

1. A Revision of certain Genera of European and Asiatic Lithosiidæ, with characters of new Genera and Species.  
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(Plates I.-III.)

Family LITHOSIIDÆ.

Subfamily HYP SINÆ.

All the genera in this subfamily possess a peculiar stridulatory apparatus in both sexes. This is distinctly visible on the upperside of the posterior margin of the fore wing, and as viewed from the *underside* of the wing appears as a short oval nacreous cavity, situated between the submedian vein and the extreme margin, along the upper edge of which projects a raised longitudinally oblique fold, which is smooth in some, and transversely scabrous in others; and on the *upperside* of the hind wing is a patch of scabrous scales, or a short transverse outwardly-curved raised scabrous bar, which, by the motion of this wing, evidently plays upon the raised fold over the edge of the cavity, and produces a stridulating sound.

HYP SA, Hübner, Verz. bek. Schm. p. 172.

HYP SA CANARAICA, n. sp.

*Female*. Upperside—fore wing cinereous brown; veins white; base of wing ochreous and spotted with black; a whitish clavate streak from lower end of the cell; cilia cinereous: hind wing white, with broad black marginal band crossed by white veins; four black discal spots and a short anal streak; cilia whitish. Thorax ochreous, with small black spots; abdomen brighter ochreous, with a dorsal and lateral row of black spots. Underside cinereous brown, basal half of fore wing white, with two broad black spots within, and a third below the cell; hind wing as above, with the marginal band extending along the costa. Near to *H. heliconia*.

Expanse 2 inches.

Canara (*Ward*). In coll. F. Moore.

HYP SA SERICEA, n. sp.

*Male*. Upperside pale silky ochreous-yellow; cilia whitish: fore wing with the base brighter and dotted with black; an indistinct whitish spot from lower end of the cell: hind wing with costal border whitish; a broad cinereous brown marginal band and two confluent longitudinal discal streaks. Body pale ochreous-yellow; abdomen brighter with dorsal and lateral row of black spots; palpi with black terminal point and two lateral spots; legs grey, streaked with black. Underside cinereous brown; fore wing with yellow hind margin and basal costal streak; hind wing with marginal band and



discal streaks almost confluent, being separated only by a narrow yellow division.

Expanse  $1\frac{7}{8}$  inch.

Canara (*Ward*). In coll. F. Moore.

Near to *H. heliconia*.

#### DAMALIS, Hübner.

*Damalis*, Hübner, Verz. bek. Sch. p. 172.

DAMALIS CONCANA, n. sp.

Near to *H. alciphron*, Cram. pl. 133. f. E.

Upperside ochreous; cilia white: fore wing at base bright ochreous and dotted with black; a small whitish streak from lower end of the cell: hind wing with black marginal band crossed by pale veins, and two irregular longitudinal discal streaks. Thorax with black dots; abdomen with dorsal and lateral row of black spots; legs whitish, streaked with black. Underside—fore wing pale ochreous-brown; hind margin yellow; cell white, bordered with black and enclosing a black spot: hind wing yellow, with paler black marginal band, and streaks as above.

Expanse  $2\frac{2}{8}$  inches.

Canara (*Ward*). In coll. F. Moore.

#### DIGAMA, Moore.

*Digama*, Moore, Catal. Lep. E.I. C. ii. p. 298 (1858).

Fore wing—first branch of subcostal long, free; second at a considerable distance before end of the cell, trifurcate; fifth from near end of the cell, curved upward and looped to third at one third its length; radial from end of the cell; discocellulars nearly erect; median vein four-branched, upper from end of the cell, second and third from angles near its end. Hind wing with two subcostal branches beyond the cell; discocellulars curved outward, oblique; four median branches, three upper from end of the cell. Below the submedian vein on the underside of the fore wing, is a short longitudinal cavity, along the upper edge of which projects a raised transversely scabrous narrow bar; and on the upperside of the hind wing is a short transverse outwardly curved raised scabrous bar, so placed that, by the motions of this wing, it evidently plays across the longitudinal bar on the fore wing and produces a stridulatory sound.

#### DIGAMA HEARSEYANA.

*D. hearseyana* (part), Moore, Catal. Lep. E.I. C. ii. p. 298. pl. 7 A. f. 3 a, ♀ (1858).

*Male and female.* Upperside—fore wing greyish brown, with four basal transverse series of black spots, and an intermediate spot in the cell, with paler interspaces along the veins and wavy bands across the disk: hind wing and abdomen ochreous yellow, the latter with dorsal row of black spots. Thorax, head, and palpi grey-brown; front and middle of thorax black-spotted; joints of palpi with terminal black band; legs black-banded above, pale ochreous



beneath. Underside—fore wing uniform pale grey-brown; hind wing with a small black discocellular spot at upper end of cell.

Expanse, ♂  $1\frac{2}{10}$ , ♀  $1\frac{3}{10}$  inch.

N.W. India (Allahabad, Manpuri, Deyra, Simla).

In the Catalogue Lep. East-India Company, above quoted, is described and figured (fig. 3) a male insect from Ceylon, which I then considered to pertain to this species. The Ceylon specimens, however, are very distinct; and the species has been named by Felder as *D. insulana*.

#### DIGAMA INSULANA.

*Digama insulana*, Feld. Verh. zool.-bot. Gesch. 1868, p. 285.

*D. hearseyana* (part), Moore, Catal. Lep. E.I. C. ii. p. 298, pl. 7. f. 3, ♀ (1858).

*Male and female.* Upperside—fore wing pale grey-brown, basal spots prominent: hind wing ochreous yellow, male with a grey-brown marginal streak, and female with a short marginal spot, situated near the middle. Head and thorax pale grey-brown, black-spotted; abdomen ochreous, with dorsal black spots; antennæ brown in male; legs black-banded above; palpi with terminal black bands. Underside paler; both wings with a black spot at end of the cell.

Expanse  $1\frac{1}{8}$  inch.

Ceylon. In coll. India Museum.

#### DIGAMA SIMILIS, n. sp.

*Male and female.* Allied to *D. hearseyana*, but of smaller size; fore wing similarly marked; hind wing in the male with a dusky brown marginal streak from near anal angle, and another near apex, the latter only present in the female.

Expanse ♂ 1, ♀  $1\frac{1}{10}$  inch.

N.W. Himalaya (Simla). In coll. F. Moore.

#### DIGAMA FIGURATA, n. sp.

*Male.* Upperside—fore wing greyish white, with very prominent brown basal spots, two median, transverse, irregular, sinuous, partly confluent bands, and a partly confluent marginal band; a large black spot in middle and a lunule at end of the cell: hind wing pale ochreous yellow, with prominent black marginal marks. Thorax and head white, spotted with black; antennæ brown; palpi white, with broad terminal black bands; abdomen ochreous-yellow, with dorsal and lateral black spots; legs white, with black bands above. Underside—forewing grey-brown, spots in cell visible; hind wing with black spot at end of the cell, and on middle of outer margin.

Expanse  $1\frac{3}{10}$  inch.

Burmah. In coll. F. Moore.

#### CALPENIA, Moore.

*Calpenia*, Moore, P. Z. S. 1872, p. 571.

#### CALPENIA KHASIANA, n. sp.

*Female.* Upperside—fore wing brownish fawn-colour vinous-tinged,



paler along the veins; a broad pale yellow band extending longitudinally from base below the cell and upward to near the costa, being crossed by the veins; some yellow spots on the costa; a small spot and streak at base of cell, and two outer submarginal rows of small dentate spots of chrome-yellow: hind wing chrome-yellow, with four transverse rows of vinous brownish black spots and a rayed basal streak, the spots broadly lunate, irregular in size, the outer row being marginal and the smallest. Antennæ, front of head, and palpi black; thorax dark greyish brown, longitudinally streaked with chrome-yellow; abdomen chrome-yellow, with dorsal and lateral row of spots. Underside same as above; legs dark grey.

Expanse  $3\frac{1}{4}$  inches.

Khasia hills (*Atkinson*). Coll. Dr. Staudinger.

#### NEOCHERA, Hübner.

*Neochera*, Hübner, Verz. bek. Schmett. p. 173.

NEOCHERA HELICONIODES, n. sp.

*Male*. Upperside—fore wing purplish cinerous; all the veins narrowly lined with white; base of wing black-spotted, and with a subbasal orange-yellow streak with zigzag borders: hind wing grey-black, washed with purplish blue; three grey streaks from the base and a prominent submarginal grey narrow undulating band; cilia white. Body orange yellow; a black spot on each tegula, one on hind part of thorax, and a dorsal and lateral row of spots on abdomen. Underside grey-black; both wings with white external veins and undulating submarginal band; the basal area broadly white and with a large blackish cell-spot; front of head with a central black spot; palpi and legs white, streaked with black.

Expanse  $2\frac{5}{8}$  inches.

Luzon, Philippines. In Coll. Dr. Staudinger.

Similar in pattern to *Hypsa heliconia*.

#### Subfamily LITHOSIINÆ.

The genera are here arranged in the following sectional groups, viz. :—

A. Fore wing with subcostal vein *five*-branched, median vein *four*-branched :

*Eligma*, *Macrobrochis*, *Tripura*, *Paraona*, *Atolmis*, *Sidyma*, *Churinga*, *Vamuna*, *Mahavira*, *Korawa*, *Hesudra*, *Ghoria*, *Chrysægla*, *Eonistes*, *Lithosia*.

B. Fore wing with subcostal vein *five*-branched, median vein *three*-branched :

*Simareea*, *Tarika*, *Brunia*, *Gandhara*, *Collita*, *Katha*, *Eilema*, *Manulea*, *Systropha*, *Chrysorabdia*, *Capissa*, *Dolgoma*, *Mithuna*, *Cossa*, *Ranghana*, *Tegulata*.

B A. Hind wing with a recumbent plumose lappet :

*Nishada*.



B B. Fore wing with a recumbent plumose lappet :  
*Teulisna, Macotasa, Zadadra, Prabhasa, Gampola.*

C. Fore wing with subcostal vein *four*-branched, median vein *three*-branched :—

*Pelosia.*

D. Fore wing with a plumose, lappet-covered, sac-like cavity on the costal border ; *five* subcostal and *three* median branches :

*Doliche, Bizone, Cyana.*

E. Aberrant group : fore wing with *five* subcostal and *four* median branches :

*Baroa, Agrisius, Lyclene, Barsine, Miltochrista, Setinochroa, Setina, Nudaria, Emene.*

GROUP A. Fore wing with subcostal vein FIVE-branched, median vein FOUR-branched.

#### ELIGMA, Hübner.

*Eligma*, Hübn. Verz. bek. Schmett. p. 164 (1816).

*Panglima*, Moore, Catal. Lep. E. I. C. ii. p. 297 (1858).

*Surina*, Walk. Tr. Nat.-Hist. Soc. Glasgow, i. p. 9 (1869).

Fore wing—first subcostal branch free ; second from near end of the cell, trifurcate ; fifth from end of the cell, bent up and with a short spur looped to third close to its base ; radial from end of the cell ; discocellulars bent, upper longest ; median vein four-branched, angled at end of the cell, two upper branches from the front and third from angle below the end, fourth from beyond half towards the base. Hind wing—two subcostal branches, and three upper median branches from end of the cell.

Type, *E. narcissus* (*P. narcissus*, Cram. Lep. Exot. i. pl. 73. f. E, F).

China, Java, Penang, S. India.

#### MACROBROCHIS, H.-S.

*Macrobrochis*, H.-Schæff. Lep. Exot. Sp. Nov. pl. 72. fig. 531 (1856).

Fore wing—first subcostal branch free, curving upwards at its base towards costal vein ; second from near end of the cell, trifurcate ; fifth from end of the cell, bent upward and with a short spur looped to third near its base ; radial starting from fifth subcostal branch beyond the cell ; upper and lower discocellulars bent inward at very oblique angles ; median vein bent upward near end of cell, four-branched, two upper from point at end of the cell, third from angle below its end. Hind wing—two subcostal and two upper median branches from beyond end of the cell, third median below its end.

Type, *M. gigas* (*Lithosia gigas*, Walk. Cat. Lep. Het. B. M. ii. p. 494, 1854 ; *M. interstitialis*, H.-S. l. c. f. 531).



**MACROBROCHIS LEUCOSPILOTA**, n. sp.

*Male and female.* Differs from *M. gigas* (*Lithosia gigas*, Walk. Catal. Lep. Het. B. M. ii. p. 494) in the fore wing having more elongated white spots, and in the hind wing having the marginal band much narrower and traversed by a series of elongated spots on both upper and underside.

Expanse  $2\frac{3}{4}$  inches.

Cherra Punji, Assam. In coll. India Museum, and F. Moore.

**MACROBROCHIS NIGRESCENS**, n. sp.

*Male.* Allied to *M. gigas*. Differs in the spots on the fore wing being much less distinct; the basal and discal spots partly covered with black scales and totally obsolete on the underside; on the hind wing the base is only slightly dusky-white on both sides.

Expanse  $2\frac{3}{4}$  inch.

N.E. Bengal. In coll. F. Moore.

**TRIPURA**, Moore.

*Tripura*, Moore, Catal. Lep. E.I. C. ii. p. 298 (1858).

Fore wing—first subcostal branch free; second from before end of the cell, trifurcate; fifth from end of the cell, bent upward and touching third near its base; radial from end of the cell; discocellulars bent in the middle; median vein four-branched, two upper from angles at end of the cell, third from angle before its end. Hind wing—two subcostal branches beyond cell, three upper median branches at its end.

Type, *T. prasena*, Moore, *l. c.* p. 299, pl. vii. A. fig. 6 (1858).

Himalayas.

**PARAONA**, n. g.

Fore wing long, narrow, costa slightly arched, apex acute, exterior margin oblique, posterior margin slightly convex towards the base; subcostal vein five-branched; first branch oblique, free; second arising before end of the cell; third starting from above base of second, trifurcate towards its end; radial from end of the cell, curved upward and joined to third subcostal branch, at one fourth its length beyond the cell; discocellulars slightly bent in the middle; median four-branched, two upper at end and third before end of the cell. Hind wing long, somewhat narrow, apex slightly produced, exterior margin and angle convex; two subcostal branches one third beyond the cell; median four-branched, two upper beyond and third from end of the cell. Body stout. Antennæ in the male serrate, the teeth finely pectinate, setose in the female. Palpi small, ascending, pilose beneath, apical joint very minute. Legs stout, short; femora slightly pilose beneath; tibiæ thickened, middle and hind tibiæ spurred.

**PARAONA SPLENDENS.** (Plate I. fig. 1.)

*Crambomorpha splendens*, Butler, Trans. Ent. Soc. Lond. 1877, p. 357.

Bombay (*Dr. Leith*). In coll. British Museum, and F. Moore.



## ATOLMIS, Hübner.

*Atolmis*, Hübn. Verz. bek. Schmett. p. 164 (1816).

*Gnophria*, Steph. Brit. Lep. ii. p. 98 (1829).

Fore wing—first subcostal branch free; second from before end of the cell, trifurcate; fifth from end of the cell, bent upward and touching third at half its length; radial from end of the cell; discocellulars bent inward; median four-branched, two upper from end of the cell, third from angle below its end. Hind wing—two subcostal branches beyond the cell; three upper median branches from its end.

Type, *A. rubricollis* (*N. rubricollis*, Linn).

Europe.

## SIDYMA, Walker.

*Sidyma*, Walk. Catal. Lep. Het. B. M. vii. p. 1686 (1856).

Fore wing—first subcostal branch long, free; second from near end of the cell, trifurcate; fifth from end of the cell and touching third near its base; radial from fifth subcostal branch at some distance beyond the cell; discocellulars bent; median vein angled near end, four-branched, two upper from end, third from angle below end of the cell: hind wing—two subcostal and three upper median branches from end of the cell.

Type, *S. albifinis*, Walk. Catal. Lep. Het. B. M. vii. p. 1686.

Masuri, N.W. Himalayas (*Capt. Lang*).

*SIDYMA APICALIS*, n. sp. (Plate I. fig. 2.)

*Male*. Upperside purplish-black; fore wing with a narrow triangular white apical patch. Collar, thorax beneath, and anal tuft orange-red. Underside as above.

Expanse  $1\frac{3}{8}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

Smaller than *S. albifinis*, which is known only from Masuri. Distinguished by having the apical white patch on the fore wing only.

## CHURINGA, n. g.

*Male and female*. Wings ample, broad, somewhat short in male. Fore wing with the costa slightly arched towards end, apex pointed, exterior margin oblique, posterior angle rounded; first subcostal branch very oblique, free; second from near end of the cell, trifurcate; fifth from end of the cell, with a loop-spur to the base of the third; radial starting from below the fifth subcostal beyond end of the cell; discocellulars of equal length, bent inward at the middle; median vein four-branched, two upper from end of cell, next at some distance before and lower from half length of the cell. Hind wing convex at the apex; exterior margin rounded, abdominal margin short; two subcostal branches at one fourth beyond end of the cell; median four-branched, two upper from end, next before the end, and lower from half length of the cell. Body large; thorax with long pilose tegulæ. Antennæ in male broadly pectinate, setose in female. Palpi slender, ascending, basal joint pilose beneath, second and third



joints very long, tip blunt. Legs long, femora slightly pilose beneath.

Type, *C. rufifrons*. Will also include *Lithosia beema*, Moore, P. Z. S. 1865, p. 798.

*CHURINGA RUFIFRONS*, n. sp. (Plate I. fig. 12.)

*Male and female*. Upperside—fore wing pale purplish ochreous-brown, costal and posterior margins narrowly edged with ochreous yellow; hind wing and abdomen pale ochreous-yellow. Thorax brown; tegulæ edged with yellow; head, collar, and palpi reddish ochreous; thorax beneath and legs bright ochreous; tip of palpi, antennæ, fore legs above, and tarsi, brown. Underside paler.

Expanse, ♂  $1\frac{9}{10}$ , ♀  $2\frac{3}{10}$  inches.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

*VAMUNA*, n. g.

Fore wing long, narrow; costa slightly arched beyond the middle; apex acute; exterior margin short and slightly truncate below the apex, oblique hindward, the angle slightly convex; posterior margin convex towards the base in male. Hind wing broad; apex slightly produced; exterior margin convex in the middle. Veins similar to those in *Churinga* (*C. rufifrons*), excepting that in the fore wing the lowest or fifth branch of the subcostal is emitted from upper angle of the cell, the median branches nearer together at their base, and the lowest nearer the end of the cell. Body moderately stout. Antennæ in both sexes setose. Palpi moderately long, ascending, projecting beyond the head, second joint long, third joint very short. Legs long, naked; middle and hind spurred.

Type, *V. remelana* (*Lithosia remelana*, Moore, P. Z. S. 1865, p. 798).

Darjiling.

*VAMUNA MACULATA*, n. sp. (Plate I. fig. 5.)

*Male*. Upperside—fore wing greyish ochreous; hind wing pale dull ochreous at base and whitish externally, with three marginal black spots, the two upper larger, the lower small and at some distance from anal angle. Body ochreous. Underside dull ochreous basally, whitish externally; fore wing with a brownish patch at the apex, a black longitudinal basal streak, and a broad large transverse subapical patch; hind wing with only the lower and middle marginal black spots. *Female* much paler, the apex of fore wing slightly brownish-ochreous; hind wing above and beneath with smaller median and lower black spots; the fore wing with the basal black streak less defined and the subapical spot small.

Expanse, ♂  $1\frac{5}{8}$ , ♀ 2 inches.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

*VAMUNA BIPARS*, n. sp. (Plate I. fig. 11.)

*Male*. White, costal edge of the base and apical half of fore wing fuliginous black; hind wing with a fuliginous-black submarginal band,



the middle portion of which is very broad and blackest. Antennæ, front of head, and tip of palpi black; fore and middle legs above, a terminal spot on hind tibiæ and their tarsi, black; tarsal joints with a white band; base of palpi, thorax and abdomen, legs beneath, and anal tuft ochreous. Underside duller white; the black band on fore wing confined to the disk, the apical border being pale brownish-ochreous; upper portion of band on hind wing obsolete.

Expanse 2 inches.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

#### MAHAVIRA, n. g.

*Male*. Fore wing long, narrow, costa arched, apex acute, exterior margin oblique, posterior margin recurved; subcostal vein five-branched, first and second arising before and near end of the cell, third trifurcate, the two lower branches at equal distances from end of the cell; discocellulars long, straight, upper obliquely inward, lower obliquely outward; radial from upper end of the cell; median vein four-branched, the two upper branches from lower end of the cell, third at some distance before its end; submedian vein curving towards hind margin: hind wing longer than broad, exterior margin convex; subcostal vein two-branched beyond end of cell; discocellulars as in fore wing; median vein four-branched, the two upper branches from end of cell and contiguous at their base, third immediately before end of the cell. Body slender. Antennæ serrate, with long and delicate pectinations. Legs slender, femora slightly pilose beneath; middle and hind tibiæ spurred. Palpi slender, porrect, basal joint pilose, apex pointed.

MAHAVIRA FLAVICOLLIS, n. sp. (Plate I. fig. 3.)

*Male*. White, costa slightly edged with brown at the base; collar yellow; antennæ yellow; fore femora with a blackish streak on the inner side.

Expanse  $1\frac{3}{4}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

#### KORAWA, n. g.

*Male and female*. Fore wing long, narrow; costa slightly arched; apex somewhat acute, exterior margin very oblique; subcostal vein five-branched, first branch ascending and touching the costal but free at its end, second starting before end of the cell, third at end of the cell, trifurcate, lowest branch at one third beyond end of the cell; upper discocellular angled outward at its middle, lower oblique; radial from angle of upper discocellular; median vein four-branched, the two upper from lower end of the cell; submedian slightly recurved. Hind wing moderately short, apex slightly produced and convex, exterior margin rounded; subcostal two-branched beyond end of the cell; discocellulars of equal length, bent inward; median vein four-branched, two upper beyond end of the cell, middle branch from end of the cell; submedian nearly straight. Body moderate.



Palpi small, porrect, pilose. Antennæ minutely and finely bipectinate. Legs pilose, sparsely in male.

*KORAWA PALLIDA*, n. sp.

*Male and female.* Semidiaphanous; fore wing pale fleshy-yellow; hind wing white; thorax slightly ochreous-yellow; abdomen white; palpi black-tipped; legs white, fore tibiæ with a black longitudinal line in front.

Expanse ♂  $1\frac{1}{2}$ , ♀ 2 inches.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

*HESUDRA*, n. g.

*Male.* Wings short, rather broad. Fore wing with the costa nearly straight; apex acute, exterior margin very oblique; subcostal vein five-branched, first branch very oblique, free, running close to costal, second arising before end of the cell, trifurcate, fifth from end of the cell, looped to third near its base; radial from upper end of cell; discocellulars bent in the middle; median vein four-branched, two upper from one fourth beyond the cell, third near its end. Hind wing produced at the apex; exterior margin very oblique, nearly straight; abdominal margin long; two subcostal branches from one fourth beyond the cell; median four-branched, two upper from one third beyond the cell, third close to its end. Antennæ broadly pectinate. Palpi slender, curved upward, slightly pilose at base. Legs slender.

*HESUDRA DIVISA*, n. sp. (Plate I. fig. 4.)

*Male.* Upperside pale testaceous: fore wing with a broad dark purplish-grey band occupying the posterior half of the wing; base of the costa also purplish grey; costal border yellowish. Thorax, head, side of palpi, and legs above, purplish grey; abdomen pale greyish, testaceous beneath, tip ochreous; base of palpi and legs beneath pale ochreous; antennæ purplish-brown. Underside—fore wing pale purplish-grey, costal border yellowish; hind wing narrowly edged along the anterior margin with greyish black.

Expanse  $1\frac{3}{4}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

*GHORIA*, n. g.

Fore wing long, narrow, costa slightly arched beyond the middle, apex acute, exterior margin oblique and slightly convex, posterior margin long; first subcostal branch very oblique, free; second trifurcate; fifth from end of the cell and bent upward, looped to the third near its base; radial starting from below the fifth subcostal branch at one third beyond the cell; discocellulars obliquely concave; median four-branched, the two upper from end of cell, third immediately before its end, fourth at half its length. Hind wing broad, apex slightly produced, exterior margin convex in the middle; two subcostal branches at one third beyond the cell; median four-branched, two upper beyond the cell, third at its end. Body slender, extending



beyond hind wing. Antennæ setose. Legs slender, squamose. Palpi slender, porrect, base pilose beneath.

*GHORIA ALBOCINEREA*, n. sp. (Plate I. fig. 10.)

*Male*. Upperside—fore wing silky white, with a cinereous-brown band along posterior margin; hind wing cinereous; cilia white. Thorax and abdomen white; middle of thorax and streak on tegulæ cinereous brown; collar and front of head, and antennæ yellowish; anal tuft pale brownish ochreous. Underside cinereous brown, palest on hind wing, abdominal margin cinereous white; costal edge of fore wing yellowish towards the apex. Legs cinereous brown above, yellowish beneath; palpi yellowish, tip brown.

Expanse  $1\frac{4}{10}$  inch,

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

*GHORIA SERICEIPENNIS*, n. sp.

*Male*. Upperside—fore wing silky white, with a broad dark cinereous brown band along posterior margin; hind wing white, pale cinereous brown at the apex and along anterior margin. Middle of thorax and tegulæ, and front of head, dark cinereous brown; abdomen above and beneath white, anal tuft brown; collar yellowish; palpi ochreous yellow; legs above cinereous brown, whitish beneath. Underside—fore wing, anterior border, and apex of hind wing brown.

Expanse  $1\frac{2}{3}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

*CHRYSÆGLIA*, Butler.

*Chrysægla*, Butler, Trans. Ent. Soc. 1877, p. 356.

Veins of the fore wing similar to those in *Æonistis entella*. Those in the hind wing differ in the median having but three branches, two only starting from the end of the cell.

Type, *C. magnifica* (*Lithosia magnifica*, Walk. Journ. Linn. Soc. vol. vi. p. 103), from Borneo.

*CHRYSÆGLIA FERRIFASCIATA*, n. sp. (Plate I. fig. 6.)

*Male and female*. Upperside golden yellow: fore wing glossy, with a steel-blue band along the costa, a broad transverse median band and a large triangular spot near base of posterior margin; also a blackish outer marginal band, which is broadest in the male; median band dilated hindward and angled on its inner margin below the cell: hind wing with the margin and cilia at the apex slightly blackish. Tegulæ and legs steel-blue. Underside paler yellow; fore wing with pale dusky brown bands as above.

Expanse, ♂  $1\frac{8}{10}$ , ♀  $2\frac{2}{10}$  inches.

Nepal (*Ramsay*), Darjiling (*Grote*). In coll. F. Moore.

*ÆONISTIS*, Hübner.

*Æonistis*, Hübner. Verz. bek. Schmett. p. 165 (1816).

Fore wing—first subcostal branch long, free; second arising from near end of the cell; third from its end, trifurcate; radial curving



from end of the cell; discocellulars bent in the middle; median vein four-branched, two upper from end, third from angle before end of the cell. Hind wing—two subcostal branches immediately beyond end of the cell, two upper median branches from beyond, and third from end of the cell.

Type, *Æ. entella* (*P. entella*, Cram. Pap. Exot. pl. 208. f. D).

India, Ceylon,

Will also include *Gnophria ceramensis*, Voll. Tijdsch. voor Ent. 1872, iii. p. 246, pl. 12. f. 1.

#### LITHOSIA, Fabr.

*Lithosia*, Fabr. Ent. Syst. Suppl. p. 459 (1798).

Sexes dissimilar in colour and pattern. Fore wing with first subcostal branch free, second starting near end of the cell, trifurcate, fifth curving up from end of the cell and touching third near its base; radial from end of the cell in male, from angle of upper discocellulars in female; discocellulars curved in male, angled at both ends in female; median four-branched, three upper from end of the cell. Hind wing with one subcostal branch in male, two in female beyond the cell; two median branches beyond the cell in male, and from its end in female.

Type, *Lithosia quadra* of Europe.

Will also include *Lithosia dives* (*Æonistis dives*, Butler, Ann. Nat. Hist. Nov. 1877, p. 398, from Japan).

GROUP B. *Fore wing with subcostal vein FIVE-branched; median vein THREE-branched.*

#### SIMAREEA, n. g.

Similar in form, colour, and pattern to the male of the European *L. quadra*, but of different venation in the fore wing; and both sexes are alike, the discocellulars not being bent at the upper and lower end of the cell (as in female *L. quadra*); and the median vein has only two branches in both sexes proceeding from end of the cell (*L. quadra* having three in the male). In the hind wing the costal vein has two branches beyond the cell in both sexes, *L. quadra* having one only; the median branches also start at some distance from the cell in both sexes. The palpi are more pilose, have the second and third joints much longer, the apex blunt, and projecting much beyond the head.

SIMAREEA BASINOTA. (Plate I. fig. 16.)

*Lithosia basinota*, Moore, P. Z. S. 1865, p. 798.

Darjiling.

#### TARIKA, n. g.

Fore wing long, broad; costa arched; exterior margin convex, posterior margin rounded at the base; first subcostal branch short, oblique, anastomosing with the costal, second from near end of the cell, third from near base of second, bifurcate, fifth from end of the cell, bent upward and touching the third at one fourth its length; discocellulars bent inward, upper angled close to subcostal, lower



shortest; radial from angle of upper discocellular; median three-branched, two upper branches at one third beyond the cell; submedian nearly straight. Hind wing broad, apex slightly produced; subcostal branches at one fourth and median branches at one third from end of the cell. Palpi small, short, slightly decumbent. Legs stoutish, naked. Antennæ minutely pectinate. Body slender, not extending beyond hind wing.

TARIKA VARANA. (Plate I. fig. 8.)

*Lithosia varana*, Moore, P. Z. S. 1865, p. 797.

Darjiling.

TARIKA NIVEA, n. sp.

*Lithosia nivea*, Walker, MS.

*Male and female.* Fore wing silky white, costal edge pale yellow; head, front of thorax, palpi, body and legs beneath, yellow; tip of palpi brown; fore and middle legs brown above.

Expanse, ♂  $1\frac{3}{8}$ , ♀  $1\frac{5}{8}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

BRUNIA, n. g.

Fore wing long, narrow; first branch of subcostal vein short, oblique, anastomosed to the costal, second starting from angle close before end of the cell, trifurcate, fifth from end of the cell and looped to third branch at its base; discocellulars bent below the middle, upper angled close to end of the cell; radial from angle of upper discocellular; two upper median branches at half length beyond end of the cell. Hind wing long, apex produced; two branches of subcostal vein at one third beyond the cell, and two median branches at two thirds beyond. Palpi ascending, pilose beneath.

BRUNIA ANTICA. (Plate I. fig. 9.)

*Lithosia antica*, Walker, Catal. Lep. Het. B. M. ii. p. 505.

Ceylon.

Will also embrace *Lithosia natara*, Moore, from Java, and *L. sarawaca*, Butler, from Borneo.

GANDHARA, n. g.

Fore wing broad, somewhat short; costa much arched beyond the middle; apex acute; exterior margin slightly oblique, rounded in middle; hind margin slightly rounded at the base; first branch of subcostal vein curving upward and extending free to beyond end of the costal, second and third branches starting together from end of the cell, third trifurcate; discocellulars zigzag, the angles equidistant; radial from upper angle; two upper median branches from lower angle of cell. Hind wing broad, short.

GANDHARA SERVA. (Plate I. fig. 7.)

*Lithosia serva*, Walker, Catal. Lep. Het. B. M. ii. p. 506.

Darjiling.



## COLLITA, n. g.

Wings very broad. Fore wing with the costa arched; subcostal five-branched, first short, oblique, anastomosed to costal, second starting at some distance before end of the cell, third trifurcate, the fifth or lowest branch nearest the base; upper discocellular slightly angled close to subcostal, whence starts the radial; median three-branched, two upper at one fourth beyond the cell. Hind wing very broad, apex produced, exterior margin rounded in the middle, abdominal margin long and extending beyond abdomen; two subcostal branches and two upper medians from one third beyond the cell. Palpi short, porrect.

Type, *C. griseola* (*Lithosia griseola*) of Europe. Will also include *L. vetusta*, Walk., from China, and the European *L. complanula* and *L. stramineola*, Dbleday.

## COLLITA LILACINA, n. sp.

Fore wing pale lilac-grey, with pale yellowish costal border; hind wing pale greyish ochreous; thorax grey; head pale yellow; palpi black-tipped; fore legs brownish above.

Expanse  $1\frac{1}{2}$  inch.

W. Yunan (*Anderson*). In coll. F. Moore.

Similar in appearance to *Gandhara serva* (*Lithosia serva*, Walk.), from Sikkim, but of entirely different venation.

## COLLITA PARVA, n. sp. (Plate I. fig. 13.)

*Female*. Fore wing greyish ochreous-brown; hind wing and abdomen paler; fore wing yellowish along the costal border. Underside uniform ochreous brown, palest on lower part of the hind wing. Legs cinereous brown above.

Expanse  $\frac{8}{10}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

Allied to *C. vetusta* (*Lithosia vetusta*, Walk.), from North China, having the same venation, but is of a much smaller size.

## KATHA, n. g.

Wings clothed with stout compact imbricated scales.

*Male*. Fore wing long, very narrow; costa nearly straight, apex rounded; exterior margin slightly oblique; posterior margin recurved, convex near the base; slightly folded longitudinally below the median vein; cell long, narrow; discocellulars bent outward at upper end and inward at lower end; first branch of subcostal vein at some distance before end of the cell, short, oblique, and anastomosed to costal; second short, arising beyond end of the cell; third trifurcate, its lowest branch at equal distance between second and fourth; radial starting from upper angle of discocellular; two upper branches of median vein at half distance from end of the cell; submedian recurved. Hind wing long, broad; two subcostal branches at one third from cell; discocellulars slightly bent inward; two median branches at one half distance from the cell, and wide apart. Palpi



rather short, pilose at base, porrect. Antennæ minutely pectinate. Legs long, rather stout. Body long, extending beyond hind wing.

**KATHA NIGRIFRONS.** (Plate I. fig. 15.)

*Lithosia nigrifrons*, Moore, P. Z. S. 1872, p. 572.

North India.

This genus will also include *Lithosia apicalis*, Walk., from Borneo, *L. intermixta*, Walk., *L. brevipennis*, Walk., from South India, and *L. helveola* of Europe.

**KATHA TERMINALIS**, n. sp. (Plate I. fig. 14.)

*Male*. Ochreous; fore wing darkest, with a distinct curved purplish band across exterior margin. Antennæ, front of head, tip of palpi, middle of thorax, and streak on tegulæ purplish black; legs above purplish brown.

Expanse  $1\frac{1}{2}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

Allied to *K. apicalis* (*Lithosia apicalis*, Walk. Journ. Linn. Soc. Zool. vi. p. 104) from Borneo, but differs on the fore wing in the apical band not extending upward onto the costa, and in the absence of the slight apical patch on the hind wing, which is present in Bornean examples.

**KATHA CUCULLATA**, n. sp.

*Male*. Upperside—fore wing pale purplish grey, costal edge at apex and cilia yellowish; an indistinct greyish-brown outer marginal band: hind wing and abdomen pale ochreous grey; anal tuft ochreous. Thorax, top and front of head, and palpi except at base beneath, black; legs black, middle and hind legs pale beneath; antennæ black. Underside—fore wing brownish ochreous; hind wing pale ochreous.

Expanse  $1\frac{1}{10}$  inch.

Andamans. In coll. F. Moore.

Allied to *K. terminalis* and *K. apicalis*.

**EILEMA**, Hübner.

*Eilema*, Hübn. Verz. bek. Schmett. p. 165 (1816).

Wings long, narrow. Fore wing with the subcostal five-branched, first short, oblique, and anastomosed to costal, second free and widely separated from third, third trifurcate, the lowest or fifth nearest the base, the two upper near apex; radial from upper end of the cell; discocellulars inwardly oblique; median three-branched, two upper beyond half distance from the cell, lower long, from near its base. Hind wing—two subcostal branches at one third, and two upper median branches at two thirds beyond the cell.

Type, *E. caniola*, Hübner, of Europe.

**MANULEA**, Wallengren.

*Manulea*, Wallengren, Ent. Monats. vii. p. 145.

Wings narrow. Fore wing with the costa not arched; subcostal vein



five-branched, first very oblique and free, running close to costal near its end, second arising at some distance before end of the cell, third starting and curving downward from second at half its length, bifurcate, fifth from end of cell and touching the third near its base; radial in a line with subcostal from end of the cell; discocellulars bent in the middle; median three-branched, two upper from one fourth beyond the cell. Hind wing narrow; abdominal margin short; two subcostal branches close to end of the cell; two upper median branches at nearly half length beyond.

Type, *M. gilveola* (*Lithosia gilveola*) of Europe.

*MANULEA CALAMARIA*, n. sp.

*Male*. Pale glossy straw-yellow; costal edge of fore wing at base dusky. Head, thorax, body beneath, and anal tuft brighter yellow; palpi black-tipped; legs above, and tarsi entirely, black; antennæ yellow. Underside darker; fore wing pale brownish luteous.

Expanse  $1\frac{1}{8}$  inch.

N.W. Himalaya. In coll. F. Moore.

This species is allied to the European *M. gilveola*.

*SYSTROPHA*, Hübn.

*Systropha*, Hübn. Verz. bek. Schmett. p. 166 (1816).

Wings small. Fore wing short, narrow; subcostal five-branched, first branch short, oblique, anastomosing partly with costal near its end, second at some distance before end of the cell, third trifurcate, lowest branch at some distance beyond the cell; upper discocellular shortest, lower oblique and bent inward near end; radial from angle of upper; two upper median branches at half distance beyond the cell. Hind wing broad.

Type, *S. aureola* (*Lithosia aureola*) of Europe.

*SYSTROPHA DORSALIS*, n. sp.

*Female*. Fore wing straw-yellow, slightly ochreous along posterior margin; hind wing yellowish white. Head, thorax, legs, and abdomen at sides and beneath ochreous yellow; abdomen above lilac-grey.

Expanse  $1\frac{2}{12}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

*SYSTROPHA AURIFLUA*, n. sp. (Plate II. fig. 7.)

Fore wing glossy straw-yellow; hind wing paler yellow. Thorax, head, legs, and anal tuft brighter yellow.

Expanse  $1\frac{0}{2}$  inch.

Manpuri, N.W. India (*Horne*). In coll. F. Moore.

*CHRYSORABDIA*, Butler.

*Chrysorabdia*, Butl. Trans. Ent. Soc. 1877, p. 357.

Fore wing—first subcostal branch contiguous to costal, second from before end of the cell and bent onto the third above its end, third trifurcate, curved upwards; radial from end of the cell; discocellulars



bent in the middle ; median vein three-branched, two upper from end of the cell. Hind wing—two subcostal branches ; discocellulars very slender, scarcely visible, two upper median branches.

*CHRYSORABDIA VIRIDATA.* (Plate II. fig. 1, ♂.)

*Lithosia viridata*, Walk. Catal. Lep. B. M. Suppl. p. 225.

Darjiling.

*CAPISSA*, n. g.

Fore wing long, narrow ; costa arched before the apex, exterior margin oblique and convex, hind margin slightly convex near the base. Male with a longitudinal fold below the cell<sup>1</sup>, where the scales are raised and rough ; cell short, narrow ; discocellulars of equal length, bent inward ; first subcostal branch very short, oblique, anastomosed to costal ; second immediately before end of the cell ; third at its end, and trifurcate ; radial from beyond end of the cell, starting from the third branch of subcostal near its base ; median vein straight, three-branched, two upper from beyond end of the cell ; submedian slightly recurved. Hind wing long, broad, apex produced, the male having the scales on the disk raised and rough ; two subcostal and two median branches beyond end of the cell ; discocellulars bent inward, upper the longest. Body long, slender, extending beyond hind wing. Antennæ minutely pectinate in male, setose in female. Palpi prominent, pilose at base, apex slender. Legs long, slender.

*CAPISSA INNOTATA.* (Plate II. fig. 2, ♂.)

*Lithosia innotata*, Butler, Trans. Ent. Soc. 1877, p. 352.

N.W. Himalayas.

This genus will also include *L. vagesa*, Moore, from the Khasia hills, *L. insolita*, Walk., from China, *L. nigripars*, Walk., from N. India, and *L. sambara*, Moore, from Java.

*CAPISSA AURIFLAVA*, n. sp.

*Female.* Fore wing deep golden-yellow ; hind wing and abdomen paler. Underside of fore wing greyish at the base ; femur, tibia, and tarsal joints with a black terminal band ; palpi black at tip ; antennæ yellow.

Expanse  $1\frac{8}{12}$  inch.

Katmandu, Nepal (*General Ramsay*). In coll. F. Moore.

Allied to *C. vagesa* (*Lithosia vagesa*, Moore, Catal. Lep. E.I. C. ii. p. 304), but is of a deeper colour, and the legs are banded only with black, whereas in *C. vagesa* the legs are entirely black.

*CAPISSA PALLENS*, n. sp. (Plate II. fig. 3.)

*Female.* Pale whitish ochreous ; fore wing glossy, costal edge ochreous. Thorax, palpi, and abdomen beneath ochreous ; legs dusky brown above ; palpi brown at tip ; antennæ brown. Underside—costal border of both wings brighter-coloured ; middle of fore wing pale ochreous brown.

<sup>1</sup> Probably a sound-producing apparatus.



Expanse  $1\frac{5}{8}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

Somewhat allied to *C. insolita* (*Lithosia insolita*, Walker, Catal. Lep. Het. B. M. ii. p. 497).

*CAPISSA FLAVENS*, n. sp.

*Female*. Glossy straw-yellow; hind wing and abdomen above slightly paler; apex of palpi, fore legs above, a terminal spot on middle and hind femora, and tarsi dusky brown.

Expanse  $1\frac{1}{8}$  inch.

Saidabad, Cashmere (*Hellard*). In coll. F. Moore.

*CAPISSA FASCIATA*, n. sp. (Plate II. fig. 4, ♂.)

*Male*. Upperside ochreous yellow; fore wing with a brown-speckled fascia along the posterior border and about the disk; hind wing and base of abdomen pale yellow; antennæ, apical joint of palpi, and legs above brown.

Expanse  $1\frac{4}{12}$  inch.

Ceylon. In coll. F. M. Mackwood.

*DOLGOMA*, n. g.

*Male and female*. Wings moderately long and broad. Fore wing with the subcostal vein bent at its second branch, five-branched, first branch curving upward but free from costal, second starting before end of the cell, curved upward, third trifurcate, lowest branch at one third its length beyond the cell; upper discocellular erect, lower oblique and bent inward; radial starting from the middle; two upper median branches at less than one fourth from end of the cell, lower branch angled and with a slight spur near its base. Hind wing—subcostal branches at one third and median branches at half distance beyond the cell.

Type, *D. reticulata* (*Lithosia reticulata*, Moore, P. Z. S. 1865, p. 798).

Darjiling.

*DOLGOMA ANGULIFERA*.

*Lithosia angulifera*, Feld. Nov.-Reise Lep. pl. 106. f. 12 (1868).

*Male and female*. Luteous; fore wing sparsely brown-speckled, crossed by a brown-speckled discal band, which is bent outward beyond end of the cell; hind wing pale luteous white. Underside paler-coloured.

Expanse, ♂  $1\frac{1}{2}$ , ♀  $1\frac{1}{2}$  inch.

Darjiling. In coll. F. Moore.

*DOLGOMA BRUNNEA*, n. sp. (Plate II. fig. 8.)

*Male*. Cinereous brown; fore wing uniformly dark-coloured; hind wing paler. Underside paler than above; costal border of fore wing, and legs beneath, yellowish.

Expanse 1 inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.



## MITHUNA, n. g.

Wings short, rather broad. Fore wing arched, apex pointed; first branch of subcostal vein arising near end of the cell, short, oblique, anastomosing with costal but free at its end; second branch quadrifid, the upper and lower branches starting together at one third beyond the cell; upper discocellular very short, lower curved inward; radial from lower end of upper discocellular; two upper median branches starting at half distance beyond the cell, lower branch straight from one third before its end. Hind wing with subcostal and median branches at nearly one half length beyond the cell. Body short. Palpi small, pilose beneath. Antennæ setulose. Legs smooth.

## MITHUNA QUADRIPLAGA, n. sp. (Plate II. fig. 9.)

Fore wing luteous brown, with a distinct dusky-brown median transverse band, which is angled outward at end of the cell, a similar band also crossing the disk; outer margin with a series of dusky spots, which also indistinctly cross the cilia: hind wing pale luteous brown. Underside paler. Head and thorax brown.

Expanse 1 inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

## COSSA, Walker.

*Cossa*, Walk. Catal. Lep. Het. B. M. pt. xxxii. p. 232 (1864).

*Male and female*. Wings somewhat broad. Fore wing arched along the costa; first subcostal branch short, very oblique, anastomosed to costal, second free, third from end of the cell, trifurcate; discocellulars very oblique, angled at ends; radial from upper angle; two upper median branches from one third beyond the cell.

Type, *C. basigera*, Walk. *l. c.*

S. India.

## COSSA QUADRISIGNATA, n. sp. (Plate II. fig. 10.)

*Male*. Fore wing dark purplish brown, with slightly paler streaks along the veins; costal border pale purplish cinereous, with two prominent short black streaks; a small spot at end of the cell: hind wing and abdomen above pale brownish cinereous; anal tuft slightly ochreous; thorax, head, abdomen beneath, and legs brown. Underside pale cinereous brown; middle of fore wing brown.

Expanse  $1\frac{1}{8}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

## COSSA PALLIDA, n. sp.

*Male*. Pale greyish ochreous: fore wing with two prominent short black broad streaks on the costa, the first subbasal, the other slightly beyond the middle; a short, narrow, black streak at end of the cell: hind wing with a very indistinct dusky submarginal fascia. Abdomen greyish, tuft ochreous. Underside pale yellowish ochreous; middle of fore wing ochreous brown. Legs greyish brown above.

Expanse  $1\frac{1}{2}$  inch.

Dharmasala (N.W. Himalaya). In coll. F. Moore.



## COSSA BRUNNEA, n. sp. (Plate II. fig. 11.)

*Female.* Fore wing dark purple-brown, with a small black spot at end of the cell, and a short black streak on the costa near the middle: hind wing paler. Thorax, head, and legs dark brown. Underside with the margins paler.

Expanse  $1\frac{1}{8}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

## RANGHANA, n. g.

*Female.* Fore wing very long, narrow; costa arched, apex pointed, exterior margin very oblique, angle and posterior margin rounded; subcostal vein five-branched, first branch short, arising immediately above end of the cell, and joining the costal, second and third at equal distance from first, third trifurcate; radial from below subcostal beyond the cell at equal distance between first and second branches; cell short; discocellulars straight; median vein straight, three-branched, two upper at one third from the exterior margin, lower recurving from below end of the cell; submedian veins extending to posterior angle. Hind wing long, narrow; subcostal branches at half length beyond the cell; cell short; discocellulars deeply curved; median straight, two-branched. Body short. Palpi very short, stout. Legs long, slender; middle and hind tibiæ spurred. Antennæ setose.

## RANGHANA PUNCTATA, n. sp. (Plate II. fig. 12.)

*Female.* Pale ochreous-buff colour; fore wing with a marginal and apical series of nine small black spots. Underside paler, without marks.

Expanse  $1\frac{1}{8}$  inch.

Calcutta (*Atkinson*). In coll. Dr. Staudinger.

## TEGULATA, Walker.

*Tegulata*, Walk. Journ. Proc. Linn. Soc. 1862, p. 110.

*Female.* Fore wing with a convex protuberance on middle of the costa; apex pointed; first subcostal branch short, anastomosed to costal, second from angle before end of the cell, third trifurcate, lowest or fifth branch nearest base; discocellulars angled at each end; radial from upper angle below end of the cell; median vein three-branched, two upper one-third beyond the cell.

Type, *T. tumida*, Walk. *l. c.*, from Borneo.

## TEGULATA BASISTRIGA, n. sp. (Plate II. fig. 5.)

*Female.* Upperside pale luteous brown: fore wing brightest at the apex, slightly brown-speckled; a black streak along base of costal edge and along base of posterior margin: hind wing pale brownish fawn-colour externally. Underside darker. Legs brown above.

Expanse 1 inch.

Ceylon. In coll. Dr. Staudinger.

Allied to *T. tumida*, Walk.



## TEGULATA PROTUBERANS, n. sp. (Plate II. fig. 6.)

*Female.* Upperside pale luteous brown; fore wing with numerous brown speckles and a dark brown prominent costal spot; hind wing and abdomen pale luteous-yellow. Underside paler; middle of fore wing brownish.

Expanse  $1\frac{2}{3}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

GROUP B. A. *Hind wing with a recumbent plumose lappet.*

## NISHADA, n. g.

*Male and female.* Fore wing somewhat short, broad, costa considerably arched, apex very acute; exterior margin oblique and slightly convex; posterior margin short, in the male convex and fringed to near the base; subcostal vein five-branched, first branch arising at half length of the cell and slightly touching the costal vein, second at one third before end of the cell, third at some distance beyond the cell, fourth bifid at half its length; cell narrow; discocellulars very slender, upper short, lower obliquely curved inward; radial starting from lower end of upper discocellular; median vein three-branched, the two upper at nearly half distance beyond end of cell, lower before its end; submedian vein recurved upwards from the base. Hind wing in the male very short and broad, somewhat quadrate, anterior margin produced upward from the base and folded over onto the underside, and there provided with a long recumbent fan-like plumose covering or appendage<sup>1</sup>; the hind wing in the female is longer, being of the same length as posterior margin of fore wing, its anterior margin nearly straight, and is without the folded plumose appendage; costal vein following the anterior margin beneath the fold in the male; subcostal vein two-branched, the upper arising near base of the wing; cell broad; discocellulars recurved; median vein straight, two-branched, the branches very close together, lower branch from before end of the cell; submedian straight. Antennæ minutely and finely pectinate in male, setose in female. Body slender, extending beyond hind wing. Legs stout, smooth; fore femora thickened; middle and hind tibiæ spurred. Palpi small, porrect, projected slightly beyond the head, pilose beneath, apex small, pointed.

## NISHADA FLABRIFERA, n. sp.

*Male and female.* Yellowish ochreous, palest in female; fore wing in male brighter ochreous, and slightly ferruginous at the base; thorax, head, and antennæ brownish ochreous.

Expanse 1 inch.

Calcutta District (*Farr*). In coll. F. Moore.

Allied to the Bornean *Lithosia rotundipennis*, Walk. Journ. Linn. Soc. Zool. vi. p. 104, which species is also probably identical with *L. chilomorpha*, Snellen Van Voll., Tijd. voor Ent. 1877, p. 67, pl. 5. fig. 1, from Sumatra. Both of these species will come into the genus *Nishada*.

<sup>1</sup> Probably a sound-producing apparatus.



GROUP B. B. *Fore wing with a recumbent plumose lappet.*

## TEULISNA, Walk.

*Teulisna*, Walk. Journ. Proc. Linn. Soc. 1862, p. 109.

*Male*. Wings somewhat short and broad. Fore wing—costa depressed at the base, arched in the middle; apex pointed, exterior margin oblique, angle acute; posterior margin very convex towards the base; first subcostal branch short, anastomosed to costal; second free; third from end of cell, trifurcate; radial from third submedian branch at a considerable distance beyond the cell; cell folded over at base and overlapped for half its length by a recumbent plumose appendage<sup>1</sup>; discocellulars very oblique; median three-branched, two upper at some distance beyond the cell.

*Female* without the fold and plumose tuft.

Type, *T. plagiata*, Walk. Journ. Linn. Soc. 1862, p. 109, from Borneo.

## TEULISNA TENUISIGNA, n. sp. (Plate II. fig. 13.)

*Male*. Yellow. Differs from the same sex of *T. tetragona* in its smaller size, being also narrower in both wings. Fore wing with a lengthened black band beneath the cell, the upper end of which is straight, and the basal end very oblique and truncated; a small spot on costa before the apex; cilia slightly blackish at the apex. Middle of thorax, tegulæ, and front of head black; fore legs dusky above.

Expanse  $1\frac{3}{10}$  inch.

Sikkim. In coll. F. Moore.

## MACOTASA, n. g.

*Male*. Fore wing narrow; costa slightly raised beyond the middle; costal vein raised, with a recumbent plumose tuft overlapping basal half of the folded cell beneath<sup>1</sup>; subcostal five-branched, first short, oblique, anastomosed to costal, second starting at some distance before end of the cell, third starting from second near its base and bent downward and touching end of the cell, bifurcate near its end, fifth starting in a straight line from end of the cell; discocellulars straight, nearly erect; radial starting in a straight line from lower end of the cell; median three-branched, the two upper at some distance apart below the radial and parallel to it, the base starting from below end of the cell in a line with the discocellulars; lower median branch from near base of cell, deeply curved. Hind wing somewhat narrow, apex pointed; two subcostal branches at one third beyond the cell; two upper median branches near its end. Antennæ minutely setulose. Palpi small, ascending. Legs slender.

*Female*. Fore wing not folded or plumed; radial starting from upper end of the cell; two upper median branches straight from beyond end of the cell.

<sup>1</sup> Probably a sound-producing apparatus.



## MACOTASA BIPLAGELLA. (Plate II. fig. 14.)

*Ecophora biplagella*, Walk. MS.

Upperside pale whitish luteous: fore wing with a dark brown median costal streak, which is indistinctly continued as a narrow band across the wing, the streak more prominent and larger in the male; apex also brown-streaked: hind wing whitish at the base.

Expanse, ♂  $1\frac{1}{2}$ , ♀  $1\frac{2}{3}$  inch.

Borneo. In coll. British Museum and F. Moore.

## ZADADRA, n. g.

*Male*. Fore wing shortened, distorted, and crumpled at the apex; costa arched beyond the middle, apex very convex, exterior margin very oblique hindward, posterior margin shortened and very convex; cell very long, folded and overlapped above with a short tuft of recumbent plumes its entire length<sup>1</sup>; subcostal and median veins contiguous, the branches being near apex of the wing; discocellulars very convex; subcostal at some distance from costal, first branch recurved upward from end of the cell, second starting from near base of the first, bifurcate near the end, fourth before end of the cell and touching the second near its base, fifth branch and radial from end of cell; median vein three-branched, two upper beyond end of the cell, lower recurving from end near and parallel to upper branch; submedian boldly recurved. Hind wing long, broad; apex much produced; exterior margin recurved; cell long; upper discocellular long, inwardly oblique, lower very short and outwardly oblique; subcostal bifid from end of cell; median three-branched, two upper beyond end of cell, lower at half its length; submedian nearly straight. Body slender, longer than hind wing. Antennæ minutely and finely bipectinate. Legs long, smooth, spurred. Palpi slender, porrect; base pilose; apex long.

*Female*. Wings longer; cell of fore wing not folded or tufted, and the apex not crumpled; hind margin much less convex, and the submedian less recurved.

## ZADADRA DISTORTA. (Plate II. fig. 15.)

*Lithosia distorta*, Moore, P. Z. S. 1872, p. 572.

Darjiling. In coll. F. Moore.

## PRABHASA, n. g.

Wings long. Fore wing narrow, very slightly arched before the apex; exterior margin oblique, slightly convex; posterior margin long, nearly straight; subcostal vein at some distance from costal, first branch short, curving upward to costa before end of the cell, second straight from end of the cell, third contiguous at base to the second, trifurcate, looped to second near base; cell long, in the *male* folded and tufted with recumbent plumes above to beyond half its length<sup>1</sup>; discocellulars long, convex; radial from lower part; median vein three-branched, two upper curving hindward from lower end of the cell, lower curving from below the cell at nearly half its length;

<sup>1</sup> Probably a sound-producing apparatus.



submedian recurved. Hind wing produced at the apex; exterior margin recurved; abdominal margin short; subcostal two-branched beyond the cell; discocellulars concave; cell short, broad; median vein three-branched, two upper branches at half distance beyond the cell, lower from before half its length; submedian nearly straight. Body slender, longer than hind wing, tufted in male. Antennæ slender, with very fine delicate pectinations. Legs slender, long, smooth, spurred. Palpi slender, long, slightly ascending beyond front of head.

*PRABHASA VENOSA*, n. sp. (Plate II. fig. 16, ♂.)

*Male and female.* Upperside pale luteous brown: fore wing with the veins darker brown; an indistinct brown transverse discal band, which is bent outward beyond the cell; male with a greyish-brown plumose tuft overlapping and extending half the length of the cell; anal tuft in male ochreous. Underside paler; band across fore wing not visible.

Expanse, ♂  $1\frac{1}{10}$ , ♀  $1\frac{3}{10}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

*PRABHASA FLAVICOSTA*, n. sp. (Plate II. fig. 17.)

*Female.* Upperside uniformly dark luteous brown: hind wing and abdomen purplish brown: fore wing with the costal border pale yellow; discal band most prominent at costal end, broad, but not bent outward. Front of head, thorax at sides, palpi and abdomen beneath, yellow; legs above cinereous brown, yellowish beneath. Underside uniform brown; costal border on both wings yellowish.

Expanse  $1\frac{3}{10}$  inch.

Cherra Punji (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

*PRABHASA COSTALIS*, n. sp.

*Male and female.* Whitish testaceous: fore wing with the costal border whitish, and a brown spot one third before the apex; lower part of wing brown-speckled, most distinct along the veins. Underside—fore wing testaceous brown, dark-speckled along the base of costa and subcostal vein. Legs dusky brown above.

Expanse, ♂ 1, ♀  $1\frac{2}{12}$  inch.

North China. In coll. F. Moore.

*GAMPOLA*, n. g.

*Male.* Wings short, broad, truncate at the apex. Fore wing arched towards the end, apical angle acute, exterior margin nearly erect, posterior angle convex and fringed; costal edge at the base folded over and fringed for a short distance<sup>1</sup>; cell long and narrow, folded beneath the median vein; subcostal at some distance from costal, five-branched, first short, anastomosing with costal, but free at its end, second arising at some distance before end of the cell, third trifurcate, the upper branch nearest to and at one third beyond the cell; discocellulars bent below the middle, outwardly oblique, upper longest; radial from the angle; median vein bent upward near end of cell,

<sup>1</sup> Probably a sound-producing apparatus.



top branch from upper angle, second from lower, third from before half length of the cell. Hind wing quadrangular; two subcostal and two upper median branches from one third beyond the cell, lower median from half its length. Antennæ finely pectinated. Palpi small, porrect. Legs slender, naked, middle and hind spurred. Body slender, short.

*Female*. Wings longer, not truncate at apex; fore wing not folded; veins as in male, excepting that the hind wing has, apparently, only one upper median branch.

GAMPOLA FASCIATA, n. sp. (Plate II. fig. 18.)

*Male*. Upperside—fore wing pale brownish ochreous, brown-speckled, the speckles composed of dark stout scales forming a fascia below the cell and across the disk. Head, thorax, and abdomen fuliginous brown; anal tuft slightly ochreous; palpi brown at tip; legs slightly brown above. Hind wing and underside paler.

*Female*. Fore wing not brown-speckled, with an indistinct transverse dusky maculated discal band and a small spot at posterior angle. Underside dusky at apex of fore wing.

Expanse, ♂  $1\frac{1}{2}$ , ♀  $1\frac{1}{2}$  inch.

Ceylon. In coll. F. M. Mackwood and Dr. Staudinger.

GROUP C. *Fore wing with subcostal vein FOUR-branched, median vein THREE-branched.*

PELOSIA, Hübn.

*Pelusia*, Hübn. Verz. bek. Schmett. p. 165 (1816).

*Samera*, Wallengren, Wien. ent. Mon. vii. p. 146.

*Male and female*. Wings rather short and broad. Fore wing with subcostal and costal veins wide apart; subcostal four-branched; first branch short, oblique, anastomosing with costal but free beyond its end; second arising at some distance before end of the cell, straight, widely separated between first and third; third bifid, at half distance from end of the cell; discocellulars bent inward, lower shortest, upper angled close to subcostal; radial from the angle of upper; two upper median branches from half distance beyond the cell, lower from half before its end. Hind wing—two branches of subcostal at one fourth, and median branches at two thirds beyond the cell.

Type, *P. muscerda* (*Lithosia muscerda*) of Europe.

GROUP D. *Fore wing with a plumose lappet-covered sac-like cavity*<sup>1</sup>.

BIZONE, Walker.

*Bizone*, Walker, Catal. Lep. B. M. ii. p. 548.

BIZONE BELLISSIMA, n. sp. (Plate III. fig. 13.)

*Male*. Upperside—fore wing with a transverse basal and two oblique median red bands, a broad outer marginal ochreous-yellow band, and three black spots at end of the cell: hind wing and abdo-

<sup>1</sup> Probably a sound-producing apparatus.



men red; tuft white. Thorax white, with two red bands. Under-side uniform red; cell-spots in fore wing and discocellular streak in hind wing blackish. Fore and middle legs with blackish bands. Body beneath and legs white. Palpi black at the side.

Expanse  $1\frac{9}{12}$  inch.

Masuri, N.W. Himalaya (*Hutton*). In coll. F. Moore.

*BIZONE COCCINEA*, n. sp. (Plate III. fig. 14.)

*Male*. Upperside crimson-red, the base of fore wing slightly yellow: fore wing with a subbasal and discal black band, the former bent inward and the latter outward at the costal end; three black spots at end of the cell. Thorax yellowish, banded with red; anal tuft and abdomen beneath yellow; legs yellow, with red bands. Underside of wings uniform red.

Expanse  $1\frac{3}{12}$  inch.

Sikkim. In coll. F. Moore.

*BIZONE ALBA*, n. sp.

*Male*. Upperside white: fore wing with a small basal red spot and narrow streak on base of costal edge; a black spot at end of the cell. Underside pale red, broadly on anterior margin of fore wing and narrowly on hind wing; palpi at sides and fore and middle legs with blackish bands.

Expanse  $\frac{9}{12}$  inch.

North China. In coll. F. Moore.

GROUP E. *Aberrant*. Fore wing with FIVE subcostal and FOUR median branches.

*BAROA*, n. g.

Fore wing long, moderately broad; costa slightly arched; apex somewhat pointed; exterior margin oblique and convex; cell short, narrow; subcostal vein five-branched, first branch free, second trifurcate, the forks ascending, fourth from end of the cell; discocellulars angled at the ends; radial from upper angle; submedian four-branched, two upper from end and third from angle before end of the cell. Hind wing somewhat short, broad; apex pointed; exterior margin convex; two subcostal branches from end of the cell; three submedian branches from end and fourth before end of the cell. Body extending beyond hind wing. Palpi slender, long, pilose beneath, ascending and extending beyond the head; terminal joint blunt. Legs slender. Antennæ minutely pectinate in male, setulose in female.

Type, *Baroa punctivaga* (*Cynia punctivaga*, Walk. Catal. Lep. Het. B. M. iii. p. 682).

Java (*Horsfield*).

*BARSINE*, Walker.

*Barsine*, Walk. Catal. Lep. Het. B. M. ii. p. 456.

*BARSINE FLAMMEALIS*, n. sp. (Plate III. fig. 15.)

Fore wing yellow, mostly covered with bright-red intervening



streaks between the veins, crossed by three outwardly recurved grey-brown bands; some spots of same colour at base of the wing, and longitudinal discal streaks joining the outer band between the veins: hind wing pale pinky red. Body red; thorax with grey-brown spots. Underside—fore wing mostly red, slightly yellow on outer veins, and brighter yellow on outer margin; legs red.

Expanse 2 inches.

India. In coll. F. Moore.

Nearest allied to *B. mactans*, Butler.

*BARSINE GLORIOSA*, n. sp. (Plate III. fig. 16.)

*Female*. Upperside—fore wing ochreous red, veins broadly lined with yellow; a broad blackish well-defined subbasal cross band, a narrow discal recurved band, and an apical series of short black longitudinal streaks; two small black dots at base of wing; costal edge and cilia black: hind wing and abdomen pale pink. Thorax red, with a narrow black middle streak and two anterior spots; palpi and legs red. Underside—fore wing red, with short black costal and apical streaks; hind wing paler, apex dusky black; middle tibiæ with a black terminal streak.

Expanse  $1\frac{4}{10}$  inch.

Khasia hills (*Atkinson*). In coll. Dr. Staudinger.

Nearest allied to *B. cruciata*, Walker, from Borneo.

*BARSINE PUNICEA*, n. sp.

*Female*. Upperside—fore wing ochreous yellow, slightly reddish along the costal border; with a blackish subbasal cross band, a waved curved discal band, and an outer series of alternated long and short longitudinal streaks; cilia and apical edge of costa black: hind wing pale ochreous red, with black marginal band. Abdomen blackish, tip yellow. Underside dull ochreous red; apex of fore wing and outer margin of hind wing blackish; middle tibiæ with a terminal black streak.

Expanse  $\frac{7}{8}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

This species is nearest allied to *B. lineata*, Walk. Cat. Lep. Het. B. M. iii. p. 760, from Borneo.

*BARSINE INFLEXA*, n. sp. (Plate III. fig. 17.)

*Male*. Upperside—fore wing ochreous red, veins lined with yellow; costal edge, posterior margin, and cilia black; a black subbasal cross band somewhat thickened within the cell, the outer lower arm of which is bent inward; a narrow discal transverse maculated band, and an outer series of short streaks, one on each vein: hind wing and abdomen pale pink. Thorax and head red, streaked with yellow; legs red. Underside—fore wing red, with black apex and margins; hind wing yellowish, with dusky black apex.

Expanse  $\frac{7}{8}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.



**BARSINE FLAVIVENOSA**, n. sp. (Plate III. fig. 18.)

*Male*. Upperside—fore wing red, with all the veins very broadly lined with yellow; a blackish subbasal imperfect cross band, with the lower portion of the outer arm obsolete; a curved discal band and an incurved apical series of short black streaks: hind wing, abdomen, and legs very pale pink. Underside pink, hind wing palest.

Expanse  $\frac{6}{8}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

**LYCLENÉ**, Moore.

*Lyclene*, Moore, Catal. Lep. E. I. C. ii. p. 300.

*Cyllene*, Walk. Catal. Het. B. M. ii. p. 544.

**LYCLENÉ RUBRICOSA**, n. sp. (Plate III. fig. 1.)

*Male and female*. Ochreous red: fore wing with dusky-black subbasal broad zigzag band, an oblique median band and zigzag outer discal band, the latter slightly confluent about its middle in the female; a small spot also at base of wing, a curved spot at end of cell, and a small series along exterior margin. Thorax black-spotted. Underside with markings on fore wing indistinct; fore and middle tibiæ with a blackish streak.

Expanse  $\frac{8}{10}$  inch.

Bombay (*Dr. Leith*). In coll. F. Moore.

Allied to *L. artocarpī*.

**LYCLENÉ ARTOCARPI**, n. sp.

*Male and female*. Fore wing ochreous, with a dusky-grey subbasal series of short longitudinal streaks; an upright median band and outward discal oblique irregular band, both confluent on middle of the hind margin; a small blackish spot at base of wing, and an indistinct spot at end of the cell: hind wing and abdomen pale ochreous. Thorax with black spots. Underside paler, markings on fore wing less distinct; an indistinct median dusky fascia across hind wing in the female.

Expanse  $\frac{6}{8}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

Nearest allied to *L. humilis*, Walk. Catal. Lep. Het. B. M. ii. p. 554. "Larva feeds on the Jack tree (*Artocarpus incisa*), January."—*A. Grote, MS. note.*

**LYCLENÉ RADIANS**, n. sp. (Plate III. fig. 2.)

*Male*. Fore wing yellowish white, with a black basal spot, three transverse series of spots, each composed of three, and the middle series curved; a prominent spot at end of the cell, and a marginal series of broad black lines, one on each vein, their inner ends confluent and forming a bordered line, which is bent outward at its middle: hind wing with a less prominent series of short black marginal lines, which do not extend to the anal angle. Body ochreous yellow. Underside similarly marked, the basal spots on fore wing



less distinct ; hind wing with two indistinct spots from middle of the costa ; legs black-streaked.

Expanse 1 inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

*LYCLENÉ DELICATA*, n. sp.

*Female*. Pale yellow : fore wing with some small black subbasal spots, a median transverse narrow line, a lunule at end of the cell, a discal recurved series of small spots, one on each vein, and an outer marginal series of very narrow black streaks, one on each vein : hind wing with a marginal series of very narrow black streaks, one on each vein. Underside with the outer marginal series of streaks and median line as above, the median line extending partly across hind wing ; femora, tibiæ, and tarsi with black terminal streak.

Expanse  $1\frac{1}{8}$  inch.

Darjiling (*Grote*). In coll. F. Moore.

Allied to *L. radians*. Differs in having all the markings much narrower, in addition to the median transverse line on the fore wing. From *L. prominens* it also differs in the more slender markings, and in the absence of the sharp dentate discal line.

*LYCLENÉ PROMINENS*, n. sp. (Plate III. fig. 3.)

*Male and female*. Upperside ochrey yellow : fore wing with four black basal spots, a bent transverse subbasal line, a wavy median line, a narrow oblique spot at end of the cell, an irregular discal band with two sharply dentate points beyond the cell, and an outer marginal series of longitudinal streaks, one on each vein : hind wing with a marginal series of short black longitudinal streaks. Two black spots on middle of thorax. Underside marked as above, the median and discal lines broader, the former extending across hind wing ; abdomen with black bands beneath ; legs with black bands.

Expanse, ♂ 1, ♀  $1\frac{3}{4}$  inch.

Cherra ; Khasia hills (*G.-Austen*). In coll. F. Moore.

*LYCLENÉ ZEBRINA*, n. sp. (Plate III. fig. 4.)

*Male*. Upperside yellowish white : fore wing with brown basal linear spots, a median transverse line, a small spot at end of the cell, and a wide outer marginal series of narrow streaks : hind wing with a brown marginal band. Underside with broader markings than above, the middle line crossing the hind wing ; marginal streaks in place of the band.

Expanse  $\frac{8}{10}$  inch.

Calcutta District (*Farr*). In coll. F. Moore.

*LYCLENÉ PALMATA*, n. sp. (Plate III. fig. 5.)

*Female*. Upperside pale ochrey yellow : fore wing with two bluish basal spots, a transverse linear series of three spots, a median maculated purple line, and a broad fan-shaped discal series of longitudinal purple streaks decreasing in length to middle of hind margin : hind wing with some short purple apical streaks. Underside marked as



above, the basal spots less distinct; tibiæ with black terminal band.

Expanse  $1\frac{2}{10}$  inch.

N.E. Bengal. In coll. F. Moore.

**LYCLENES INTERSERTA**, n. sp. (Plate III. fig. 6.)

*Female*. Upperside—fore wing ochrey yellow, with a short black streak at the base, narrow subbasal transverse bent line, a discal line which is convex anteriorly and bent posteriorly; between these is an oblique-angled line, the point being opposite to the angle of the subbasal line; an upper and lower longitudinal line, the former along the cell, the latter below it and furcate, the forks bent backward; also an outer marginal confluent looped line; cilia black, with white border: hind wing pale yellow; cilia at apex black. Thorax and head yellow, with black streaks; palpi and legs above blackish; abdomen paler yellow. Underside uniform yellow, markings indistinct.

Expanse  $1\frac{3}{10}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

Near to *L. euprepioides*, Walk.

**LYCLENES OBSOLETA**, n. sp. (Plate III. fig. 7.)

*Female*. Yellow: fore wing slightly ochreous yellow externally; with several purplish-brown subbasal spots, a deeply sinuous discal band, and outer contiguous series of spots: hind wing and abdomen yellow. Underside paler; markings on fore wing indistinct; hind wing with a short costal streak before the apex; fore tibiæ with a blackish terminal streak.

Expanse  $\frac{8}{10}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

May be distinguished by the absence of the median transverse band between the subbasal spots and sinuous band.

**LYCLENES DISCISTRIGA**, n. sp.

*Male and female*. Fore wing yellow, with black basal speckled spots, a median transverse recurved narrow band, an oblique spot at end of the cell, a discal series of narrow longitudinal streaks, and a marginal series of small spots: thorax black-spotted: hind wing paler. Underside pale yellow; markings on fore wing very indistinct.

Expanse, ♂  $1\frac{1}{12}$ , ♀  $1\frac{3}{12}$  inch.

Darjiling. In coll. F. Moore.

Allied to the Bornean *L. strigipennis*, H. S. Lep. Spec. Nov. f. 437.

**LYCLENES INCONSPICUA**.

*Male*. Pale ochreous red, semidiaphanous: fore wing with oblique transverse basal and median indistinct dusky band, and discal streaks, one along each vein and terminating in a marginal spot: hind wing



with a slight dusky apical streak. Underside—fore wing with the discal markings confluent. Legs with dusky streaks.

Expanse  $1\frac{0}{2}$  inch.

Northern India (*Farr*). In coll. F. Moore.

**LYCLENÉ TERMINATA.**

*Male*. Upperside pale yellow; fore wing with black irregular basal streaks, an oblique recurved narrow median transverse line, an oblique streak at end of the cell, and a discal series of narrow elongated streaks, one on each vein and terminating in a spot at the outer margin. Underside of fore wing as above. Legs black-streaked.

Expanse  $1\frac{0}{2}$  inch.

Khasia hills (*G.-Austen*). In coll. F. Moore.

**LYCLENÉ ASSAMICA.** (Plate III. fig. 8.)

*Male*. Pale yellow. Upperside—fore wing with a purple-brown basal spot, two subbasal transverse series of spots, a spot at end of the cell, and a discal dentate band, each point having a terminal spot which forms a submarginal series. Thorax black-spotted.

Expanse  $1\frac{8}{2}$  inch.

Dibrughur, Assam (*Atkinson*). In coll. Dr. Staudinger.

Allied to both *L. undulosa* and the Bornean *L. cuneigera*, Walk.

**LYCLENÉ SPILOSOMOIDES, n. sp.**

*Male*. Upperside yellowish white; fore wing with two black spots at the base and one on the costa, a subbasal and discal recurved series of smaller linear spots, one on each vein. Body yellowish, tuft brighter; a black spot on each tegula; palpi and band on lower part of vertex brown. Underside uniformly paler, without markings.

Expanse  $1\frac{7}{2}$  inch.

N.W. India. In coll. F. Moore.

**LYCLENÉ INDISTINCTA, n. sp.** (Plate III. fig. 9.)

*Female*. Fore wing dull yellow, with two very indistinct subbasal curved series of pale brown spots, a bent discal series of spots, and an outer series of short longitudinal streaks: hind wing and underside much paler; fore tibiæ cinereous-brown above.

Expanse  $1\frac{11}{2}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

**ÆMENE, Walker.**

*Æmene*, Walker, Catal. Lep. B. M. ii. p. 542.

**ÆMENE MACULIFASCIA, n. sp.** (Plate III. fig. 10.)

*Male*. Fore wing white, crossed by six black maculated bands; the first basal; second curved; third and fourth discal, irregular, and with dusky-brown suffused interspace; the other two marginal; two spots within the cell, the one at the end largest; cilia spotted near apex: hind wing ochreous-white. Thorax black-spotted;



palpi black; fore legs black-streaked. Underside—fore wing brown, spots slightly visible; hind wing with a brown spot at end of the cell, an indistinct submarginal fascia and spots on cilia near apex.

Expanse  $1\frac{1}{2}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger.

*ÆMENE SINUATA*, n. sp. (Plate III. fig. 11.)

*Male*. Upperside ochreous white: fore wing with five narrow black sinuous bands, a spot within and a lunule at end of the cell, and an outer marginal row of small spots; cilia with a black line and three widely separated spots: hind wing pale brownish-grey; cilia brown-lined; a black terminal spot on tegulæ. Underside brownish grey, markings on fore wing indistinct; hind wing with pale brown spot at end of the cell, and a submarginal fascia; palpi black; fore legs black-streaked.

Expanse 1 inch.

Cherra Punji (*Atkinson*). In coll. Dr. Staudinger.

*ÆMENE SUBCINEREA*, n. sp.

Allied to *Æ. taprobanis*; the fore wing greyish-ochreous, with markings more like those in *Æ. guttulosana*, but smaller and narrower; hind wing and abdomen cinereous. Underside cinereous-brown.

Expanse  $\frac{7}{8}$  inch.

N.W. India. In coll. F. Moore.

*ÆMENE MODESTA*, n. sp.

*Male*. Nearest to *Æ. guttulosana*, Walk., from Bombay, but smaller in size, darker in colour, and the hind wing pale fuliginous; the markings on the fore wing much smaller, the spot at end of the cell narrow and lunular, and the sagittate mark below it nearly obsolete.

Expanse  $\frac{8}{12}$  inch.

Formosa (*Swinhoe*). In coll. F. Moore.

*ÆMENE TENEBROSA*, n. sp.

*Male and female*. Fore wing hoary black, the grey scales prominent, with some black spots on the costa within and below the cell, and on the exterior margin; hind wing and abdomen cinereous-grey. Thorax hairy, black. Underside dark cinereous-grey; apex of fore wing ochreous; legs blackish above.

Expanse, ♂  $\frac{8}{12}$ , ♀  $\frac{9}{12}$  inch.

Bombay. In coll. F. Moore.

Allied to *Æ. sordida*, Butler, Trans. Ent. Soc. 1877, p. 372, but is a very much darker insect.

#### SETINA, Schrank.

*SETINA PUNCTILINEA*, n. sp.

*Male*. Upperside—fore wing yellow; a black streak on base of costal margin, a spot below it, two small very indistinct subbasal



spots, one at end of the cell, and a more prominent marginal row of spots: hind wing and abdomen pale yellow. Thorax black-spotted; legs black, streaked above.

Expanse  $1\frac{0}{2}$  inch.

Ceylon. In coll. F. M. Mackwood and F. Moore.

Allied to the European *S. irrorella*.

*SETINA DISCISIGNA*, n. sp.

*Female*. Upperside pale yellow: fore wing tinged with ochreous along hind margin; a black spot near base, a smaller spot at base of costa, and a more prominent spot at end of the cell: hind wing suffused with purplish-brown near the apex and along abdominal margin. Thorax and head yellow, both with black spots; abdomen and legs purplish-brown, tip yellow. Underside—middle of fore wing dusky brown.

Expanse 1 inch.

Cherra (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

*SETINA NEBULOSA*, n. sp.

*Female*. Upperside—fore wing yellow; with a black basal spot, a broad irregular-bordered discal ochreous-brown band and confluent subbasal irregular-shaped band: hind wing cinereous white, with broad dusky indistinct submarginal fascia. Thorax yellow; abdomen cinereous-white. Underside and legs paler.

Expanse  $1\frac{2}{2}$  inch.

Darjiling (*Atkinson*). In coll. Dr. Staudinger and F. Moore.

*SETINOCHROA*, Felder.

*Setinochroa*, Feld. Nov. Voy. iv. pl. 106.

*SETINOCHROA AURANTIACA*, n. sp. (Plate III. fig. 12.)

*Male*. Upperside bright orange-yellow: fore wing with a black basal spot, two subbasal, a large spot at end of the cell, and a recurved submarginal series of four or five spots: hind wing ochreous-brown externally. Thorax black-spotted; abdomen greyish-brown, tip yellow. Underside—middle of the fore wing ochreous brown, base of costa and subapical streaks black; hind wing black-bordered at apex.

Expanse  $1\frac{0}{2}$  inch.

Khasia hills (*G.-Austen*). In coll. F. Moore.

Allied to *S. infumata*, Feld. Nov. Voy. iv. pl. 106. fig. 16, but differs in being of a different yellow in colour, in the fore wing having the subbasal spots, and the hind wing having only a marginal blackish border.

*SETINOCHROA PALLIDA*, n. sp.

*Male*. Upperside—fore wing pale yellow, with small black spot at base, one at end of the cell, and a submarginal series of spots: hind wing pale ochreous-brown externally. Underside—fore wing pale ochreous-brown in the middle; cell and apical spots very indistinct.

Expanse  $1\frac{0}{2}$  inch.



Manpuri, N.W. India (*Horne*). In coll. F. Moore.

Differs from *S. infumata* in the wings being narrower, and of a paler colour both above and beneath.

*SETINOCHROA POSTICA*, n. sp.

*Male*. Upperside bright ochreous-yellow: fore wing with a small black spot at base, a prominent spot at end of the cell, and a recurved submarginal series: hind wing slightly brownish-ochreous, with a distinct black streak at end of the cell. Underside—fore wing ochreous-brown in the middle, with black apical spots; cell-streak in hind wing.

Expanse  $\frac{1}{2}$  inch.

Dhurmsala, N.W. Himalayas. In coll. F. Moore.

*NUDARIA*, Haw.

*Nudaria*, Haw. Lep. Brit. p. 156.

*NUDARIA FASCIATA*, n. sp.

*Male and female*. Pale yellow, diaphanous: fore wing with a broad purple-brown band from the costa, decreasing to middle of hind margin, and lunular streaks on exterior margin; hind wing paler, slightly suffused with purple-brown at the base. Body yellowish-white; legs purple-brown above.

Expanse  $\frac{1}{2}$  inch.

Darjiling (*Atkinson*). In coll. F. Moore.

Allied to *N. margaritacea*, Walk.; but that species differs in having the fore wing crossed by four distinct irregular sinuous bands.

## EXPLANATION OF THE PLATES.

### PLATE I.

- Fig. 1. *Paraona splendens*, p. 8.  
 2. *Sidyra apicalis*, n. sp., p. 9.  
 3. *Mahavira flavicollis* ♂, n. sp., p. 11.  
 4. *Hesudra divisa* ♂, n. sp., p. 12.  
 5. *Vamuna maculata* ♂, n. sp., p. 10.  
 6. *Chrysæglia ferrifasciata* ♂, n. sp., p. 13.  
 7. *Gandhara serva*, p. 15.  
 8. *Tarika varana*, p. 15.  
 9. *Brunia antica*, p. 15.  
 10. *Ghoria albocinerea*, n. sp., p. 13.  
 11. *Vamuna bipars* ♂, n. sp., p. 10.  
 12. *Churinga rufifrons* ♂, n. sp., p. 10.  
 13. *Collita parva*, n. sp., p. 16.  
 14. *Katha terminalis*, n. sp., p. 17.  
 15. — *nigrifrons*, n. sp., p. 17.  
 16. *Simareea basinota*, p. 14.

### PLATE II.

- Fig. 1. *Chrysorabdia viridata* ♂, p. 19.  
 2. *Capissa innotata* ♂, p. 19.  
 3. — *pallens*, n. sp., p. 19.  
 4. — *fasciata* ♂, n. sp., p. 20.  
 5. *Tegulata basistriga*, n. sp., p. 22.  
 6. — *protuberans* ♀, n. sp., p. 23.









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