing bynline white.

Fig. 15.—*Stenochilo canicostalis*, ♀. †.

Hab. Sind; Calcutta. *Exp.*, ♂ 26, ♀ 30 millim.

Genus **MACROCHILO.**

Macrochilo, *Hmpen.* P. Z. S. 1895, p. 950.

Type. *M. ambiguellus*, Snell.

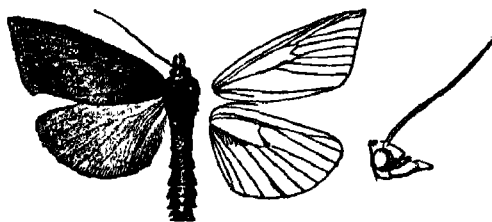
Range. N.E. India.

Palpi porrect, clothed with rough hair, and extending about one and a half times length of head; maxillary palpi dilated with hair; frons with a conical process; antennae of male thickened by appressed serrations; patagia fringed with long hair in male; tibiae with the spurs long, the outer spurs about two-thirds length of inner. Fore wing with the apex acute and produced; vein 3 from before angle of cell; 4, 5 from angle; 7 shortly stalked with 8, 9, 10; 11 oblique. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 stalked.

4202. *Macrochilo ambiguellus*, *Snell.* *Trans. Ent. Soc.* 1890, p. 642, pl. xx, fig. 4.

Pydna notata, *Swinh.* *Trans. Ent. Soc.* 1891, p. 479, pl. xix, fig. 16.

Pale yellowish olive-brown. Fore wing with dark speck below base of cell, a spot at middle of cell and another below it; a small

Fig. 16.—*Macrochilo ambiguellus*, ♂. †.

annulus in upper angle; an oblique slightly sinuous postmedial series of dark spots; traces of a waved submarginal line. Hind wing white; both wings with marginal series of black specks. Underside of both wings with black spot at upper angle of cell; postmedial and marginal series of black specks.

Hab. Sikkim; Khâsis. *Exp.*, ♂ 48, ♀ 58 millim.

Genus **CHILO.**

Chilo, Zinck. *German's Mag. Ent.* ii, p. 33 (1817).

Type, *C. phragmitellus*, Honrath, from Europe.

Range. Universally distributed.

Proboscis absent. Palpi porrect, clothed with rough hair, and extending from two and a half to three times length of head; maxillary palpi dilated with scales at extremity; frons with a conical projection; antennæ minutely serrate and ciliated; tibiæ with the outer spurs about two-thirds length of inner. Fore wing with the apex rectangular in male, typically acute and produced in female; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 straight and well separated from 8, 9; 10 free; 11 curved and approximated to 12. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4203. *Chilo simplex*, *Butl. P. Z. S.* 1880, p. 690.

Crambus zonellus, *Swinh. P. Z. S.* 1884, p. 528, pl. 48, fig. 16;
C. & S. no. 4703.

Crambus partellus, *Swinh. P. Z. S.* 1885, p. 879; *C. & S.* no. 4700.

♂. Yellowish brown suffused with fuscous. Fore wing with the costal area rather darkest; traces of dark specks below middle of cell and at lower angle; the veins of outer area slightly streaked with fuscous; a marginal series of black specks. Hind wing whitish with slight fuscous tinge.
♀ paler; the hind wing white.



Fig. 17.—*Chilo simplex*, ♂. †.

The form *partellus* has on the fore wing of male a highly curved antemedial series of short fuscous streaks, a slight yellowish patch in end of cell, an oblique series of diffused fuscous streaks from apex to middle of inner margin, and a submarginal series of specks; female with some diffused fuscous from apex round lower angle of cell, or sometimes nearly evenly suffused with fuscous, with a dark fuscous patch beyond cell.

Hab. Japan; Chusan; Formosa; Meen Meer, Punjab; Karachi.
Exp. 22 millim.

4204. *Chilo ceylonicus*, *Hmps. P. Z. S.* 1895, p. 957.

Ochreous brown: irrorated with fuscous. Fore wing with the fuscous irroration forming streaks in the interspaces except on inner margin; an indistinct fulvous medial line curved below costa and with silvery scales on its edges; a submarginal silver line bent inwards below costa; a marginal series of black spots with white

centres; cilia silvery. Hind wing whitish, tinged with fuscous on apical area in male; an indistinct marginal series of black specks.

Hab. Ceylon. *Exp.*, ♂ 22, ♀ 26 millim.

4205. *Chilo suppressalis*, *Wlk. Cat.* xxvii, p. 166.

♂. Head and thorax brown and white; abdomen pale. Fore wing with the apex somewhat acute, ochreous, wholly suffused with brown except a patch in cell and a streak below median nervure; the inner margin whitish; a sinuous rufous medial line with silvery spots on its inner side, also on discocellulars, and below vein 2; a rufous submarginal line, highly angled at vein 6 and with silvery line on its outer edge; a marginal series of black specks; the cilia rufous. Hind wing white.

♀ much more orange fulvous; fore wing irrorated with brown; the medial and submarginal lines almost obsolete; the silvery spots below the cell prominent and sometimes double; the post-medial area irrorated with silvery scales.

Hab. Shanghai; Meean Meer, Punjab; Sibságar, Assam; Calcutta; Ceylon. *Exp.*, ♂ 18, ♀ 18-20 millim.

4206. *Chilo dichromellus*, *Wlk. Cat.* xxxv, p. 1707.

♂. Dark brown: vertex of head and thorax ochreous; abdomen fuscous. Fore wing with the inner area ochreous; diffused spots of black and white scales on discocellulars and vein 2; a marginal series of white specks on small black spots. Hind wing fuscous.

♀ with the palpi more ochreous; the vertex of thorax brown. Fore wing with the inner area less ochreous; hind wing whitish slightly suffused with fuscous.

Hab. Bhután. *Exp.*, ♂ 28, ♀ 40 millim.

4207. *Chilo pulverulentus*, *Warr. A. M. N. H.* (8) ix, p. 393.

Ochreous brown slightly irrorated with fuscous; palpi blackish at sides. Fore wing with oblique slightly curved antemedial black line; a diffused fuscous black spot at lower angle of cell; a sinuous postmedial line bent inwards between veins 3 and 2; a slight marginal line. Hind wing pale fuscous.

Hab. Dharmasála; Khásis. *Exp.*, ♂ 16, ♀ 22 millim.

4208. *Chilo fuscidentalis*, *Hmps. P. Z. S.* 1895, p. 956.

♀. Reddish brown suffused with fuscous. Fore wing with the costal half of wing to beyond cell fuscous; a reddish-brown spot in end of cell; a dentate dark antemedial line oblique from costa to vein 1; a curved highly dentate dark submarginal line. Hind wing with obscure curved diffused postmedial line terminating at vein 2.

Hab. Sikkim. *Exp.* 46 millim.

4209. *Chilo torrentellus*, *Meyr. Proc. Linn. Soc. N. S. W.* iii, p. 184.

♀. Head, thorax, and abdomen white, slightly tinged in parts with fuscous. Fore wing with pure white costal stripe, followed by a cupreous-brown fascia through the cell expanding to outer margin, with a similar pure white fascia below the cell; the inner area cupreous brown; a marginal series of black specks. Hind wing pure white, the apex with a fine dark marginal line; both wings with fine fuscous line through the cilia.

Hab. Sikkim; Shán States; Australia. *Exp.* 30 millim.

Genus **ESCHATA.**

Eschata, *Wlk. Cat.* ix, p. 133 (1856).

Chærecla, *Wlk. Cat.* xxxii, p. 633 (1865).

Type, *E. gelida*, *Wlk.*

Range. Oriental region.

Palpi porrect, reaching slightly beyond the frons and thickly scaled; maxillary palpi dilated with scales and nearly as long as labial; frons produced to an acute corneous point; antennæ of male thickened and flattened; tibiæ and tarsal joints fringed with long hair. Fore wing with vein 3 from before angle of cell; 7 from cell, anastomosing, or stalked with 8, 9; 10 free; 11 curved and running along 12. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

SECT. I. Fore wing with the apex somewhat produced and acute.

4210. *Eschata xanthorhyncha*, *Hmpen. P. Z. S.* 1895, p. 960.

♂. Differs from *gelida* in the head and thorax being white; palpi orange, banded with white; fore legs orange fringed with white; tarsi banded with orange. Fore wing with the area between the postmedial and submarginal lines evenly irrorated with black scales. Hind wing

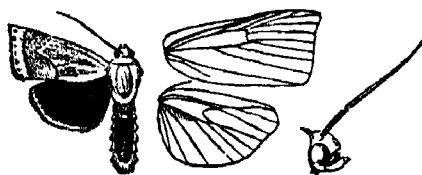


Fig. 18.—*Eschata xanthorhyncha*, ♂. †

fuscous black; the cilia white. Underside with the basal two-thirds of wings suffused with fuscous black.

Hab. Ceylon. *Exp.* 32 millim.

4211. *Eschata gelida*, *Wlk. Cat.* ix, p. 133; *C. & S.* no. 4652.

♂. Differs from *chrysargyria* in the head, thorax, and abdomen being tinged with fuscous. Fore wing with the basal half suffused with golden brown, leaving a band of white inside the postmedial

line; a complete series of marginal black specks; the whole cilia metallic fuscous. Hind wing suffused with fuscous, the costal and outer margins whitish; the cilia white. Underside slightly suffused with fuscous.

Hab. Sikkim; Khásis. *Exp.* 40 millim.

4212. *Eschata chrysargyria*, *Wlk. Cat.* xxxii, p. 634.

Eschata argentata, *Moore, Lep. Atk.* p. 227; *C. & S.* no. 4650.

Pure white; antennæ blackish; abdomen with the two basal segments orange above; terminal joint of tarsi usually orange; wings silvery white. Fore wing with silver streaks in the interspaces beyond and below cell; a pale waved orange line from costa just beyond middle running out to an acute angle on vein 5, then bent inwards to below end of cell on vein 2; the area beyond it below costa and vein 4 irrorated with a few black scales; a bright orange curved submarginal line; black marginal specks below apex and above outer angle; the cilia golden at apex and above outer angle.

Hab. N. China; Sikkim; Khásis; Nágas; Manipur; Nilgiris; Rangoon; Ceram. *Exp.*, ♂ 32-40, ♀ 44-60 millim.

4213. *Eschata xanthocera*, *Hmps. P. Z. S.* 1895, p. 961.

♂. Differs from *chrysargyria* in the antennæ being orange, the legs orange fringed with white hair. Fore wing with the postmedial and submarginal lines almost obsolete; the cilia white with golden tips throughout.

Hab. Ceylon. *Exp.* 38 millim.

4214. *Eschata melanocera*, n. sp.

♂. Differs from *argentata* in the bases of 1st and 2nd joints of palpi being black; antennæ black; fore tibiæ orange fringed with white hair; the tarsi banded with orange. Fore wing with the orange postmedial line slightly angled on vein 5 and below vein 2, and reaching middle of inner margin; the area between it and the submarginal line evenly irrorated with black scales; a marginal series of black specks; the whole cilia metallic fuscous. Hind wing with some dusky fulvous on inner area.

Hab. Nágas (*Doherty*). *Exp.* 46 millim. Type in coll. Elwes.

SECT. II. Fore wing with the apex rectangular and not produced.

4215. *Eschata conspurcata*, *Moore, Lep. Atk.* p. 227; *C. & S.* no. 4651.

♂. Silvery white; palpi black, white below and at end of 2nd joint and maxillary palpi; antennæ black; abdomen fuscous above, the first two segments orange. Fore wing with obsolescent orange

postmedial line arising from costa beyond middle, oblique to vein 5, where it is angled, then nearly straight to inner margin near the curved orange submarginal line; some black marginal specks above outer angle. Hind wing smoky black, with marginal series of black striæ; the cilia white. Underside with the basal two-thirds suffused with smoky black.

♀. Abdomen white; fore wing with the postmedial line almost obsolete; hind wing white, slightly suffused with fuscous below cell; underside slightly suffused with fuscous at base of wings.

Hab. Sikhim. *Exp.*, ♂ 50, ♀ 60 millim.

4216. *Eschata percandida*, *Swinh. Trans. Ent. Soc.* 1890, p. 293.

♀. Silvery white; abdomen with the two basal segments orange above. Fore wing with indistinct orange postmedial line excurved beyond cell and double from lower angle of cell to inner margin, the area beyond it irrorated with small rufous scales to the indistinct curved orange postmedial line, which is double from vein 5 to inner margin; a marginal series of black specks.

Hab. Rangoon. *Exp.* 42 millim.

4217. *Eschata ochripes*, *Hmps. Ill. Het.* viii, p. 143, pl. 156, fig. 23.

♂. Silvery white; palpi black at base; antennæ fulvous; legs orange fringed with white hair; abdomen fuscous above, the first two segments orange. Fore wing uniform white, irrorated with a few black scales on outer area. Hind wing suffused with fuscous except the costal and outer areas. Underside of fore wing with diffused black streaks on costal area and median nervure beyond cell.

Hab. Nilgiris. *Exp.* 40 millim.

Genus **MESOLIA**.

Mesolia, *Rag. Ann. Soc. Ent. France*, 1888, p. 282.

Type, *M. pandavella*, *Rag.*

Range. N. America; W. Indies; China; India; Ceylon.

Palpi porrect, thickly clothed with hair, and extending about twice the length of head; maxillary palpi triangularly scaled; frons with a conical projection; antennæ of male thickened and flattened; tibiæ with the outer spurs about half the length of inner. Fore wing long and narrow, the apex rounded; veins 4, 5 from angle of cell; 3 absent; 7, 8, 9 stalked; 10, 11 free; the outer margin produced from apex to vein 5. Hind wing with vein 3 absent; 4, 5 from angle of cell; 6 from upper angle; the upper margin of cell widely separated from 8, 7 curving upwards to anastomose with 8.

4218. *Mesolia pandavella*, *Rag. Ann. Soc. Ent. France*, 1888, p. 282; *C. & S.* no. 4724.

♂. Dark reddish brown irrorated with fuscous. Fore wing with diffused whitish fascia from base below median nervure to outer margin; a brown medial line with white inner edge, oblique from costa to vein 4, then angled and dentate inwards on vein 2; a white line across apical area angled on the margin at vein 6, then dentate; a sinuous white line across apex; cilia with a dark line through them from costa to the indentation. Hind wing whitish.

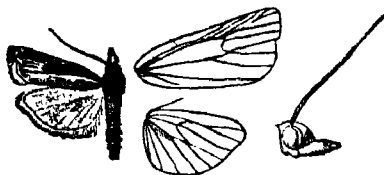


Fig. 19.—*Mesolia pandavella*, ♂. 1.

♀ browner, with hardly a trace of the pale fascia on fore wing.

N. Indian specimens are paler and more rufous than those from Ceylon.

Hab. Dharmasala; Lahore; Trichinopoly; Ceylon. *Exp.*, ♂ 18, ♀ 22 millim.

Genus SURATTHA.

Surattha, *Wlk. Cat.* xxvii, p. 75 (1863).

Calarina, *Wlk. Cat.* xxxv, p. 1760 (1866).

Type, *S. invectalis*, Wlk.

Range. India, Ceylon, and Burma; Java; Australia; Africa.

Palpi porrect and thickly scaled, extending about one and a half times length of head; maxillary palpi triangularly scaled; frons with a conical process; antennæ of male bipectinated, usually with long branches; tibiæ with the spurs long, the outer spurs about two-thirds length of inner. Fore wing long and narrow, the apex rounded; vein 3 from near angle of cell; 4, 5 usually on a long stalk; 6, 7 and 10, 11 free. Hind wing with vein 3 from near angle of cell; 5 absent; 6 obsolescent from above middle of discocellulars, 7 anastomosing with 8.

SECT. I. Fore wing with veins 4, 5 stalked.

4219. *Surattha invectalis*, *Wlk. Cat.* xxvii, p. 70; *C. & S.* no. 4723.

Pindictora thysbesalis, *Wlk. Cat.* xxvii, p. 135; *C. & S.* no. 4718.

Scopula nigrifascialis, *Wlk. Cat.* xxxiv, p. 1472; *C. & S.* no. 4155.

Calarina albirenella, *Walk. Cat.* xxxv, p. 1770; *C. & S.* no. 4721.

Greyish ochreous irrorated with fuscous. Fore wing with indistinct pale waved antemedial line, with fuscous suffusion on the edges; similar more distinct medial and postmedial lines, the latter angled on vein 5, the former with dentate dark marks on its outer edge, the latter on its inner; a white spot beyond discocellulars;

a marginal series of black specks and a line through the cilia.

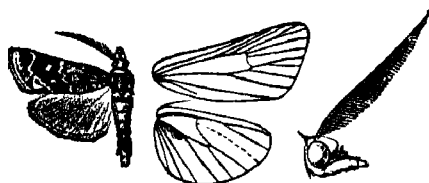


Fig. 20.—*Surattha invectalis*, ♂. †.

Hind wing pale or dark fuscous, rarely pure white.

In many specimens the area between the medial and postmedial lines of the fore wing is blackish; in one female the whole fore wing is suffused with

fuscous, and the markings hardly traceable.

Hab. W. and S. India; Ceylon; Shān States; Java. *Exp.*, ♂ 22–30, ♀ 26–32 millim.

4220. *Surattha albipennis*, *Butl. P. Z. S.* 1886, p. 383; *C. & S.* no. 4720.

Greyish ochreous irrorated with fuscous. Fore wing with fuscous-irrorated grey fasciæ on costa, below cell and vein 1, beyond cell and in interspaces of outer area; traces of sinuous antemedial and medial lines; a white spot beyond cell; a highly dentate submarginal line defined by white and ochreous on its inner edge; a marginal series of black and white specks. Hind wing pure white.

Hab. Campbellpur; Karāchi; E. Africa. *Exp.*, ♂ 24, ♀ 28 millim.

4221. *Surattha scitulella*, *Wlk. Cat.* xxxv, p. 1755; *C. & S.* no. 4701.

Brownish ochreous; head, thorax, and abdomen tinged with fuscous. Fore wing with diffused fuscous on basal inner area and defining the inner side of the oblique ochreous medial band, the area between which and the oblique submarginal band is fuscous except on costal area; a black discocellular spot; the submarginal band dentate inwards below costa; the marginal area fuscous, with a series of black specks. Hind wing pale fuscous or whitish.

Hab. Coimbatore; Ceylon. *Exp.*, ♂ 16, ♀ 24 millim.

SECT. II. Fore wing with veins 4, 5 from cell; antennæ of male bipectinated with short branches dilated at extremity.

4222. *Surattha fuscilella*, *Swinh. A. M. N. H.* (6) xvi, p. 301.

♂. Dark fuscous brown with a slight grey tinge. Fore wing with obscure dark outwardly oblique antemedial and medial lines; a discocellular spot; an obscure sinuous submarginal line; a marginal series of specks. Hind wing dark brown.

Hab. Raipur; Bombay. *Exp.* 18 millim.

Genus **ANCYLOLOMIA.**

Ancylolomia, Hübn. *Verz.* p. 363 (p 1818).

Jartheza, Wlk. *Cat.* xxvii, p. 183 (1863).

Type, *A. tentaculella*, Hübn., from Europe.

Range. Argentina; Mediterranean subregion; Ethiopian and Oriental regions; Australia.

Palpi porrect, thickly clothed with hair, and extending about three times the length of head; maxillary palpi triangularly scaled; frons oblique; abdomen long; tibia with the outer spurs about two-thirds length of inner. Fore wing long and narrow; the apex produced; the outer margin excised below apex, then excurved; veins 3, 4, 5 from angle of cell; 7, 8, 9 stalked; 10 free; 11 becoming coincident with 12. Hind wing with vein 3 from close to angle of cell; 4, 5 from angle or stalked; 6 from above middle of discocellulars and obsolescent; 7 anastomosing with 8.

SECT. I. Antennæ of male with short uniseriate huminated branches; of female simple.

4223. *Ancylolomia chrysographella*, Koll. *Hügel's Kaschmir*, iv, p. 494; *C. & S.* no. 4712.

Ancylolomia capensis, Zell. *Mon. Chil. & Cramb.* p. 11.

Ancylolomia taprobanensis, Zell. *Hor. Ent. Ross.* 1877, p. 25, pl. 1, fig. 8; *Moore, Lep. Ceyl.* iii, pl. 184, figs. 2, 2 a; *C. & S.* no. 4710.

Ancylolomia indica, Feld. *Reis. Nov.* pl. 137, fig. 19; *C. & S.* no. 4714.

Ancylolomia argentata, *Moore, Lep. Ceyl.* iii, p. 382, pl. 184, fig. 3; *C. & S.* no. 4708.

Brownish ochreous. Fore wing with silvery and yellow fasciæ, with streaks of black scales on them in cell and the inter-

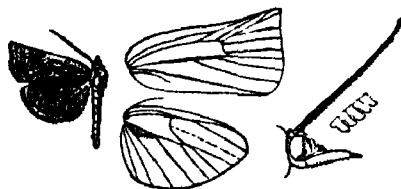


Fig. 21.

Ancylolomia chrysographella, ♂. 1.

taprobanensis, which is more common in the South.

The fore wing may have a white fascia developed on median nervure.

Hab. S. Africa; Aden; Japan; China; Formosa; throughout India, Ceylon, and Burma; Penang. *Exp.*, ♂ 20-30, ♀ 30-40 millim.

4224. *Ancylolomia locupletella*, Koll. *Hügel's Kaschmir*, iv, p. 394.

Differs from *chrysographella* in the ground-colour of fore wing being much greyer; prominent white fasciæ on costa and below median nervure; the marginal band whiter. Hind wing pale fuscous; the margin white.

The larva bores in the stems of *Spinifex squarrosa*.

Hab. Simla; Ceylon. *Exp.*, ♂ 22, ♀ 34 millim.

SECT. II. Antennæ of male with long uniseriate pectinations.

4225. *Ancylolomia sanndersiella*, Zell. *Mon. Chil. & Cramb.* p. 10.

Jartheza biplegella, Moore, *P. Z. S.* 1872, p. 582, pl. 34, fig. 9;

C. & S. no. 4713.

Jartheza obstitella, *Swinh.* *P. Z. S.* 1885, p. 880, pl. 57, fig. 3;

C. & S. no. 4715.

Differs from *chrysographella* in being more suffused with golden ochreous; the paragia blackish, with a white fascia. Fore wing with the costa black; a white fascia on median nervure, with a black fascia below it; a black speck on discocellulars. Hind wing pale fuscous in male, white in female.

Hab. Bombay; Poona. *Exp.*, ♂ 26-30, ♀ 30-34 millim.

4226. *Ancylolomia responsella*, Wlk. *Cat.* xxvii, p. 184; *C. & S.* no. 4716.

Jartheza xylinnella, Wlk. *Cat.* xxvii, p. 184; *C. & S.* no. 4717.

Jartheza cassimella, *Swinh.* *P. Z. S.* 1886, p. 461, pl. 41, figs. 4, 6;

C. & S. no. 4711.

Golden brown; the patagia dark; the base of abdomen pale. Fore wing with orange-brown fascia in the cell, with black scales on it and silver fascia below it; streaks of black scales and silvery fasciæ in interspaces beyond cell; the inner area orange-brown, irrorated with black scales, expanding below end of cell almost to vein 2, and with a silvery fascia on it; a marginal grey band with series of black spots on it, inwardly edged by an irregularly dentate silvery line excurved to near the margin below middle; the cilia silvery. Hind wing varying from whitish to fuscous.

Hab. Simla; Nepal; Mhow; Nilgiris. *Exp.*, ♂ 28-32, ♀ 34-40 millim.

4227. *Ancylolomia basistriga*, Moore, *Lep. Ceyl.* iii, p. 382, pl. 184, fig. 1; *C. & S.* no. 4709.

Differs from *responsella* in being browner. Fore wing with the fascia and streaks diffused and indistinct; the marginal markings dark and ill-defined. Hind wing fuscous.

Hab. Ceylon. *Exp.*, ♂ 40, ♀ 40-50 millim.

SECT. III. Antennæ of female serrate.

4228. *Ancylolomia uniformella*, *Hmps.* *P. Z. S.* 1895, p. 967.

♀. Pale ochreous. Fore wing thickly irrorated with fuscous, rather more thickly in cell, where it forms an obscure fascia. Hind wing pure white.

Hab. Hyderabad, Sind. *Exp.* 38 millim.

Genus CHARLTONA.

Charltona, *Swinh.* *P. Z. S.* 1885, p. 878.

Type, *C. kala*, Swinh.

Range. India, Ceylon, and Burma.

Palpi porrect, clothed with rough hair, and projecting about one and a half times length of head; maxillary palpi triangularly dilated with hair; frons rounded; tibiae with the outer spurs about two-thirds length of inner; wings long and narrow. Fore wing with the apex rectangular; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 straight and well separated from 8, 9; 10 free; 11 curved and approximated to 12. Hind wing with vein 3 from near angle of cell; 4, 5 from angle and approximated for a short distance; 6 absent; 7 anastomosing with 8.

SECT. I. Antennæ of male bipectinate, with short branches dilated at extremity.

4229. *Charltona kala*, *Swinh.* *P. Z. S.* 1885, p. 879, pl. 57, fig. 4; *C. & S.* no. 4685.

Head, thorax, and fore wing uniform black-brown; the last with diffused long black scales with pale bases in interspaces of inner and outer areas; abdomen and hind wing pale fuscous.

Hab. Mhow; Satara; N. Kanara; Ceylon. *Exp.*, ♂ 30, ♀ 40 millim.

SECT. II. Antennæ of male with short uniseriate laminated branches.

4230. *Charltona laminata*, *Hmps.* *P. Z. S.* 1895, p. 970.

♂. Differs from *kala* in the hind wing being browner fuscous.

Hab. Burma. *Exp.* 34 millim.

4231. *Charltona cervinella*, *Moore*, *P. Z. S.* 1872, p. 581, pl. 34, fig. 7; *C. & S.* no. 4669.

Chilo interruptellus, *Moore*, *P. Z. S.* 1872, p. 581, pl. 34, fig. 5; *C. & S.* no. 4674.

Head and thorax brownish ochreous, the latter with black dorsal stripe; abdomen fuscous. Fore wing pale ochreous brown, irro-

rated with fuscous; a black fascia from middle of cell to outer margin; a fascia from base below median nervure, and short fasciæ above veins 2, 3, 4; the median nervure and veins beyond the cell

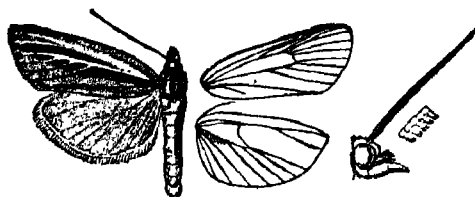


Fig. 22.—*Charltona cervinella*, ♂. ♀.

streaked with white; a marginal series of black specks. Hind wing pale fuscous, the cilia white.

Interruptella is a pale ochreous-white form, with a tendency to obsolescence of the fasciæ of fore wing; the hind wing whitish.

Hab. Bombay: Mhow; Matheran; Poona; Bangalore; Nilgiris; Pirmád, Travancore. *Exp.*, ♂ 40, ♀ 46-52 millim.

4232. *Charltona bivittella*, Moore, *P. Z. S.* 1872, p. 581, pl. 34, fig. 8; *C. & S.* no. 4668.

♀. Differs from the form *interruptella* in the fascia in and beyond cell of fore wing being broader and not reaching outer margin; the fascia below median nervure shorter; the patch between the veins smaller; a broad black fascia on inner area traversed towards outer margin by an ochreous streak on vein 1.

Hab. Bombay. *Exp.* 38 millim.

4233. *Charltona consociella*, Wlk. *Cat.* xxvii, p. 159; *C. & S.* no. 4694.

Ochreous; palpi fuscous at sides. Fore wing slightly irrorated with fuscous; the costa fuscous; a black fascia below median nervure and a fascia from end of cell tapering to outer margin; a marginal series of black specks. Hind wing white.

Hab. Calcutta. *Exp.*, ♂ 34, ♀ 44 millim.

4234. *Charltona inconspicuellæ*, Moore, *P. Z. S.* 1872, p. 582, pl. 34, fig. 6; *C. & S.* no. 4673.

♀. Ochreous white; abdomen fuscous. Fore wing with brown fascia from base below median nervure; an obsolescent fascia in and beyond the end of cell, and short streaks above veins 2, 3, 4; a marginal series of black specks. Hind wing dark fuscous, the cilia white.

Hab. Bombay; Travancore. *Exp.* 40 millim.

4235. *Charltona desistalia*, Wlk. *Cat.* xxvii, p. 165; Moore, *Lep. Ceyl.* iii. pl. 184, fig. 10; *C. & S.* no. 4670.

♀. Pale ochreous, thickly irrorated with brown; palpi rufous at

sides; legs and abdomen fuscous. Fore wing thickly irrorated with long black-brown scales; traces of a dark fascia in and beyond cell; a marginal series of black specks. Hind wing pale fuscous.

Hab. Ceylon. *Exp.* 36 millim.

SECT. III. Antennæ of male with long uniseriate branches.

4236. *Charltona ortella*, *Swinh. P. Z. S.* 1880, p. 461, pl. 41, fig. 3;
C. & S. 4677.

Ochreous white; palpi black at sides; thorax with a dorsal black streak. Fore wing slightly irrorated with black; the base of costa black; a deep black fascia from base below median nervures, widest beyond the cell; a marginal series of black specks. Hind wing white or very pale fuscous, sometimes with slight fuscous shading beyond lower angle of cell.

Hab. Simla; Sikhim; Jubbulpore; Mhow. *Exp.*, ♂ 34, ♀ 40 millim.

Subfamily SCHÆNOBIINÆ.

Proboscis absent or very minute; palpi usually porrect, the maxillary palpi being usually well developed and dilated with scales at extremity. Fore wing with vein 7 from cell, except in *Banepa*, *Ramila*, and *Leucoides*. Hind wing with the median nervure not pectinated on upperside; vein 7 usually anastomosing with 8.

The larvæ of the species of which the early stages are known feed in the interior of reeds.

Key to the Genera.

- | | |
|---|-----------------------------------|
| A. Palpi with the 2nd joint porrect, the 3rd upturned; fore wing with veins 7, 8, 9, 10 stalked | 2. <i>BANEPA</i> , p. 39. |
| B. Palpi upturned; maxillary palpi minute .. | 1. <i>NIPHOPYRALIS</i> , [p. 38.] |
| C. Palpi porrect. | |
| a. Fore wing with veins 7, 8, 9 stalked. | |
| a'. Both wings with veins 4, 5 from cell .. | 5. <i>RAMILA</i> , p. 41. |
| b'. Both wings with veins 4, 5 stalked.... | 4. <i>LEUCOIDES</i> , p. 40. |
| b. Fore wing with veins 8, 9, 10 stalked, 7 from cell. | |
| a'. Palpi projecting about twice the length of head; hind wing with vein 7 anastomosing with 8 to near apex. | |
| a ² . Frons smooth; abdomen with lateral tufts towards extremity | [p. 42.] |
| b ² . Frons with a sharp tuft; abdomen without lateral tufts | 6. <i>EURYCRASPEDA</i> , |
| b'. Palpi projecting about the length of head; hind wing with vein 7 anastomosing with 8 to about $\frac{1}{2}$ of wing.... | 7. <i>BRIHASPA</i> , p. 42. |
| | 8. <i>PATISSA</i> , p. 43. |

- c. Fore wing with veins 8, 9 stalked, 7 separate.
- a'. Fore wing with veins 6, 7 stalked, ♂ with a hyaline vesicle beyond the cell; palpi projecting about the length of head 3. THYRIDOPHORA, [p. 39.]
- b'. Fore wing with veins 6, 7 from cell.
- a². Frons flat and oblique; fore wing with the apex rounded 11. CIRRHOCRISTA, [p. 49.]
- b². Frons with a rounded projection; palpi once to twice the length of head 9. SCIRPOPHAGA, [p. 45.]
- c². Frons with a slight tuft; palpi three to four times length of head 10. SCHENOBIUS, p. 47.

Genus NIPHOPYRALIS.

Niphopyralis, *Hmps.* *Ill. Het.* ix, p. 181 (1893).

Type, *N. nivalis*, *Hmps.*

Range. Bhutan; Bombay; Ceylon; Borneo.

Palpi upturned, smoothly scaled, and hardly reaching vertex of head; maxillary palpi minute; frons rounded; antennæ of male bipectinate; tibiæ with the spurs nearly equal. Fore wing short and rounded; vein 3 from near angle of cell; 4, 5 from angle; 7 well separated from 8, 9; 10, 11 free. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

4237. *Niphopyralis nivalis*, *Hmps.* *Ill. Het.* ix, p. 181, pl. 174, fig. 6.

♂. White. Fore wing suffused with pale brown except the costal area; an ill-defined somewhat sinuous antemedial dark line; slight dark discocellular marks; the apex and margin white, sending a tooth inwards on vein 2, and with two black specks below apex and two above outer angle. Hind wing



Fig. 23.—*Niphopyralis nivalis*, ♂. †.

pure white, with black marginal specks at vein 2.

Hab. Ceylon. *Exp.* 16 millim.

4238. *Niphopyralis contaminata*, *Hmps.* *Ill. Het.* ix, p. 181, pl. 174, fig. 14.

♂. Differs from *nivalis* in the metathorax being fuscous. Fore wing pure white; traces of a sinuous antemedial line; a diffused black patch on discocellulars and costa above end of cell; the whole outer area fuscous black, except the apex and margin, on which the black specks are present.

Hab. Ceylon. *Exp.* 16 millim.

4239. *Niphopyralis albida*, *Hmps.* *Ill. Het.* ix, p. 181, pl. 174, fig. 25.

Niphopyralis suffidalis, *Swinh. A. M. N. H.* (0) xvi, p. 299.

Pure white. Fore wing with a few dark scales on discocellulars, and traces of a pale fulvous oblique streak across apical area; a black marginal speck on vein 2 of each wing.

The Ceylon female is slightly sullied with fuscous and has a slight marginal fuscous line, and the form *suffidalis* has the hind wing mostly suffused with fuscous.

Hab. Bhután; Bombay; Ceylon; Borneo. *Exp.*, ♂ 16, ♀ 20–22 millim.

Genus **BANEP.**

Banepa, *Moore, Lep. Atk.* p. 204 (1888).

Type, *B. atkinsoni*, Moore.

Range. Sikhim.

Palpi with the 2nd joint long, porrect, and clothed with hair, the 3rd upturned and long; maxillary palpi well developed and triangularly scaled; proboscis minute; antennae of male bipectinated; legs smoothly scaled, the spurs long. Fore wing with the costa arched at base, then straight; the apex produced; the outer margin excised from apex to vein 5, where it is excurved, then oblique to outer angle; vein 3 from before angle of cell; 4, 5 from angle; 7, 8, 9, 10 stalked. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 on a long stalk.

4240. *Banepa atkinsoni*, *Moore, Lep. Atk.* p. 204; *C. & S.* no. 4491.

Pale rufous, thickly suffused with fuscous. Fore wing with slightly sinuous antemedial line with pale inner edge; black cell-spot; curved and minutely dentate postmedial line with pale outer edge. Hind wing pale, with indistinct minutely dentate curved postmedial line.



Fig. 24.—*Banepa atkinsoni*, ♂. 1.

Underside pale, with slight fuscous suffusion; both wings with cell-spots, curved crenulate postmedial and marginal series of specks; fore wing with black spot on costa before the postmedial line; hind wing with black patch on outer margin near anal angle.

Hab. Sikhim. *Exp.*, ♂ 34, ♀ 38 millim.

Genus **THYRIDOPHORA.**

Thyridophora, *Warr. P. Z. S.* 1888, p. 310.

Type, *T. furia*, *Swinh.*

Range. Aden; N.W. India.

Palpi porrect and smoothly scaled, projecting about the length

of head, the 3rd joint down-curved; maxillary palpi long and somewhat dilated at extremity; frons flat and oblique; antennæ thickened and flattened; legs short, the tibiæ hairy, with the spurs nearly equal. Fore wing with the apex produced and outer margin oblique; the cell very long; vein 3 from before angle; 4, 5 well separated at origin; male with a hyaline vesicle beyond upper angle below veins 6, 7, which are stalked. Hind wing with the cell very long; vein 3 from near angle; 4, 5 from angle; 6, 7 shortly stalked.

4241. *Thyridophora furia*, Swinh. P. Z. S. 1884, p. 519, pl. 47, fig. 13; C. & S. no. 1901.

Thyridophora fenestrata, Warr. P. Z. S. 1888, p. 311; C. & S. no. 1773 B.



Fig. 25.—*Thyridophora furia*, ♂. ♀.

♂. Dull ochreous, more or less suffused with fuscous. Fore wing with traces of oblique dark medial line and oblique line from apex.

Hab. Aden; Campbellpur; Karachi. *Exp.* 14 millim.

Genus LEUCOIDES.

Leucoides, *Hmpsn. Ill. Het.* ix, p. 167 (1893).

Type, *L. fuscicostalis*, *Hmpsn.*

Range. Ceylon.

Palpi porrect, slightly scaled, and extending about twice the length of head; maxillary palpi long and somewhat dilated at extremity; frons produced and acute; antennæ of male minutely serrate and ciliated; legs long and slender, the outer spurs about two-thirds length of inner; abdomen long; wings long and narrow. Fore wing with the apex produced and acute; the outer margin oblique; vein 3 from angle of cell; 4, 5 stalked; 6 from upper angle; 7, 8, 9 stalked; 10 free; 11 becoming coincident with 12. Hind wing with vein 3 from near angle of cell; 4, 5 stalked; 6, 7 stalked.

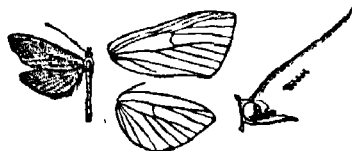


Fig. 26.—*Leucoides fuscicostalis*, ♂. ♀.

4242. *Leucoides fuscicostalis*, *Hmpsn. Ill. Het.* ix, p. 168, pl. 172, fig. 18.

♂. Pure white; palpi, sides of frons, and fore legs rufous. Fore

wing with the costal area fuscous brown; traces of ante- and postmedial series of rufous specks on the veins.

Hab. Ceylon. *Exp.* 20 millim.

Genus **RAMILA**.

Ramila, Moore, *P. Z. S.* 1867, p. 667.

Crambostenia, Swinh. *Trans. Ent. Soc.* 1890, p. 292.

Type, *R. marginella*, Moore.

Range. India; Ceylon; Burma; Borneo; Australia.

Palpi porrect and slightly scaled, the 3rd joint downcurved; maxillary palpi dilated with scales, and nearly as long as the labial; frons produced to a rounded projection nearly as long as the palpi; antennæ ciliated; tibiae slightly hairy, the spurs short. Fore wing with the apex produced to a point; vein 3 from before angle of cell; 4, 5 from angle; 6 from near upper angle; 7, 8, 9 stalked; 11 becoming coincident with 12. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 stalked.

4243. *Ramila marginella*, Moore, *P. Z. S.* 1867, p. 667, pl. 33, fig. 16;
C. & S. no. 4660.

Silvery white; palpi and sides of frons fulvous and fuscous.



Fig. 27.—*Ramila marginella*, ♂. †.

Fore wing with the membrane crenulated; the costa fulvous and fuscous; a speck at middle of cell conjoined to the costal fascia; two discocellular specks; both wings with an oblique dark line from lower angle of cell to inner margin; a

slight sinuous postmedial oblique line; a marginal black line; the cilia orange, with a black line through them from apex to vein 2 of hind wing.

Hab. Sikhim. *Exp.*, ♂ 48, ♀ 56 millim.

4244. *Ramila ruficostalis*, Hampson. *Ill. Hæ.* ix, p. 166, pl. 173, fig. 22.

♂. Differs from *marginella* in the costa of fore wing being brilliant ferruginous red; the lines ferruginous and interrupted; the medial line of fore wing arising from the speck at middle of cell; the cilia without a black line through them, and the marginal line more maculate on fore wing.

Hab. Ceylon. *Exp.* 30 millim.

4245. *Ramila angustifimbrialis*, Swinh. *Trans. Ent. Soc.* 1890, p. 293;
Warr. A. M. N. H. (8) ix, p. 430.

♂. Differs from *marginella* in the metathorax being yellow. Fore wing with the membrane non-crenulate; the lines obsolete; the marginal line more maculate.

Hab. Rangoon. *Exp.* 20–26 millim.

4246. *Ramila acciusalis*, *Wlk. Cat. xix*, p. 977; *Moore, Lep. Ceyl.* iii, pl. 184, f. 5; *C. & S.* no. 4658.

Differs from *marginella* in the membrane of fore wing being non-crenulate, the costal fascia more orange; the lines orange; the medial line arising from the spot at middle of cell; a single discocellular lunule; the postmedial line excurved to outer angle; the marginal line more maculate.

Hab. Sikkim; Ceylon; Borneo. *Exp.* 26 millim.

Genus EURYCRASPEDA.

Eurycraspeda, *Swinh. Trans. Ent. Soc.* 1890, p. 284.

Type, *E. burmanalis*, *Swinh.*

Range. Burma.

Palpi porrect, slightly scaled, and projecting about twice the length of head; maxillary palpi long and dilated with scales at extremity; antennæ ciliated; abdomen long, with lateral tufts of hair towards extremity; wings long and narrow. Fore wing with vein 3 from before angle of cell; 4 and 5 well separated at origin; 7 straight and well separated from 8 and 9; 11 becoming coincident with 12. Hind wing with vein 3 from before angle of cell; 4 and 5 well separated at origin; 6 and 7 stalked.

4247. *Eurycraspeda burmanalis*, *Swinh. Trans. Ent. Soc.* 1890, p. 285, pl. 7, fig. 19.

♂. Head, thorax, and abdomen black-brown and white. Fore wing black-brown; the inner basal area white; a broad sub-marginal white band with dentate edges traversed by a minutely dentate black line and leaving a dentate black marginal band. Hind wing with the basal two-thirds pale fuscous except the inner area, and with a diffused black patch on



Fig. 28.

Eurycraspeda burmanalis, ♂. 1.

inner area at its outer edge; the outer area white; the cilia fuscous from apex to vein 2.

Hab. Burma. *Exp.* 20 millim.

Genus BRIHASPA.

Brihaspa, *Moore, P. Z. S.* 1867, p. 686.

Type, *B. atrostigmella*, *Moore.*

Range. Brazil; S. Africa; N.E. India; Burma.

Palpi porrect, clothed with rough hair, and extending about twice the length of head; maxillary palpi long and dilated with scales at extremity; frons with a sharp tuft; antennæ of male minutely serrate and ciliated; tibiæ with the outer spurs about

two-thirds length of inner. Fore wing broad, the apex rounded; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 straight and well separated from 8, 9, 10, which are stalked; 11 becoming coincident with 12. Hind wing with vein 3 from before angle of cell; 4, 5 well separated at origin; 6, 7 on a long stalk and 7 anastomosing with 8 almost to apex.

4248. *Brihaspa atrostigmella*, Moore, P. Z. S. 1867, p. 660, pl. 33, fig. 13; C. & S. no. 4657.

♂. White; palpi and fore legs black; antennæ ochreous. Fore

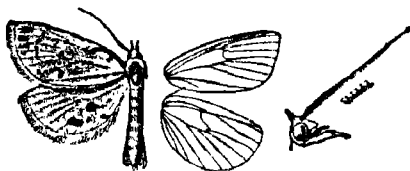


Fig. 29—*Brihaspa atrostigmella*, ♂. †.

wing with black fascia on base of costa sometimes curving round and joining the antemedial spot; subbasal and antemedial black spots below costa; a black spot at each angle of cell and one below vein 2. Hind

wing with yellow spot below lower angle of cell; a submarginal spot on vein 2 and one at anal angle.

Hab. Sikhim; Moulmein; Raungoon. *Exp.* 42–54 millim.

4249. *Brihaspa bisangulata*, Hampson, P. Z. S. 1895, p. 910.

White. Fore wing with indistinct interrupted fulvous subbasal band; an oblique fulvous band from costa to discocellulars, where it is met by a V-shaped fulvous mark on outer part of costa, its apex on vein 5, and by a band running from apex to vein 3, then recurved to discocellulars; a large fuscous patch between lower angle of cell and inner margin. Hind wing with the discal area from before middle to near outer margin occupied by a fuscous patch, becoming fulvous on subapical area.

Hab. Sikhim. *Exp.* 18 millim.

Genus **PATISSA**.

Patissa, Moore, *Lep. Ceyl.* iii, p. 388 (1880).

Type, *P. lactalis*, Feld.

Range. Nearctic and Neotropical regions; S. Africa; Japan; India, Ceylon, and Burma; Java.

Palpi porrect, clothed with rough hair, and extending about the length of head; maxillary palpi dilated with scales; frons with a slight tuft; antennæ of male minutely serrate and ciliated; legs long and slender, the outer spurs about two-thirds length of inner. Fore wing with the apex somewhat produced and outer margin oblique; vein 3 from before angle of cell; 4, 5 well separated at origin; 7 straight and well separated from 8, 9, 10, which are stalked; 11 becoming coincident with 12. Hind wing with vein 3 from before angle of cell; 4, 5 well separated at origin; 6, 7 stalked.

4250. *Patissa latifuscalis*, *Hmps.* *P. Z. S.* 1895, p. 911.

♀. White; palpi and pectus fuscous black. Fore wing with the costal area fuscous black; a basal black patch not reaching inner margin; a medial black band very wide on costa and extending nearly to apex, narrowing to inner margin; a series of black spots on the cilia. Hind wing with diffused fuscous post-medial line, developed into a patch on middle of inner margin.

Hab. Sibiságar. *Exp.* 26 millim.

4251. *Patissa lactealis*, *Feld. Reis. Nov.* pl. 137, fig. 38; *C. & S.* no. 4606.

♂. White irrorated with fuscous brown. Fore wing with obscure subbasal brown line; prominent curved antemedial line;



Fig. 30.—*Patissa lactealis*, ♂. †.

the postmedial line nearly straight from costa to vein 3, then recurved to costa and enclosing two black spots on discocellulars in a figure-of-8 shaped mark, angled outwards on vein 2, and oblique to inner margin; a minutely dentate submarginal brown line and series of specks on

the cilia. Hind wing pure white, with a brown lunule on inner margin above anal angle, and brown line from vein 2 to inner margin near anal angle.

♀. Much less irrorated with brown. Fore wing with the retracted figure-of-8 shaped portion of the postmedial line and discocellular specks obsolescent; the submarginal line white. Hind wing pure white.

Hab. Nilgiris; Ceylon. *Exp.*, ♂ 20, ♀ 22 millim.

4252. *Patissa fulvosparsa*, *Butl. Trans. Ent. Soc.* 1881, p. 591.

Metasia candidulalis, *Swinh. P. Z. S.* 1885, p. 830, pl. 57, fig. 6; *C. & S.* no. 4605.

Donacula chlorosema, *Meyr. Trans. Ent. Soc.* 1894, p. 11.

Patissa tortualis, *Snell. Tijd. v. Ent.* 1893, p. 58, pl. 3, fig. 3.

White. Fore wing with obscure yellow curved subbasal and antemedial lines; the postmedial yellow line straight from costa to vein 5, retracted almost to costa in the form of a figure of 8 with a black spot at lower angle of cell, angled on vein 2 and oblique to inner margin; a curved submarginal yellow band. Hind wing white, with slight yellow marks on inner and outer margins near anal angle.

Hab. Japan; Dharmasála; Kúlú; Poona; Nilgiris; Shán States; Java. *Exp.*, ♂ 18, ♀ 20 millim.

4253. *Patissa erythronalis*, *Hmps.* *P. Z. S.* 1895, p. 911.

Pure white; palpi and fore legs slightly tinged with fulvous.

Fore wing with slightly oblique ferruginous band from upper angle of cell to inner margin; three ferruginous specks below costa towards apex and a marginal series of specks.

Hab. Meean Meer, Punjab; Nilgiris; Ceylon. *Exp.* 14 millim.

4254. *Patissa luteifrons*, n. sp.

♂. Silky white; palpi, frons, and basal joint of antennæ fulvous yellow; antennæ serrated with brown; abdomen and legs tinged with yellow, the latter fuscous above. Fore wing with the costa narrowly fulvous yellow.

Hab. Calcutta (*Atkinson*). *Exp.* 28 millim. Type in B. M.

4255. *Patissa virginea*, *Zell Mon. Chil. & Cramb.* p. 2.

Crambus multivagellus, *Swinh. P. Z. S.* 1886, p. 462; *C. & S.* no. 4698.

Pure white; palpi and legs slightly tinged with fulvous. Fore wing sometimes with black speck at upper angle of cell.

Hab. S. Africa; Mhow; Nilgiris; Ceylon. *Exp.* 22 millim.

4256. *Patissa curvilinealis*, *Hmps. P. Z. S.* 1895, p. 912.

Yellowish white; palpi and antennæ tinged with rufous. Fore wing with the basal two-thirds of costa reddish brown; a curved brown line from costa near apex to near base of inner margin; a marginal brown line. Hind wing white, with faint traces of an oblique medial brown line and a fine marginal line.

Hab. Ceylon (*Pole*). *Exp.*, ♂ 12, ♀ 18 millim.

Genus SCIRPOPHAGA.

Scirpophaga, *Treitschke, Schmett. Eur.* ix, 1, p. 55 (1832).

Apurima, *Wlk. Cat.* xxvii, p. 104 (1863).

Type, *S. praelata*, Scop., from Europe.

Range. Universally distributed.

Palpi porrect, extending from once to twice the length of head, slightly clothed with hair, and with the 3rd joint downcurved; maxillary palpi rather short and dilated with scales; a slight rounded frontal projection; antennæ of male minutely serrated, ciliated; patagia of male with spreading upturned hair; tibiæ with the outer spurs about half the length of inner; abdomen long, in female expanding at extremity and with very large anal tuft; wings long and narrow. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9; 10 and 11 free, or 11 becoming coincident with 12. Hind wing with vein 3 from near angle of cell; 6, 7 from upper angle.

SECT. I. Hind wings with veins 4, 5 well separated at origin.

4257. *Scirpophaga auriflua*, Zell. Mon. Chil. & Cramb. p. 2; C. & S. no. 4655.

Apurima xanthogastrella, Wlk. Cat. xxvii, p. 194; Moore, Lep. Ceyl. iii, pl. 184, fig. 14; C. & S. no. 4654 (part.).

Scirpophaga intacta, Snell. Tijds. v. Ent. 1891, p. 343, pl. xviii, figs. 1-4.

Pure white; the anal tuft orange, sometimes brownish in the female, or in the form *intacta* rosy pink.

Hab. Congo; Shanghai; throughout India, Ceylon, and Burma; Borneo; Java. *Exp.*, ♂ 28-30, ♀ 24-50 millim.

4258. *Scirpophaga monostigma*, Zell. Mon. Chil. & Cramb. p. 3.

♂. Differs from *auriflua* in the fore wing having a black spot at lower angle of cell.

Hab. Campbellpur; Bhután. *Exp.* 22-30 millim.

4259. *Scirpophaga chrysorrhoea*, Zell. Mon. Chil. & Cramb. p. 1.

Tipanæa innotata, Wlk. Cat. xxviii, p. 523.

Differs from *auriflua* in the fore wing being suffused with pale golden yellow.

Hab. China; Mergui; Borneo; Java; Ceram. *Exp.*, ♂ 30, ♀ 30-38 millim.

4260. *Scirpophaga gilviberbis*, Zell. Mon. Chil. & Cramb. p. 2; C. & S. no. 4656.

Scirpophaga fusciflua, Hmps. Ill. Het. ix, p. 167, pl. 172, figs. 29, 30.

Differs from *auriflua* in the outer hairs of the anal tuft being white, the inner brown; underside of fore wing in male suffused with fuscous.

Hab. Calcutta; Nilgiris; Ceylon; Burma. *Exp.*, ♂ 16-18, ♀ 18-24 millim.



Fig. 31.—*Scirpophaga excerptalis*, ♂. †.

4261. *Scirpophaga excerptalis*, Wlk. Cat. xxvii, p. 142; C. & S. no. 4672.

Differs from *gilviberbis* in its larger size.

Hab. China; N.W. Himalayas; Borneo. *Exp.* ♂ 24-30, ♀ 30-38 millim.

4262. *Scirpophaga bisignata*, Swin. *P. Z. S.* 1885, p. 878; *C. & S.* no. 4662.

Brownish ochreous. Fore wing with black spots at lower angle of cell and on middle of vein 1; traces of a speck on vein 1 towards outer angle. Hind wing whitish.

Hab. Karáchi; Poona; Mhow; Calcutta. *Exp.* 16 millim.

SECT. II. Hind wings with veins 4, 5 closely approximated for some distance, or stalked.

4263. *Scirpophaga cramboides*, *Wlk. Cat.* xxxi, p. 230; *C. & S.* no. 4654 (part.).

♂. Yellowish; palpi orange; legs fulvous. Fore wing with the costa orange; underside of fore wing suffused with fuscous.

♀. White, slightly sullied with fuscous; palpi fulvous; underside of fore wing and costa of hind wing suffused with fuscous.

Hab. Simla; Dharmasála. *Exp.*, ♂ 26, ♀ 34-36 millim.

Genus SCHÆNOBIUS.

Schænobius, *Dup. Cat. Léop. Eur.* p. 312 (1844).

Catagela, *Wlk. Cat.* xxvii, p. 191 (1863).

Panalipa, *Moore, Lep. Ceyl.* iii, p. 386 (1886).

Microschænis, *Meyr. Trans. Ent. Soc.* 1887, p. 270.

Type, *S. gigantellus*, Schiff., from Europe.

Range. Universally distributed.

Palpi porrect, roughly scaled, the 2nd joint two to three times, the 3rd about length of head; maxillary palpi dilated with scales; frons with a slight tuft; antennæ of male minutely serrate and ciliated; legs long; tibiæ with the outer spurs about two-thirds length of inner; abdomen long, in female dilated at extremity and with a large anal tuft; wings long and narrow. Fore wing with the apex rounded in male, more produced in female; vein 3 from before angle of cell; 4, 5 from angle; 7 straight and well separated from 8, 9; 10, 11 free, or 11 becoming coincident with 12. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 shortly stalked, 7 anastomosing slightly with 8 or free.

SECT. I. (*Panalipa*). Palpi with the 2nd joint about twice the length of head.

4264. *Schænobius immeritalis*, *Wlk. Cat.* xix, p. 830; *C. & S.* no. 4689.

Araxes decursella, *Wlk. Cat.* xxvii, p. 194.

♂. Bright ochreous yellow; hind wing paler.

♀. Paler ochreous or straw-yellow; the anal tuft fulvous. Hind wing whitish.

Hab. Dharmasála; Calcutta; Ceylon; Siam. *Exp.*, 14-20, ♀ 14-28 millim.

SECT. II. (*Schœnobius*). Palpi with the 2nd joint about three times length of head.

4265. *Schœnobius bipunctifer*, *Wlk. Cat.* xxviii, p. 523; *Moore, Lep. Ceyl.* iii, pl. 184, fig. 13; *C. & S.* no. 4661.

Chilo graciosellus, *Wlk. Cat.* xxx, p. 967.

Schœnobius punctellus, *Zell. Mon. Chil. & Cramb.* p. 4.

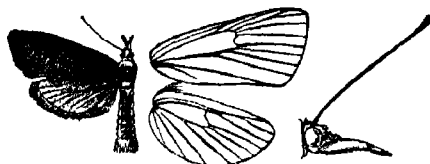


Fig. 32.—*Schœnobius bipunctifer*, ♀. †

♀. Head, thorax, and abdomen yellowish white. Fore wing suffused with orange-yellow; a black spot at lower angle of cell. Hind wing white, often tinged with yellow towards outer margin.

Hab. China; Formosa; throughout India, Ceylon, and Burma; Sumatra; Java; Borneo. *Exp.* 24–36 millim.

4266. *Schœnobius dodatellus*, *Wlk. Cat.* xxx, p. 966; *C. & S.* no. 4671.

Chilo aditellus, *Wlk. Cat.* xxx, p. 967.

♂. Head and thorax ochreous, suffused with coppery red; abdomen ochreous. Fore wing ochreous, thickly streaked with coppery red; the costal area fuscous to near apex; a diffused fuscous streak on median nervure and vein 5, bent up to apex; two black spots on discocellulars; a speck at origin of vein 2, and three specks on vein 1; a marginal series of black specks. Hind wing white.

♀. Usually with the fore wing much less prominently streaked with red.

Hab. Japan; Khâsis; Ceylon; Moulmein; Rangoon. *Exp.*, ♂ 24, ♀ 26–40 millim.

4267. *Schœnobius adjurellus*, *Wlk. Cat.* xxvii, p. 191; *C. & S.* no. 4682.

Schœnobius brunnescens, *Moore, Lep. Atk.* p. 225; *C. & S.* no. 4063.

♂. Head, thorax, and fore wing glossy reddish brown, the last with dark specks below middle and at lower angle of cell; an obliquely curved, minutely dentate dark line from costa just before apex, becoming obsolescent towards middle of inner margin; a marginal series of dark specks; abdomen and hind wing pale, the latter with the apical area brownish.

Hab. Assam; Calcutta; Ceylon. *Exp.* 20–24 millim.

4268. *Schœnobius incertellus* (*incertulas*), *Wlk. Cat.* xxvii, p. 143.

Catagela admotella, *Wlk. Cat.* xxvii, p. 192; *C. & S.* no. 4683.

Schœnobius minutellus, *Zell. Mon. Chil. & Cramb.* p. 6.

♂ Brownish ochreous. Fore wing irrorated with dark scales.

and the veins slightly streaked with fuscous; a black spot at lower angle of cell; an oblique fuscous line from apex to vein 2; a marginal series of black specks. Hind wing ochreous white.

♀. Fuscous brown; the hind wing pale fuscous.

Hab. Nágas; Calcutta; Ceylon; Rangoon; Borneo; Java.
Exp., ♂ 18-22, ♀ 34 millim.

4269. *Schænobius auristrigellus*, *Hmps.* *P. Z. S.* 1895, p. 916.

♂. White; palpi and shoulders golden yellow; abdomen slightly tinged with fuscous and with a dorsal yellow patch on 1st segment. Fore wing with golden-yellow fasciæ in the interspaces; a black spot at lower angle of cell; an oblique yellow line from apex to middle of inner margin. Hind wing pure white.

Hab. Blután. *Exp.* 24 millim.

4270. *Schænobius costalis*, *Moore*, *Iep. Ceyl.* iii, p. 388, pl. 184, fig. 15;
C. & S. no. 4653.

♂. Almost pure shining white; palpi pale rufous; pectus and legs fuscous. Fore wing with the costa black; underside of fore wing suffused with fuscous.

Hab. Ceylon. *Exp.* 28 millim.

Genus CIRRHOCHRISTA.

Cirrhochrista, *Led. Wien. ent. Mon.* 1863, p. 440.

Type, *C. ætherialis*, *Led.*, from Amboina and Ternate.

Range. Japan; Oriental region to N. Australia.

Palpi porrect, thickly clothed with hair, the 3rd joint hidden by hair and downcurved; maxillary palpi long and triangularly scaled at extremity; frons oblique; antennæ ciliated; tibiæ clothed on outer side with rough hair, the outer spurs less than half the length of inner. Fore wing with the apex produced; the outer margin oblique; veins 3, 4, 5 from angle of cell; 7 curved and very closely approximated for a short distance to, or well separated from, 8, 9, to which 10 also is approximated. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 shortly stalked.

SECT I. Palpi projecting about the length of head and with a tuft of porrect hair from 1st joint.

4271. *Cirrhochrista pulchellalis*, *Led. Wien. ent. Mon.* 1863, p. 441, pl. 17, fig. 10.

Cirrhochrista ætherialis, *Hmpsn. Ill. Het.* ix, p. 46 (*nec Led.*).

White; palpi, antennæ, collar, and shoulders fulvous; abdomen with dorsal maculate band, the spots on 1st two segments small, then very large. Fore wing with the costa fulvous; an outwardly oblique dark-edged fulvous antemedial band expanding on inner margin; a dark-edged triangular fulvous patch from

middle of costa extending to lower angle of cell; an oblique fulvous dark-edged band across the apex; a fulvous and dark marginal band with sinuous inner edge and expanding into a large patch at outer angle. Hind wing with dark marginal band and the cilia orange between veins 6 and 2.

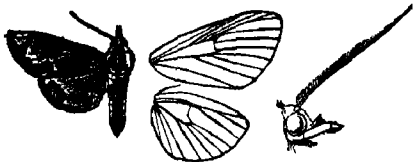


Fig. 33.—*Cirrhochrista pulchellalis*, ♂. †.

Hab. Ceylon; Java; Amboina. *Exp.* 30 millim.

4272. *Cirrhochrista semibrunnea*, *Hmps.* *P. Z. S.* 1895, p. 918.

♀. Head brown with the vertex white; thorax and abdomen brown, the middle of collar, patagia, and sides of basal segment of abdomen white. Fore wing brown, with a large white patch on basal inner area; a large crescentic white mark in cell and much larger similar mark beyond the cell; a quadrate apical white patch; a yellow discocellular line and series of yellow marginal marks below the apical patch. Hind wing white; a large round brown submarginal spot between veins 2 and 3; some yellow on medial part of margin; a brown marginal line; cilia fulvous at base; inner area tinged with fuscous.

Hab. Bhután. *Exp.* 36 millim.

SECT. II. Palpi projecting about twice the length of head and with no tuft from basal joint.

4273. *Cirrhochrista brizoalis*, *Wlk. Cat.* xix, p. 976; *Moore, Lep. Atk.* pl. 7, fig. 10; *C. & S.* no. 4659.

Cirrhochrista figuratalis, *Wlk. Cat.* xxxiv, p. 1369.

Differs from *pulchellalis* in the dorsal maculate band being reduced or altogether absent. Fore wing with triangular spot from costa replacing the antemedial band; the oblique line across apex interrupted and obsolescent; the marginal band not expanding at outer angle. Hind wing with the marginal band narrow and extending nearly to anal angle.

Hab. Japan; China; Formosa; N.W. Himalayas; Bombay; Nilgiris; Borneo; Celebes; Australia. *Exp.* 22–28 millim.

4274. *Cirrhochrista fumipalpis*, *Feld. Reis. Nov.* pl. 135, fig. 31.

Yellowish white; palpi rufous; abdomen with rufous and silvery lateral marks towards extremity. Fore wing with the costa orange and fulvous with a silver line on it; an outwardly-oblique antemedial fulvous and orange line; a triangular fulvous and orange patch with silvery marks on it from costa to lower angle of cell, giving off from its apex a sinuous line to inner margin and oblique

streak to outer margin above outer angle, the two connected by a streak which is also connected with outer angle; an oblique orange and fulvous line across apical area; a marginal orange and fulvous band with a silver line. Hind wing white with slight orange marginal specks.

Hab. Sikkim; Nágas; Burma; Moluccas. *Exp.* 32 millim.

4275. *Cirrhochrsta bracteolalis*, *Hmps. Ill. Het.* viii, p. 135, pl. 155, fig. 3.

Head and thorax white; palpi and abdomen above fuscous. Fore wing white suffused with fuscous brown; a white patch at base not reaching costa; a silvery fascia below base of costa; an incurved silvery antemedial band; a silver spot at upper angle of cell; a postmedial sinuous series of spots; three silvery spots below costa with an orange streak and white patch from them to apex; a marginal series of silver specks. Hind wing white.

Hab. Sikkim; Nilgiris; Ceylon. *Exp.* 30 millim.

Subfamily ANERASTINÆ.

Proboscis absent or minute. Fore wing with vein 1 *a* separate from 1 *b*; 7 absent. Hind wing with the median nervure pectinated above; vein 7 usually anastomosing with 8.

Key to the Genera.

- | | |
|--|----------------------|
| A. Hind wing with two veins arising from median nervure. | |
| a. Palpi upturned * | 1. MENUTHIA, p. 52. |
| b. Palpi porrect | 2. CALERA, p. 52. |
| B. Hind wing with three veins arising from median nervure. | |
| a. Fore wing with three veins arising from median nervure. | |
| a'. Fore wing with vein 10 stalked with 8, 9. | |
| a ² . Fore wing with vein 5 from above angle of cell, 2 from near angle. . . . | 3. AMBALA, p. 53. |
| b ² . Fore wing with vein 5 from angle of cell, 2 from well before angle. . . . | [p. 54.] |
| b'. Fore wing with vein 10 from the cell. . . | 4. HYPSTOTROPHA, |
| | 5. ANERASTIA, p. 55. |
| b. Fore wing with four veins arising from median nervure. | |
| a'. Fore wing with vein 10 stalked with 8, 9. | 6. PATNA, p. 57. |
| b'. Fore wing with vein 10 from the cell. | |
| a ² . Fore wing with veins 4, 5 stalked .. | 7. POJADIA, p. 58. |

* In one specimen vein 4 of the hind wing is given off just before the margin.

- ♂. Fore wing with veins 4, 5 from the cell..... 8. CRITONIA, p. 60.
 C. Hind wing with four veins arising from median nervure 9. POLYOCHA, p. 61.

Genus **MENUTHIA**.

Menuthia, *Rag. Nouv. Gen.* p. 50 (1888).

Type, *M. nanella*, *Rag.*, from Zanzibar.

Range. E. Africa; Ceylon.

Palpi slender, upturned, and reaching above vertex of head; maxillary palpi absent; frons rounded; antennæ of male somewhat thickened; mid and hind tibiæ fringed on outer side with rough hair. Fore wing with vein 2 from near angle of cell; 4 absent, 10 given off from 8, 9. Hind wing with veins 2 and 5 from angle of cell; 3, 4 absent, or 4 rarely given off from 5 just before the margin; 6, 7 stalked; 7 anastomosing with 8.

In the typical section veins 3, 5 of fore wing are stalked.

SECT. II. Fore wing with veins 3, 5 from cell.

4276. *Menuthia fissirella*, n. sp.

♂. Head and thorax whitish irrorated with brown; abdomen pale ochreous at base. Fore wing white irrorated with brown; the veins white; a brown streak below median nervure. Hind wing pure white.

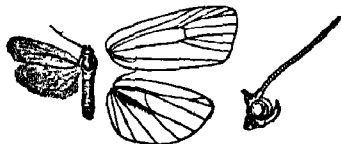


Fig. 34.—*Menuthia fissirella*, ♂. ‡.

In one specimen vein 4 of hind wing is given off just before the margin.

Hab. Hambantota, Ceylon (*Pole*). *Exp.* 14 millim. Type in B.M.

4277. *Menuthia discipunctella*, n. sp.

♂. Ochreous. Fore wing irrorated with fuscous; obliquely placed antemedial black spots on median nervure and inner margin; a prominent black spot at lower angle of cell; an oblique submarginal black line bent outwards to apex; a marginal series of black specks. Hind wing white, the apex tinged with fuscous.

Hab. Ceylon (*Pole*). *Exp.* 12 millim. Type in B. M.

Genus **CALERA**.

Calera, *Rag. Nouv. Gen.* p. 50 (1888).

Type, *C. punctilimbella*, *Rag.*, from N. America.

Range. Nearctic region; S. India.

Palpi porrect, extending about twice the length of head, the 3rd joint downcurved and acute; maxillary palpi filiform; frons with a large conical tuft; antennæ of male somewhat thickened.

Fore wing long and narrow; vein 2 from close to angle of cell; 4 absent; 10 arising from 8, 9. Hind wing with veins 2 and 5 from angle of cell; 3 and 4 absent; 7 anastomosing with 8.

In the typical section veins 3, 5 of fore wing and 6, 7 of hind wing are stalked.

SECT. II. Fore wing with veins 3, 5, hind wing with veins 6, 7 from cell.

4278. *Calera rosella*, n. sp.

Anerastia virginella, *Hampson. Ill. Het.* viii, p. 41 (*nec Meyr.*).

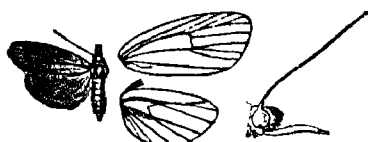


Fig. 35.—*Calera rosella*, ♀. 1.

♀. Head and thorax pale rose-pink; abdomen ochreous white. Fore wing pale rose-pink, the veins streaked with white. Hind wing yellowish white.

Hab. Nilgiris (*Hampson*).
Exp. 24 millim. Type in B. M.

Genus **AMBALA**.

Ambala, *Rag. Nouv. Gen.* p. 45 (1888).

Type, *A. fuscostrigella*, *Rag.*

Range. S. Africa; N.W. India.

Palpi oblique and reaching above vertex of head, the 2nd joint in male hollowed out to receive the brush-like maxillary palpi; antennæ of male with long uniseriate branches, a sinus at base of shaft with a large ridge of scales in it; mid and hind tibiae fringed with hair on outer side. Fore wing with vein 2 from near angle of cell; 3 and 5 well separated at origin; 4 absent; 8, 9, 10 stalked. Hind wing with vein 2 from close to angle of cell; 4 absent; 3 and 5 stalked; 6, 7 from upper angle; 8 free.

4279. *Ambala fuscostrigella*, *Rag. Nouv. Gen.* p. 45; *id. Mon. Phyc.* pl. xxxviii, fig. 10; *C. & S.* no. 4627.

♂. Head and thorax ochreous white; abdomen ochreous.

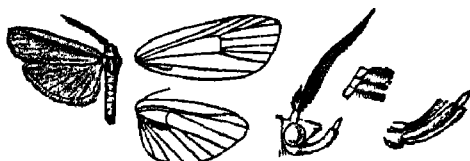


Fig. 36.—*Ambala fuscostrigella*, ♂. 1.

Fore wing yellowish white, with a broad costal white fascia not reaching the apex; the area below it suffused with rufous brown;

a marginal series of dark specks. Hind wing white; the apical part of costa tinged with rufous.

Hab. Punjab. *Exp.* 28 millim.

Genus **HYPSTOTROPHA.**

Hypsotropa, Zell. *Isis*, 1848, p. 591.

Heosphora, Meyr. *P. Linn. Soc. N. S. W.* vii, p. 158 (1882).

Talamba, Rag. *Nouv. Gen.* p. 47 (1888).

Type, *H. limbella*, Zell., from Europe.

Range. Europe; S. Africa; Syria; Amur; India; Australia.

Palpi extending three or four times length of head and fringed with hair above, in male with the second joint hollowed out to receive the brush-like maxillary palpi; antennæ of male with a sinus at base containing a ridge of scales. Fore wing with vein 2 from well before angle of cell; 4 absent; 3 and 5 from angle; 8, 9, 10 stalked. Hind wing with vein 2 from near angle of cell; 4 absent: 3, 5 stalked; 6, 7 from upper angle.

SECT. I. Hind wing with vein 7 anastomosing with 8.

A. (*Hypsotropa*). Palpi obliquely upturned.

a. *Male unknown.*

4280. *Hypsotropa scelotella*, Zell. *Stettin. ent. Zeit.* 1867, p. 404; *Rag. Mon. Phyc.* pl. xlv, fig. 22; C. & S. no. 4630.

♀. Head and thorax pale pink; abdomen ochreous with a fuscous tinge. Fore wing white; the veins strongly defined by pink lines. Hind wing white.

Hab. Calcutta. *Exp.* 30 millim.

b. *Antennæ of male with long uniseriate pectinations on basal third, the medial third ciliated, the distal third with short branches.*

4281. *Hypsotropa heterocerella*, n. sp.

Head and thorax grey and brown; abdomen ochreous, suffused

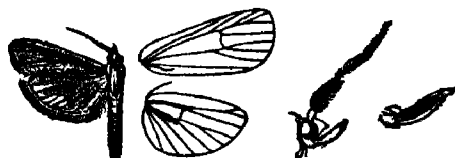


Fig. 37.—*Hypsotropa heterocerella*, ♂. f.

with fuscous towards extremity. Fore wing white, thickly irrorated with brown; the costal fascia rather whiter and defined.

by a reddish-brown subcostal fascia; traces of a marginal series of dark specks. Hind wing white.

Hab. Meean Meer, Punjab (*Harford*). *Exp.* 18 millim. Type in B. M.

B. (*Heosphora*). *Palpi porrect*.

4282. *Hypsotropha laterculella*, *Zell. Stettin. ent. Zeit.* 1867, p. 403; *Rag. Mon. Phyc.* pl. xlv, fig. 21; *C. & S.* no. 4628.

♀. Head and thorax rufous; abdomen whitish tinged with brown. Fore wing yellowish rufous suffused with pink; a white costal fascia irrorated with pink and narrowing to apex; traces of a discocellular dark speck and series of postmedial specks. Hind wing white with a yellowish tinge.

Hab. Calcutta. *Exp.* 26 millim.

SECT. II. (*Talumba*). Hind wing with vein 8 free.

4283. *Hypsotropha tenuinervella*, *Rag. Nouv. Gen.* p. 47; *id. Mon. Phyc.* pl. xl, fig. 25; *C. & S.* no. 4629.

♀. Head and thorax white suffused with very pale pink; abdomen ochreous. Fore wing white irrorated with pink; the veins defined by fine pink lines. Hind wing pinkish white.

Hab. Punjab; Nilgiris. *Exp.* 24-32 millim.

Genus **ANERASTIA**.

Anerastia, *Hüb. Verz.* p. 367 (P 1818).

Comorta, *Rag. Nouv. Gen.* p. 48 (1888).

Type, *A. lotella*, *Hüb.*, from Europe.

Range. Neotropical, Palearctic, Oriental, and Australian regions.

Palpi of female porrect, extending about twice the length of head and thickly scaled; antennæ of male thickened and flattened. Fore wing long and narrow, vein 4 absent, 5 from angle, 10 free. Hind wing with vein 2 from angle of cell, 4 absent, 3 and 5 stalked; 6, 7 stalked; 7 anastomosing with 8.

SECT. I. (*Anerastia*). Palpi of male porrect; maxillary palpi absent; antennæ with neither sinus nor ridge of scales at base.

A. *Frons rounded*.

4284. *Anerastia celsella*, *Wlk. Cat.* xxvii, p. 193; *Rag. Mon. Phyc.* pl. xl, fig. 7; *C. & S.* no. 4634.

♀. Head and thorax ochreous suffused with pink; abdomen ochreous. Fore wing ochreous, the costal area suffused with pink, an antemedial outwardly oblique pink band and inwardly oblique postmedial band; a discocellular speck. Hind wing yellowish white.

Hab. Ceylon. *Exp.* 20 millim.

B. Frons with a long flattened corneous projection more or less buried in scales.

4285. *Anerastia spinifrontella*, *Rag. Nouv. Gen.* p. 48; *id. Mon. Phyc.* pl. xl, fig. 2; *C. & S.* no. 4636.

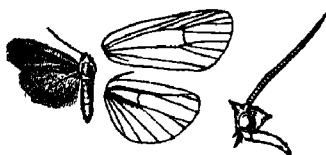


Fig. 38.

Anerastia spinifrontella, ♂. †.

Head whitish, the palpi tinged with brown; throat brown; abdomen ochreous. Fore wing ochreous suffused with reddish brown, especially below the broad costal fascia, which is whitish and narrows to apex. Hind wing white with a slight fuscous tinge.

Hab. Karachi. *Exp.*, ♂ 18–22, ♀ 24 millim.

4286. *Anerastia ablutella*, *Zell. Isis*, 1839, p. 177.

Anerastia stigmatella, *Rag. Nouv. Gen.* p. 49; *id. Mon. Phyc.* pl. xl, fig. 4; *C. & S.* no. 4637.

Ochreous. Fore wing slightly irrorated with fuscous; a dark speck at lower angle of cell. Hind wing white.

The variety *stigmatella* has a reddish tinge and large discocellular spot.

Hab. Mediterranean subregion; Punjab. *Exp.* 13–18 millim.

4287. *Anerastia pulverulella*, n. sp.

♂. Head white and brown; thorax pale brown; abdomen ochreous. Fore wing ochreous, with broad white costal fascia irrorated with fuscous, tapering to apex, its lower edge defined by brown; a prominent dark speck at lower angle of cell; the veins beyond the cell, vein 1, and inner margin white irrorated with fuscous. Hind wing white.

Hab. Puttalam, Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

- *4288. *Anerastia brunneovittella*, *Rag. Nouv. Gen.* p. 49; *id. Mon. Phyc.* pl. xl, fig. 6; *C. & S.* no. 4633.

♀. Pale ochreous grey. Fore wing with the costa narrowly ochreous white, and with a subcostal rufous streak. Hind wing dull semihyaline white.

Hab. Bombay. *Exp.* 18 millim.

- *4289. *Anerastia bimaculella*, *Rag. Nouv. Gen.* p. 49; *id. Mon. Phyc.* pl. xl, fig. 5; *C. & S.* no. 4632.

♂. Ochreous. Fore wing short, widening towards outer margin; the costal area tinged with rufous; the veins irrorated with a few black scales; a prominent black spot at lower angle of cell; a subbasal black speck on vein 1. Hind wing yellowish grey.

Hab. "S. India." *Exp.* 12 millim.

SECT. II. (Comorta). Palpi of male with the 2nd joint hollowed out to receive the brush-like maxillary palpi; antennæ with a sinus at base of shaft containing a ridge of scales.

A. Palpi porrect.

4290. *Anerastia pallidicosta*, n. sp.

♂. Head and thorax rufous; abdomen ochreous. Fore wing suffused with rufous, darkest below the broad pale costal fascia, which does not reach apex. Hind wing yellowish white.

♀ usually much redder, the costal fascia often deeply suffused with red.

Hab. Ichang, China; Punjab; Nágas, Ceylon; Burma. *Exp.* 22 millim. Type in B. M.

B. Palpi upturned.

4291. *Anerastia nigricostalis*, *Wlk. Cat.* xxvii, p. 40.

Comorta atricostella, *Rag. Nouv. Gen.* p. 48; *id. Mon. Phyc.* pl. xxxix, fig. 22.

Head and collar fuscous black; abdomen rufous. Fore wing rufous, with a fuscous black costal fascia; traces of a medial black line, a discocellular spot, and an oblique postmedial line; a marginal series of black specks. Hind wing white, with a slight fuscous tinge and marginal line.

Hab. W. Atrica; Ceylon; Burma; Andamans; Borneo. *Exp.* 18 millim.

Genus **PATNA.**

Patna, *Rag. Nouv. Gen.* p. 39 (1888).

Type, *P. eboricostella*, *Rag.*

Range. Sikkim; Bhután.

Palpi porrect, extending about twice the length of head, the 2nd joint fringed with hair above at extremity; maxillary palpi filiform; frons rounded; antennæ of female minutely ciliated. Fore wing with the costa nearly straight; the apex rectangular; veins 3, 4, 5 from angle of cell, 4, 5 being approximated for some distance; 8, 9, 10 stalked. Hind wing with vein 2 from before angle of cell; 4 absent; 3 and 5 approximated for a short distance; 6, 7 from upper angle; 7 anastomosing with 8.

4292. *Patna eboricostella*, *Rag. Nouv. Gen.* p. 39; *id. Mon. Phyc.* pl. xxxviii, fig. 1; *C. & S.* no. 4620.

♀. Pinkish irrorated with black. Fore wing ochreous suffused with pink; pink streaks on the veins below costa; two black streaks in cell and an oblique black apical fascia; ill-defined black streaks between the veins beyond lower angle of cell; a

streak in interno-median interspace; a short streak above middle of vein 1, followed by a white streak on the vein; traces of a submarginal minutely-waved line, very oblique from vein 2 to inner margin. Hind wing fuscous brown; the cilia grey.

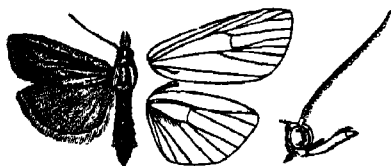


Fig. 39.—*Patna eboricostella*, ♀. 1.

Hab. Sikkim; Bhután.
Exp. 30–32 millim.

Genus **POUJADIA**.

Poujadia, *Rag. Nouv. Gen.* p. 42 (1888).

Baroda, *Rag. Nouv. Gen.* p. 42.

Type, *P. sepicostella*, *Rag.*

Range. India, Ceylon and Burma; Borneo.

Palpi about one and a half times length of head, in male with the 2nd joint hollowed out to receive the brush-like maxillary palpi; frons with a tuft of scales; antennæ of male with a sinus at base of shaft containing a ridge of scales; mid and hind tibiæ fringed with hair. Fore wing with vein 3 from close to angle of cell; 4, 5 stalked; 10 free. Hind wing with vein 2 usually from well before angle of cell; 4 absent; 3, 5 stalked; 6, 7 from upper angle; 8 free.

SECT. I. (*Poujadia*). Palpi oblique.

A. Antennæ of male serrate throughout.

4293. *Poujadia sepicostella*, *Rag. Nouv. Gen.* p. 42; *id. Mon. Phyc.* pl. xxxvi, fig. 25; *C. & S.* no. 4623.

Head and thorax black-brown; abdomen paler. Fore wing brown; a broad white costal fascia slightly irrorated with pink and narrowing to base and apex; the area below it very dark; traces of an oblique postmedial line. Hind wing pale fuscous.

Hab. N.W. Himalayas; Punjab. *Exp.* 26 millim.

4294. *Poujadia inficita*, *Wlk. Cat.* xxvii, p. 30; *Rag. Mon. Phyc.* pl. xlii, fig. 18; *C. & S.* no. 4635.

Differs from *sepicostella* in the vertex of head and abdomen being ochreous. Fore wing with a narrow costal fascia. Hind wing yellowish white with a slight fuscous tinge. Some specimens have the fore wing paler; the costal fascia somewhat diffused at middle; a dark discocellular spot and curved dark submarginal line.

Hab. Allahabad; Mhow; Ceylon. *Exp.* 20 millim.

4295. *Poujadia ochridorsella*, *Rag. Nouv. Gen.* p. 42; *id. Mon. Phyc.* pl. xxxvii, fig. 1; *C. & S.* no. 4622.

♀. Yellowish white; abdomen bright ochreous at base. Fore

wing with whitish costal fascia not reaching the apex; an ill-defined diffused brown subcostal fascia.

Hab. Dharmasala; Ceylon. *Exp.* 22-26 millim.

4296. *Poujadia rosella*, n. sp.

♂. Head and thorax pink; abdomen ochreous. Fore wing bright pink; a white costal fascia narrowing to base and apex and slightly irrorated with pink, the area below it suffused with chestnut. Hind wing white, with slight fuscous tinge at apex.

Hab. Nilgiris (*Hampson*). *Exp.* 20 millim. Type in B. M.

4297. *Poujadia spurcella*, *Rag. Nouv. Gen.* p. 42; *id. Mon. Phyc.* pl. xxxvii, fig. 4; *C. & S.* no. 4624.

♂. Red-brown; abdomen ochreous. Fore wing very narrow, with the medial part of costa whitish; a dark discocellular spot. Hind wing yellowish white.

Hab. Allahabad; Shán States; Labuan. *Exp.* 20 millim.

B. *Antennae of male with the distal third pectinated with uniseriate branches. Hind wing with vein 2 from near angle of cell.*

4298. *Poujadia parviplumella*, n. sp.

♂. Head and thorax pale red-brown; abdomen whitish, ochreous towards base. Fore wing ochreous suffused with pale rufous and irrorated with black; a pale costal fascia defined by fuscous on its lower edge; an outwardly oblique antemedial black band on inner area; a discocellular speck; an inwardly oblique post-

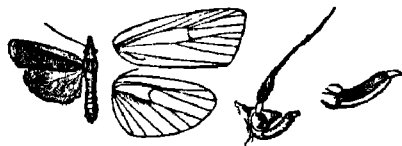


Fig. 40.—*Poujadia parviplumella*, ♂. †.

medial band from the costal fascia to inner margin. Hind wing white.

Hab. Meean Meer, Punjab (*Harford*). *Exp.* 22 millim. Type in B. M.

C. *Antennae of male with long uniseriate branches.*

*4299. *Poujadia erodella*, *Rag. Nouv. Gen.* p. 42; *id. Mon. Phyc.* pl. xxxvii, fig. 5; *C. & S.* no. 4621.

♂. Reddish ochreous. Fore wing narrow, irrorated irregularly with black except on costa; a subcostal dark streak and traces of ante- and postmedial dark lines; a marginal series of specks. Hind wing pale yellowish.

Hab. "S. India." *Exp.* 20 millim.

SECT. II. (*Baroda*). Palpi porrect; antennæ of male with long uniseriate branches.

4300. *Poujadia opificella*, *Zell. Stettin. ent. Zeit.* 1867, p. 406; *Rag. Mon. Phyc.* pl. xlv, fig. 16; *C. & S.* no. 4625.

♀. Head, thorax, and fore wing uniform ochreous tinged with pink, the last very narrow and sometimes with traces of ante- and postmedial lines on inner area; abdomen ochreous. Hind wing pure white.

Hab. Calcutta; Burma. *Exp.* 24 millim.

4301. *Poujadia paucigraphella*, *Rag. Nouv. Gen.* p. 42; *id. Mon. Phyc.* pl. xxxviii, fig. 5; *C. & S.* no. 4626.

Head, thorax, and fore wing ochreous with a slight pinkish tinge; abdomen ochreous. Fore wing with slight fuscous irroration; traces of ante- and postmedial dark lines; a dark discocellular speck. Hind wing whiter, with a yellowish tinge.

Hab. Sind; Bombay; Calcutta. *Exp.* 18-26 millim.

4302. *Poujadia pulverosa*, n. sp.

♀. Grey tinged with ochreous and irrorated with fuscous. Fore wing with white streaks on median nervure and vein 1; a curved antemedial series of dark marks on the veins and oblique postmedial series. Hind wing white.

Hab. Sind (*Swinhoe*). *Exp.* 24 millim. Type in B. M.

Genus CRITONIA.

Critonia, *Rag. MS.*

Type, *C. subconcinella*, *Rag.*

Range. India, Ceylon, and Burma.

Palpi porrect, extending about twice the length of head and downcurved at extremity; maxillary palpi filiform; frons with a tuft of scales; antennæ of male with short uniseriate branches, a sinus at base of shaft containing a ridge of scales. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 10 free. Hind wing with vein 2 from before angle of cell; 4 absent; 3, 5 from angle; 6, 7 from upper angle; 8 free.

4303. *Critonia sarcoglaucha*, n. sp.

♀. Head and thorax pale and dark grey; abdomen grey with an ochreous tinge. Fore wing pale grey irrorated with dark grey, the base dark grey; an oblique antemedial dark grey band with waved line on its outer edge; a prominent discocellular spot; a minutely waved white postmedial line defined by dark grey on either side and slightly bent outwards between veins 6 and 2; a marginal series of dark specks. Hind wing pale fuscous; the cilia white.

The dark grey areas of fore wing are often suffused with flesh-pink.

Hab. Ceylon (*Green, Pole*). *Exp.* 22–28 millim. Type in B. M.

4304. *Critonia purpureotincta*, n. sp.

♀. Brownish flesh-colour. Fore wing with the costal and inner areas broadly suffused with pale purple and irrorated with black, the dark inner area not reaching the outer angle; dark specks on veins 2 and 3 beyond lower angle of cell; a marginal series of dark specks. Hind wing pale ochreous; the cilia grey.

Hab. Bhután (*Dudgeon*). *Exp.* 38 millim. Type in B. M.

4305. *Critonia roseistrigella*, n. sp.

♂. Head and thorax rose-pink; abdomen whitish with slight ochreous tinge. Fore wing rose-pink, the veins with dark streaks; a white costal fascia narrowing to base and apex, and suffused with pink on costa, the area below it slightly suffused with fuscous. Hind wing whitish; the margin and apical area tinged with fuscous.



Fig. 41.—*Critonia roseistrigella*, ♂. 1.

Hab. Nilgiris (*Hampson*). *Exp.* 22 millim. Type in B. M.

4306. *Critonia subconcinella*, *Rag. MS.*

♀. Head, thorax, and fore wing bright pink; abdomen ochreous white. Fore wing with white costal fascia narrowing to base and apex, the area below it suffused with fuscous; a whitish spot in end of cell conjoined to the costal fascia; traces of waved ante- and postmedial lines. Hind wing nearly pure white.

Hab. Shán States. *Exp.* 18 millim. Type in B. M.

Genus **POLYOCHA.**

Polyocha, *Zell. Isis*, 1848, p. 876.

Emmalocera, *Rag. Nouv. Gen.* p. 38 (1888).

Lodiana, *Rag. Nouv. Gen.* p. 38.

Type, *P. sanguarinella*, *Zell.*, from Europe.

Range. Abyssinia; Palæarctic and Oriental regions to Flores.

Palpi long, the 2nd joint hollowed out to receive the brush-like maxillary palpi; frons with a tuft of scales; antennæ with a large tuft of scales in a sinus at base of shaft; mid and hind tibiae fringed with hair on outer side. Fore wing with the apex rounded; vein 3 from before angle of cell; 4, 5 from angle or stalked; 8, 9 stalked. Hind wing with vein 3 usually from angle; 4, 5 stalked; 6, 7 from upper angle.

SECT. I. Antennæ of male serrate. Fore wing with vein 10 from cell.

A. (Emmalocera). *Palpi obliquely upturned; hind wing with vein 8 free.*

4307. *Polyocha leucocincta*, *Wlk. Cat.* xxvii, p. 169.

Emmalocera lucidicostella, *Rag. Nouv. Gen.* p. 38; *id. Mon. Phyc.* pl. xxxv, fig. 20; *C. & S.* no. 4612.

♂. Head and thorax rufous and pink; abdomen ochreous. Fore wing with white costal fascia narrowing to apex; the costa pinkish; the area below it yellowish rufous, with a dark subcostal streak; the inner area pale. Hind wing whitish; the apical part of costa slightly tinged with fuscous.

♀ with the base of abdomen ochreous.

Hab. N.W. Himalayas; Punjab; Assam; Borneo. *Exp.* 28 millim.

4308. *Polyocha umbricostella*, *Rag. Nouv. Gen.* p. 38; *id. Mon.*

Phyc. pl. xxxvi, fig. 10; *C. & S.* no. 4613.

♂. Differs from *leucocincta* in the fore wing having the area below the costal fascia pinker; the veins and interspaces of outer area streaked with fuscous.

Hab. N.W. Himalayas; Flores. *Exp.* 28 millim.

B. (*Polyocha*). *Palpi porrect; hind wing with vein 7 anastomosing with 8.*

4309. *Polyocha aurifusella*, *Wlk. Cat.* xxxv, p. 1756; *Rag. Mon.*

Phyc. pl. xxxvi, fig. 18; *C. & S.* no. 4615.

Golden yellow; the head and shoulders tinged with crimson; abdomen pale. Fore wing with a crimson spot at base; a crimson and fuscous costal fascia from before base to apex; a crimson fascia on inner margin; three antemedial crimson and fuscous spots, one at end of cell, and a postmedial series bent inwards below costa; the cilia pink. Hind wing yellowish white.

Hab. N.W. Himalayas; Punjab; Bombay. *Exp.* 26-32 millim.

4310. *Polyocha umbrivittella*, *Rag. Nouv. Gen.* p. 38; *id. Mon.*

Phyc. pl. xxxv, fig. 19; *C. & S.* no. 4614.

Grey suffused with fuscous and pink. Fore wing with an ill-defined dark fascia below the cell; a discocellular spot; the veins with dark streaks. Hind wing pale yellowish fuscous.

Hab. Punjab. *Exp.* 25 millim.

4311. *Polyocha cinerella*, n. sp.

♀. Brownish grey. Fore wing with the base rather browner; a broad brownish medial band with wavy line on its outer edge; a discocellular spot; a wavy postmedial brownish line with diffused

brown beyond it; a marginal series of specks. Hind wing rather paler.

Hab. Simla (*Harford*). *Exp.* 32 millim. Type in B. M.

4312. *Polyocha depressella*, *Swinh.* *P. Z. S.* 1885, p. 876, pl. 57. fig. 5; *C. & S.* no. 4733.

Polyocha variegatella, *Rag. Nouv. Gen.* p. 39; *id. Mon. Phyc.* pl. xxxvi, fig. 16; *C. & S.* no. 4618.

♀. Head pale pink; thorax brown; abdomen ochreous. Fore wing pink, with a white costal fascia slightly suffused with pink and narrowing to base and apex; the area below the costal fascia broadly suffused with brown; the veins of outer area streaked with brown. Hind wing white with a slight yellow tinge.

Hab. Dharmasala; Poona; Nilgiris; Pulo Laut. *Exp.* 22-36 millim.

*4313. *Polyocha detritella*, *Rag. Nouv. Gen.* p. 39; *id. Mon. Phyc.* pl. xxxvi, fig. 14; *C. & S.* no. 4617.

♂. Yellowish white. Fore wing with a subcostal brownish streak. Hind wing white.

Hab. Dharmasala. *Exp.* 23 millim.

*4314. *Polyocha carnatella*, *Rag. Nouv. Gen.* p. 39; *id. Mon. Phyc.* pl. xxxv, fig. 25; *C. & S.* no. 4616.

♀. Yellowish pink. Fore wing with the costa narrowly edged with white. Hind wing yellowish white, with pinkish marginal line.

Hab. Lahore. *Exp.* 24 millim.

SECT. II. Antennæ of male with uniseriate branches; fore wing with vein 4 stalked with 5, and 10 with 8, 9; hind wing with vein 3 stalked with 4, 5.

4315. *Polyocha leucania*, *Feld. Reis. Nov.* pl. 137, fig. 13; *C. & S.* no. 4684.

Polyocha vesiculella, *Rag. Nouv. Gen.* p. 39; *C. & S.* no. 4619.

Head and thorax pink; abdomen ochreous. Fore wing grey suffused with pink; the interspaces streaked with pink; the veins white defined by pink and usually also by fuscous. Hind wing pale fuscous.

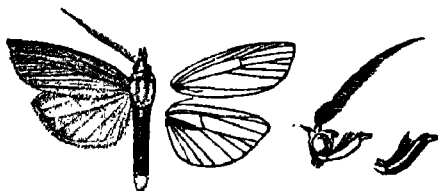


Fig. 42.—*Polyocha leucania*, ♂. †.

The Sikhim male has the branches of antennæ shorter than in the Southern form.

Hab. Dharmasala; Sikhim; Nilgiris; Ceylon; Burma. *Exp.* 22-40 millim.

Subfamily PHYCITINÆ.

Proboscis well developed. Fore wing with vein 1 α separate from vein 1 β ; 7 absent. Hind wing with the median nervure pectinated on upperside; vein 7 usually anastomosing with 8; frenulum simple in female as in male.

Key to the Genera.

- | | |
|--|------------------------|
| A. Hind wing with two veins arising from median nervure | 1. MIMISTIS, p. 65. |
| B. Hind wing with three veins arising from median nervure. | |
| a. Fore wing with vein 9 absent. | |
| a'. Fore wing with vein 4 absent; 3 and 5 from cell | 2. EPHESTIA, p. 66. |
| b'. Fore wing with veins 4, 5 stalked | 3. HOMÆOSOMA, p. 66. |
| b. Fore wing with veins 8, 9 stalked. | |
| a'. Hind wing with vein 2 from or from close to angle of cell. | [p. 68. |
| a ² . Palpi upturned | 4. HETEROGRAPHIS, |
| b ² . Palpi oblique or porrect, the 3rd joint downcurved | 5. ANCYLOSIS, p. 71. |
| b'. Hind wing with vein 2 from well before angle of cell | 6. EUZOPHERA, p. 72. |
| C. Hind wing with four veins arising from median nervure. | |
| a. Palpi with the 2nd and 3rd joints upturned. | |
| a'. Hind wing with vein 5 stalked with 4. | |
| a ² . Hind wing with vein 3 approximated to or stalked with 4, 5. | |
| a ³ . Fore wing with veins 3, 4, 5 stalked | 7. ENDOLASIA, p. 74. |
| b ³ . Fore wing with veins 4, 5 stalked, 3 from cell. | |
| a ⁴ . Fore wing with vein 10 stalked with 8, 9 | 8. SANDRABATIS, p. 75. |
| b ⁴ . Fore wing with vein 10 from the cell | 9. MICROTHRIX, p. 76. |
| c ³ . Fore wing with veins 4, 5 from a point and approximated for some distance | [p. 76. |
| d ³ . Fore wing with veins 4, 5 well separated at origin | 10. NEPHOPTERYX, |
| b ² . Hind wing with vein 3 diverging from angle of cell. | 11. EPICROCIS, p. 85. |
| a ³ . Fore wing with veins 4, 5 stalked. | |
| a ⁴ . Hind wing with the cell about one third length of wing | [p. 87. |
| b ⁴ . Hind wing with the cell about half the length of wing | 12. HYPARGYRIA, |
| b ³ . Fore wing with veins 4, 5 approximated for a short distance. | 13. MYELOIS, p. 86. |
| a ⁴ . Hind wing with the cell about half the length of wing | 14. HYPISYLA, p. 89. |

- b⁴. Hind wing with the cell about one-third length of wing 16. PHYCITA, p. 90.
 c³. Fore wing with veins 4, 5 well separated towards origin 16. RHODOPHLEA, p. 98.
 d¹. Hind wing with vein 5 from angle of cell.
 a². Hind wing with the cell about one-fifth length of wing [p. 101.
 17. SPATULIPALPIA,
 b². Hind wing with the cell about half the length of wing.
 a². Fore wing with a ridge of raised scales before the antemedial line. 18. CEROPREPES, p. 103.
 b². Fore wing with no ridge of scales before the antemedial line.
 a⁴. Fore wing with veins 4, 5 approximated for a short distance or scaled; hind wing with veins 4, 5 well separated. [p. 104.
 19. CRYPTOBLADES,
 b⁴. Fore wing with veins 4, 5 well separated; hind wing with veins 4, 5 approximated for a short distance 20. THIALLELA, p. 106.
 b. Palpi with the 3rd joint porrect 21. TEPHROS, p. 106.
 c. Palpi porrect 22. ETIELLA, p. 108.

Genus **MIMISTIS**, nov.

Type, *M. actiosoides*, Hmps. n.

Range. Ceylon.

Palpi upturned, long, and reaching well above vertex of head: maxillary palpi filiform; antennae ciliated. Fore wing with vein 2 absent; 3 from angle of cell; 4, 5 on a long stalk; 8, 9, 10 stalked. Hind wing with the cell quite open; veins 3 and 4 stalked, 2 and 5 absent; 6, 7 long, 7 anastomosing with 8.

4316. *Mimistis actiosoides*, n. sp.

Head and thorax fuscous black; palpi banded with grey; legs banded grey and black; abdomen fuscous and grey. Fore wing black-brown, with a pink irrorated white triangular patch on costa before middle extending down to vein 1; a similar large postmedial patch embracing the two prominent discocellular black spots and not extending below median nervure; a minutely dentate submarginal dark line defined by grey; a marginal series of black specks, and grey patch below apex. Hind wing pale tinged with fuscous.

Hab. Putlam, Ceylon (*Pole*). *Exp.* 16 millim. Type in B. M.



Fig. 43.—*Mimistis actiosoides*, ♀. †

Genus **EPHESTIA**.

Ephestia, *Guen. Eur. Microlep. Ind. Meth.* p. 81 (1845).

Cadra, *Wlk. Cat.* xxx, p. 961 (1864).

Type, *E. elutella*, Hübner, from Europe.

Range. Universally distributed.

Palpi upturned and reaching just above vertex of head, the 3rd joint well developed; maxillary palpi filiform; antennæ of male somewhat thickened. Fore wing long and narrow; vein 4 absent; 3 and 5 from angle; 9 absent; 10 free; male with a fold at base of costa on underside containing a fringe of long hair. Hind wing with vein 2 from well before angle of cell; 3, 4 from angle; the discocellulars oblique; 6, 7 stalked, 7 anastomosing strongly with 8.

SECT. I. Antennæ of male with the shaft not excised towards base.

4317. *Ephestia cautella*, *Wlk. Cat.* xxvii, p. 73; *C. & S.* no. 4586.

Cadra defectella, *Wlk. Cat.* xxx, p. 962; *C. & S.* no. 4646.

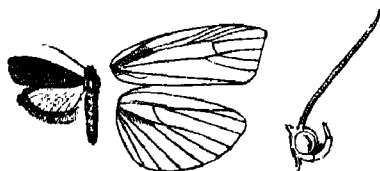


Fig. 44.—*Ephestia cautella*, ♂. $\frac{1}{2}$.

Fuscous grey-brown. Fore wing with indistinct erect antemedial brown band; traces of a minutely dentate submarginal line slightly bent outwards at vein 5. Hind wing semihyaline whitish; the veins and margins tinged with fuscous.

Hab. Aden; Bhután; Ceylon; Sumbawa. *Exp.*, ♂ 14–16, ♀ 18 millim.

SECT. II. Antennæ of male with the shaft excised towards base.

4318. *Ephestia rubrimediella*, n. sp.

Head and thorax brown irrorated with grey; abdomen fuscous. Fore wing brown thickly irrorated with grey; a large medial red-brown patch or diffused band; two discocellular specks; an ill-defined irregularly dentate postmedial brown line with traces of another line beyond it; an indistinct marginal series of brown specks. Hind wing pale semihyaline brown, with brown marginal line; the cilia grey.

Hab. Khási and Nāga Hills (*Doherty*). *Exp.* 26 millim. Type in coll. Elwes.

Genus **HOMCEOSOMA**.

Homceosoma, *Curt. Ent. Mag.* i, p. 190 (1893).

Type, *H. sinuella*, Fabr., from Europe.

Range. Universally distributed.

Palpi upturned and reaching vertex of head, the 3rd joint well-developed and acuminate; maxillary palpi filiform; antennæ of

male somewhat thickened. Fore wing long and narrow; vein 3 from angle of cell; 4, 5 stalked; 9 absent; 10 free. Hind wing with the cell short; vein 2 from well before angle; 4 absent; 3 and 5 from angle; the discocellulars erect; 6, 7 shortly stalked, 7 anastomosing strongly with 8.

4319. *Homæosoma ephestidiella*, n. sp.

Grey. Fore wing with indistinct dark antemedial line strongly angled on median nervure; a dark discocellular mark; a pale submarginal line slightly bent outwards at vein 5; two dark specks near middle of outer margin. Hind wing semihyaline white; the veins and margins slightly tinged with brown.

Hab. Nilgris (*Hampson*); Sumbawa (*Doherty*). *Exp.* 18 millim. Type in B. M.

4320. *Homæosoma albovittella*. *Rag. Nouv. Gen.* p. 35; *id. Mon. Phyc.* (Rom. *Mém.* viii) pl. xxxiv. fig. 2; *C. & S.* no. 4606.



Fig. 45.
Homæosoma albovittella, ♂. †.

♂. Head and thorax rufous; antennæ with the shaft whitish. Fore wing rufous, with a broad white costal fascia, slightly irrorated with rufous and widening to apex. Hind wing pale brownish ochreous.

Hab. Allahabad. *Exp.* 20 millim.

4321. *Homæosoma griseipennella*, n. sp.

♀. Head and thorax grey, the vertex of head white; abdomen whitish. Fore wing grey and white; a dark spot at base of costa; a fuscous antemedial band inwardly defined by white and angled on median nervure; traces of two dark discocellular specks; an oblique sinuous fuscous postmedial band outwardly defined by white. Hind wing whitish, with slight marginal fuscous line.

Hab. Murree (*Harford*). *Exp.* 32 millim. Type in B. M.

4322. *Homæosoma punctistrigella*, *Rag. Nouv. Gen.* p. 33; *id. Mon. Phyc.* pl. xxxiii, fig. 3; *C. & S.* no. 4610.

♂. Pale yellow. Fore wing narrow; the apex acute; the antemedial line represented by three obliquely placed dark specks on the veins; two prominent discocellular specks; an oblique dark postmedial line; the veins of outer area irrorated with fuscous.

Hab. Punjab. *Exp.* 20 millim.

4323. *Homæosoma bipunctella*, n. sp.

♂. Head and thorax grey-brown; the palpi dark; abdomen ochreous. Fore wing pale reddish brown; the costal half suffused with white, narrowing to apex; traces of a curved ante-

medial line; two black discocellular specks; two indistinct oblique submarginal lines; a marginal series of black specks. Hind wing white; the apical area tinged with brown; a marginal brown line.

Hab. Ceylon (*Green*). *Exp.* 18 millim. Type in B. M.

4324. *Homœosoma fuscifusella*, n. sp.

♀. Brown. Fore wing thickly irrorated with dark brown; a darker streak below median nervure; two brown discocellular specks and a marginal series. Hind wing pale brownish; the cilia white.

Hab. Ceylon (*Green*). *Exp.* 24 millim. Type in B. M.

4325. *Homœosoma goliathella*, *Rag. Nouv. Gen.* p. 35; *id. Mon. Phyc.* pl. xxxii, fig. 22; *C. & S.* no. 4609.

♀. Olive-brown irrorated with dark brown. Fore wing with the costal area pale; some dark suffusion below base of median nervure; an ill-defined antemedial dark line strongly angled below the cell; two black discocellular spots, the lower large; an indistinct postmedial dark line angled beyond the cell, then oblique; a marginal series of black specks. Hind wing paler, with marginal brown line.

Hab. Calcutta. *Exp.* 40 millim.

Genus **HETEROGRAPHIS.**

Heterographis, *Rag. Ent. Mo. Mag.* xxii, p. 31 (1885).

Anonapestis, *Rag. Indian Museum Notes*, iii, p. 106 (1894).

Type, *H. oblitella*, Zell., from Europe.

Range. Nearctic and Palearctic regions; India: Ceylon.

Palpi upturned, the 3rd joint well-developed and acuminate. Fore wing long and narrow; veins 2, 3 from close to angle of cell; 8, 9 stalked. Hind wing with vein 2 from angle of cell; 3 and 5 stalked; 6, 7 from upper angle, 7 anastomosing with 8.

SECT. I. Maxillary palpi triangularly scaled and flattened against the frons; antennæ of male somewhat thickened.

A. Fore wing with veins 4, 5 from cell; 10 present.

4326. *Heterographis singhalella*, *Rag. Ann. Soc. Ent. Fr.* 1888, p. 283; *id. Mon. Phyc.* pl. xxx, fig. 24; *C. & S.* no. 4603.

♂. Head and thorax ochreous tinged with rufous; abdomen pale. Fore wing ochreous, tinged with rufous and irrorated with black; the basal area suffused with red; a subbasal black spot below costa; an antemedial slightly oblique pale line with black specks on its edges, and slightly dentate on vein 1; a white discocellular spot and black speck at lower angle of cell; a pale submarginal line slightly bent outwards at vein 5; a black mark at apex and marginal series of black specks. Hind wing semihyaline, white, the marginal area brownish.

Hab. Ceylon. *Exp.* 14–16 millim.

4327. *Heterographis pygmaella*, n. sp.

Head white; thorax white and rufous; abdomen grey. Fore wing pale brown, with a broad white costal fascia, narrowing at middle of cell, where there is a black spot; a large pink patch on inner area before middle, followed by a V-shaped white mark on vein 1; a sinuous white submarginal line with diffused fuscous inside it. Hind wing semihyaline white, the apical area, a marginal line, and a line through the cilia brownish.

Hab. Ceylon (*Pole*). *Exp.* 12 millim. Type in B. M.

4328. *Heterographis mysorella*, *Rag. Nour. Gen.* p. 29; *id. Mon. Phyc.* pl. xxviii, fig. 22; *C. & S.* no. 4002.

Brownish ochreous. Fore wing with a white costal fascia expanding at middle and not reaching the apex; the antemedial line represented by a spot on vein 1; the postmedial line fine and very indistinct; two discocellular dark spots and a marginal series. Hind wing yellowish grey.

Hab. S. India. *Exp.* 15 millim.

4329. *Heterographis verrucicola*, n. sp.

Dark red-brown suffused with fuscous. Fore wing with white costal fascia from near base to near apex; a very indistinct irregular antemedial dark line oblique towards costa; a black speck at upper angle of cell; an indistinct minutely dentate submarginal dark line; a marginal series of black specks. Hind wing hyaline white; the veins, a marginal line, and a line through the cilia brown.

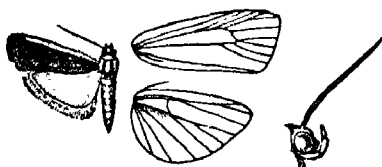


Fig. 46.—*Heterographis verrucicola*, ♂. $\frac{2}{3}$.

Larva. Uniform dark purplish brown; a few fine colourless bristles scattered over the body; a well-marked lateral fold; each segment with one or more deep transverse furrows. Inhabits wart-like excrescences in the stem and branches of *Trema orientalis*, forming galleries in the diseased wood, and pupating in slight whitish cocoons. It is uncertain if the larvæ are the primary cause of the excrescences, but the galleries, after being deserted by the moths, usually contain colonies of the mealy bug *Dactylopius adonidum*, and these in their turn attract a species of ant which builds a covering over them, the foundation of large nests which gradually increase in size and obstruct the growth of the tree (*Green*).

Hab. Nāga Hills (*Doherty*); Pundaloya, Ceylon (*Green*). *Exp.* 14–18 millim. Type in B. M.

4330. *Heterographis rubripictella*, n. sp.

♀. Head white; thorax brownish ochreous; abdomen white, with an ochreous tinge on dorsum. Fore wing brownish ochreous,

with a white costal fascia widening on disk and not reaching the apex; diffused pink fasciæ along median nervure and vein 1; an outwardly oblique antemedial white line, a discocellular spot, and inwardly oblique postmedial line; the margin pink; cilia white. Hind wing pale tinged with fuscous.

Hab. Meean Meer, Punjab (*Harford*). *Exp.* 14 millim. Type in B. M.

4331. *Heterographis suboblitella*, *Rag. Nouv. Gen.* p. 29; *id. Mon. Phyc.* pl. xxx, fig. 11; *C. & S.* no. 4604.

♂. Grey. Fore wing suffused with ochreous below cell and on outer area; ante- and postmedial whitish lines bordered by black at middle, the former interrupted and preceded by a broad ochreous band becoming blackish on inner area, the latter very sinuous and excurved at middle; a dark spot at lower angle of cell. Hind wing semihyaline yellowish grey.

Hab. S. India. *Exp.* 17 millim.

B. Fore wing with veins 4, 5 stalked.

a. Fore wing with vein 10 present.

4332. *Heterographis micralis*, n. sp.

♂. Head and collar black; thorax, abdomen, and fore wing brownish grey irrorated with black, the last with the costa black; two black discocellular specks, and one below angle of cell on vein 1; the outer area black, narrowing to apex and crossed by a pale submarginal line. Hind wing pale.

Hab. Hambantota, Ceylon (*Pole*). *Exp.* 10 millim. Type in B. M.

b. (*Anonæpestis*). Fore wing with vein 10 absent.

4333. *Heterographis resticula*, n. sp.

Fuscous black; abdomen paler fuscous. Fore wing with the basal area blacker, bounded by an oblique ochreous antemedial line, slightly angled on median nervure; a sinuous ochreous submarginal line bent outwards at vein 5; a slight pale marginal line. Hind wing pale fuscous.

Hab. Calcutta; Ceylon. *Exp.* 12 millim. Type in B. M.

4334. *Heterographis bengalella*, *Rag. Indian Museum Notes*, iii, p. 107; *Mon. Phyc. (Rom. Mém. viii)* pl. xlii, fig. 20.

Head and collar olive-green; thorax purplish; abdomen ochreous, the basal segment whitish; the 2nd fuscous. Fore wing with the costal half olive-green and white, the inner half vinous red; an indistinct sinuous white medial line and dentate white submarginal line; a marginal series of dark specks. Hind wing semihyaline; the veins, a marginal line, and a line through the cilia brown.

The larva bores in the fruit of the Custard Apple.

Hab. Bhután; Calcutta. *Exp.* 24 millim.

SECT. II. Palpi of male with the 2nd joint hollowed out to contain the brush-like maxillary palpi; frons with a rounded prominence; antennæ ciliated.

4335. *Heterographis unipunctella*, Hampson. P. Z. S. 1896, p. 270.

Head and thorax grey and fuscous; abdomen with a rufous tinge. Fore wing grey, thickly irrorated with fuscous; an indistinct dark antemedial line, angled inwards in cell, then becoming white with a fulvous patch on its inner side, becoming fuscous at inner margin; a black speck at lower angle of cell; a sinuous dark submarginal line outwardly defined by white, beyond which is a fuscous patch at apex and a fulvous patch from vein 6 to inner margin. Hind wing semihyaline white; the veins, marginal area, and a line through the cilia brown.

Hab. Aden; Meean Meer, Punjab. *Exp.* 18 millim.

Genus **ANCYLOSIS.**

Ancylosis, Zell. *Isis*, 1839, p. 178.

Type, *A. cinnamomella*, Dup., from Europe.

Range. Palearctic region; S. Africa; India; Ceylon.

Palpi obliquely upturned and reaching just above vertex of head, the 3rd joint porrect; maxillary palpi filiform and minute; antennæ of male somewhat thickened. Fore wing long and narrow; veins 2, 3 from near angle of cell; 4, 5 from angle; 8, 9 stalked; 10 free. Hind wing with vein 2 from angle of cell; 3 and 5 stalked; 6, 7 stalked, 7 anastomosing with 8.

4336. *Ancylosis ilella*, Srinah. P. Z. S. 1884, p. 529, pl. 48, fig. 6;
C. & S. no. 4587.

♀. Ochreous, thickly irrorated with fuscous brown. Fore wing with indistinct oblique antemedial brown line; a dark spot at lower angle of cell; an indistinct oblique postmedial line bent outwards at vein 5. Hind wing rather paler; cilia of both wings grey.

Hab. Karachi and Hyderabad, Sind. *Exp.* 16–20 millim.

4337. *Ancylosis lapsalis*, Wlk. Cat. xix, p. 829; Hampson. Ill. Het. ix, pl. 172, fig. 21; C. & S. no. 4537.

♀. Ochreous brown. Fore wing with diffused fuscous marginal band. Hind wing paler.

Hab. Ceylon. *Exp.* 18 millim.

4338. *Ancylosis carnea*, Warr. P. Z. S. 1888, p. 330; Rag. Mon. Thyc. pl. xlv, fig. 9; C. & S. no. 4560.

♀. Head and collar grey; thorax flesh-coloured; abdomen ochreous. Fore wing flesh-coloured; a white costal fascia irrorated with pink and a few black scales, and terminating before apex; traces of a white antemedial line, with black speck on it, at vein 1; a black speck at lower angle of cell; a sinuous white submarginal

line; a white marginal band irrorated with black. Hind wing white, with pale brown marginal line and line through the cilia.

Hab. Campbellpur, Punjab. *Exp.* 18 millim.

4339. *Ancylosis* ? *lucida*, Warr. P. Z. S. 1888, p. 336; C. & S. no. 4572.

♀. (Head wanting;) thorax and fore wing ochreous, the last with white costal fascia; an oblique pink band from the base of subcostal nervure to inner margin; an oblique medial band not reaching the costa; a nearly straight and erect postmedial band and a marginal band. Abdomen and hind wing whitish.

Hab. Campbellpur, Punjab. *Exp.* 18 millim.

4340. *Ancylosis trilineatella*, n. sp.

Red-brown suffused with grey. Fore wing irrorated with black; a broad diffused grey costal fascia thickly irrorated with black; two oblique fuscous antemedial lines defined by white on inner side; a dark speck at lower angle of cell; an incurved fuscous submarginal line defined by white on outer side; the margin suffused with grey. Hind wing pale semihyaline brown; the cilia grey, with a brown line through them.

Hab. Meean Meer, Punjab (*Harford*). *Exp.* 16 millim. Type in B. M.

4341. *Ancylosis niveicostella*, n. sp.

Dull red-brown; abdomen pale.



Fig. 47.—*Ancylosis niveicostella*, ♂. $\frac{1}{2}$.

Fore wing dull red-brown; a broad pure white costal fascia irrorated with a few pink scales; below the costal fascia is a leaden-coloured fascia along median nervure sending three spurs down to vein 1; a bright red spot at outer angle and marginal series of dark specks. Hind wing yellowish white.

Hab. Bombay; Ceylon (*Green*). *Exp.* 18 millim. Type in B. M.

Genus EUZOPHERA.

Stanoptycha, Von Hein. Schmett. Deutsch. i, 2, p. 190 (1863), præocc.

Melia, Von Hein. t. c. p. 209, præocc.

Euzophera, Zell. Trans. Ent. Soc. (3) v, p. 456 (1867).

Type, *E. biviella*, Zell., from Europe.

Range. Neotropical, Palearctic, and Ethiopian regions; India; Ceylon.

Palpi upturned and reaching vertex of head, the 2nd joint fringed with scales at extremity; the 3rd joint well developed and acuminate; antennæ of male somewhat thickened. Fore wing long and

narrow; the apex rounded; vein 3 from before angle of cell; 4, 5 usually stalked; 8, 9 stalked; 10 usually free. Hind wing with vein 2 from before angle of cell, which is long; 4 absent; 6, 7 from upper angle, 7 anastomosing strongly with 8.

SECT. I. Maxillary palpi triangularly scaled and flattened against the frons; mid and hind tibiae fringed with hair on outer side; hind wing with veins 3, 5 stalked.

4342. *Euzophera perticella*, Rag. *Nouv. Gen.* p. 32; *id. Mon. Phyc.* pl. xxxii, fig. 1; *C. & S.* no. 4005.

Head and thorax pale rufous and grey; abdomen pale. Fore wing pale rufous; the costal area to beyond middle and the apical

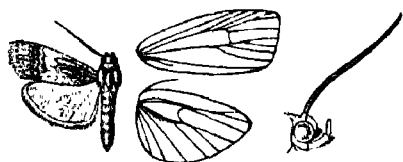


Fig. 48.—*Euzophera perticella*, ♂. 1.

area suffused with grey; a black line from middle of costa, very strongly dentate, being retracted along subcostal and median nervures almost to base of wing, bent outwards in and below cell to beyond middle of wing, and terminating on inner margin before the middle; a slight pale discocellular mark; a postmedial minutely dentate line very slightly bent outwards at vein 5, defined on outer side by ochreous, beyond this fuscous suffusion and streaks on the veins and in interspaces; a marginal series of black specks. Hind wing whitish; the marginal area tinged with fuscous in female.

Hab. Calcutta; Nilgiris; Ceylon. *Exp.*, ♂ 26, ♀ 32 millim.

4343. *Euzophera puniceaella*, Moore, *Indian Museum Notes*, ii, p. 28; *Rag. Mon. Phyc.* pl. xli, fig. 25.

♀. Fuscous suffused with black. Fore wing with diffused fuscous-black antemedial band, with whitish band on its inner edge from cell to inner margin; a postmedial line excurved from costa to vein 2. Hind wing uniform fuscous.

The larva bores in the fruit of the Pomegranate.

Hab. Baluchistan. *Exp.* 20 millim.

SECT. II. Maxillary palpi filiform; tibiae smoothly scaled; hind wing with veins 3 and 5 from angle of cell.

4344. *Euzophera plumbeifasciella*, n. sp.

♀. Head and thorax brown; abdomen pale brown. Fore wing deep brown, with antemedial, medial, postmedial, submarginal, and marginal bands of diffused leaden-coloured scales, the antemedial and postmedial dilated towards costa, the latter and the marginal bands broadest. Hind wing pale brown.

Hab. Calcutta (*Atkinson*). *Exp.* 16 millim. Type in B. M.

SECT. III. Fore wing with veins 4, 5 from cell; 10 stalked with 8, 9; male with a costal fold enclosing a tuft of long hair; hind wing with veins 4, 5 shortly stalked.

4345. *Euzophera niveicostella*, n. sp.

Dark red-brown. Fore wing with a white costal fascia slightly irrorated with brown from near base to near apex, widest at middle; an antemedial somewhat irregular line, oblique and usually reduced to two spots towards costa; two discocellular dark specks; a minutely dentate submarginal pale line; a marginal series of dark specks. Hind wing fuscous brown, rarely whitish; the cilia grey, with a brown line through them.

Hab. Ceylon (*Green*). *Exp.*, ♂ 18, ♀ 20 millim. Type in B. M.

SECT. IV. Fore wing with veins 2, 3 stalked, 4, 5 from cell; 10 absent. Hind wing with vein 7 becoming coincident with 8; 4, 5 stalked.

4346. *Euzophera micans*, n. sp.

♀. Head and thorax ochreous brown; palpi dark at base; abdomen suffused with fuscous. Fore wing reddish brown, irrorated with bright scales; an indistinct nearly straight pale submarginal line. Hind wing pale silky brown; the veins, a marginal line, and a line through the cilia darker.

Hab. Hambantota, Ceylon (*Pole*). *Exp.* 14 millim. Type in B. M.

Genus **ENDOLASIA**, nov.

Type, *E. melanoleuca*, Hmps.

Range. Sind.

Palpi upturned and reaching above vertex of head, the 2nd joint in male greatly dilated and hollowed out to receive the brush-like maxillary palpi; frons smooth; antennæ of male with a sinus at base of shaft with a ridge of scales in it. Fore wing with the costa arched at middle; vein 2 from near angle of cell; 3, 4, 5 stalked; 10 free. Hind wing with the cell nearly half the length of wing; vein 2 from close to angle of cell; 3, 4, 5 stalked; 6, 7 stalked, 7 approximated to 8.

4347. *Endolasia melanoleuca*, n. sp.

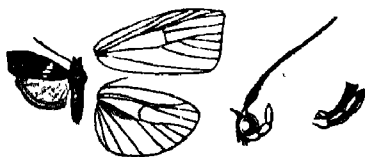


Fig. 49.

Endolasia melanoleuca, ♂. }

♀. Maxillary palpi ochreous; head and thorax black; abdomen fuscous. Fore wing black, with a broad white nearly erect antemedial band, its outer edge tinged with brown; a small ochreous triangular postmedial spot on costa. Hind wing pure white.

Maxillary p

Hab. Mitras Canal, Sind. *Exp.* 18 millim. Type in B. M.

Genus **SANDRABATIS**.

Sandrabatis, *Rag. Mon. Phyc.* (*Rom. Mém.* vii) p. 203 (1894).

Type, *S. crassiella*, Rag.

Range. N.E. and S. India; Ceylon.

Palpi upturned, in female with the 2nd joint reaching above vertex of head, the 3rd well developed and acuminate, the maxillary palpi filiform; in male the 2nd joint of palpi is very long, hollowed out, and containing the maxillary palpi, which end in a brush of very long hair, the 3rd joint short; frons with a tuft of long hair; antennæ of male with a thick ridge of scales on base of shaft; thorax with ridges of large scales along the coxæ; mid tibiæ dilated with a fold containing a tuft of long hair; hind tibiæ fringed on outer side with very long coarse hair. Fore wing of male with a large patch of thick raised scales on basal inner area and tufts of raised scales on the antemedial line below costa; the costa produced to a rounded lobe at middle, of which the female also has slight traces; vein 3 from angle of cell: 4, 5 stalked; 8, 9, 10 stalked and curved. Hind wing of male with the costa arched; the cell very short; vein 2 from angle; 3, 4, 5 stalked; 6, 7 stalked, 7 anastomosing with 8.

4348. *Sandrabatis crassiella*, *Rag. Mon. Phyc.* p. 204, pl. xviii, fig. 7.

♂. Head, thorax, and abdomen reddish brown and fuscous; antennæ with the ridge of scales, the frontal tuft, and a tuft behind the antennæ black. Fore wing with the basal patch of thick scales dark grey; the tufts on antemedial line black; the rest of wing reddish brown, variegated with red and fuscous; a minutely dentate ochreous antemedial line bent outwards from vein 3 to inner margin, with a series of black specks on its inner edge and short black streaks on the veins beyond it; a marginal series of black specks. Hind wing fuscous brown, the cilia ochreous.

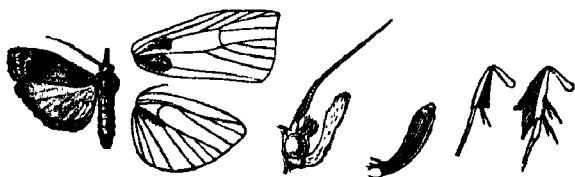


Fig. 50.—*Sandrabatis crassiella*, ♂. 1.

♀ with the fore wing variegated with pale and dark red-brown shades or nearly uniform; without the dark basal patch; a black streak in base of cell; the antemedial line represented by an oblique line from costa and a speck on median nervure.

Hab. Bhutan; Nagas; Manipur; Nilgiris; Ceylon. *Exp.* 24 millim.

Genus **MICROTHRIX**.

Microthrix, *Rag. Nouv. Gen.* p. 25 (1888).

Type, *M. inconspicuella*, *Rag.*

Range. S. Africa; Punjab; Burma.

Palpi upturned, reaching well above vertex of head, the 2nd joint in male hollowed out and enclosing the maxillary palpi, which end in a tuft of hair; frons smooth; antennæ of male thickened and flattened, with a sinus at base with a ridge of scales in it; tibiæ rather thickly scaled. Fore wing long and narrow; veins 2 and 3 from close to angle of cell; 4, 5 stalked; 10, 11 free. Hind wing with vein 2 from near angle of cell; 3, 4, 5 stalked; 6, 7 from upper angle, 7 anastomosing with 8.

4349. *Microthrix inconspicuella*, *Rag. Nouv. Gen.* p. 17; *id. Mon.*

Phyc. p. 324, pl. xiii, fig. 17; *C. & S.* no. 4580.

Microthrix fuscidorsella, *Rag. Nouv. Gen.* p. 25.

♂. Maxillary palpi white; antennæ black; head, thorax, and abdomen pale brown tinged with fuscous. Fore wing pale brown,

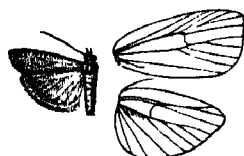


Fig. 51.—*Microthrix inconspicuella*, ♂. 1.

with an olive tinge and irrorated with fuscous; a brown and fuscous antemedial patch on inner area surrounded with grey; an indistinct medial line angled outwards below costa and inwards on vein 1; two dark discocellular specks; traces of an oblique submarginal line with grey outer edge. Hind wing pale fuscous; the cilia pale, with a dark line through them.

Hab. Natal; Punjab; Burma. *Exp.* 18 millim.

Genus **NEPHOPTERYX**.

Nephopteryx, *Hübner. Verz.* p. 370 (1818?).

Salebria, *Zell. Isis*, 1846, p. 770.

Ceutholopha, *Zell. Stett. ent. Zeit.* 1867, p. 375.

Thylacoptila, *Meyr. Ent. Mo. Mag.* 1885, p. 105.

Bussa, *Rag. Nouv. Gen.* p. 24 (1888).

Oligochroa, *Rag. Nouv. Gen.* p. 20.

Palibothra, *Rag. Bull. Soc. Ent. Fr.* 1889, p. ccxviii.

Melathrix, *Rag. Mon. Phyc.* p. 435 (1894).

Pristarthria, *Rag. Mon. Phyc.* p. 326 (1894).

Type, *N. rhenella*, *Zinck.*, from Europe.

Range. Universally distributed.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd short and acuminate; frons roughly scaled; antennæ of male typically with a sinus at base of shaft containing a ridge of scales; tibiæ thickly scaled, the outer spurs about two-thirds length of inner. Fore wing with the apex somewhat rounded; vein 3 from before angle of cell; 4, 5 approximated for some distance; 10 free.

Hind wing with the cell short; vein 2 from near the angle; 3 approximated to or stalked with 4, 5; 6, 7 stalked, 7 anastomosing with 8.

SECT. I. (*Nephopteryx*). Palpi of male with the 2nd joint not excised to receive the maxillary palpi; antennæ not thickened.

A. *Antennæ of male with no sinus at base of shaft.*

a. *Hind wing of male with no streak of large black scales on vein 1 b.*

4350. *Nephopteryx rhyparella*, *Rag. Nouv. Gen.* p. 15; *id. Mon. Phyc.* p. 268, pl. x, fig. 15; *C. & S.* no. 4582.
Acrobasis nigrescens, *Warr. P. Z. S.* 1888, p. 330; *C. & S.* no. 4564.

♂. Head, thorax, and abdomen fuscous, irrorated with grey. Fore wing fuscous irrorated with grey; an oblique white antemedial band diffused outwards below costa and with a white spot beyond it above inner margin; two discocellular black specks; a submarginal dark-outlined grey line bent outwards at vein 5. Hind wing fuscous.

♀. Often much greyer; fore wing with the costal part of antemedial band more diffused and with a dark patch beyond it; the discocellular spot and a series of marginal specks prominent.

Hab. Campbellpur; Simla; Murree. *Exp.* 22 millim.

4351. *Nephopteryx basisignella*, n. sp.

♀. Grey. Fore wing with semicircular brown spot on base of inner margin; an oblique white antemedial band with sinuous lines just inside its edges; two almost conjoined discocellular black specks; a fuscous-edged whitish submarginal line bent outwards at vein 5 and crossed by an oblique diffused fuscous shade from apex; a series of marginal black specks. Hind wing fuscous, the cilia white.

Hab. Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

4352. *Nephopteryx eugraphella*, *Rag. Nouv. Gen.* p. 15; *id. Mon. Phyc.* p. 281, pl. ix, fig. 14; *C. & S.* no. 4578.

♀. Grey. Fore wing slightly suffused with brown and irrorated with black; an oblique antemedial band edged by black lines, the inner with a ridge of raised scales, the band traversed by a fuscous line; two black discocellular specks; the postmedial line inwardly oblique from costa to vein 5, then bent outwards to vein 2, a brown line beyond it; a marginal black line and some specks on the cilia. Hind wing semihyaline white; the apical area, a marginal line, and line through the cilia fuscous.

The larva feeds on cured Tobacco and the "Bukool" tree, *Mimusops elengi*.

Hab. Punjab; Calcutta. *Exp.* 22 millim.

4353. *Nephopteryx canescentella*, n. sp.

♀. Head, thorax, and abdomen grey irrorated with fuscous. Fore wing grey, uniformly irrorated with brown and fuscous; traces of a dark antemedial line and patch on inner area; an indistinct grey submarginal line angled inwards below costa; the cilia fuscous, with a grey line through them. Hind wing semi-hyaline white; the margin and a line through the cilia fuscous.

Hab. Thayetmyo, Burma (*Watson*). *Exp.* 16 millim. Type in B. M.

4354. *Nephopteryx ochribasalis*, n. sp.

♀. Head, thorax, and abdomen pale ochreous; abdomen tinged with brown; paired dorsal purplish spots on the first two segments. Fore wing with the basal area pale ochreous; a slightly curved antemedial black line, with an indistinct purplish line inside it and a fuscous patch on inner margin; the outer area fuscous brown irrorated with grey, pale ochreous, and a few purple scales; a submarginal black line defined by grey and excurved between veins 5 and 2; a marginal series of black specks. Hind wing pale brown; the cilia grey, with a brown line through them.

Hab. Bhután (*Dudgeon*). *Exp.* 26 millim. Type in B. M.

4355. *Nephopteryx semiirrorella*, n. sp.

♀. Dark red-brown; head ochreous; thorax suffused with grey; abdomen fuscous. Fore wing with the costal half thickly suffused with grey; medial white specks on median nervure and vein 1; an indistinct submarginal dark line excurved and minutely dentate between veins 6 and 2; a marginal series of black specks. Hind wing pale brown, darker at outer margin; a dark line through the cilia.

Hab. Bhután (*Dudgeon*); Nágas (*Doherty*). *Exp.* 24 millim. Type in B. M.

4356. *Nephopteryx nocturnella*, n. sp.

♀. Head pale brown; collar with a purplish tinge; thorax dark fuscous; abdomen fuscous brown. Fore wing brown, almost entirely suffused with purplish fuscous, leaving a streak below median nervure and the outer part of inner area browner; a medial black line angled inwards on vein 1; a submarginal black line excurved between veins 5 and 2; a marginal black line. Hind wing brownish fuscous, with a dark line through the cilia. Fore wing with veins 4, 5 closely approximated for a long distance; hind wing with vein 3 very closely approximated to 4, 5 for half its length.

Hab. Bhután (*Dudgeon*). *Exp.* 26 millim. Type in B. M.

4357. *Nephoptyryx divisella*, Dup. Lep. Fr. Suppl. iv, p. 126, pl. 60, fig. ix; Rag. Mon. Phyc. p. 295.

Pempelia euphorbiella, Zell. Isis, 1846, p. 757.

Nephoptyryx albiricella, Herr.-Schäffer, Eur. Schmett. iv, p. 73.

Head red; palpi banded with white; thorax and abdomen pale brown, the former tinged with purple. Fore wing pale brown; the costal half pure white, tapering to apex, irrorated with a few purplish scales and with a fuscous postmedial streak on the costa; an indistinct submarginal line. Hind wing iridescent hyaline; the margin pale brown.

Larva brown, with a chocolate dorsal band; paired line black subdorsal lines and whitish slightly waved stigmatic line; the stigmata yellow, with white points and ringed with black; slight setiferous yellow warts; head black, the mouth yellow. Feeds in a colony on *Euphorbia*.

Hab. Europe; Gambia; Natal; Aden; Karachi; Ceylon. *Exp.* 22-24 millim.

b. (*Ceutholopha*). *Hind wing of male with a streak of large black scales at base of vein 1 b.*

4358. *Nephoptyryx isidis*, Zell. Stettin. ent. Zeit. 1867, p. 375; Stainton, Trans. Ent. Soc. 1867, pl. 24, fig. 6; Rag. Mon. Phyc. p. 252.

♂. Grey brown. Fore wing irrorated with rufous and white, or irrorated with black in median interspace and suffused with rufous on outer area; a pale medial line with a reddish band on its inner edge and angled inwards on vein 1, the band expanding on inner area and with a black spot below the cell; a nearly straight pale submarginal line defined by blackish on inner side and rufous on outer, a marginal series of black specks and an apical spot. Hind wing semihyaline white, with prominent streak of black scales on inner area; the margin brownish. Underside of fore wing with subbasal patch of black scales below the cell.

Hab. Egypt; Karachi. *Exp.* 20 millim.

B. *Antennæ of male with the base of shaft strongly sinuous but without tuft.*

4359. *Nephoptyryx bicolorrella*, Leech, Entom. 1889, p. 108, pl. v. fig. 6; Rag. Mon. Phyc. p. 275, pl. xliii. fig. 14.

Head and thorax pale chestnut; the patagia pink; abdomen ochreous suffused with fuscous, the anal tuft pinkish. Fore wing long and narrow, the apex rectangular; the basal half pale chestnut; red fasciæ on median nervure and vein 1 with a fold between them and an antemedial tuft of raised scales on vein 1; a pale pink antemedial line very oblique from costa to lower angle of cell; medial tufts of raised red scales on the discocellulars, median nervure, and vein 1; the outer area dark olive-fuscous; a submarginal line bent outwards and minutely dentate between veins 5 and 2, and with a series of pink specks on it from vein 5 to

inner margin, developing into a spot above the margin; a marginal series of black specks; a brown line at base of cilia, which are pink-tipped.

Hab. Japan; Dalhousie. *Exp.* 28-32 millim.

SECT. II. (*Palibothra*). Palpi of male with the 2nd joint excised to receive the maxillary palpi, which are minute; the antennæ thickened after the sinus and tuft.

4360. *Nephoteryx fuscogrisella*, *Rag. Bull. Soc. Ent. Fr.* 1889, p. ccxix; *id. Mon. Phyc.* p. 310, pl. xiv, fig. 12.

♀. Pale grey-brown, slightly irrorated with black. Fore wing with traces of a sinuous antemedial line bent inwards to costa and outwards to inner margin; a dark speck at lower angle of cell; an indistinct submarginal line bent outwards between veins 5 and 2; a marginal series of dark specks. Hind wing whitish tinged with fuscous.

Hab. E. Africa; Karáchi; New Guinea. *Exp.* 18-22 millim.

4361. *Nephoteryx swinhoella*, *Rag. Mon. Phyc.* p. 311, pl. xiv, fig. 10.

♀. Head and thorax pale, thickly irrorated with rufous; abdomen ochreous. Fore wing pale, thickly irrorated with rufous; an indistinct obliquely curved antemedial pale line, outwardly edged by purplish; two dark discocellular specks; an indistinct purplish submarginal line slightly bent outwards between veins 5 and 2. Hind wing semihyaline white; the costal area and margin tinged with fuscous.

Hab. Rangoon. *Exp.* 16 millim.

*4362. *Nephoteryx nebulosella*, *Rag. Mon. Phyc.* p. 311, pl. xiv, fig. 11.

♂. Head and thorax reddish brown; abdomen ochreous suffused with fuscous. Fore wing elongate; brownish ochreous, entirely suffused with fuscous except the apical area; an antemedial pale erect line defined by fuscous at middle and angled inwards on vein 1; two obliquely placed indistinct large discocellular spots; a pale postmedial line bent outwards at vein 5, then oblique. Hind wing semihyaline grey-brown.

Hab. Rangoon. *Exp.* 18 millim.

SECT. III. Palpi of male with the 2nd joint dilated and hollowed out to receive the brush-like maxillary palpi.

A. (*Thylocoptila*). *Antennæ of male with a large tuft of scales at extremity of basal joint; mid tibiæ fringed with long hair; hind tibiæ with tufts of long hair from base and at extremity; hind wing with large corneous ridges above and below on vein 1c and inner margin, enclosing deep furrows and with a small tuft of scales below from base.*

4363. *Nephopteryx paurosema*, *Meyr. Ent. Mo. Mag.* xxii, 1885, p. 106; *Rag. Mon. Phyc.* p. 321.
Bussa maculella, *Rag. Nouv. Gen.* p. 24; *Mon. Phyc.* p. 322, pl. xiii, fig. 21.

♂. Maxillary palpi ochreous; head, thorax, and abdomen grey. Fore wing grey irrorated with fuscous; the basal two-thirds of costa whitish; a large blackish antemedial oval patch not reaching

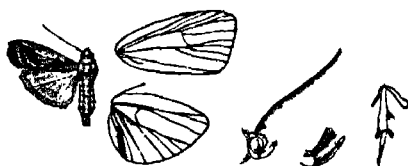


Fig. 52.—*Nephopteryx paurosema*, ♂. 1.

costa and becoming brown near inner margin; two minute dark discocellular specks; an indistinct postmedial white line bent outwards and minutely dentate between veins 5 and 2, then angled inwards; a marginal series of black specks. Hind wing iridescent hyaline white, the apex tinged with brown; the ridges on inner area ochreous.

Hab. Cape Verd Islands; W. Africa; Aden; Assam; Ceylon. *Exp.* 20–24 millim.

- B. (*Melathrix*). *Antennæ of male with the base of shaft thickened by a ridge of scales, but without sinus, the shaft strongly ciliated.*

4364. *Nephopteryx prætextella*, *Christ. Hor. Soc. Ent. Ross.* xii, p. 279, pl. viii, fig. 51; *Rag. Mon. Phyc.* p. 430, pl. xvii, fig. 15.

Ochreous slightly irrorated with fuscous; maxillary palpi black. Fore wing with slight grey tinge; the fuscous irroration thickest on the marginal areas, the outer part of inner margin and the outer area sometimes suffused with fuscous; a dark speck on middle of vein 1 and another at lower angle of cell; traces of a submarginal minutely dentate line or series of specks; a marginal series of black specks. Hind wing semihyaline white; the apical area tinged with fuscous. Underside of male with a black subcostal streak to fore wing from near base to beyond middle; hind wing with a black streak on base of vein 8.

Hab. Siberia; Punjab; Sind; Bombay; Burma. *Exp.* 20–26 millim.

- C. (*Pristarthria*). *Antennæ of male with a sinus at base of shaft with scale-teeth in it.*

4365. *Nephopteryx minutella*, *Rag. Bull. Soc. Ent. Fr.* 1885, p. cl; *Mon. Phyc.* p. 326, pl. xiv, fig. 16; *C. & S.* no. 4594.
Oligochroa soricinnella, *Rag. Nouv. Gen.* p. 20; *C. & S.* no. 4593.

Pale brown irrorated with grey. Fore wing with a black speck

at base of median nervure; a pale rufous antemedial patch on inner area, with black scales on its inner side; an indistinct medial line angled outwards on subcostal and median nervures, and inwards on vein 1; a dark speck at lower angle of cell; a pale submarginal line excurved between veins 5 and 2; a marginal series of dark specks. Hind wing semihyaline white with a slight ochreous tinge; the margin brown.

Hab. S. India; Ceylon; Burma. *Exp.*, ♂ 16, ♀ 16-20 millim.

D. Antennæ of male with a sinus at base of shaft containing a large ridge of scales.

a. (Salebria). *Antennæ of male not thickened and flattened.*

a'. *Hind wing of male without streaks of black scales on the veins.*

4366. *Nephoteryx morosalis*, *Saalm. Ber. Senck. Nat. Ges.* 1879-80, p. 307; *Rag. Mon. Phyc.* p. 370, pl. xii, fig. 3.

Head and collar rufous and whitish; thorax purplish fuscous; abdomen fuscous and ochreous. Fore wing purplish fuscous; the costal area suffused with grey or pinkish; the veins towards apex streaked with grey; two black medial specks below costa; a large reddish patch with a black and white spot on vein 1 on inner area, running along inner margin towards base. Hind wing semihyaline whitish; the outer area and a line through the cilia brownish.

Hab. W. and S. Africa; Madagascar; Amur; N.W. Himalayas. *Exp.* 20-24 millim.

4367. *Nephoteryx palumbella*, *Schiff. Wien. Verz.* p. 138; *Rag. Mon. Phyc.* p. 333.

Tinea contubernella, *Hübner. Samml. eur. Schmett.* fig. 72.

Acrobasis undulatella, *Wlk. Cat.* xxxv, p. 1711; *C. & S.* no. 4589.

Head and thorax rufous, suffused with grey; abdomen ochreous. Fore wing with the basal area rufous, with a grey patch on it; a sinuous black antemedial line, angled in cell, with a red band on its inner edge and two tufts of raised black scales below the cell; the rest of the wing grey, with rufous suffusion on inner area; a black spot at lower angle of cell; a submarginal black line strongly incurved above vein 5, excurved to vein 2, then sharply angled inwards, a rufous band beyond it; a marginal black spot below apex, then a conjoined series of marks. Hind wing semihyaline whitish; the apical area, a marginal line, and a line through the cilia brownish.

Hab. Palearctic region; Ceylon. *Exp.* 26-38 millim.

*4368. *Nephoteryx eximiella*, *Rag. Mon. Phyc.* p. 339, pl. xxvi, fig. 4.

Head pinkish ochreous; thorax grey irrorated with vinous red;

abdomen ochreous tinged with fuscous. Fore wing narrow; ochreous olive-brown, the basal area and apical third of wing dull vinous red; a small white patch on basal part of costa; a large medial white patch on costa irrorated with a few black scales, and enclosing the black discocellular patch; an oblique antemedial white line, with some raised red scales on its outer edge, widening at costa; an oblique postmedial white line angled at middle; a white streak separating the ochreous and red areas on disk; outer area irrorated with white. Hind wing semihyaline brownish yellow; cilia paler.

Hab. Karáchi. *Exp.* 18 millim.

b'. *Hind wing of male with the basal inner area clothed with ochreous scales, beyond which are short black streaks on the veins.*

4369. **Nephoteryx strigivenata**, n. sp.

♂. Head ochreous and brown, with some black at base of palpi and on antennal tuft; thorax grey; abdomen fuscous brown, with some grey on dorsum of basal segments. Fore wing grey, irrorated with fuscous and purplish scales; the basal half of inner area with an ochreous tinge, and black subbasal specks on vein 1; a fine medial deep black line obsolete towards costa and bent outwards to inner margin; a fine black discocellular line; fine black submarginal and marginal lines, the former slightly bent outwards at vein 5. Hind wing hyaline, with the ochreous and black sexual markings; the apex fuscous; a fine fuscous marginal line and line through the cilia.

Hab. Ceylon (*Pole*). *Exp.* 22 millim. Type in B. M.

b. (*Oligochroa*). *Antennæ of male thickened and flattened.*

4370. **Nephoteryx leucophæella**, *Zell. Stettin. ent. Zeit.* 1867, p. 390; *Rag. Mon. Phyc.* p. 378, pl. xii, fig. 15.

♂. Head and thorax fuscous black; abdomen fuscous. Fore wing fuscous black; a few grey scales on median nervure; a patch of grey scales on middle of inner margin and a black spot surrounded by grey scales on vein 1; the veins beyond the cell with a few grey scales on them and a series of short dark streaks. Hind wing pure white, the apex slightly tinged with fuscous.

Hab. Calcutta. *Exp.* 24 mm.

4371. **Nephoteryx akbarella**, *Rag. Nouv. Gen.* p. 20; *Mon. Phyc.* p. 391, pl. xv, fig. 19; *C. & S.* no. 4590.

Spermatophthora pulverulenta, *Warr. P. Z. S.* 1888, p. 336 *Rag Mon. Phyc.* p. 392, pl. xli, fig. 18; *C. & S.* no. 4607.

Ochreous. Fore wing irrorated with fuscous, leaving an ochreous streak in the cell and another below median nervure; traces of three medial dark specks on the veins, the speck on vein 1

sometimes with a white spot on a rufous patch; traces of two discocellular specks; an indistinct curved postmedial series of dark specks sometimes with pale specks beyond them; a marginal series of dark specks. Hind wing white with a slight ochreous tinge.

The variety *pulverulenta* is greyer and without the ochreous tinge.

Hab. W. Africa; Punjab; Sind; Bombay; Ceylon; Burma.
Exp. 22–26 millim.

*4372. *Nephoteryx sindella*, *Rag. Mon. Phyc.* p. 380, pl. xli, fig. 16.

♀. Head and thorax fuscous grey; legs and abdomen blackish. Fore wing narrow, the outer margin rounded; uniform blackish brown, the apex somewhat paler; an oblique pale antemedial line angled inwards and paler on vein 1; a postmedial pale line outwardly defined by fuscous, slightly excurved at middle and angled inwards below vein 2; an interrupted marginal blackish line followed by a fine ochreous line. Hind wing semihyaline iridescent white; the veins, costa, two marginal lines, and the cilia brownish.

Hab. Sind. *Exp.* 23 millim.

*4373. *Nephoteryx nodicornella*, *Rag. Nouv. Gen.* p. 21; *Mon. Phyc.* p. 386, pl. xiii, fig. 14; *C. & S.* no. 4592.

♂. Antennæ much thickened, the tuft and basal joint large. Head, thorax, and abdomen reddish ochreous; frons whitish. Fore wing narrow, brownish ochreous, the base of inner margin irrorated with fuscous; the medial area brown; a pale antemedial line bordered with fuscous and slightly angled at middle; two large nearly conjoined brown discocellular spots, very obliquely placed; a postmedial pale line bent outwards at vein 5 and oblique towards inner margin; an indistinct marginal series of specks. Hind wing semihyaline ochreous, the apex tinged with brown; the outer margin slightly excised below apex.

Hab. Lahore. *Exp.* 20 millim.

4374. *Nephoteryx semirubella*, *Scop. Ent. Carn.* p. 245; *Rag. Mon. Phyc.* p. 416, pl. xvii, fig. 4; *C. & S.* no. 4588.

Tinea carnella, *Linn. Syst. Nat.* xii, p. 887.

Tinea sanguinella, *Hübner. Samml. eur. Schmett.* fig. 65.

Palpi and head pinkish; antennæ brown; thorax and abdomen ochreous, the shoulders pink. Fore wing with a white fascia on costa; a pink fascia from base through the cell, widening to outer margin and apex; the inner area bright yellow; the cilia pink. Hind wing pale brown, tinged with pink towards outer margin.

Larva a dull bronze-black; the skin wrinkled and folded transversely; the dorsal lines indistinct; the head black; the stigmata and a large ocellated patch on 1st somite black, with narrow white rings. Feeds on *Lotus*, *Hippocrepis*, *Trifolium*, &c.

Hab. Europe; Syria; Siberia; Japan; China; Dharmasala.
Exp. 24–32 millim.

Genus EPICROCIS.

Epicrocis, Zell. *Isis*, 1848, p. 878.

Canthelea, Wlk. *Cat.* xxxv, p. 1726 (1866).

Gabra, Wlk. *Cat.* xxxv, p. 1727.

Candiope, Rag. *Nouv. Gen.* p. 14 (1888).

Type, *E. festivella*, Zell.

Range. Ethiopian and Oriental regions to Australia.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed and acuminate; frons roughly scaled; tibiae thickly scaled, the outer spurs about half the length of inner. Fore wing with the apex rectangular; vein 3 from before angle of cell; 4, 5 well separated at origin; 10, 11 free. Hind wing with vein 2 from before angle of cell; 3 approximated to 4, 5 for some distance; 6, 7 from upper angle.

SECT. I. Maxillary palpi of male filiform; hind wing with vein 7 anastomosing with 8.

A. (*Canthelea*). *Antennae* of male thickened, flattened, and simple.

4375. *Epicrocis ægnusalis*, Wlk. *Cat.* xix, p. 905; *Rag. Mon. Phyc.* p. 234, pl. ix, fig. 11; *C. & S.* no. 4570.

Homœosoma gratella, Wlk. *Cat.* xxvii, p. 26.

Homœosoma derasella, Swinh. *P. Z. S.* 1885, p. 877, pl. 57, fig. 19; *C. & S.* no. 4607.

Pale olive-brown; the head and shoulders suffused with pink.

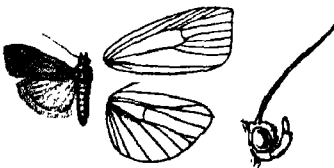


Fig. 53.—*Epicrocis ægnusalis*, ♂. †.

Fore wing with a diffused pink fascia from base, curving round to inner margin before middle; an obliquely curved antemedial pink band more or less obsolescent towards costa, and often conjoined in the cell to the pink discocellular patch, which sends an oblique pink fascia to the apex and another to the irregular marginal pink band at outer angle; cilia tinged with pink towards apex. Hind wing ochreous; the apical area suffused with fuscous.

The markings of the fore wing vary considerably in the extent and brightness of the pink.

Hab. Madagascar; China; throughout India, Ceylon, and Burma; Sumatra; Australia. *Exp.* 20 millim.

4376. *Epicrocis lateritialis*, *Wlk. Cat.* xxvii, p. 74; *Rag. Mon. Phyc.* p. 236, pl. xxii, fig. 16; *C. & S.* no. 4571.

Nephopteryx concolorella, *Wlk. Cat.* xxxv, p. 1721.

Nephopteryx laxalis, *Swinh. P. Z. S.* 1885, p. 877; *C. & S.* no. 4581.

Head and thorax brownish pink; abdomen ochreous. Fore wing pale brown, suffused with pink and irrorated with fuscous except on inner area; the costa whitish; very obscure dark diffused oblique antemedial and erect medial bands. Hind wing pale fuscous; the cilia whitish.

Hab. The plains of India, Ceylon, and Burma; Andamans. *Exp.* 20 millim.

B. (Candiope). *Antennæ of male ciliated and not thickened.*

4377. *Epicrocis joannisella*, *Rag. Nouv. Gen.* p. 14; *Mon. Phyc.* p. 223, pl. x, fig. 12; *C. & S.* no. 4569.

Head whitish; thorax pale red-brown, suffused with grey and irrorated with fuscous; abdomen grey-brown. Fore wing with the basal area pale red-brown, traversed by an oblique band of grey and fuscous scales, this area bordered by an oblique white-edged dark line angled inwards on vein 1; the outer area grey irrorated with fuscous; a black and white speck at lower angle of cell, with some brown suffusion below it; a red-brown marginal band, inwardly edged by a white line bent inwards to costa and with some black points on it; a marginal series of black specks; the cilia grey and fuscous. Hind wing semihyaline, with a slight brown tinge.

Hab. Aden; S. India; Ceylon. *Exp.* 16 millim.

4378. *Epicrocis uberalis*, *Swinh. P. Z. S.* 1884, p. 523, pl. 48, fig. 10
C. & S. no. 4470.

Head and thorax white irrorated with brown; abdomen white. Fore wing brown, thickly irrorated with white; a very obliquely curved antemedial white line; the median nervure streaked with white, expanding and embracing a dark spot at lower angle of cell; the veins beyond upper angle streaked with white; an oblique submarginal white line from below apex; a white marginal band, with a series of dark specks on the margin. Hind wing white, with marginal brown line and line through the cilia.

Hab. St. Vincent; Karachi. *Exp.* 20 millim.

SECT. II. (*Epicrocis*). Palpi of male with the 2nd joint hollowed out and containing the maxillary palpi, which end in a long tuft of hair; the 3rd joint short; antennæ with the base of shaft slightly sinuous and with a small ridge of scales on it; hind wing with vein 8 free.

4379. *Epicrocis festivella*, Zell. *Isis*, 1848, p. 878; *Rag. Mon. Phyc.* p. 438, pl. xii, fig. 12; *C. & S.* no. 4595.

Pyralis ratoralis, Wlk. *Cat.* xix, p. 916.

Scopula albigeralis, Wlk. *Cat.* xxxiv, p. 1468.

Gabra tincalella, Wlk. *Cat.* xxxv, p. 1727.

Head and thorax rufous, marked with grey; abdomen ochreous, fuscous towards extremity. Fore wing with the basal area bright chestnut, bounded by an oblique white band often diffused outwards; the outer area chestnut, variegated with grey and purplish shades; a discocellular black lunule with a diffused white patch beyond it; two dark somewhat irregular submarginal lines becoming obsolescent below vein 4: the cilia grey, with dark lines through them. Hind wing semihyaline and pale ochreous.

Hab. S. Africa; Dharmasala; Ceylon; Java. *Exp.* 18–20 millim.

4380. *Epicrocis hilarella*, Rag. *Nouv. Gen.* p. 22; *id. Mon. Phyc.* p. 438, pl. xii, fig. 7.

Differs from *festivella* in the white band of fore wing bounding the basal area being angled inwards on vein 1; a speck at lower angle of cell, with a white streak beyond it instead of the lunule and patch; the marginal area fuscous, obscuring the lines. Hind wing browner.

Hab. China; Murree; Simla; Ceylon. *Exp.* 20 millim.

Genus HYPARGYRIA.

Hypargyria, Rag. *Nouv. Gen.* p. 9 (1888).

Type, *H. metaliferella*, Rag.

Range. Neotropical and Ethiopian regions; Punjab; Ceylon.

Palpi upturned, the 2nd joint not reaching vertex of head, the 3rd long, thick and blunt; maxillary palpi filiform; antennæ of male with the basal joint much dilated at summit, and giving off a curved hook on inner side, the shaft thickened and flattened; mid tibiæ dilated, with a fold containing an expansile tuft of long hair; anal tuft very large. Fore wing with vein 3 from near angle of cell; 4, 5 stalked; 10 free; male with the base of costa and vein 12 slightly thickened below. Hind wing with the cell rather short; vein 2 well before angle; 3 from angle; 4, 5 on a long stalk; 6, 7 stalked, 7 anastomosing with 8; hyaline streaks in interspaces of basal area.

4381. *Hypargyria metalliferella*, Rag. Nouv. Gen. p. 9; *Mos. Phyc.* p. 123, pl. iv, fig. 22; C. & S. no. 4565.

Ochreous brown irrorated with grey; male with the anal tuft jet-black. Fore wing tinged with vinous red; the costal area

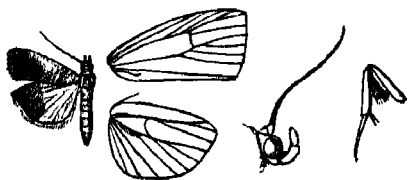


Fig. 54.—*Hypargyria metalliferella*, ♂. †

broadly suffused with white; two dark specks at base of costa; a broad ochreous antemedial band, with a ridge of raised, vinous scales before it; traces of a dark speck at upper angle of cell, and of an oblique submarginal line. Hind wing semi-

hyaline, the veins darker; the apical area opalescent; a dark marginal line. Underside with black spots below the thickenings of costa and vein 12; the outer half of fore wing and apical area of hind wing brilliant silver in the male.

Hab. W. and E. Africa; Punjab; Ceylon. *Exp.* 17-22 millim.

4382. *Hypargyria ferrella*, n. sp.

♀. Ferruginous brown, with slight ochreous irroration. Fore wing with traces of pale sinuous medial and submarginal lines; a dark costal fascia from the medial line to apex; slight dark streaks on the veins beyond lower angle of cell. Hind wing semi-hyaline white; the margin tinged with ochreous.

Hab. Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

Genus MYELOIS.

Myelois, Hübn. Verz. p. 371 (? 1818).

Type, *M. cribrella*, Hübn., from Europe.

Range. Universally distributed.

Palpi upturned, reaching vertex of head, and thickly scaled; maxillary palpi filiform; frons thickly scaled; tibiæ smoothly scaled, the outer spurs about two-thirds length of inner. Fore wing rather long and narrow; the apex rounded; vein 3 from before angle of cell; 4, 5 on a long stalk; 10, 11 free. Hind wing with the cell half the length of wing; vein 2 from well before angle; 3 from angle; 4, 5 on a long stalk; 6, 7 from upper angle.

In the typical section the antennæ of male are ciliated.

SECT. II. Antennæ of male bipectinated, with short branches for about two-thirds length.

4383. *Myelois pectinicornella*, n. sp.

♂. Grey irrorated with fuscous. Fore wing with the veins streaked with fuscous; a dark-edged irregularly dentate antemedial grey line; a discocellular band; a minutely dentate sub-

marginal dark-edged grey line; a marginal series of dark specks. Hind wing semihyaline tinged with fuscous; a marginal fuscous line.

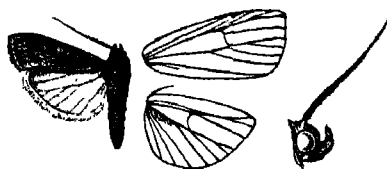


Fig. 55.—*Myelois pectinicornella*, ♂. †.

Hab. Bhután (*Dudgcon*). *Exp.* 30 millim. Type in B. M.

Genus **HYPsipYLA**.

Hypsipyla, *Rag. Nouv. Gen.* p. 10 (1888).

Type, *H. robusta*, Moore.

Range. Himalayas; Ceylon.

Palpi upturned and slender, the 2nd joint reaching above vertex of head, the 3rd long and acuminate, maxillary palpi filiform; antennæ of male somewhat thickened and ciliated; mid and hind tibiæ with tufts of spinous hair on outer side at base and extremity. Fore wing narrow; vein 2 from near angle of cell; 4, 5 approximated for a short distance; 10, 11 free. Hind wing with the cell half length of wing; vein 2 from well before angle; 3 from angle; 4, 5 shortly stalked; 6, 7 from upper angle, 7 anastomosing with 8.

4384. *Hypsipyla robusta*, Moore, *Lep. Ceyl.* iii, p. 365, pl. 184, figs. 4, 4a (larva); *Rag. Mon. Phyc.* p. 139, pl. vi, fig. 12; *C. & S.* no. 4598.
Hypsipyla pagodella, *Rag. Nouv. Gen.* p. 10; *C. & S.* no. 4568.

Pale rufous brown irrorated with black and grey. Fore wing with the costal half strongly suffused with grey; the veins all streaked with black; some olive-yellow on base of costa and median nervure, on extremity of median nervure and discocellulars; traces of a dark

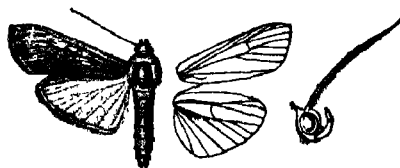


Fig. 56.—*Hypsipyla robusta*, ♂. †.

sinuous medial line, with a dark patch beyond it on inner margin, and of a very highly dentate oblique dark postmedial line bent outwards between veins 5 and 2. Hind wing semihyaline white; the costal area suffused with fuscous; the base of cilia pale rufous.

Larva purplish grey, with a few short hairs; somites spotted with black and with a lateral series of red spots; head and dorsal patch on 2nd somite black. Feeds in the small branches of mahogany. Pupa purplish brown, in an elongate silken cover.

Hab. Simla; Dharmasala; Sikkim; Ceylon. *Exp.*, ♂ 26–32, ♀ 28–42 millim.

Genus **PHYCITA**.

- Phycita*, *Curt. Brit. Ent.* vi, p. 233 (1840).
Diorctria, *Zell. Isis*, 1846, p. 732.
Piesmopoda, *Zell. Isis*, 1848, p. 893.
Elasmopalpus, *Blanch. Gay's Chili*, vii, p. 104 (1852).
Guastica, *Wlk. Cat.* xxvii, p. 80 (1863).
Calguia, *Wlk. Cat.* xxvii, p. 83 (1863).
Volobilis, *Wlk. Cat.* xxvii, p. 111.
Magiria, *Zell. Stettin. ent. Zeit.* 1867, p. 392.
Cabragus, *Moore, Lep. Ceyl.* iii, p. 370 (1886).
Hydaspia, *Rag. Nouv. Gen.* p. 22 (1888).
Sigmarrhria, *Rag. Nouv. Gen.* p. 23.
Cavipalpia, *Rag. Mon. Phyc.* p. 154 (1894).

Type, *P. spissicella*, Fabr., from Europe.

Range. Universally distributed.

Palpi upturned, the 2nd joint reaching vertex of head; tibiæ thickly scaled, the outer spurs about two-thirds length of inner. Fore wing rather narrow; the costa arched; the apex rectangular; vein 3 from close to angle of cell; 4, 5 approximated for a short distance; 10, 11 free. Hind wing with the cell about one-third length of wing; vein 2 from well before angle; 3 from angle; 4, 5 on a long stalk; 6, 7 stalked.

SECT. I. Palpi of male with the second joint not hollowed out to receive the maxillary palpi.

A. *Antennæ of male with a large sinus at base of shaft, containing a large hollowed-out tuft of scales, the shaft then thickened and flattened.*

a. (*Piesmopoda*). *Maxillary palpi of male filiform; fore wing with no ridge of hair on vein 1 below.*

4385. *Phycita bipartella*, n. sp.

Head, thorax, abdomen, and basal part of fore wing greyish ochreous, slightly irrorated with fuscous; metathorax with a small rufous tuft. Fore wing with a slight rufous tinge at base, followed by thicker fuscous irroration; the pale basal area bounded by a slightly sinuous rufous line; the outer half of wing fuscous, becoming grey towards the margin; two black discocellular specks and a slight ochreous lunule; a marginal series of black specks. Hind wing semihyaline white, with a marginal brown line, a line through the cilia.

Hab. Ceylon (*Pole*). *Exp.* 20 millim. Type in B. M.

b. (*Guastica*). *Maxillary palpi triangularly scaled and flattened against the frons; fore wing with a ridge of long ochreous hair covering a streak of black membrane on vein 1 below.*

4386. *Phycita semilutea*, *Wlk. Cat.* xxvii, p. 81.

Piesmopoda auropurpurella, *Rag. Bull. Soc. Ent. Fr.* 1889, p. ccxviii;
Mon. Phyc. p. 161, pl. vi, fig. 24.

Head vinous red; antennæ with the tuft black, the shaft

ochreous; thorax and abdomen yellow. Fore wing with the basal half bright yellow; the costa rufous, irrorated with white; the outer half of wing chestnut, becoming purplish fuscous towards the margin; the costal area broadly suffused with white; slight postmedial white streaks on veins 3 and 4; a minutely waved submarginal white line, and some white irroration just inside the margin. Hind wing pale fuscous.

Hab. Bhután; Nagas; Borneo; New Guinea. *Exp.* 18 millim.

B. (*Dioryetria*). *Antennae of male with a small tuft of scales on shaft near base.*

4387. *Phycita abietella*, Schiff. *Wien. Verz.* p. 138.

Tinea decuriella, Hub. & Samml. eur. *Schneitt.* fig. 71.

Tinea sylvestrella, Reetz. *Fortz.* i, p. 244, pl. 15, fig. 1.

Pinpestis abietivorella, Grote, *Bull. U. S. Geol. Surv.* iv, p. 701.

Head, thorax, and abdomen grey and fuscous. Fore wing grey, thickly irrorated and suffused with fuscous; a dark brown patch on base of inner area; a dark antemedial line with a grey band on its inner edge, angled outwards below costa and inwards on median nervure and vein 1; a large brown patch inside the grey band, less prominent towards costa; a prominent quadrate discocellular grey spot with a brown patch below it; a grey-edged dark postmedial line angled inwards at vein 6, then bent outwards and minutely dentate, some brown suffusion beyond the line; a prominent marginal series of dark specks. Hind wing semihyaline with a brown tinge; the cilia white, with a brown line at base.

The prominence of the grey and fuscous markings of fore wing varies considerably.

Hab. United States; Europe; Japan; Simla. *Exp.* 22-34 millim.

4388. *Phycita dentilinella*, n. sp.

♀. Head, thorax, abdomen, and fore wing brown irrorated with grey; the last with oblique highly dentate white antemedial line; a dark discocellular lunule; a minutely dentate dark postmedial line slightly bent outwards at vein 5 and defined by grey on the outer side; a marginal series of dark specks. Hind wing pale brownish and semihyaline; the veins and apical area browner; cilia grey, with a brown line through them.

Hab. Manipur (*Doherty*). *Exp.* 32 millim. Type in coll. Elwes.

4389. *Phycita cyclogramma*, n. sp.

♀. Head, thorax, and abdomen grey irrorated with red-brown and fuscous. Fore wing grey irrorated with fuscous; a red-brown fascia on base of inner margin; a large pale red antemedial patch on inner area, surrounded with white and with a semicircular tuft of raised black scales on its inner side; an obliquely curved antemedial dark line; the outer half of costal area suffused with pink;

a pink discocellular lunule, with an oblique fuscous streak below it; a grey submarginal line edged with pinkish and angled inwards below costa; a marginal series of dark specks. Hind wing semi-hyaline pale fuscous; the cilia white, with a fuscous line through them.

Hab. Nágas (*Doherty*); Ceylon (*Green*). *Exp.* 28 mm. Type in B. M.

C. Antennæ of male with the basal joint dilated and with a strong tooth on inner side; the shaft with long cilia.

4390. *Phycita olivalis*, n. sp.

♂. Head and thorax olive-brown, the vertex of head grey; abdomen fuscous, pale on dorsum. Fore wing olive-green; a subbasal triangular white patch on costa irrorated with pink, its apex not reaching inner margin; a large white postmedial patch on costa irrorated with pink, with a black speck on it at upper angle of cell, extending along costa to the submarginal line, its apex on vein 2; a nearly straight submarginal, rather indistinct white line interrupted below costa by the oblique olive fascia from apex; a large white patch on middle of outer area; a series of black marginal specks. Hind wing semihyaline brown.

Hab. Ceylon (*Yerbury, Pole*). *Exp.* 18–20 millim. Type in B.M.

D. Males unknown.

a. Frons with a conical prominence; tibiæ without tufts of spinous hair.

4391. *Phycita chloropterella*, n. sp.

♀. Head, thorax, and abdomen olive-yellow; palpi with the 3rd joint fuscous; frons and basal joint of antennæ in front fuscous; the collar, extremity of patagia, and metathorax vinous red. Fore wing olive-yellow; the basal half of costa blackish; the outer half of costal area suffused with white and irrorated with olive and pale rufous scales; faint traces of a curved antemedial white line on costal area; traces of a white submarginal line. Hind wing fuscous brown; the cilia ochreous.

Hab. Ceylon (*Green*); Rangoon; Borneo. *Exp.* 20 millim. Type in B. M.

b. Frons not prominent; mid and hind tibiæ with tufts of spinous hair on outer side at base and extremity.

4392. *Phycita pachylepidella*, n. sp.

♀. Head, thorax, and abdomen brown irrorated with grey and fuscous. Fore wing with the basal area pale brown, becoming grey towards the antemedial line, which consists of a ridge of raised black scales; the basal costal area irrorated with rufous; a pale

brown patch on outer edge of the antemedial line not reaching the costa; a large diffused triangular blackish patch irrorated with grey and pink with its apex on vein 1, including the two discocellular specks and extending almost to the black-outlined grey submarginal line which is angled inwards on vein 5; a marginal series of dark specks. Hind wing semihyaline; the veins brown; the cilia grey, with a fuscous line through them.

Hab. Bhután (*Dudgeon*); Nágas (*Doherty*). *Exp.* 18 millim. Type in B. M.

4393. *Phycita steniella*, *Ray. Bull. Soc. Ent. Fr.* 1890, p. cexiii; *id. Mon. Phyc.* p. 163, pl. vi, fig. 23.

♀. Grey-brown, legs white banded with black. Fore wing with white costal fascia irrorated with pink and black scales and diffused over the cell and area beyond it; a black-edged conical rufous patch from inner margin just before middle to subcostal nervure; two black discocellular specks; a grey submarginal line defined by fuscous and slightly bent at veins 6 and 2; the inner area tinged with rufous. Hind wing semihyaline white, the apex tinged with fuscous; both wings with fine dark marginal line and line through the cilia.

Hab. Ceylon; Shán States. *Exp.* 16 millim.

c. Frons not prominent; tibiae smoothly scutell.

4394. *Phycita albilavalis*, n. sp.

♀. Vinous red-brown irrorated with fuscous. Fore wing with the costal area and cell suffused with white, a white subcostal fascia being most prominent; a few grey scales an inner and outer areas; two black discocellular specks; a submarginal grey line bent outwards from vein 6 to near apex, straight from vein 6 to inner margin, the veins of outer area reddish. Abdomen and hind wing pale brown.

Hab. Nágas; Ceylon. *Exp.* 20 millim. Type in B. M.

4395. *Phycita obliquifasciella*, n. sp.

♀. Head and thorax clothed with fuscous and pink scales. Fore wing brown irrorated with grey; a pink basal patch with black outer edge; an oblique pink and grey antemedial band, with a sinuous dark line near its inner edge and a ridge of raised dark scales on its outer edge; the outer half of costa suffused with pink; two indistinct dark discocellular specks; an indistinct submarginal dark line excurved and minutely dentate between veins 5 and 2; a marginal series of dark specks. Hind wing semihyaline with a marginal brown line.

Hab. Dharmasála (*Hocking*). *Exp.* 20 millim. Type in B. M.

4396. *Phycita clientella*, Zell. *Stettin. ent. Zeit.* 1867, p. 396; *Rag. Mon. Phyc.* p. 183, pl. xi, fig. 18; *C. & S.* no. 4567.
Phycita clientulella, *Rag. Mon. Phyc.* p. 184, pl. xxvi, fig. 3.

♀. Head, thorax and abdomen pale red-brown, the collar grey. Fore wing pale red-brown, suffused with grey and slightly irrorated with black; a sinuous grey medial line outlined with brown, and with a triangular red-brown patch on its inner edge not reaching the costa; an indistinct discocellular lunule; a black speck at lower angle of cell, and short black streaks on veins 3, 4, 5, just beyond the angle; a submarginal brown-outlined grey line excurved between veins 5 and 2; a prominent marginal series of black specks. Hind wing iridescent semihyaline with an ochreous tinge.

The form *clientulella* is fuscous and grey without any red-brown tinge; the hind wing greyish white.

Hab. Calcutta; Bombay; Ceylon. *Exp.* 22 millim.

4397. *Phycita eulepidella*, n. sp.

♀. Head and thorax fuscous thickly irrorated with blue-grey; abdomen fuscous, with pale segmental rings. Fore wing fuscous thickly irrorated with blue-grey and with a few purple scales on costa and outer area; an oblique dark line inwardly defined by grey from costa before middle to middle of inner margin; two dark discocellular specks; a postmedial dark line outwardly defined by grey and slightly excurved between veins 5 and 2; a marginal series of dark specks. Hind wing ochreous white; the apical area fuscous; a brown marginal line and line through the cilia.

Hab. Kandy, Ceylon (*Green*). *Exp.* 18 millim. Type in B. M.

4398. *Phycita proximalis*, *Wlk. Cat.* xxvii. p. 68.

♀. Head, thorax, and abdomen grey irrorated with fuscous; collar ochreous brown. Fore wing grey irrorated with fuscous, the costa and outer half of wing irrorated with pinkish brown; an antemedial dark-edged whitish line bent inwards to costa, with a large olive patch on its inner edge and some reddish scales below the costa; two dark discocellular specks; a grey dark-edged postmedial line angled inwards below costa, bent outwards and minutely dentate between veins 5 and 2; a marginal series of dark specks. Hind wing semihyaline with a brownish tinge; a brown marginal line and a line through the cilia.

Hab. Nilgiris; Borneo. *Exp.* 28-32 millim.

4399. *Phycita majoralis*, n. sp.

♀. Head, thorax, and abdomen brown. Fore wing fuscous brown irrorated with grey, the base brownish; an antemedial ridge of raised scales, with an ochreous band beyond it not reaching the costa; an indistinct pale antemedial line; an ochreous discocellular patch emitting streaks along the veins beyond the cell;

a pale submarginal line excurved between veins 5 and 2; a marginal series of black specks. Hind wing pale and semihyaline; the apical area, veins, margin, and a line through the cilia brown.

Hab. Bhután (*Dudgeon*). *Exp.* 34 millim. Type in B. M.

4400. *Phycita hemixanthella*, n. sp.

♀. Head, thorax, abdomen, and basal half of fore wing ochreous with a rufous tinge; the pale area of fore wing bounded by a slightly sinuous dark medial line, with a pale line on its inner edge below the cell and emitting a dark costal spur on its outer side; the outer area olive-brown; an indistinct dark discocellular band; a slightly sinuous white submarginal line, with grey costal patch inside it; the area beyond it rufous, with some white at apex and fuscous on the margin. Hind wing semihyaline; the veins, apical area, a marginal line, and a line through the cilia brown.

Hab. Naga Hills (*Doherty*). *Exp.* 26 millim. Type in coll. Elwes.

SECT. II. (*Cavipalpia*). Palpi of male with the 2nd joint hollowed out to receive the maxillary palpi, which are flat and triangular; antennae strongly ciliated.

*4401. *Phycita translucidella*, *Rag. Mon. Phyc.* p. 154, pl. vi, fig. 16.

♂. Pale ochreous; patagia reddish. Fore wing with a medial line of raised scales slightly oblique and diffused outwards along costa; a submarginal pale line slightly outlined with brown, hardly excurved at middle and ending at outer angle; cilia with two fine dark lines at base. Hind wing semihyaline white; the costa and veins slightly darker.

Hab. Hyderabad, Sind. *Exp.* 20 millim.

SECT. III. Palpi of male with the 2nd joint dilated and hollowed out to receive the brush-like maxillary palpi.

A. *Antennae of male with a sinus containing a large hollowed-out tuft of scales at base of shaft.*

a. (*Volobilis*). *Male with the anal angle of hind wing lobed and fringed with very long hair.*

4402. *Phycita biplaga*, *Wlk. Cat.* xxvii, p. 111.

♂. Maxillary palpi ochreous. Head and thorax bright red-brown; abdomen ochreous. Fore wing bright red-brown, the base of costa blackish; a pale antemedial line oblique from costa to median nerve and with a large quadrate costal black patch beyond it extending to lower angle of cell, where there is a white speck; a blackish submarginal line angled at vein 4 and with traces of

another line beyond it; a marginal series of dark specks. Hind wing dark fuscous; the cilia and fringe at anal angle ochreous.

♀ with the hind wing pale; the apex tinged with fuscous.

Hab. Ceylon; Borneo. *Exp.* 24 millim.

b. (*Magiria*). *Male with no lobe and fringe at anal angle of hind wing.*

a'. *Antennæ of male ciliated.*

- * 4403. *Phycita imparella*, *Zell. Stettin. ent. Zeit.* 1867, p. 393, pl. ii, fig. 2; *Rag. Mon. Phyc.* p. 320, pl. vii, fig. 7; *C. & S.* no. 4597.

Maxillary palpi of male pinkish. Head, thorax, and abdomen brown irrorated with grey. Fore wing reddish brown irrorated with black; the costal area suffused with white and irrorated with fuscous, this area enclosing a dark streak in base of cell, sending an antemedial tooth towards inner margin, and somewhat contracted at end of cell; the veins beyond the cell streaked with black and with a series of white specks on them; a marginal series of black specks. Hind wing pale and semihyaline; a brown marginal line and a line through the cilia.

Hab. Sikhim. *Exp.*, ♂ 32, ♀ 40 millim.

b'. *Antennæ of male with uniseriate pectinations.*

4404. *Phycita pectenella*, n. sp.

♂. Grey. Fore wing with the ground-colour whitish, thickly irrorated with fuscous; a fuscous-edged oblique sinuous white antemedial line with large rufous patch before it not reaching the costa and with black speck on its inner edge; two obliquely-placed black discocellular specks; an irregular pale submarginal line with dark line on its inner edge and dentate between veins 6 and 2. Hind wing pale, semihyaline, with fine dark marginal line.

Hab. Ceylon (*Pole*). *Exp.* 18 millim. Type in B. M.

B. (*Elasmopalpus*). *Antennæ of male with a large ridge of scales in the sinus at base of shaft; frons with a conical tuft.*

4405. *Phycita jasminophaga*, n. sp.

Head and thorax grey irrorated with brown; abdomen brown. Fore wing grey irrorated with brown; an obliquely waved antemedial grey line outwardly defined by brown; two brown discocellular specks; a submarginal brown-outlined grey line, slightly excurved and minutely dentate between veins 5 and 2; a marginal series of dark specks. Hind wing semihyaline with a slight brown tinge; a brown marginal line and a line through the cilia.

Larva dull green; head with several diagonal stripes on each

side; the 1st somite reddish, the 2nd black; a dark dorso-lateral stripe, below which is a small black spot on each somite.

Feeds amongst the flower-buds and young leaves of *Jasminum sambac*, often completely mining every flower-head.

Hab. Bhután (*Dudgeon*); Ceylon (*Green*). *Exp.* 20 millim. Type in B. M.

C. (*Hydaspia*). *Antennæ of male thickened and laminate, with a large ridge of scales in the basal sinus.*

4406. *Phycita dorsipunctella*, *Rag. Nouv. Gen.* p. 22; *id. Mon. Phyc.* p. 440, pl. xii, fig. 9; *C. & S.* no. 4596.

Head and thorax pale rufous; the antennal ridge of scales black; abdomen ochreous. Fore wing irrorated with a few black scales; a broad white costal fascia irrorated with pink; the cell and area beyond it and the greater part of interno-median interspace chestnut: the inner and outer areas paler, with a pinkish tinge; a black spot varying in size on middle of vein 1; the veins beyond the cell often streaked with black, especially in the female. Hind wing pale brown; cilia grey, with a brown line through them.

Hab. Kashmir; Punjab; Nilgiris; Ceylon. *Exp.*, ♂ 22, ♀ 26 millim

D. *Antennæ of male thickened and laminate, with a slight sinus and ridge of scales at base.*

4407. *Phycita flavitinctella*, *Rag. Mon. Phyc.* p. 418, pl. xvii, fig. 9.

Head whitish; thorax and abdomen ochreous. Fore wing with the base yellow, followed by an obliquely curved fuscous-irrorated grey band extending on costa almost to the base, its outer edge with a ridge of raised red scales followed by a medial yellow band; the outer area with the disk ochreous; the margins grey irrorated with fuscous. Hind wing semihyaline; the apex and margin fuscous.

Hab. Poona; Ceylon. *Exp.* 16 millim.

E. *Antennæ of male with long uniseriate branches for two-thirds length, the base of shaft slightly thickened with scales.*

4408. *Phycita hyemalis*, *Butt. P. Z. S.* 1880, p. 689; *Rag. Mon. Phyc.* p. 377, pl. xli, fig. 17.

Head and thorax glossy black; abdomen fuscous. Fore wing glossy black; some grey scales and black specks on median nervure and the veins beyond the cell; some grey scales and a black speck and sometimes also a white spot on middle of vein 1; the outer area irrorated with grey scales; a marginal series of black specks. Hind wing pure white; the apical area, a marginal line, and a line through the cilia brownish.

Hab. Formosa; Ceylon. *Exp.* 26 millim.

F. (Calguia). *Palpi long, in female with a tuft of hair at extremity of 2nd joint behind, the 3rd joint thickly scaled, the maxillary palpi long; in male the brush-like maxillary palpi very long, the 3rd joint of palpi curved and pointing forwards at extremity; antennæ with the sinus and ridge of scales very large; the shaft with fasciculate cilia; hind tibiæ thickly fringed with hair and with a tuft of long hair from base.*

4409. Phycita defiguralis, Wlk. Cat. xxvii, p. 83.

Cabragus auritipalpus, Moore, Lep. Ceyl. iii, p. 371, pl. 184, fig. 9;

Rag. Mon. Phyc. p. 442, pl. xiii, fig. 23; C. & S. no. 4611.

Signarthria palpella, Rag. Nouv. Gen. p. 23.

J. Head and thorax fuscous black; maxillary palpi ochreous; abdomen ochreous. Fore wing with the base chestnut; an oblique

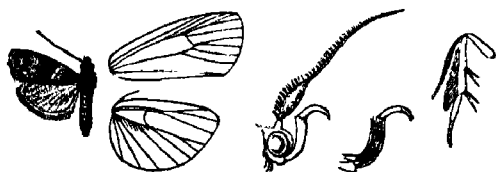


Fig. 57.—*Phycita defiguralis*, ♂. 1.

grey antemedial band, with whitish outer edge and diffused purplish fuscous beyond it, widest at costa; the rest of the wing greyish; two dark discocellular specks; a dark patch on apical part of costa; a grey submarginal line defined by brown, bent outwards and minutely dentate between veins 5 and 2; a marginal series of dark specks. Hind wing fuscous.

♀ with the vertex of head pink; the thorax purplish; the hind wing semihyaline and almost white.

Hab. Nilgiris; Ceylon; Borneo. *Exp.* 22 millim.

Genus RHODOPHÆA.

Rhodophæa, Guen. Eur. Microlep. Ind. Meth. p. 74 (1845).

Eurhodope, Hübner, Verz. p. 371 (p. 1818), non descr.

Acrobasis, Zell. Isis, 1848, p. 606.

Aurana, Wlk. Cat. xxvii, p. 122 (1863).

Succadana, Rag. Nouv. Gen. Phyc. p. 13 (1888).

Mineola, Hulst, Trans. Am. Ent. Soc. 1890, p. 126.

Ancova, Rag. Mon. Phyc. p. 149 (1894).

Type, *R. advenella*, Zinck., from Europe.

Range. Universally distributed.

Palpi upturned, the 2nd joint hardly reaching vertex of head, the 3rd acuminate; maxillary palpi filiform. Fore wing subtriangular; vein 3 from near angle of cell; 4, 5 from angle; 10 free. Hind wing with vein 2 from well before angle of cell; 3 from angle; 4, 5 stalked; 6, 7 from upper angle or shortly stalked, 7 anastomosing with 8.

SECT. I. Antennæ of male with the basal joint conically dilated with scales, the basal part of shaft with a sinus and a ridge of scales.

4410. *Rhodophæa heringi*, *Rag. Ann. Soc. Ent. Fr.* 1888, p. 282; *id. Mon. Phyc.* p. 73, pl. viii, fig. 1; *C. & S.* no. 4562.

Brown suffused with white; palpi at sides, the dilated joints of antennæ of male, and anal tuft blackish. Fore wing with the costal

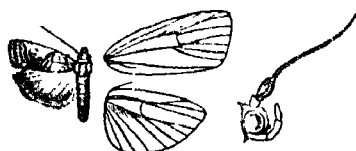


Fig. 58.--*Rhodophæa heringi*. ♂. 1.

area whiter, the inner and outer areas less suffused; a tuft of raised scales on base of median nervure; a medial line oblique from costa to cell, where it joins a brown-edged and brown-centred grey conical patch extending to inner margin with a ridge of raised scales on its inner edge; two dark discocellular specks; a dark submarginal line slightly bent outwards at vein 5, then minutely dentate, a dark mark beyond it from costa to vein 6; an obscure marginal series of dark specks. Hind wing pale fuscous brown, with darker marginal line.

Hab. Nilgiris; Ceylon. *Exp.* 18-22 millim.

SECT. II. Antennæ of male with the basal joint strongly dilated and indented on hinder side near the apex; the base of shaft deeply excised; frons hollowed out; palpi with the 3rd joint short and blunt.

4411. *Rhodophæa ligeralis*, *Wlk. Cat.* xxvii, p. 37; *C. & S.* no. 4563.

♂. Grey suffused with brown and purple; palpi fuscous, the end of second joint white; frons and vertex of head white. Fore wing with the basal area greyish and irrorated with a few black scales, the medial area purplish brown; a deep black medial line, slightly curved from costa to vein 1, then bent outwards, with purplish inside it expanding into a large patch on inner area; a deep black submarginal line excurved between veins 6 and 2, bent outwards to inner margin and with an indistinct purplish line beyond it; a deep black marginal line. Hind wing pale brownish and iridescent, the costa browner; a dark marginal line and line through the cilia.

Hab. Ceylon. *Exp.* 20-22 millim.

SECT. III. (*Acrobasis*). Antennæ of male with a tooth on inner side of basal joint.

4412. *Rhodophæa epigrammella*, *Rag. Mon. Phyc.* p. 122, pl. vi, fig. 9.

♂. Grey-brown. Fore wing with a large brown-irrorated white triangular patch on basal part of costa, its apex on inner margin.

with the dark antemedial line of raised scales on its outer edge; a similar larger dark-edged postmedial patch including the two prominent black discocellular spots; the postmedial line pale with dark edges, very slightly sinuous and arising from a dark costal oblique spot; outer area whitish, with interrupted dark marginal line. Hind wing brownish grey, with dark marginal line.

Hab. Rangoon. *Exp.* 16 millim.

SECT. IV. (*Ancova*). Antennæ of male with long cilia.

4413. *Rhodophæa meridionalis*, *Wlk. Cat.* xxvii, p. 64; *Rag. Mon. Phyc.* p. 160, pl. xli, fig. 7; *C. & S.* no. 4568.

♂. Head, thorax, and abdomen pale olive-brown slightly irrorated with fuscous. Fore wing pale olive-brown irrorated with fuscous; some ferruginous suffusion between vein 1 and median nervure; a patch of ferruginous scales in end of cell; a black discocellular lunule with an oblique line from it to costa; a black postmedial line excurved between veins 5 and 2, some rufous scales inside it, and a rufous line beyond it bent outwards to costa; a prominent marginal series of dark specks. Hind wing iridescent yellowish white; a dark marginal line and a line through the cilia. Under-side with the basal half of fore wing and basal half of costa of hind wing bright ferruginous.

♀. More olive-green; fore wing with no ferruginous suffusion on upper or under sides, and with purplish patches before the medial and postmedial lines.

Hab. Moulmein; Ceylon. *Exp.* 24 millim.

SECT. V. (*Rhodophæa*). Antennæ of male normal and slightly ciliated.

4414. *Rhodophæa duplicella*, *Rag. Bull. Soc. Ent. Fr.* 1890, p. ccxiii; *id. Mon. Phyc.* p. 79, pl. v, fig. 18.

♂. Black-brown; abdomen pale fuscous. Fore wing with the base blackish; an oblique silvery-grey antemedial band broad at costa, a grey spot on its inner edge on vein 1, and a yellow band on its outer edge from cell to inner margin; a silvery-grey triangular postmedial patch on costa embracing the two black discocellular specks; an indistinct sinuous grey submarginal line and slight grey marks on the margin.

Hab. Shân States. *Exp.* 16 millim.

4415. *Rhodophæa actiosella*, *Wlk. Cat.* xxvii, p. 122; *Rag. Mon. Phyc.* p. 68, pl. vi, fig. 8; *C. & S.* no. 4558.
Nephoptyx leatalis, *Swinh. P. Z. S.* 1885, p. 877, pl. 57, fig. 18.

Greyish brown; palpi with the 2nd joint grey banded with brown. Fore wing with oblique triangular subbasal pink-speckled white patch tapering to its apex on inner margin; a semicircular

pink-speckled white patch on costa from before middle to near apex with the two discocellular specks on it, the space between it and subbasal patch and also beyond it darker than the ground-colour; a dark-edged white submarginal line slightly excurved between veins 6 and 2; the margin suffused with white, with a marginal series of dark specks. Hind wing pale, suffused with fuscous towards outer margin and with a dark marginal line.

Hab. W. Africa; Nágas; Karáchi; Bombay; Ceylon. *Exp.* 18 millim.

4416. *Rhodophæa tenebralis*, n. sp.

♀. Fuscous brown irrorated with grey. Fore wing with the cell and disk suffused with grey; the medial dark line erect, interrupted in cell and below median nervure; an obscure grey patch with brown spot on it inside the line on inner area; two very prominent dark discocellular spots; a minutely dentate dark postmedial line excurved between veins 6 and 2 and with dentate grey line on its outer edge; a marginal series of dark specks. Hind wing uniform semihyaline brown.

Hab. Sikkim (*Dudgeon*). *Exp.* 26 millim. Type in B. M.

4417. *Rhodophæa rufimarginella*, n. sp.

♀. Head ochreous, the palpi pink at base; collar purple; thorax dark brown. Fore wing very dark red-brown; the basal area suffused with purple; an indistinct pale submarginal line joined at outer angle to the bright red marginal band; cilia brown. Hind wing pale semihyaline brown; the veins and margin dark; a pale line at base of cilia; vein 7 becoming coincident with 8.

Hab. Bhután (*Dudgeon*). *Exp.* 14 millim. Type in B. M.

Genus **SPATULIPALPIA.**

Spatulipalpia, *Rag. Mon. Phyc.* p. 19 (1894).

Type, *S. effosella*, *Rag.*

Range. N.E. and S. India; Burma; Ceylon.

Palpi upturned, male usually with the 2nd and 3rd joints, or the 3rd joint only, fringed on both sides with long curved scales, which form a large hollow on inner side; vertex of head usually with a large and deep hollow; antennæ usually with the basal joint dilated and hollowed out, the shaft thickened and flattened; anal tuft large; female with the palpi, vertex of head, and antennæ normal. Fore wing with vein 3 from near angle of cell; 4, 5 closely approximated for a short distance; 10, 11 free. Hind wing long, the apex acute; the cell extremely short, hardly one-fifth of wing; veins 3, 4, 5 from angle; 6, 7 on a long stalk, 7 anastomosing strongly with 8.

SECT. I. Palpi of male with the 2nd joint triangular, immensely dilated with curved scales and hardly reaching vertex of head, the 3rd invisible; maxillary palpi with a tuft of long scales from extremity; antennæ with broad laminæ, the shaft not excised; mid tibiæ not dilated: fore wing of moderate breadth, with no costal fold and flap of scales.

4418. *Spatulipalpia effosella*, *Rag. Mon. Phyc.* p. 20, pl. xviii, fig. 2.

♂. Ochreous brown irrorated with red-brown and fuscous. Fore wing irrorated chiefly on the veins; the costal area white irrorated with brown, widest at middle and tapering to base and apex; a black streak at lower angle of cell. Hind wing yellowish grey and semihyaline; the cilia whitish.

Hab. Upper Assam; Tenasserim. *Exp.* 21 millim.

SECT. II. Palpi of male with the 2nd joint cylindrical and reaching vertex of head, the 3rd fringed with long curved scales forming a hollow; maxillary palpi minute and filiform; antennæ with the shaft excised near base behind, then thickened by a ridge of scales behind and with a tooth of scales in front; mid tibiæ immensely dilated with a fold containing a tuft of long hair, the extremity with tuft on outer side; fore wing very narrow, with a large fold at base of costa on upperside and a fan of scales covering the end of the cell.

4419. *Spatulipalpia flabellifera*, n. sp.

Red-brown irrorated with ochreous and fuscous; head variegated with white, the hollow on vertex black, the fringe on 3rd joint of

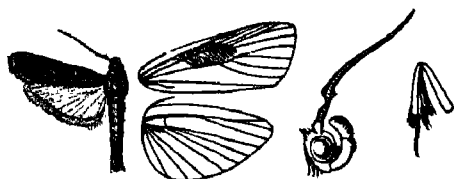


Fig. 59.—*Spatulipalpia flabellifera*, ♂. 1.

palpi edged with black and the hollow black; anal tuft ochreous white. Fore wing with the ochreous scales forming pale streaks; a prominent black streak in end of cell and slight streaks in the interspaces below and beyond end of cell; traces of a pale sub-marginal line; a marginal series of black specks. Hind wing very pale fuscous and semihyaline.

Hab. Ceylon (Green). *Exp.* 20 millim. Type in B. M.

SECT. III. Palpi of male with the 2nd joint fringed with hair in front, the 2nd and 3rd joints not fringed with curved scales; frons with a tuft of rough hair; vertex of head not hollowed out; antennæ with the basal joint not dilated, the shaft thickened and flattened but without ridge of scales.

4420. *Spatulipalpia pallicostalis*, *Wlk. Cat.* xxvii, p. 63; *Rag. Mon. Phyc.* p. 18, pl. xli, fig. 1; *C. & S.* no. 4557.

Red-brown irrorated with white; head whitish. Fore wing with the costal area white irrorated with brown and broadening from base to apex; a white spot in cell and discocellular spot; an oblique postmedial series of white specks; cilia whitish. Hind wing pale semihyaline, with marginal fuscous line.

Hab. Coimbatore; Ceylon. *Exp.* 22 millim.

4421. *Spatulipalpia erythrina*, n. sp.

♂. Head and thorax dark red-brown; abdomen pale rufous. Fore wing purplish red-brown; a sinuous medial line with fuscous mark on its inner edge below costa, the inner area beyond it paler; a dark postmedial line slightly bent outwards at vein 5. Hind wing pale tinged with ferruginous red, especially on inner area; the veins and cilia ferruginous red.

Hab. Calcutta (*Atkinson*). *Exp.* 14 millim. Type in B. M.

Genus CEROPREPES.

Ceroprepes, *Zell Stettin. ent. Zeit.* 1867, p. 401.

Type, *C. patriciella*, *Zell.*

Range. Amur; Himalayas.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed and acuminate; maxillary palpi filiform; frons rounded; antennæ of male with uniseriate branches, the basal joint long and much thickened at extremity, the base of shaft thickened by a ridge of scales on upperside. Fore wing with a ridge of raised scales before the antemedial line; vein 3 from close to angle of cell; 4, 5 from angle; 10 approximated to 8, 9. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 shortly stalked, 7 anastomosing with 8; the cell short.

4422. *Ceroprepes patriciella*, *Zell. Stettin. ent. Zeit.* 1867, p. 401, pl. ii, figs. 4a, b; *Rag. Mon. Phyc.* p. 9, pl. iv, fig. 2; *C. & S.* no. 4554.

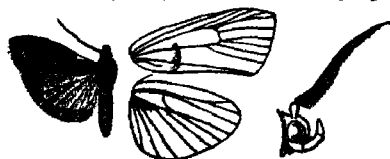


Fig. 60.—*Ceroprepes patriciella*, ♂. 1. Head, thorax, and abdomen reddish ochreous, with slight fuscous markings. Fore wing purplish rufous suffused with fuscous; the costa rufous; an indistinct pale sinuous medial line, with olive band inside it, white patch on costa, and tufts

of raised black scales from cell to inner margin; a slight dark spot in cell and discocellular lunule; an indistinct minutely waved post-medial line angled inwards on vein 7, excurved between veins 6 and 3, and terminating in a white spot. Hind wing uniform pale fuscous and semihyaline.

♀ with less prominent olive band inside the medial line of forewing.

Hab. Sikhim. *Exp.*, ♂ 24, ♀ 26 millim.

4423. *Ceroprepes pulvillella*, *Zell. Stettin. ent. Zeit.* 1867, p. 394, pl. ii, fig. 3; *Rag. Mon. Phyc.* p. 11, pl. iv, fig. 1; *C. & S.* no. 4555.

♂. Head, thorax, and abdomen rufous brown, the thorax suffused with fuscous. Fore wing rufous brown; the basal area to near middle purplish black, with brown streak below median nervure; large antemedial tufts of raised black scales from cell to inner margin: traces of a sinuous medial line with olive band inside it, and of a minutely dentate and curved submarginal line; traces of a discocellular lunule and of slight streaks on the veins beyond cell; a marginal series of dark specks. Hind wing uniform pale semihyaline brown.

♀ with the suffusion on thorax and basal area of fore wing pale fuscous; a pale fascia on inner area of fore wing beyond the postmedial line; the patches of raised scales olive.

Hab. Sikhim. *Exp.* 28-30 millim.

4424. *Ceroprepes ophthalmicella*, *Chr. Bull. Soc. Nat. Mosc.* lvi, 1, p. 49; *Rag. Mon. Phyc.* p. 10, pl. iv, fig. 3.

♀. Brown irrorated with grey. Fore wing with conical dark-edged antemedial brown stigma from subcostals to inner margin, its apex bent inwards and traversed by a line, and with a ridge of raised black scales on its inner edge; an indistinct discocellular lunule; a minutely dentate postmedial line angled at vein 4; a marginal series of black specks. Hind wing pale brown and semihyaline.

Hab. Amur; Murree. *Exp.* 23-28 millim.

Genus **CRYPTOBLABES.**

Cryptoblabes, *Zell. Isis*, 1848, p. 644.

Type, *C. bistriga*, Haw., from Europe.

Range. Palearctic, Oriental, and Australian regions.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed; maxillary palpi filiform; frons rounded; antennæ with the basal joint rather large, a slight tooth of scales on base of shaft. Fore wing with vein 3 from before angle of cell; 4, 5 from angle or shortly stalked; 10, 11 free. Hind wing with the cell nearly half the length of wing; vein 3 from near angle; 4, 5 from angle; 6, 7 stalked, 7 strongly anastomosing with 8.

SECT. I. Palpi of male not dilated with scales towards extremity; mid tibiæ not dilated.

4425. *Cryptoblabes angustipennella*, *Rag. Nouv. Gen.* p. 6; *id. Mon. Phyc.* p. 16, pl. v, fig. 3; *C. & S.* no. 4556.

Grey thickly irrorated with fuscous. Fore wing narrow, with a few crimson scales on base of costal and inner margins; an oblique pale antemedial line with fuscous band on its outer edge; dark specks at the two angles of cell; an oblique pale minutely dentate submarginal line, angled inwards on vein 5 and its inner edge defined by fuscous; a marginal series of dark specks. Hind wing pale and semihyaline; the marginal area tinged with fuscous.

Hab. Dharmasûla; Ceylon. *Exp.* 20 millim.

4426. *Cryptoblabes bipunctalis*, n. sp.

♂. Pale grey-brown with slight purplish tinge; palpi yellow. Fore wing with the antemedial line represented by fuscous specks in the cell and on vein 1; two very prominent black discocellular spots; a marginal series of black specks. Hind wing semihyaline, the veins and margin brown.

Hab. Bhutân (*Dudgeon*). *Exp.* 18 millim. Type in B. M.

4427. *Cryptoblabes proleucella*, n. sp.

♀. Grey-brown; palpi blackish towards extremity. Fore wing with the costal area whitish; two prominent dark discocellular spots; an oblique dark submarginal line outwardly defined by grey and very slightly bent outwards at vein 5; a marginal series of black specks. Hind wing paler.

Hab. Ceylon (*Green*). *Exp.* 20–22 millim. Type in B. M.

SECT. II. Palpi of male broadly dilated with scales at extremity; mid tibiæ dilated, with a fold containing a tuft of long hair.

4428. *Cryptoblabes dissolutella*, *Snell. Midd.-Sum., Lep.* p. 81 *Rag. Mon. Phyc.* p. 10, pl. iv, fig. 5.

♂. Head vinous red, the scales at end of palpi purplish; thorax and abdomen yellowish brown. Fore wing pale yellowish brown, the costal half suffused with silvery grey and irrorated with pink scales; a few grey scales representing a submarginal line; a marginal dark line; the cilia pinkish, with a grey line through them. Hind wing hyaline; the veins and a marginal line brown.

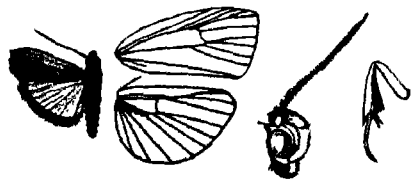


Fig. 61.—*Cryptoblabes dissolutella*, ♂. †.

Hab. Nagas; Celebes. *Exp.* 24 millim.

Genus **THIALLELA**.

Thiallela, Wlk. *Cat.* xxvii, p. 120 (1863).

Leuconia, Rag. *Nouv. Gen.* p. 7 (1888).

Type, *T. signifera*, Wlk.

Range. Assam; Borneo.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed and acuminate; maxillary palpi filiform; antennæ of male ciliated; hind tibiæ with tufts of hair from base and at extremity. Fore wing with veins 4, 5 well separated; 10 free; no antemedial ridge of scales. Hind wing with vein 3 from near angle of cell; 4, 5 approximated for a short distance; 6, 7 from upper angle, 7 anastomosing with 8.

4429. *Thiallela signifera*, Wlk. *Cat.* xxvii, p. 120.

Leuconia pallidobasella, Rag. *Nouv. Gen.* p. 7; *id. Mon. Phyc.* p. 1, pl. xiii, fig. 1.

Head, thorax, and abdomen brown suffused with grey; antennæ

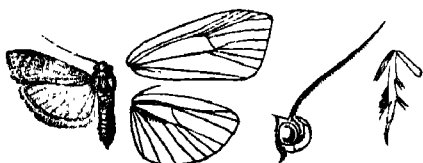


Fig. 62.—*Thiallela signifera*, ♂. †.

of male black. Fore wing yellow-brown; the basal area suffused with grey and irrorated with a few black scales; a sinuous black medial line, the area on its inner side and beyond it chiefly yellow-brown, with a grey patch in end of cell, and another beyond the cell extending to the costa and apex; a black discocellular speck and blackish patch beyond lower angle of cell; a submarginal black line excurved between veins 6 and 2; a marginal black line. Hind wing pale fuscous brown; the cilia grey, with a fuscous line through them.

Hab. Nágas; Borneo. *Exp.* 24 millim.

Genus **TEPHRIS**.

Tephris, Rag. *Mon. Phyc.* p. 446 (1803).

Caina, Rag. *Mon. Phyc.* p. 463.

Type, *T. cyriella*, Ersch., from Central Asia.

Range. Transcaucasus; Persia; Central Asia; W. India; Burma.

Palpi obliquely upturned, the 2nd joint hollowed out in male to contain the brush-like maxillary palpi, the 3rd joint short and porrect; frons with a conical tuft; antennæ of male with a slight sinus at base containing a large ridge of scales; tibiæ thickly scaled. Fore wing long and narrow; vein 3 from near angle of cell; 4, 5 approximated for a short distance; 10 free. Hind wing with the cell short; vein 2 from near angle; 3, 4, 5 stalked; 6, 7 stalked.

SECT. I. (*Caina*). Antennæ of male thickened and laminate ; hind wing with vein 7 anastomosing with 8.

4430. *Tephris inanitella*, *Rag. Nouv. Gen.* p. 25; *id. Mon. Phyc.* p. 464, pl. xlvii, fig. 7; *C. & S.* no. 4509.

Caina micrella, *Rag. Mon. Phyc.* p. 467, pl. vi, fig. 25.

Caina deletella, *Rag. Mon. Phyc.* p. 467, pl. xxvi, fig. 6.

Caina ciniferella, *Rag. Mon. Phyc.* p. 467, pl. xviii, fig. 12.

Head, thorax, and abdomen greyish white. Fore wing greyish

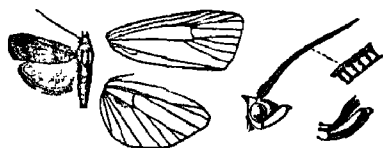


Fig. 63.—*Tephris inanitella*, ♂. 1.

white irrorated with fuscous ; the inner area usually with very slight ochreous tinge ; more or less developed medial black specks on median nervure and vein 1, two discocellular specks, and a marginal series of specks. Hind wing

semihyaline white, with pale brown marginal line. Underside of fore wing in male with a black streak below basal half of costa and another below vein 12.

Hab. Fao, Persian Gulf ; Punjab ; Sind ; Bombay ; Poona. *Exp.* 22 millim.

SECT. II. (*Tephris*). Antennæ of male ciliated ; hind wing with vein 8 free.

*4431. *Tephris connexella*, *Rag. Mon. Phyc.* p. 449, pl. xvii, fig. 19.

♀. Head and thorax grey and black ; abdomen brown suffused with black. Fore wing grey, irregularly irrorated with black ; the basal area darkest ; an oblique black-edged pale antemedial line with a black-irrorated whitish triangular patch beyond it, narrow at costa, broad at inner margin ; a discocellular black lunule ; a pale black-edged sinuous submarginal line, with an oblique line from it to lower angle of cell ; a marginal line. Hind wing pale semihyaline white tinged with brown ; two fine marginal lines.

Hab. Hyderabad, Sind. *Exp.* 21 millim.

*4432. *Tephris perlucidella*, *Rag. Mon. Phyc.* p. 450, pl. xvii, fig. 18.

♀. Head and thorax grey irrorated with black ; abdomen browner. Fore wing grey strongly irrorated with black, especially beyond the antemedial line, which is whitish, indistinct, very irregular, not reaching the costa, and broken by a waved black line formed of raised scales ; a submarginal minutely waved pale line slightly defined by fuscous ; a marginal series of specks ; cilia grey, with three fuscous lines. Hind wing semihyaline iridescent white, with two marginal brown lines.

Hab. Hyderabad, Sind. *Exp.* 23 millim.

- *4433. *Tephris ephippella*, *Rag. Bull. Soc. Ent. Fr.* 1890, p. ccxiii;
id. Mon. Phyc. p. 450, pl. vi, fig. 17.

♂. Head and thorax ochreous; abdomen irrorated with black. Fore wing steel-grey; the basal area suffused with black; the veins paler; the inner area darker; a pale antemedial line, oblique towards costa, angled on vein 1, where there is a reddish-brown patch; a pale postmedial oblique line defined by fuscous, toothed at vein 5 and with a black patch on costa beyond it; an irregular black line on median nervure and two black discocellular specks; a marginal series of specks. Hind wing semihyaline iridescent white; the costa blackish; a blackish marginal line and line through the cilia. Underside of fore wing with a streak of black scales below base of costa.

Hab. Shân States. *Exp.* 24 millim.

Genus ETIELLA.

- Etiella*, *Zell. Isis*, 1846, p. 733.
 Mella, *Wlk. Cat.* xix, p. 1017 (1859).
 Assara, *Wlk. Cat.* xxvii, p. 79 (1863).
 Modiana, *Wlk. Cat.* xxvii, p. 82.
 Alata, *Wlk. Cat.* xxvii, p. 108.
 Arucha, *Wlk. Cat.* xxvii, p. 201.

Type, *E. zinckenella*, Treit.

Range. Universally distributed.

Palpi porrect, thickly scaled, and extending about twice the length of head, the 2nd joint in male hollowed out and containing the brush-like maxillary palpi; frons with a conical prominence; antennæ of male with a sinus at base containing a thick ridge of large scales enclosing a hollow. Fore wing long and narrow; veins 2, 3, 4, 5 from close to angle of cell, but all well separated at origin; 10, 11 free. Hind wing with vein 2 from near angle of cell; 3 from angle; 6, 7 stalked, 7 anastomosing with 8.

SECT. I. Antennæ of male ciliated, the sinus and vesicular tuft of moderate size.

4434. *Etiella zinckenella*, *Treitschke, Schmett. Eur.* ix, 1, p. 201; *Rag Mon. Phyc.* p. 572; *C. & S.* no. 4601.
Phycis etiella, *Treitschke, Schmett. Eur.* x, 3, pp. 174, 276.
Chilo majorellus, *Costa, Faun. Nap.* no. 19, pl. 8, fig. 1, p. 3.
Chilo colonellus, *Costa, Faun. Nap.* no. 15, pl. 8, fig. 2, p. 7.
Mella dymnusalis, *Wlk. Cat.* xix, p. 1018.
Rhamphodes heraldella, *Guen. Mall. Faun. Ile de Réunion*, ii, G, p. 72.
Assara albicostalis, *Wlk. Cat.* xxvii, p. 108.
Modiana scitivittalis, *Wlk. Cat.* xxvii, p. 83.
Alata anticalis, *Wlk. Cat.* xxvii, p. 108.
Arucha indicatalis, *Wlk. Cat.* xxvii, p. 202.
Alata hastiferella, *Wlk. Cat.* xxxv, p. 1725.
Crambus sabulinus, *Butl. A. M. N. H.* (5) iv, p. 455.

Pempelia spartiella, *Rond. Bull. Soc. Ent. Ital.* 1876, p. 19, pl. i, figs. 1-15.

Etiella madagascariensis, *Saalm. Ber. Senck. Ges.* 1879-80, p. 307.

Etiella decipiens, *Staud. Berl. ent. Zeit.* 1870, p. 195.

Head, thorax, and abdomen pale rufous or purplish brown. Fore wing with a white costal fascia, with a grey-brown streak on costa from before middle to near apex; the rest of the wing grey-brown usually suffused with rufous, especially at base and below the costal fascia; an antemedial yellow-brown band with a ridge of raised red scales on its inner edge and a greyish patch before it; traces of a minutely dentate submarginal line and marginal series of specks. Hind wing semihyaline; the veins, apical area, a marginal line, and a line through the cilia brown.

Larva apple-green, with a broad red-brown dorsal band; head yellow, with a brown line behind it; prothorax with two pairs of depressed black spots and a lateral pair with reddish patches behind them; the other somites with black specks, the dorsal specks on white patches and with pale hairs rising from them. It lives in slender silken tubes in the pods of *Colutea*, *Phaseolus*, etc., and in India is destructive to the Bombay Hemp, *Crotalaria juncea*.

Hab. Universally distributed. *Exp.* 18-30 millim.

SECT. II. Antennæ of male with uniseriate branches for two-thirds length, the sinus and vesicular tuft very large.

4435. *Etiella venustella*, n. sp.

♂. Head, thorax, and abdomen ochreous suffused with fuscous. Fore wing slate-grey, with a large olive-yellow patch in, below, and beyond end of cell, crossed by a slightly sinuous pale medial line with a prominent black spot inside it below the cell; a slight ridge of raised scales at origin of vein 2; the grey area bounded

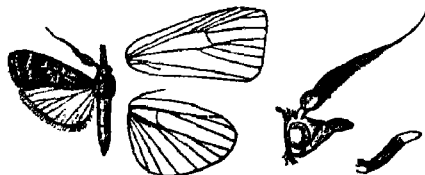


Fig. 64.—*Etiella venustella*, ♂. $\frac{1}{2}$.

by a minutely dentate whitish submarginal line; the outer area rufous, with a submarginal series of black marks largest towards apex and with a pale line on their outer edge; cilia fuscous, with a grey line at base. Hind wing pale semihyaline fuscous brown.

Hab. Bhután (*Dudgeon*); Nágas (*Doherty*). *Exp.* 24 millim. Type in coll. Elwes.

Subfamily EPIPASCHIINÆ.

Proboscis present; palpi almost always upturned, and in males often with the 2nd joint hollowed out to receive the brush-like maxillary palpi, which are sometimes bilobed; antennæ of male usually with a more or less developed thickly-scaled flagellate process from basal joint extending backwards over the thorax. Fore wing with tufts of raised scales below the cell and on discocellulars; veins 7, 8, 9 stalked. Hind wing with the median nervure non-pectinate; vein 8 usually free.

The larvæ of several species live in colonies in webs and form social cocoons.

Key to the Genera.

- A. Hind wing with vein 7 anastomosing with 8.
 - a. Both wings with veins 4, 5 approximated for a short distance 2. LEPIDOGMA, p. 111.
 - b. Both wings with veins 4, 5 stalked 1. PARORTHAGA, p. 110.
- B. Hind wing with vein 8 free.
 - a. Fore and hind wings with veins 4, 5 approximated for about one-third length 3. MACALLA, p. 112.
 - b. Fore and hind wings with veins 4, 5 radiating from angle of cell.
 - a'. Palpi with the 2nd joint reaching well above vertex of head 6. STERICTA, p. 120.
 - b'. Palpi with the 2nd joint hardly reaching vertex of head.
 - a². Fore wing without antemedial ridge of hair; antennæ of male non-pectinate.
 - a³. Tibiæ nearly smoothly scaled .. 7. ORTHAGA, p. 124.
 - b³. Tibiæ fringed with long hair .. 5. LOCASTRA, p. 118.
 - b². Fore wing with antemedial ridge of hair; antennæ of male pectinate 4. CÆNODOMUS, p. 116.

Genus **PARORTHAGA**, nov.

Type, *P. curyptera*, Meyr.

Range. Japan; Bhután; Ceylon; Sumbawa; Australia.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd well developed; maxillary palpi filiform; frons rounded; antennæ of male fasciculate; tibiæ slightly hairy. Fore wing with vein 3 approximated for a short distance to 4, 5, which are stalked; 6 from upper angle; 7, 8, 9 stalked; 10, 11 free; male with a glandular swelling on costa beyond middle. Hind wing with vein 3 from angle of cell; 4, 5 stalked; 6, 7 from upper angle, 7 anastomosing with 8.

4436. *Parorthaga euryptera*, *Meyr. Trans. Ent. Soc.* 1894, p. 476.

Grey slightly suffused with olive-brown or green; male with the anal tuft fuscous. Fore wing slightly irrorated with fuscous and with rather indistinct sinuous medial and postmedial waved lines; the outer area fuscous brown almost to the postmedial line. Hind wing whitish or pale fuscous, with indistinct curved postmedial line and the outer area suffused with fuscous.

Hab. Japan; Bhután; Ceylon; Sumbawa. *Exp.* 18 millim.



Fig. 65.—*Parorthaga euryptera*, ♂. 1.

Genus **LEPIDOGMA**.

Lepidogma, *Meyr. Trans. Ent. Soc.* 1890, p. 472.

Type, *L. tamaricalis*, Mann., from the Mediterranean subregion.

Range. Southern Europe; Central Asia; Bhután; Sind.

Palpi upturned, the 2nd joint reaching vertex of head, the 3rd of moderate length; maxillary palpi minute; antennæ of male fasciculate, with a large tuft of scales from apex of basal joint; mid and hind tibiae with the outer terminal spur short. Fore wing narrow, the costa straight; vein 3 from angle of cell; 4 and 5 approximated for one-third length; 7, 8 stalked; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4 and 5 approximated for half their length; 6, 7 on a short stalk, 7 anastomosing with 8.

SECT. I. Fore wing with vein 9 coincident with 8.

4437. *Lepidogma obatralis*, *Christ. Hor. Ent. Ross.* 1876, xii, p. 264, pl. 7, fig. 36.

Hypotia vafera, *Swinh. P. Z. S.* 1884, p. 523, pl. 48, fig. 8; *C. & S.* no. 4521.

Grey, suffused with brown and irrorated with black. Fore wing with black basal spot on costa and speck in base of cell; an antemedial white band slightly angled on median nervure; traces of a diffused dark oblique medial band from lower angle of cell to inner margin; a speck on discocellulars; a white postmedial line with dark inner edge and much bent outwards between veins 2 and 5. Hind wing white; the apical area fuscous; a white

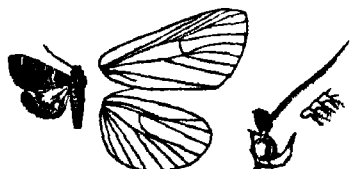


Fig. 66.—*Lepidogma obatralis*, ♂. 1.

postmedial line with dark inner edge bent outwards at vein 5 and obsolete below vein 2; cilia of both wings chequered white and black.

Hab. Krasnowvodsk, Siberia; Punjab; Karáchi. *Exp.*, ♂ 18, ♀ 24 millim.

SECT. II. Fore wing with vein 9 given off from 8.

4438. *Lepidogma rufescens*, n. sp.

♀. Head, thorax and abdomen pale rufous. Fore wing pale rufous irrorated with black scales; the discocellular tuft black; a broad diffused grey band beyond middle traversed by a minutely waved dark line; the outer area redder, with a marginal series of black specks. Hind wing pale rufous.

Hab. Bhután (*Dudgeon*). *Exp.* 20 millim. Type in B. M.

Genus **MACALLA**.

Macalla, *Wlk.* xvi, p. 155 (1858).

Lamida, *Wlk. Cat.* xvi, p. 252.

Allata, *Wlk. Cat.* xxvii, p. 110 (1863).

Epipaschia, *Clem. Proc. Nat. Sci. Phil.* 1860, p. 14.

Calinipaxa, *Wlk. Cat.* xxxiv, p. 1218 (1865).

Teliphasa, *Moore, Lep. Atk.* p. 200 (1883).

Parasarama, *Moore, A. M. N. H.* (6) vi, p. 474 (1890).

Orthotrichophora, *Warr. A. M. N. H.* (6) vii, p. 429 (1891).

Type, *M. thyrsisalis*, *Wlk.*, from Honduras.

Range. Nearctic and Neotropical regions; Japan; Oriental and Australian regions.

Palpi upturned, in female the 2nd joint long and reaching above vertex of head, the 3rd long; tibiæ slightly hairy. Fore wing with the apex rectangular; veins 4, 5 closely approximated for one-third of their length; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from angle of cell; 4, 5 closely approximated for one-third length; 6, 7 from angle of cell or shortly stalked.

The typical species belongs to Sect. I., but has long processes from basal joints of antennæ.

SECT. I. (*Lamida*). Male with the 2nd joint of palpi short, the 3rd immensely dilated and curved over vertex of head, with a hollow containing the brush-like maxillary palpi; antennæ minutely ciliated, with a tuft of hair from the head behind them.

4439. *Macalla nubialis*, *Hmpson. Ill. Het.* ix, p. 157, pl. 172, fig. 9.

♀. Head, thorax, and abdomen pale rufous grey with a few black scales; patagia olive at base. Fore wing olive-green and grey; the costal area fuscous to middle; an oblique black ante-medial line with a raised tuft of long scales on it; fan-shaped

tufts of long scales in end of cell and on discocellulars; a prominent diffused oblique black line across apex from costa to outer margin, with a dentate postmedial line excurved beyond cell arising from it; outer area suffused with brownish. Hind wing semihyaline; the apical area strongly suffused with fuscous, the inner area slightly suffused; cilia whitish at tips. Underside pale; the outer area and especially the apex of each wing fuscous.

Hab. S. India; Ceylon. *Exp.* 32 millim.

4440. *Macalla moncusalis*, *Wlk. Cat.* xvi, p. 252; *C. & S.* no. 2942. Allata penicillata, *Wlk. Cat.* xxvii, p. 111; *C. & S.* no. 4640. Orthaga obscura, *Moore, Lep. Atk.* p. 201; *C. & S.* no. 4490. Pseudolocastra inimica. *Snell. Trans. Ent. Soc.* 1890, p. 566 (*nec Butl.*).

♂. Dark fuscous. Fore wing with traces of dentate antemedial line angled in the cell; the fan of scales in end of cell grey; a black discocellular speck; an obscure dentate postmedial line highly angled at vein 4 and with diffused grey on its outer edge. Underside of hind wing with traces of discocellular lunule and minutely dentate postmedial line excurved from vein 6 to 2.

♀ paler and more olive-green.

Hab. Sikhim; Bhutan; Nagas; Manipur. *Exp.*, ♂ 26, ♀ 26-32 millim.

4441. *Macalla syrichtusalis*, *Wlk. Cat.* xvi, p. 165.

♂. Differs from *moncusalis* in the fore wing having a fringe of very long hair in cell and a fringe below costa from beyond middle to apex; darker olive-green with the markings hardly traceable. Hind wing dark fuscous with slight purplish reflections.

♀ with the fore wing variegated with ochreous as far as the postmedial line; the outer area purplish; the lines more prominent; a dark spot in cell and marginal series of spots. Hind wing purplish fuscous, with traces of sinuous line from beyond lower angle of cell to anal angle.

Hab. Sikhim; Nagas; Borneo. *Exp.* 30 millim.

4442. *Macalla albifusa*, n. sp.

♂. Head, thorax, and abdomen grey, suffused with olive and fuscous. Fore wing with the basal area olive-yellow and grey, with a few black scales on its outer edge; the medial area white irrorated with olive-yellow, with slight tufts of scales below cell and on discocellulars; a black discocellular spot; a postmedial irregular black band excurved between veins 6 and 2 and with a white spot beyond it on costa; the outer area olive suffused with black; a series of black specks on margin towards apex; cilia chequered with black. Hind wing white, with broad marginal fuscous band becoming obsolescent towards anal angle. Underside white; each wing with black cell-spot and diffused postmedial line with the area beyond it fuscous.

♂ with the postmedial line of fore wing dentate; the outer area irrorated with white scales. Hind wing with curved dark postmedial line bounding the pale area.

Hab. Sikkim (*Dudgeon*); Nágas (*Doherty*). *Exp.*, ♂ 34, ♀ 36 millim. Type in B. M.

SECT. II. (*Teliphasa*). Male with the maxillary palpi filiform; the 2nd joint of palpi short; the 3rd upturned, straight, reaching far above vertex of head and thickly clothed in front with downwardly directed hair; antennæ fasciculate, with a short hairy process from basal joint.

4443. *Macalla derogatella*, *Wlk. Cat.* xxvii, p. 30.

Teliphasa orbiculifer, *Moore, Lep. Atk.* p. 201; *C. & S.* no. 4481.

Teliphasa nubilosa, *Moore, Lep. Atk.* p. 201; *C. & S.* no. 4480.

Olive-green, thickly irrorated and suffused with black. Fore wing with a sinuous antemedial line, and indistinct minutely dentate postmedial line excurved between veins 5 and 2; the area

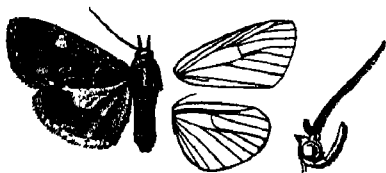


Fig. 67.—*Macalla derogatella*, ♂. †.

between the two lines more olive, with a black spot in the cell and a lunule on discocellulars; outer area fuscous, with a slight rufous tinge; cilia rufous and black. Hind wing ochreous, more or less suffused with fuscous; traces of a curved postmedial line. Underside of each wing with prominent black cell-spot and postmedial line angled beyond cell; the basal area pale, on fore wing suffused with fuscous in the cell and between veins 2 and 5; outer area fuscous.

The form *nubilosa* is much more suffused with fuscous than in the typical form and the hind wing is wholly suffused with fuscous except the costal area. One specimen has some white on thorax and a large patch in and below middle of cell of fore wing, and spot on discocellulars.

Another specimen is fuscous grey without any green tinge.

Hab. Dalhousie; Simla; Murree; Nágas; Sikkim; Borneo. *Exp.* 36 millim.

SECT. III. Palpi of male with a fringe of hair on 1st joint above, so that the palpi are thrown forward; the 2nd joint long, with fringe of down curved hair longest towards extremity; 3rd joint minute and porrect; basal joint of antennæ long, without process, the shaft arising at an angle.

4444. *Macalla scoporhyncha*, n. sp.

♂. Olive-green irrorated with black. Fore wing with black and white specks on costa; ill-defined black ante- and postmedial

lines, the former angled outwards below cell, the latter inwards and oblique; a black discocellular spot. Hind wing with indistinct dark curved postmedial line; both wings with marginal series of black specks.

Hab. Sikhim (*Pilcher*). *Exp.* 24 millim. Type in B. M.

SECT. IV. Male with the palpi similar to the female; antennæ somewhat thickened and minutely ciliated.

A. (*Epipaschia*). *Antennæ of male with a very long flagellate process from the basal joint recurved over thorax and fringed with long hair and scales below.*

4445. *Macalla validalis*, *Wlk. Cat.* xxxiv, p. 1218.

Scopocera minor, *Moore, Lep. Atl.* p. 203; *C. & S.* no. 4483.

Peucea fumosalis, *Warr. A. M. N. H.* (6) xvii, p. 461.

Golden olive, slightly irrorated with black scales. Fore wing with black marks on costa; an interrupted antemedial black line outwardly oblique from costa to vein 1; a prominent black spot at end of cell; a minutely dentate postmedial line excurved from vein 6 to 2; a marginal series of black specks; the cilia fuscous. Hind wing fuscous with a slight rufous tinge, and with traces of a curved postmedial line; a dark line through the cilia. Underside with minutely denticulate curved postmedial line.

One specimen has a large white patch on medial area of fore wing, and white patch on costa beyond the postmedial line.

Hab. Sikhim; Khásis; Nágas; Borneo. *Exp.* 22 millim.

B. (*Parasarama*). *Antennæ of male with no process from basal joint.*

4446. *Macalla dimidialis*, *Snell. Trans. Ent. Soc.* 1890, p. 568.

Pale grey; palpi fuscous. Fore wing with two red-brown spots on basal half of costa; the outer area red-brown, commencing from middle of costa obliquely to lower angle of cell; an indistinct postmedial line outlined with grey most strongly at costa and inner margin, bent outwards and minutely dentate between veins 6 and 2, then bent inwards and sinuous. Hind wing grey with a fuscous tinge, with faint traces of minutely dentate curved postmedial line.

Hab. Sikhim. *Exp.* 22 millim.

4447. *Macalla parvula*, n. sp.

♂. Head, thorax, and abdomen grey and fuscous, metathorax and first abdominal segment with paired dark tufts; anal tuft ochreous. Fore wing with the basal area olive-brown, bounded by a sinuous black line with white suffusion beyond it; the outer area fuscous brown; a black discocellular speck; the postmedial line blackish, oblique from costa to vein 4, then retracted to lower angle of cell and diffused to inner margin. Hind wing whitish,

with slight fuscous suffusion on apical and outer areas and an obscure diffused patch on vein 2.

Hab. Bhúj, Cutch (*Nurse*). *Exp.* 20 millim. Type in B. M.

4448. *Macalla exrufescens*, n. sp.

♂. Head, thorax, and abdomen grey with a reddish tinge and irrorated with black. Fore wing with the basal area pale reddish grey; a sinuous black antemedial line; the medial area grey thickly irrorated with black; tufts of black scales in end of cell and on discocellulars; a waved postmedial dark line incurved below vein 4, the area beyond it rufous; the margin and cilia with series of dark spots. Hind wing with the basal costal area white; the outer and inner areas fuscous and rufous; a rufous and fuscous lunule on vein 2, and series of dark spots on margin and cilia.

Hab. Sikhim. *Exp.* 38 millim. Type in B. M.

4449. *Macalla margarita*, *Butl. Ill. Het.* iii, p. 66, pl. 57, fig. 4.

Loenstra lativittu, *Moore, Lep. Atk.* p. 199, pl. 7, fig. 1; *C. & S.* no. 4476.

Parasarama conjuncta, *Warr. A. M. N. II.* (6) xvii, p. 454.

Parasarama rufitinctalis, *Warr. A. M. N. H.* (6) xvii, p. 455.

Olive-green and pure white irrorated with a few black scales. Fore wing with the basal area olive-green widening to inner margin; a white spot on base of costa; the medial area white and in form of an irregular Y from having an olive blotch at middle of costa; an obscure minutely dentate postmedial line angled at vein 4, then incurved and again bent outwards near inner margin; the outer area olive, with a more or less developed submarginal series of white specks. Hind wing white, with indistinct minutely dentate postmedial line; a fuscous marginal band, broad at apex and narrowing to anal angle; cilia chequered with fuscous.

Hab. Japan; Sikhim; Khásis; Nilgiris; Borneo. *Exp.* 34 millim.

4450. *Macalla cuproviridalis*, *Moore, P. Z. S.* 1867, p. 87; *C. & S.* no. 4475.

Head and thorax olive-green; abdomen white and black. Fore wing with the basal area olive-green with a few white scales on it, and bounded by the antemedial black line which is bent outwards below the cell; the medial area white irrorated with olive-green and with the costa green; a prominent black spot in the cell and lunule at end of it; a dentate diffused postmedial line, with the area beyond it olive-green with diffused black patches on it; a marginal series of white specks. Hind wing pure white, with a broad fuscous marginal band narrowing to anal angle.

Hab. Sikhim. *Exp.* 42 millim.

Genus **CŒNODOMUS**.

Cœnodomus, *Wlsm. Tr. Linn. Soc.* 1889, p. 49.

Alipps, *Aurivillius, Ent. Tids.* 1894, p. 176.

Type, *C. hockingii*, *Wlsm.*

Range. Punjab; Bengal; Himalayas; Nilgiris; Java.

Palpi upturned, thickly scaled, and hardly reaching vertex of head; the 2nd joint in male hollowed out to receive the brush-like maxillary palpi; antennæ of male bipectinated to two-thirds length with long branches decreasing distally, and with a process fringed with hair from basal joint; tibiæ and tarsal joints fringed with hair. Fore wing with the apex rounded; veins 3, 4, 5 from close to angle of cell; 6 from upper angle; 7, 8, 9 stalked; 10, 11 free; a large antemedial ridge of long hair from below the cell to inner margin and a tuft at upper angle. Hind wing with veins 3, 4, 5 from close to angle of cell; 6, 7 from upper angle; 8 free; tufts of long hair near lower angle of cell.

SECT. I. Antennæ of male with the process from basal joint short.

4451. *Cenodamus hockingii*, *Wlsm. Trans. Linn. Soc., Zool.* v, 1889, p. 49, pl. 5; *C. & S.* no. 4504.

Alippa anomala, *Aurivillius, Ent. Tids.* 1894, p. 176.

Head, thorax, and abdomen clothed with grey, black, and rufous hair. Fore wing grey irrorated with fuscous brown, which is the prevailing colour on the costal and basal areas; the tufts of long hair rufous with black tips; a slightly curved antemedial line; a highly sinuous pale rufous postmedial band edged by black lines. Hind wing grey thickly irrorated with fuscous brown; the tufts near lower angle of cell rufous tipped with black; a pale rufous sinuous postmedial band edged by waved black lines.

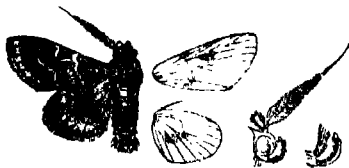


Fig. 68.—*Cenodamus hockingii*, ♂. 1.

Larva. Yellowish white; head dark brown; 1st somite with a large chitinous dorsal plate marked with about twelve pale brown spots and two brown lateral stripes; 2nd and 3rd somites with five or six brown spots; the 4th, 5th, and 6th each with two pairs of spots; 7th to 11 somites fuscous brown. Food-plant, *Eugenia jambolana*, Lam. The larvæ are gregarious and live in strong tubes composed of two layers of silk with excrement between them, from three to fifteen in each colony; the tubes are open at each end and the larvæ emerge as far as the 6th somite from either end to feed; the colony is attached to its food-plant by silken threads, but is able to move about from one part of the plant to another.

Hab. Simla; Kangra; Sikhim; Calcutta; Vizagapatam; Java. *Exp.*, ♂ 35–40, ♀ 36–50 millim.

4452. *Cenodamus rotundinidus*, *Hmps. Ill. Het.* viii, p. 127, pl. 154, fig. 16.

♀. Differs from *hockingii* in being much greyer and less irrorated with fuscous. Fore wing with the antemedial line

angled below the cell; both wings with a prominent lunulate rufous postmedial line, incurved below vein 3, before the postmedial band; a crenulate dark marginal line.

The larvæ feed on a tree of the Laurel tribe and turn to pupæ in a round ball, of about three inches diameter, made of the leaves and web spun together, about six larvæ to each colony.

Hab. Nilgiri plateau. *Exp.* 44 millim.

SECT. II. Antennæ of male with the process from basal joint reaching to end of metathorax.

4453. *Cœnodomus dudgeoni*, n. sp.

♂. Head, thorax, and abdomen ochreous and fuscous; wings leaden coloured. Fore wing with ill-defined sinuous black-edged white ante- and postmedial lines, the latter with some olive beyond it; the tufts of hair on basal area, discocellulars, and beyond the postmedial line blackish with a few white hairs. Hind wing with sinuous whitish postmedial line with olive patch beyond it at anal angle; tufts of black and white hair near base, end of cell, and beyond postmedial line.

Hab. Bhutân (*Dudgeon*). *Exp.* 32 millim. Type in B. M.

Genus **LOCASTRA**.

Locastra, *Wlk. Cat.* xvi, p. 158 (1858).

Taurica, *Wlk. Cat.* xxxiv, p. 1268 (1865).

Type, *L. crassipennis*, Wlk.

Range. Brazil; China; N.E. India; Ceylon; Burma; Borneo.

Palpi upturned and reaching vertex of head, the 2nd joint in male fringed with long hair at base, 2nd and 3rd curved forward, in the female the 2nd joint is tufted with hair at extremity, the 3rd minute and upturned; maxillary palpi dilated with scales; antennæ of male minutely serrate and fasciculate; tibiæ and tarsi fringed with very long hair. Fore wing with vein 1a strong; 3, 4, 5 from angle of cell; 6 from below upper angle; 7, 8, 9 stalked; tufts of raised scales below middle of cell and on discocellulars. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle, 7 often connected with 8 by a bar, or in one specimen vein 8 is connected with the end of the cell by an additional vein showing the bar to be the remains of one of the lost subcostals; male with the inner area clothed with long hair on upper and under sides.

SECT. I. Antennæ of male with a process from basal joint; fore wing with a glandular costal lobe at two-thirds from base, with the subcostal nervules bent round it.

A. (*Locastra*). Male with a very large recurved triangular process from basal joint of antennæ clothed with long rough scales; hind tibiæ extremely thickly clothed with rough curved scales to near extremity.

4454. *Locastra crassipennis*, *Wlk. Cat. xi*, p. 558; *C. & S. no.* 1926.
Locastra maimonalis, *Wlk. Cat. xvi*, p. 159.

Head, thorax, abdomen, and fore wing clothed with olive-yellow, rufous, and fuscous scales, the last with rufous basal and discal

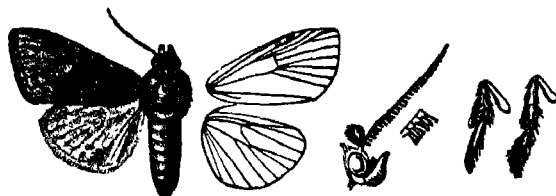


Fig. 69.—*Locastra crassipennis*, ♂. 1.

patches; dentate black ante- and postmedial lines, the latter highly excurved round end of cell; a black spot in end of cell; the outer area olive-yellow, with a marginal series of black stræ; the cilia rufous and fuscous. Hind wing of male pale with slight rufous tinge; of female fuscous brown.

Hab. Sylhet; Borneo. *Exp.*, ♂ 40, ♀ 50 millim.

- B. (Taurica). Male with the process on basal joint of antennæ much smaller; mid tibiae clothed with long hair, but without the thick curved scales.

4455. *Locastra muscosalis*, *Wlk. Cat. xxxiv*, p. 1200.
Taurica sikkima, *Moore, Lep. Atk. p.* 202; *C. & S. no.* 4482.
Locastra cristalis, *Hymen. Ill. Hel. ix*, p. 157, pl. 172, fig. 24.

Differs from *crassipennis* in being rufous and fuscous, with a slight green tinge but no olive-yellow shades. Fore wing with the antemedial line straighter; no spot in end of cell; the postmedial line more bent inwards at vein 2. Hind wing fuscous in both sexes and with traces of a pale dentate postmedial line.

Hab. N. China; Sikhim; Nágas; Ceylon; Rangoon. *Exp.*, ♂ 38, ♀ 46 millim.

SECT. II. Male with no process from basal joint of antennæ or glandular lobe on costa of fore wing, a patch of thick brown scales on underside below cell; hind wing very broad, with a patch of thick brown scales in cell above; abdomen with the claspers very large and large paired genital tufts.

4456. *Locastra pachylepidalis*, n. sp.

♂. Head, thorax, and abdomen olive-green irrorated with white; patagia fringed with rufous hair; genital tufts rufous. Fore wing dark green, the medial area irrorated with white; some white scales at base; the outer area irrorated with black; two dark spots

in cell. Hind wing with the costal half dark purple-brown; white streak below median nervure diffused beyond lower angle of cell; the inner area rufous.

Hab. Bhután, 2500 feet (*Dudgeon*). *Exp.* 32 millim. Type in B. M.

Genus STERICTA.

Stericta, *Led. Wien. ent. Mon.* vii, p. 340 (1863).

Glossina, *Guen. Delt. & Pyr.* p. 124 (1854), præocc.

Craneophora, *Christ. Bull. Soc. Nat. Mosc.* 1881, lvi (1), p. 1.

Sarama, *Moore, Lep. Atk.* p. 203 (1888).

Belenopholis, *Butl. Ill. Het.* vii, p. 89 (1890).

Trichotophysa, *Warr. A. M. N. H.* (6) xvii, p. 457 (1896).

Type, *S. divitalis*, *Guen.*

Range. Nearctic, Neotropical, Oriental, and Australian regions.

Palpi upturned and smoothly scaled, the second joint reaching above vertex of head, the 3rd long; tibiæ slightly fringed with hair; hind tibiæ with a terminal tuft on outer side. Fore wing with the apex rounded; vein 3 from near angle of cell; 4, 5 from angle; 6 from or from above upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 on a short stalk.

SECT. I. Antennæ of male with a long flagellate process on 1st joint recurved over the thorax and fringed below with long scales. Palpi of male with the 2nd joint hollowed out to receive the brush-like maxillary palpi.

A. Antennæ of male minutely ciliated.

a. (*Stericta*). Fore wing with slight tufts of scales below and beyond cell.

4457. *Stericta divitalis*, *Guen. Delt. & Pyr.* p. 124, pl. 7, fig. 4; *C. & S.* no. 4478.

Locastra phereciusalis, *Wlk. Cat.* xvi, p. 159.

Head rufous; thorax green; abdomen suffused with rufous. Fore wing bright rufous irrorated with black; a yellowish-green basal patch with black specks on it and indistinct subbasal line; a black-edged green antemedial line angled above inner margin, the green being diffused outwards through the cell to the black-edged slightly-curved postmedial line and between veins 3 and 4 to the outer margin; two black specks in end of cell; a marginal series of black lunules. Hind wing reddish brown; cilia of both wings pink. Underside of hind wing with the basal half pale; a curved medial line.

Hab. Assam; Ceylon; Borneo. *Exp.* 35 millim.

4458. *Stericta rufescens*, n. sp.

♂. Pale and dark red-brown; antennal processes black at tips. Fore wing dark red-brown, with pale patches at base of costa.

and apex; an indistinct sinuous antemedial line; black specks on median nervure, in cell, and on discocellulars; a postmedial black line excurved between veins 6 and 2; a marginal black line. Hind wing with submarginal black spot on vein 2; a pale patch at anal angle.

Hab. Bhután, 2500 feet (*Dudgeon*). *Exp.* 24 millim. Type in B. M.

4459. *Stericta asopialis*, *Snell. Trans. Ent. Soc.* 1890, p. 568.

♂. Head and thorax black; abdomen pale brown, with the extremity black. Fore wing with the basal area black, with large tufts of raised scales; the medial area olive-green, with black discocellular spot and fuscous marks on costa; the outer area fuscous black, with waved inner edge. Hind wing with the inner area tinged with rufous; the costal and apical areas fuscous; a slight dark submarginal mark on vein 2; underside with curved postmedial line.

♀ with the black areas tinged with cupreous, especially the outer area of fore wing, which has a postmedial line angled on vein 4 and outlined with olive-green. Hind wing uniform fuscous, except for the mark on vein 2.

Hab. Sikkim; Bhután. *Exp.*, ♂ 20, ♀ 24 millim.

b. (*Craneophora*). Fore wing with a ridge of long hair beyond cell and another below the cell; hind wing with ridge beyond cell and on inner area.

4460. *Stericta haraldusalis*, *Wlk. Cat.* xvi, p. 100.

Craneophora ficksi, *Christ. Bull. Soc. Nat. Mosc.* 1881, lvi (1), p. 2. *Scopocera variegata*, *Moore, Lep. Atk.* p. 203, pl. 7, fig. 4; *C. & S.* no. 4486.

Belenopholis striata, *Bull. Ill. Het.* vii, p. 90, pl. 134, fig. 3.

Head, thorax, and abdomen ochreous irrorated with black; the anal tuft pink and yellow. Fore wing with the base and costa

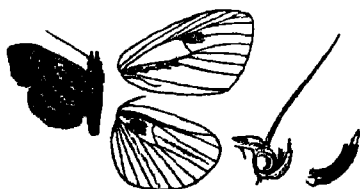


Fig. 70.—*Stericta haraldusalis*, ♂. †.

to beyond middle ochreous irrorated with black; the tuft at end of cell and the ridges consisting of black and white hair; an obliquely-curved antemedial line; the medial area pink, with an orange band below the cell; a postmedial curved black line with orange band beyond it; the outer area orange-red; the veins striped with black and white. Hind wing similar, but without the antemedial line; the outer area narrow, with traces of black and white streaks on the veins.

Hab. Amur; Japan; Simla; Dharmasala; Kulu; Sikkim; Tenasserim; Borneo. *Exp.*, ♂ 24, ♀ 30 millim.

- B. (Sarama). *Antennæ of male minutely serrate and fasciculate; palpi of female with a tuft of hair at extremity of 2nd joint on inside. Fore wing with two large tufts of scales below the cell and large tuft in and beyond the end; a ridge of scales below vein 2, and small tufts in the interspaces between veins 2 and 5.*

4461. *Stericta atkinsoni*, Moore, *Lep. Atk.* p. 204; C. & S. no. 4487.

Head and thorax yellowish olive, variegated with black and white. Fore wing yellowish olive, with more or less white on basal and postmedial areas; a black patch on basal costal area; two conjoined patches forming a diffused antemedial band; some black suffusion on disk; the tufts black and white; an indistinct minutely dentate curved postmedial line; cilia chequered white and black. Hind wing white, with slight fuscous suffusion, which is strongest on apical area; a curved minutely dentate postmedial line; a marginal black line; cilia white, with a few black specks.

Hab. Sikkim. *Exp.* 30 millim.

- C. (Scopocera). *Antennæ of male thickened and flattened; fore wing with ridges of long hair beyond the cell below veins 2 and 6, and a shorter ridge above vein 6; hind wing with ridges below vein 6 and between lower angle of cell and anal angle.*

4462. *Stericta sinuosa*, Moore, *Lep. Atk.* p. 203, pl. 7, fig. 3; C. & S. no. 4485.

Olive-green suffused with golden rufous; abdomen banded with black. Fore wing with the area from base to postmedial line, except the costal area, pale; the tufts below and in cell formed by long hair; the ridges composed of fiery red, black, and white hair; the postmedial line dentate, with white outer edge and excurved between veins 5 and 2. Hind wing with the basal and costal areas pale; the ridges composed of black, white, and fulvous hair; the postmedial line white, dentate, and excurved between veins 2 and 6. Both wings with a marginal series of dark specks. Underside pale, except the outer area of fore wing; both wings with dentate postmedial line.

Hab. Bhután; Sikkim. *Exp.*, ♂ 20, ♀ 30 millim.

4463. *Stericta pyraliata*, Moore, *Lep. Atk.* p. 202; C. & S. no. 4484.

Olive-green variegated with rufous and fuscous. Fore wing with the tufts composed of black, white, and rufous scales; the costa fuscous; a pale waved antemedial line with large fuscous patch inside it on inner area; a dark discocellular spot; a pale postmedial line excurved between veins 5 and 2, with a broad band of fuscous suffusion on its inner side and slight fuscous suffusion beyond it, and some cupreous scales on inner area; a marginal series of black striae. Hind wing pale; the outer area suffused

with fuscous; a minutely waved line from vein 5 to near anal angle; a marginal series of fuscous striæ. Underside with the fuscous pale-edged postmedial line prominent on each wing, and bent outwards at vein 4.

Hab. Sikkim. *Exp.* 24 millim.

4464. *Stericta aglossalis*, Warr. *A. M. N. H.* (6) xvii, p. 456.

Head and thorax clothed with yellowish-green and black hair; abdomen rufous and black. Fore wing with the basal half yellowish green and black; an ill-defined antemedial line, with dentitions in and below cell; the tuft in cell black and white; the outer area fuscous and black, with a flesh-pink subapical streak and larger fascia on vein 2; a crenulate postmedial line excurved between veins 2 and 5; a few white hairs in the streaks. Hind wing fuscous and black, with some white hairs in the streaks; a dentate postmedial line excurved between veins 2 and 5. Underside grey, with the postmedial dentate line prominent.

Hab. Dalhousie; Khásis. *Exp.*, ♂ 30, ♀ 34 millim.

SECT. II. Male with the maxillary palpi filiform; antennæ with fascicles of cilia and no process on basal joint.

A. Fore wing of male with no fovea on underside beyond the cell.

4465. *Stericta carneotincta*, n. sp.

♂. Head, thorax, and abdomen ochreous and white. Fore wing white, the basal half irrorated and suffused with ochreous, which forms two irregular patches in and below end of cell; the medial area less marked with ochreous; traces of a waved post-medial ochreous band excurved between veins 5 and 2, and with dark marks beyond it between veins 1 and 6; the outer area ochreous, with a series of marginal specks. Hind wing suffused with flesh-colour; traces of a waved postmedial line; a darker marginal band.

Hab. Sikkim (*Dudgeon*). *Exp.* 30 millim. Type in B. M.

4466. *Stericta plumbifloccalis*, n. sp.

♂. Ochreous white; palpi fuscous at extremity; antennæ fuscous; abdomen with dorsal leaden-coloured bands on the first two segments. Fore wing with the costal area tinged with rufous; some slight leaden streaks on basal inner area; tuft-bearing leaden streaks below middle and in and beyond end of cell; a slightly sinuous pale postmedial line inwardly defined by fuscous, and with the area beyond it fuscous. Hind wing with sinuous black postmedial line, most strongly marked towards inner margin; two submarginal leaden specks on middle of outer area.

Hab. Tenasserim (*Doherty*). *Exp.* 22 millim. Type in coll. Druce.

B. (*Trichotophysa*). *Fore wing of male with a large fovea on under-side beyond the discocellulars, covered with long hair and with vein 6 bent round it; a fan of scales above.*

4467. *Stericta jucundalis*, *Wlk. Cat.* xxxiv, p. 1164; *C. & S.* no. 4489; *Hmps. Ill. Het.* ix, pl. 172, fig. 7.

Trichotophysa olivialis, *Warr. A. M. N. H.* (6) xvii, p. 457.

♂. Golden olive, slightly irrorated and suffused with black. Fore wing with two subbasal black specks, the upper on costa; an indistinct antemedial series of black specks, with traces of a waved line beyond them; a black speck before the discocellular tuft; the disk irrorated with black and rufous scales; a minutely dentate postmedial line excurved from vein 2 to 6, and with two indistinct dark streaks beyond its middle. Hind wing fuscous; the margin slightly tinged with rufous; both wings with marginal series of dark specks; the cilia white, chequered with black. Underside of hind wing with postmedial dentate line.

Hab. Bhután; Kluís; Ceylon. *Exp.* 22 millim.

Genus ORTHAGA.

Orthaga, *Wlk. Cat.* xvi, p. 191 (1858).

Catamola, *Meyr. Trans. Ent. Soc.* 1884, p. 63.

Balanotis, *Meyr. Trans. Ent. Soc.* 1884, p. 69.

Pannucha, *Moore, Lep. Atk.* p. 199 (1888).

Hyperbalanotis, *Warr. A. M. N. H.* (6) vii, p. 433 (1891).

Type, *O. euadrusalis*, *Wlk.*

Range. Japan; Oriental region; Australia.

Palpi upturned, reaching vertex of head, and roughly scaled; maxillary palpi liliiform; antennæ of male minutely serrate and fasciculate; tibiæ smoothly scaled. Fore wing with the apex rounded; slight tufts of raised scales below middle and beyond end of cell; vein 3 from near lower angle of cell; 4, 5 from the angle; 7, 8, 9 stalked; male usually with a furrow above vein 6, which is bent down to near 5, and a glandular lobe on costa at two-thirds from base, with veins 10, 11 curved round it. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle or shortly stalked.

SECT. I. (*Orthaga*). Male with no process from basal joint of antennæ.

A. *Male with the maxillary palpi filiform.*

4468. *Orthaga roseiplaga*, n. sp.

♂. Head and thorax grey suffused with dark rufous; abdomen rufous irrorated with fuscous. Fore wing grey, irrorated and suffused with dark rufous; traces of a minutely dentate antemedial line and more prominent postmedial line excurved from costa to vein 2, then bent outwards, the area beyond it dark rufous;

a dark speck in end of cell and two on costa above it; a pink patch just beyond the discocellulars. Hind wing fuscous brown.

Hab. Bombay. *Exp.* 30 millim. Type in B. M.

4469. *Orthaga rudis*, *Wlk. Trans. Ent. Soc.* 3rd series, i, p. 115; *C. & S.* no. 4477.

♀. Pale reddish brown and grey, slightly irrorated with fuscous. Fore wing with the basal half slightly tinged with olive; some black scales before the grey and rufous tufts below and at end of cell; the tuft beyond the cell dark; a dentate postmedial dark line with grey outer edge, excurved from the costa to vein 4, then incurved, a diffused dark line across its curve and sometimes white in the curve; a marginal series of dark specks. Hind wing pale, suffused with fuscous brown on outer half; traces of a waved postmedial line, which is more prominent on underside.

Hab. "India"; Nilgiris. *Exp.* 40 millim.

4470. *Orthaga exvinacea*, *Hmpsn. Ill. Het.* viii, p. 127, pl. 154, fig. 9.

♀. Differs from *roseiplaga* in the basal two-thirds of fore wing being suffused with dull olive-green; a dark speck beyond the cell but no pink patch; the postmedial line regularly curved and crenulate; the outer area suffused with vinous and with a prominent series of dark marginal specks. Hind wing with dark marginal line. Underside of hind wing pale to beyond the slightly waved curved postmedial line; the outer area fuscous.

Hab. Nilgiris, W. slopes. *Exp.* 30 millim.

4471. *Orthaga irrorata*, *Hmpsn. Ill. Het.* ix, p. 156, pl. 172, fig. 1.

♀. Head, thorax, abdomen, and fore wing clothed with grey, ferruginous, and fuscous scales; the last with a ferruginous spot at base; two obscure ferruginous medial lines; a short black streak on median nervure and speck on discocellulars; a highly curved and minutely dentate postmedial dark line with rufous in its curve, grey outer edge, and the area beyond it suffused with brown; a marginal series of brown specks. Hind wing brown; the cilia grey-tipped. Underside brown; hind wing with obscure curved postmedial line.

Hab. Ceylon. *Exp.* 28 millim.

4472. *Orthaga euadrusalis*, *Wlk. Cat.* xvi, p. 191; *Moore, Lep. Ceyl.* iii, pl. 178, figs. 2, 2 a; *C. & S.* no. 4488.

Orthaga acontialis, *Wlk. Cat.* xxvii, p. 103.

Head and thorax grey with a slight olive-green tinge; abdomen grey suffused with fuscous. Fore wing yellowish white with an olive tinge and slight rufous and fuscous irroration; black specks at base and in middle of cell; a large antemedial black spot on costa; a curved minutely dentate postmedial line; the apical half

of outer area fuscous; the inner half olive suffused with fuscous; cilia chequered with black. Hind wing fuscous; the cilia rufous; underside with indistinct medial curved line.

The larvæ live as colonies in webs in cases formed of their own excrement.

Hab. Sikkim; Ceylon; Borneo; Java. *Exp.* 32 millim.

4473. *Orthaga molleri*, n. sp.

♂. Olive-green, variegated with yellow and black. Fore wing with subbasal black mark on costa; an ill-defined double-waved antemedial black line; some black suffusion below lower angle of cell; a dentate postmedial line excurved beyond cell; marginal and cilia series of dark spots. Hind wing pale fuscous, with paler postmedial band with crenulate edges; a marginal line and series of specks on the cilia.

Hab. Sikkim, 7000 feet (Müller). *Exp.* 28 millim. Type in B. M.

4474. *Orthaga auroviridalis*, n. sp.

Golden olive; frons and thorax marked with white; abdomen irrorated with fuscous. Fore wing with a white subbasal speck on costa; a white mark before the black tuft of scales below the cell; the medial area irrorated with black; an oblique white medial mark from costa; some black scales in the discocellular tuft; a submarginal crenulate black line excurved from veins 6 to 2 and with white outer edge; a marginal series of black specks. Hind wing fuscous brown. Underside with indistinct crenulate submarginal line to both wings.

Hab. Sikkim; Bhutân (Dudgeon). *Exp.*, ♂ 26, ♀ 34 millim. Type in B. M.

B. Male with the 2nd joint of palpi hollowed out to receive the brush-like maxillary palpi.

4475. *Orthaga onerata*, Butl. A. M. N. H. (5) iv, p. 447.

Head and thorax clothed with olive-green and grey scales, the abdomen with white and black scales. Fore wing with the base olive-green, with a diffused grey line on it and a black mark at middle; the medial area grey, with traces of a waved olive antemedial line; a prominent black speck at end of cell; the outer area suffused with black and irrorated with grey towards margin; a curved crenulate postmedial line with grey outer edge; a marginal series of black specks; cilia chequered pale rufous and black. Hind wing pale fuscous; the cilia pale, with a dark line through them; underside with curved, slightly crenulate postmedial line.

Japanese specimens are rather browner than the female from Bhutân.

Hab. Japan; Bhutân; Java. *Exp.* 24 millim.

SECT. II. Male with a long process from basal joint of antennæ recurved over thorax, and with tufts of long scales below towards extremity.

A. (Panucha). Male with a glandular lobe on costa and vein 6 downcurved.

4476. *Orthaga vitialis*, *Wlk. Cat.* xix, p. 897; *C. & S.* no. 4474.
Pyralis helvialis, *Wlk.* xix, p. 915.
Catamola elassota, *Meyr. Trans. Ent. Soc.* 1884, p. 280.

Pale rufous irrorated with fuscous. Fore wing with the basal area dark bounded by an oblique line; a dark medial spot on costa; an obscure antemedial line highly excurved from vein 6 to 2, where it is suddenly bent inwards; the whole apical area fuscous and some fuscous suffusion near outer angle; a marginal series of dark specks. Hind wing pale, with traces of minutely crenulate postmedial line; the margin suffused with fuscous; cilia of both wings pinkish.

Hab. Ceylon; Australia. *Exp.* 26 millim.

4477. *Orthaga basalis*, *Moore, Lep. Atk.* p. 200, pl. 7, fig. 2.

♂. Head and thorax ochreous suffused with rufous; abdomen suffused with fuscous, and with rufous towards extremity. Fore wing of various shades of rufous; the costal and outer areas tinged with olive; the basal and outer areas irrorated with white; an indistinct minutely dentate antemedial line; a dentate postmedial line excurved beyond cell. Hind wing pale fuscous; both wings with the margin dark, with white specks at the veins; the cilia rufous

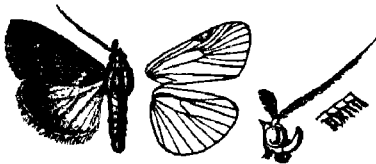


Fig. 71.—*Orthaga basalis*, ♂. †.

chequered with black. Underside of fore wing fuscous, with some ochreous and black specks on middle of costa. Hind wing ochreous irrorated with black; a minutely dentate postmedial curved line; apical area fuscous.

Hab. Sikkim; Nágas. *Exp.* 32 millim.

4478. *Orthaga senescens*, *Moore, Lep. Atk.* p. 200; *C. & S.* no. 4478.
Pannucha vicinalis, *Snell. Trans. Ent. Soc.* 1890, p. 567, pl. 20, figs. 2, 2 a.

Olive-green irrorated with black. Fore wing with a triangular black subbasal patch, with its base on the costa, its apex nearly touching inner margin, and with traces of a waved antemedial line beyond it; a black spot at end of cell; a minutely dentate post-medial black line highly excurved from veins 6 to 2, and with

olive-green on its outer edge, beyond which is black suffusion of a somewhat denticulate form; a marginal series of black specks; cilia pink and black. Hind wing fuscous; the cilia pinkish; underside with a curved minutely dentate postmedial line.

Hab. Sikkim; Nágas. *Exp.*, ♂ 30, ♀ 32 millim.

B. Male with no glandular swelling on costa and vein 6 straight.

4479. *Orthaga euryzona*, n. sp.

♂. Head and thorax blackish, the antennal processes and patagia rufous; abdomen brown tinged with fuscous. Fore wing reddish brown, with a medial black band occupying half the wing, its inner edge sinuous, its outer excurved between veins 5 and 2. Hind wing pale rufous, with a fuscous patch beyond lower angle of cell and slight dark mark beyond it on the margin.

Hab. E. Pegu (*Doherty*). *Exp.* 22 millim. Type in coll. Elwes.

Subfamily CHRYSAUGINÆ.

Proboscis well developed; palpi of extremely different types; maxillary palpi absent; frons usually with a conical tuft. Fore wing with vein 7 stalked with 8, 9 in female, the subcostal neuraction varying greatly in the male in relation to the secondary sexual characters. Hind wing with the median nervure not pectinate above; vein 7 almost always anastomosing with 8.

This subfamily is almost confined to the Neotropical region, where it is very largely developed.

Key to the Genera.

- | | |
|---|-------------------|
| A. Palpi upturned, reaching just above vertex of head | [p. 128. |
| B. Palpi porrect, straight, and about four times length of head | 1. TERATOMORPHA, |
| | 2. MACNA, p. 120. |

Genus TERATOMORPHA.

Teratomorpha, *De Nicéville, Jour. Bom. N. H. Soc.* x, p. 192 (1806).

Type, *T. hampsoni*, De Nicéville.

Range. Burma.

Palpi upturned, the 2nd joint reaching vertex of head and moderately scaled in front, the 3rd short and naked; maxillary palpi absent; frons rounded; antennæ almost simple; tibiæ with the outer spurs about two-thirds length of inner. Fore wing with the costa arched at base and excised beyond middle, the apex bent upwards, arched and falcate; the outer margin excised below apex, produced and hooked at middle, then excised to outer angle; the inner margin lobed; male with large costal glandular swelling at base, on underside with tufts of long hair proceeding from it;

vein 3 from before angle of cell; 4, 5 from angle; 7, 8, 9 curved; 10 from cell. Hind wing with the outer margin somewhat excised below apex and angled at vein 2; vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle, 7 anastomosing slightly with 8.

4480. *Teratomorpha hampsoni*, De Nicéville, *Jour. Bom. N. H. Soc.* x, p. 192, pl. 1, f. 52.

♂. Head dark vinous red; thorax and abdomen fuscous. Fore wing dark sap-green; the base and costal area dark vinous red; a large vinous-red discocellular reniform spot conjoined to the red costal area, extending below vein 2, and enclosing a green spot at its upper exterior edge; the outer area suffused with vinous-red scales. Hind wing fuscous brown; the inner area deep smoky black; the cilia reddish. Underside fuscous brown; the outer area of fore wing vinous red; hind wing with indistinct pale sinuous submarginal line.

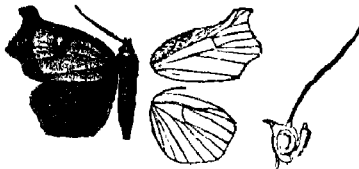


Fig. 72.—*Teratomorpha hampsoni*, ♂. †.

Hab. Dawnat Range, Tenasserim. *Exp.* 32 millim.

Genus **MACNA**.

Macna, *Wlk. Cat.* xvi, p. 78 (1858).

Rhabana, *Wlk. Cat.* xxxiv, p. 1517 (1865).

Goossensia, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 97.

Type, *M. pomalis*, *Wlk.*

Range. Bhután; Andamans; Malayan subregion.

Palpi porrect, with the 2nd joint three times the length of head and fringed with hair above and below, the 3rd long and fringed with hair below; antennæ ciliated; tibiæ and tarsi fringed with long hair. Fore wing with the costa arched, the apex produced to a point; the outer margin angled at vein 4 and excised from vein 4 to apex; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 7, 8, 9, 10 stalked. Hind wing with the outer margin very slightly angled at vein 2; the anal angle truncate; vein 3 from close to angle of cell; 4, 5 shortly stalked; 6, 7 stalked, 7 anastomosing slightly with 8.

Male with a large costal glandular swelling at base of fore wing on underside, with a thick tuft of silken hair from it directed obliquely downwards; the basal half of costa fringed with hair below.

4481. *Macna pomalis*, *Wlk. Cat.* xvi, p. 78; *C. & S.* no. 2829.

Goossensia prasinalis, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 98; *id. Mon.*

Phyc. pl. xlv, fig. 4.

Bright apple-green. Fore wing with indistinct fine waved rufous antemedial line, dentate in the cell; the reniform outlined by a fine rufous line; indistinct fine dentate postmedial and submarginal lines, the former with a white-centred spot on it below vein 2, the latter with a black spot above vein 2. Hind

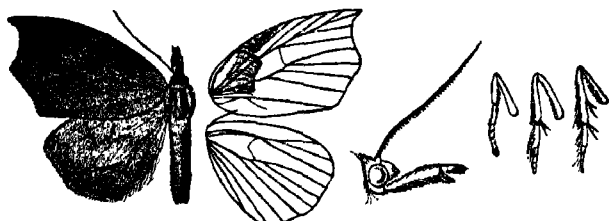


Fig. 73.—*Macna pomalis*, ♂. †.

wing with a slight pinkish tinge; a pinkish spot on discocellulars; traces of waved postmedial and submarginal lines; cilia pinkish. Underside with the costal area of both wings and cell-spots pinkish.

Hab. Bhután; Malacca; Singapore; Salanga. *Exp.*, ♂ 50, ♀ 64 millim.

4482. *Macna platychloralis*, *Wlk. Cat.* xxxiv, p. 1517.

♂. Differs from *pomal* in the hind wing being vinous red above and below, and usually with the postmedial line prominent.

♀ with large dark patches on area near outer angle of fore wing, and on anal area of hind wing.

Hab. Andamans; Java. *Exp.*, ♂ 52–54, ♀ 62 millim.

Subfamily ENDOTRICHINÆ.

Build slender; maxillary palpi present; proboscis well developed. Fore wing with veins 7, 8, 9 stalked*. Hind wing with the median nervure non-pectinate; vein 7 anastomosing with 8.

Key to the Genera.

A. Palpi upturned.

a. Fore wing with veins 3, 4, 5 stalked.

a'. Fore wing with vein 2 absent; 7, 8, 9, 10, 11 stalked 4. PETTA, p. 137.

b'. Fore wing with vein 2 present; 7, 8, 9, 10 stalked 3. CANGETTA, p. 136.

b. Fore wing with vein 3 from cell.

a'. Palpi reaching far above vertex of head; fore wing with veins 7, 8, 9, 10 stalked 1. RODABA, p. 131.

* In *Hendecasis* and some species of *Trichophyesis* vein 7 is absent.

- b*. Palpi hardly reaching vertex of head; fore wing with vein 10 free. 2. *ENDOTRICHA*, p. 132.
- B. Palpi porrect.**
- a*. Palpi triangularly scaled, 3rd joint hidden in hair; both wings with veins 4, 5 approximated towards origin 9. *COTACHENA*, p. 142.
- b*. Palpi rostriform and downcurved; both wings with veins 4, 5 stalked.
- a'*. Fore wing with vein 10 free; antennæ with the shaft smooth. . 8. *ROSTRIPALPUS*, p. 142.
- b'*. Fore wing with vein 10 stalked with 7, 8, 9; antennæ with the shaft annulate 7. *PLEONECTOIDES*, p. 141.
- c*. Palpi straight, two or three times length of head; maxillary palpi triangularly scaled.
- a'*. Palpi thickly fringed with hair above and below 5. *TRICHOPHYSETIS*, p. 138.
- b'*. Palpi nearly naked 6. *HENDECASIS*, p. 140.

Genus **RODABA**.

Rodaba, Moore, *Lep. Atk.* p. 205 (1888).

Type, *R. angulipennis*, Moore.

Range. Sikkim.

Palpi obliquely upturned, the 2nd joint reaching far above vertex of head and fringed with hair on both sides, the 3rd acute; maxillary palpi minute and filiform; antennæ nearly simple; tibiæ with the spurs long. Fore wing with the costa nearly straight; the apex falcate; the outer margin excised from apex to vein 4, where it is highly angled, then excised to outer angle; vein 3 from close to angle of cell; 4, 5 from angle; 10 stalked with 7, 8, 9. Hind wing with the apex somewhat produced; vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4483. *Rodaba angulipennis*, Moore, *Lep. Atk.* p. 205; *C. & S.* no. 4492.

Dark coppery red. Fore wing with the medial part of costa



Fig. 74.—*Rodaba angulipennis*, ♂.

leaden grey; an indistinct dark-edged grey antemedial band angled below the cell; a dark discocellular spot; a double oblique grey post-medial band with fuscous suffusion on its edges extending to the outer margin below the angle; cilia white, dark at apex and middle. Hind wing fuscous, with traces of curved double postmedial line.

Hab. Sikkim. *Exp.* 26 millim.

Genus **ENDOTRICHA.**

- Endotricha*, *Zell. Isis*, 1847, p. 593.
Doththa, *Wlk. Cat.* xvii, p. 285 (1859).
Messatis, *Wlk. Cat.* xix, p. 918 (1859).
Pacoria, *Wlk. Cat.* xxxiv, p. 1255 (1865).
Zamia, *Wlk. Cat.* xxxiv, p. 1256.
Tricomia, *Wlk. Cat.* xxxiv, p. 1259.
Rhisina, *Wlk. Cat.* xxxiv, p. 1324.
Endotrichodes, *Rag. Ann. Soc. Ent. Fr.* 1890, p. 521.
Endotrichopsis, *Warr. A. M. N. H.* (6) xvi, p. 467 (1895).
Perisseretma, *Warr. A. M. N. H.* (6) xvi, p. 468.

Type, *E. flammealis*, Schiff., from Europe.

Range. Universally distributed.

Palpi upturned, hardly reaching vertex of head, and thickly scaled; maxillary palpi usually minute and filiform: antennæ of male ciliated, the basal joint somewhat dilated; patagia of male with long tufts of hair extending far beyond metathorax; abdomen with thick lateral anal tufts; legs long, slender, and smoothly scaled. Fore wing usually long and narrow; the costa arched towards apex, which is acute; vein 3 from before angle of cell; 4, 5 approximated towards origin or stalked; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 approximated towards origin or stalked; 6, 7 shortly stalked.

SECT. I. (*Zamia*). Male with the fore wing very broad, the inner margin expanded and lobed, the outer margin erect; hind wing very broad, with a fold running from the base through the cell to outer margin, the inner area expanded and lobed.

4484. *Endotricha decessalis*, *Wlk. Cat.* xvii, p. 390; *Hmps.* III. *Het.* ix, pl. 172, fig. 11; *C. & S.* no. 4496.

Differs from *albicilia* in being more fulvous red; fore wing with the antemedial line dark; the submarginal line arising from the costa further from the apex and running obliquely to outer angle.

Hab. Ceylon; Burma; Sumbawa. *Exp.* 20 millim.

SECT. II. Male with the wings normal.

A. (*Perisseretma*). *Maxillary palpi of male twice as long as the labial, curved and meeting at apex, fringed with long scales on inner side towards extremity.*

4485. *Endotricha endotrichalis*, *Warr. A. M. N. H.* (6) xvi, p. 468.

♂. Purplish pink irrorated with fuscous. Fore wing with the basal area suffused with fuscous, its outer edge oblique; a prominent black discocellular spot; a quadrate black patch between lower angle of cell and vein 1; an indistinct oblique pale postmedial line; the outer area suffused with fuscous; a marginal series of black specks. Hind wing with traces of an antemedial and two postmedial pale lines; a marginal series of dark specks.

Hab. Mussoores. *Exp.* 16 millim.

B. (*Endotricha*). *Maxillary palpi of male normal.*a. *Antennæ of male with a spine on basal joint.*4486. *Endotricha mesenterialis*, *Wlk. Cat. xvii*, p. 285; *Moore, Lep.**Ceyl. iii*, pl. 178, fig. 8; *C. & S. no. 4493.**Endotricha suffusalis*, *Wlk. Cat. xvii*, p. 300; *C. & S. no. 4495.**Endotricha flavifimbrialis*, *Warr. A. M. N. H. (6) viii*, p. 69.*Endotricha eoidalis*, *Snell. Tijds. v. Ent. xxxviii*, 1894, p. 10, pl. 5, figs. 2, 3.

♂. Fulvous; wings with the basal area bright pink, bounded by the antemedial line followed by an ochreous-yellow medial band running out along costa to near apex of each wing; the outer area suffused with pink. Fore wing with sinuous submarginal yellow line and marginal pink band. Hind wing with sinuous postmedial line; cilia golden yellow, pink at apex and middle of fore wing, their bases with pink spots on hind wing.

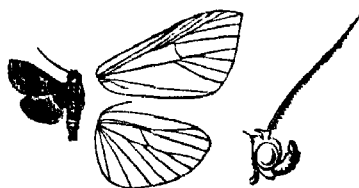


Fig. 75.

Endotricha mesenterialis, ♂. 1.

♀ with the head, thorax, and abdomen often suffused with pink, sometimes leaving the anal segments fulvous; fore wing with the medial band and costal fascia more or less completely suffused with pink; hind wing completely suffused with pink.

The form *suffusalis* has the basal area of both wings suffused with fuscous.

Hab. Formosa; N.W. Himalayas; Bombay; Nilgiris; Ceylon; Thayetmyo, Burma; E. Pegu; Borneo; Java. *Exp.* 18-22 millim.

b. *Antennæ of male with no spine on basal joint.*4487. *Endotricha albicilia*, *Hmps. Ill. Het. viii*, p. 130, pl. 154, fig. 22.

Fulvous suffused with pink; the wings slightly irrorated with black. Fore wing with the costa black, with small ochreous spots at regular intervals; an indistinct pale waved antemedial line; a dark speck at end of cell; a slightly crenulate dark submarginal line. Hind wing much pinker; the costal area and the intermedian interspace as far as the postmedial line ochreous; a curved medial pale line and slightly sinuous postmedial pale line ending at anal angle; cilia of both wings pale at base, pure white at tips.

Hab. Sikkim; Nilgiris; Ceylon. *Exp.*, ♂ 30, ♀ 20 millim.

4488. *Endotricha costæmaculalis*, *Christ. Bull. Soc. Nat. Mosc.* 1881, i, p. 4.*Endotricha fuscobasalis*, *Rag. Ann. Soc. Ent. Fr.* 1890, p. 526.

♂. Fulvous suffused with pink and fuscous; thorax, base of abdomen, and basal area of wings strongly suffused with fuscous black. Fore wing with sinuous antemedial white line; a disco-

cellular black lunule; a fulvous fascia and white specks on outer half of costa; a minutely dentate fulvous-edged dark submarginal line bent inwards below vein 6. Hind wing with the basal black area sending a large patch across the middle of the medial band which is pale; cilia bright yellow, black at apex of fore wing and middle of each wing. Underside of hind wing with the ante- and postmedial lines strongly outlined with black.

♀ without the black suffusion on thorax, abdomen, and base of wings; hind wing with ochreous medial band with the black ante- and postmedial lines just inside its edges.

Hab. Siberia; Japan; Dalhousie; Sikhim. *Exp.* 24 millim.

4480. *Endotricha fuscifusalis*, n. sp.

♂. Head, thorax, and abdomen fulvous and fuscous; wings dark red suffused with fuscous or fuscous brown. Fore wing with ill-defined curved antemedial whitish line; a fulvous fascia and white specks on the outer half of costa; a white submarginal line minutely dentate below costa and bent inwards below vein 6, then straight. Hind wing with a medial white band with some black on it and constricted at vein 2; cilia white, with their bases fuscous and pink or fuscous only in dark specimens, black at apex of fore wing and middle of each wing. Underside of hind wing with the ante- and postmedial lines strongly outlined with black.

Hab. Murree; Dalhousie (*Harford*). *Exp.*, ♂ 22, ♀ 20 millim. Type in B. M.

4490. *Endotricha serratalis*, Snell. Trans. Ent. Soc. 1890, p. 570.

♀. Head, thorax, and abdomen fuscous, with a few ochreous scales. Fore wing fuscous suffused with dark vinous red; a slightly sinuous white antemedial line with some ochreous suffusion beyond it at middle; a series of white specks on costa; a black discocellular lunule; a white submarginal line much bent inwards and dentate between veins 6 and 2. Hind wing whitish slightly suffused with fuscous; both wings with marginal series of black striæ. Underside of hind wing fuscous, with irregular dark ante- and postmedial lines approaching each other towards inner margin.

Hab. Sikhim. *Exp.* 24 millim.

4491. *Endotricha loricata*, Moore, Lep. Atk. p. 206; C. & S. no. 4497. *Pyralis ustalis*, Hampson. Ill. Hel. ix, p. 159, pl. 172, fig. 26.

♀. Pale brick-red suffused and irrorated with fuscous. Fore wing with a series of pale specks on the costa; a slightly oblique pale medial line with fuscous suffusion inside it; a dark cell-speck; a slightly curved submarginal dark-edged pale line running obliquely to outer angle; a marginal series of black specks. Hind wing suffused with fuscous except the medial pale-edged red band, which is widest towards inner margin; cilia of both wings pink and black.

Hab. Calcutta; Ceylon. *Exp.* 16 millim.

4492. *Endotricha ruminalis*, *Wlk. Cat.* xvii, p. 387; *C. & S.* no. 4281.
Pyralis ibycusalis, *Wlk. Cat.* xix, p. 899; *C. & S.* no. 4448.
Endotricha symphonialis, *Hmps. Ill. Hel.* ix, p. 161, pi. 171,
 fig. 17.

Pale olive-brown. Fore wing slightly irrorated with black and with some dark specks on costa; an oblique white medial line with some red scales inside it on inner margin; a black discocellular speck; the outer area suffused with red and fuscous except at costa; a submarginal line with dark edge excurved from costa to vein 2, the area beyond it purplish red. Hind wing with the base pale olive; a black-irrorated pink medial band edged by slightly sinuous white lines, the area beyond it pink and black; cilia of both wings pink and black at base, pure white at tips. Underside with the postmedial line of hind wing strongly outlined with black.

The Sikhim specimen is more suffused with fuscous; the cilia at middle of fore wing black.

Hab. Sikhim; Rangoon; E. Pegu; Ceylon. *Exp.* 18 millim.

4493. *Endotricha sondaicalis*, *Snell. Tijds. v. Ent.* xxiii, 1880, p. 200; xxvi, p. 123, pl. 6, fig. 6.
Dothia similata, *Moore, Lep. Atk.* p. 206; *C. & S.* no. 4494.

Differs from *mesenterialis* in being uniform purplish pink. Fore wing with the pale curved antemedial line further from the base; the submarginal line oblique and slightly bent inwards below vein 6. Hind wing with the ante- and postmedial lines closer together below median nervure; cilia of both wings golden yellow, black at apex and middle of fore wing, and their bases pink and black except towards apex of fore wing.

Hab. Dharmasala; Sikhim; Celebes. *Exp.* 24 millim.

4494. *Endotricha ardentalis*, n. sp.

♀. Dark crimson-red. Fore wing with white specks on costa; a curved white antemedial line expanding into a spot below costa; a minutely waved double black submarginal line; cilia pale yellow, black at apex and below middle, the bases black from middle to outer angle. Hind wing more crimson, with black-edged sinuous pale ante- and postmedial lines; cilia pale yellow, black at bases. Underside with black patch on disk of fore wing, the lines of hind wing strongly outlined with black.

Hab. Bhután (*Dudgeon*). *Exp.* 20 millim. Type in B. M.

4495. *Endotricha rufofimbrialis*, *Warr. A. M. N. H.* (6) viii, p. 69.

♀. Head, thorax, and abdomen olive-yellow. Fore wing olive-yellow, with indistinct curved antemedial line; a dark discocellular spot; the outer third of wing crimson except on costal area; traces of a submarginal line with a marginal crimson band beyond it. Hind wing crimson, with broad medial yellow band edged by black and white lines; cilia of both wings crimson, yellow below

apex. Underside with the base of fore wing blackish, and the black discocellular spot very prominent; hind wing with the post-medial line oblique and angled above anal angle.

Hab. Bhután; Borneo. *Exp.* 20 millim.

4496. *Endotricha luteogrisalis*, n. sp.

Head, collar, and abdomen orange-yellow; thorax fuscous. Fore wing orange-yellow, the pale curved antemedial line with some fuscous suffusion inside it; the outer area pale purplish fuscous, with a slightly sinuous white line on its inner edge. Hind wing pale purplish fuscous, with broad white medial band suffused with orange-yellow and with some black suffusion on its sinuous edges; cilia of both wings white with their bases fuscous.

Hab. Bhután (*Dudgeon*). *Exp.* 20 millim. Type in B. M.

4497. *Endotricha duplicilinea*, *Impen. Ill. Het.* ix, p. 159, pl. 171, fig. 21.

♀. Pale chestnut; abdomen suffused with black at base and towards extremity. Fore wing with subbasal oblique line of the ground-colour defined on its inner edge by black patches on costa and inner margin, on its outer edge by a black line; a black cell-spot; an oblique postmedial line defined on its inner edge by a black spot on costa and traces of a line, on its outer edge by a fuscous band. Hind wing with the base suffused with fuscous, with the pale subbasal line on it; a double fuscous postmedial line.

Hab. Ceylon. *Exp.* 14 millim.

4498. *Endotricha pygmæalis*, *Warr. A. M. N. H.* (6) xvii, p. 204.

Head, thorax, and abdomen white marked with black; wings white. Fore wing with black suffusion on basal costal area crossed by a subbasal white line; a curved antemedial white line defined by black; the inner medial area black; the discal and apical areas orange; a waved postmedial white line defined by black, running out to angles on veins 6 and 3, then retracted to below angle of cell; a fuscous and deep red patch on middle of outer area crossed by a submarginal white line, defined outwardly by black near costa and angled on vein 6; cilia fuscous at apex and middle. Hind wing with broad medial black band traversed by waved white ante- and postmedial lines and with a prominent quadrate white spot at lower angle of cell; outer area tinged with orange.

Hab. Khásis. *Exp.* 12 millim.

Genus **CANGETTA**.

Cangetta, *Moore, Lep. Ceyl.* iii, p. 314 (1886).

Type, *C. rectilinea*, *Moore*.

Range. W. Africa; Khásis; Ceylon.

Palpi upturned and hardly reaching vertex of head, the 2nd joint

fringed with hair below, the 3rd conically scaled; maxillary palpi as long as the labial and dilated with scales at extremity; frons flat and oblique; antennæ annulated with rings at the joints; legs long and slender, the tibiae somewhat hairy. Fore wing somewhat narrow; the apex rectangular; the cell short; veins 3, 4, 5 stalked; 6 from well below upper angle; 7, 8, 9, 10 stalked. Hind wing with the cell very short; vein 3 from the angle; 4, 5 on a long stalk; 6, 7 from upper angle, 7 anastomosing strongly with 8.

4499. *Cangetta rectilinea*, Moore, *Lep. Ceyl.* iii, p. 314, pl. 182, fig. 3; C. & S. no. 4331.

Parapoynx griseolalis, Hmps. *Ill. Het.* ix, p. 176, pl. 174, fig. 12.

White suffused with fuscous; palpi blackish, the 3rd joint white. Fore wing with the base of costa blackish; almost straight blackish ante- and postmedial lines, the latter slightly defined with whitish towards costa; a black marginal line, towards apex becoming maculate and inwardly defined by white. Hind wing with traces of discocellular spot; a slightly curved postmedial fuscous line



Fig. 76.—*Cangetta rectilinea*, ♂. ♀.

terminating near anal angle; a black marginal line, obsolete below vein 2. Both wings with the cilia grey, with a dark line through them on fore wing and two on hind wing.

Hab. Ceylon. *Exp.* 16 millim.

4500. *Cangetta albocarnea*, Warr. *A. M. N. II.* (6) xvii, p. 149.

Pale fulvous; head whitish. Fore wing with slightly curved fulvous antemedial line; an indistinct discocellular speck; a postmedial line straight from costa to vein 2, then slightly retracted and inwardly edged by diffused white from costa to vein 5; a submarginal line with series of dark specks on it, becoming almost marginal at vein 5; a marginal line. Hind wing with antemedial fulvous line; a postmedial line oblique from costa to near the margin at vein 2, then retracted and obsolescent; some dark specks on apical part of margin.

Hab. Khásia; Ceylon. *Exp.* 12 millim.

Genus PETTA.

Petta, Warr. *A. M. N. H.* (6) xvi, p. 469 (1895).

Type, *P. alternata*, Warr.

Range. Assam; Ceylon.

Palpi obliquely upturned, the 2nd joint fringed with very long hair below, the 3rd long, naked, and acute; maxillary palpi large and triangularly scaled; antennæ of male ciliated; tibiae nearly

smooth, the spurs long. Fore wing with the outer margin excised below apex; vein 2 absent; 3, 4, 5 stalked; 6 from upper angle; 7, 8, 9, 10, 11 stalked. Hind wing with vein 3 from angle of cell; 4, 5 stalked, or 3, 4, 5 stalked; 6, 7 from upper angle.

SECT. I. Hind wing with vein 3 from angle of cell.

4501. *Petta costastrigalis*, n. sp.

Pale ochreous, irrorated and suffused with red-brown; head and

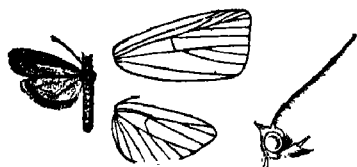


Fig. 77.—*Petta costistrigalis*, ♂. ♀.

palpi above white. Fore wing with pairs of oblique white streaks on costa forming subtriangular marks; an obscure dentate antemedial line; a discocellular black spot; an obliquely sinuous postmedial line bent inwards above vein 1; a dark apical patch. Hind

wing whitish, with indistinct sinuous submarginal line; both wings with fine sinuous lines on margin and cilia.

Hab. Ceylon (*Green*). *Exp.* 14 millim. Type in B. M.

SECT. II. Hind wing with veins 3, 4, 5 stalked.

4502. *Petta alternata*, *Warr. A. M. N. H.* (6) xvi, p. 469.

♂. Grey, much irrorated and suffused with black-brown; frons white; abdomen ringed with white. Fore wing with two subbasal whitish lines excurved at middle; three triangular white-edged black marks on costa; both wings with submarginal white line angled on veins 5 and 2, then bent inwards to middle of inner margin; a sinuous black line just inside the margin and a marginal line. Hind wing paler.

Hab. Khâsis. *Exp.* 12 millim.

Genus **TRICHOPHYSETIS**.

Trichophysetis, *Meyr. Trans. Ent. Soc.* 1884, p. 287.

Callinaias, *Swinh. Trans. Ent. Soc.* 1890, p. 286.

Type, *T. cretacea*, *Butl.*, from Japan, Australia, Norfolk Island.

Range. Japan; Assam; Ceylon; Burma; Australia; Norfolk Island.

Palpi porrect, about twice as long as head, and thickly tufted with hair, the 3rd joint hidden. Maxillary palpi with a long pointed tuft of hair from extremity extending nearly as far as the labial palpi; frons rounded; antennæ thickened and flattened; legs with the spurs long and equal. Fore wing with the apex rounded; veins 3, 4 from angle of cell; 5 from above angle; 7, 8,

9, 10 stalked, or 7 absent, or 10 from cell. Hind wing with vein 5 from above angle of cell, which is short; 6, 7 from upper angle.

SECT. I. (*Trichophysetis*). Hind wing with veins 3, 4 from cell,

A. Fore wing with vein 7 present, 10 from cell.

4503. *Trichophysetis nigripalpis*, Warr. *A. M. N. H.* (6) xvii, p. 149.

♂. Very pale fulvous; palpi and frons jet-black; both wings with two curved fulvous medial lines bounding a pale broad medial band; fore wing with the apex brighter fulvous, inwardly defined by an indistinct dark line.

Hab. Khâsis. *Exp.* 18 millim.

B. Fore wing with vein 7 absent.

4504. *Trichophysetis nigridiscalis*, Warr. *A. M. N. H.* (6) xvi, p. 470.

♂. Whitish; frons, maxillary palpi above, metathorax, and abdomen except 1st segment black. Fore wing with black patch from near base of inner margin to upper angle of cell and outer angle; a subbasal line; a sinuous medial black line angled below costa; a white discocellular speck; a postmedial line highly excurved below costa and waved towards inner margin; a subcostal black speck near apex; a white, black, and orange lunule on margin below apex. Hind wing wholly suffused with fuscous black except basal and costal areas; a curved antemedial and double postmedial black lines.

Hab. Khâsis. *Exp.* 16 millim.

SECT. II. (*Callinaias*). Hind wing with veins 3, 4 stalked.

4505. *Trichophysetis nigricincta*, Hampson. *Ill. Het.* ix, p. 180, pl. 174, fig. 15.

♂. Yellowish white; abdomen with a deep black dorsal band on 2nd segment. Fore wing with black speck at base; double curved ante- and post-medial lines, the latter outwardly oblique; the apical area fulvous, with a black line from below costa to outer margin at vein 3. Hind wing with double antemedial line, the inner one fulvous and indistinct, the outer prominently black from

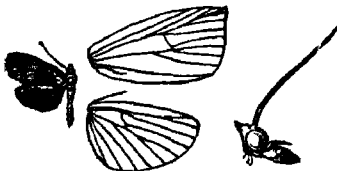


Fig. 78.

Trichophysetis nigricincta, ♂. †.

cell to inner margin; a double postmedial line, the inner one fuscous and most prominent.

Hab. Khâsis; Ceylon. *Exp.* 18 millim.

4506. *Trichophysetis gracilentalis*, Swinh. *Trans. Ent. Soc.* 1890, p. 287, pl. 8, fig. 6.

♂. Head black; thorax and abdomen yellowish white. Fore wing silky yellowish white, with traces of curved medial and post-medial ferruginous lines, most prominent towards costa; a large apical black patch. Hind wing with the base yellowish white, becoming rufous suffused with fuscous on outer area; traces of antemedial and medial ferruginous lines and of a diffused fuscous submarginal band.

Hab. Bhután; Rangoon. *Exp.* 14 millim.

Genus **HENDECASIS**, nov.

Type, *H. duplifascialis*, Hmps.

Range. W. Africa; India; Ceylon.

Palpi porrect, straight, and nearly naked, about three times the length of head, the 2nd joint long, the 3rd well developed; maxillary palpi triangularly scaled; frons rounded; antennæ annulate and somewhat thickened. Fore wing with the apex acute; the outer margin excurved at middle; veins 3, 4, 5 from angle of cell; 7 absent; 8, 9, 10 stalked. Hind wing with veins 3, 4, 5 from angle of cell; 6, 7 from upper angle.

4507. *Hendecasis duplifascialis*, Hmps. *Ill. Het.* viii, p. 141, pl. 156, fig. 18.

White with a fulvous tinge; palpi and frons blackish; abdomen suffused with fulvous and with fuscous towards extremity. Fore

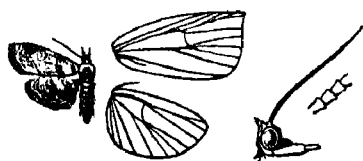


Fig. 79.
Hendecasis duplifascialis, ♂. ♀.

wing with ill-defined pale fulvous subbasal band; a sinuous fuscous antemedial line with fulvous band inside it; an indistinct white lunule at end of cell; a postmedial fuscous line highly excurved beyond cell; a black spot beyond it above vein 5; the apical area fulvous; a fuscous line from costa near apex, becoming almost marginal at vein 6, and with some white inside it. Hind wing with double sinuous black ante- and postmedial lines, becoming obsolete on costal half of wing and with fulvous between them; slight white marks on margin and black specks between vein 2 and anal angle.

Hab. W. Africa; Dharmasala; Nilgiris; Ceylon. *Exp.* 14-16 millim.

4508. *Hendecasis fulvalis*, Hmps. *Ill. Het.* ix, p. 180, pl. 174, fig. 7.

♀. Differs from *duplifascialis* in the palpi being orange-yellow. Fore wing with the inner area between the ante- and postmedial lines orange; the postmedial double line bent outwards at vein 5 and reaching outer margin near outer angle. Hind wing with the

apical area much suffused with fulvous; the ante- and postmedial double lines more oblique, reaching the inner margin nearer the anal angle, and not obsolete but widely separated on costal half of wing; no black specks on the margin and hardly a trace of white.

Hab. Ceylon. *Exp.* 14 millim.

Genus **PLEONECTOIDES.**

Pleonectoides, *Hmps. Ill. Het.* viii, p. 134 (1891).

Type, *P. vinacea*, *Hmps.*

Range. Assam; Nilgiris; Sumbawa.

Palpi perrect and rostriform, projecting about twice the length of head, the 2nd joint thickly clothed with hair concealing the 3rd; maxillary palpi dilated with scales; frons oblique; antennæ annulated with rings at the joints; legs long and slender; the outer spurs about half the length of inner; abdomen with lateral tufts towards extremity. Fore wing long and narrow; vein 3 from angle of cell; 4, 5 on a long stalk; 6 from below upper angle; 7, 8, 9, 10 stalked, and 11 closely approximated to them. Hind wing narrow; vein 3 from angle of cell; 4, 5 on a long stalk; the cell short; 6, 7 stalked.

4509. *Pleonectoides vinacea*, *Hmps. Ill. Het.* viii, p. 134, pl. 155, fig. 19.

♂. Pale rufous suffused with purplish fuscous; palpi white below; frons white at sides; abdomen fuscous towards extremity,

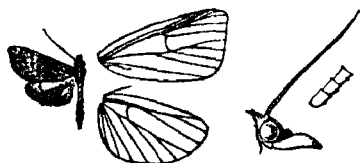


Fig. 80.

Pleonectoides vinacea, ♂. 1.

the anal tuft white. Fore wing with the basal two-thirds of costa dark, the apical third fulvous; curved ante- and postmedial lines, the latter slightly angled inwards on vein 2. Hind wing with the costal and inner areas whitish; an obliquely curved postmedial

line, becoming obsolescent towards anal angle; cilia of both wings whitish. Underside of hind wing white, with the postmedial line dark.

Hab. Nilgiris. *Exp.* 20 millim.

4510. *Pleonectoides sericialis*, n. sp.

♀. Pale silky purplish grey; a minutely waved indistinct submarginal line, slightly excurved between veins 6 and 2 of fore wing, straight on hind wing, and terminating on outer margin at vein 2; a marginal series of dark specks, terminating at vein 2 of hind wing.

Hab. Margharita, Assam; Sumbawa (*Doherty*). *Exp.* 16 millim.
Type in coll. *Elwes*.

Genus **ROSTRIPALPUS**, nov.

Type, *R. longipennis*, Hmps.

Range. S. India; Ceylon.

Palpi rostriform, curved downwards and reaching well beyond the slight frontal tuft; maxillary palpi minute; antennæ of female minutely ciliated; tibiæ with the spurs long. Fore wing very long, narrow, and produced at apex; vein 3 from angle of cell; 4, 5 stalked; 7, 8, 9 stalked; 10, 11 from cell. Hind wing with vein 3 from angle of cell; 4, 5 stalked; 6, 7 from upper angle, 7 anastomosing strongly with 8.

4511. *Rostripalpus longipennis*, Hmps. *Ill. Het.* viii, p. 128, pl. 154, fig. 20.



Fig. 81.

Rostripalpus longipennis, ♀. ♂.

♀. Dull purplish irrorated with fuscous. Fore wing with pale specks on outer half of costa; indistinct erect black medial and postmedial lines; a fuscous disco-cellular spot. Hind wing with indistinct antemedial and medial black lines, highly angled at middle; both wings with a pale line at base of cilia.

Hab. Nilgiris; Ceylon. Exp. 16 millim.

Genus **COTACHENA**.

Cotachena, Moore, *Lep. Ceyl.* iii, p. 275 (1885).

Type, *C. histricalis*, Wlk.

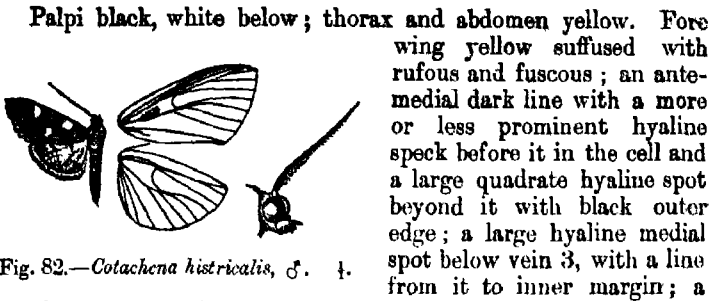
Range. China; India; Ceylon; Solomons.

Palpi porrect, triangularly scaled, the 3rd joint hidden by hair; maxillary palpi filiform; frons rounded; antennæ of male with long cilia; hind tibiæ with the outer medial spur about half the length of the inner. Fore wing with the retinaculum formed by a large valve of scales from below median nervure in both sexes; the costa arched towards apex; the outer margin oblique; the cell short; vein 3 from beyond angle of cell; 4, 5 closely approximated for about half their length. Hind wing with the cell very short; vein 3 from angle of cell; 4, 5 approximated for about one-fourth length; 6, 7 from upper angle, 7 anastomosing strongly with 8.

4512. *Cotachena histricalis*, Wlk. *Cat.* xviii, p. 655; Hmps. *Ill.*

Het. ix, pl. 172, fig. 5; C. & S. no. 4355.

Archernis pubescens, Warr. *A. M. N. H.* (6) ix, p. 300.

Fig. 82.—*Cotachena histricalis*, ♂. 1.

Fore wing yellow suffused with rufous and fuscous; an ante-medial dark line with a more or less prominent hyaline speck before it in the cell and a large quadrate hyaline spot beyond it with black outer edge; a large hyaline medial spot below vein 3, with a line from it to inner margin; a lunulate dark-edged hyaline spot from costa to vein 5, with a line from it to vein 3. Hind wing pale orange, with a dark cell-speck; a postmedial line bent outwards between veins 5 and 2 and often reduced to spots.

The Chinese and Dharmasāla race *pubescens* is smaller, with the fore wing more suffused with fuscous than the typical southern form.

Hab. China; Dharmasāla; Sikhim; Nágas; Nilgiris; Ceylon. *Erg.* 22-26 millim.

Subfamily PYRALINÆ.

Proboscis usually well developed; maxillary palpi present and usually filiform. Fore wing with vein 7 stalked with 8, 9. Hind wing with the median nervure non-pectinate; vein 8 free.

Key to the Genera.

- A. Hind tarsi with no tuft of hair on 1st joint.
 - a. Palpi with the 2nd and 3rd joints upturned.
 - a¹. Proboscis absent or minute; fore wing with veins 4, 5 stalked or closely approximated towards origin.
 - a². Fore wing with vein 9 stalked with 7, 8; hind wing with vein 4 present 3. AGLOSSA, p. 147.
 - b². Fore wing with vein 9 from cell; hind wing with vein 4 absent.... 2. CROCALIA, p. 147.
 - b. Proboscis well developed.
 - a³. Abdomen long and dilated at extremity; antennæ of male with short branches 1. VITESSA, p. 145.
 - b³. Abdomen normal; antennæ of male ciliated.
 - a⁴. Hind wing with veins 4, 5 stalked.
 - a⁵. Fore wing with vein 7 from 8 after 9 4. HYPHOPYGLIA, p. 148.
 - b⁵. Fore wing with vein 7 from 8 before 9 5. PYRALIS, p. 149.

- b³. Veins 4, 5 of each wing approximated for about one-third length
 c³. Veins 4, 5 of neither wing approximated towards origin.
 a⁴. Fore wing with vein 7 from 8 before 9.
 a⁵. Maxillary palpi well developed
 b⁵. Maxillary palpi minute....
 b⁶. Fore wing with vein 7 from 8 after 9
 b. Palpi obliquely upturned, the 3rd joint correct.
 a⁷. Fore wing with veins 4, 5 approximated for about one-third length.
 a². Proboscis well developed; antennæ of male ciliated
 b². Proboscis minute; antennæ of male with short branches
 b⁷. Fore wing with veins 4, 5 not approximated towards origin.
 a². Fore wing with vein 7 from 8 after 9
 b². Fore wing with vein 7 from 8 before 9
 c. Palpi straight and correct.
 a⁷. Veins 4, 5 of each wing approximated for about one-third length.
 a². Palpi with a long sharp tuft of hair at end of 2nd joint below
 b². Palpi with no tuft of hair on 2nd joint
 b⁷. Veins 4, 5 of neither wing approximated towards origin.
 a². Maxillary palpi well developed; palpi about the length of head; fore wing with vein 7 from 8 before 9
 b². Maxillary palpi minute; palpi about two and a half times length of head; fore wing with vein 7 from 8 after 9
 d. Palpi rostriform and downcurved at extremity.
 a⁷. Fore wing with vein 6 from the cell.
 a². Palpi less than twice the length of head.
 a³. Maxillary palpi triangularly scaled
 b³. Maxillary palpi filiform and well developed; frons usually with a sharp tuft.
 a⁴. Veins 4, 5 of neither wing approximated towards origin.
 a⁵. Abdomen without dorsal tufts; fore wing with the costa not arched at base ..
6. TEGULIFERA, p. 152.
 8. LABICE, p. 158.
 7. STEMMATOPHORA, [p. 154.
 11. EURYZONA, p. 163.
 10. HERCULIA, p. 159.
 9. TAMRACA, p. 158.
 [p. 163.
 12. RHYNCHOPYGIA,
 13. TRIPHASSA, p. 169.
 27. LORYMA, p. 183.
 29. TYNDIS, p. 185.
 30. DISCORDIA, p. 186.
 26. PROTEINIA, p. 182.
 28. CONSTANTIA, p. 183.
 22. BOSTRA, p. 175.

- b⁵. Abdomen with dorsal tufts;
 fore wing with the costa
 arched at base 16. *OMPHALOCERA*, p. 167.
 b⁴. Veins 4, 5 of each wing approxi-
 mated for about one-third
 length or stalked 19. *PARACTENIA*, p. 172.
 c³. Maxillary palpi minute.
 a⁴. Fore wing with veins 4, 5
 from angle of cell 23. *DIOLOXIA*, p. 179.
 b⁴. Fore wing with veins 4, 5
 stalked 17. *TOCCOLOSIDA*, p. 168.
 b². Palpi more than twice the length
 of head.
 a³. Maxillary palpi filiform; frons
 with a sharp tuft; hind wing
 of male with a tuft of hair near
 inner margin above 20. *PROSARIS*, p. 173.
 b³. Maxillary palpi minute; frons
 smooth; palpi with the 2nd
 joint short, the 3rd long, in male
 with a fringe of hair on inner
 side arising from a groove 21. *TREBANIA*, p. 174.
 b¹. Fore wing with vein 6 stalked with
 7, 8, 9.
 a². Fore wing with vein 10 free 15. *HYNOLOMA*, p. 167.
 b². Fore wing with vein 10 stalked
 with 6, 7, 8, 9 25. *ORYDINA*, p. 181.
 B. Hind tarsi with a large tuft of hair on
 1st joint.
 a. Palpi long, rostriform and fringed
 with hair in male, upturned in female. 14. *RHYNCHETERA*, p. 166.
 b. Palpi long, rostriform, and smoothly
 scaled in both sexes; male with tufts
 of hair at end of 2nd and on 3rd
 joint, forming a cavity 24. *PROPACHYS*, p. 180.
 c. Palpi short and straight, hardly reaching
 beyond the frontal tuft 18. *SACADA*, p. 169.

Genus *VITESSA*.

Vitessa, Moore, *Lep. E. I. C.* p. 209 (1858).

Type, *V. suradeva*, Moore.

Range. Sikkim; Assam; S. India; Ceylon; Burma; Andamans; Nicobars; Celebes; Ceram; New Guinea.

Palpi upturned, slender, and smoothly scaled, the 2nd joint reaching vertex of head, the 3rd long; maxillary palpi dilated with scales; antennæ bipectinate in male with very short branches dilated at extremity, thickened and flattened in female; tibiae slightly fringed with hair; abdomen dilated at extremity and with large anal tuft, the claspers of male very large and usually protruded. Fore wing long and narrow; the costa arched towards apex; vein 3 from near angle of cell; 4, 5 stalked in male, approxi-

mated in female; 9 given off from 8 after 7. Hind wing with vein 3 from near angle of cell; 4, 5 and 6, 7 stalked in male; 4, 5 approximated in female.

4513. *Vitessa suradeva*, Moore, *Lep. E. I. C.* p. 299, pl. vii a, fig. 7; C. & S. no. 4516.

Vitessa formosa, *Feld. Reis. Nov.* pl. 137, fig. 1; C. & S. no. 4514.

Vitessa rama, Moore, *Lep. Ceyl.* iii, p. 256, pl. 178, fig. 4; C. & S. no. 4516.

Head and thorax golden yellow; 3rd joint of palpi and antennæ black; collar and patagia with paired metallic black spots, the latter tipped with black and the mesothorax with a black spot; abdomen banded black and white; anal tuft orange. Fore wing with the base golden yellow; two subbasal metallic black spots;

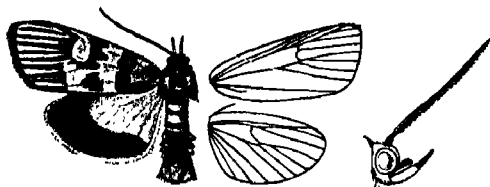


Fig. 83.—*Vitessa suradeva*, ♂. †.

two quadrate black antemedial patches; the medial area greyish white, with an irregular medial band of dentate marks enclosing an oval white spot below the costa; outer area black, the veins streaked with white. Hind wing white; the outer half bluish black; cilia of both wings greyish. Underside of fore wing black, with medial maculate white band; the veins towards apex streaked with grey; legs banded black and white.

Hab. Sikkim; Assam; hills of S. India; Ceylon; Burma; Mergui; Andamans; Borneo. *Exp.*, ♂ 46, ♀ 52 millim.

4514. *Vitessa nicobarica*, n. sp.

♂. Differs from *suradeva* in the abdomen being wholly yellow and orange. Fore wing with the basal orange patch reduced; the antemedial band reduced and interrupted in cell; the streaks on veins of outer area almost obsolete. Hind wing pale yellow, slightly irrorated with black, especially at apex. Underside pale yellow, the outer area of fore wing black narrowing to outer angle; hind wing with an apical black patch.

♀ with the streaks on outer area of fore wing well developed; hind wing whitish; the costal area black, the outer area suffused with black narrowing to anal angle. Underside as in *suradeva*, but with the marginal band of hind wing narrowing to anal angle.

Hab. Nancowry, Nicobars. *Exp.* 44 millim. Type in B. M.

Genus **CROCALIA**.

Crocalia, *Rag. Ann. Soc. Ent. France*, 1891, p. 634.

Type, *C. aglossalis*, *Rag.*

Range. Sind.

Differs from *Aglossa* in the 2nd joint of palpi being less broadly fringed with hair; the maxillary palpi minute. Fore wing with veins 4, 5 stalked; 7, 8 on a long stalk; 9 from cell. Hind wing with veins 3 and 5 from angle of cell, 4 absent.

4515. *Crocalia aglossalis*, *Rag. Ann. Soc. Ent. France*, 1891, p. 635.

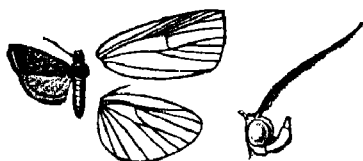


Fig. 84.—*Crocalia aglossalis*, ♂. †.

Hab. Karáchi. *Exp.* 16 millim.

♂. Ochreous irrorated with dark red and fuscous scales. Fore wing with very obscure diffused subbasal darker band; a highly waved oblique antemedial line; a discocellular black spot; a highly waved submarginal line. Hind wing ochreous white.

Genus **AGLOSSA**.

Aglossa, *Latr. Précis Caract. Gén. Ins.* p. 145 (1796).

Type, *A. pinguinalis*, *Linn.*

Range. Universally distributed.

Proboscis absent; palpi upturned well in front of frons, the 2nd joint fringed with hair in front and reaching vertex of head, the 3rd long; maxillary palpi dilated with scales at extremity; antennæ of male ciliated and with long setiferous spines; hind tibiæ fringed with hair on outer side towards base. Fore wing long and narrow; vein 3 from near angle of cell; 4, 5 closely approximated or stalked; 6 from upper angle. Hind wing with vein 3 from angle of cell; 4, 5 closely approximated or stalked; 6, 7 from upper angle.

SECT. I. Veins 4, 5 of each wing stalked.

4516. *Aglossa dimidiata*, *Haw. Lep. Brit.* p. 372; *C. & S.* no. 4501.

Aglossa micalialis, *Wlk. Cat.* xvii, p. 277.

Pyralis circularis, *Motsch. Et. Ent.* 1860, p. 37.

Aglossa achatina, *Butl. Ill. Het.* iii, p. 72, pl. 58, fig. 6.



Fig. 85.—*Aglossa dimidiata*, ♂. †.

Pale pinkish; abdomen of male with the anal tuft orange. Fore wing with diffused irregular pinkish rufous dentate lines, the subbasal obsolescent except at costa, the antemedial, medial, and post-medial angled inwards on median nervure and vein 1, and the last greatly excurred between veins 4 and 1; the sub-

marginal regularly curved. Hind wing fuscous; cilia of both wings pale rufous.

Hab. Japan; China; Nilgiris; Bernardmyo, Burma. *Exp.* 24 millim.

SECT. II. Veins 4, 5 of each wing closely approximated for about one-third length.

4517. *Aglossa pinguinalis*, Linn. *Faun. Suec.* p. 351; *id. Syst. Nat.* i. p. 882; *C. & S.* no. 4503.

Aglossa pinguinalis, var. *asiatica*, *Ersch. Hor. Soc. Ent. Ross.* viii, p. 317.

Aglossa pinguinalis, var. *alddalis*, *Christ. Hor. Soc. Ent. Ross.* x, p. 41.

Differs from *dimidiata* in being pale fuscous marked with dark brown; head tinged with fulvous. Hind wing pale, with more or less distinct dentate medial line; the outer area fuscous, narrowing to anal angle.

The form *asiatica*, ranging from Syria to the N.W. Himalayas, is considerably paler than the European form.

Hab. Europe; Syria; Afghanistan; N.W. Himalayas. *Exp.*, ♂ 22-24, ♀ 34-44 millim.

Genus **HYP SOPY G I A.**

Hypsopygia, *Hüb. Verz.* p. 348 († 1818).

Type, *H. costalis*, Fabr., from Europe.

Range. Palearctic and Nearctic regions; Japan; China; India, Ceylon, and Burma; Australia.

Differs from *Pyralis* in the fore wing having vein 9 given off from 8 before 7.

4518. *Hypsopygia mauritialis*, *Boisd. Faun. Ent. Madag., Lép.* p. 119, pl. 16, fig. 8.

Pyralis lucillalis, *Wlk. Cat.* xvii, p. 268; *C. & S.* no. 4454.

Pyralis ducalis, *Wlk. Cat.* xxxiv, p. 1242.

Pyralis regalis, *Wlk. Cat.* xxxiv, p. 1241.

Hypsopygia laticillialis, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 28.

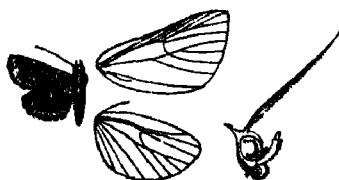


Fig. 86.

Hypsopygia mauritialis, ♂. †.

Bright pink or purplish pink; vertex of head orange. Fore wing with ante- and postmedial sinuous pale lines arising from small orange spots on the costa and with orange specks on the costa between them; an obscure dark discocellular lunule. Hind wing with pale sinuous ante- and postmedial lines; the cilia

and margin of both wings bright orange.

Hab. Madagascar; China; N.W. Himalayas; Manipur; Poona; Burma; Sumatra; Java; Celebes. *Exp.*, ♂ 20, ♀ 24 millim.

4519. *Hypsopygia postflava*, *Hmps. Ill. Het.* ix, p. 159, pl. 171, fig. 22.

Differs from *mauritalis* in being very dark purple; the vertex of head concolorous; the terminal four segments of abdomen bright yellow.

Hab. Bhután; Margharita, Assam; Ceylon. *Exp.* 18 millim.

4520. *Hypsopygia regina*, *Butl. A. M. N. H.* (5) iv, p. 452.

♀. Dark purplish fuscous. Fore wing with traces of curved dark antemedial line and of postmedial line arising from an orange costal spot; some yellow specks on medial part of costa. Hind wing bright pink irrorated with fuscous; the marginal area suffused with fuscous; sinuous antemedial and medial orange lines slightly outlined with black; cilia of both wings bright golden yellow.

The Ganjam specimen is dark with no red on hind wing and the cilia dusky.

Hab. Japan; Aska, Ganjam; Rangoon. *Exp.* 16 millim.

4521. *Hypsopygia olivalis*, *Swinh. A. M. N. H.* (6) xvi, p. 301.

♀. Head and thorax olive-green irrorated with black; abdomen fuscous irrorated with black, the anal tuft ochreous. Fore wing olive-green irrorated with black; a pale sinuous antemedial line with black outer edge; a similar postmedial line incurved below vein 5; a black discocellular spot; some pale specks on medial part of costa; a marginal series of black specks. Hind wing fuscous, with curved dark postmedial line.

Hab. Mahableswar. *Exp.* 20 millim.

Genus PYRALIS.

Pyralis, *Linn. Syst. Nat.* xii, p. 881 (1767).

Asopia, *Treitschke, Schmelt. Eur.* vi, 2, p. 316 (1828).

Sacatia, *Wlk. Cat.* xxvii, p. 123 (1863).

Eutrichodes, *Warr. A. M. N. H.* (6) vii, p. 498.

Type, *P. farinalis*, *Linn.*, from Europe.

Range. Universally distributed.

Palpi upturned, the 2nd joint fringed with hair in front and reaching vertex of head, the 3rd of moderate length; maxillary palpi filiform; antennæ of male ciliated; tibiæ moderately hairy. Fore wing with the apex rounded; vein 3 from before angle of cell; 4, 5 usually stalked; 7 given off from 8 before 9; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 and 6, 7 stalked.

SECT. I. Veins 4, 5 of fore wing approximated for a short distance.

4522. *Pyralis recisalis*, *Swinh. P. Z. S.* 1885, p. 866; *C. & S.* no. 4463.

Pale reddish brown slightly suffused with fuscous. Fore wing

with waved black ante- and postmedial lines arising from spots on the costa, the former excurved at median nervure, the latter beyond lower angle of cell; a series of dark marginal specks.

Dharmasala specimens are greyer and without the reddish tinge; the lines of fore wing fuscous, and a spot on discocellulars is present.

Hab. Dharmasala; Bombay. *Exp.* 22 millim.

SECT. II. Fore wing with veins 4, 5 stalked.

4523. *Pyralis pictalis*, *Curt. Br. Ent.* vi, pl. 503; *C. & S.* no. 4458.

Pyralis pronoealis, *Wlk. Cat.* xix, p. 906.

Pyralis proximalis, *Wlk. Trans. Ent. Soc.* 1862-64, p. 120; *C. & S.* no. 4460.

Myelois bractiatella, *Wlk. Cat.* xxvii, p. 36; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 5; *C. & S.* no. 4443.

Pyralis elachia, *Butl. Ill. Het.* iii, p. 70, pl. 58, fig. 3; *C. & S.* no. 4444.

Head and collar pale brown; thorax and abdomen suffused with fuscous. Fore wing with the base black, bounded by a sinuous white line; the medial area pale brown irrorated with a few black scales; a black cell-spot and some pale specks on costa; a post-medial sinuous white line with the area beyond it red. Hind wing with the base black, bounded by a sinuous white line; the medial area pale brown suffused with fuscous; an irregularly waved white postmedial line with fuscous on its outer edge; the outer area whitish with fuscous on the margin.

Hab. Europe; W. Africa; Japan; N.W. Himalayas; Nagas; Ceylon; Burma; Sumatra; Gilbert Islands. *Exp.* 18-22 millim.

4524. *Pyralis ravolalis*, *Wlk. Cat.* xix, p. 898; *Hmps. Ill. Het.* ix, pl. 172, fig. 15; *C. & S.* no. 4462.

♀. Differs from *pictalis* in the head, thorax, and abdomen being paler. Fore wing with the basal area grey, some rufous at base and on inner edge of the antemedial line, which is more oblique; the postmedial line incurved at middle instead of excurved, oblique and terminating at outer angle. Hind wing with the postmedial line running out to near the margin from veins 4 to 2, then bent in to near the antemedial line; a series of prominent black specks on apical part of margin.

Hab. Ceylon; Borneo. *Exp.* 20 millim.

4525. *Pyralis funebris*, *Warr. A. M. N. H.* (6) xvi, p. 464.

♀. Fuscous brown with a grey tinge. Fore wing with the basal area rather darker and bounded by a sinuous white line; a dark discocellular spot; some white specks on medial part of costa and a white patch at the origin of the obsolescent postmedial line, which is excurved between veins 6 and 2. Hind wing with the

basal area darker; sinuous ante- and postmedial white lines; the outer area greyer.

Hab. Khâsis. *Exp.* 30 millim.

4526. *Pyralis elongalis*, Koll. *Hügel's Kaschmir*, iv, p. 493; *C. & S.* no. 4445.

Pyralis mensalis, *Guen. Delt. & Pyr.* p. 120.

Pyralis marmorea, *Butt. Ill. Het.* vii, p. 91, pl. 134, fig. 10.

Differs from *pictalis* in the male having the cilia of antennæ long; the thorax and abdomen less suffused with black. Fore wing with sinuous edge to the basal black patch; the medial area suffused with fuscous brown; the postmedial line more excurved and minutely dentate from vein 6 to 2, the area beyond it suffused with fuscous; a marginal series of dark specks. Hind wing pale fuscous, with traces of a pale waved postmedial line.

One specimen has the medial area of fore wing much suffused with black.

Hab. N.W. Himalayas. *Exp.*, ♂ 20-24, ♀ 26-30 millim.

4527. *Pyralis manihotalis*, *Guen. Delt. & Pyr.* p. 121.

Pyralis vetusalis, *Wlk. Cat.* xix, p. 891.

Pyralis gerontesalis, *Wlk. Cat.* xix, p. 896; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 6; *C. & S.* no. 4447.

Sacatia laudatella, *Wlk. Cat.* xxvii, p. 124.

Pyralis despectalis, *Wlk. Cat.* xxxiv, p. 1243.

Pyralis miseralis, *Wlk. Cat.* xxxiv, p. 1244.

Pyralis achatina, *Butt. Ent. Mo. Mag.* xiv, p. 49.

Differs from *elongalis* in the ground-colour being pale rufous

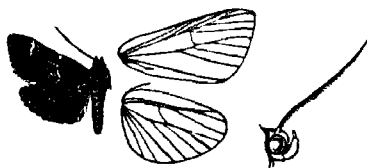


Fig. 87.—*Pyralis manihotalis*, ♂. $\frac{1}{2}$.

suffused with fuscous. Fore wing with the basal patch dark rufous; the postmedial line much less excurved beyond the cell; the outer area not darker than the medial area. Hind wing pale rufous suffused with fuscous and with fuscous inside the pale dentate medial line.

Pupates in a very open network of black silk.

Hab. Neotropical, Oriental, and Australian regions. *Exp.*, ♂ 16, ♀ 22 millim.

4528. *Pyralis fumipennis*, *Butt. Ill. Het.* vii, p. 91, pl. 134, fig. 11.

Pyralis minimalis, *Hmps. Ill. Het.* ix, p. 169, pl. 171, fig. 18.

Differs from *pictalis* in the thorax and base of fore wing being purplish red, the latter with the white line bounding it oblique at costa; the medial area suffused with fuscous at inner margin; the outer red area wider, ochreous at apex and with traces of silvery submarginal band and line. Hind wing more suffused with fuscous on medial area.

The form *minimalis* from Ceylon is small with the rufous areas darker.

Hab. Simla; Dharmasála; Ceylon. *Exp.* 18 millim.; *minimalis* 12 millim.

4529. *Pyralis subresectalis*, *Snell. Trans. Ent. Soc.* 1890, p. 565.

♀. Pale olive-brown. Fore wing with the apex produced and acute; an indistinct slightly curved pale antemedial line; a black speck at upper angle of cell; a pale incurved postmedial line, with the area beyond it bright red; the cilia pale, red at apex. Hind wing fuscous suffused with rufous; traces of dark antemedial and medial lines; some dark specks on margin at apex. Underside with cell-speck and pale waved postmedial line to both wings.

Hab. Sikhim. *Exp.* 24 millim.

4530. *Pyralis regalis*, *Schiff. Wien. Verz.* p. 124.

Pyralis pulchellalis, *Mill. Cat. Léop. Alpes-Marit.* pt. 2, p. 214 (1873).

Pyralis princeps, *Butl. Ill. Het.* vii, p. 91, pl. 134, fig. 12.

Head and collar fulvous; thorax and abdomen purplish fuscous. Fore wing bright purple, with a large triangular golden-yellow and orange patch from middle of costa to apex, extending down to vein 2, inwardly edged by a line with a dark-edged silvery-white band on it from costa to vein 2; a sinuous postmedial line with white spot on it from costa to vein 6. Hind wing purple, with dark-edged sinuous white ante- and postmedial lines, the latter with diffused fuscous on its inner edge; the outer area violaceous with some fuscous on the margin.

Hab. S. Europe; Amur; Japan; Dharmasála. *Exp.* 22 millim.

Genus TEGULIFERA.

Tegulifera, *Saalm. Ber. Senck. Ges.* 1879-80, p. 305.

Peucola, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 47.

Type, *T. rubicundalis*, *Saalm.*, from Nossi-Bé.

Range. Neotropical region; Tunis; S. Africa, Madagascar; India, Ceylon, and Burma; Borneo.

Palpi upturned, the 2nd joint thickly scaled and reaching vertex of head, the 3rd short; maxillary palpi minute; antennæ of male serrate and fasciculate; tibiæ moderately hairy, the spurs long. Fore wing rather long and narrow; vein 3 from before end of cell: 4, 5 approximated for nearly one-third length; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from angle of cell; 4, 5 approximated for about one-third length; 6, 7 on a short stalk.

SECT. I. (*Peucola*). Patagia of male not extending beyond metathorax.

4531. *Tegulifera faviusalis*, *Wlk. Cat.* xix, p. 907.

Pyralis drapaealis, *Wlk. Cat.* xix, p. 909.

Pyralis nonusalis, *Wlk. Cat.* xix, p. 909.

Pyralis platymitris, *Butl. P. Z. S.* 1883, p. 106; *C. & S.* no. 4459.
Pyralis pallivittata, *Moore, Lep. Ark.* p. 206; *C. & S.* no. 4450.
Orthopygia atomosalis, *Warr. A. M. N. H.* (6) xvi, p. 465.
Pencela rubrifuscalis, *Warr. A. M. N. H.* (6) xvii, p. 461.

Head, thorax, and abdomen pale red-brown irrorated with black. Fore wing with the basal area dark red-brown, followed by an indistinct curved dark line; the medial area ochreous irrorated with black; a black cell-spot; the outer area dark red-brown, with a sinuous postmedial line parallel to its inner edge. Hind wing ochreous irrorated with black; subbasal and medial curved dark lines; cilia of both wings with pale bases and pink tips.



Fig. 88.—*Tegulifera faviusalis*, ♂. †.

Hab. N.W. Himalayas; Sikhim; Margarita; Assam; Nágas; Borneo. *Exp.*, ♂ 24, ♀ 26 millim.

4532. *Tegulifera pallidibasalis*, n. sp.;

♀. Differs from *platymitris* in being olive or pink. Fore wing with the basal area concolorous; the antemedial line sinuous; the outer area olive or pink at costa and inner margin, and with no line parallel to its inner edge. Hind wing with the medial line sinuous below vein 2.

Hab. Nilgiris (*Hampson*). *Exp.* 24 millim. Type in B. M.

4533. *Tegulifera castanealis*, n. sp.

♀. Reddish chestnut. Fore wing with black discocellular speck; a postmedial pale line excurved between veins 6 and 2; a marginal series of black specks; cilia black at base, crimson at tips. Hind wing slightly irrorated with black; a marginal series of black specks; underside with pale curved submarginal line.

Hab. Bhután, 2500 feet (*Dudgeon*). *Exp.* 28 millim. Type in B. M.

4534. *Tegulifera rosealis*, n. sp.

♀. Fleshy pink; palpi fuscous; tarsi banded black and white. Fore wing with the costa black with white specks on it; traces of a postmedial line; the wing irrorated with a few black scales; a marginal series of black specks. Hind wing bright pink prominently irrorated with black; a curved black medial line; both wings with the cilia black with a pink line through them. Underside of fore wing with postmedial black band outwardly oblique from costa to vein 4; the apical area black.

Hab. Bhután (*Dudgeon*); Margarita, Assam (*Doherty*). *Exp.* 16 millim. Type in coll. Elwes.

4535. *Tegulifera ruffascialis*, n. sp.

♂. Ochreous; antennæ blackish. Fore wing slightly suffused with flesh-pink; a rufous fascia on median nervure becoming a dark-brown wedge-shaped mark from lower angle of cell to outer margin; a slight subcostal rufous fascia and some dark specks on costa towards apex; the area at outer angle from middle of inner and outer margins dark brown with slight dark streaks above it. Hind wing slightly suffused with fuscous towards outer margin.

Hab. Nágas, 6000 feet (*Doherty*). *Exp.* 32 millim. Type in coll. Elwes.

4536. *Tegulifera subolivescens*, *Warr. A. M. N. H.* (6) xvi, p. 464.

♂. Pale ochreous irrorated with fuscous; abdomen with black band on basal segment and black lateral bands on the next three segments. Fore wing with the basal area suffused with fuscous, leaving a pale band on inner side of the antemedial line, which is angled on median nervure; a black discocellular spot; a minutely dentate dark-edged pale postmedial line bent inwards at vein 2; a marginal series of dark specks. Hind wing pale, suffused with fuscous towards outer margin; a minutely dentate pale submarginal line.

The typical Khási form is more olive-green in tone.

Hab. Khásis; Ceylon. *Exp.* 18 millim.

SECT. II. (*Tegulifera*). Patagia of male extending well beyond metathorax.

4537. *Tegulifera psamathopis*, *Meyr. Trans. Ent. Soc.* 1894, p. 11.

♂. Fuscous brown irrorated with fuscous; head slightly ochreous. Fore wing with the costa fuscous. Both wings with oblique fuscous postmedial line; the base of cilia rather darker than extremities.

Hab. Shán States. *Exp.* 26 millim.

Genus **STEMMATOPHORA.**

Stemmatophora, *Guen. Delt. & Pyr.* p. 129 (1854).

Maradana, *Moore, Lep. Ceyl.* iii, p. 57 (1884).

Koremalepis, *Hmpen. Ill. Het.* viii, p. 129 (1891).

Type, *S. combustalis*, F. R., from Europe.

Range. S. Europe; S. Africa; Japan; Oriental region to Celebes.

Palpi upturned and reaching vertex of head, the 2nd joint fringed with hair in front, the 3rd minute; maxillary palpi minute; antennæ of male with fascicles of long cilia; tibiæ somewhat hairy, the outer spurs short. Fore wing short and broad; the apex rectangular; vein 3 from before angle of cell; 4, 5 from angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle.

SECT. I. (*Stemmatophora*). Male with the tegulae hardly reaching beyond the metathorax.

4538. *Stemmatophora fuscibasalis*, Snell. *Tijds. v. Ent.* xxiii, p. 199; xxvi, p. 121, pl. 6, figs. 3, 3 a.

Pyralis umbrosalis, Swinh. *Trans. Ent. Soc.* 1890, p. 291.

Rufous and ochreous. Fore wing dark rufous with waved ante-medial pale line, with the costal and inner areas beyond it ochreous as far as the postmedial series of pale specks, which are often developed into a dentate line. Hind wing fuscous brown, with curved ante- and postmedial pale lines, the latter minutely dentate from the costa to vein 4.

Hab. Formosa; Bangalore; Burma; Celebes. *Exp.* 24-28 millim.

4539. *Stemmatophora carnealis*, n. sp.

Pale yellowish brown suffused with pink and irrorated with fuscous; abdomen dark at extremity. Fore wing with sinuous ochreous ante- and postmedial lines expanding into spots on costa; a dark discocellular spot; the medial part of costa with black specks. Hind wing paler and yellower, with pale-edged dark curved postmedial line; a dark line at base of cilia.

Hab. E. Pegu (*Doherty*). *Exp.*, ♂ 24, ♀ 30 millim. Type in coll. Elwes.

4540. *Stemmatophora pallidella*, n. sp.

Pale ochreous with a slight reddish tinge and fuscous suffusion. Fore wing with the veins more or less prominently irrorated with fuscous; a dark discocellular speck; an oblique fuscous line, obsolescent and curved inwards to costa near apex, widening and often with another line inside it near middle of inner margin; a dark marginal line. Hind wing paler, with more or less developed oblique fuscous postmedial line.

Hab. Ceylon (*Pole*). *Exp.* 16 millim. Type in B. M.

4541. *Stemmatophora pseudaglossa*, n. sp.

♂. Pale ochreous irrorated and suffused with dark purplish red. Fore wing with dark red basal patch; a sinuous antemedial line expanding into a patch at costa; a discocellular speck; a post-medial line expanding into a patch at costa, much excurved and minutely dentate beyond end of cell; a marginal series of specks. Hind wing white.

Hab. Ceylon (*Pole*). *Exp.* 14 millim. Type in B. M.

*4542. *Stemmatophora sanguifusa*, n. sp.

♀. Head brownish yellow; thorax crimson, with some leaden-coloured scales; abdomen ochreous, with some crimson and leaden

colour at base. Fore wing olive; the costal area crimson to beyond middle, with a series of ochreous specks on costa; an antemedial black line and black discocellular spot; outer area crimson indented at vein 6. Hind wing crimson, with black antemedial and medial lines; the anal angle and cilia of both wings ochreous.

Hab. Ceylon (*Green*). *Exp.* 24 millim. Type in B. M.

4543. *Stemmatophora albiguttata*, *Warr. A. M. N. H.* (6) vii, p. 496.

Dark purplish red; head ochreous. Fore wing with slightly sinuous antemedial white line; the medial part of costa black with white specks; a postmedial white spot from costa to vein 5, with an obscure slightly sinuous fuscous and white line from it to inner margin. Hind wing with dark-edged pale slightly sinuous ante- and postmedial lines.

Hab. Japan; Khâsis. *Exp.* 18 millim.

4544. *Stemmatophora herculialis*, n. sp.

♀. Differs from *albiguttata* in being deeper purple; the head concolorous; both wings with dark ante- and postmedial lines; the cilia purple at base, golden yellow at tip; fore wing with the postmedial white spot broader at costa.

Hab. Nágas (*Doherty*). *Exp.* 20 millim. Type in coll. Elwes.

4545. *Stemmatophora costinotalis*, n. sp.

♀. Dark fuscous slightly suffused with red; both wings with the ante- and postmedial dark lines hardly traceable; fore wing with triangular white spot on costa beyond middle. Underside of hind wing with curved pale postmedial line.

Hab. Sikhim (*Dudgeon*). *Exp.* 20 millim. Type in B. M.

4546. *Stemmatophora rivulata*, *Moore, Lep. Ceyl.* iii, p. 58, pl. 150, fig. 14; *C. & S.* no. 1910.

Vinous red irrorated with black. Fore wing with ante- and postmedial almost straight pale lines, the former with slight dark outer edge, the latter with dark inner edge; a dark cell-spot; some pale specks on middle of costa. Hind wing more fuscous; a pale curved postmedial line; both wings with a pale line at base of cilia.

Hab. Ceylon. *Exp.*, ♂ 24, ♀ 32 millim.

SECT. II. (*Coremalepis*). Male with the tegulæ extending well beyond metathorax.

4547. *Stemmatophora tactilis*, *Swinh. Trans. Ent. Soc.* 1890, p. 290. *Koremalepis scopula*, *Hmps. Ill. Het.* viii, p. 129, pl. 154, figs. 2 & 15.



Fig. 89.

Stemmatophora tactilis, ♂. †.

Differs from *rivulata* in being brighter vinous red. Fore wing without the dark cell-spot and edges to the lines. Hind wing with pale antemedial line approaching the postmedial line at inner margin.

Hab. Sikkim; Nilgiris; Burma.

Exp., ♂ 28, ♀ 34 millim.

4548. *Stemmatophora bicoloralis*, *Leech*, *Entom.* 1889, p. 65, pl. 4, fig. 17.

Pyralis dulciculis, *Swinh.* *P. Z. S.* 1889, p. 418; *Hmps.* *Ill. Hel.* viii, pl. 156, fig. 13.

♂. Pale pinkish brown; patagia dark at tips. Fore wing with an indistinct pale curved antemedial line with some red on its edge; a black cell-spot; some black specks on medial part of costa; a pale slightly sinuous postmedial line, with the area beyond it suffused with red. Hind wing suffused with red and slightly irrorated with black; a pale curved postmedial line.

Hab. Japan; Mahableswar; Nilgiris. *Exp.* 22 millim.

4549. *Stemmatophora laticincta*, n. sp.

♀. Head and thorax reddish ochreous; abdomen fuscous with white segmental lines. Fore wing reddish ochreous; an indistinct medial line angled to lower end of cell and with a diffused band inside it from cell to inner margin, where it is widest; some dark specks on costa; the outer third of wing fuscous with oblique inner edge. Hind wing ochreous, with indistinct medial line merged in the outer fuscous area except towards inner margin. Underside with a bright ochreous patch on costa of fore wing beyond middle.

Hab. Dharmasāla (*Hocking*). *Exp.* 18 millim. Type in B. M.

4550. *Stemmatophora monostæchalis*, *Warr. A. M. N. H.* (6) vii, p. 497.

♀. Fuscous black, the head and collar fulvous. Fore wing with slightly curved medial white band; an indistinct postmedial ochreous spot on costa. Underside of hind wing with traces of a submarginal grey line.

Hab. Dharmasāla. *Exp.* 20 millim.

SECT. III. Male with the patagia extending almost to end of abdomen.

4551. *Stemmatophora punctimarginalis*, n. sp.

♂. Pale ochreous irrorated with black; the patagial tufts and abdomen not irrorated. Fore wing with the basal area thickly irrorated and with a vinous patch on it; a black discocellular

lunule; the medial part of costa with black and white specks; an obliquely sinuous diffused black postmedial band with obscure line parallel to its inner edge; a marginal series of black specks. Hind wing pale; traces of a subbasal oblique line; a minutely waved curved submarginal line; the marginal area thickly irrorated and with a marginal series of black specks.

Hab. Bernardmyo, Burma (*Doherty*). *Exp.* 18 millim. Type in coll. Elwes.

Genus **LARICE**.

Larice, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 640.

Type, *L. phycidalis*, Guen.

Range. N.W. Himalayas; Burma.

Proboscis small; palpi upturned, the 2nd joint fringed with long hair in front and reaching vertex of head, the 3rd long and naked; maxillary palpi well developed and triangularly scaled; antennæ of male bipectinated with short branches; tibiæ slightly hairy. Fore wing long and narrow; vein 3 from before angle of cell; 4, 5 from angle; 6 from below upper angle; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4552. *Larice phycidalis*, Guen. *Delt. & Pyr.* p. 121; *C. & S.* no. 4457. *Larice swinhoei*, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 640.

Grey. Fore wing with the basal area red-brown with white edge; the medial area grey; the outer area pale red-brown, its inner edge oblique and nearly joining the basal red area at inner margin; a white postmedial line excurved between veins 2 and 5.

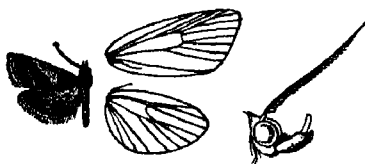


Fig. 90.—*Larice phycidalis*, ♂. †.

Hab. Kulu; E Pegu. *Exp.* 16 millim.

Genus **TAMRACA**.

Tamraca, *Moore, Lep. Ceyl.* iii, p. 554 (1887).

Type, *T. torridalis*, Led.

Range. China; India, Ceylon, and Burma; Malayan subregion to Celebes.

Proboscis minute; palpi oblique, the 3rd joint porrect, thickly clothed with hair and reaching well beyond the minute maxillary palpi and sharp frontal tuft; antennæ of male with short fasciculate branches; patagia of male reaching end of metathorax, with a tuft of long hair below them; tibiæ hairy. Fore wing with the costa nearly straight, the outer margin somewhat excised towards outer angle; vein 3 from before angle of cell; 4, 5 approximated

for one-third length; 7, 8, 9 stalked; 10, 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 hardly approximated at base; 6, 7 from upper angle.

4553. *Tamraca torridalis*, *Led. Wien. ent. Mon.* vii, pp. 342 & 457, pl. 6, fig. 15; *Moore, Lep. Ceyl.* iii, pl. 215, figs. 7, 8; *C. & S.* no. 4253.

Varnia incerta, *Wlk. Cat.* xxxiii, p. 829; *C. & S.* no. 2213.

Head brownish; thorax purplish; abdomen purplish and fuscous. Fore wing brownish ochreous, suffused with purplish

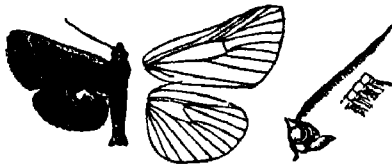


Fig. 91.—*Tamraca torridalis*, ♂. 1.

suffused with purplish red and fuscous on costal half and with fiery red on inner half; an antemedial yellow line from median nervure to inner margin; a triangular white spot below lower angle of cell; a postmedial line incurved from apex to vein 5, then with yellow on its edge, waved and angled to near margin at vein 2; both wings with the margin and cilia purplish fuscous. Underside much paler, with the base of both wings dark.

Hab. China; N.W. Himalayas; Nagas; Bombay; Ceylon; Burma; Java; Celebes. *Exp.* 24–36 millim.

Genus HERCULIA.

Herculia, *Wlk. Cat.* xix, p. 807 (1859).

Cisse, *Wlk. Cat.* xxvii, p. 125 (1863).

Buzala, *Wlk. Cat.* xxvii, p. 129.

Ocrasa, *Wlk. Cat.* xxxiv, p. 1212 (1865).

Orthopygia, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 29.

Dolichomia, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 30.

Trichautenia, *Warr. A. M. N. H.* (6) ix, p. 173 (1891).

Type, *H. marthalis*, *Wlk.*

Range. Universally distributed.

Palpi thickly scaled, the 2nd joint upturned and reaching vertex of head, the 3rd porrect; maxillary palpi filiform; antennæ of male minutely ciliated; the patagia of male reaching beyond the metathorax; tibiae moderately hairy. Fore wing with vein 3 from end of cell; 4, 5 approximated for about one-third length; 10, 11 free. Hind wing with vein 3 from angle of cell; 4, 5 approximated for about one-third length; 6, 7 stalked.

The male of the section *Ocrasa* has a tuft of hair from the base of fore femur.

SECT. I. (*Herculia*). Patagia of male reaching slightly beyond metathorax.

4554. *Herculia imbecilis*, Moore, *Lep. Ceyl.* iii, p. 264; C. & S. no. 4450.

Pyralis incongrua, Butl. *P. Z. S.* 1886, p. 383, pl. 35, fig. 5; C. & S. no. 4451.

Pale olive-grey. Fore wing with the costa reddish ochreous; a slightly curved antemedial pale line and almost straight postmedial line; a dark speck at end of cell. Hind wing with nearly straight ante- and postmedial pale lines.

Hab. N.W. Himalayas; Nilgiris; Ceylon; Java; Celebes; Fiji. *Exp.*, ♂ 30, ♀ 34 millim.

4555. *Herculia tenuis*, Butl. *P. Z. S.* 1880, p. 681.

Spilodes rhodocryptalis, C. & S. no. 4145, nec *Wlk.*

Differs from *imbecilis* in being pale reddish brown; the lines of both wings fuscous; hind wing with the antemedial line more oblique and approaching the postmedial line towards inner margin.

Hab. Brazil; S. Africa; Formosa; Poona; Ceylon. *Exp.* 26 millim.

4556. *Herculia rudis*, Moore, *Lep. Atk.* p. 205; C. & S. no. 4508.

♀. Differs from *tenuis* in the head, thorax, and fore wing being suffused with pinkish, the antemedial line with ochreous inner edge, the postmedial with ochreous outer edge; fore wing with a dark discocellular spot and yellow specks on medial part of costa.

One specimen has the postmedial line of fore wing slightly excurved from vein 6 to 3, and the hind wing paler.

Hab. Sikhim. *Exp.* 30 millim.

4557. *Herculia nigrivitta*, *Wlk. Cat.* xxvii, p. 125.

Buzala fuscicosta, *Wlk. Cat.* xxvii, p. 130.

Asopia fuscicostalis, *Snell. Tijds. v. Ent.* xxvi, p. 122, pl. 6, fig. 4.

♂. Pale rufous; head fuscous black. Fore wing with the costal area smoky black, with pale ante- and postmedial spots from which arise slightly waved lines; a black speck at upper angle of cell. Hind wing slightly irrorated with fuscous and with the inner area darker rufous; slightly waved dark ante- and postmedial lines.

Hab. Burma; Borneo. *Exp.* 26 millim.

4558. *Herculia albolinealis*, *Hmpen. Ill. Het.* viii, p. 130, pl. 154, fig. 10.

♀. Black-brown slightly irrorated with grey and red scales. Fore wing with some black and white specks on costa; a slightly

sinuous oblique white antemedial line; a postmedial white line excurved between veins 6 and 2. Hind wing with indistinct white ante- and postmedial sinuous lines; both wings with a white line at base of cilia.

Hab. Nilgiris. *Exp.* 20 millim.

4559. *Herculia aurocialis*, *Hmps. Ill. Het.* viii, p. 130, pl. 154 fig. 19.

♀. Dark purplish brown, with the red ground-colour only faintly showing in places. Fore wing with ante- and postmedial indistinct dark lines approaching each other towards inner margin of hind wing; cilia bright golden yellow.

Hab. Nilgiris. *Exp.* 36 millim.

4560. *Herculia ochreicilia*, *Hmps. Ill. Het.* viii, p. 130, pl. 154, fig. 3.

♂. Dark vinous brown; hind wing dark red; both wings with fine waved ante- and postmedial white lines; some pale specks on costa of fore wing; cilia very pale yellow.

Hab. Nilgiris. *Exp.* 22 millim.

4561. *Herculia pernigralis*, *Rag. Ann. Soc. Ent. France*, 1891, p. 32.

♂. Very dark purplish red; abdomen tinged with ochreous towards extremity; both wings with indistinct dark, slightly sinuous ante- and postmedial lines nearly meeting on inner margin of hind wing, the latter arising from an ochreous spot on costa of fore wing, on which also are some ochreous specks between the two lines; an obscure discocellular lunule; the cilia of both wings ochreous. Underside with postmedial grey-edged line. Tarsi ochreous.

Hab. Ceylon; Rangoon. *Exp.* 14 millim.

4562. *Herculia marthalis*, *Wlk. Cat.* xvii, p. 270.

Herculia bractealis, *Wlk. Cat.* xix, p. 808; *Hmps. Ill. Het.* ix, pl. 172, fig. 2; *C. & S.* no. 4512.

Scarlet suffused with pink. Fore wing with slightly curved antemedial fuscous lines and sinuous postmedial line; some yellow specks on medial part of costa, often expanding into spots at the origin of the lines. Hind wing redder, with antemedial and medial fuscous lines approaching each other towards inner margin; cilia of both wings golden yellow.

Some specimens are more or less completely suffused with fuscous.

Hab. Ceylon; Borneo. *Exp.*, ♂ 24-30. ♀ 30-36 millim.

4563. *Herculia ignifualis*, *Wlk. Cat.* xvii, p. 268; *Hmps. Ill. Het.* ix, pl. 172, fig. 10; *C. & S.* no. 4513.

Pyralis dorcasalis, *Wlk. Cat.* xvii, p. 271.

Pyralis bealealis, *Wlk. Cat.* xix, p. 902.

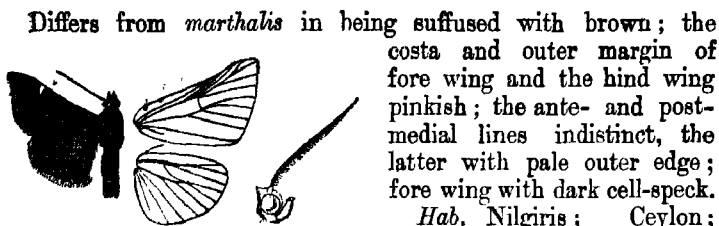


Fig. 92.—*Herculia ignifusalis*, ♂. †.

Differs from *marthalis* in being suffused with brown; the costa and outer margin of fore wing and the hind wing pinkish; the ante- and post-medial lines indistinct, the latter with pale outer edge; fore wing with dark cell-speck.

Hab. Nilgiris; Ceylon; Borneo. *Exp.* 22–24 millim.

4564. *Herculia suffusalis*, *Wlk. Cat.* xxxiv, p. 1235; *C. & S.* no. 4466.

Differs from *ignifusalis* in being purplish fuscous; the anal tuft orange; wings with the lines almost obsolete and with large yellow spots at their origin on costa of fore wing.

Hab. Sind; Poona; Calcutta; Rangoon. *Exp.* 26 millim.

SECT. II. (*Dolichomia*). Patagia of male reaching far beyond the metathorax.

4565. *Herculia dharmasala*, *Butl. Ill. Het.* vii, p. 92, pl. 134, fig. 13.

Head and thorax pale reddish brown; abdomen fuscous; the anal tuft rufous. Fore wing with the basal area rufous, bounded by a straight white line; the medial area pale brown, with minute dark cell-speck and specks on costa, and bounded by a white line which is slightly bent inwards at vein 4, the area beyond it rufous. Hind wing pale fuscous, with indistinct white medial line, the area beyond it slightly tinged with rufous; a pale line at base of cilia.

Hab. Dharmasala. *Exp.*, ♂ 22, ♀ 26 millim.

4566. *Herculia fuscalis*, *Hmps. Ill. Het.* viii, p. 128, pl. 154, fig. 5.

♀. Greyish brown irrorated with fuscous; wings irrorated with red scales. Fore wing with the base of costa blackish; an indistinct pale antemedial line angled below costa; an indistinct cell-spot; a pale sinuous postmedial line bent inwards below vein 2. Hind wing with indistinct pale antemedial line; both wings with pale line at base of cilia.

Hab. Nilgiris. *Exp.* 20–24 millim.

4567. *Herculia sericea*, *Warr. A. M. N. H.* (6) vii, p. 499.

♂. Brownish grey; head reddish. Fore wing slightly irrorated with fulvous; the costa pink, with some pale specks at middle; nearly straight fulvous ante- and postmedial lines; a fulvous cell-spot. Hind wing whitish; traces of an oblique antemedial line from discocellulars to inner margin; a slightly curved fuscous postmedial line; the outer area slightly irrorated with fuscous; both wings with a dark marginal line.

Hab. Sikhim. *Exp.*, ♂ 30–32, ♀ 44 millim.

Genus **EURYZONA**, nov.Type, *E. latifascia*, Hmps. n.

Range. W. India.

Palpi upturned and somewhat oblique, reaching beyond the sharp frontal tuft, the 2nd joint thickly scaled; maxillary palpi filiform; antennæ of male ciliated, the basal joint dilated; tibiæ of male with the outer spurs short. Fore wing with the apex rounded; the inner margin lobed near base; vein 3 from near angle of cell; 4, 5 well separated; 6 from upper angle; 9 given off from 8 before 7; 10, 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 well separated; 6, 7 from upper angle.

4568. *Euryzona latifascia*, Hmps. n. *Ill. Het.* viii, p. 129, pl. 154, fig. 8.

Grey suffused with brown; abdomen irrorated with black. Fore wing with the base of costa and lobe of inner margin irrorated with black in male; an antemedial black line angled on median nervure and bent outwards below vein 1; a postmedial line angled outwards on vein 5 and inwards on vein 2; the area between the two lines irrorated with black, with a prominent black discocellular spot and pale specks on costa; a series of black marginal specks. Hind wing fuscous, with traces of cell-speck and curved medial line, which are more prominent on underside; a black line through base of cilia.

Fig. 93.—*Euryzona latifascia*, ♂. 4.

Hab. Mahableshwar; Nilgiris. *Exp.*, ♂ 22, ♀ 24 millim.

Genus **RHYNCHOPYGIA**, nov.Type, *R. purpureorufa*, Hmps. n.

Range. Ceylon.

Palpi oblique and thickly scaled, the 3rd joint porrect; maxillary palpi minute and filiform; a slight frontal tuft; antennæ of male minutely serrate and fasciculate; tibiæ slightly hairy. Fore wing with vein 3 from near angle of cell; 4, 5 from angle; 9 given off from 8 before 7. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 from upper angle.

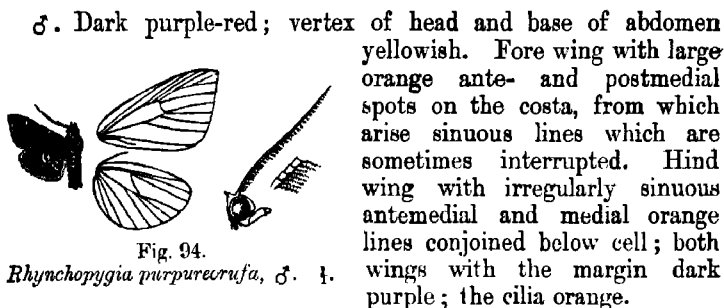
4569. *Rhynchopygia purpureorufa*, n. sp.

Fig. 94.

Rhynchopygia purpureorufa, ♂. 1.

♂. Dark purple-red; vertex of head and base of abdomen yellowish. Fore wing with large orange ante- and postmedial spots on the costa, from which arise sinuous lines which are sometimes interrupted. Hind wing with irregularly sinuous antemedial and medial orange lines conjoined below cell; both wings with the margin dark purple; the cilia orange.

Hab. Hambantota, Ceylon (*Pole*). *Exp.* 16 millim. Type in B. M.

Genus **TRIPHASSA**.

Triphassa, *Hübner*, *Samml. exot. Schmett.* i, p. 26 (1818).

Type, *T. stalachitis*, *Hübner*, from S. Africa.

Range. S. Africa; India; Ceylon.

Palpi oblique, the 2nd joint thickly scaled, the 3rd porrect and minute; maxillary palpi filiform; a sharp frontal tuft; antennæ of male with a slight process at end of basal joint, the shaft set on at an angle and with very long cilia; mid tibiæ fringed with hair. Fore wing with vein 3 from before angle of cell; 4, 5 from angle; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle.

SECT. 1. Patagia of male bearing long tufts of scales reaching to middle of abdomen.

4570. *Triphassa ochrealis*, *Hmps.* *Ill. Het.* ix, p. 158, pl. 171, fig. 5.

Ochreous brown; male with a tuft of black scales at end of patagia; abdomen with some black before the anal tuft. Fore wing slightly irrorated with fuscous; some pale and dark specks on costa; a pale slightly curved antemedial line; a minutely dentate postmedial oblique line angled inwards below vein 2, the area between the two lines pale fuscous; a series of black marginal strizæ. Hind wing paler with a slight reddish tinge; a fuscous minutely dentate medial line from veins 6 to 2, with traces of a line beyond it; some black specks on margin and a black line through the cilia.

Hab. Ceylon. *Exp.* 20 millim.

4571. *Triphassa metaxantha*, n. sp.

♂. Differs from *ochrealis* in the head, thorax, and fore wing being olive in tone; hind wing reddish orange; postmedial line of both wings evenly curved; cilia rufous.

Hab. Ceylon (*Ferbury*). *Exp.* 24 millim. Type in B. M.

4572. *Triphassa vulsalis*, Wlk. Cat. xviii, p. 671; *Hmps. Ill. Het.* ix, pl. 171, fig. 9; C. & S. no. 4510.

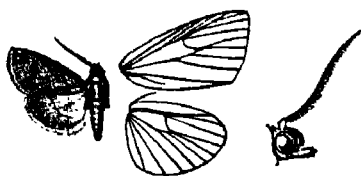


Fig. 95.—*Triphassa vulsalis*, ♂. 1.

Differs from *ochrealis* in the head, thorax, and fore wing being dull pink, mid tarsi pure white. Fore wing with the ante- and postmedial lines dark, the latter not dentate or angled below vein 2, the area between them not dark; a black speck at end of cell. Hind wing with curved postmedial line;

the marginal area suffused with pink.

Hab. Ceylon. *Exp.* 16 millim.

4573. *Triphassa imbutalis*, Wlk. Cat. xxxiv, p. 1283; *Moore, Lep. Ceyl.* iii, pl. 178, fig. 9; C. & S. no. 4351.

♀. Bright pink; the palpi orange; abdomen and hind wing straw-yellow. Fore wing with pale and dark specks on the costa; nearly straight ante- and postmedial dark lines; a dark cell-speck and marginal line.

Hab. Ceylon. *Exp.* 18 millim.

4574. *Triphassa luteicilialis*, n. sp.

♀. Purplish red; anal tuft bright pink; wings irrorated with black. Fore wing with antemedial and postmedial pale and dark lines excurved at middle; a series of yellow specks on medial part of costa; a black discocellular spot. Hind wing with antemedial and medial pale and dark sinuous lines; both wings with the outer area rather darker; a black marginal line; the cilia golden yellow.

Hab. Ceylon (*Pole*). *Exp.* 24 millim. Type in B. M.

SECT. II. Patagia of male not reaching beyond the metathorax.

A. *Mid tibiae of male moderately fringed with hair.*

4575. *Triphassa zeuxoalis*, Wlk. Cat. xxvii, p. 135; C. & S. no. 4718 (part.).

Dark purplish rufous suffused with fuscous; male with the anal tuft white, the lateral tufts black. Fore wing with the costal and basal areas dark greyish fuscous; an oblique white line from end of cell to inner margin, expanding at end of cell into a pyriform white mark pointing towards outer margin; one or two white specks beyond upper angle of cell sometimes developed; a sinuous white postmedial line. Hind wing fuscous with traces of a post-medial line; both wings with a white line at base of cilia.

Hab. Ceylon. *Exp.* 16 millim.

4576. *Triphassa xylinalis*, Swinh. P. Z. S. 1885, p. 865, pl. 57, fig. 17; C. & S. no. 4471.

♂. Differs from *zeuxoalis* in being more uniform fuscous black;

no pyriform mark on fore wing; the postmedial line almost obsolete except for a pale spot on costa; the line at base of cilia indistinct.

♀ with the oblique line on fore wing ochreous.

Hab. Campbellpur; Poona; Ceylon. *Exp.*, ♂ 12, ♀ 14 millim.

B. Mid tibiae of male fringed with very long hair on inner side.

4577. *Triphassa bilineata*, Moore, *Lep. Ceyl.* iii, p. 555, pl. 215, fig. 11;

C. & S. no. 4511.

Comaria unilinealis, Warr. *A. M. N. H.* (6) xvii, p. 462.

Pinkish rufous slightly irrorated with black. Fore wing with indistinct pale curved antemedial line; the medial area slightly paler, with a black cell-speck and some specks on costa; a slightly outwardly-oblique postmedial pale line with the area beyond it darker. Hind wing with nearly straight ante- and postmedial pale lines; the basal and outer areas darker than the medial; both wings with a fine pale line at base of cilia, which are almost white except at base.

Hab. Mussooree; Ceylon. *Exp.* 20 millim.

Genus **RHYNCHETERA**, nov.

Type, *R. carnealis*, Hmps. n.

Range. Assam.

♂. Palpi porrect, downcurved at extremity and extending rather more than twice the length of head, the 2nd joint fringed with hair above and below; maxillary palpi dilated with hair; frons with a sharp tuft; antennæ serrate and fasciculate; hind tibiae fringed with long hair, the 1st joint of tarsi with a large tuft of hair on outer side. Fore wing with the apex rectangular; vein 3 from well before end of cell; 4, 5 from angle; 6 from upper angle; 10 from cell. Hind wing with vein 3 from before angle of cell; 4, 5 from angle.

♀ with the palpi upturned and naked, the 2nd joint curved and reaching far above vertex of head.

4578. *Rhynchetera carnealis*, n. sp.

Flesh-colour irrorated with black. Fore wing with nearly

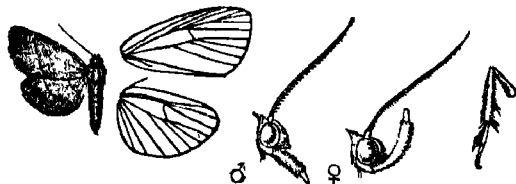


Fig. 96.—*Rhynchetera carnealis*, ♂. †.

straight ante- and postmedial dark lines. Hind wing paler, with the ante- and postmedial lines meeting at inner margin.

Hab. Nágas (*Doherty*). *Exp.*, ♂ 24, ♀ 34 millim. Type in coll. Elwes.

Genus **HYBOLOMA**.

Hyboloma, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 99.

Type, *H. nummosalis*, *Rag.*

Range. Assam; Burma; Borneo.

Palpi porrect, extending about four times length of head, curving downwards and inwards, the 2nd joint fringed with hair below, the 3rd rounded and fringed above and below; maxillary palpi large and triangularly scaled; frons with a sharp tuft; antennæ nearly simple; tibiæ smoothly scaled. Fore wing with the costa highly arched before middle, excised beyond it; the apex produced and depressed; the outer margin excised below apex, excurved and somewhat angled at middle; vein 3 from before angle of cell; 4, 5 from angle; 6, 7, 8, 9 stalked; 10, 11 free. Hind wing with the outer margin slightly excised below apex; vein 3 from before angle of cell; 4, 5 from angle; 6, 7 from upper angle.

4579. *Hyboloma nummosalis*, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 99, pl. 16, fig. 3.

Pale greyish rufous, palpi tinged with fuscous. Fore wing

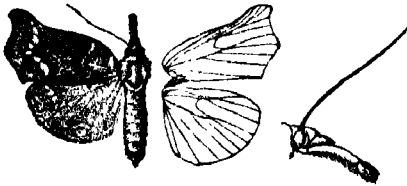


Fig. 97.—*Hyboloma nummosalis*, ♀. †.

with indistinct diffused rufous antemedial band, angled below median nervure, then broader; a black discocellular speck; a diffused fuscous submarginal band, dentate inwards on veins 5 and 2, and with series of indistinct grey spots on

it, the area beyond it darker rufous except at outer angle. Hind wing suffused with fuscous; an indistinct submarginal fuscous line angled on vein 2. Underside of fore wing and costal half of hind wing much redder; both wings with black discocellular specks.

Hab. Khâsis; Shân States; Borneo. *Exp.* ♂ 27, ♀ 32 millim.

Genus **OMPHALOCERA**.

Omphalocera, *Led. Wien. ent. Mon.* 1863, p. 339.

Omphalomia, *Swinh. A. M. N. H.* (6) xiv, p. 140 (1894).

Type, *O. cariosa*, *Led.*, from N. America.

Range. N. America; N.E. and W. India; Burma.

Palpi porrect, downcurved, thickly clothed with hair, and reaching well beyond the filiform maxillary palpi and sharp frontal tuft; antennæ thickened; tibiæ slightly hairy; abdomen with dorsal tufts. Fore wing broad, with the costa arched near base and towards apex, which is rounded; male with a large fold on underside at base of costa fringed with long hair; vein 3 from before angle of cell; 4, 5

from angle; 10, 11 free. Hind wing with vein 3 from near angle of cell; 4, 5 from angle; 6, 7 stalked.

In the typical section the male has a sinus and vesicular tuft of scales on shaft of antennæ.

4580. *Omphalocera accersita*, *Swinh. A. M. N. H.* (6) xiv, p. 140.

Dark rufous suffused with black; palpi black; abdomen yellowish towards extremity. Fore wing suffused with fuscous black; an indistinct minutely dentate subbasal black line; an antemedial line highly angled to lower angle of cell and with more

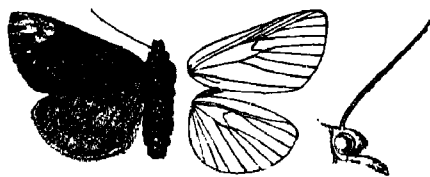


Fig. 98.—*Omphalocera accersita*, ♀. 1.

or less pale rufous between it and the subbasal line; a discocellular black lunule; a postmedial curved series of black specks and rufous strisæ on the veins; the apical area suffused with rufous. Hind wing fuscous, with traces of postmedial and submarginal curved lines.

Hab. Bhutân; Khâsis; Khandâla. *Exp.*, ♂ 36, ♀ 44 millim.

4581. *Omphalocera canosparsalis*, n. sp.

♀. Head, thorax, and fore wing clothed with rufous, black, and grey scales; abdomen brown suffused with rufous. Fore wing with traces of two dark sinuous antemedial lines; a ferruginous spot with pale edges on discocellulars; a very indistinct minutely dentate double postmedial line bent outwards between veins 5 and 2. Hind wing fuscous; both wings with slight dark marginal specks; the cilia pinkish. Underside of hind wing with traces of double curved minutely dentate postmedial line.

Hab. Bernardmyo, Burma (*Doherty*). *Exp.* 40 millim. Type in coll. Elwes.

Genus TOCCOLOSIDA.

Toccolosida, *Wlk. Cat.* xxvii, p. 14 (1863).

Type, *T. rubriceps*, *Wlk.*

Range. E. Himalayas; Assam; Borneo.

Differs from *Sacada* in the palpi being smoothly scaled; the frons rounded; the antennæ minutely fasciculate and without the tuft on basal joint; male with tufts of long hair arising from beneath the patagia; tibiæ and tarsi slightly fringed with hair, the spurs minute. Fore wing narrow; the outer margin with traces of angulation at vein 4. Hind wing with veins 4, 5 approximated at base.

4582. *Toccolosida rubriceps*, *Wlk. Cat.* xxvii, p. 14; *C. & S.* no. 4730.

Head, thorax, and base of abdomen bright crimson above; abdomen and fore wing dark fuscous with slight red suffusion, the latter with the costa greyish towards apex; an oblique grey line from origin of vein 2 to inner margin before middle and a similar

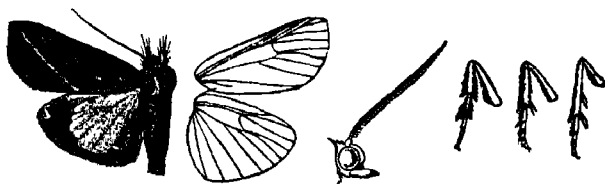


Fig. 99.—*Toccolosida rubriceps*, ♂. †.

line from apex to middle of inner margin. Hind wing bright golden yellow; the costal, apical, and anal areas dark fuscous. Underside with the inner two-thirds of fore wing grey except at outer angle, vein 2 remaining dark.

Hab. Sikkim; Bhutan; Khásis; Nágas; Borneo. *Exp.*, ♂ 34–40, ♀ 44 millim.

Genus SACADA.

Sacada, *Wlk. Journ. Linn. Soc.* vi, p. 136 (1862).

Sybrida, *Wlk. Cat.* xxxii, p. 465 (1865).

Paravetta, *Moore, P. Z. S.* 1865, p. 814.

Danaka, *Moore, Lep. Atk.* p. 71 (1879).

Xestula, *Snell. Rom. Mém.* ii, p. 195 (1885).

Type, *S. decora*, *Wlk.*, from Borneo.

Range. Amur; Japan; India, Ceylon, and Burma; Borneo.

Palpi porrect, fringed with long hair below, and hardly reaching beyond the sharp frontal tuft; antennæ with a tuft of hair from the basal joint; tibiæ and proximal joints of hind tarsi fringed with long hair; male with a tuft of long hair from thorax below the base of fore wing. Fore wing long and narrow, the apex somewhat produced and outer margin oblique; veins 4, 5 usually stalked; 7, 8, 9 stalked; 10, 11 free. Hind wing ample; veins 4, 5 usually on a short stalk; 6, 7 from upper angle.

SECT. I. Antennæ of male bipectinated with long branches to three-fourths length.

A. (*Sacada*). Fore wing of moderate breadth, the outer margin evenly curved; female with veins 4, 5 of both wings approximated at base.

4583. *Sacada inordinata*, *Wlk. Cat.* xxxii, p. 466; *C. & S.* no. 1114.

Datanoides approximans, *Leech, P. Z. S.* 1888, p. 636, pl. 32, fig. 4.

Rufous. Fore wing with a diffused ferruginous patch in interno-median interspace; a medial fuscous line highly angled

and touching at vein 2 the straight oblique postmedial line, which has some ferruginous beyond it; a ferruginous line on discocellulars. Hind wing browner, with traces of dark postmedial line. Underside rufous, with diffused dark postmedial line on both wings.

Hab. Japan; Sikkim. *Exp.*, ♂ 46, ♀ 52 millim.

4584. *Sacada unilinealis*, n. sp.

♂. Head, thorax, and abdomen pale rufous irrorated with fuscous; the fringe of hair on fore and mid tibiæ blackish; the tufts on hind tibiæ and tarsi tipped with black. Fore wing pale flesh-colour; the base of costa tinged with fuscous; two black discoidal specks; an indistinct evenly curved postmedial line, the area beyond it darker flesh-colour. Hind wing pale, with faint traces of a curved postmedial line.

Hab. Sikkim (*Möller*). *Exp.* 34 millim. Type in coll. Elwes.

B. (*Paravetta*). *Fore wing narrow.*

a. *Fore wing with the outer margin very slightly angled at vein 4.*

4585. *Sacada constrictalis*, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 75, & 1890, pl. viii, fig. 10.

♂. Differs from *sikkima* in the medial area of fore wing being more ochreous with two discoidal specks; the postmedial line nearly erect from costa to vein 5, where it is much less angled. Hind wing more uniform pale fuscous. Cilia of both wings ochreous, with two black lines through them.

The specimen from Ceylon has a black submarginal patch on vein 2 of hind wing.

Hab. Upper Assam; Ceylon. *Exp.* 24 millim.

4586. *Sacada discinota*, *Moore, P. Z. S.* 1865, p. 814, pl. 43, fig. 3; *C. & S.* no. 1158.

Head, thorax, and abdomen dark purplish rufous. Fore wing paler rufous; a bright ferruginous patch below base of cell; a

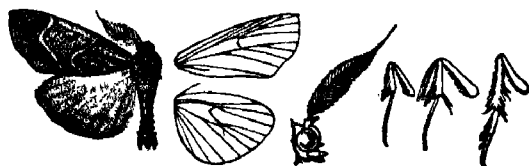


Fig. 100.—*Sacada discinota*, ♂. †.

pale antemedial line highly angled in internommedian interspace, with ferruginous in its angle, and outwardly edged with fuscous; a similar postmedial line highly angled at vein 4 and with fuscous

on its inner edge; the area between the two lines pinkish with oblique ferruginous reniform spot; a ferruginous patch on costal area beyond the postmedial line. Hind wing pale with an orange tinge, the margin and cilia redder; traces of a waved submarginal line from vein 2 to inner margin.

Hab. Sikkim; Nágas. *Exp.*, ♂ 32–40, ♀ 36–46 millim.

4587. *Sacada pallescens*, n. sp.

♂. Pale rufous. Fore wing with dark irroration; a purplish-rufous spot below base of cell conjoined to a larger patch on inner margin; the antemedial line evenly curved; a speck on discocellulars; the postmedial line slightly curved below costa, then oblique to inner margin, and with some fuscous suffusion beyond it; cilia dark at tips. Hind wing ochreous, with indistinct evenly curved dark postmedial line crossed by a rufous streak on vein 2. Underside ochreous, with rufous suffusion on basal half of costa of fore wing; both wings with curved postmedial line.

♀ much redder; the hind wing bright rufous; the patch on basal area of fore wing bright chestnut.

Hab. Sikkim; Bhután (*Dudgeon*). *Exp.*, ♂ 34, ♀ 44 millim. Type in B. M.

4588. *Sacada flexuosa*, *Snell. Trans. Ent. Soc.* 1890, p. 558.

Sacada inflammalis, *Rag. Ann. Soc. Ent. Fr.* 1891, p. 75, & 1890, pl. viii, fig. 9.

♂. Vinous red suffused with fuscous. Fore wing with the basal area darkest; the lines dark, the first line medial, curved and sinuous; two specks on discocellulars; the second line oblique and straight, with slight trace of angulation at vein 5, approaching the medial line towards inner margin and with a large yellow patch beyond it from costa to vein 5, forming obscure lunules by the veins on it being streaked with fuscous. Hind wing much paler, with an indistinct curved postmedial line. Underside yellow.

♀ much redder, especially the hind wing.

Hab. Sikkim; Khúsis; Tavoy. *Exp.*, ♂ 32, ♀ 42 millim.

b. *Fore wing with the outer margin more produced and angled at vein 4.*

4589. *Sacada sikkima*, *Moore, Lep. Atk.* p. 70; *C. & S.* no. 1159.

Dark purplish fuscous. Fore wing with a dark rufous oblique band from the cell near base to the inner margin at the antemedial line, which is pale, very highly angled in internommedian interspace, and with dark rufous on its inner edge from the angle to inner margin; a pale postmedial line sinuous and with dark rufous beyond it from the costa to vein 5, where it is angled, then very

oblique to inner margin; the outer area darker purplish. Hind wing paler and browner; a pale slightly waved submarginal line from veins 1 c to 5.

Hab. Sikhim. *Exp.*, ♂ 34, ♀ 48 millim.

SECT. II. (*Danaka*). Antennæ of male serrate and fasciculate; fore wing narrow, with the outer margin evenly curved.

4590. *Sacada pyraliformis*, Moore, *Lep. Atk.* p. 71, pl. 3, fig. 10; *C. & S.* no. 1210.

♂. Dull olive-green. Fore wing with obscure leaden-coloured patch on base of inner margin; a medial leaden band wide at costa, narrowing to inner margin, and with an olive-green cell-spot on it; outer area rather paler. Hind wing greenish fuscous, with indistinct pale submarginal line angled at vein 2; cilia of both wings chequered with fuscous. Underside with the basal area suffused with fuscous as far as the slightly sinuous diffused postmedial line.

Hab. Sikhim; Bhután. *Exp.* 32 millim.

4591. *Sacada rufina*, n. sp.

♂. Pale rufous. Fore wing with indistinct outwardly oblique antemedial and inwardly oblique postmedial slightly sinuous dark lines. Hind wing yellowish, redder towards outer margin, and with faint traces of a postmedial dark line, which is more prominent on underside.

Hab. Bombay (*Leith*). *Exp.* 30 millim. Type in B.M.

Genus PARACTENIA.

Paractenia, Rag. *Ann. Soc. Ent. Fr.* 1891, p. 642.

Type, *P. rubicundalis*, Swinh.

Range. Assam; W. India.

Differs from *Bostra* in the antennæ of male being bipectinated for about two-thirds length; each wing with veins 4, 5 approximated for about one-third length; or fore wing with veins 4, 5 stalked.

SECT. I. Fore wing with veins 4, 5 approximated.

4592. *Paractenia rubicundalis*, Swinh. *P. Z. S.* 1885, p. 864.

Head, thorax, and fore wing bright pink; the last with an indistinct sinuous slightly oblique antemedial line; a minutely waved postmedial line angled inwards at vein 2. Abdomen pale pinkish. Hind wing pale slightly irrorated with fuscous; both wings with minute marginal series of specks.

Hab. Karáchi; Poona. *Exp.* 26 millim.

4593. *Paractenia quisqualis*, Swinh. P.Z.S. 1885, p. 865, pl. 57, fig. 11; C. & S. no. 4461.

♂. Rufous; brown irrorated with black. Fore wing with waved ante- and postmedial lines approaching each other below cell; the area between them fuscous black; a black cell-spot. Hind wing ochreous, with traces of a medial line; slight fuscous suffusion towards outer margin; both wings with a prominent series of black marginal specks.

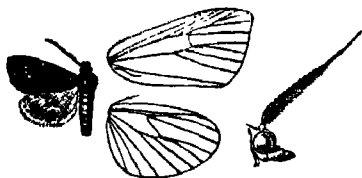


Fig. 101.—*Paractenia quisqualis*, ♂. †.

Hab. Poona. *Exp.* 20 millim.

4594. *Paractenia ruptilinealis*, Warr. A. M. N. H. (6) xvi, p. 460.

♀. Head, thorax, and abdomen pale rufous. Fore wing with the basal area dark chocolate bounded by a pale sinuous line; the medial area pale rufous bounded by an oblique pale-edged dark slightly sinuous line; some pale specks on costa; outer area chocolate; a pale line at base of cilia. Hind wing pale, with curved dark postmedial line; the outer area slightly suffused with fuscous; a dark marginal line and dark line through the cilia.

Hab. Khâsis. *Exp.* 20 millim.

SECT. II. Fore wing with veins 4, 5 stalked.

4595. *Paractenia semiochrea*, Warr. A. M. N. H. (6) xvi, p. 466.

♀. Head, thorax, and abdomen rufous. Fore wing deep purplish red irrorated with black; pale sinuous black edged ante- and postmedial lines; a black discocellular speck; a pale line at base of cilia, which are dark. Hind wing ochreous, with traces of curved dark medial line; the outer area suffused with fuscous; a pale line at base of cilia.

Hab. Khâsis. *Exp.* 22 millim.

Genus **PROSARIS**.

Prosaris, Meyr. *Trans. Ent. Soc.* 1894, p. 12.

Type, *P. pernigratis*, Meyr.

Range. N.E. India; Burma.

Palpi curved downwards, more than twice the length of head, and thickly scaled; maxillary palpi dilated with scales and well developed; a large frontal tuft; proboscis small; antennæ of male with long cilia; tibiæ and proximal joints of tarsi fringed with hair; fore femora with a tuft of hair below. Fore wing somewhat narrow, the apex produced and outer margin oblique; veins 4, 5 not approximated towards origin. Hind wing with vein 3 from near angle of cell; 6, 7 from upper angle; male with a tuft of

long scales on middle of vein 1 *c* on upperside, and a bladder-like swelling at base of vein 8 below.

4596. *Prosaris pernigralis*, *Meyr. Trans. Ent. Soc.* 1894, p. 12 (*nec Itag.*).

♂. Dark purplish rufous; the vertex of head, thorax, and abdomen paler rufous. Fore wing with some rufous below the

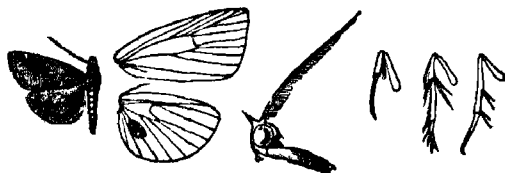


Fig. 102.—*Prosaris pernigralis*, ♂. 1.

cell and vein 2; the costal area suffused with bright ferruginous from upper angle of cell to apex, a pale spot on the costa before apex. Hind wing with a large black tuft on middle of vein 1 *c*; a large bright ferruginous patch beyond lower angle of cell diffused outwards to the margin. Underside with the pale spot and ferruginous suffusion on costa of fore wing prominent; both wings with traces of a pale curved submarginal line.

Hab. Sikhim; Nágas; Rangoon; Shán States. *Exp.* 20 millim.

Genus **TREBANIA.**

Trebania, *Itag. Ann. Soc. Ent. Fr.* 1891, p. 645.

Type, *T. flavifrontalis*, Leech, from China.

Range. China; N.E. India.

Proboscis well developed; palpi with the 2nd joint slightly curved upwards, the 3rd rostriform, downcurved, about three times the length of head, and with a thick fringe of down-curved iridescent hair springing from a groove on inner side; maxillary palpi minute; antennæ

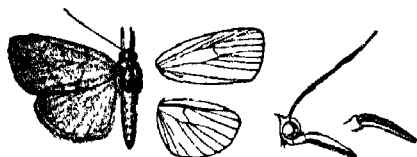


Fig. 103.—*Trebania muricolor*, ♂. 1.

of female nearly simple; tibiæ moderately hairy. Fore wing short and broad; vein 3 from before angle of cell; 4, 5 from angle; 6 from upper angle; 10, 11 free. Hind wing with vein 3 from before angle of cell; 4, 5 from angle; 6, 7 shortly stalked.

4597. *Trebania muricolor*, n. sp.

♂. Uniform mouse-brown; back of head with a slight fulvous tinge. Fore wing with traces of outwardly-oblique antemedial dark line; a speck at end of cell; a postmedial dark line highly