

NEW AUSTRALIAN LEPIDOPTERA.

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The insects described in the present paper belong to various families. Most of them have been in my possession for some time, and they include among others a number of interesting forms, mostly bred from the larvæ, for which I am indebted to Mr. F. P. Dodd, of Townsville. The types of the family *Xyloryctidæ* collected by Mr. Dodd are in the collection of Lord Walsingham, to whom I am indebted for permission to describe them. There are co-types in my own collection. I have also described several species received from Mr. G. Lyell, jun., of Gisborne, from Mr. H. Tryon, Queensland Government Entomologist, and Mr. R. Illidge, of Brisbane.

Among the genera, and almost equally among the families, usually loosely known as "*Bombyces*," there exists at present great confusion in Australian collections. A revision of these families is much needed, and I hope, when time and material (much of it scarce and difficult to obtain) permit, to undertake this, a task in which my recent opportunities of examining Walker's types in the British Museum should prove of service. The *Notodontidæ* I have already in hand, and hope to publish shortly. In the present paper I have received much help by the study of the family and generic definitions in Sir George Hampson's "*Moths of India*," and in the introduction to his "*Catalogue of the Lepidoptera Phalaenæ*."

In several instances I have found, after writing my descriptions, that I had been anticipated in the naming of the species, but I have published them, in the hope that they may prove serviceable.

LYMANTRIADÆ.

PORTHESIA EUTHYSANA, n. sp.

Male, 26-30 mm. Head white, mixed with a few ochreous scales on crown. Palpi white, with long ochreous hairs on base beneath. Antennæ whitish-grey. Thorax white, mixed with ochreous. Abdomen dark fuscous; apices of segments and tuft white. Legs white; anterior coxæ, femora, and tibiæ ochreous anteriorly. Forewings triangular, costa strongly arched, apex rounded, termen rounded, oblique; clear white;

costal edge near base ochreous; cilia white; along dorsal margin a fringe of large bright-ochreous scales. Hindwings with termen rounded; white; cilia white.

Mount Tambourine, Queensland, in November and February; four specimens.

PORTHESIA PANABRA, n. sp.

Male, 24-26 mm.; female, 40 mm. Head, thorax, and antennæ white. Palpi white. Abdomen white; tuft bright ochreous. Legs white. Forewings triangular, costa strongly arched, apex rounded, termen rounded, oblique; clear white; costal edge near base ochreous; cilia white; along dorsal margin a fringe of white scales, mixed with a few larger pale ochreous scales. Hindwings with termen rounded; white; cilia white.

Closely allied to the preceding, but the abdomen is white, and ochreous coloring much less pronounced.

Brisbane and Mount Tambourine, Queensland, in March and April; three specimens.

PORTHESIA GALACTOPIS, n. sp.

Male, 18-25 mm.; female, 26-30 mm. Head, thorax, and antennæ white. Palpi white, external surface in male pale ochreous. Abdomen white; tuft ochreous, in male sometimes whitish. Legs white; anterior pair in male ochreous-tinged. Forewings triangular, costa rather strongly arched, especially in female, apex rounded, termen oblique, scarcely rounded in male, rounded in female; dull milk-white; base of costal edge ochreous in male; cilia white. Hindwings with termen rounded; white; cilia white.

Best distinguished from the preceding by the absence of ochreous scales on dorsal margin of forewings.

Mareeba and Townsville, Queensland, from May to October; common.

PORTHESIA FIMBRIATA, Luc.

(*Teara fimbriata*, Luc. Proc. Linn. Soc., N.S.W., 1891, p. 285.)

Forewings of male pale ochreous-yellow, more or less suffused with purple-grey, leaving a wavy-margined ochreous-yellow terminal band, and sometimes also a costal streak of the same color; cilia ochreous-yellow. Hindwings ochreous-whitish; cilia pale ochreous. Female with both wings and cilia whitish.

Stradbroke Island, Queensland, in October; locally common.

PORTHESIA LUTEA, Fab.

(*Artaxa chrysophila*, Wlk. Suppl. 334; ?*Artaxa varians*, Wlk., iv., 796; *Porthesia iobrota*, Meyr. Trans. Roy. Soc., S.A., 1891, p. 194; *Artaxa chrysophæa*, Luc. Proc. Linn. Soc., N.S.W., 1892, nec Wlk.

This species varies in size and intensity of coloring, specimens from southern Queensland excelling in both respects. There is a variety occasionally met with in both sexes with hindwings irrorated with fuscous.

Cairns, Kuranda, Townsville, Rockhampton, and Brisbane, Queensland; common.

EUPROCTIS CHIONITIS, n. sp.

Male, 25-29 mm.; female, 31-35 mm. Head white, tinged with pale ochreous on crown. Pale ochreous. Antennæ white. Thorax and abdomen white; tuft in male white or orange, in female ochreous. Legs white; anterior coxæ and inner surface of anterior femora and tibiæ bright ochreous in male. Forewings triangular, costa rather strongly arched, apex rounded, termen oblique, rounded; snow white; base of costal edge ochreous; cilia white. Hindwings with termen rounded; color and cilia as forewings.

Vein 9 of forewings is absent in this species.

Cardwell and Brisbane, Queensland; common.

This species has stood in collections as *obsoleta*, Fab. I have seen the Fabrician type of *obsoleta* in the British Museum, and identify it with *Laelia eremæa*, Meyr.

EUPROCTIS AMPHIDETA, n. sp.

Male, 26 mm. Head, palpi, and antennæ pale yellow. Thorax and abdomen ochreous-yellow. Legs pale yellow. Forewings triangular, costa rather strongly arched, apex rounded, termen slightly rounded, slightly oblique; vein 9 absent; orange-ochreous, suffused with pale grey except near costa, and a spot in disc beneath mid-costa; a pale yellowish terminal band, indented at two-fifths of termen; cilia pale yellowish. Hindwings with termen rounded; ochreous-yellow; cilia pale yellowish.

This pretty species recalls *Porthesia fimbriata*, Luc., in its markings.

Townsville, Queensland, in March and April; two specimens received from Mr. F. P. Dodd.

EUPROCTIS CHRYSOPHÆA, Wlk.

(*Orgyia chrysophæa*, Wlk. Suppl. 324; *Artaxa cervina*, Moore. Ann. Nat. Hist., 1877, 345, Lep. Ceylon, pl. 112, f. 3; *Artaxa lucifuga*. Luc. Proc. Linn. Soc., N.S.W., 1892, 250.)

Male, 17-21 mm. Forewings fuscous-orange or orange-ochreous, with two pale transverse lines, median and post-median, the first usually obsolete, the second often indistinct; in pale varieties the space between lines may be occupied by a darker fuscous; cilia deep yellow. Hindwings dark grey, without orange or ochreous tinge; cilia yellow.

Female, 25 mm. Forewings elongate-oval; pale ochreous; cilia pale ochreous. Hindwings whitish-grey; cilia pale ochreous.

The males are very variable in depth of coloring, appearing on the whole to be darker in cool, paler in hot climates.

Townsville and Brisbane, Queensland; the males not uncommon, the female rarely taken; also from India and Africa. Walker's type is from Abyssinia.

EUPROCTIS HOLOXUTHA, n. sp.

Male, 36 mm. Head, palpi, antennæ, and thorax dull orange-ochreous. Abdomen deep orange, tuft but slightly paler. Legs pale ochreous. Forewings triangular, costa moderately arched, apex round-pointed, termen slightly rounded, oblique; dull orange-ochreous; a pale ochreous spot in disc beneath two-fifths costa; cilia ochreous. Hindwings with termen rounded; pale yellow, towards inner margin suffused with orange; cilia pale yellow.

This appears to be doubtfully distinct from *E. crocea*, Wlk., of which I only know the type (a female) in the British Museum, said to be from Moreton Bay. Further material is desirable.

Townsville, Queensland, in August; one bred specimen in perfect condition received from Mr. F. P. Dodd. There are a male and female of this species in the British Museum from Adelaide River, North Australia; and another pair in the Queensland Museum.

EUPROCTIS SCOTOCHYTA, n. sp.

Male, 16 mm. Head, palpi, and thorax deep yellow. Antennæ yellowish. Abdomen grey; tuft and sometimes apices of segments pale ochreous. Legs whitish-ochreous. Forewings triangular, costa moderately arched, apex rounded, termen rounded, oblique; dark grey, with scattered ochreous scales, towards base and sometimes towards costa suffused with

ochreous-yellow; costal edge ochreous-yellow; cilia pale ochreous. Hindwings with termen rounded; dark grey; cilia grey or whitish-ochreous.

Allied to *E. chrysophæa*, Wlk., but smaller, and with the wings nearly concolorous.

Kuranda and Townsville, Queensland, in October and January; two specimens. I should like to see the female of this species.

EUPROCTIS ARROGANS, Luc.

(*Artaxa arrogans*. Luc. Trans. Roy. Soc., Queensland, 1899, 140.)

Male and female, 44-46 mm. Head, thorax, abdomen, and forewings reddish-orange; apical tuft of abdomen white. Hindwings ochreous or orange-ochreous.

I think this is Lucas' species, though he does not mention the white tuft of abdomen.

Cairns and Johnstone River, Queensland, in June and November; two specimens. There is a female in the British Museum from Woodlark Island.

EUPROCTIS HABROSTOLA, n. sp.

Male, 43 mm.; female, 58 mm. Head, thorax, and antennæ whitish-ochreous. Face and palpi ochreous. Abdomen blackish, towards base ochreous; lower surface ochreous; tuft whitish. Legs whitish-ochreous. Forewings triangular, costa moderately arched, apex rounded, termen slightly rounded, oblique; creamy-whitish without markings; cilia creamy-whitish. Hindwings with termen rounded; deep yellow; base to one-third suffused in female with dark fuscous, which extends whole length of inner margin; cilia yellow.

Allied to *E. uniformis*, Moore, from India.

Townsville, Queensland, in March; one specimen bred by Mr. F. P. Dodd from a larva feeding on *Melaleuca*. There is a male from Rockhampton, Queensland, in the Queensland Museum.

EUPROCTIS NIPHOBOLA, n. sp.

Male and female, 37-42 mm. Head, thorax, palpi, and antennæ fuscous; face in male brown, in female fuscous. Abdomen dark fuscous; tuft in male ochreous in female grey. Legs fuscous. Forewings elongate-triangular, costa moderately arched, apex round-pointed, termen very oblique, in male straight, in female slightly rounded; fuscous, sparsely irrorated with large triangular white scales, more densely in posterior part of disc; a dark fuscous discal dot

beneath mid-costa; a straight suffused sub-terminal white shade, better marked in female; a row of white spots along termen, better marked and confluent on margin in female; cilia fuscous. Hindwings with termen but slightly rounded; fuscous; a whitish terminal band, intersected by veins, narrowing to a point at ternus.

Allied to *baliolalis*, Swin., which is also referable to this genus.

Brisbane (male type), Queensland, in February. The female (sent by Mr. F. P. Dodd) from Townsville, Queensland, in September.

ACNISSA, n. g.

Head normal. Tongue weak. Palpi obliquely porrect, moderate, one and a half times breadth of eye, terminal joint minute. Antennæ bipectinated in both sexes, more shortly in female. Thorax loose-scaled, with an erect posterior crest. Abdomen smooth, slender in both sexes. Legs normal. Forewings with vein 2 from two-thirds, 3 from before angle, 4 from angle, 5 from cell well separated from 4, 6 from below upper angle of cell, 7 from upper angle, 8, 9, 10 stalked from before angle, well separated from 7. Hindwings with 3 and 4 approximated at base, 5 nearer 4 than 6, 6 and 7 connate, 8 anastomosing shortly with cell near base.

Allied to *Euproctis*, but at once distinguished by the wide separation of vein 7 from 8, 9, 10.

ACNISSA PYRRHIAS, n. sp.

Male and female, 16-20 mm. Head, thorax, and palpi bright reddish-brown. Antennæ grey. Abdomen ochreous, more or less suffused with fuscous. Legs fuscous; posterior pair whitish-ochreous. Forewings elongate-triangular, costa strongly arched at base, thence nearly straight, apex somewhat pointed, termen straight, rounded beneath, slightly oblique; dull reddish, sparsely irrorated with fuscous; a fuscous transverse fascia, anterior edge dentate from one-fourth costa to one-third dorsum, posterior edge also dentate from slightly beyond mid-costa to dorsum at two-thirds; on each border of fascia is a suffused brighter red line; a faint dark sub-terminal shade; a fine fuscous terminal line; cilia reddish, apices fuscous. Hindwings with termen rounded, fuscous, base pale reddish, sometimes wholly pale reddish; cilia reddish.

Townsville, Queensland, from December to May; three specimens received from Mr. F. P. Dodd.

LYMANTRIA AURORA, Wlk. (?)

I describe this species by the name by which it is known in Australian collections, but have not been able to discover Walker's description. It is not contained in the British Museum catalogue.

Male, 52 mm. Head whitish; posterior margin narrowly red. Palpi dark fuscous; apex whitish. Antennæ black, pectinations whitish. Thorax whitish. Abdomen bright red; a whitish basal spot; a series of four median blackish spots on apical segments; tuft ochreous. Legs whitish, mixed with red, tarsi annulated with black. Forewings triangular, costa moderately arched, apex round-pointed, termen slightly rounded, oblique; grey-whitish, markings dark fuscous; extreme base of costal edge red; a spot on base of costa, and another on mid-base; a spot beneath costa at one-eighth, and another beneath it on fold; a thick wavy line from one-fourth costa to two-fifths dorsum; a small median discal dot; a thick wavy sigmoid line from costa just beyond middle to dorsum at two-thirds; a fine acutely dentate line from costa at three-fourths to before tornus, partly confluent with previous line near dorsum; a row of terminal dots; cilia grey-whitish. Hindwings with termen rounded; ochreous-whitish suffused with pale red, especially towards costa and inner margin; cilia whitish, at apex and inner margin ochreous-reddish.

Female with wings aborted; whitish; forewing crossed by two interrupted dark fuscous lines beyond middle. Head and thorax whitish. Antennæ whitish, pectinations black. Abdomen very large; pale ochreous-brown.

Closely allied to *L. antennata*, Wlk., which has fuscous hindwings, and the markings of forewings more suffused.

Townsville, Queensland, in June; a pair received from Mr. F. P. Dodd, who says the larvæ feed on *Eucalyptus tessellaris* and other trees, and to pupate suspend themselves among a few golden-colored threads under leaves or between loose strips of bark.

LAELIA OSTRACINA, n. sp.

Female, 36 mm. Head, palpi, and thorax whitish. Antennæ broken. Abdomen ochreous-whitish. Legs whitish. Forewings elongate-triangular, costa rather strongly arched, apex round-pointed, termen slightly rounded, oblique; white; a longitudinally oval spot in disc near base, reddish-brown mixed with dark fuscous; a large irregularly shaped irroration in disc beyond middle, of reddish-brown and dark fuscous, touching costa, broadest towards costa, narrowing towards and

not reaching dorsum ; an incomplete interrupted narrow dark fuscous sub-terminal line ; cilia white. Hindwings with termen rounded ; white ; cilia white.

Cooktown, Queensland ; one specimen in Coll. Lyell.

ANTHELA PHŒNICIAS, n. sp.

Male, 36-42 mm. Head, palpi, antennæ, thorax, and abdomen vinous-purple. Legs vinous-purple. Forewings triangular, costa straight, apex rounded, termen rather strongly bowed, slightly oblique ; vinous-purple without markings ; cilia vinous-purple. Hindwings with termen rounded ; vinous-purple ; cilia vinous-purple.

The coloring is uniform throughout. There is a specimen of this species unnamed in the British Museum. It does not correspond to any of Walker's types.

Brisbane and Stanthorpe, Queensland, in January and February ; two specimens. There is also a specimen in Coll. Lyell from Roeburne, North-West Australia.

Anthela (type *ferruginosa*, Wlk., iv., 854) includes and supersedes *Darala* (type *ocellata*, Wlk., iv., 887.)

ANTHELA ASPILOTA, n. sp.

Female, 44 mm. Head, palpi, antennæ, thorax, abdomen, and legs pale brownish-ochreous. Palpi with loose spreading hairs. Forewings triangular, costa moderately arched, apex rounded, termen rounded, oblique, rather thinly scaled ; pale brownish-ochreous ; cilia pale brownish-ochreous. Hindwings with termen rounded ; vein 8 connected by a bar with cell ; pale brownish-ochreous ; cilia pale brownish-ochreous.

Another unicolorus species for which I can find no name.

Stanthorpe, Queensland, in January ; one specimen.

ANTHELA NEUROSPASTA, n. sp.

Male, 38 mm. Head, thorax, and abdomen whitish ; face and palpi ochreous. Antennæ whitish, pectinations brownish-fuscous. Legs fuscous, posterior surfaces whitish. Forewings triangular, costa straight, slightly arched towards apex, apex rounded, termen strongly rounded, slightly oblique ; whitish, with pale fuscous streaks ; a streak along costa, a second from disc at one-fourth to termen, a third along fold and continued to tornus ; six shorter streaks running into termen, three above and three beneath median streak ; cilia whitish. Hindwings with termen rounded ; color and markings as forewings, but costal streak absent, and dorsal streak not continued to base.

Cooktown, Queensland ; one specimen in Coll. Lyell.

EUPTEROTIDÆ.

EPICOMA ZELOTES, n. sp.

Male, 30-33 mm. Head whitish, face ochreous. Antennæ dark grey. Thorax pale grey. Abdomen blackish; tuft and a series of median spots ochreous. Legs dark fuscous, mixed with ochreous. Forewings elongate-triangular, costa slightly arched, apex round-pointed, termen rounded, oblique; snow-white; costa and dorsal margin irrorated with dark fuscous and ochreous; a roundish discal spot beneath mid-costa, ochreous margined with dark fuscous; an inwardly oblique, slightly sigmoid, broad, ochreous-fuscous line from costa at four-fifths to dorsum at three-fourths; cilia bright ochreous, apices and a series of 4 basal spots dark fuscous. Hindwings with termen rounded; yellow-ochreous; a narrow blackish fascia at four-fifths, parallel to termen; a faint fuscous sub-terminal line; cilia ochreous.

Female differs as follows: 34-36 mm. Face grey. Forewings more irrorated and oblique line paler. Hindwings dark fuscous, extreme base whitish-ochreous, with a terminal series of ochreous spots.

There is a closely allied species in the British Museum from Adelaide River, North Australia.

Townsville, Queensland, in November and December; four specimens received from Mr. F. P. Dodd, who bred them from larvæ feeding gregariously on *Eucalyptus platyphylla*, hiding by day at the foot of the tree or under loose bark. There is also a male specimen in Coll. Lyell from Cape York, Queensland. The last has the hindwings less brightly colored, and with a broader dark band than the Townsville specimens.

EPICOMA ASBOLINA, n. sp.

Female, 36 mm. Head, antennæ, and thorax blackish. Abdomen blackish; tuft ochreous. Legs blackish. Forewings triangular, costa gently arched, apex round-pointed, termen rounded, oblique; brown-whitish, costal and dorsal edge and a broad terminal band suffused with blackish; a blackish discal spot beyond middle; a terminal series of large oval or oblong white spots; cilia blackish. Hindwings with termen rounded; blackish; sub-terminal spots and cilia as forewings.

Townsville, Queensland, in June; one specimen received from Mr. F. P. Dodd. There is a female specimen in the Queensland Museum from Bowen, Queensland, and another in the British Museum from Port Darwin, North Australia.

BOMBYCIDÆ.

OCINARA LEWINÆ, Lew.

(*Clisiocampa lewinæ*, Lew. Prodr. Ent. 7, t. 6, 1807; *Pamea transiens*, Wlk., v., 1156; *Oreta sobria*, Wlk., v., 1168; *Eriogaster simplex*, Wlk., vi., 1473; *Naprepa pilosa*, Wlk., Suppl. 489; *Naprepa hirta*, Wlk., Suppl. 490; *Trilocha rufescens*, Wlk., Suppl. 546; *Semuta pristina*, Wlk., Suppl. 547.)

Walker described this species seven times in six different genera, referred to four different families. This should be a warning to later authors, as showing how uselessly the study of entomology may be rendered more difficult by the description of species without accurate investigation of their structural characters.

I have verified this synonymy from the types in the British Museum. The two sexes differ, and both are variable, but not to any extraordinary degree.

Brisbane, Queensland; the larvæ feed gregariously on *Tristania conferta*.

ANDRACA ADOXIMA, n. sp.

Male, 42 mm. Head, whitish-ochreous. Antennæ grey. Thorax pale reddish-brown. Abdomen whitish-ochreous. Legs brownish. Forewings triangular, costa straight to near apex, apex rounded, termen long, rounded, strongly oblique; pale ochreous-grey towards base suffused with pale reddish-brown; an outwardly curved reddish-brown line from costa at one-third to dorsum at three-fifths; a broader line from costa at two-thirds to dorsum at four-fifths; a faintly marked spot in disc beneath mid-costa; cilia reddish-brown. Hindwings with termen strongly bowed, inner margin curved downwards, reddish-brown; a pale ochreous-grey terminal band, broad at apex, thence narrowing and not reaching tornus; cilia pale ochreous-grey.

This and the preceding are the only Australian species of *Bombycidæ* known to me.

Brisbane, Queensland; one specimen.

LASIOCAMPIDÆ.

CREXA HYALOESSA, n. sp.

Male, 30-32 mm. Head white. Palpi brown; base of second joint with a white spot on under surface. Antennæ fuscous. Thorax fuscous, mixed with white. Abdomen dark fuscous, sometimes with a few white scales on dorsum. Legs fuscous mixed with whitish. Forewings elongate-triangular, costa nearly straight to near apex, slightly sigmoid, apex round-

pointed, termen long, slightly rounded, very oblique; translucent, being only very thinly covered with fine blackish hairs except along costa and dorsum, and at apex, base, and discal spot; costal half of basal area whitish, dorsal half dark fuscous mixed with whitish and brownish; a fine white line from one-fourth costa to one-third dorsum; a broad brown streak irrorated with white scales along dorsum to tornus; an oval black spot above mid-dorsum; a black discal spot at end of cell; veins outlined in brownish mixed with whitish; a white dot on costa at three-fourths, from which a faint oblique slightly sigmoid white line proceeds to dorsum at two-thirds; a fuscous suffusion at apex; two black dots sometimes followed by a third minute dot between veins near apex; a very fine crenate white sub-terminal line immediately follows these, and is continued to dorsum; cilia very short, blackish tipped with whitish. Hindwings produced at tornus, termen slightly rounded; translucent with veins outlined as in forewings; towards inner margin covered with long grey hairs mixed with whitish; a white line from two-thirds costa to tornus; cilia as forewings.

Closely allied to *Crexa punctigera*, Wlk., *anthraxoides*, Wlk.), but differs in having only a single discal spot and the sub-terminal spots mostly obsolete.

Brisbane, Queensland, January to March; four specimens.

CREXA PUNCTIGERA, Wlk.

(*Entometa punctigera*, Wlk., iv., 974 (male); *Mecytha trimacula*, Wlk., v., 1122 (female); *Crexa anthraxoides*, Wlk., Suppl. 1927 (male); *Dichromosoma majus*, Feld., pl. lxxxiii., f. 26 (female).

Mr. Lyell informs me that he took six similar larvæ in a crevice in the bark of *Exocarpus cupressiformis*, and bred two males and three females.

CLATHE PYRSOCOMA, n. sp.

Male, 28 mm.; female, 36 mm. Head, palpi, and thorax purple-reddish. Antennæ purple-reddish, pectinations whitish-ochreous. Abdomen purple-reddish. Legs purple-reddish. Forewings triangular, costa in male straight to near apex, in female gently rounded, apex round-pointed, termen rounded, slightly oblique; dull-reddish finely irrorated with whitish hairs; dorsum sometimes narrowly suffused with fuscous; a median fuscous discal dot; in female a fine, crenulate, outwardly curved line from three-fifths costa to mid-dorsum, obsolete in male specimen; a sub-terminal series of minute fus-

cous dots; cilia reddish mixed with fuscous and whitish. Hindwings with termen rounded; purple-reddish; cilia reddish.

Brisbane, Queensland; two specimens taken by Mr. R. Illidge.

I think that Walker's genera—*Clathe*, *Callia*, and *Sitina*—may have ultimately to be merged in one.

CLATHE ANTHRACICA, n. sp.

Male, 32 mm. Head whitish; sides of face orange-ochreous. Palpi orange-ochreous. Antennæ ochreous, pectinations blackish. Thorax blackish, bases of patagia whitish. Abdomen blackish, tuft whitish. Legs blackish; anterior pair thickly coated with whitish hairs on external surface; all tarsi orange-ochreous annulated with blackish. Forewings elongate-triangular, costa straight, slightly arched towards apex, apex rounded, termen slightly rounded, oblique; blackish centre of disc thinly scaled; a small whitish discal dot above mid-disc, and a whitish irroration between this and dorsum; basal part of costal edge ochreous; veins interruptedly marked with ochreous; cilia blackish, sharply barred with white. Hindwings with termen rounded; blackish; cilia as forewings.

Allied to *Clathe arida*, Wlk. (*Listoca lignaria*, Wlk., *Sorema unbila*, Wlk., *Perna metastigma*, Wlk.), but readily distinguished by its blackish coloring.

ENTOMETA CYCLOLOMA, n. sp.

Male, 40 mm., Head, thorax, and abdomen pale ochreous, intimately mixed with reddish-purple-grey. Palpi three times breadth of eye, purple-grey. Legs purple-grey. Forewings triangular, costa towards base straight, towards apex rather strongly arched, apex rectangular, termen straight, slightly oblique; pale ochreous intimately mixed with reddish-purple-grey; markings fuscous; an outwardly curved faint line from one-fourth costa to one-fourth dorsum; a discal dot at one-third; a second faint line bent inwards in disc, from two-thirds costa to mid-dorsum; a faintly marked oblique row of dots mid-way between this and dorsum; cilia reddish-purple-grey. Hindwings rather narrow and very distinctly elongate, termen prominently rounded; reddish-purple-grey; cilia reddish-purple-grey, on inner margin whitish.

In coloration and general appearance this resembles *E. australasica*, Fab. (of which I believe *intemerata*, Wlk., to be a synonym), but the shape of the hindwings is very different. The palpi are also rather shorter.

Cooktown, Queensland; one specimen in Coll. Lyell.

SYMPHYTA, n. g.

Head with projecting cone of scales. Palpi moderate, not longer than twice breadth of eye, clothed with dense hairs, terminal joint concealed. Thorax and abdomen not crested. Mid and hind tibiæ with one pair of minute terminal spurs. Forewings with 2 from near base, 4 and 5 from angle, 6 and 7 stalked, 8 to termen, 9 and 10 stalked. Hindwings with 4 and 5 stalked (rarely 3, 4, 5 stalked), 7 arising near base of cell and anastomosing with 8, several accessory veinlets.

May be distinguished from *Entometa*, Wlk. (*Opsirrhina*, Wlk.) by the shorter palpi, and from *Callia*, Wlk., *Sitina*, Wlk., and *Clathea*, Wlk., by the stalking of veins 4 and 5 of hindwings.

Type *S. psaropis*.

SYMPHYTA PSAROPIS, n. sp.

Male, 38-40 mm.; female, 50 mm. Head, palpi, thorax and abdomen whitish-grey. Antennæ white; pectinations ochreous-whitish. Legs whitish-grey. Forewings triangular, in female elongate-triangular, costa straight to near apex, apex round-pointed, termen straight, in female slightly rounded, oblique; whitish-grey, thinly irrorated with grey; a dark fuscous dot in disc at one-third; cilia white, bases dark fuscous, sometimes apices also barred with dark fuscous. Hindwings with termen strongly bowed; whitish-grey suffused with darker grey, towards inner margin whitish; cilia whitish with a median dark fuscous line.

Townsville, Queensland, in January and February; three specimens received from Mr. F. P. Dodd.

SYMPHYTA NYCTOPIS, n. sp.

Male, 35 mm.; female, 50 mm. Head, palpi, thorax, and abdomen fuscous. Antennæ whitish-ochreous. Legs fuscous. Forewings triangular, costa straight to near apex, apex rounded, termen rounded, oblique; fuscous; a dark fuscous spot in disc at one-third; cilia dark fuscous, apices barred with white. Hindwings with termen rounded; pale fuscous; cilia fuscous, barred with whitish.

Townsville, Queensland, in February and June; two specimens (the male in poor condition) received from Mr. F. P. Dodd, who has found the larvæ on *Eucalyptus platyphylla*.

PYRALIDÆ.

DODDIANA, n. g.

Frons flat, not prominent. Tongue present. Antennæ in male minutely ciliated (one-sixth). Maxillary palpi filiform,

closely appressed to labial palpi. Labial palpi porrect; in male $1\frac{1}{2}$ with terminal joint concealed; in female 3 with terminal joint evident, down-curved. Thorax smooth. Forewings with a crest of scales, near base of dorsum and in disc; vein 1 strongly furcate at base, 4 and 5 short-stalked, 6 from cell, 7 stalked with 8, 9 absent (fused with 8), 10 short-stalked with 8. Hindwings with 4 and 5 closely approximated at base, 8 anastomosing with 7.

I dedicate this genus to Mr. F. P. Dodd, who has done so much to increase our knowledge of the moths of Northern Queensland, especially by his keen and patient labors in the discovery and rearing of the larvæ.

DODDIANA CALLIZONA, Low.

(*Stericta* (?) *callizona*, Lower, Trans. Roy. Soc., S.A., 1896, p. 155.)

Male and female, 25-34 mm. Head purplish; face and palpi dark fuscous. Antennæ ochreous-brown. Thorax purplish, with some whitish scales towards sides. Abdomen purplish-brown; towards apex dark fuscous. Legs dark fuscous; anterior femora and tibiæ purplish; posterior pair mostly ochreous-whitish. Forewings elongate-triangular, costa straight, apex rounded, hindmargin slightly oblique, slightly rounded, with a prominent tuft of scales on inner margin at one-fourth; purplish; a triangular dark green shade on costa from one-sixth to middle, its apex extending to above middle of inner margin; bounded anteriorly by an outwardly curved white suffusion; beyond this costal part of disc is irrorated with white; a narrow irregularly dentate dark fuscous line from costa at four-fifths to before tornus; preceded by a dark fuscous discal dot; succeeded by a fine line, whitish on margins, bluish on upper half, obsolete on lower half; a blackish circular blotch before apex, with a greenish centre; some whitish and greenish scales near termen; cilia purplish, bases whitish, with an interrupted blackish line at one-third. Hindwings much broader than forewings, hindmargin rounded; grey; towards base paler, and with traces of a pale line at two-thirds; cilia pinkish, with a fuscous line at one-third.

A beautiful and very distinct species.

Townsville, Queensland, a series reared by Mr. F. P. Dodd, in August and September. The larvæ bore the smaller stems of *Timonius rumphii* to the depth of six, nine, or even fifteen, inches, the tunnelled twigs with their affixed masses of silk, woody fragments, and leaves, exactly resemble those tenanted

by many species of *Xyloryctidæ*. When pupating the larva, however, reverts to its pyralid habits, for it quits its tunnel and spins a loose cocoon in the mass at its mouth.

LIMACODIDÆ.

DORATIFERA STENORA, n. sp.

Male and female, 26-30 mm. Head brown; in female suffused with whitish-ochreous; a patch of whitish-ochreous scales beneath roots of antennæ. Palpi brown. Antennæ brown-whitish. Thorax brown; in female with some central reddish-orange hairs. Abdomen brownish with a dorsal reddish-orange line, most developed in female. Legs brown. Forewings elongate-triangular, costa straight, apex round-pointed, termen rounded, strongly oblique; dull fuscous-brown or reddish-brown; an oblique whitish streak from apex towards mid-dorsum, becoming lost in disc; cilia brown. Hindwings with termen rounded; brown; cilia brown.

Rockhampton, Queensland; two specimens in the Queensland Museum.

DORATIFERA CHRYSOCHROA, Feld.

(*Lamprolepis chrysochroa*, Feld., pl. lxxxii., f. 13; *Doratifera euchrysa*, Low., Trans. Roy. Soc., S.A., 1896, p. 152.)

I have received a fine series of this beautiful insect from Mr. F. P. Dodd, who found the larvæ at Townsville feeding gregariously on *Careya australis* and other trees.

APODECTA, n. g.

Face with rounded anterior cone of scales. Palpi stout, rather long (twice breadth of eye), porrect; terminal joint very short. Antennæ of male bipectinated on basal half. Posterior tibiæ with two pairs of well-developed spurs. Forewings with vein 2 from two-thirds, 3 from before angle, 4 from angle, 6 from middle of cell, 7 short-stalked with 8, 9, 10 absent. Hindwings with 3, 4, and 5 remote at base, 6, 7, stalked.

Characterised by the absence of vein 10 of forewings.

APODECTA MONODISCA, n. sp.

Male, 16 mm. Head, thorax, and abdomen white, tinged with grey. Palpi whitish, with a few dark fuscous scales. Antennæ ochreous-whitish. Legs whitish mixed with dark fuscous. Forewings broadly triangular, costa slightly arched, apex rounded, termen rounded, oblique; grey with a very few scattered dark fuscous scales; a squarish white spot beneath mid-costa, its lower anterior angle connected by a

conspicuous white line with dorsum beyond middle; a dark-fuscous short transverse bar from costa beyond middle, succeeded by a squarish dark-fuscous subcostal blotch, evenly and narrowly margined with white; a faint whitish line from posterior edge of blotch towards tornus; a suffused white line close to termen; cilia grey, bases whitish. Hindwings with termen rounded; pale brownish; cilia whitish-grey, with a white median line.

Townsville, Queensland, in September; one specimen received from Mr. F. P. Dodd.

BIRTHAMA PLAGIOSCIA, n. sp.

Male, 22 mm.; female, 29 mm. Head, palpi, thorax, and abdomen dark brown. Antennæ whitish-ochreous, in female dark fuscous. Legs dark brown. Forewings triangular, costa incurved in male, or straight in female to near apex, apex much rounded, termen long, rounded, strongly oblique; dark brown; an oblique darker shade from near costa at three-fourths to mid-dorsum, well marked in female, nearly obsolete in male; a broad dark shade from costa immediately beyond this line, not extending more than one-third across disc; cilia dark brown. Hindwings with termen rounded; fuscous or dark brown; cilia concolorous.

Brisbane, Queensland; three specimens. Mr. R. Illidge has bred this species.

The genus *Birthama*, Wlk., with vein 7 of forewings separate, and veins 8, 9, 10 stalked, is connected with the following genera (which have 7, 8, 9 stalked) by *Natada*, Wlk., with 8, 9 stalked, 7 and 10 separate. To *Natada* I refer *Doratifera ordinata*, Butl., *colligans*, Luc.

BIRTHAMA DISCOTYPA, n. sp.

Male, 22 mm. Head, palpi, and thorax brownish-fuscous. Antennæ ochreous-fuscous; male with long double pectinations on basal two-fifths, thence slightly serrate. Legs fuscous. Forewings triangular, costa straight to near apex, apex rounded, termen rounded, slightly oblique; brownish-grey with a few dark fuscous scales; a large circular fuscous brown patch, edged posteriorly with white on dorsum from near base to middle; a similar circular white-edge patch on costa from three-fifths to near apex; cilia grey. Hindwings with termen rounded; dark grey; cilia grey.

Queensland (?), one specimen without locality in the collection of the Agricultural Department.

SUSICA DOCHMOSEMA, n. sp.

Female, 40 mm. Head and palpi paler reddish. Thorax brown, in centre reddish. Abdomen brown, legs brownish; tarsi annulated with dark fuscous; anterior tibiæ and middle tibiæ and first joint of tarsi with reddish hairs above. Forewings triangular, costa rather strongly arched, apex rounded, termen rounded, oblique; brown; costal edge reddish; a wavy oblique fuscous line from mid-dorsum to beneath costa at three-fourths; cilia brown. Hindwings with termen rounded; brown-whitish; cilia brown-whitish; apices whitish.

To this genus I also refer *corones*, Feb. (*Miresa humeralis*, Wlk., and *Miresa albibasis*, Wlk.), and *Comana collaris*, Wlk. It is distinguishable from *Miresa*, Wlk. (according to Hampson's "Moths of India") by the male having two pairs of spurs on posterior tibiæ.

Rockhampton, Queensland.

Type in the Queensland Museum.

SUSICA MILTOCOSMA, n. sp.

Female, 48 mm. Head ochreous-grey, margins of face bright red. Palpi bright red. Thorax ochreous-grey more or less rosy-tinged. Abdomen white. Legs whitish, anterior pair brightened above, with black dots on apices of femora and bases of tarsal points. Forewings triangular, costa moderately arched, apex rounded, termen rounded, slightly oblique; ochreous-grey more or less rosy-tinged; costal and terminal margins red; cilia grey, bases ochreous-tinged. Hindwings with termen rounded; white; cilia white.

Male, 33 mm. Antennæ bipectinated to two-thirds. Head and thorax bright red. Forewings bright red, with an oblique outwardly curved fuscous shade from mid-dorsum reaching to mid-disc.

Townsville, Queensland, in December; two female specimens received from Mr. F. P. Dodd. The male is in the Queensland Museum, from Rockhampton. I believe them to be sexes, but regard the female as the type.

TETRAPHLEPS PAROA, n. sp.

Female, 36 mm. Head brown, lower edge of face dark fuscous. Palpi dark fuscous. Antennæ fuscous. Thorax dark brown; collar paler. Abdomen reddish-brown. Legs dark fuscous, tarsi annulated with brownish. Forewings triangular, costa rather strongly arched, apex rounded, termen rounded, oblique; fuscous-brown; lines dark fuscous; a short line from dorsum at one-fourth to fold, produced along fold

towards base; a line from mid-costa angulated sharply inwards in disc and again sharply to mid-dorsum, a line from costa at two-thirds with acute projections posteriorly along veins, angulated inwards along vein 2, and then bent to dorsum near tornus; the space between these lines is suffused with reddish-brown, and contains some dark fuscous streaks along veins; a fine terminal line; veins in terminal part of disc marked with darker scales than intervening spaces; cilia brown, with a darker median line. Hindwings with termen rounded; reddish-brown; cilia reddish-brown.

Brisbane, Queensland; one specimen in the collection of the Agricultural Department.

PARASA CORALLINA, n. sp.

Female, 32 mm. Head bright-crimson. Palpi loose-haired; ochreous-brown, beneath dull purple. Antennæ pale brownish, towards base whitish. Thorax bright crimson; patagia dull purple. Abdomen bright crimson; beneath pale fuscous-ochreous. Legs dull purple; middle and posterior tarsi ochreous; posterior tibiæ with a terminal pair of spurs only. Forewings elongate-triangular, costa straight to near apex, apex round-pointed, termen slightly rounded, strongly oblique; deep reddish-purple without markings, in oblique light showing transverse wavy lustrous lines; cilia reddish-purple. Hindwings with termen rounded; veins 6 and 7 stalked; pale reddish-purple, base and inner margin pale ochreous; cilia reddish-purple.

The crimson body renders this a brilliant and unique species. The genus *Parasa*, Wlk., may be distinguished from *Thosea*, Wlk., by the presence of only a single pair of spurs on the posterior tibiæ, and by the pectinations of antennæ in male not being continued to apex.

Townsville, Queensland, in December; one bred specimen received from Mr. F. P. Dodd.

PARASA ATMODES, n. sp.

Male, 30 mm. Head dark fuscous. Palpi clothed with appressed hairs; fuscous, apices ochreous. Antennæ fuscous. Thorax dark fuscous, with leaden-metallic lustre, a V-shaped ochreous line posteriorly, its apex forwards. Abdomen dark fuscous, with leaden-metallic lustre; upper surface of tuft orange-ochreous. Legs dark fuscous annulated with pale ochreous. Forewings triangular, costa straight to near apex, apex round, termen rounded, scarcely oblique; dark fuscous, with leaden-metallic lustre; a whitish spot on base of dorsum;

a fine dentate whitish line from mid-costa to dorsum at one-fourth, preceded by an incomplete blackish line; an interrupted, crenate, whitish line from three-fourths costa to three-fourths dorsum, immediately followed in disc by three blackish spots edged with pale brownish, the upper two confluent; an ochreous-grey terminal band containing a fine crenulate fuscous sub-terminal line; cilia ochreous-grey, apices at tornus blackish. Hindwings with termen rounded; pale fuscous-brown; cilia whitish, apices towards tornus dark fuscous, on inner margin pale brownish.

In the type one of the forewings has thirteen veins, vein 4 being forked from near base. On the other side the neurotation is normal.

Townsville, Queensland, in March; one specimen received from Mr. F. P. Dodd.

PARASA LOZOGRAMMA, n. sp.

Male, 30 mm. Head, palpi, thorax, and abdomen ochreous-whitish. Legs ochreous-whitish; anterior coxæ and femora fuscous. Forewings triangular, costa straight to apex, apex tolerably pointed, termen slightly rounded, slightly oblique; ochreous-whitish, somewhat brownish tinged; a very oblique brownish-fuscous line from costa near apex to dorsum at one-fifth; an inwardly curved line from a point with the preceding on costa to termen above tornus; cilia ochreous-whitish, apices towards tornus fuscous. Hindwings with termen rounded; ochreous-whitish; cilia ochreous-whitish.

In markings this is similar to *Thosea divergens*, Moore, though not identical.

Brisbane, Queensland, in January; one specimen.

CRYPTOPHASA EUCEPHALA, n. sp.

Male and female, 29-38 mm. Head ochreous-yellow; face white or whitish. Palpi white; basal two-thirds of second joint with an anterior ochreous line; distal third of second joint and terminal joint with an anterior dark fuscous line. Antennæ white; in male shortly pectinate (1). Thorax snow white. Abdomen grey; first two segments mixed with reddish-ochreous; sides white; lower surface ochreous with a pair of blackish dots on each segment. Legs ochreous-yellow annulated with blackish. Forewings narrow-elongate, costa slightly arched, apex rounded, hindmargin slightly oblique, slightly rounded; snow white; costal edge ochreous, at extreme base blackish; cilia snow-white. Hindwings grey; towards inner-margin whitish; cilia snow-white.

Townsville, Queensland, in October; a series bred by Mr. F. P. Dodd from larvæ which tunnel the smaller stems of *Grevillea striata*, and probably other proteaceous shrubs. On pupating the entrance is completely blocked by a white plug.

Type in Coll. Walsingham.

XYLORYCTA RHIZOPHAGA, n. sp.

Male and female, 25-33 mm. Head and thorax white. Palpi white, anteriorly suffused with fuscous. Antennæ white, in male laminate, laminations two-thirds, ending in tufts of cilia. Abdomen grey-whitish; two basal segments irrorated with orange scales. Legs whitish; anterior and middle pairs fuscous anteriorly. Forewings narrow-oblong, costa gently arched, apex obtuse; hindmargin straight, rounded beneath, scarcely oblique; snow white; costal edge fuscous towards base; cilia snow white. Hindwings $1\frac{1}{2}$; hindmargin rounded; grey; towards base whitish; cilia white.

Easily distinguished from *X. homoleuca*, Low., which has all the wings narrower, hindmargin of forewings oblique, hindwings whitish, and male antennæ not laminate.

Townsville, Queensland, in November and December; a series bred by Mr. F. P. Dodd.

The larva feeds on *Persoonia falcata*. It forms a spout-like chamber of silk and fragments of bark just on or an inch or two above the surface of the ground, and tunnels the stem for from 6 to 10 inches, the tunnel being nearly wholly underground, and sometimes extending into a root. If the stem is accidentally broken it spins a chimney to the surface of the ground. When about to pupate it shuts off the upper part of the chamber, and forms a new short spout, through which it emerges. The pupa is placed at the bottom of the long tunnel, the moth leaves the pupal shell there, and creeps up the tunnel to the surface.

Type in Coll. Walsingham.

XYLORYCTA BASILEIA, n. sp.

Male and female, 17-19 mm. Head, purple-fuscous; lower part of face yellow. Palpi purple-fuscous; lower part of second joint yellow anteriorly. Antennæ dark fuscous; ciliations in male very short (one-fifth). Thorax golden-yellow. Abdomen ochreous-fuscous; tuft ochreous. Legs yellowish; anterior and middle pairs fuscous anteriorly. Forewings elongate-oblong; costa arched, in male more strongly; apex round-pointed; hindmargin oblique, rounded beneath; deep shining purple; extreme base and a median band golden-yellow;

median band transverse, biconcave; cilia fuscous. Hindwings scarcely broader than forewings; hindmargin sinuous; grey, towards base ochreous-tinged; cilia pale ochreous, with a suffused greyish median line.

Allied to *X. lætiorella*, Wlk., but readily distinguished by the wholly dark cilia of forewings.

Townsville, Queensland, in October; a series bred by Mr. F. P. Dodd.

Type in Coll. Walsingham.

BRACHYBELISTIS, n. g.

Head with appressed scales. Palpi slender, recurved, short, not reaching base of antennæ; terminal joint minute, pointed. Maxillary palpi minute. Tongue obsolete. Antennæ in male simple, moderately ciliated. Thorax not crested. Forewings with vein 2 from three-fourths to five-sixths, 7 and 8 stalked, 7 to termen. Hindwings with 3 and 4 stalked, 6 and 7 connate or stalked.

Differs from *Xylorycta*, Meyr., in the very short palpi, with minute terminal joint. It is certainly a good genus, the known species being closely related and having a peculiar facies.

BRACHYBELISTIS NEOMORPHA, Turn.

(*Xylorycta neomorpha*, Turn., Annals Queensland Mus., iv., 13, 1897.)

The hindwings differ in the two sexes. In the male they are dark fuscous, with ochreous-whitish cilia, in the female both hindwings and cilia are grey. The anterior and middle tibiae and tarsi and posterior tarsi are crimson in the male, pale crimson in the female.

Cryptophaga blackburnii, Low. Tr. Roy. Soc., S.A., 1892, p. 15, appears to be a closely allied species.

BRACHYBELISTIS PENTACHROA, Low.

(*Xylorycta pentachroa*, Low. Trans. Roy. Soc., S.A., 1901, p. 83.)

Male, 21 mm. Head and antennæ blackish; antennal ciliations moderate ($1\frac{1}{2}$). Palpi ochreous. Thorax blackish. patagia ochreous. Abdomen blackish, dorsum of third segment ochreous. Legs ochreous, femœa dark fuscous. Forewings elongate, costa very slightly arched, apex round-pointed, termen nearly straight, oblique; ochreous-yellow; a blackish discal dot before middle, confluent with a large blackish blotch, which occupies whole posterior half of wing except costal and

terminal margins; cilia ochreous-yellow. Hindwings rather elongate, termen slightly rounded; pale ochreous yellow; a broad blackish terminal band; cilia pale ochreous-yellow, near tornus blackish.

Female, 30-37 mm. Head whitish, pinkish-tinged. Palpi ochreous. Antennæ whitish. Thorax whitish, pinkish-tinged; two elongate posterior dark grey spots. Abdomen grey; third segment ochreous; apices of segments pale ochreous. Legs ochreous. Forewings elongate, costa moderately arched, apex round-pointed, termen nearly straight, oblique; whitish, pinkish-tinged; with four oval ochreous spots, bordered with blackish scales and surrounded with more or less blackish irroration; first spot in disc at one-third, second obliquely beyond and below first, third and fourth closely approximated, arranged transversely in disc before two-thirds, the latter more elongate; cilia pale grey, apices ochreous-fuscous. Hindwings pale yellowish; a suffused pale grey terminal band; cilia pale grey.

No one would have considered these dissimilar insects to be sexes, but Mr. Dodd, who has bred a series, and in whom I have every confidence, assures me that that is the case. I think this must be identical with the species described by Mr. Lower, although if so he has described a female type as the male.

Townsville, Queensland, in December; three specimens received from Mr. F. P. Dodd.

LICHENAUULA CANDESCENS, Low.

(*Xylorycta candescens*, Lower. Tr. R.S., S.A., 1896, p. 163; *Lichenaula dissimilis*, Turner. Annals Queensland Mus., 1897, iv., p. 18.)

Charters Towers, Townsville, and Brisbane, Queensland.

LICHENAUULA COMPARELLA, Wlk.

(*Æcophora comparella*, Wlk., Tin., 681; *Lichenaula callisema*, Turn., Annals Queensland Mus., iv., p. 19.)

I have examined and identified Walker's type in the British Museum.

I may here remark that the large genera, *Xylorycta* and *Lichenaula*, are in an unsatisfactory position at present, and will need revision. The stalking or separation of veins 6 and 7 of the hindwings is certainly variable in several species.

LICHENAUULA ALLOCROSSA, n. sp.

Male and female, 22-25 mm. Head and palpi clear brown. Antennæ fuscous; in male slightly serrate, with short ciliations

($\frac{1}{2}$). Thorax whitish-grey; anteriorly dark brown. Abdomen grey, mixed with brown on dorsum, tuft of male whitish. Legs fuscous; posterior femora and tibiae ochreous-whitish. Forewings elongate-oblong, costa slightly arched, apex rectangular, hindmargin straight, not oblique; grey-whitish mixed with dark fuscous scales, which tend to form streaks on veins; an obscure longitudinally elongate brown spot at end of cell; hindmargin clear brown except at anal angle; cilia narrowly white at bases, then broadly brown-fuscous, then pale fuscous mixed with whitish, at anal angle wholly grey-whitish. Hindwings somewhat broader than forewings, hindmargin rounded; ochreous-fuscous-whitish; cilia whitish with a grey line at one-third.

Mount Elliott, near Townsville, Queensland, in September; a series bred by Mr. F. P. Dodd.

Type in Coll. Walsingham.

PLECTOPHILA DISCALIS, Wlk.

(*Acontia discalis*, Wlk., suppl. 786; *Plectophila discalis*, Meyr., Tr. R.S., S.A., 1890, 55; *Lichenaula inscripta*, Turn., Annals Queensland Mus., iv., 21, Trans. Roy. Soc., S.A., 1900, p. 9.)

LICHENAULA CASTANEA, n. sp.

Female, 17 mm. Head white. Palpi long, terminal joint as long as second; whitish, apical portion of terminal joint fuscous. Antennae fuscous, basal joint white. Thorax whitish (rubbed). Abdomen reddish-ochreous-fuscous, apices of segments and tuft whitish-grey; beneath dark fuscous, irrorated with whitish. Legs whitish. Forewings elongate-oblong, costa moderately arched, apex rounded, hindmargin but little oblique, rounded beneath; whitish irrorated with reddish-brown and purple-brown scales forming very confused markings; the purple-brown scales predominate along inner margin, the reddish-brown tend to form four suffused nearly equi-distant transverse fasciæ. Of these, the last, which is hindmarginal, is the best marked; cilia white, mixed with bright reddish-brown. Hindwings grey; cilia ochreous-whitish, with a fuscous line at one-third, towards anal angle grey.

Not very near any other species.

Birchup, Victoria; one specimen in November.

Type in Coll. Lyell.

LEPTOBELISTIS, n. g.

Head with loosely appressed hairs. Tongue very small and weak. Antennæ in male strongly ciliated. Palpi short, recurved, slender, not reaching vertex; second joint with appressed scales; terminal joint about half second, slender, acute. Thorax smooth. Abdomen slender. Forewings with vein 2 from five-sixths, 3 from angle, 7 and 8 long-stalked, 7 to hindmargin. Hindwings with 3 and 4 separate at base, 6 and 7 stalked to four-fifths of their length.

The long-stalking of veins 6 and 7 of the hindwings and the short palpi, with well-developed, slender, terminal joint, sufficiently characterise this genus.

LEPTOBELISTIS ASEMANA, n. sp.

Male and female, 12-15 mm. Head white. Palpi white; second joint with a subapical fuscous ring. Antennæ dark fuscous; in female white; ciliations in male 2. Thorax dark fuscous, irrorated with white. Abdomen ochreous-fuscous; tuft whitish. Legs white; anterior and middle pair dark fuscous anteriorly. Forewings rather narrow, costa slightly arched, apex round-pointed, hindmargin straight, oblique; white, sparsely irrorated with dark fuscous; three large fuscous spots on inner margin at base, middle, and anal angle; cilia dark-fuscous mixed with white. Hindwings and cilia pale grey.

Townsville, Queensland, in November; a series bred by Mr. F. P. Dodd.

Type in Coll. Walsingham.

CLERARCHA POLIOCHYTA, n. sp.

Male and female, 20-28 mm. Head, palpi, and thorax white, very sparsely irrorated with dark fuscous. Abdomen grey. Legs white, irrorated, and tarsi annulated with dark fuscous. Forewings elongate-oblong, costa slightly arched at base, thence nearly straight to near apex, apex round-pointed, termen obliquely rounded; pale grey, mixed with white and dark fuscous; a short narrow vertical dark fuscous line from fold in disc at one-third; a dark fuscous discal dot surrounded by white at two-thirds; a sub-terminal series of dark fuscous streaks on veins; a series of minute terminal dark fuscous dots obsolete towards costa; cilia grey, bases and extreme apices white. Hindwings elongate-ovate, termen slightly sinuate; grey; cilia whitish with a grey line at one-third.

Townsville, Queensland, in September; four bred specimens received from Mr. F. P. Dodd.

Type in Coll. Walsingham.

ILLIDGEA ÆTHALODES, n. sp.

Male and female, 22-26 mm. Head, thorax, and palpi dark grey mixed with whitish. Antennæ dark fuscous. Abdomen whitish-grey or grey. Legs white, irrorated and annulated with dark fuscous; posterior pair mostly white. Forewings broad, oblong, costa rather strongly arched at base, thence straight, apex rectangular, hindmargin straight, slightly sinuate, not oblique, rounded beneath, inner margin strongly curved at base; dark grey mixed with whitish, markings black; a strong line from base of costa along basal part of inner margin; a fine transverse streak from costa before middle, not reaching inner margin; this is preceded by two shorter streaks from costa, which are connected in disc with each other and with basal line; an inwardly oblique streak from costa at three-fourths, rather broad on costa, narrowing, and reaching to little beyond middle of disc; a fine erect streak, succeeded by a white shade, from before anal angle, bent slightly outwards in disc, so that it passes well posteriorly to costal streak; some fine blackish lines on posterior veins; a fine blackish hindmarginal line; cilia dark grey mixed with whitish. Hindwings as broad as forewings, hindmargin rounded; grey; in male whitish towards base, in female wholly grey; cilia grey-whitish with a darker line at one-third.

Unlike *I. epigramma*, Meyr., this species appears to be very constant in its markings. From the former species it is best distinguished by the posterior line being broken into two separate streaks.

Townsville, Queensland, in September and October; a series bred by Mr. F. P. Dodd.

Types in Coll. Walsingham.

UZUCHA HYPOXANTHA, Low.

(*Uzucha hypoxantha*, Low., Trans. Roy. Soc., S.A., 1894, p. 88. *Gonioma xanthopsis*, Turn., Annals Queensland Mus., iv., p. 28, 1897.)

Veins 6 and 7 of hindwings may be either approximated at base, connate, or short-stalked; vein 7 of forewings either to apex or slightly to the costal side of apex. My genus, *Gonioma*, must, therefore, be quashed.

This species varies in size from 23 to 42 mm.

PROCOMETIS STENARGA, n. sp.

Male and female, 22-25 mm. Head, thorax, palpi, and antennæ blackish, irrorated with white. Abdomen ochreous-fuscous; in female grey; apices of segments and tuft in male

pale ochreous. Legs white mixed with dark fuscous; posterior pair whitish-ochreous. Forewings elongate, costa moderately arched, apex rounded, hindmargin obliquely rounded; white irrorated with blackish; middle of costa narrowly clear white; two indistinct darker spots in disc at and below middle in posterior part of disc a tendency to longitudinal parallel to veins; cilia dark fuscous, mixed with white. Hindwings ochreous-fuscous; towards base paler, towards apex fuscous; cilia ochreous-fuscous with a darker basal line; in female hindwings and cilia are grey.

Near *P. genialis*, Meyr., which has brighter hindwings and a brownish spot on forewings.

Gisborne, Victoria, in February; two specimens taken by Mr. S. Lyell.

PROCOMETIS DIPLOCENTRA, Meyr.

In Annals Queensland Museum, iv., p. 29, I threw some doubt on the occurrence of this species in Queensland. Since then I have seen specimens from Duaringa which answer to the description with exactness. I am now satisfied that the specimen attributed to it from Tasmania, though closely similar, is not identical.

AGRIOPHARA HORRIDULA, Meyr.

(Trans. Roy. Soc., S.A., 1890, p. 77. *Agriophara leucanthes*, Turn., Annals Queensland Mus., iv., p. 31, 1897.)

I have compared my type with Mr. Meyrick's.

ZYGÆNIDÆ.

MONOSCHALIS MIMETICA, n. sp.

Male and female, 20-27 mm. Head orange. Fillet and antennæ blackish, with a purple lustre. Thorax blackish, with a large orange posterior spot. Abdomen blackish, with five broad orange annulations; basal and apical segments blackish. Legs blackish. Forewings elongate-triangular, costa gently arched, apex round-pointed, termen very oblique, gently rounded; blackish, with pale orange spots; a longitudinal streak in mid-disc near base; an approximately triangular spot below costa beyond middle, succeeded beneath by an oval spot indented posteriorly, and that by a small roundish spot above tornus; a subapical spot indented posteriorly once or twice, sometimes partly divided by fine blackish lines on veins; cilia blackish. Hindwings short, triangular, costa abruptly arched, termen gently rounded; blackish; a large basal pale orange spot divided by a fine blackish line on median vein,

and less distinctly on internal veins; a second roundish spot beneath middle of costa; cilia blackish.

This species closely resembles *Thyrassia subcordata*, Wlk., from India, but vein 10 of forewings is free. Both genera will be found characterised in Hampson's "Moth of India," vol. i., p. 238. Possibly they may eventually be amalgamated. In the present species veins 8 and 9 of forewings are variable, being either separate or short-stalked.

Not only is the shape, pattern, and coloration of the fore and hind wings that of a *Syntomid*, but the neuration of the hindwings is very deceptive at first sight. The distal part of vein 8 is wanting, but the proximal part (costal vein) is well marked. The subcostal vein is weak, and may be overlooked, so that at first it may appear that the costal vein is altogether wanting. More careful examination shows that the resemblance to the neuration of the *Syntomidæ* is merely superficial and misleading.

Townsville, Queensland, in January, February, and March; a series received from Mr. F. P. Dodd, who informs me that the larvæ are short and thick, whitish, with weak hairs, and feed on a species of *Vitis*.

ZEUZERIDÆ.

XYLEUTES NEPHOCOSMA, n. sp.

Male, 50 mm.; female, 62 mm. Head grey; face whitish-grey. Antennæ pale ochreous; in female whitish. Thorax grey; in male with two longitudinally black lines diverging posteriorly and some blackish scales on posterior margin. Abdomen whitish-grey in male; grey in female. Forewings narrow-elongate, costa slightly arched, more strongly in female, apex round-pointed, hindmargin very oblique, rounded beneath; whitish-grey; mottled and blotched with darker grey, which forms three squarish blotches near base, beneath costa at two-fifths, and above inner-margin beyond middle; and an elongate shade before and parallel to upper half of hind margin; a series of dark fuscous dots on costa; a series of short transverse dark fuscous strigulæ from inner-margin, sometimes united by a fine irregular longitudinal line; cilia whitish, barred with fuscous on veins. Hindwings elongate, hindmargin scarcely rounded, sinuate before anal angle; whitish; in female grey; cilia as forewings.

In my male type there is a bar between veins 7 and 8 of hindwings beyond cell (not opposite the cell as in *Zeuzera*). This is absent in the female.

Townsville, Queensland, in November and December; two specimens received from Mr. F. P. Dodd, who bred them from larvæ found in stems of *Melaleuca leucodendron*. He informs me that the specimens are rather small examples.

XYLEUTES ZOPHOPLECTA, n. sp.

Male, 42 mm. Head, thorax, and antennæ dark fuscous. Abdomen dark grey. Forewing narrow-elongate, costa slightly arched, apex rounded, hindmargin very obliquely rounded; dark grey; apical half suffused towards costa with whitish-grey; the whole disc closely strigulated with black, strigulæ coarse towards base, very fine over suffused area; a few whitish-grey scales along lower part of hindmargin; cilia fuscous with a few whitish-scales. Hindwings and cilia dark grey.

Townsville, Queensland, in December; one specimen received from Mr. F. P. Dodd.

TRYPANIDÆ.

DUDGEONA ACTINIAS, n. sp.

Male and female, 31-43 mm. Head and thorax dark reddish-brown; apices of tegulæ ochreous; thorax with a large bifid posterior crest. Abdomen whitish-ochreous. Legs whitish-ochreous; anterior and middle tibiæ mostly dark reddish-brown. Forewings elongate-oblong, posteriorly dilated, costa slightly arched, apex rounded, hindmargin scarcely oblique, rounded beneath; dark reddish-brown; towards costa, hindmargin, and base of inner-margin paler and interrupted by numerous small ochreous spots; a cluster of five to nine shining snow white rounded spots on inner-marginal part of basal third of disc; a series of four or five similar spots of unequal sizes along hindmargin; preceded by three or four similar spots in central part of hindmarginal area; cilia dark reddish-brown. Hindwings elongate-ovate, hindmargin slightly rounded; pale ochreous, partly suffused with brownish; cilia whitish-ochreous.

This magnificent species appears to agree in structural characters with Hampson's genus *Dudgeona*, of which I was able to examine the type, an Indian species, in the British Museum. It certainly suggests a relationship to the *Tortricina*.

Townsville, Queensland, in December; several specimens received from Mr. F. P. Dodd, who states that the larvæ have the habits of *Xyleutes*. Like that genus, the pupa has to break through a thin covering of bark, and then protrudes while the moth emerges.

XYLORYCTIDÆ.

PILOSTIBES EMBRONETA, n. sp.

Male and female, 30-46 mm. Head brown-whitish; face white. Palpi white; external surface of second joint brownish. Antennæ white; pectinations in male 1. Thorax pale brown. Abdomen whitish, mixed with reddish-brown. Legs brown-whitish. Forewings elongate-oblong, costa strongly arched, apex acute, hindmargin oblique, sinuate beneath apex; pale brown, with a very few scattered dark fuscous scales; a broad streak from base of costa to beyond middle of disc, toothed above at one-third and beneath at two-thirds, white, edged with dark fuscous, apical third narrow and wholly dark fuscous; cilia grey, with a strongly marked dark fuscous basal line. Hindwings $1\frac{1}{2}$, hindmargin rounded; whitish, slightly brownish-tinged; cilia whitish.

Mareeba, Northern Queensland; two imagos bred in August from larvæ feeding in the stems of a crimson-flowered *Callistemon* growing on the banks of the Barron River.

CRYPTOPHASA PSILOCROSSA, n. sp.

Male, 35 mm. Head whitish-brown; face whitish. Palpi whitish. Antennæ dark fuscous; pectinations 1. Thorax ochreous-brown, with a posterior pale ochreous spot. Abdomen dark fuscous; second segment orange-ochreous; tuft whitish-ochreous. Legs whitish-brown annulated with dark fuscous; posterior pair mostly dark fuscous. Forewings somewhat dilated near base; costa slightly arched, apex round-pointed, hindmargin obliquely rounded; ochreous brown; with five blackish dots in disc; first in disc beyond one-third; second in disc at two-thirds; third before and beneath second; fourth and fifth close together, above and beneath fold, equi-distant from first and third; an interrupted blackish line on lower two-thirds of hindmargin; cilia ochreous-brown. Hindwings much broader than forewings, hindmargin rounded; dark fuscous; a narrow strip denuded of scales from apex along apical half of hindmargin; cilia white.

In general appearance resembles the male of *C. balteata*, Wlk., but the wings are broader and differently shaped. It also differs in the pale spot on thorax, absence of dots on costa of forewings; and partly bare margin and white cilia of hindwings. The female is not yet known.

Brisbane, in October; one specimen bred from *Eucalyptus*.

CRYPTOPHASA HYALINOPA, Low.

(Trans. Roy. Soc., S.A., 1901, p. 82.)

Male, 31-32 mm. Head and palpi whitish. Antennæ blackish, pectinations 1. Thorax pale pinkish-white. Abdomen blackish; apices of segments whitish; second segment reddish-orange. Legs whitish, anterior pair pinkish, annulated with blackish. Forewings rather narrow, costa nearly straight, apex round-pointed, hindmargin very obliquely rounded; slaty-brown; with five black discal dots; first at one-third of disc and one-third from costa; second before two-thirds of disc and one-third from costa; third before and below second; fourth and fifth closely approximated, above and below fold, about midway from first and third; cilia pale fuscous, with a dark fuscous basal line. Hindwings $1\frac{1}{2}$; hindmargin slightly rounded; blackish; apical two-fifths free from scales and transparent; the line of division sharp, somewhat dentate; cilia white.

Female differs as follows: 65-70 mm. Antennæ white, finely annulated with dark fuscous. Forewings broader, costa moderately arched, hindmargin less oblique; pinkish; cilia with a series of blackish basal dots. Hindwings white, with an inner-marginal hairy patch. Abdomen with apical segments whitish.

Townsville, Queensland, in October; bred abundantly from *Eucalyptus* sp. by Mr. F. P. Dodd.

CRYPTOPHASA SACERDOS, Wlsm., M.S.

Male, 37 mm. Head pale reddish-orange. Palpi white, terminal joint dark fuscous. Antennæ black, pectinations 2, 3. Thorax white, anteriorly faintly suffused with reddish-orange. Abdomen dark fuscous. Legs blackish, with white annulations. Forewings oblong, costa slightly arched at base, thence nearly straight, apex obtuse, hindmargin slightly oblique, rounded; blackish-fuscous, without markings; cilia white, basal one-fourth dark fuscous. Hindwings dark fuscous; cilia fuscous.

Female differs as follows: 50-54 mm. Abdomen dark fuscous, with white annulations, terminal segment white. Forewings clear white, base sometimes suffused with fuscous; a black dot in disc at three-fifths; a row of black dots along apical third of costa and hindmargin; cilia white. Hindwings fuscous; along costa white; some obscure blackish dots on hindmargin; cilia white, towards anal angle greyish.

The sexes are very different.

Brisbane, larvæ tunnelling the stems of *Eucalyptus* (Bloodwood).

Types in Coll. Walsingham.

CRYPTOPHASA EUGENIÆ, Luc.

(Proc. Roy. Soc., Queensland, 1899, p. 153.)

In the "Annals of the Queensland Museum," No. iv., p. 10 (1897) I wrongly identified this species with *C. pultenaeæ*, Lewin, but now recognise its distinctness. It is closely allied to *C. epadelpha*, Meyr., which, however, always lacks the discal dots on the forewing.

CRYPTOPHASA BYSSINOPIS, n. sp.

Male and female, 42-45 mm. Head, thorax, and palpi white. Antennæ in male white; pectinations 4-5; in female dark grey, towards base white. Abdomen white; second segment bright reddish-ochreous above. Legs white; tarsi annulated with blackish; anterior tibiæ blackish anteriorly. Forewings elongate-oblong, costa moderately arched, apex rounded, hindmargin obliquely rounded; vein 2 from near middle of cell; snow white; with three blackish discal dots, first in disc at one-third, second in disc beyond middle, third beneath and posterior to second; a series of minute blackish dots on hindmargin; cilia white. Hindwings white, with minute hindmarginal blackish dots sometimes obsolete; cilia white.

The sexes are closely similar. Nearly allied to *C. eugeniæ*, Luc., from which the male is readily distinguished by the white hindwings; the female is closely similar to that of *eugeniæ*, but the black dots on margin of wings, especially hindwings, are less developed, and sometimes obsolete.

Townsville, Queensland, in September; a series bred by Mr. F. P. Dodd.

Types in Coll. Walsingham.

CRYPTOPHASA PANLEUCA, Low.

(Trans. Roy. Soc., S.A., 1901, p. 83.)

Male and female, 31-44 mm. Head, thorax, and palpi white. Antennæ white in both sexes; pectinations in male 1½. Abdomen white; second segment bright reddish-ochreous above; apices of three succeeding segments narrowly reddish-ochreous above. Legs white; inner aspect of anterior pair spotted with blackish. Forewings elongate-oblong, costa slightly arched, apex rounded, hindmargin obliquely rounded; white; cilia white. Hindwings white; a series of minute blackish dots along hindmargin.

The sexes are closely similar. This species may be at once distinguished from the preceding by the absence of discal dots.

Townsville, Queensland, in September; a series bred by Mr. F. P. Dodd. The larvæ bore the stems of species of *Tristania*.

THOSEA PENTHIMA, n. sp.

Male, 28 mm. Head, palpi, thorax, and abdomen dull brown. Antennæ whitish, pectinations ochreous-whitish, in male pectinated to apex. Legs dull brown; posterior tibiæ with two pairs of spurs. Forewings triangular, costa straight to near apex, apex obtusely rectangular, termen strongly bowed, slightly oblique; whitish-grey, suffused with brownish, with a few scattered dark fuscous scales, absence of brownish suffusion leaves a pale oblique fascia, its anterior edge much suffused, its posterior edge sharply defined by a fuscous line from costa at five-sixths to dorsum at two-thirds; a minute dark fuscous discal dot in fascia; a pale terminal band from absence of brownish suffusion; cilia brownish-fuscous. Hindwings with termen rounded; veins 6 and 7 stalked; pale brownish; cilia as forewings.

Townsville, Queensland, in April; one specimen received from Mr. F. P. Dodd, who informs me that the larvæ are oval and very broad, covered with numerous tufts of stinging spines, and feed on *Careya australis*.

ELASSOPTILA, n. g.

Head with rounded anterior cone of scales. Palpi very long, porrect, second joint five times breadth of eye, with projecting scales at apex, terminal joint about one-fourth second, obliquely ascending, stout, tolerably acute. Tongue absent. Antennæ in male with long coarse double pectinations continued almost to apex; in female filiform. Posterior tibiæ with two pairs of long spurs. Forewings with 2 from five-sixths, 4 from angle, 5 from shortly above angle, 6 from near middle of cell, 7, 8, 9 stalked. Hindwings with 3 and 4 connate, 5 parallel to 4, 6, and 7 long-stalked.

The peculiar palpi are sufficient to distinguish this genus.

ELASSOPTILA MICROXUTHA, n. sp.

Male, 14-16 mm. Head and thorax brown. Palpi brown, apex and internal surface ochreous-whitish. Antennæ dark fuscous. Abdomen fuscous mixed, except at apex, with orange-ochreous. Legs fuscous annulated with ochreous whitish. Forewings triangular, costa strongly arched, apex rounded, termen rounded, oblique; brown; an obscure fus-

cous erect mark from dorsum before middle; a straight oblique whitish line from costa at two-thirds towards tornus, its lower extremity attenuated and only represented by minute dots on veins; cilia dark brown. Hindwings with termen rounded; fuscous-brown, an elongate orange-ochreous spot in dorsal part of mid-disc; cilia fuscous-brown.

Female, 20 mm. Forewings more elongate. Abdomen wholly ochreous. Color and markings of wings less distinct.

This species has rather the *facies* of a small *Lymantriad*.

Mount Tambourine, Queensland, in December, February, and March. The male found plentifully flying in a rapid zig-zag course within the dense forest a few inches from the ground. I took only one female.



1902. "New Australian Lepidoptera." *Transactions of the Royal Society of South Australia* 26, 175–207.

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