

AUSTRALIAN LEPIDOPTERA OF THE GROUP GEOMETRITES.

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Hitherto I have regarded the moths here dealt with as forming a single family, the Geometridae. Recent study of the families belonging to the Noctuoidea (Caradrinina of Meyrick) has caused me to revise my opinions. The families Syntomidae, Arctiidae, Hypsidae, Nolidae, and Noctuidae, though natural and necessary, yet in the structure of their more typical and primitive genera are so closely allied, that we must reconsider the value of our family groups of other sections of the Lepidoptera. There should be a general correspondence in the structural value of family characters, though a precise equivalence is, of course, impossible. I propose, therefore, to regard the Larentiidae, etc., no longer as merely subfamilies, but as groups of family rank. This was indeed done long since by Mr. Meyrick in his British Lepidoptera where he includes them with the Notodontoidae and other families in the larger group Notodontina. The weak point in this classification, it has seemed to me, is that the relationship, that binds together the geometrid families into one group, is not expressed, but is lost in the larger and looser complex. This difficulty may be avoided, and I think its avoidance is necessary for any satisfactory classification, by placing them as a distinct division, the Geometrites, in a larger group the Notodontoidea, which I conceive as corresponding generally, but not exactly, with Meyrick's Notodontina.

The first three families I have already revised in former publications, but much remains to be added to bring them to completeness at the present date. The Oenochromidae I have not yet studied in detail, and of the Boarmiidae I have published only a partial and incomplete revision. In these two families I shall merely describe a small number of new forms.

Fam. LARENTIADAE.

I give a new key to the Australian genera, in which many of the names differ from those formerly adopted. Mr. L. B. Prout informs me that it has been ascertained that the names *Cidaria*, *Larentia*, etc., of Treitschke were published earlier than *Hydriomena*, *Xanthorhoë*, etc., of Hubner. He has also helped me much by indicating the European types

of some of our genera. The following list indicates the changes in name now introduced:—*Euchoeca*, Hb., becomes (1) *Cretheis*, Meyr.; (2) *Euchoeca*, Hb. *Asthena*, Hb., becomes (1) *Poecilasthena*, Warr.; (2) *Minoa*, Treit. *Scordylia*, Gn., becomes *Chaetolopha*, Warr. *Eucymatoge*, Hb., Sect. 1, 2, and 3, become *Horisme*, Hb.; *Eucymatoge*, Hb.; *Eccymatoge*, Prout. *Hydriomena*, Hb., Sect. 1, and Sect. 2 and 3 together become *Euphyia*, Hb., and *Cidaria*, Treit. *Xanthorhoë*, Sect. 1 and 2, become *Xanthorhoë*, Hb., and *Larentia*, Treit.

The family is a large one; the numerous genera are closely allied; and their classification is difficult. It is a group which permits of no primary division; all the characters employed for generic distinction are of secondary value. For instance, the smooth face characteristic of the *Asthena* group is found also in *Sauris*, which resembles that group in no other character, and had, I believe, a quite different origin. Again the possession of a single or double areole, though valuable, is a secondary character, which has been independently developed in many instances. By its use we may separate many pairs of genera, which are as closely or more closely allied to each other than to anything else. Such pairs are:—*Euchoeca*—*Minoa*, *Tephroclystis*—*Mnesiloba*, *Chaetolopha*—*Cidaria*, *Epirrhoë* (Europe)—*Euphyia*, *Asaphodes* (New Zealand)—*Xanthorhoë*, *Dasyternica*—*Dasyuris*. Although the character is a valuable one, and indeed indispensable, it is not certain that the generic distinctions thereby made will always be natural; for no reason can be given why this modification, unaccompanied by any other, may not have arisen independently in different unrelated species of the same genus. In two other generic characters, which I consider valid, even more difficulty presents itself. Of these the first is the pectination of the male antennae. This also is a secondary character, and separates groups otherwise similar or identical in structure, *Xanthorhoë* from *Euphyia*, *Larentia* from *Cidaria*, *Asaphodes* from *Epirrhoë*, *Notoreas* from *Dasyuris*, *Venusia* from *Euchoeca*. In addition to this weakness there are also intermediate conditions difficult to classify. For instance, Meyrick places the European *vittata* in *Xanthorhoë*, and this may be its natural position, but the male antennae cannot be termed pectinate. This difficulty might be got over by broadening the definition of the genus, but the Australian *percrassata* and *vacuaria* (the latter also placed by Meyrick in *Xanthorhoë*) have the same antennal structure, and closely similar is that of *strumosata*, while all three species appear to fall more naturally under *Euphyia*. These difficulties occur, however, seldom, and greater difficulties in

classification would, I believe, arise if we reject antennal characters altogether.

It will be seen that some of the objections so forcibly urged by Mr. Meyrick (Trans. N. Z'd. Inst., 1916, p. 248) against the generic value of modifications of the discocellulars and origin of vein 5 of the hindwings apply also to characters which he recognizes as valid. If applied with impartial logic, they would destroy his own, and, I believe, any other possible classification of the family. It must be admitted that here also intermediate forms occur, though rarely, but they are not such as should create any real difficulty. Vein 5, which is the second median vein, arises normally opposite the termination of the upper primary branch of the median trachea, which becomes obsolete in the adult wing, but its point of termination is often traceable, often situated centrally, but often considerably nearer the radius than the cubitus. This is the structure in *Euphyia*, *Xanthorhoë*, and most of the genera of the family. The approximation of 5 to 6 is often conspicuous, but I do not attach generic importance to it, for 5 appears never to rise from *above* the termination of the upper primary branch of the media as it does in the Geometridae (*sensu stricto*). Usually with this origin of 5 the discocellulars are straight or nearly so, but not always (see for instance *Epirrhoë sociata*, Bkh.). In many genera such as *Cidaria* and *Larentia* a striking modification occurs. In them 5 arises from well *below* the termination of the upper primary branch of the media, and there is a strong bend approximating to a right angle at its point of origin. Usually 5 is also strongly approximated to 4 at origin, but not always. In *microcyma*, for instance, it is from not much below the middle, but the discocellular is strongly bent at the usual point (not straight, as erroneously stated in my former revision). This structural division as thus understood appears clear-cut, and I have not so far met with a really doubtful case. Nor do I find that the genera defined by it are less natural than those defined by the areole or antennal pectination, when considered as a whole. It must, however, be admitted that, as Mr. Meyrick points out, difficulties occur in the New Zealand fauna. *Larentia cineraria* is extremely similar to *Xanthorhoë plumbea*, but here the similarity of grey coloration (doubtless protective) and very simple pattern is one that might well have been independently acquired, and I think we can here trust structure before appearance. The case of *X. adonis*, *L. beata*, and *L. benedicta* is more difficult. These certainly at first sight appear nearly allied, the last two, however, rather more closely than the first, which, except in colour, is very

like *X. chorica*. Here also I am inclined to trust structure rather than appearance. The beautiful green coloration, rare elsewhere, is not infrequently developed in this family in New Zealand, and the pattern, although striking, is a very simple modification of that usual in this family. I admit that doubt is possible, and this doubt may be strengthened by the resemblance between *X. nephelias* and *L. serICODES*, which I have not seen. It may be that our structural character here breaks down, and that we may have to admit that our classification is so far imperfect. This I am easily prepared to do. The question to me appears to be, not whether our classification is perfect, but whether, taken as a whole, it is better (more natural), if we reject, or if we admit the generic value of the character in dispute.

Although this question cannot be decided by geographical distribution, yet that may throw some light on it. As I have been able to examine but few of the European species, I have asked Mr. L. B. Prout to give me the results of his examination of those included under *Hydriomena* and *Xanthorhoë* by Meyrick in his study of the European fauna (Trans. Ent. Soc., 1892, p. 53). Two species with the areole simple, species which Meyrick had not been able to examine, are omitted, and *vitatta* has been transferred to *Euphyia*. For the New Zealand fauna my material has been less complete, but through the kindness of Mr. A. Philpott I have been able to examine 43 species, and have included 10 more on the authority of Meyrick or Prout. I have omitted *subochraria* and *subrectaria* as Australian species, which may be natural immigrants into New Zealand, but were probably accidentally introduced, and *praefectata*, which is allied to *Venusia*. I have expressed the result in numbers and percentages:—

| | European Fauna. | | Australia. | | New Zealand. | |
|-----------------------|-----------------|-------|------------|-------|--------------|-------|
| <i>Cidaria</i> ... | 68 | 42.5% | 6 | 6.5% | 0 | 0.0% |
| <i>Larentia</i> ... | 17 | 10.6% | 9 | 9.8% | 17 | 32.1% |
| <i>Euphyia</i> ... | 35 | 21.9% | 64 | 69.6% | 9 | 17.0% |
| <i>Xanthorhoë</i> ... | 40 | 25.0% | 13 | 14.1% | 27 | 50.9% |

Very striking are the great development of *Cidaria* in the European fauna, its slight representation in Australia, and its absence from New Zealand; almost equally so the great development of *Euphyia* in Australia; while *Larentia* and *Xanthorhoë* are most developed in New Zealand.

KEY TO GENERA.

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|---|---------------|
| 1. Face smooth | 2. |
| Face more or less rough-scaled, usually with anterior tuft of scales | 6. |
| 2. Posterior tibiae with terminal spurs only ... | <i>Sauris</i> |
| Posterior tibiae with two pairs of spurs ... | 3. |

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|---|----------------------|
| 3. Areole simple | 4. |
| Areole double | 5. |
| 4. Areole small, 7, 8, 9, 10, 11 stalked | <i>Cretheis</i> |
| Areole large, 11 arising from it separately | <i>Euchoeca</i> |
| 5. Hindwings with discocellulars bent, 5 from below middle | <i>Poecilasthena</i> |
| Hindwings with 5 from above middle of cell | <i>Minoa</i> |
| 6. Areole absent, 7, 8, 9, 10, 11 stalked | 7. |
| Areole well developed | 8. |
| 7. Forewings with 4 and 5 stalked | <i>Antimimistis</i> |
| Forewings with 4 and 5 widely separate | <i>Symmimetis</i> |
| 8. Areole simple | 9. |
| Areole double | 16. |
| 9. Abdomen crested | 10. |
| Abdomen without crests | 12. |
| 10. Posterior tibiae with terminal spurs only | <i>Gymnoscelis</i> |
| Posterior tibiae with two pairs of spurs | 11. |
| 11. Forewings with 11 running into 12 | <i>Chloroclystis</i> |
| Forewings with 11 free | <i>Tephroclystia</i> |
| 12. Forewings with 11 running into 12 or absent | <i>Microdes</i> |
| Forewings with 11 free | 13. |
| 13. Posterior tibiae with terminal spurs only | <i>Anomocentris</i> |
| Posterior tibiae with two pairs of spurs | 14. |
| 14. Thorax smooth beneath | 15. |
| Thorax hairy beneath | <i>Dasysternica</i> |
| 15. Areole small, 11 stalked with 10 | <i>Scotocyma</i> |
| Areole large, 11 arising from it separately | <i>Chaetolopha</i> |
| 16. Abdomen crested | 17. |
| Abdomen without crests | 20. |
| 17. Hindwings with 5 from middle of cell, in male with small tornal lobe | <i>Mnesiloba</i> |
| Hindwings with 5 approximated to 4 or 6, male without tornal lobe | 18. |
| 18. Hindwings with discocellulars angled, 5 from below middle | <i>Eccymatoge</i> |
| Hindwings with discocellulars nearly straight, 5 from above middle | 19. |
| 19. Thorax with a posterior crest | <i>Horisme</i> |
| Thorax not crested | <i>Eucymatoge</i> |
| 20. Hindwings with discocellulars angled, 5 from below middle | 21. |
| Hindwings with discocellulars nearly straight, 5 from above middle, or rarely from middle of cell | 24. |
| 21. Hindwings of male with 4 absent | <i>Heterochasta</i> |
| Hindwings of male with 4 present | 22. |
| 22. Hindwings of male with 6 absent | <i>Polyclysta</i> |
| Hindwings of male with 6 present | 23. |
| 23. Antennae in male ciliated | <i>Cidaria</i> |
| Antennae in male pectinate | <i>Larentia</i> |
| 24. Thorax smooth beneath | 25. |
| Thorax hairy beneath | 28. |
| 25. Antennae in male ciliated | 26. |
| Antennae in male pectinate | 27. |
| 26. Hindwings of male with a well-defined spot or patch of androconial scales on upper side | <i>Melitulias</i> |
| Hindwings of male without androconia | <i>Euphyia</i> |

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|--|-------------------|
| 27. Antennae in male with two pairs of pectinations from each joint | <i>Diploctena</i> |
| Antennae of male with one pair of pectinations from each joint | <i>Xanthorhoë</i> |
| 28. Antennae in male ciliated | <i>Dasyuris</i> |
| Antennae in male pectinate | <i>Notoreas</i> |

SAURIS PEROPHORA, n. sp.

πηροφορος, bearing a pouch.

♂, 30 mm. Head olive-green. Palpi 3, second joint rough-scaled above and beneath, terminal joint moderately long; olive-green, towards base whitish; terminal joint grey, extreme apex whitish. Antennae ochreous-grey. Thorax olive-green. Abdomen smooth, without tufts; grey, on dorsum greenish tinged. Legs greenish-grey; posterior tibiae in male normally developed but without spurs, tarsi elongate, first tarsal joint as long as tibiae. Forewings elongate-triangular, costa moderately arched, apex pointed, termen long, bowed, oblique, in male not incised; whitish largely suffused with green and dark fuscous, which form markings; five narrow transverse fasciae, dark fuscous in middle, green towards costa and dorsum, rather ill-defined; first subbasal, second at $\frac{1}{6}$, third at $\frac{1}{3}$; fourth from $\frac{2}{3}$ costa, somewhat dentate, consisting of several fine parallel lines, at first curved outwards, then inwards, and bent outwards to just before tornus; fifth similar from $\frac{5}{6}$ costa to tornus, containing a squarish fuscous spot above middle; a whitish dentate subterminal line following fifth fascia; a terminal series of dark-fuscous dots on veins; cilia whitish, apices partly fuscous. Hindwings and cilia grey; in male with a large basal dorsal pouch extending half-way to costa and to tornus, the dorsal edge of this pouch forming an erect concave lobe.

North Queensland: National Park (3,000 ft.), in March; one specimen at light. I might have taken more if I had not mistaken it for *S. hirudinata*, which it closely resembles in colour, size, and form. In structural characters it is altogether different and resembles *S. lichenias* rather closely, but the pouch of the hindwings is much larger, the first posterior tarsal joint proportionately longer, and the palpi more roughly scaled, with longer terminal joint.

Gen. CRETHEIS, Meyr.

Face smooth. Tongue present. Palpi short, slender, porrect. Antennae in male simple, shortly ciliated. Thorax without crests, not hairy beneath. Forewings with areole small, simple; 7, 8, 9, 10, 11 stalked from areole. Hindwings with 3 and 4 stalked or separate, 6 and 7 stalked, 12 anastomosing with cell to $\frac{3}{4}$ or beyond. Type, *C. cymatodes*, Meyr.

CRETHEIS CYMATODES, Meyr.

Euchoeca iophrica, Turn.

I am indebted to Mr. L. B. Prout for pointing out this synonymy. Hindwings with 3 and 4 stalked.

North Queensland: Cairns, Herberton. Also from New Hebrides.

CRETHEIS ATROSTRIGATA, Warr.

♂, ♀, 20-25 mm. Head pale ochreous; face ochreous-brown. Palpi whitish-ochreous. Antennae pale ochreous; ciliations in male $\frac{1}{4}$. Thorax pale ochreous. Abdomen pale ochreous with a few fuscous scales on dorsum. Legs whitish-ochreous; anterior and middle pairs pale fuscous on dorsal surface. Forewings triangular, costa straight, slightly arched towards base and apex, apex pointed, termen bowed, oblique; pale ochreous, with more or less pale-fuscous suffusion forming slender, indistinct, undulating, transverse lines; several of these lines form an obscure basal patch; a blackish discal dot beneath $\frac{2}{5}$ costa; a slender, undulating, fuscous line from mid-costa, at first outwardly curved, then oblique to dorsum before middle; this is followed by several less distinct lines, which sometimes combine to form a median fascia; subterminal and submarginal lines sometimes containing each several fuscous dots; sometimes a terminal series of fuscous dots on veins extending into cilia, but these are not always developed; cilia pale ochreous. Hindwings with 3 and 4 separate; termen strongly rounded; as forewings. Underside similar but paler and more suffused. Variable; southern examples are slightly larger than those from Herberton and lack the subterminal fuscous dots, but sometimes have a dark-fuscous tornal spot.

North Queensland: Kuranda, near Cairns, in May; Herberton in October, November, December, and January. Queensland: Rockhampton, Bundaberg in July, Brisbane in December, Rosewood in April.

Gen. POECILASTHENA, Warr.

Type *P. pulchraria*, Dbld. In most of its characters this approaches *Oporinia*, Hb., type *O. dilutata*, Bkh., but I do not think there is any really close relationship. *O. dilutata* differs in the peculiar structure of the areole, of which the dividing bar (vein 10) arises from the end of the cell, and the posterior extremity of the areole is prolonged to reach half-way, or nearly half-way, from cell to apex. In the latter respect it agrees with the allied genus *Operophtera*, Hb., which, however, has the areole simple. To *Poecilasthena* I refer, with one exception, all the Australian species formerly referred to *Asthena*, Hb.

POECILASTHENA THALASSIAS, Meyr.

The male of this species has a very large extrusible tuft of fuscous hairs on the underside of the apex of the abdomen. This will serve to distinguish it from *A. pulchra*; *A. balioloma*, Turn., has also a smaller, stiffer, less woolly tuft in the same situation.

POECILASTHENA STHENOMMATA, n. sp.

σθενομματος, strong-eyed.

♂, ♀, 30-32 mm. Head grey, between antennae whitish; face fuscous-brown, lower edge whitish. Eyes rounded, in female rather large; in male much enlarged, so that a line drawn from one outer edge to the other is longer than the breadth of the thorax. Palpi in female small, in male minute; grey-whitish. Thorax grey mixed with whitish. Abdomen whitish with grey irroration. Legs ochreous-whitish. Forewings triangular, costa slightly arched, middle portion nearly straight, apex acute, termen bowed, oblique, subdentate; whitish with dull-greenish markings, thinly scaled; costa with numerous grey spots, which form the commencement of greenish transverse lines, more or less undulating; a basal patch of three or four close-set lines; a median white band containing two fine interrupted lines, succeeded by a dark-fuscous discal dot beneath mid-costa; beyond this is an undulating greenish fascia containing white dots on veins; terminal area whitish with two or three undulating, greenish, transverse lines; a fine fuscous terminal line interrupted on veins; cilia grey-whitish. Hindwings with termen rounded, dentate, a stronger acute tooth on vein 4; as forewings, but base whitish.

The enlarged eyes of the male is a very exceptional character.

North Queensland: Evelyn Scrub, near Herberton, in January; three specimens received from Mr. F. P. Dodd. New South Wales: Mount Gregson, Liverpool Range, in March; one female, in Coll. Lyell.

POECILASTHENA XYLOCYMA, Meyr.

New South Wales: Moruya, in October; one female specimen corresponding well with a female from Western Australia (Waroona) in May, in Coll. Lyell. Also from Victoria: Melbourne, Beaconsfield.

POECILASTHENA PANAPALA, n. sp.

παναπαλος, all-tender.

♂, 24 mm.; ♀, 28 mm. Head brownish-grey, anteriorly broadly white; face dark fuscous. Palpi whitish; terminal

joint dark fuscous. Antennae dark grey, towards base whitish; ciliations in male minute. Thorax brownish-grey. Abdomen grey, mixed with whitish; paired fuscous dots on dorsum of each segment. Legs fuscous; posterior pair except tarsi whitish on dorsum. Forewings triangular, costa slightly arched, apex round-pointed, termen bowed, moderately oblique; grey-whitish with numerous, fine, curved, brownish-grey, transverse lines and suffusion; a dark-fuscous discal dot beneath $\frac{2}{5}$ costa; a slightly darker slender fascia from $\frac{2}{3}$ costa to mid-dorsum, edged with wavy darker lines; an interrupted fuscous terminal line; cilia brownish-grey, apices paler. Hindwings with termen rounded, slightly wavy, and slightly angled on vein 4; as forewings but without discal dot. Underside grey, with obscurely darker discal dots on both wings, two obscure lines on forewing and three on hindwing towards termen.

Very near *P. xylocyma*. The best point of distinction in the female appears to be in the terminal line, which does not consist of paired dark-fuscous dots. The male has no recurved hairs on tornus of hindwings.

New South Wales: Mount Kosciusko (5,500-6,000 ft.) in January, two male specimens; Wentworth Falls, near Katoomba, in April, one female in Coll. Lyell.

Gen. MINOA, Treit.

Type *M. murinata*, Scop., from Europe. This genus comes very close to *Asthena*, Hb., type *A. candidata*, Schiff., which differs in having 7, 8, 9, 10, and 11 stalked from areole. The stalking of 11 is unusual in the family and appears to be a good generic character. Only one Australian species, *M. euthecta*, Turn., has been recognized.

Gen. ANTIMIMISTIS, nov.

ἀντιμιμιστής, imitating, modelled after.

Frons with strong anterior tuft of scales. Tongue present. Palpi rather long, porrect or obliquely ascending; second joint thickened with appressed scales; terminal joint short, obtuse. Thorax with a small posterior crest. Abdomen with a series of small dorsal crests. Posterior tibiae with terminal spurs only. Forewings with 2 from $\frac{4}{5}$, 3 from near angle, 4 and 5 long-stalked from angle, 6 from upper angle, areole absent, 7, 8, 9, 11 stalked from before angle, 10 absent, 11 running into 12. Hindwings with 2 from $\frac{2}{3}$, 3 and 4 separate but approximated at origin, 5 from middle of cell, 6 and 7 stalked, 8 anastomosing with cell to $\frac{4}{5}$.

Certainly one of the *Gymnoscelis* group, and probably directly connected with *Symmimetis*, but in all other

Geometrites vein 5 of forewings arises from the middle, or above the middle of cell, with the exception of *Microdes*, in which it arises from below the middle, apparently in consequence of the development of some secondary sexual characters in the male. The stalking of 4 and 5 is an extraordinary anomaly in this family; possibly the discovery of the male may suggest some explanation.

ANTIMIMISTIS ILLAUDATA, n. sp.

illaudatus, obscure.

♀, 20-22 mm. Head grey. Palpi $1\frac{1}{2}$; whitish-ochreous sometimes greenish tinged. Antennae grey. Thorax grey. Abdomen grey; dorsum of second segment pale greenish-ochreous. Legs grey; anterior pair fuscous with whitish annulations on tarsi. Forewings triangular, costa nearly straight, gently arched towards apex, apex rounded, termen bowed, oblique; fuscous-grey with obscure whitish lines; first from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum, indistinct, wavy; second from $\frac{2}{3}$ costa to $\frac{2}{3}$ dorsum, slender, outwardly bowed, irregularly dentate; a fine parallel fuscous line succeeds this, and then a pale suffused line; a fine dentate subterminal line; cilia fuscous-grey. Hindwings with termen rounded, wavy; as forewings. Underside similar but more suffused.

North Queensland: Kuranda, near Cairns, in November and April; two specimens received from Mr. F. P. Dodd.

SYMMIMETIS MUSCOSA, Turn.

North Queensland: Kuranda, near Cairns, in October; Evelyn Scrub, near Herberton, in December. Queensland: Brisbane, in April.

SYMMIMETIS SYLVATICA, n. sp.

sylvaticus, of the woods.

♂, ♀, 18-21 mm. Head fuscous. Palpi fuscous, towards base ochreous-whitish. Antennae fuscous; ciliations in male $2\frac{1}{2}$. Thorax grey mixed with fuscous. Abdomen pale greenish-ochreous with some fuscous scales; tuft in male whitish. Legs whitish-ochreous; anterior pair fuscous with whitish-ochreous annulations on tibiae and tarsi. Forewings broadly triangular, costa gently arched, apex rounded, termen bowed, oblique; whitish-ochreous suffused with fuscous, which forms indistinct markings; a large fuscous basal patch; a dark-fuscous discal dot at $\frac{1}{3}$ on end of cell, and near posterior edge of basal patch; immediately following this a broad, dentate, transverse, whitish-ochreous line, indistinct towards dorsum; a broad median fuscous fascia containing some

blackish scales on veins, defined posteriorly by a fine, whitish, crenate line from $\frac{2}{3}$ costa to $\frac{3}{4}$ dorsum, bent outwards in disc; a fine fuscous parallel line follows this, then a suffused whitish-ochreous fascia; a fuscous terminal band containing a fine, dentate, whitish subterminal line; a terminal series of whitish-ochreous dots on veins; cilia pale fuscous barred with whitish-ochreous opposite veins. Hindwings with termen rounded, slightly wavy; pale greenish-ochreous with patchy brownish irroration and a few blackish scales; a blackish discal dot at $\frac{1}{3}$; cilia whitish-ochreous. Underside whitish with fuscous discal dots, subbasal, median, postmedian, and terminal fuscous fasciae, postmedian of forewing angled outwards in middle.

North Queensland: Evelyn Scrub, near Herberton, in December, January, and February; eight specimens received from Mr. F. P. Dodd.

GYMNOSCELIS LOPHOPUS, Turn.

Gymnoscelis homogona, Turn., is a synonym.

North Queensland: Cairns, Herberton, Townsville. Queensland: Brisbane. Not uncommon in the last locality. New South Wales: Lismore.

GYMNOSCELIS SUBRUFATA, Warr.

Forewings with 11 free.

Queensland: Duaringa, Brisbane, in February; one specimen taken at rest on a gate.

GYMNOSCELIS TANAOPTILA, Turn.

I have received a female example from Kuranda in November like male but smaller (18 mm.); posterior tibiae with terminal spurs only.

GYMNOSCELIS ACIDNA, Turn.

Forewings with 11 running into 12.

North Queensland: Cairns, Townsville.

GYMNOSCELIS SPODIAS, n. sp.

σποδος, ashes.

♂, ♀, 13-16 mm. Head whitish; sides of face and palpi dark fuscous. Antennae grey, towards base whitish; ciliations in male $\frac{1}{2}$. Thorax and abdomen grey-whitish. Legs whitish; anterior pair mostly fuscous with whitish tarsal annulations. Forewings triangular, costa gently arched, apex rounded, termen bowed, oblique; 11 anastomosing with 12; whitish with grey-whitish suffusion and obscure markings;

very faintly marked whitish transverse lines, subbasal, ante-median outwardly bowed, postmedian outwardly bowed, double, subterminal sometimes dentate; a few scattered blackish scales; blackish spots on costa near base, $\frac{1}{4}$, $\frac{3}{8}$, middle, and $\frac{7}{8}$, that on middle larger; a blackish spot in disc beneath second costal spot following subbasal line; a large blackish spot beneath mid-costa preceding postmedian line; cilia grey-whitish. Hindwings obtusely incised on vein 5, and with a rounded prominence on vein 4; as forewings but with one blackish spot preceding postmedian line, which forms a rounded projection in middle. Underside whitish partly suffused with grey.

Near *G. acidnias*, but much paler, lines much more obscure, except where partly defined by blackish spots.

North Queensland: Evelyn Scrub, near Herberton, in December; Atherton. Queensland: Montville (1,500 ft.), near Nambour, in March. New South Wales: Stanwell Park, in April (Lyell). Four specimens.

GYMNOSCELIS KENNII, n. sp.

♀, 16 mm. Head brown; face and palpi blackish. Antennae pale brown. Thorax brown. Abdomen brown, dorsum suffused with blackish except towards base; tuft brown. Legs pale brown. Forewings triangular, costa nearly straight, towards apex arched, apex rounded, termen slightly bowed, crenulate, strongly oblique; 11 running into 12; pale brown; markings and a few scattered scales blackish; a costal streak from base to beyond middle; a line from $\frac{1}{3}$ costa, bent inwards beneath costa, thence strongly oblique to near base of dorsum; a second line from $\frac{2}{3}$ costa, at first outwardly oblique, strongly bent inwards on vein 6, forming a second prominence on vein 4, bent outwards a third time above dorsum, ending on $\frac{3}{4}$ dorsum; a broad dark-fuscous suffusion from beneath costa beyond second line, broadening to fill whole tornal area; cilia brownish barred with blackish on crenulations. Hindwings with termen slightly rounded, wavy; pale brown densely suffused with dark fuscous beyond second line; three blackish transverse lines, first subbasal, second at $\frac{1}{3}$, third at $\frac{2}{3}$ bent outwards beneath costa and again in middle; cilia brownish mixed with dark fuscous. Underside brownish suffused with fuscous without distinct markings.

Exceptionally distinct. The broad dark-fuscous suffusion of hindwings at once distinguishes it.

Queensland: Gayndah, in October; one specimen received from Dr. Hamilton Kenny, an ardent naturalist and a personal friend, to whom I dedicate it.

GYMNOSCELIS HOLOCAPNA, n. sp.

ὀλοκαπνος, wholly smoky.

♂, 17-18 mm. Head fuscous. Palpi scarcely over 1; dark fuscous mixed with whitish-ochreous. Antennae grey; ciliations in male minute. Thorax and abdomen fuscous-brown. Legs whitish-ochreous; anterior pair fuscous anteriorly. Forewings rather narrowly triangular, costa gently arched, apex rounded; termen bowed, oblique; 11 running into 12; fuscous-brown or pale fuscous, markings obscurely darker; a basal patch; a moderate fascia at $\frac{1}{4}$, angled inwards beneath costa; a line from $\frac{2}{3}$ costa, at first outwardly bowed, then slightly sinuate to $\frac{2}{3}$ dorsum; a very obscure pale dentate subterminal line preceded by darker shading; cilia with basal half fuscous barred with whitish-ochreous opposite veins, terminal half grey. Hindwings rather narrow, termen strongly and evenly rounded; colour and cilia as forewings, but markings even more obscure; post-median line with a median tooth, indented below middle; subterminal line strongly dentate; some blackish irroration on dorsum. Underside fuscous-whitish.

An obscure species.

Northern Territory: Darwin, in September, December, and March; four specimens received from Mr. F. P. Dodd.

CHLOROCLYSTIS PHOENOCHYTA, n. sp.

φουνοχυτος, suffused with reddish.

♀, 15 mm. Head whitish; face pale red. Palpi 2; grey. Antennae with joints expanded at apices; grey. Thorax whitish with a fine, transverse, postmedian line of dark-fuscous and reddish scales. [Abdomen and legs broken off.] Forewings elongate-triangular, costa slightly arched, apex round-pointed, termen bowed, oblique; 11 running into 12; whitish partly suffused with grey and reddish; costal edge reddish with some whitish strigulae; a broad, subbasal, grey fascia; its anterior edge outwardly curved, irregular; its posterior edge from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum, forming a rather large posterior tooth beneath costa, beneath this obtusely indented; median area paler with indications of a suffused grey median line; a grey line from $\frac{2}{3}$ costa to $\frac{2}{3}$ dorsum, strongly outwardly curved, slightly dentate; this is followed by a fine, parallel, dentate, grey line; disc beyond this suffused with pale red; a whitish, dentate, subterminal line; an interrupted grey terminal line; cilia pale reddish mixed with grey, apices grey-whitish. Hindwings with termen rounded; wholly suffused with pale red except extreme base; some few dark-fuscous scales on veins; a pale transverse line

at $\frac{1}{3}$; another, broader, at $\frac{2}{3}$ containing a very fine reddish line; subterminal indistinct, but preceded by grey dentations; cilia pale reddish, apices grey-whitish.

This species is very distinct by the red suffusion, but, the posterior legs being absent, it is not possible to be sure that it is not a *Gymnoscelis*, Type in Coll. Lyell.

Northern Queensland: Gordonvale, near Cairns; one specimen.

CHLOROCLYSTIS EURYLOPHA, n. sp.

εὐρυλοφος, broadly crested.

♂, ♀, 15-16 mm. Head pale grey. Palpi $2\frac{1}{4}$; pale grey with a few darker scales. Antennae whitish-grey. Thorax and abdomen grey. Legs ochreous-whitish; anterior pair mostly grey; outer median spur $\frac{1}{2}$. Forewings triangular, costa rather strongly arched, apex round-pointed, termen bowed, oblique; pale grey with numerous, wavy, fuscous, transverse lines more or less distinct; costa of male with a crest of long hairs extending from near base to middle; transverse lines in basal half of wing sometimes very indistinct, but sometimes as many as six can be distinguished, all outwardly curved; a more distinct line from $\frac{3}{5}$ costa, at first outwardly oblique, forming two short, obtuse, posterior projections; then inwardly oblique to $\frac{2}{3}$ dorsum; several paler indistinct lines follow this; an obscure, pale, dentate, subterminal line; a fuscous terminal line, interrupted on veins; cilia pale grey. Hindwings with termen scarcely rounded, irregularly waved; as forewings.

This little species requires careful discrimination. The male may be distinguished readily from *C. epilopha* by the much wider extent of the crest on costal margin of forewing. Between the female of these two species it is hard to give any distinction, but the presence of blackish scales on the veins in the basal part of forewing in *epilopha* is helpful. The female also somewhat resembles *C. insigillata*, but the rounded and not waved termen of the hindwing in the latter is in itself sufficient difference.

Queensland: Montville, near Nambour, in March; seven specimens (one male, six females).

CHLOROCLYSTIS PYRSODONTA, n. sp.

πυρσοδοντος, with reddish tooth.

♂, ♀, 15-16 mm. Head fuscous. Palpi $1\frac{1}{2}$; whitish-ochreous mixed with blackish towards base. Antennae grey; ciliations in male minute. Thorax pale grey, anterior edge fuscous. Abdomen pale grey. Legs fuscous; posterior pair paler; outer spurs about $\frac{1}{3}$ of inner spurs. Forewings broadly

triangular, costa gently arched, apex rounded, termen bowed, oblique; whitish, markings extremely pale grey, except in costal $\frac{1}{4}$, where they are fuscous and distinct; a fuscous costal streak from base to first fascia; first fascia at $\frac{1}{3}$, moderately broad, sharply angled inwards beneath costa; second fascia median, similar to first, like it sharply angled inwards beneath costa; third fascia beyond $\frac{3}{4}$, narrower except on costa, evenly curved, posteriorly limited by a finely dentate, whitish, subterminal line; a fine fuscous terminal line interrupted on veins; cilia grey, apices paler. Hindwings with termen unevenly rounded; concave above middle, prominent between veins 3 and 4; as forewings; but median fascia reddish with a few blackish scales, and a strong, obtuse, median, posterior tooth; without dark costal markings. Underside pale fuscous, with a darker, posteriorly toothed, median, transverse fascia on hindwings.

Northern Queensland: Cardwell, one wasted female, in August; Evelyn Scrub, near Herberton, male type, in January (F. P. Dodd).

CHLOROCLYSTIS NIGRILINEATA, Warr.

♂, ♀, 18 mm. Head whitish-grey. Palpi about 1; whitish-grey mixed with blackish. Antennae whitish-grey. Thorax whitish-grey. Abdomen whitish-grey with some inconstant dark-fuscous markings. Legs ochreous-whitish; anterior pair grey. Forewings triangular, moderately broad, costa slightly arched, apex round-pointed, termen bowed, oblique; 11 running into 12; whitish-grey with pale-grey and dark-fuscous transverse lines; a dark-fuscous subbasal line with median posterior tooth; a dark-fuscous wavy line from $\frac{1}{3}$ costa to $\frac{1}{5}$ dorsum; a pale-grey median line, sometimes double; a dark-fuscous line from costa before $\frac{2}{3}$, with two obtuse posterior teeth, subcostal and median, thence oblique and slightly dentate to $\frac{2}{3}$ dorsum; a very faint, pale, dentate subterminal line preceded by an interrupted dark-fuscous line; a terminal series of interneural fuscous dots; cilia pale grey. Hindwings with termen rounded; as forewings but all lines indistinct except postmedian, which has a posterior angular projection about middle. Underside pale grey, darker towards termen, with fuscous postmedian lines on both wings.

My examples agree well with Warren's description. The dark transverse lines are conspicuous.

Northern Territory: Darwin, in November and February; two specimens received from Mr. F. P. Dodd. Queensland: Duaringa (Warren).

CHLOROCLYSTIS POLIOPHRICA, n. sp.

πολιοφρικος, grey-rippled.

♂, ♀, 13-16 mm. Head whitish. Palpi whitish, in male annulated, in female irrorated with dark fuscous. Antennae whitish, towards apex tinged with grey; ciliations in male minute. Thorax pale fuscous; patagia whitish. Abdomen whitish with some fuscous scales. Legs whitish; anterior pair fuscous; posterior tibiae with inner spurs long, outer spurs $\frac{1}{3}$, outer median spur absent in male. Forewings in male with costa straight in basal half, strongly arched in apical half, in female evenly arched throughout, apex rounded, termen bowed, oblique; whitish with fuscous markings; basal $\frac{2}{3}$ of costa more or less suffused; a number of indistinct transverse lines preceding postmedian, in male obsolete towards dorsum; postmedian line from $\frac{2}{3}$ costa, at first outwardly oblique, forming two angular posterior projections in disc, thence inwardly oblique to $\frac{2}{3}$ dorsum; a fuscous subterminal line, in male thickened into spots beneath costa, above middle, and below middle, interrupted between spots, in female more uniform; an interrupted terminal line; cilia whitish, in male with some obscure fuscous bars. Hindwings with termen gently rounded, slightly wavy; as forewings; postmedian line with an angular indentation above middle, and an angular projection in middle. Underside fuscous-whitish.

Queensland: Dulong, near Nambour, in December, one female; Brisbane, in April, one male type.

Gen. MICRODES, Gn.

This genus has two remarkable peculiarities in the neuration of the forewing. One is the approximation of vein 5 at its origin to 4. This is probably secondary to the peculiar sexual modification in the forewing of the male. The other is that 11 runs into 12 in *villosata* and *asystata*, but has secondarily disappeared altogether in *squamulata*, *diploclonta*, and *oriochares*; *typhopha* and *melanocausta* I have not examined.

MICRODES ORIOCHARES, n. sp.

ὄρειοχαρης, rejoicing in the mountains.

♂, ♀, 18-20 mm. Head dark fuscous. Palpi in male 4, in female $4\frac{1}{2}$; dark fuscous. Antennae fuscous; in male thickened and slightly laminate, ciliations $\frac{1}{4}$. Legs fuscous; anterior pair dark fuscous; anterior and middle tarsi with ochreous-whitish annulations. Forewings with costa moderately and evenly arched, apex round-pointed, termen bowed, moderately oblique; fuscous; a slender, obscure, outwardly

curved, transverse line at $\frac{1}{4}$ followed by a pale, indistinctly double line; beyond this is a brownish-tinged fascia, not always developed; beyond this a paler area containing two or three very obscure, slender, transverse lines; a whitish line edged posteriorly by a dark fuscous line from $\frac{2}{3}$ costa, at first moderately outwardly oblique, acutely angled outwards above middle, thence concave to below middle, where it is again angled outwards, thence straight to $\frac{4}{5}$ dorsum; a slight brownish suffusion on posterior edge of this line; a fine, irregularly dentate, whitish, subterminal line; cilia fuscous, sometimes very obscurely barred, apices grey. Hindwings with termen strongly rounded, slightly wavy; pale grey; an obscure darker line at $\frac{4}{5}$; cilia pale grey.

Certainly near *M. diplodonta*, Turn., but smaller, forewings proportionately broader, less brownish, costa less strongly arched, cilia not distinctly barred, palpi in male rather longer. Unless intermediate forms are discovered it should be regarded as a distinct species.

New South Wales: Mount Kosciusko, in January, February, and March; seven specimens. Victoria: Mount St. Bernard (5,000 ft.), in February; a large female (24 mm.) in Coll. Lyell.

MICRODES ASYSTATA, n. sp.

ἀσυστατος, inconstant.

♀, 26-30 mm. Head, thorax, and abdomen fuscous with scanty whitish irroration. Palpi $3\frac{1}{2}$; second joint expanded by rough scales above and beneath; terminal joint short; fuscous irrorated with whitish. Antennae fuscous. Legs fuscous; tarsi with fine whitish annulations; posterior pair ochreous-whitish. Forewings triangular, costa gently arched, apex round-pointed, termen straight, very slightly oblique; whitish irrorated with grey; numerous fine transverse fuscous lines more or less distinct; sometimes stronger lines define median area; first from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum, outwardly curved; second from $\frac{2}{3}$ costa to tornus, with a small acute posterior tooth beneath costa, and an obtuse tooth beneath middle; sometimes median area is partly or wholly fuscous, and lines indistinct; a finely dentate, whitish, subterminal line; cilia grey. Hindwings with termen strongly but unevenly rounded, projecting slightly on veins 3 and 6; grey; cilia grey.

Male unknown and female inconstant; in one example the anterior margin of median band is much more strongly rounded posteriorly, an unusual form of variation. Type in Coll. Goldfinch.

New South Wales: Mount Kosciusko, in February; three specimens.

Gen. SCOTOCYMA, Turn.

This comes near the European genus *Epirrhoë*, Hb., but differs in 7, 8, 9, 10, and 11 arising by a common stalk from the small areole.

SCOTOCYMA ALBINOTATA, Wlk.

Mr. Prout informs me that *Paragramma mimula*, Warr., is a synonym.

SCOTOCYMA IDIOSCHEMA, n. sp.

ἰδιοσχημος, of peculiar pattern.

♀, 31-34 mm. Head whitish-brown mixed with dark brown. Palpi slightly over 1; whitish-brown irrorated with dark fuscous. Antennae grey. Thorax brown; patagia partly whitish-brown. Abdomen brown. Legs whitish-ochreous; anterior pair fuscous with whitish-ochreous basal annulations. Forewings triangular, costa gently arched, apex rounded, termen bowed, slightly oblique, crenulate; a fuscous basal patch to $\frac{1}{4}$, containing some whitish-ochreous transverse lines on costa prolonged to middle, and with an inferior tooth near extremity; remainder of disc except a costal strip, and triangular apical and tornal areas occupied by a very large whitish-ochreous blotch, suffused with brown, or dark ferruginous-brown except at edges; costal strip fuscous strigulated with whitish-ochreous; dorsal edge narrowly and interruptedly fuscous; apical and tornal triangles fuscous-brown, containing an incomplete, fine, dentate, ochreous-whitish line, sometimes forming a white spot above tornus, a white spot sometimes present on margin of central blotch above tornus; cilia fuscous partly mixed with whitish-ochreous. Hindwings with termen rounded, dentate; brownish; some whitish dots on veins; sometimes obscure pale-fuscous transverse lines; some variable white spots preceding termen; a dark-fuscous terminal line; cilia fuscous-brown. Underside whitish with many, more or less distinct, transverse lines and a broad subterminal fascia fuscous.

North Queensland: Kuranda, in November (Coll. Lyell); Evelyn Scrub, near Herberton, in October. Queensland: Brisbane, in January. Three specimens.

SCOTOCYMA EURYOCHRA, n. sp.

εὐρυωχρος, broadly pale.

♀, 34 mm. Head dark fuscous. Palpi 1; dark fuscous with a few whitish scales. Antennae fuscous. Thorax fuscous. Abdomen grey; apex fuscous. Legs fuscous; tarsi with fine ochreous-whitish annulations; posterior pair mostly ochreous-whitish. Forewings triangular, costa moderately arched, apex rounded-rectangular, termen bowed, slightly

oblique, crenulate; grey-whitish with numerous, fine, indistinct, wavy, transverse lines; markings brownish-fusca; a rather large basal patch containing some grey-whitish suffusion, limited by a slightly curved wavy line from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum; median band ill-defined, mostly grey-whitish with fine lines, but with some fuscous suffusion on costa; a large apical blotch; two subterminal spots above tornus; cilia fuscous, towards centre of termen partly grey-whitish. Hindwings with termen rounded, slightly dentate; as forewings; basal patch very small; a broad terminal band, containing a subterminal series of whitish dots on veins; a dark-fuscous terminal line, interrupted by whitish dots on veins; cilia brownish-fuscous.

New South Wales: Toronto, near Newcastle, in April; one specimen. Type in Coll. Goldfinch.

Gen. CHAETOLOPHA, Warr.

Type *C. oxyntis*, Meyr. This name must be adopted for the small endemic genus, to which I formerly applied the name *Scordylia*, Gn. The areole is large and 11 widely separate. In *Eulype*, Hb., type *hastata*, Lin., which otherwise resembles it in neurulation, the areole is smaller and 11 near or connate from its apex. There is, I think, no really close relationship between the two genera. The species of *Chaetolopha* are narrow-winged; in the males of *oxyntis* and *leucophragma* there is a small subterminal scale-tuft on vein 2 of hindwings on underside, but this is absent in *niphosticha* and *emporias*; of the other two species I have no male to examine. The penultimate abdominal segment of the male bears a pair of lateral tufts. By boiling in potash the abdomen of the male *leucophragma* is shown to bear a pair of extrusible scent-organs on the fourth segment. In the male of *niphosticha* the termen of the hindwings is produced to form an acute central tooth.

Gen. ECCYMATOGE, Prout.

Prout, Ann. Transvaal Mus., iii., p. 207 (1913).

Type *E. melanoterma*, Prout, from South Africa.

ECCYMATOGE CALLIZONA, Low.

I am now satisfied that the type of *fulvida*, Turn., is merely an aberration of *callizona*.

ECCYMATOGE MORPHNA, n. sp.

μορφνος, dusky.

♂, 30 mm. Head fuscous; face dark fuscous with a few whitish scales. Palpi $1\frac{1}{4}$; dark fuscous with a few whitish

scales. Antennae fuscous; in male thickened and minutely ciliated. Thorax and abdomen fuscous; anal valves in male large. Anterior legs dark fuscous [middle and posterior pairs broken off]. Forewings triangular, costa gently arched, apex acute, termen bowed, oblique, finely dentate; fuscous; markings dark fuscous, obscure; a small basal patch; a median fascia containing a darker discal dot beneath mid-costa, limited anteriorly by a nearly straight line from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum, posteriorly by a line from $\frac{3}{5}$ costa, strongly bent outwards in disc, with an angular prominence between veins 7 and 8, and another between 3 and 4, thence sinuate to $\frac{2}{3}$ dorsum; an indistinct pale subterminal line; a terminal line interrupted by pale dots on veins; cilia fuscous. Hindwings with termen slightly rounded, irregularly dentate, with a stronger tooth on vein 4; as forewings, but without discal dot, and posterior edge of median fascia only slightly undulating. Underside fuscous without markings.

A true *Eccymatoge*; though vein 5 of hindwings is scarcely from below the middle of cell, the upper discocellular is bent. There appears to be no thoracic crest.

New South Wales: Mount Kosciusko (3,500 ft.), in January; one specimen.

Gen. HORISME, Hb.

Eucymatoge, Sect. I., Turn., Proc. Roy. Soc. Vict., 1903, p. 247.

Differs from *Eucymatoge* in the presence of a posterior thoracic crest.

HORISME MORTUATA, Gn.

♂, ♀, 27-30 mm. Very similar to *H. scotodes*, Turn., but slightly larger; palpi longer, $2\frac{1}{2}$ to 3 as against $1\frac{1}{2}$ to 2 in the latter; forewings with basal lines more evenly curved, in the latter they are more oblique; postmedian line with a doubly obtuse-toothed projection.

New South Wales: Sydney, in January and February. Victoria: Beaconsfield. Three examples.

HORISME PLAGIOGRAPHA, n. sp.

πλαγιογραφος, obliquely inscribed.

♀, 25-26 mm. Head grey. Palpi 3; grey irrorated with dark fuscous, whitish beneath towards base. Antennae grey. Thorax grey mixed with fuscous, posterior edge of crest fuscous. Abdomen grey, some fuscous scales in crests. Legs whitish, on dorsal surfaces fuscous. Forewings triangular, costa straight, slightly sinuate before apex, apex

acute, termen bowed, oblique, slightly crenulate; whitish with fuscous suffusion and markings, a conspicuous dark-fuscous oblique bar from dorsum near base to middle of disc, sometimes forming a complete fascia to $\frac{1}{3}$ costa; two or three fine, incomplete, transverse lines between this and costa; a nearly straight band of three fine fuscous lines from mid-costa to dorsum at $\frac{1}{4}$; a dark-fuscous, median, subcostal, discal dot; a suffused band, towards costa resolvable into three lines, from $\frac{3}{4}$ costa to $\frac{2}{3}$ dorsum, outwardly curved with slight obtuse prominences above and below middle; a streak from apex to upper prominence on postmedian line, slightly downwardly curved; between this and costa is a paler apical area; subterminal whitish, very ill-defined; a terminal line; cilia grey-whitish with a few darker points. Hindwings with termen very little rounded, dentate; whitish-grey, with fine, fuscous, transverse lines from dorsum, becoming indistinct before costa; from $\frac{1}{3}$, middle, an outwardly-curved, stronger line from $\frac{2}{3}$, a fine line following close on this, and a double subterminal line; a fuscous terminal line; cilia whitish-grey.

New South Wales: Sydney (Manly), in October; Jervis Bay, in September; two specimens. There is a third female example from the latter locality in Coll. Goldfinch, taken in November. Type in Coll. Lyell.

Gen. CIDARIA, Treit., Eur. Schmet., vi., 2, p. 140.

Mr. L. B. Prout informs me that the type is the European *C. fulvata*, Forst., and that *Hydriomena*, Hb., is a synonym of later publication. This large European genus is but poorly represented in Australia, and in New Zealand there is no endemic species, the only representative there being *subochraria*, Dbld. Six Australian species are known; of these *subochraria*, *apotoma*, *uncinata*, and *microcyma* are probably derived through the Antarctic; *scythrope* and *lasio-placa* are not nearly allied specifically to the first four, and entered Australia from the north. The groove on hindwing of male of *scythrope* I consider a character of specific value only. *Heterochasta*, Meyr., and *Polyclysta*, Gn., are derivations of this second section of the genus.

LARENTIA PETRODES, Turn.

Queensland: Warwick. Victoria: Gisborne.

LARENTIA XERODES, Meyr.

I have examined what I believe to be an example of *Xanthorhoë xerodes*, Meyr., and refer it to this genus.

LARENTIA ORIBATES, n. sp.

ὄρειβατης, a mountaineer.

♂, 28 mm. Head whitish irrorated with fuscous; face blackish. Palpi $1\frac{1}{4}$; dark fuscous. Antennae grey; pectinations in male 6, extreme apex simple. Thorax dark fuscous irrorated with whitish. Abdomen grey-whitish; paired fuscous dots on the dorsum of each segment except the first two. Legs grey-whitish; anterior and middle pairs fuscous on dorsum. Forewings triangular, costa nearly straight, slightly arched towards apex, apex pointed, termen longer than dorsum, slightly bowed, slightly oblique; whitish with numerous fine, fuscous, oblique, transverse lines; costa irrorated with fuscous; a line from $\frac{1}{4}$ costa to near base of dorsum; another parallel from $\frac{2}{5}$ costa; a median band of three or four close lines, anterior edge from mid-costa to $\frac{1}{4}$ dorsum, nearly straight, posterior from $\frac{3}{4}$ costa to before middle of dorsum, slightly curved outwards in middle of disc; beyond and parallel is a very fine line thickened by some small dots; beyond this again three close, parallel, wavy lines; an oblique fuscous shade from apex; a narrow grey terminal fascia; an interrupted fuscous terminal line; cilia whitish with a grey median line. Hindwings with termen rounded; as forewings but all lines, except terminal line, becoming obsolete in costal area, which is whitish, and in male contains an oval patch of ochreous-grey altered scales.

Victoria: Mount St. Bernard, in February; one specimen received from Dr. W. E. Drake.

LARENTIA AGANOPIS, n. sp.

ἀγανωπις, gentle-looking.

♂, ♀, 24-32 mm. Head whitish. Palpi in male 1, in female $1\frac{1}{4}$; grey-whitish. Antennae pale grey; pectinations in male 5, extreme apex simple. Thorax ochreous-whitish. Abdomen ochreous-whitish, suffused with pale grey on dorsum. Legs fuscous; tarsi annulated with whitish; posterior pair whitish. Forewings triangular, costa gently arched, apex round-pointed, termen bowed, oblique; ochreous-whitish; markings pale grey, brownish tinged; a very small basal patch, followed by two fine parallel lines confluent on costa; median band broad from costa to middle, much narrower from middle to dorsum, darker on costa; anterior edge from $\frac{1}{3}$ costa to $\frac{1}{4}$ dorsum, outwardly curved; posterior edge from $\frac{2}{3}$ costa, obtusely toothed beneath costa, with a slight double-toothed median prominence, thence strongly oblique and dentate to mid-dorsum; this is followed by two fine indistinct parallel lines; an indistinct pale subterminal line

preceded by a slight dark suffusion towards costa; a terminal series of triangular marks or fine, short, interneural, longitudinal streaks; cilia ochreous-whitish. Hindwings with termen rounded; ochreous-whitish, with pale, suffused, median, postmedian, and submarginal grey lines; terminal marks and cilia as forewings. Underside whitish; forewings suffused with grey as far as postmedian line; hindwings with a median transverse line.

New South Wales: Woodford, in March and April; two specimens received from Mr. Geo. Lyell. Type in Coll. Lyell.

Gen. MELITULIAS, Meyr.

I do not consider the presence of androconial scales in the male as a rule a sufficient character for generic distinction, and have therefore merged *Hypycnopa*, Low., in *Xanthorhoë*, and refrained from making a new genus for *Larentia petrodes*. But I have sacrificed strict consistency in retaining the genus *Melitulias*, Meyr., which defines a small natural group peculiar to Tasmania and South-east Australia, particularly the mountains, in which new species may be expected to occur. It is an endemic derivative of *Euphyia*. I regard *glandulata*, Gn., as the type.

MELITULIAS LEUCOGRAPHA, n. sp.

λευκογραφος, inscribed with white.

♂, ♀, 24-28 mm. Head fuscous with a few whitish scales on face. Palpi 3; fuscous; base beneath whitish, sharply defined. Antennae dark fuscous; ciliations in male imperceptible. Thorax and abdomen fuscous with a few whitish scales. Legs fuscous. Forewings triangular, costa very slightly arched, apex pointed, termen bowed, oblique, wavy; fuscous-brown; markings white partly outlined with fuscous; a fine line from $\frac{1}{5}$ costa to $\frac{1}{4}$ dorsum, curved outwards beneath costa; a broader line from $\frac{1}{3}$ costa, at first transverse, then bent inwards and joining first line above dorsum; a dark-fuscous discal dot beneath mid-costa, sometimes surrounded by a narrow whitish suffusion; sometimes a fine, sinuate, inwardly oblique line from $\frac{3}{5}$ costa not reaching middle of disc; a broader line from $\frac{5}{6}$ costa, angled inwards above and outwards at middle, then inwardly curved to dorsum before tornus; a fine interrupted subterminal line, a fine oblique streak from apex, crossing subterminal line, ending in postmedian line at its subcostal angle; a dark-fuscous terminal line; cilia fuscous barred with white. Hindwings with termen rounded; in male grey; with a large, median, oval, brownish-fuscous, androconial blotch; cilia grey; in female pale brownish-grey, a suffused, whitish, postmedian, transverse line; a whitish

subterminal line; terminal line and cilia as forewings. Under-side of hindwings in both sexes like upperside in female, but more distinctly marked and with a dark-fuscous antemedian discal dot.

Near *M. graphicata*, Wlk., but easily distinguished by the hindwings.

New South Wales: Mount Kosciusko (5,000 ft.), in December; three specimens. Type in Coll. Goldfinch.

Gen. EUPHYIA, Hb., Verz., p. 326.

Type *E. picata*, Hb., from Europe. This genus corresponds to *Hydriomena*, Section I., of my revision. In Australia it is the dominant genus of the family, being especially well represented in South-east Australia and Tasmania; many more species will doubtless be discovered, especially in the mountains. The genus is also moderately well represented in New Zealand.

EUPHYIA SYMPHONA, Meyr.

Epirrhoë maerens, Swin. (Trans. Ent. Soc., 1902, p. 648), is a synonym (*teste* Prout, *in lit.*).

EUPHYIA TACERA, n. sp.

τακερος, soft.

♂, ♀, 30-32 mm. Head brownish; face fuscous. Palpi 2; fuscous; beneath whitish-ochreous. Antennae fuscous; ciliations in male minute. Thorax and abdomen brownish-fuscous. Legs fuscous; tarsi annulated with ochreous-whitish. Forewings triangular, costa moderately arched, apex round-pointed, termen bowed, slightly oblique; whitish partly suffused with pale brownish; a small brown basal patch limited by a fine fuscous line; two ill-defined, very fine, transverse, fuscous lines follow this; median band rather narrow, brown with fine fuscous transverse lines, sometimes with a narrow central grey band; anteriorly limited by a fine, slightly outwardly-curved line from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum, posteriorly by a similar line from before $\frac{2}{3}$ costa to before $\frac{2}{3}$ dorsum, with slight rounded prominence beneath costa, and again in middle; this is followed by a suffused whitish band containing two suffused, wavy, fuscous, transverse lines; a broad brownish terminal suffusion, containing a finely crenulate, whitish, subterminal line, preceded and followed by slight fuscous suffusion; a fuscous oblique mark beneath apex; cilia brownish-grey, apices pale grey. Hindwings with termen rounded, wavy; yellow-ochreous; three fine fuscous transverse lines from basal half of dorsum, of which only the first reaches costa; a double subterminal line from dorsum usually reaching

about middle; a narrow terminal band, sometimes obsolete towards apex; a dark-fuscous terminal line obsolete towards apex; cilia fuscous, towards apex pale yellow.

Not unlike *E. lucidulata*, Wlk., which may be at once distinguished by the indented antemedian line.

New South Wales: Barrington Top, in December; three specimens. Type in Coll. Goldfinch.

EUPHYIA PERIALLA, n. sp.

περιαλλος, excelling.

♂, ♀, 30-35 mm. Head fuscous. Palpi $2\frac{1}{4}$; fuscous, at base whitish beneath. Antennae fuscous; ciliations in male minute. Thorax fuscous. Abdomen fuscous, beneath ochreous-whitish. Legs fuscous irrorated, and tarsi annulated with whitish-ochreous. Forewings broadly triangular, costa moderately arched, apex round-pointed, termen bowed, oblique, wavy; brown with fuscous and whitish lines; a small basal patch defined by a transverse, outwardly curved line; a slightly paler fascia follows this; median band fuscous, broad on costa but narrow on dorsum, containing a paler costal area defined by a fuscous line extending nearly to middle, with a blackish discal mark near its anterior edge; fine whitish lines defining median band, anterior from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum, outwardly curved, posterior from beyond $\frac{2}{3}$ costa to before $\frac{2}{3}$ dorsum, at first transverse, then shortly incurved, and forming an obtuse double prominence in middle; two fine parallel fuscous lines follow this; a fine, interrupted, whitish, subterminal line, preceded and near apex followed by some fuscous suffusion; a dark-fuscous terminal line interrupted on veins; cilia fuscous with a whitish basal line, apices with obscure pale bars. Hindwings with termen strongly rounded, dentate; orange; towards dorsum suffused with fuscous containing many darker and paler short transverse lines; this suffusion extends on termen to middle; terminal line and cilia as forewings, but paler towards apex. Underside pale ochreous partly suffused with fuscous; both wings with discal dot, transverse lines, and terminal band fuscous, the last containing a slender; whitish, subterminal line.

New South Wales: Mount Kosciusko (4,500 ft.), in January; one male. Victoria: Mount St. Bernard, in February; two females, in Coll. Lyell. Two specimens from New South Wales (Ebor) in January and Victoria (Castlemaine, Dr. W. E. Drake) in March are probably of the same species, but the forewings are much paler except in basal patch and median band. Two since received from Mr.

G. W. Goldfinch taken on Barrington Top in December resemble the Kosciusko type.

EUPHYIA SYMMOLPA, n. sp.

συμμολπος, in harmony.

♀, 32 mm. Head fuscous; frons rounded; slightly projecting; frontal tuft whitish. Palpi 3; whitish mixed with fuscous. Antennae fuscous. Thorax and abdomen fuscous with fine whitish irroration. Legs fuscous with fine whitish irroration; posterior pair mostly whitish. Forewings triangular, costa straight except close to base and apex, apex round-pointed, termen moderately bowed, moderately oblique, slightly undulating; pale fuscous with fuscous markings; a basal patch of three or four transverse lines; a short line from dorsum to cell follows this; median band limited anteriorly by a double, nearly straight line from $\frac{1}{3}$ costa to mid-dorsum, posteriorly by a double line from beyond $\frac{2}{3}$ costa, at first transverse, with a strong, angular, posterior projection in middle (in one example there is a slighter angle also beneath costa), thence concave to $\frac{3}{4}$ dorsum, this line is edged posteriorly by a well-marked whitish line; a blackish discal spot in median band beneath mid-costa; a strong, crenulate, whitish, subterminal line from costa shortly before apex to tornus, edged anteriorly by a series of fuscous spots; a dark-fuscous terminal line; cilia fuscous, apical $\frac{2}{3}$ barred with whitish. Hindwings with termen slightly rounded, slightly undulating; whitish, towards margins grey; a grey discal dot at $\frac{1}{4}$; an ill-defined grey terminal band containing an undulating whitish line; terminal line and cilia as forewings.

Not unlike *C. symphona*, Meyr., but differing in the form of postmedian line, discal spot not pale centred, and other details.

New South Wales: Mount Kosciusko (6,000 to 7,000 ft.), in January; two specimens.

EUPHYIA LEPTOPHRICA, n. sp.

λεπτοφρικος, finely rippled.

♂, ♀, 34-38 mm. Head, thorax, and abdomen grey. Palpi $2\frac{1}{2}$; dark grey, beneath whitish. Antennae grey; ciliations in male extremely short. Legs fuscous, irrorated, and tarsi annulated, with grey-whitish. Forewings broadly triangular, costa strongly arched, apex round-pointed, termen bowed, slightly oblique, wavy; grey, with numerous slender, finely crenulate, fuscous, transverse lines; basal patch hardly defined; median band obscurely defined, anteriorly by a slightly curved wavy line from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum, posteriorly

by a similar line from $\frac{3}{4}$ costa to $\frac{3}{4}$ dorsum, with a slight doubly subacute median projection; a fuscous discal dot before middle; a fine, crenulate, whitish, subterminal line; a blackish terminal line, interrupted on veins; cilia grey. Hindwings with termen rounded, wavy; pale grey with fine wavy transverse lines not reaching costa; terminal line and cilia as forewings.

Type in Coll. Goldfinch. Perhaps nearest *E. symphona*, Meyr.

New South Wales: Barrington Top, in December; two specimens.

EUPHYIA PANOCHRA, n. sp.

πανωχρος, wholly pale.

♂, ♀, 28-32 mm. Head ochreous-whitish with a very few dark-fuscous scales. Palpi $2\frac{1}{2}$; ochreous-whitish with slight dark-fuscous irroration. Antennae ochreous-whitish annulated with fuscous; in male slightly thickened, ciliations $\frac{1}{3}$. Thorax ochreous-whitish. Abdomen ochreous-whitish with a few pale-grey scales on dorsum. Legs ochreous-whitish irrorated with fuscous. Forewings broadly triangular, costa rather strongly arched, apex subrectangular, termen nearly straight, slightly oblique; ochreous-whitish, with slight pale-grey suffusion, more distinct towards termen; a very fine, often indistinct, slightly curved, slightly dentate, fuscous line from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum; a second, similar, nearly straight line, finely dentate, from $\frac{2}{3}$ costa to $\frac{2}{3}$ dorsum; in some examples a third line or series of fine dots beyond this; cilia dark grey, apices white except on costa, beneath apex, and on tornus. Hindwings with termen rounded; ochreous-whitish, without markings; cilia grey, apices whitish. Underside of forewings suffused with grey; of hindwings with grey irroration, discal dot, postmedian, and subterminal lines.

New South Wales: Mount Kosciusko (5,000 ft.), in January. Victoria: Mount St. Bernard (5,000 ft.), in February; eight specimens. Type in Coll. Lyell.

EUPHYIA OXYODONTA, n. sp.

ὀξύδοντος, sharply-toothed.

♀, 28 mm. Head pale grey. Palpi 2; whitish with fuscous irroration. Antennae fuscous. Thorax whitish mixed with grey. Abdomen ochreous-whitish suffused with fuscous on dorsum. Legs fuscous irrorated, and tarsi annulated, with ochreous-whitish; posterior pair mostly ochreous-whitish. Forewings triangular, costa gently arched, apex round-pointed, termen nearly straight, oblique, wavy; whitish with fuscous markings; a small basal patch with three darker lines, one of

which forms its posterior edge, and is slightly rounded, slightly dentate, transverse; median band broad; its anterior edge broadly dark fuscous from $\frac{1}{4}$ costa to $\frac{1}{4}$ dorsum, strongly concave, indented above and below middle; a linear antemedian discal mark followed by two fine incomplete fuscous lines; posterior edge marked by a fine dark-fuscous line, thickened above middle, from $\frac{3}{4}$ costa, projecting slightly beneath costa, then angularly indented, with a strong median double-toothed projection, the upper tooth more prominent and acute, thence inwardly curved and dentate to $\frac{3}{4}$ dorsum, suffused fuscous spots on costa before apex, in disc beneath this, on termen beneath apex, and above tornus; an interrupted terminal line; cilia whitish with a broad fuscous median line. Hindwings with termen slightly rounded, wavy; whitish-grey; four or five faintly darker transverse lines better marked on dorsum; postmedian line with a median acute tooth; an interrupted fuscous terminal line; cilia whitish with some grey and fuscous scales.

Western Australia: Perth, in April; one specimen received from Mr. W. B. Alexander.

EUPHYIA POLIOPHASMA, n. sp.

πολιοφασμος, grey ghostly.

♂, 36-38 mm.; ♀, 32 mm. Head, thorax, and abdomen pale grey irrorated with fuscous. Palpi $2\frac{1}{4}$; fuscous, towards base ochreous-whitish. Antennae with internal surface fuscous, external whitish; in male shortly laminate, ciliations $\frac{1}{4}$. Legs pale grey irrorated with fuscous. Forewings triangular, costa gently arched, apex round-pointed, termen bowed, slightly oblique; pale grey with slight fuscous irroration; antemedian line obsolete; postmedian slender, fuscous, crenulate, slightly projecting in middle, from $\frac{2}{5}$ costa to $\frac{2}{3}$ dorsum, sometimes obsolete; cilia grey. Hindwings with termen rounded; whitish-grey; cilia grey, apices paler.

New South Wales: Mount Kosciusko (5,000 ft.), in December; three specimens. Type in Coll. Goldfinch.

EUPHYIA TRISSOCYMA, n. sp.

τρισσοκυμος, three times waved.

♂, 22 mm. Head grey-whitish. Palpi $2\frac{1}{4}$; fuscous, whitish beneath. Antennae grey-whitish; ciliations in male $\frac{1}{5}$. Thorax grey-whitish; patagia with a postmedian, transverse, fuscous line. Abdomen whitish with some fuscous irroration, and paired fuscous dots on some segments. Anterior legs fuscous [middle and posterior pairs missing]. Forewings triangular, costa nearly straight, apex round-pointed, termen

bowed, oblique, wavy; whitish with oblique, transverse, fuscous lines; a moderate fuscous basal patch, posterior edge from $\frac{1}{5}$ costa to near base of dorsum; two very fine incomplete lines follow this; a broad, gently outwardly curved line from mid-costa to $\frac{1}{3}$ dorsum; a dark-fuscous median discal dot; two very fine incomplete lines in median area; a broad threefold line from $\frac{3}{4}$ costa to $\frac{2}{3}$ dorsum, slightly bent outwards beneath costa, and again in middle; four very fine incomplete lines follow this; a well-marked terminal line, interrupted on veins; cilia whitish, apices partly fuscous. Hindwings with termen slightly rounded, wavy; whitish; many fuscous lines from dorsum, more or less obsolete towards costa; terminal line and cilia as forewings.

New South Wales: Jervis Bay, in October; one specimen. Type in Coll. Goldfinch.

EUPHYIA APREPTA, n. sp.

ἀπρεπτος, undistinguished.

♀, 36 mm. Head and thorax fuscous. Palpi $2\frac{1}{4}$; fuscous, beneath ochreous-whitish towards base. Antennae fuscous. Abdomen fuscous with fine ochreous-whitish irroration. Legs fuscous. Forewings broadly triangular, costa moderately arched, apex rounded-rectangular, termen slightly bowed, slightly oblique, slightly crenulate; pale fuscous, basal patch and median band fuscous; basal patch small, posterior edge transverse, outwardly curved, wavy; two or three obscure lines precede median band; median band with anterior edge from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum, slightly outwardly curved, finely dentate; posterior edge from $\frac{2}{3}$ costa, at first nearly transverse, crenulate, below middle bent inwards, and again transverse to $\frac{2}{3}$ dorsum; in this band is a darker median discal dot, preceded and followed by a wavy transverse line, best marked towards costa; several faint and obscure transverse lines beyond band; a crenulate, whitish, subterminal line; a narrow fuscous terminal line; cilia pale fuscous with a darker median line. Hindwings with termen rounded, crenulate; pale grey without markings; cilia pale grey.

Victoria: Kyneton, in December; one specimen. Type in Coll. Lyell.

EUPHYIA CONIOPHYLLA, n. sp.

coniοφυλλος, with dusty wings.

♀, 30 mm. Head reddish-brown mixed with fuscous. Palpi $3\frac{1}{2}$; fuscous, base beneath whitish. Thorax pale grey, anteriorly reddish tinged. Abdomen pale grey mixed with ochreous-whitish and fuscous, base of dorsum reddish tinged. Legs fuscous; tarsi obscurely annulated with whitish; anterior

coxae reddish tinged. Forewings triangular, costa gently arched, apex acute, termen slightly bowed, oblique; whitish irrorated with fuscous-brown, which forms indistinct lines; a subbasal line from $\frac{1}{6}$ costa, at first outwardly oblique, but bent soon after origin, thence slightly curved to near base of dorsum; antemedian line very indistinct; a fuscous discal dot beneath mid-costa; postmedian very slender, from $\frac{2}{3}$ costa obliquely outwards, angled beneath costa and in middle, thence to $\frac{2}{3}$ dorsum; a fairly broad fuscous-brown terminal band, its anterior edge suffused, containing a fine, whitish, wavy, submarginal line; cilia fuscous-brown with pale basal and postmedian lines. Hindwings with termen rounded, slightly wavy; whitish irrorated with fuscous-brown, more densely towards termen; a faint whitish submarginal line; cilia grey, bases and apices paler. Underside whitish with fuscous-brown irroration and discal dots on fore- and hindwings.

New South Wales: Mount Kosciusko (5,000 ft.), in March; one specimen.

DIPLOCTENA PANTOEA, Turn.

Queensland: National Park (3,000 ft.), in February and March; seven specimens (4 males and 3 females). These are, I consider, conspecific with southern examples, though they agree ill with my description, the species being exceedingly variable. The structure of the male antennae is the same. National Park examples are distinctly green with well-defined basal patch and median band fuscous-brown, but the latter sometimes incomplete; minute white dots are sometimes present on the subterminal line, and one female has a white dorsal dot in median band. Some examples from Lorne and Ebor, though in poor condition, approach these closely, but most of the males from these localities have the forewings almost wholly fuscous-brown.

XANTHORHOE SODALIATA.

♀. *Cidaria sodaliata*, Wlk., Cat. Brit. Mus., xxv., p. 1410.

♂. *Coremia divisata*, Wlk., Cat. Brit. Mus., xxxv., p. 1682.

♀. *Xanthorhoë subidaria*, var. *urbana*, Meyr., Proc. Linn. Soc. N.S. Wales, 1890, p. 864.

This synonymy was first given by Swinhoe (Cat. Oxf. Mus., ii., p. 345), but he identified the species with Guenée's *cymaria*. I believe that Guenée's description clearly applies to one of the forms I still include under *subidaria*, Gn. Whether these are really all conspecific is open to doubt, and

until the male genitalia have been examined and compared by a competent authority, this doubt is likely to continue.

Sodaliata female is very distinct by its uniform dark suffusion; the male has a uniformly dark median band on forewing, without brown or purplish tinge, while the terminal area is paler or even whitish. From eastern examples of male *subidaria* I have little difficulty in distinguishing it, but some Western Australian examples (which may represent a third species) are very similar.

Northern Queensland: Atherton, Herberton, Townsville. Queensland: Eidsvold, Gayndah, Nambour, Brisbane, Stradbroke Island, Mount Tambourine, Killarney, Nanango, Stanthorpe, Roma. New South Wales: Murwillumbah, Lismore, Glen Innes, Ebor, Sydney, Moruya. Tasmania: Hobart. Also from Norfolk Island.

XANTHORHOË EPIA, n. sp.

ἥπιος, soft.

♂, ♀, 29-34 mm. Head brownish-grey, sometimes partly reddish tinged. Palpi 3; brownish-grey. Antennae grey; pectinations in male 6. Thorax and abdomen grey. Legs grey; posterior pair paler. Forewings triangular, costa nearly straight to $\frac{2}{3}$, thence arched, apex pointed, termen bowed, oblique; grey with numerous fine, oblique, fuscous, transverse lines, more or less reddish tinged; sometimes the lines and disc are wholly reddish; a small slightly darker basal patch; median band darker, moderately broad on costa and in middle, then narrowed to dorsum to half this breadth, anterior edge from $\frac{1}{3}$ costa to beyond $\frac{1}{3}$ dorsum, slightly curved, posterior edge from $\frac{2}{3}$ costa to before $\frac{2}{3}$ dorsum, very obtusely angled outwards in middle, sometimes a fuscous discal dot beneath costa before middle; cilia pale fuscous, reddish tinged, apices paler. Hindwings with termen rounded; grey; a series of alternate darker and paler transverse lines from dorsum not reaching middle; a fine, interrupted, fuscous terminal line; cilia grey.

The sexes are similar. Nearest *X. centroneura*, Meyr., which has the ground-colour much paler and contrasting with the median band, whose outer edge is more angled, and has also numerous blackish dots on veins.

New South Wales: Mount Kosciusko (5,000 ft.), in February and March; 5 male and 6 female examples.

XANTHORHOË METOPORINA, n. sp.

μετοπωρινος, autumnal.

♀, 32 mm. Head grey-whitish with dark fuscous; tuft fuscous. Palpi $2\frac{1}{4}$; fuscous; base narrowly white. Antennae

grey. Thorax and abdomen grey. Legs fuscous, irrorated, and tarsi annulated with whitish. Forewings broadly triangular, costa moderately arched, apex round-pointed, termen straight, oblique, crenulate; brown-whitish; markings fuscous; a moderate basal patch, its posterior edge well defined, obliquely rounded, from $\frac{1}{6}$ costa to $\frac{1}{6}$ dorsum; a moderately broad median band, anterior edge outwardly curved, ill-defined, from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum, posterior edge from $\frac{2}{3}$ costa to $\frac{2}{3}$ dorsum, with a large acutely-angled median projection; several very fine, ill-defined, finely-waved lines precede and follow median band, and are traceable in the band itself; a dark-fuscous discal dot slightly before middle; a fine terminal line; cilia fuscous, bases and apices partly whitish. Hindwings with termen gently rounded, crenulate; pale grey, with indications of fine, transverse, fuscous lines towards dorsum; cilia grey, bases and apices partly whitish. Underside fuscous-grey, with dark-fuscous discal dots on fore- and hindwings.

New South Wales: Mount Kosciusko, on March 2, 1912; two specimens.

Gen. *DASYSTERNICA*, n. gen.

I substitute this name for *Dasysterna*, Turn., which is preoccupied.

DASYSTERNICA PERICALLES, n. sp.

περικαλλής, very beautiful.

♂, ♀, 23-27 mm. Head dark fuscous irrorated with ochreous. Palpi 3; ochreous with some dark-fuscous hairs. Antennae dark fuscous with fine whitish annulations; in male thickened and slightly laminate, ciliations $\frac{1}{4}$. Thorax dark fuscous irrorated with ochreous. Abdomen dark fuscous plentifully irrorated with ochreous; beneath ochreous. Legs pale ochreous with fuscous irroration, tarsi fuscous annulated with pale ochreous. Forewings triangular, costa slightly arched, apex round-pointed, termen bowed, oblique; fuscous with brownish and whitish irroration in parts; a basal patch limited by an outwardly curved, dark-fuscous and brownish, transverse, subbasal fascia; beyond this is a pale fascia containing some whitish irroration; median band outlined by two dark-fuscous and brown fasciae, its centre paler, with a minute, fuscous, median, discal dot sometimes indicated; anterior fascia from $\frac{1}{3}$ costa to $\frac{2}{5}$ dorsum, outwardly curved, its anterior edge twice indented and whitish; posterior fascia from $\frac{2}{3}$ costa to $\frac{4}{5}$ dorsum, its posterior edge whitish, with a small posterior tooth above middle, and a large bidentate prominence in middle; one or two fine parallel fuscous lines beyond this are sometimes traceable; sometimes an indistinct pale subterminal line; cilia fuscous, apices whitish-ochreous or barred with

whitish-ochreous. Hindwings with termen rounded; orange; some fuscous irroration at base; three fine, fuscous, transverse lines, strongly angled in middle, in female obsolete; a dark-fuscous terminal band, much narrower in female; cilia as forewings. Underside ochreous; forewings with fuscous discal dot, postmedian fascia strongly dilated towards dorsum so as to join a terminal fascia, which is, however, mostly obsolete in female; hindwing with postmedian line and terminal fascia in male, in female hardly developed.

Tasmania: Cradle Mountain, in January; two specimens received from Dr. R. J. Tillyard. Type in Coll. Lyell.

DASYSTERNICA CRYPSIPHOENA, n. sp.

κρυψιφουινος, with hidden red.

♀, 26 mm. Head and palpi dark fuscous irrorated with whitish. Antennae fuscous. Thorax dark fuscous irrorated with whitish. [Abdomen broken off.] Legs dark fuscous irrorated, and tarsi annulated, with whitish [posterior pair missing]. Forewings triangular, costa slightly arched, apex round-pointed, termen bowed, slightly oblique, slightly crenulate; whitish suffused with grey and on costa with fuscous; a subbasal fuscous fascia, containing some reddish scales, not reaching dorsum; this is followed by a whitish line, and this again by a ferruginous fascia at $\frac{1}{6}$, becoming fuscous at extremities, and containing a small patch of reddish scales beneath costa; a median band consisting of two fasciae enclosing a pale area in which is a minute, fuscous, median, discal dot; inner fascia at $\frac{1}{3}$, outwardly curved, edged with fuscous and partly filled in with reddish-ferruginous; outer fascia from $\frac{2}{3}$ costa at first outwardly oblique, with an obtusely-angled posterior projection beneath costa, and another, double, in middle, thence dentate to $\frac{2}{3}$ dorsum, outlined with dark fuscous, and containing some reddish streaks on veins; a reddish-ferruginous band of suffusion separated from preceding fascia by a whitish line, and containing a wavy fuscous line; some obscure fuscous spots on termen; cilia fuscous barred with whitish. Hindwings with termen rounded; grey, with three obscure whitish lines beyond middle, parallel to termen; cilia grey, apices whitish. Underside of forewings paler than upperside, with four transverse fuscous lines, the first median, the second followed by a whitish line, the fourth by a series of whitish dots; of hindwings like that of forewings, with a discal fuscous dot at $\frac{1}{3}$.

Type in Queensland Museum. It is possible that this may be identical with *Epirrhoë berthæ*, Swin. (Trans. Ent. Soc., 1902, p. 648).

Tasmania: Mount Wellington, in January; one specimen received from Mr. G. H. Hardy.

DASYURIS MELANCHLAENA, n. sp.

μελαγχλαινος, black-cloaked.

♂, ♀, 24-28 mm. Head and thorax blackish, sometimes with a few whitish scales. Palpi 4; covered with long dense blackish hairs. Antennae blackish; ciliations in male imperceptible. Abdomen blackish; some whitish scales on apices of segments. Legs blackish. Forewings triangular, costa slightly doubly sinuate, apex round-pointed, termen bowed, oblique; dark fuscous with obscure indications of darker transverse lines; and a few scattered whitish scales; an incomplete, very slender, outwardly curved, whitish, transverse line at $\frac{1}{5}$; a better-marked whitish line from $\frac{1}{3}$ costa to $\frac{2}{5}$ dorsum, slightly curved outwards and dentate; a dark-fuscous median discal dot outlined with whitish, postmedian whitish, from $\frac{3}{4}$ costa to $\frac{4}{5}$ dorsum, sinuate, subdentate; an interrupted whitish subterminal line; cilia dark fuscous. Hindwings with termen rounded; dark fuscous; sometimes a terminal series of whitish dots on veins, cilia dark fuscous.

New South Wales: Mount Kosciusko (5,000 ft.), in December; four specimens. Type in Coll. Goldfinch.

ADDITIONAL LOCALITIES.

- Sauris hirudinata*, Gn.—N. Q'land: Herberton; Q'land: Nambour, Blackbutt, Mount Tambourine, National Park (2-3,000 ft.), Toowoomba; N.S. Wales: Lismore, Gosford.
- S. lichenias*, Meyr.—N. Q'land: Herberton; Q'land: Toowoomba.
- Euchoeca rubropunctaria*, Dbld.—Q'land: Coolangatta; N.S. Wales: Ebor, Nowra.
- Poecilasthena thalassias*, Meyr.—N. Q'land: Herberton; Q'land: Gayndah, Coolangatta, National Park (2-3,000 ft.), Toowoomba, Bunya Mountains, Stanthorpe.
- P. pulchraria*, Dbld.—N. Q'land: Herberton; Q'land: Stradbroke Island, Bunya Mountains (3,500 ft.), Stanthorpe; N.S. Wales: Lismore, Ebor; Vict.: Beaconsfield; Tas.: Tasman Peninsula; W. Austr.: Bridgetown, Perth.
- P. balioloma*, Turn.—N.S. Wales: Glen Innes; Vict.: Mount St. Bernard (5,000 ft.).
- P. glauca*, Luc.—Q'land: National Park (2-2,500 ft.).
- Minoa euthecta*, Turn.—Q'land: Gayndah, Toowoomba, Bunya Mountains (3,500 ft.), Killarney.
- Gymnoscelis delocyma*, Turn.—N. Terr.: Darwin.
- G. acidna*, Turn.—N. Q'land: Cooktown, Cairns.
- G. mesophaena*, Turn.—N. Q'land: Herberton.
- G. callichlora*, Turn.—N. Q'land: Herberton.
- G. aenictopa*, Turn.—N. Q'land: Herberton.
- Chloroclystis catastreptes*, Meyr.—Q'land: Nambour, National Park (3,000 ft.), Toowoomba, Bunya Mountains (3,500 ft.); N.S. Wales: Katoomba, Nowra.

- C. testulata*, Gn.—Q'land: Toowoomba; N.S. Wales: Ebor, Mount Kosciusko; Vict.: Castlemaine.
- C. insigillata*, Wlk.—Q'land: Toowoomba; N.S. Wales: Ebor, Mount Kosciusko.
- C. approximata*, Wlk.—N. Q'land: Cairns, Herberton; Q'land: Mount Tambourine, National Park (3,000 ft.); N.S. Wales: Lismore.
- C. laticostata*, Wlk.—Q'land: Gayndah, Mount Tambourine, Coolangatta, National Park (3,000 ft.), Toowoomba, Killarney, Roma, Charleville; N.S. Wales: Lismore, Ebor, Nowra, Adaminaby; Vict.: Beaconsfield, Daytrap; W. Austr.: Busselton, Perth.
- C. pyrrholopha*, Turn.—N. Q'land: Atherton, Herberton.
- C. metallospora*, Turn.—Q'land: Gayndah.
- C. cissocosma*, Turn.—N. Q'land: Cairns, Herberton; Q'land: Nambour, National Park (3,000 ft.), Toowoomba.
- C. mniochroa*, Turn.—N. Q'land: Cairns, Atherton.
- C. gonias*, Turn.—N. Q'land: Herberton; Q'land: Stradbroke Island; N.S. Wales: Manning River.
- C. alpnista*, Turn.—N. Q'land: Herberton.
- C. bryodes*, Turn.—N. Q'land: Herberton; Q'land: Rosewood.
- C. elaeopa*, Turn.—N. Q'land: Herberton.
- C. athaumasta*, Turn.—N. Q'land: Herberton.
- C. filata*, Gn.—Vict.: Beaconsfield, Castlemaine; Tas.: Mount Wellington.
- C. leptomita*, Turn.—Q'land: Brisbane, National Park (3,000 ft.).
- Tephroclystia melanolopha*, Swin.—N. Q'land: Cairns, Herberton; Q'land: Nambour, Brisbane.
- Mnesiloba eupitheciata*, Wlk.—N. Q'land: Cairns, Herberton; Q'land: Nambour, Mount Tambourine, Southport, Toowoomba.
- Microdes villosata*, Gn.—N.S. Wales: Nowra, Mount Kosciusko.
- M. squamulata*, Gn.—N.S. Wales: Glen Innes; Vict.: Birchip; Tas.: Hobart.
- Chaetolopha oxyntis*, Meyr.—N. Q'land: Cairns; Q'land: Mount Tambourine, National Park (2-3,000 ft.); N.S. Wales: Lismore, Sydney.
- C. leucophragma*, Meyr.—Q'land: Nambour; N.S. Wales: Ebor; Vict.: Dunkeld.
- C. emporias*, Turn.—N. Q'land: Herberton.
- C. niphosticha*, Turn.—Q'land: National Park (3-4,000 ft.).
- Scotocyma albinotata*, Wlk.—N. Q'land: Herberton; Q'land: Nambour.
- Eccymatoge callizona*, Low.—N. Q'land: Herberton; Q'land: Nambour, Brisbane; N.S. Wales: Glen Innes.
- Horisme peplodes*, Turn.—Q'land: Caloundra, Toowoomba, Roma.
- H. scotodes*, Turn.—N. Q'land: Herberton; Q'land: Caloundra; N.S. Wales: Port Macquarie, Nowra.
- Eucymatoge ghosha*, Wlk.—N. Q'land: Herberton; Q'land: Caloundra, Stradbroke Island, National Park (3,000 ft.).
- E. aorista*, Turn.—N. Q'land: Innisfail, Herberton; Q'land: Blackbutt, Mount Tambourine; N.S. Wales: Lismore, Sydney.
- Heterochasta conglobata*, Wlk.—N. Q'land: Cairns, Herberton; Q'land: Mount Tambourine, National Park (3,000 ft.); N.S. Wales: Dorrigo, Bulli.

- Polyclysta hypogrammata*, Gn.—N. Q'land: Atherton, Herberton; Q'land: Stradbroke Island, National Park (3,000 ft.), Toowoomba, Bunya Mountains (3,500 ft.); N.S. Wales: Lismore.
- Cidaria scythropa*, Meyr.—Q'land: Nambour, Caloundra, Toowoomba, Bunya Mountains; N.S. Wales: Lismore.
- C. lasioplaca*, Low.—N. Q'land: Herberton; Q'land: Nambour, Toowoomba; N.S. Wales: Lismore.
- C. microcyma*, Meyr.—Tas.: Tasman Peninsula.
- C. uncinata*, Gn.—S. Austr.: Adelaide.
- C. subochraria*, Dbld.—Q'land: Killarney, National Park (3,000 ft.); N.S. Wales: Ebor, Mount Canoblas, Moruya, Mount Kosciusko, Adaminaby; Vict.: Moe, Dunkeld.
- Larentia epicrossa*, Meyr.—Tas.: Cradle Mountain.
- L. dascia*, Turn.—N.S. Wales: Sydney; Tas.: Tasman Peninsula.
- Melitulias glandulata*, Gn.—N.S. Wales: Mount Kosciusko (5,000 ft.); Tas.: Mount Wellington.
- Euphyia phaedra*, Meyr.—Q'land: Caloundra, Killarney; N.S. Wales: Murwillumbah.
- E. interruptata*, Gn.—N.S. Wales: Mount Kosciusko (3-3,500 ft.).
- E. epicteta*, Turn.—Tas.: Cradle Mountain.
- E. rhyncota*, Meyr.—Vict.: Castlemaine.
- E. lucidulata*, Wlk.—N.S. Wales: Ebor; Vict.: Moe; Tas.: Tasman Peninsula.
- E. conifasciata*, Butl.—N.S. Wales: Ebor, Mossvale, Mount Kosciusko (5,000 ft.).
- E. percrassata*, Wlk.—N.S. Wales: Mount Kosciusko (5,000 ft.).
- E. subrectaria*, Gn.—Q'land: Mount Tambourine, Rosewood, Stanthorpe; N.S. Wales: Glen Innes, Ebor; Vict.: Moe.
- E. anthracinata*, Gn.—Vict.: Melbourne; Tas.: Cradle Mountain, Mount Wellington.
- E. strumosata*, Gn.—N.S. Wales: Ebor, Sydney; Tas.: Mount Wellington.
- E. vacuaria*, Gn.—N.S. Wales: Mount Kosciusko (3,500-5,000 ft.); Vict.: Mount St. Bernard (5,000 ft.); Tas.: Cradle Mountain.
- E. symphona*, Meyr.—Vict.: Mount Erica.
- E. excentrata*, Gn.—Q'land: Killarney; N.S. Wales: Lismore, Armidale, Ebor.
- E. aglaodes*, Meyr.—Vict.: Mount St. Bernard (5,000 ft.).
- E. imperviata*, Wlk.—Vic.: Timberoo; S. Austr.: Adelaide; W.A.: Perth.
- E. heteroleuca*, Meyr.—Vict.: Mount St. Bernard.
- E. languescens*, Rosen.—N.S. Wales: Mount Kosciusko (5,000 ft.).
- E. polycarpa*, Meyr.—Tas.: Cradle Mountain.
- E. chrysocyma*, Meyr.—Tas.: Cradle Mountain.
- E. perornata*, Wlk.—Tas.: Cradle Mountain.
- E. insulsata*, Gn.—Vict.: Dunkeld.
- E. mecynata*, Gn.—Q'land: Toowoomba; N.S. Wales: Glen Innes, Ebor, Taree, Mount Kosciusko (3-3,500 ft.); Vic.: Dunkeld.
- E. polyxantha*, Meyr.—N.S. Wales: Ebor; Vict.: Mount Macedon.
- E. trygodes*, Meyr.—N.S. Wales: Ebor.
- E. severata*, Gn.—Q'land: Toowoomba; N.S. Wales: Nowra; W. Austr.: Perth.
- E. squamulata*, Warr.—Vict.: Castlemaine.
- E. opipara*, Turn.—N.S. Wales: Mount Kosciusko (5,000 ft.).
- E. ptochopis*, Turn.—N.S. Wales: Moruya.
- Diploctena argocyma*, Turn.—N.S. Wales: Mount Kosciusko (5,000 ft.); Vict.: Mount St. Bernard.

Xanthorhoë subidaria, Gn.—Q'land: Clermont.

X. brujata, Gn.—N. Q'land: Atherton, Herberton; Q'land: Gayndah, Stradbroke Island, Mount Tambourine, Coolangatta, National Park (3,000 ft.); N.S. Wales: Lismore, Glen Innes, Ebor; Vict.: Moe.

X. anaspila, Meyr.—Q'land: Brisbane, Toowoomba, Stanthorpe; N.S. Wales: Ebor, Mount Kosciusko (5,000 ft.); Tas.: Mount Wellington.

X. heliacaria, Gn.—N.S. Wales: Mount Kosciusko.

X. vicissata, Gn.—Vict.: Beaconsfield, Moe, Dunkeld.

Dasyuris decisaria, Wlk.—Vict.: Castlemaine.

D. euclidiata, Gn.—N.S. Wales: Glen Innes, Ebor, Adaminaby.

D. hedylepta, Turn.—N.S. Wales: Mount Kosciusko (5-6,000 ft.).

Fam. ACIDALIADAE.

EOIS FERRILINEA, Warr.

E. cletima, Turn.

Having now a good series of this species I find that the character on which I relied for the distinction of *E. cletima*, the absence of an acute subcostal projection on postmedian line of forewing, is not trustworthy; this line varies in form.

Northern Territory: Darwin. North Queensland: Townsville. Queensland: Duaringa, Gayndah, Brisbane, Stanthorpe. New South Wales: Sydney.

EOIS COSTARIA, Wlk. (*Acidalia*).

Acidalia albicostata, Meyr.

Queensland: Duaringa, Brisbane, Stradbroke Island, Coolangatta, Toowoomba, Stanthorpe, Chinchila, Charleville. New South Wales: Glen Innes, Sydney, Bathurst, Mount Kosciusko. Tasmania: Launceston, Deloraine.

EOIS ALBICOSTATA, Walk.

Acidalia isomorpha, Meyr.

Eois costaria, Turn.

While giving the wrong name to this species, I correctly pointed out the distinctions between it and the preceding. Not only are the posterior legs of the male quite different, but it is usually larger, more deeply pink, and the fillet is fuscous, not whitish or grey.

Northern Territory: Darwin. Northern Queensland: Herberton. Queensland: Nambour, Brisbane, Stradbroke Island, Toowoomba, Stanthorpe. New South Wales: Tabulam, Glen Innes, Sydney. Victoria: Gisborne. Tasmania: Hobart. South Australia: Mount Lofty. Western Australia: Waroona.

EOIS MILTOPHRICA, n. sp.

μιλτοφρικος, rippled with red.

♀, 18-20 mm. Head grey; face dark fuscous. Palpi scarcely 1; grey with a few dark-fuscous scales. Antennae pale grey. Thorax grey, with a minute, reddish, posterior dot. Abdomen grey with a median reddish dot on the dorsum of each segment except the first. Legs whitish; anterior pair grey. Forewings triangular, rather narrow, costa gently arched, apex round-pointed, termen bowed, oblique; grey with purple reflections; six rather broad, undulating, reddish-orange, transverse lines; first subbasal, incomplete, indicated only towards dorsum; second from $\frac{1}{3}$ costa to $\frac{1}{3}$ dorsum; third from mid-costa to beyond mid-dorsum; fourth from $\frac{2}{3}$ costa to tornus; fifth from $\frac{5}{6}$ costa to termen above tornus; sixth near termen meeting fifth; cilia grey. Hindwings with termen rounded; as forewings but with only five red lines. Under-side grey with three darker postmedian lines on each wing.

Although the male is unknown, this species may be easily recognized by its red lines.

Northern Territory: Darwin, in November and December; four specimens received from Mr. F. P. Dodd.

EOIS SCAURA, n. sp.

scaurus, club-footed.

♂, ♀, 18 mm. Head pale grey; collar and face fuscous. Palpi about 1; pale grey, upper-surface towards apex fuscous. Antennae grey; ciliations in male $1\frac{1}{4}$. Thorax and abdomen pale grey. Legs pale grey; posterior pair ochreous-whitish; posterior tibiae of male thickened, longer than femora, with a large expansile tuft of long hairs from base, without spurs, tarsi thickened, aborted, about $\frac{1}{4}$; of female normal but with terminal spurs only. Forewings triangular, rather narrow, costa straight to middle, thence arched, apex round-pointed, termen straight, oblique; pale grey; faintly darker, dentate, transverse lines, which are minutely dotted with dark fuscous and pale edged posteriorly, at $\frac{1}{4}$, middle, and $\frac{2}{3}$; a fine, wavy, pale, subterminal line; an interrupted dark-fuscous terminal line or series of dots; cilia pale grey. Hindwings with termen rounded; as forewings.

Near *E. eretmopus* but greyer, the male posterior tibiae are similar, but the tarsi much smaller and not dilated into paddle-shaped organs.

Northern Queensland: Herberton, in November and January; three specimens (1 male and 2 females) received from Mr. F. P. Dodd.

EOIS EPICYRTA, Turn.

New South Wales: Mount Kosciusko (3,500 ft.).

EOIS ELACHISTA, n. sp.

ἐλαχιστος, very small.

♂, ♀, 12-13 mm. Head ochreous-whitish; face dark fuscous. Palpi under 1; fuscous. Antennae ochreous-whitish; in male with tufts of long ciliations (3); in female slightly serrate. Thorax and abdomen ochreous-whitish. Legs ochreous-whitish; posterior pair in male very short, tibiae longer than femora, slightly thickened with scales on upper-surface, without spurs, tarsi $\frac{1}{3}$; in female with terminal spurs only. Forewings rather broadly triangular, costa straight to $\frac{2}{3}$, thence arched, apex rounded, termen scarcely bowed, oblique; ochreous-whitish with a few dark-fuscous scales; a dark-fuscous dot on $\frac{1}{3}$ costa; first line obsolete; a blackish discal dot beyond middle; a second dark-fuscous dot on $\frac{2}{3}$ costa, from which proceeds a very slender, nearly obsolete, outwardly curved line, angled inwards above dorsum, ending on $\frac{3}{4}$ dorsum; some minute terminal dark fuscous dots; cilia ochreous-whitish. Hindwings with termen strongly rounded; ochreous-whitish with a few dark-fuscous scales; lines obsolete; a blackish discal spot before middle; cilia ochreous-whitish with a series of minute, subbasal, dark-fuscous dots.

Nearest *E. elaphrodes*. The antennal structure of male furnishes a good character.

Northern Territory: Darwin, in November; three specimens (1 male and 2 females) received from Mr. F. P. Dodd.

EOIS CHLORISTIS, Meyr. (*Acidalia*).

This must be an *Eois*. Meyrick states that 6 and 7 of hindwings are stalked. I have a female from Caloundra, Queensland, with terminal spurs only on posterior tibiae, to which I refer here, but unfortunately no male. The following species is closely allied.

EOIS PRIONOSTICHA, n. sp.

πριονοστιχος, with saw-like line.

♂, ♀, 19-22 mm. Head white; collar and face fuscous. Palpi under 1; fuscous or fuscous-whitish. Antennae grey; in male with tufts of moderately long cilia ($1\frac{1}{2}$). Thorax and abdomen white. Legs whitish; anterior pair fuscous in front; posterior pair in male short, tibiae much longer than femora ($1\frac{1}{2}$), smooth, dilated towards apex, without spurs, tarsi very short ($\frac{1}{5}$); in female with terminal spurs only. Forewings triangular, costa straight to near apex, apex round-pointed,

termen slightly bowed, slightly oblique; white without ochreous tinge; a few scattered blackish scales and a blackish discal dot beyond middle; lines grey; first from $\frac{1}{4}$ dorsum, obsolete towards costa; second from mid-costa, irregularly dentate, curving inwards in a short incomplete circle round discal dot, ending on mid-dorsum; third from $\frac{3}{4}$ costa, finely dentate, nearly straight, to $\frac{3}{4}$ dorsum; fourth subterminal; fifth slender, submarginal; an interrupted terminal line; cilia whitish. Hindwings with termen strongly rounded; as forewings but without first line; discal dot before middle, minute or absent.

Very similar to *E. chloristis*, but Meyrick states that the posterior tarsi of male in this species are $\frac{1}{3}$; also to *E. polygramma*; but Lower states that in this the discal dot of forewings is just anterior to median line.

Northern Territory: Darwin, in November; three specimens (1 male and 2 females) received from Mr. F. P. Dodd and Mr. G. F. Hill.

EOIS ARGOPHYLLA, n. sp.

ἀργοφυλλος, white-winged.

♀, 18-20 mm. Head with fillet grey, posteriorly edged by a transverse blackish line; collar and face fuscous. Palpi 1; grey, anteriorly whitish. Antennae grey. Thorax and abdomen white. Legs whitish; anterior pair grey in front; posterior tibiae in female with terminal spurs only. Forewings triangular, costa gently arched, apex round-pointed, termen slightly bowed, oblique; shining white; without discal dot or irroration; costal edge grey; three slender, finely dentate, grey, transverse lines; first from $\frac{1}{4}$ dorsum, obsolete towards costa; second from $\frac{2}{3}$ costa, nearly straight, to dorsum beyond middle; third nearly straight, subterminal; an interrupted grey terminal line; cilia white. Hindwings with termen rounded; as forewings.

Readily distinguished from the two preceding species by the colour of the head.

Northern Queensland: Evelyn Scrub. near Herberton, in January; two specimens received from Mr. F. P. Dodd, of which one is in Coll. Lyell.

EOIS DELOSTICTA, n. sp.

δηλοστικτος, plainly spotted.

♀, 18 mm. Head ochreous-whitish; face dark fuscous. Palpi slightly over 1; fuscous. Antennae ochreous-whitish. Thorax ochreous-whitish with a posterior dark-fuscous dot. Abdomen ochreous-whitish; first segment with two dark-fuscous dots, each remaining segment with one median dorsal

dot. Legs ochreous-whitish; anterior pair fuscous in front, posterior tibiae in female with terminal spurs only. Forewings triangular, costa gently arched, apex rounded, termen bowed, oblique; ochreous-whitish with slight pale-grey suffusion and dark-fuscous dots; a median basal dot; five dots representing an antemedian line angled outwards beneath costa; a median, subcostal discal dot; a series of dots in a line from $\frac{3}{5}$ costa to mid-dorsum; another series representing an undulating subterminal line; some grey submarginal suffusion; a terminal series of dots extending into cilia; cilia ochreous-whitish. Hindwings with termen rounded; as forewings. Underside similar.

Northern Queensland: Kuranda, in June; one specimen.

Gen. ACIDALIA, Treit.

I adopt this name for the genus to which I formerly attributed the name *Leptomeris*, Hb. The absence of long-stalking of veins 6 and 7 of the hindwings may generally be relied on as a distinguishing character from *Eois*, though short-stalking is not uncommon.

ACIDALIA DESPOLIATA, Wlk.

♂, 18 mm. Antennae moderately ciliated (1). Posterior femora of male short, tibiae elongate ($2\frac{1}{2}$), swollen, smooth-scaled, without spurs, tarsi very short in comparison ($1/10$ th). No doubt the tibiae contain an internal groove and tuft of hairs which are not visible in my example. The relative sizes of femora, tibiae, and tarsi here attain their maximum disproportion. *A. optivata*, which comes next, has tibiae 2, tarsi $\frac{1}{5}$.

I took one male at Caloundra, Queensland, in October.

Northern Queensland: Cairns; one female in Coll. Lyell.
Queensland: Stradbroke Island.

ACIDALIA HYPOCHRA, Meyr.

Acidalia axiotis, Meyr.

I have received specimens from Western Australia, which differ in no way from those from Queensland.

Northern Territory: Darwin. Northern Queensland: Thursday Island, Cooktown, Cairns, Herberton, Townsville, Ravenswood. Queensland: Duaringa, Gayndah, Nambour, Brisbane, Stradbroke Island, Southport, Coolangatta, Rosewood. New South Wales: Sydney, Moruya. South Australia: Mount Lofty. Western Australia: Perth, Mundaring, York, Geraldton. Also from Norfolk Island.

ACIDALIA TENUIPES, Turn.

Northern Territory: Melville Island.

ACIDALIA SYNETHES, n. sp.

συνηθης, akin.

♂, 30 mm. Head pale grey; fillet white; face blackish. Palpi about 1; grey-whitish becoming dark fuscous towards apex. Antennae grey-whitish; in male serrate, ciliations $2\frac{1}{2}$. Thorax and abdomen pale grey. Legs pale grey; posterior pair in male whitish, tibiae dilated, tarsi $\frac{1}{2}$. Forewings triangular, costa gently arched, apex tolerably pointed, termen slightly bowed, slightly oblique; pale grey without irroration; a dark-fuscous, subcostal, median, discal dot; lines very faintly marked; antemedian line obsolete or nearly so; a very slender, finely dentate, sinuous line from $\frac{2}{3}$ costa to $\frac{3}{5}$ dorsum, a similar line from $\frac{3}{4}$ costa to $\frac{4}{5}$ dorsum, forming minute dots on veins; a very faint, whitish, dentate, subterminal line; a terminal series of fuscous interneural dots; cilia pale grey. Hindwings with termen rounded; as forewings but some grey irroration towards base, discal dot at $\frac{1}{3}$, lines even less distinct.

Very like *A. liotis*, Meyr., from Mount Kosciusko, but greyer in colour, without any fuscous irroration, and posterior tarsi of male rather shorter relatively to tibiae. Type in Coll. Lyell.

Western Australia: Waroona, in January; one specimen received from Mr. G. F. Berthoud.

ACIDALIA PERIALURGA, n. sp.

περιालουργος, dyed with purple all round.

♀, 29 mm. Head grey; fillet white; face dark fuscous. Palpi $1\frac{1}{4}$; whitish becoming fuscous towards apex. Antennae grey, towards base whitish. Thorax grey. Abdomen grey-whitish sparsely irrorated with fuscous. Legs grey; posterior pair and middle femora ochreous-whitish with slight fuscous irroration. Forewings triangular, costa gently arched, apex round-pointed, termen bowed, oblique; grey with a few scattered fuscous scales; some pale-purplish suffusion towards base; a minute, fuscous, median, discal dot beneath costa; a band of pale-purplish suffusion, its inner edge from $\frac{4}{5}$ costa to $\frac{2}{3}$ dorsum, slightly curved inwards above dorsum, outer edge formed by a fine, crenulate, fuscous line at about $\frac{7}{8}$, thickened to form minute dots on veins; a terminal series of dark-fuscous interneural dots; cilia pale purple with a few fuscous scales, apices grey-whitish. Hindwings with

termen slightly angled on vein 4; as forewings but discal spot at $\frac{1}{3}$ and larger.

New South Wales: Port Macquarie, in March, one specimen. Type in Coll. Lyell.

STERRHA OÖPTERA, n. sp.

ὠοπτερος, oval-winged.

♀, 23 mm. Head whitish; face grey. Palpi about 1; grey. Antennae whitish-grey. Thorax and abdomen whitish-grey with slight grey irroration. Legs ochreous-whitish irrorated with grey; posterior tibiae with terminal spurs only. Forewings elongate-oval, costa gently arched, apex pointed, termen bowed, strongly oblique; whitish-grey irrorated with dark grey; a small, circular, fuscous, discal spot at $\frac{3}{5}$; a fine, interrupted, dark-grey line from costa just before apex to $\frac{2}{3}$ dorsum; a similar terminal line; cilia whitish with two lines of grey irroration. Hindwings suboval, narrow, termen very strongly rounded; as forewings but discal spot median, and posterior line strongly curved.

A curious-looking species, more suggestive of the genus *Pylarge* than *Sterrha*.

Queensland: Gayndah; one specimen received from Dr. Hamilton Kenny.

STERRHA EUCLASTA, n. sp.

εὐκλαστος, fragile.

♂, 24-26 mm. Head brown; fillet broadly white; face fuscous-brown. Palpi about 1, curved upwards, thickened with rough scales, terminal joint short; whitish. Antennae white; in male with fine short pectinations ($\frac{1}{2}$), ending in tufts of long cilia (3). Thorax and abdomen ochreous-whitish. Legs fuscous; posterior pair ochreous-whitish; posterior tibiae of male with terminal spurs only, otherwise normal. Forewings rather narrowly triangular, costa gently arched, apex pointed, termen bowed, oblique; ochreous-whitish with slight grey suffusion and a very few fuscous scales; a minute fuscous discal dot beneath mid-costa; a suffused, straight, grey line from $\frac{5}{8}$ costa to mid-dorsum; a similar double subterminal line from apex; a third line close to terminal margin; a series of minute, interneural, fuscous, terminal dots; cilia ochreous-whitish. Hindwings with termen rounded; ochreous-whitish; a fuscous discal dot before middle; a straight grey line from apex to $\frac{3}{4}$ dorsum; a faint parallel line posterior to this; terminal dots and cilia as forewings.

New South Wales: Mount Kosciusko (3,500 to 5,000 ft.), in January; three specimens, of which one is in Coll. Goldfinch.

PROTOTYPA DRYINA, Turn.

New South Wales: Ebor Scrub (4,000 ft.).

CHRYSOCRASPEDA CRUORARIA, Warr. (*Chrysolene*).

Chrysocraspeda aurimargo, Warr.

Chrysocraspeda inundata, Warr.

I formerly regarded these as distinct. Mr. F. P. Dodd first pointed out to me that they are forms of one very variable species.

Northern Queensland: Cooktown, Cairns. Also from New Guinea.

GNAMPTOLOMA CHLOROZONARIA, Walk. (*Thalassodes*).

This name supersedes *mundissima*, Wlk.

Northern Queensland: Cairns. Queensland: Duaringa, Bundaberg, Eidsvold, Gayndah. Also from Ceylon, India, and Africa.

PERIXERA FLAVIRUBRA, Warr.

♀, 36 mm. Head brown; face whitish-ochreous with a purple transverse bar near upper edge. Palpi 3, terminal joint $\frac{1}{2}$; purple, lower edge whitish-ochreous. Antennae, upper-surface fuscous, lower-surface ochreous-whitish. Thorax brown. Abdomen brown; towards apex pale grey; under-surface whitish-ochreous. Legs whitish-ochreous. Forewings triangular, costa slightly arched, apex round-pointed, termen bowed, slightly oblique, slightly dentate; yellowish-brown finely strigulated with dark brown; three fuscous dots on veins representing a subbasal line; a median discal dot, white edged with dark brown; a bisinuate line of fuscous dots from $\frac{5}{6}$ costa to $\frac{3}{4}$ dorsum; sometimes a dark-fuscous blotch on this line above middle; a terminal series of fuscous dots; cilia brown. Hindwings with termen rounded, dentate; as forewings; discal dot at $\frac{1}{3}$ (in one example crescentic); sometimes a dark-fuscous tornal blotch. Underside pinkish-white, with a posterior line of fuscous dots.

Northern Queensland: Cooktown, Cairns, Herberton.

PERIXERA LAPIDATA, Warr.

♂, ♀, 32-40 mm. Head whitish with a few dark-fuscous scales on vertex; upper half of face brown. Palpi in male $2\frac{1}{4}$, terminal joint $\frac{1}{2}$; in female $2\frac{1}{2}$, terminal joint 1; fuscous or purple-fuscous, beneath whitish. Antennae whitish; in male with slight fuscous irroration, pectinations 8, apical $\frac{1}{5}$ simple. Thorax whitish with a few fuscous scales. Abdomen ochreous-whitish with a few fuscous or purple scales towards base of dorsum. Legs ochreous-whitish; dorsum of first two

pairs and tuft on male posterior femora purple tinged. Forewings triangular, costa moderately arched, apex pointed, termen slightly bowed, oblique; whitish beset with numerous fine grey strigulae; subbasal line represented by three fuscous dots; a small, grey, pale-centred, discal spot before middle; a bisinuate, subterminal line of fuscous dots; a terminal series of blackish interneural dots; cilia whitish. Hindwings with termen gently rounded, slightly dentate; as forewings, but without subbasal dots; discal spot at $\frac{1}{3}$, larger, ochreous, outlined with fuscous. Underside whitish with fuscous discal marks and subterminal series of dots.

Northern Queensland: Cairns, Herberton. Also from New Guinea.

ANISODES PULVERULENTA, Swin.

Maculifera, Swin., and *cyclophora*, Turn., are the female of this species.

Northern Queensland: Cairns, Herberton, Townsville. Also from Malay Peninsula and India.

PISORACA SIMPLEX, Warr.

The species I have described as *decretaria*, Wlk., had better stand for the present under Warren's name, as it is doubtful whether it is really Walker's species.

ADDITIONAL LOCALITIES.

- Mnesterodes trypheropa*, Meyr.—Also from New Guinea.
Xenocentris rhopalopus, Turn.—N. Q'land: Herberton.
X. pilosata, Warr.—N. Terr.: Darwin, Melville Island; Q'land: Rosewood.
X. epipasta, Turn.—N.S. Wales: Lismore.
Eois coercita, Luc.—Q'land: Nambour.
E. liparota, Turn.—Q'land: Rosewood.
E. eretmopus, Turn.—Q'land: Gayndah, Coolangatta.
E. plumbiscriptaria, Christ.—Q'land: Eidsvold.
E. halmaea, Meyr.—N. Q'land: Claudie River; Q'land: National Park (3,000 ft.); N.S. Wales: Ebor.
E. fucosa, Warr.—N. Terr.: Darwin.
E. philocosma, Meyr.—Q'land: Gayndah, Caloundra, Mount Tambourine, Coolangatta; N.S. Wales: Glen Innes.
Acidalia lydia, Butl.—Q'land: Caloundra, Jandowae, Charleville; Vict.: Brentwood, Birchip; S. Austr.: Wynbring.
A. perlata, Wlk.—Q'land: National Park (2-3,000 ft.), Killarney; N.S. Wales: Ebor, Bega, Mount Kosciusko (5,000 ft.).
A. liotis, Meyr.—Vict.: Mount St. Bernard (5,000 ft.).
A. desita, Wlk.—N. Terr.: McDonald Ranges; N. Q'land: Herberton; Q'land: Blackbutt, Rosewood.
A. rubraria, Dbld.—Q'land: Eidsvold, Gayndah, Rosewood, Coolangatta, Roma, Charleville, Cunnamulla; N.S. Wales: Bega; Vict.: Gisborne, Birchip; W. Austr.: Perth, Bridgetown.

- A. sublinearia*, Wlk.—N. Terr.: Darwin; Q'land: Coolangatta; N.S. Wales: Sydney.
- A. prosoeca*, Turn.—N. Terr.: Darwin; Q'land: Eidsvold.
- A. recessata*, Wlk.—N. Q'land: Herberton; Q'land: Eidsvold, Gayndah, Rosewood.
- A. nictata*, Gn.—N. Q'land: Cairns, Ingham.
- A. oppilata*, Wlk.—Q'land: Eidsvold, Gayndah, Stanthorpe, Roma, Charleville; N.S. Wales: Tabulam.
- A. thysanopus*, Turn.—N. Terr.: Darwin; N. Q'land: Herberton; Q'land: Killarney.
- A. optivata*, Wlk.—N. Q'land: Cairns, Atherton, Herberton; Q'land: Eidsvold, Gayndah, Coolangatta, Warwick, Killarney, Roma; N.S. Wales: Tabulam, Armidale, Ebor, Bega; Vict.: Birchip; W. Austr.: Harvey, Busselton, Perth.
- A. caesaria*, Wlk.—N. Terr.: Darwin; Q'land: Stradbroke Island.
- Dasybela achroa*, Low.—Vic.: Sale.
- Somatina maculata*, Warr.—Q'land: Eidsvold.
- Problepsis clemens*, Luc.—Q'land: Toowoomba.
- P. sancta*, Meyr.—Q'land: Blackbutt, Toowoomba.
- P. cana*, Hmps.—N.W. Austr.: Derby.
- Ptychophyle cyphosticha*, Turn.—N. Terr.: Darwin.
- Gnamptoloma aventiaria*, Gn.—N. Q'land: Atherton, Herberton; Q'land: Emerald, Eidsvold, Gayndah, Caloundra, Rosewood; N.S. Wales: Lismore.
- Organopoda olivescens*, Warr.—N. Q'land: Herberton; Q'land: National Park (3,000 ft.).
- Brachycola obrinaria*, Gn.—N. Terr.: Darwin.
- B. porphyropis*, Meyr.—N. Q'land: Herberton; Q'land: Blackbutt, National Park (3,000 ft.); N.S. Wales: Lismore.
- Anisodes leptopasta*, Turn.—N. Q'land: Cooktown.
- Pisoraca nephelospila*, Meyr.—N. Q'land: Cooktown.
- P. punctata*, Warr.—N. Q'land: Herberton.
- P. cryptorhodata*, Wlk.—Q'land: Gayndah; N.S. Wales: Sydney.

Fam. GEOMETRIDAE.

Gen. IDIOCHROA, n. gen.

ιδιοχρoος, with peculiar colouring.

Frons flat. Tongue absent. Palpi minute (less than $\frac{1}{2}$); porrect, shortly rough-haired. Antennae bipectinate in both sexes, extreme apex simple. Thorax and abdomen without crests; thorax not or very slightly hairy beneath. Posterior tibiae with two pairs of fully developed spurs; not dilated in male. Forewings with 7, 8, 9, 10 stalked from before angle of cell, 11 from cell, connected by a bar or anastomosing with 12. Hindwings with strong basal costal expansion, frenulum and retinaculum absent; 2 from middle of cell, 3 from well before angle widely remote from 4, 6 and 7 connate or short-stalked, 8 touching cell at a point near base, thence very gradually diverging.

Near *Cenochlora*, Warr., but has two pairs of spurs on posterior tibiae. Type *I. demissa*.

IDIOCHROA DEMISSA, n. sp.

demissus, modest.

♂, 21-22 mm. Head green; face and palpi pale fuscous. Antennae whitish; pectinations in male 10, apical $\frac{1}{8}$ simple. Thorax green. Abdomen whitish with a broad, dull-reddish, median, dorsal streak; beneath pale fuscous. Legs whitish-ochreous; anterior pair pale fuscous. Forewings triangular, costa gently arched, apex acute, termen slightly bowed, oblique; 11 connected with 12 by a long bar; rather dark green; costal edge pale ochreous as far as middle; a fuscous dot on end of cell at about $\frac{3}{5}$; cilia green. Hindwings with termen rounded; dull reddish; dorsum narrowly green; a darker reddish dot on end of cell; cilia whitish, slightly reddish tinged. Underside more or less suffused with dull reddish.

♀, 22 mm. Antennal pectinations 8. Face green. Hindwings pale green. Underside green. Differs from male in total absence of reddish colouring.

Queensland: Rosewood, in September; Toowoomba, in December (W. B. Barnard); six specimens.

IDIOCHROA CELIDOTA, n. sp.

κηλιδωτος, blotched.

♂, 22 mm.; ♀, 29 mm. Head white, posterior edge green; face dark reddish. Palpi very short (about $\frac{1}{3}$); reddish. Antennae ochreous-whitish; pectinations in male 12, in female 6, extreme apex simple. Thorax green. Abdomen whitish tinged with reddish; dorsum of first two segments green; sometimes a suffused, fuscous, median, dorsal streak containing several white dots; under-surface ochreous-whitish. Legs whitish-ochreous; anterior pair reddish. Forewings triangular, costa gently arched, apex round-pointed, termen nearly straight, slightly oblique; 11 anastomosing with 12; green (inclining to bluish-green); costal edge pale ochreous; a large tornal blotch outlined with purple fuscous, whitish containing a pale-reddish streak along anterior border, and a broader pale-reddish central partition, in which are some purple-fuscous scales; cilia grey. Hindwings with termen rather irregularly rounded, tornus rather prominent; colour and cilia as forewings, but without markings. Underside whitish-green; forewings ochreous tinged with a pale-grey tornal blotch.

Queensland: Gayndah, female type received from Dr Hamilton Kenny; Rosewood, a wasted male, in April.

CYMATOPLEX HALCYONE, Meyr. (*Eucrostes*).

This name supersedes *crenulata*, Luc.

Northern Territory: Darwin. Northern Queensland: Thursday Island, Cairns, Townsville. Queensland: Caloundra, Brisbane, Stradbroke Island, Southport. Also from New Guinea.

Gen. MIXOCERA, Warr.

This name supersedes *Gynandria*, Turn. Experience has shown me that pectination of the female antennae cannot be relied on as a generic character. The genus comes near *Cymatoplex*, but 11 arises from end of cell, connate with 7, 8, 9, 10, or is short-stalked with them. In the latter genus 11 is from well before end of cell. Type *M. parvulata*, Wlk., from India. There are also five African species.

Gen. EUCROSTES, Hb.

Tongue weakly developed. Palpi slender, moderately long, porrect; terminal joint in male very short, in female longer. Femora smooth. Posterior tibiae without middle spurs. Forewings with 3 and 4 connate, 5 from above middle, 6 from upper angle, 11 from cell, anastomosing with or running into 12. Hindwings with cell short ($\frac{2}{5}$), with 3 and 4 connate, 6 and 7 connate, 12 anastomosing with cell at a point near base, thence rapidly diverging. Frenulum and retinaculum absent and hindwings with costal expansion at base in both sexes.

Near *Cymatoplex*, Turn., and *Mixocera*, Warr. Differs from the first by the shorter cell of hindwing and rather longer female palpi; from the second by the origin of 11 of forewings well before end of cell. Type *E. indigenata*, De Villers, from the Mediterranean area.

EUCROSTES IOCENTRA Meyr.

Iodis barnardae, Luc.

Mr. Prout makes *Eucrostes nanula*, Warr., a synonym; but I think Warren's type is so wasted as to be unrecognizable.

Queensland: Duaringa, Brisbane, Charleville.

Gen. IULOPS, Prout.

This genus has been made for *argocrana*, Meyr., a species which I have not seen.

EULOXIA GRATIOSATA, Gn.

I shall not follow Prout in placing this in a genus by itself under the name *Mixochroa*, Warr. The species occurs

rather commonly on Mount Kosciusko at 5,000 ft., with the oblique white line on forewing feebly developed or absent.

EULOXIA ARGOCNEMIS, Meyr. (*Iodis*).

Mr. Prout, who has doubtless examined the type, places it in this genus.

CHLOROCOMA SYMBLETA, n. sp.

συμβλητος, comparable.

♂, 36 mm. Head and face green; fillet broadly white. Palpi whitish, on upper-surface crimson. Antennae white, apical half and pectinations pale crimson; pectinations in male 5, apical $\frac{1}{6}$ simple. Thorax bluish-green. Abdomen bluish-green; tuft, sides posteriorly, and under-surface whitish. Legs pale crimson; posterior pair whitish; posterior tibiae in male dilated with internal groove and tuft. Forewings broadly triangular, costa gently arched, apex sub-rectangular, termen very slightly bowed, moderately oblique; 3 and 4 approximated at origin, 6 connate, 11 anastomosing with 12; bluish-green; costal edge white except near base and in apical $\frac{1}{4}$, where it is crimson; a darker green discal dot on end of cell; a very fine dentate whitish postmedian line obscurely indicated; cilia pale crimson. Hindwings with termen rounded; 3 and 4 stalked; as forewings but without costal streak and discal dot. Underside pale green.

Not unlike *C. asemanta*, Meyr., but this is a smaller species with green cilia.

New South Wales: Adaminaby (3,500 ft.), in October; one specimen.

CHLOROCOMA RHODOTHRIX, n. sp.

ῥοδοθριξ rosy-haired.

♂, 26 mm. Head and face brown; fillet broadly white. Palpi pale brown. Antennae white; pectinations fuscous [broken off except first two joints]. Thorax brown; posterior end and apices of patagia green. Abdomen green; tuft whitish; under-surface whitish-ochreous. Legs whitish; anterior and middle pairs crimson anteriorly; both spurs on middle tibiae and external spurs on posterior tibiae crimson; posterior pair in male not dilated and without internal groove and tuft. Forewings triangular, costa straight except near base and apex, apex pointed, termen very slightly bowed, oblique; 3 and 4 connate, 6 short-stalked with 7, 8, 9, 10, 11 anastomosing with 12; deep green; a broad brown costal streak from base to apex, leaving costal edge white from $\frac{1}{8}$ to $\frac{3}{4}$, and thence crimson; veins mostly faintly marked with pale crimson; termen narrowly crimson; cilia deep

crimson. Hindwings with termen strongly rounded; 3 and 4 short-stalked; as forewings but without costal markings; a crimson antemedian discal dot on end of cell. Underside similar.

Tasmania: Cradle Mountain, in January (3,000-3,500 ft.); one specimen, received from Dr. R. J. Tillyard.

CHLOROCOMA MELOCROSSA, Meyr.

I now regard *C. periphracta*, Turn., as a well-marked local race of *C. melocrossa*. I have found it only on Stradbroke Island, but examples intermediate between it and the typical form occur at Coolangatta, in both instances attached to *Banksia serratifolia*.

CHLOROCOMA NEPTUNUS, Butl.

Chloëres cissina, Turn.

In describing this as a *Chloëres* I overlooked the very slender male frenulum, and minute retinaculum near to base of wing.

Queensland: Rockhampton, Gayndah, Rosewood, Toowoomba, Killarney.

CHLOROCOMA TACHYPORA, Turn.

Near the preceding but distinguishable by the white costal streak of forewings, and the face being not green but greenish-ochreous.

Queensland: Stradbroke Island, Southport.

Gen. PAMPHLEBIA, Warr.

Differs from *Chlorocoma*, Turn., in the forewings having vein 11 stalked from 10, and in the terminal joint of palpi being elongate in female. Type *P. rubrolimbaria*.

PAMPHLEBIA RUBROLIMBARIA, Gn. (*Amaurinia*).

Thalassodes diserta, Wlk.

Thalassodes simpliciaris, Wlk.

Nemoria rufotinctaria, Snel.

Chlorocoma perigrapta, Turn.

Northern Queensland: Ingham. Also from New Guinea, Borneo, Ceylon, and India. I am indebted to Mr. L. B. Prout for the identification.

Gen. GELASMA, Warr.

Prasinocyma, Warr.

Type *G. thetydaria*, Gn., from India. I am unable to separate these two genera. Those species to which *Gelasma* is

restricted by Prout form a natural group, which embraces *centrophylla*, Meyr., *calaina*, Turn., *epimitra* described below, and *orthodesma*, Low. In both *calaina* and *orthodesma* the terminal joint of palpi in female is fully $\frac{2}{3}$, and the only structural distinction appears to be the angling of the termen of the hindwing on vein 4, which is insufficient. The genus, as I conceive it, is large but not unmanageable, comprising some 120 species.

GELASMA ISERES, n. sp.

ισηρης, equally fitted.

♂, 30 mm. Head and face green; fillet broadly white. Palpi short (about 1); whitish. Antennae white; pectinations in male 10, whitish-ochreous. Thorax green. Abdomen green; apex and underside whitish. Legs pale ochreous; coxae whitish. Forewings triangular, costa straight to $\frac{3}{4}$, thence gently arched, apex subrectangular, termen nearly straight, slightly oblique; green with numerous, fine, whitish, minute, transverse strigulae; a white costal streak from near base to near apex; cilia green. Hindwings with termen bowed, tornus prominent; as forewings but without costal streak. Underside whitish-green.

Very like *P. albicostata*, which differs in the longer palpi ($1\frac{1}{2}$) and whitish cilia.

Northern Territory: Darwin, one specimen received from Mr. G. F. Hill.

GELASMA LYCHNOPASTA, Turn. (*Prasinocyma*).

New South Wales: Ebor Scrub (4,000 ft.).

GELASMA EPIMITRA, n. sp.

ἐπιμιτρος, girdled.

♂, 24 mm.; ♀, 28 mm. Head bluish-green; fillet white; face green. Palpi in male $1\frac{1}{2}$, terminal joint $\frac{1}{3}$; in female $3\frac{1}{2}$, terminal joint $\frac{3}{4}$; green; under-surface white. Antennae white, towards apex ochreous tinged. Thorax bluish-green. Abdomen bluish-green; tuft and under-surface white. Legs whitish; anterior pair green on dorsum. Forewings triangular, costa moderately arched, apex round-pointed, termen bowed, oblique; 11 free; bluish-green densely irrorated, except on two transverse fasciae, with lustrous whitish scales; first fascia moderate, at $\frac{1}{3}$, indistinct towards costa; second fascia at $\frac{2}{3}$, narrow on costa, soon broadening and outwardly curved, then nearly straight and again narrower to dorsum, its anterior edge rather suffused, posterior edge sharply defined, crenulate; costal edge grey from $\frac{1}{4}$ to apex; a blackish median discal dot; a green terminal line;

cilia pale green. Hindwings with termen angled on vein 4, wavy; as forewings but without first fascia; discal dot at $\frac{1}{3}$. Underside pale green.

Northern Queensland: Evelyn Scrub, near Herberton, in January; female type received from Mr. F. P. Dodd. New South Wales: Mount Gregson, in March; one male in Coll. Goldfinch.

GELASMA ORTHODESMA, Low.

Northern Queensland: Cairns. Also from New Guinea.

GELASMA CENTROPHYLLA, Meyr.

Northern Queensland: Herberton. Queensland: Brisbane, Stradbroke Island, Toowoomba. New South Wales: Sydney. Victoria: Melbourne, Beaconsfield, Gisborne. Tasmania: George Bay, Kelso, Georgetown.

Gen. CHRYSOCHLOROMA, Warr.

This, though nearly allied to *Gelasma*, may be separated by the strong male frenulum, and the presence of a weak frenulum in female. It contains only the one Australian species and four from New Guinea.

Gen. EUCELA, n. gen.

εὐκηλος, calm, tranquil.

Frons flat. Tongue very weakly developed. Palpi short (slightly over 1), porrect; second joint with long rough hairs beneath; terminal joint in female about $\frac{1}{2}$, slender, pointed. Antennae in female simple. Thorax and abdomen without crests; thorax slightly hairy beneath. Posterior tibiae without middle spurs. Forewings with 2 from $\frac{2}{3}$, 3 from before angle remote from 4, 5 from above middle, 6 from angle, 7, 8, 9, 10 stalked, 10 arising before 7, 11 anastomosing with 12. Hindwings with strong, basal, costal expansion, frenulum and retinaculum absent in female; cell about $\frac{1}{2}$, lower discocellular oblique, costal edge of cell not much shorter than dorsal; 2 from $\frac{2}{3}$, 3 and 4 remote at origin, 6 and 7 connate or just stalked, 8 approximated to cell near base, thence gradually diverging.

Unfortunately the male, which will probably show additional characters, is unknown, and the true position of the genus remains uncertain.

EUCELA AMALOPA, n. sp.

ἀμαλωπος, soft-looking.

♀, 36 mm. Head and face green. Palpi and antennae whitish. Thorax green. Abdomen whitish with green dorsal

and sublateral streaks. Legs whitish; coxae and anterior femora green. Forewings triangular, costa nearly straight but arched towards base and apex, apex pointed, termen nearly straight, moderately oblique; rather pale green; costal edge white; an outwardly curved white line from $\frac{1}{3}$ costa to $\frac{2}{5}$ dorsum; a white line, broad except towards costa, nearly straight, from $\frac{5}{6}$ costa to mid-dorsum; cilia whitish. Hindwings with termen rounded; pale green; cilia whitish. Underside pale green with postmedian white line, preceded by a darker shade of green, on both wings.

New South Wales: Mount Kosciusko (5,000 ft.), in January; one specimen.

METALLOCHLORA NEOMELA, Meyr. (*Iodis*).

Pisina, Warr., and *albolineata*, Pagent., are synonyms.

Northern Territory: Darwin. North-western Australia: Broome. Also from New Guinea, New Britain, and Tenimber Island.

Gen. EUCYCLODES, Warr.

I am unable to agree with Mr. Prout in separating all the species except *buprestaria* to form his new genus *Anisozyga*, for *buprestaria* is closely allied to them, the slight structural differences being merely specific. Mono-specific genera should only be made for species isolated by considerable structural peculiarity; on the other hand, comparatively slight structural characters, if definite and constant, may be useful in separating two nearly related *groups* of species.

EUCYCLODES DENTATA, Warr.

I now regard this as merely a female aberration of *E. pieroides*, Wlk.

AGATHIA OCHROTYPA, n. sp.

ὀχροτύπος, pale-marked.

♀, 40-42 mm. Head and thorax bright green. Palpi 2, terminal joint $\frac{1}{3}$; whitish, terminal joint fuscous. Antennae whitish-brown with some fuscous irroration. Abdomen bright green, beneath whitish. Legs whitish-brown; anterior pair partly suffused with fuscous. Forewings triangular, costa strongly arched, apex rectangular, termen bowed, wavy, oblique; bright green with sparse, pale-grey, transverse strigulae; markings pale grey mixed with pale ochreous-brown; costal edge pale grey with darker strigulae; an ill-defined, small, subbasal fascia; a fascia from $\frac{1}{3}$ dorsum, not quite reaching $\frac{1}{3}$ costa, bent outwards in middle, somewhat constricted above and below middle; a second fascia

commencing in a blotch beneath $\frac{2}{3}$ costa, constricted beneath this, and again above $\frac{2}{3}$ dorsum; cilia grey. Hindwings with termen wavy, produced to an acute angle on vein 4; as forewings but with basal and antemedian fasciae; postmedian fascia expanded towards dorsum; a fuscous-brown marginal dot above terminal projection, and a larger marginal spot bisected by a whitish line beneath projection; cilia whitish, on projection fuscous, towards tornus with a fuscous basal line. Underside green-whitish with indications of postmedian fasciae.

Northern Queensland: Evelyn Scrub, near Herberton, in December and February; two specimens received from Mr. F. P. Dodd.

HELICOPAGE CINEREA, Warr. (*Agathia*).

Helicopage cinerea, Prout.

♀, 40 mm. Head bright green; lower half of face and fillet grey. Palpi $2\frac{1}{2}$, terminal joint $\frac{2}{3}$; grey, basal half of under-surface whitish. Antennae grey. Thorax bright green with median and postmedian central grey spots. Abdomen pale grey with a dorsal series of large green spots; beneath whitish. Legs whitish; anterior pair fuscous anteriorly. Forewings triangular, costa moderately arched, apex acute, termen strongly bowed, oblique; bright green with broadly suffused grey markings and strigulae; costal edge pale grey with darker strigulae; a rather large basal patch containing a fuscous subcostal spot and several green spots, towards dorsum this is darker, with a very oblique inwardly directed edge; succeeding this is a narrow irregular fascia connected with a transverse median bar, which runs into postmedian fascia; a very broad fascia with darker strigulae, its edges very irregular, extending on costa from $\frac{3}{5}$ to apex, on dorsum from $\frac{3}{5}$ to tornus and adjacent part of termen, this forms an acute apical process, and contains a transverse sinuous line of fuscous dots at $\frac{2}{3}$; a grey terminal line, cilia grey. Hindwings with termen angled on vein 6, and more acutely so on vein 4; as forewings but with a small basal fascia only; postmedian fascia expanded into a large tornal blotch extending from mid-dorsum to acute angle on termen, containing a transverse series of fuscous dots and a dark wavy line from apex to tornus. Underside whitish; costa of forewings with large fuscous strigulae and a subapical blotch, from which arises a narrow transverse fascia; hindwings with a fuscous subterminal fascia thickest in middle.

Unfortunately the male is unknown. In *Helicopage* the male antennae are pectinate, and the male frenulum abnormally specialized.

Northern Queensland: Kuranda, near Cairns, in January; one specimen received from Mr. F. P. Dodd. Also from New Guinea.

Gen. CYNEOTERPNA, Prout.

Autanepsia, Turn., *praeocc.*

Type *C. wilsoni*, Feld.

Gen. HEMICHLOREÏS, Turn.

HEMICHLOREÏS THEATA, Turn.

New South Wales: Taree.

Gen. CRYPSIPHONA, Meyr.

In my revision I made *C. melanosema* the type of the genus. This was unfortunate, as Mr. Prout has pointed out, nor do I think it can be maintained. Although Mr. Meyrick did not specify the type, the name he has given to the genus (*κροψιφωνος*, with hidden colour) clearly indicates that he intended *occultaria* as the type.

CRYPSIPHONA EREMNOPIIS, n. sp.

ἐρεμνωπις, dark.

♂, ♀, 32 mm. Head brown-whitish irrorated with dark fuscous. Palpi 2; fuscous, some brown-whitish scales on upper edge, base whitish beneath. Antennae fuscous; pectinations in male 5. Thorax fuscous mixed with brown-whitish. Abdomen grey. Legs, anterior pair dark fuscous [middle and posterior pairs broken off]. Forewings triangular, costa gently arched near base, thence nearly straight, apex obtusely pointed, termen bowed, oblique, crenulate; 11 anastomosing with 12 (1 male); brown-whitish suffused, and towards costa strigulated, with fuscous; markings fuscous; an indistinct, transverse, somewhat dentate line at $\frac{1}{4}$; a transverse, linear, dark-fuscous, discal mark beneath mid-costa, surrounded by some brownish suffusion; a narrow fascia, ill-defined anteriorly, posteriorly sharply defined by whitish, at first bent outwards and very sharply dentate, abruptly bent inwards below middle, and ending as a fine line to $\frac{3}{4}$ dorsum; an indistinct, whitish, dentate, subterminal line, anteriorly edged by sharp fuscous teeth; some brownish suffusion between this and termen; a dark-fuscous terminal line; cilia fuscous, narrowly barred with white between veins. Hindwings with termen rounded, crenulate; rather dark grey; an obscure, darker, dentate, postmedian line; a dark-fuscous terminal line; cilia as forewings. Underside whitish suffused with fuscous, with obscure dark postmedian line on both wings.

In the absence of the hindlegs I cannot be sure that this is a *Crypsiphona*, but the total absence of abdominal crests makes it probable.

Western Australia: Cunderdin, in October, one male received from Mr. R. Illidge; Mount Barker, one female (L. J. Newman).

Gen. PINGASA, Moore.

Differs from *Terpna* in having crests of scales on upper-surface of hindwings. The distinction seems natural and tenable. So far I agree with Prout, but cannot follow him in separating from it a new genus *Hypodoxa*; the former with cell of hindwings short, scale-tuft at its end; the latter with cell normal, scale-tuft before its end. I have carefully noted (without actual measurement) the comparative length of the cell of the hindwing in seven Australian species. The dorsal edge of the cell is longer than the costal, and I have made my comparisons from the length of the costal edge. In *chlora* it is about $\frac{2}{5}$; in *cinerea* between $\frac{2}{5}$ and $\frac{1}{2}$; in *emiliaria*, *muscosaria*, *myriosticta*, and *erebata* about $\frac{1}{2}$; in *deteriorata* about $\frac{3}{5}$. These differences and slight variations in the position of the scale-tufts appear to me to be of specific value only.

Type *P. ruginaria*, Gn., from India and Africa.

PINGASA MUSCOSARIA, Gn.

This species varies much according to locality. It would be easy to distinguish local races or subspecies, probably a longer series will show these to be connected by intermediate forms.

PINGASA ACUTANGULA, Warr.

♀, 42-46 mm. Head brownish, on sides whitish. Palpi rather long, ascending; terminal joint as long as second joint, porrect; whitish. Antennae fuscous, towards base fuscous-whitish. Thorax whitish with a central brownish suffusion. Abdomen whitish suffused with fuscous and brownish; a double median reddish-brown line, enclosing crests, which are brownish; underside whitish. Legs, anterior pair fuscous, coxae whitish [middle and posterior pairs broken off]. Forewings triangular, costa gently arched, apex round-pointed, termen bowed, crenulate; whitish with fine pale-brown or grey irroration; lines fine, blackish, becoming reddish on dentations; first from $\frac{1}{4}$ costa, acutely angled inwards beneath costa, then prolonged outwards nearly to middle of disc, where it forms a narrow quadrangular process, in which is included a brownish linear discal mark, returning it forms an acute angle on disc beneath subcostal angle,

beneath this a double prominence on vein 1 and ends on dorsum, near base; second line from $\frac{2}{3}$ costa towards termen, acutely dentate six times, then bent inwards to dorsum near middle, with a seventh dentation above dorsum; terminal area darkly suffused with brown and fuscous beyond second line, and a short reddish line connecting sixth dentation with tornus; an obscure whitish dentate subterminal line; a suffused paler spot on termen below middle; a dark terminal line; cilia whitish obscurely barred with brownish. Hindwings similar but without first line, discal mark small or absent. Under-side white; both wings with a blackish terminal band, and white apical and median terminal spots; forewings with linear discal mark.

Easily recognized by the peculiarly angulated first line of forewings.

Northern Queensland: Coen River (W. D. Dodd), one specimen in South Australian Museum; Kuranda (from F. P. Dodd in Coll. Lyell). Also from New Guinea.

PINGASA ATRIScripta, Warr.

Hypochroma munita, Luc.

I do not know this species and have merely transcribed Prout's identification.

Northern Queensland: Cairns. Also from New Guinea.

Gen. AEOLochroma, Prout.

Type *A. turneri*, Luc.

Mr. Prout refers here all the remaining Australian species of the group except *paroptila* (doubtfully) and *percomptaria*. These two he retains in *Terpna*, which he distinguishes by the frons being strongly protuberant. But in *percomptaria* this is not the case, and being therefore doubtful of the validity of his distinction, I propose to retain all these species in *Terpna* except the type, defining the genus *Aeolochroma* by the simple male antennae. It differs from *Actenochroma*, Warr., in having strong abdominal crests.

Gen. TERPNA, H.-Sch.

T. saturataria, Wlk., cannot be included in the Australian list at present. It may occur in Queensland, but Swinhoe's reference to Western Australia is almost certainly erroneous.

TERPNA UNITARIA, Wlk. (*Tephrosia*).

Hypochroma acanthina, Meyr.

I do not know this species.

TERPNA HYPOCHROMARIA, Gn.

The male of this species has a small notch preceded by a small tuft of hairs on the dorsum of the antenna near its base. No doubt this is a scent-producing organ.

Northern Queensland: Cape York. Queensland: Brisbane, Toowoomba. New South Wales.

Gen. STERICTOPSIS, Warr.

Mr. Prout, who has examined the type of *paratorna*, Meyr., states (Gen. Ins. Hemith., p. 24) that it does not belong to this genus, for 10 is stalked with 7, 8, 9. It has scarcely any dorsal crests and the male antennal pectinations are short. *Argyraspis*, Low., is from the same locality probably, and therefore may be identical with it. The two Gisborne examples, which I examined, agreed structurally with *inconsequens*, Warr., which is from Duaringa, but I will not be sure that they are the same species. I accept, of course, Mr. Prout's observations, but am unable for want of material to clear up the confusion, which at present undoubtedly exists.

ADDITIONAL LOCALITIES.

- Comostola laesaria*, Wlk.—Q'land: Gayndah, Caloundra, Stradbroke Island, Mount Tambourine, Coolangatta, Rosewood, Toowoomba; N.S. Wales: Lismore.
- Pyrrhorhachis pyrrhogona*, Wlk.—Q'land: Gayndah, Rosewood.
- Chloëres citrolimbaria*, Gn.—Q'land: Blackbutt, National Park (2-3,000 ft.); N.S. Wales: Lismore, Port Hacking.
- Mixocera latilineata*, Wlk.—Q'land: Gayndah, Caloundra, Toowoomba; N.S. Wales: Lismore, Tabulam.
- Euloxia meandraria*, Gn.—N.S. Wales: Ebor, Mount Kosciusko (3,500-5,000 ft.).
- E. fugitivaria*, Gn.—N.S. Wales: Glen Innes, Mount Kosciusko (5,000 ft.).
- E. pyropa*, Meyr.—W. Austr.: Harvey.
- Chlorocoma cadmaria*, Gn.—Q'land: Coolangatta; N.S. Wales: Glen Innes.
- C. dichloraria*, Gn.—Q'land: Brisbane, Blackbutt.
- C. assimilis*, Luc.—W. Austr.: Donnybrook.
- C. externa*, Wlk.—Q'land: Toowoomba.
- C. monocyma*, Meyr.—S. Austr.: Port Augusta.
- C. melocrossa*, Meyr.—Q'land: Stradbroke Island. Coolangatta; Tas.: Hobart, Tasman Peninsula.
- Comibaena mariaae*, Luc.—Q'land: Gayndah, Rosewood, Toowoomba.
- Thalassodes veraria*, Gn.—N. Terr.: Darwin; N.S. Wales: Lismore.
- Gelasma rhodocosma*, Meyr.—N. Terr.: Darwin; N. Q'land: Cairns; Q'land: Gayndah.
- G. ocyptera*, Meyr.—Q'land: Clermont, Gayndah, Toowoomba, Charleville.
- G. albicosta*, Wlk.—N. Terr.: Melville Island; N. Q'land: Cairns.

- G. iosticta*, Meyr.—N. Q'land: Herberton; Q'land: Stradbroke Island; N.S. Wales: Lismore.
- G. calaina*, Turn.—Q'land: Montville (1,500 ft.) near Nambour, National Park (3,000 ft.), Toowoomba.
- G. centrophylla*, Meyr.—N.S. Wales: Port Macquarie.
- G. floresaria*, Wlk.—N. Q'land: Herberton.
- Hemithea insularia*, Gn.—N. Terr.: Darwin.
- Metallochloa decorata*, Warr.—N. Q'land: Herberton.
- M. venusta*, Warr.—N. Q'land: Atherton.
- Urolitha bipunctifera*, Wlk.—Q'land: Gayndah, Toowoomba; N.S. Wales: Lismore. Also from Lord Howe Island.
- Uliocnemis partita*, Wlk.—N. Q'land: Claudie River.
- Eucyclodes pieroides*, Wlk.—N. Terr.: Darwin; N. Q'land, Cooktown, Cairns; Q'land: Gayndah, Coolangatta; N.S. Wales: Lismore.
- E. fascians*, Luc.—N.S. Wales: Lismore.
- E. insperata*, Wlk.—Q'land: Toowoomba; N.S. Wales: Lismore.
- E. metaspila*, Wlk.—Q'land: Nambour, Mount Tambourine.
- E. buprestaria*, Gn.—Q'land: Coolangatta; Tas.: Cygnet.
- Chlorodes boisduvalaria*, Le G.—N.S. Wales: Ebor; Tas.: Hobart.
- Agathia laetata*, Fab.—Q'land: Nambour, Rosewood; N.S. Wales: Lismore.
- Crypsiphona occultaria*, Don.—N. Terr.: Darwin; Q'land: Toowoomba, Charleville; N.S. Wales: Lismore; Vict.: Birchip; Tas.: Tasman Peninsula, Cygnet.
- Pingasa muscosaria*, Gn.—Q'land: Nambour, Toowoomba; N.S. Wales: Lismore, Ebor, Albyn River.
- P. emiliaria*, Gn.—N.S. Wales: Lismore.
- P. myriosticta*, Turn.—N.S. Wales: Lismore.
- P. erebata*, Wlk.—N. Terr.: Darwin; Q'land: Yeppoon, Caloundra.
- P. chlora*, Cram.—Q'land: Coolangatta.
- P. cinerea*, Warr.—Q'land: Nambour, Caloundra, Toowoomba.
- Terpna metarhodata*, Wlk.—Q'land: Gayndah.
- T. hypochromaria*, Gn.—Q'land: Gayndah, Nanango, Toowoomba; N.S. Wales: Lismore.
- T. quadrilinea*, Luc.—Q'land: Gayndah; N.S. Wales: Lismore, Port Macquarie.
- T. percomptaria*, Gn.—Q'land: Toowoomba.
- Rhuma subaurata*, Wlk.—N.S. Wales: Taree.
- Heliomystis electrica*, Meyr.—N.S. Wales: Mount Kosciusko (5,000 ft.).

Fam. BOARMIAIDAE.

CLEORA LACTEATA, Warr. (*Chogada*).

This name must be adopted for the species, which, following Meyrick, I have described under the name of *illustraria*, Wlk. I have since examined the type of *illustraria* and find that is referable to the species for which I have adopted the name *acaciaria*, Bdv.

Also from New Guinea and New Britain.

BOARMIA ZASCIA, Meyr.

Specimens from Armidale and Stanthorpe are much paler than those from Victoria, the general coloration being greyish, and the vertex of head is grey, but the face is always blackish.

Queensland: Stanthorpe, in October. New South Wales: Armidale. Victoria: Melbourne, Beaconsfield.

BOARMIA PANCONITA, Turn.

Nearly allied to *B. zascia*. It is darker than the northern examples of this species, from which it may be always distinguished by the lower part of the face being white, and by the crescentic discal mark on the hindwing. [The female example with wholly blackish face, which I formerly referred to this species, is an example of *zascia*.] The Gayndah examples apparently represent a distinct local race.

Queensland: Gayndah, Stanthorpe, in October.

BOARMIA DESTINATARIA, Gn.

Also allied to the two preceding species, and like them variable, but readily distinguished by the paler suffused coloration more or less tinged with ochreous, and the absence of any black on the face.

Queensland: Stanthorpe, in October. New South Wales: Ebor, Sydney, Katoomba. Tasmania.

BOARMIA PISSINOPA, n. sp.

πισσινωπος, black as pitch.

♂, 42 mm. Head, palpi, antennae, and thorax blackish. Antennal pectinations in male 10, apical $\frac{1}{6}$ simple. Abdomen on dorsum fuscous becoming blackish towards base; lower-surface, sides, and tuft grey-whitish. Legs fuscous; posterior pair grey. Forewings triangular, costa nearly straight, apex round-pointed, termen bowed, oblique, slightly crenulate; blackish; markings intensely black; a fine transverse line from $\frac{1}{3}$ costa, bent strongly inwards beneath costa, and again bent to $\frac{1}{6}$ dorsum; a thicker oblique shade from mid-costa to dorsum before middle; a transverse, median, subcostal discal mark; a slightly dentate line from $\frac{3}{4}$ costa, strongly bent inwards to mid-dorsum; a faint, incomplete, dentate subterminal line; a fine terminal line; cilia dark fuscous. Hindwings with termen gently rounded, obtusely dentate; as forewings but without first line, other lines transverse, gently rounded.

In colour this species resembles *Melanodes anthracitaria*, Gn., and both are adapted for concealment on tree-trunks blackened by fire.

Western Australia: Perth, in October; one specimen.

BOARMIA MACULATA, Luc.

Queensland: National Park (3,000 ft.), in March; a series taken at light. These agree with two examples from

Kuranda which I have identified at *maculata*, Luc., in structure of male antennae, neuration (10 and 11 stalked, free; 6 males and 4 females), and markings, but they are larger (52-58 mm.) and much greener in coloration.

ABRAXAS SPOROCROSSA, n. sp.

σποροκροστος, with spotted border.

♂, ♀, 46-50 mm. Head yellow with three fuscous dots on crown and sometimes another on face. Palpi fuscous, towards base yellowish. Antennae fuscous; ciliations in male $\frac{1}{2}$. Thorax fuscous; middle of patagia and two posterior dots yellow. Abdomen fuscous on dorsum; bases of segments broadly yellow, each yellow bar containing a pair of lateral spots; ventral surface yellow with paired fuscous spots. Legs fuscous-grey; coxae and posterior femora partly yellowish. Forewings triangular, costa strongly arched, apex rounded, termen bowed, oblique; blackish; a yellow dot beneath costa near base, followed by a median whitish dot, which is sometimes connected with a subcostal dot at $\frac{1}{6}$, these are more or less yellow tinged; a quadrangular white spot beneath $\frac{1}{3}$ costa; a triangular blotch on mid-dorsum, its apex acute and reaching nearly to middle of disc; a white blotch beneath $\frac{2}{3}$ costa, irregular in outline, reaching below middle of disc, convex posteriorly, concave and more or less wavy anteriorly, followed by a minute subcostal dot; a white dot before tornus, sometimes prolonged into disc; a subterminal series of six or seven small quadrangular white spots, the two central reduced to dots; cilia blackish. Hindwings with termen gently rounded; white; a triangular basal blackish blotch to $\frac{1}{4}$; a blackish terminal band containing a series of quadrangular white dots; cilia blackish. Underside similar.

Northern Queensland: Claudie River, in December; two specimens taken by Mr. J. A. Kershaw. Type in National Museum, Melbourne.

Gen. XYLODRYAS, n. gen.

ξύλοδρυας, a woodnymph.

Frons flat. Tongue well developed. Palpi moderate, porrect; basal and second joints shortly rough-scaled; terminal joint short. Antennae in male simple, minutely ciliated. Thorax with a small posterior crest; slightly hairy beneath. Abdomen not crested. Femora smooth. Posterior tibiae in male not dilated. Forewings broadly triangular, costa strongly arched towards base, termen excavated between veins 4 and 6; in male without fovea; 2 from $\frac{2}{3}$, 7, 8, 9, 10 stalked, 10 connected with 8, 9 beyond 7, 11 connected with

12. Hindwings obtusely angled on veins 4 and 7; 2 from $\frac{2}{3}$, 3 and 4 widely separate, 6 and 7 separate, 8 closely approximated to cell to beyond middle.

Type *X. leptoxantha*, which I formerly included, while pointing out the differences, with *Coelocrossa*, Turn. On reconsideration it appears to me generically distinct, and perhaps not closely allied. Apart from minor differences the structure of vein 8 of hindwings affords an important distinction. I suspect some affinity with *Lyelliana*, Turn., and *Lophosema*, Turn.

I think this is probably, with a few other *Geometridae*, part of the aboriginal fauna of the Eastern Islands before they became part of the Australian continent.

XYLODRYAS LEPTOXANTHA, Turn.

I took one male on the wing by lantern light in the National Park, Queensland (2,500-3,000 ft.), in December.

The species is not confined to the mountains, for I have received from Mr. G. N. Newman a very similar specimen taken at Rous, near Lismore, New South Wales. A second example taken in the National Park in March is a very distinct aberration, purplish-grey, with faint lines, little irroration, but a small whitish spot near base of forewing, and others near termen of both wings.

BURSADA FLAVANNULATA, Warr.

♂, ♀, 24-30 mm. Head and thorax blackish; face and palpi ochreous-whitish or grey-whitish. Antennae blackish; pectinations in male 12, in female 4. Abdomen blackish; a transverse subbasal yellow or orange line on dorsum. Legs fuscous. Forewings triangular, rather narrow, costa gently arched, apex rounded, termen bowed, oblique; blackish; an oblique oval yellow or orange blotch extending from beneath $\frac{2}{3}$ costa to above termen beyond tornus; cilia blackish. Hindwings with termen rounded; yellow or orange; a blackish terminal band, sharply defined, broad at apex and tornus, narrower on mid-termen, ending rectangularly above tornus, but giving off a subdorsal streak towards base; cilia blackish. Underside similar.

Northern Queensland: Claudie River, in March; two specimens taken by Mr. J. A. Kershaw. Also from New Guinea.

Gen. CLEPSIPHON, n. gen.

κλεψιφρων, deceiving.

Frons flat. Tongue present. Palpi short, porrect, projecting only slightly beyond frons; second joint shortly rough-scaled; terminal joint very short, depressed. Antennae in

male simple, minutely ciliated. Thorax and abdomen without crests; thorax smooth beneath. Femora smooth; all tibial spurs present; inner twice as long as outer. Forewings with base of costa rounded; in male without fovea; 2, 3, 4 equidistant, 5 from middle of cell, 6 from upper angle, 7, 8, 9, 10, 11 stalked from considerably before angle, 11 only short-stalked, connected first with 12 and then with stalk of 7, 8, 9, 10. Hindwings broad; cell about $\frac{2}{5}$; 5 absent, 6 and 7 separate, the latter arising from shortly before angle, 8 connected with cell near base, thence diverging.

A peculiar genus, but probably related to *Peridelias*, Turn., *Aplochloa*, Warr., and *Parametrodes*, Warr.

CLEPSIPHON CALYCOPIS, n. sp.

καλυκωπης, roseate.

♂, 20 mm. Head ochreous-grey; face with some reddish scales; posterior margin of eyes reddish. Palpi ochreous-whitish; second joint barred with reddish in middle and at apex. Antennae whitish-grey. Thorax purplish-grey. Abdomen reddish-grey; tuft ochreous-whitish. Legs ochreous-whitish; anterior femora and tibiae reddish tinged; anterior tarsi fuscous tinged. Forewings broadly triangular, costa strongly rounded at base, thence slightly arched, apex rectangular, costa not oblique, slightly sinuate; purple-fuscous; base of costa purple; an ill-defined darker basal patch; an outwardly curved fuscous line from $\frac{1}{3}$ costa to dorsum before middle, indistinct towards costa, towards dorsum well defined and mixed with orange; a line from $\frac{2}{3}$ costa, at first outwardly curved, but bent inwards and then angled outwards above dorsum, ending on dorsum before tornus, orange becoming fuscous towards costa; termen with a narrow, irregularly-indented, yellow margin; cilia pale yellow. Hindwings with termen wavy and slightly angled on vein 4; purple-fuscous, the greater part of disc suffused with reddish and orange with small purple-fuscous strigulae; terminal margin and cilia as forewings. Underside grey with traces of whitish postmedian line, and with whitish terminal margin.

Northern Queensland: Evelyn Scrub, near Herberton, in January; one specimen received from Mr. F. P. Dodd. Type in Coll. Lyell.

Gen. PICROPHYLLA, n. gen.

πικροφυλλος, with pointed wings.

Frons with an anterior tuft of scales. Tongue well developed. Palpi rather short, porrect; second joint rough-haired; terminal joint short. Antennae of male simple,

ciliations minute. Thorax and abdomen without crests; thorax slightly hairy beneath. Femora smooth; posterior femora of male dilated with internal groove and tuft. Forewings in male without fovea; 10 and 11 long-stalked, 10 anastomosing with 8, 9 beyond 7. Hindwings with apex produced to a sharp point on vein 7; 3 and 4 approximated at origin; 6 and 7 separate, 7 arising before angle of cell, 8 closely approximated to cell for nearly its whole length.

Probably allied to *Tessarotis*, Warr., which approaches it closely in wing shape, but has 10 and 11 arising separately.

PICROPHYLLA HYLEORA, n. sp.

ὕληωρος, of the woods.

♂, ♀, 40 mm. Head fuscous-brown. Palpi $1\frac{1}{4}$; fuscous-brown. Antennae ochreous-whitish, dorsum except towards apex suffused with fuscous-brown. Thorax brown-whitish; a postmedian pair of fuscous dots. Abdomen brown-whitish; paired fuscous dots on dorsum of second and third segments. Legs whitish-ochreous speckled with dark fuscous. Forewings triangular, costa slightly arched, apex acute, produced, termen sinuate beneath apex, angled on vein 4, thence slightly concave to tornus; brown-whitish with sparsely scattered, dark-fuscous, transverse strigulae, more numerous on costa, towards base, and towards termen; a suffused fuscous line from $\frac{1}{3}$ costa with two posterior teeth, beneath costa and in middle, obsolete towards dorsum; a fine, straight, fuscous-brown line from costa before apex to $\frac{2}{3}$ dorsum, succeeded by a parallel row of fuscous dots; a dark-fuscous discal dot beneath $\frac{2}{3}$ costa; cilia fuscous, on costa and from beneath apex to angle brown-whitish. Hindwings produced to a sharp point on vein 7, termen beneath this sinuate, thence nearly straight; as forewings with fewer strigulae; without first line; second line median; a subterminal series of fuscous dots; cilia brown-whitish. Underside similar.

Queensland: Eumundi, near Nambour, in January; National Park (3,000 ft.), in March; two specimens.

CASBIA RHODOPTILA, Turn.

In addition to the type I have now a female (26 mm.) from Northern Territory, Darwin (G. F. Hill) without spots on forewing; and a male (30 mm.) from Queensland, Stradbroke Island, in August, with discal dot, but without posterior spot. The reddish head and tegulae form a good distinguishing mark of this species. In all my three examples vein 11 of forewing anastomoses with 12.

IDIODES ARGILLINA, n. sp.

ἀργιλλινός, clay-coloured.

♂, 44 mm. Head and thorax brown. Palpi about 1; brown. Antennae dark grey. Abdomen grey; dorsum brown towards base. Legs grey; anterior pair fuscous. Forewings broadly triangular, costa gently arched, apex obtusely pointed, termen slightly bowed, slightly oblique; brown with numerous fine transverse fuscous strigulae, these are most numerous on costa, present also towards margins, and across main veins; a large suffused fuscous blotch, its margins composed of coalesced strigulae, extends on costa from middle to apex, narrowing dorsally it terminates abruptly on vein 2; an indistinct, very narrow, interrupted, pale, oblique line from apex, traversing the dark blotch towards $\frac{3}{4}$ dorsum; cilia brown. Hindwings with termen slightly rounded; colour and strigulae as forewings, but without blotch; a suffused darker-brown line from mid-dorsum towards $\frac{1}{3}$ costa; in this a small fuscous discal spot; cilia brown. Underside similar.

Nearest *I. fictilis*, Turn.

Queensland: National Park (3,000-3,500 ft.), in January; one specimen.

Gen XENOMUSA, Meyr.

Frons smooth, not projecting. Tongue well developed. Palpi short (1 or less), hairy beneath. Antennae in male simple or bipectinate. Thorax not crested; beneath hairy. Abdomen without crests. Femora smooth-scaled. Posterior tibiae with all spurs present; in male not dilated. Forewings with apex uncinat and slightly produced; cell over $\frac{1}{2}$, discocellulars nearly straight, or inwardly curved, 2 from $\frac{3}{4}$, 3 and 4 separate, 5 from or from above middle, rather weakly developed, 6 separate or short-stalked, 10 from cell or short-stalked with 7, 8, 9, 10 and 11 free. Hindwings with 2 from $\frac{2}{3}$ or $\frac{3}{4}$, 3 and 4 separate, 5 obsolete or weakly developed, 6 and 7 separate, 12 closely approximated to cell as far as middle.

Meyrick placed this among the *Oenochromidae*. In *X. metallica*, vein 5 of hindwings is obsolete, being concealed in a fold of the wing membrane; in *X. rubra* it is present, but weak. I think the two must be regarded as congeneric in spite of this and the difference in antennal structure. *X. monoda*, the type species, I have seen, but have no specimens for examination. The genus should be placed, I think, in Boarmiadae, of which it is a primitive form. In *X. rubra* a forked median vein is plainly visible in the cell.

XENOMUSA METALLICA, Luc.

♂, 34 mm.; ♀, 40-45 mm. Head brownish or grey; two whitish spots or a white line on lower edge of face. Palpi in male $\frac{1}{2}$, in female $\frac{2}{3}$; whitish or whitish-ochreous, apex blackish. Antennae grey; in male simple, minutely ciliated. Thorax brownish or grey. Abdomen brownish or grey with sparsely scattered blackish scales. Legs ochreous-whitish; tibiae and tarsi annulated with dark fuscous. Forewings elongate-triangular, narrower in male, costa bisinuate, more strongly so in male, apex uncinat, produced, termen bowed, oblique; 10 short-stalked (1 male and 7 females); brownish or grey usually with sparsely scattered blackish scales; usually a whitish-ochreous spot on base of costa; a fuscous or brownish line from $\frac{1}{3}$ costa very obliquely outwards, sharply angled beneath costa, thence very obliquely inwards to dorsum near base; a similar line, posteriorly edged with whitish, from beneath costa before apex, nearly straight, to dorsum before middle; usually a minute, blackish, median, discal dot beneath costa; apex fuscous preceded by whitish; a short oblique line or fuscous shade from apex to beneath second line; cilia fuscous. Hindwings with termen very slightly rounded, tornus prominent; colour and cilia as forewings; a straight transverse brownish or fuscous line at $\frac{1}{3}$; a white, median, discal dot.

Northern Queensland: Kuranda, in April; one male. Queensland: Montville, near Nambour, in March; Brisbane, in January and March; seven females.

XENOMUSA RUBRA, Luc.

♀, 50 mm. Head pale reddish; face reddish-orange. Palpi 1; reddish-orange. Antennae reddish-orange; in female shortly bipectinate ($1\frac{1}{2}$), apical $\frac{1}{6}$ simple. Thorax pale reddish. Abdomen ochreous. Legs pale ochreous. Forewings triangular, costa gently bisinuate, apex produced, slightly uncinat, termen sinuate, oblique; 10 from cell; reddish-orange without markings; cilia reddish-orange. Hindwings with termen slightly rounded, tornus rather prominent; as forewings.

My description is taken from Dr. Lucas' type, which is in my possession, and still, I believe, remains unique.

Queensland: Brisbane.

Gen. DIRCE, Prout.

Oenone, Meyr., *praeocc.*

This genus must be transferred to the Boarmiadae, for descaling shows that vein 5 of the hindwings is absent. Previous authors have been deceived by the presence of a

persistent fold of the wing-membrane in the normal position of this vein. On the other hand, *Diceratucha*, Swin., has vein 5 of hindwings sufficiently well developed, and must be retained in the Oenochromidae. The two genera agree in the neuration of the forewing, in which the areole is of a primitive form, and no doubt there is real relationship between them. In fact, the latter genus is probably very near the point, where the primitive stem of the Boarmiadae diverged from the Oenochromidae.

I can see no valid grounds for the conjectures of Meyrick and Prout for any near relationship to *Brephos*, which has completely lost the areole. Its points of resemblance to *Dirce* are merely superficial (general hairiness and colour scheme) and adaptational. Hairiness is a common character in genera of mountain localities, and is probably a protection against the dampness of mountain mists.

DIRCE AESIODORA, n. sp.

ἄισιοδωρος, a fortunate gift.

♂, ♀, 26-30 mm. Head blackish with a white central spot on crown; face white, hairs on margins blackish. Palpi projecting somewhat beyond frons; white; some hairs, apex of second joint, and whole of terminal joint blackish. Antennae blackish; in male thickened, serrate, and minutely ciliated. Thorax blackish irrorated with whitish. Abdomen dark fuscous; irroration, apices of segments, and some hairs in tuft ochreous-whitish. Legs blackish; tibiae and tarsi annulated with white; posterior pair whitish on posterior surface. Forewings triangular, costa arched near base, thence slightly sinuate, apex rectangular, termen slightly bowed, not oblique; blackish mixed with grey and white; markings white; a basal spot; a bar from costa near base uniting with another from costa at $\frac{1}{4}$, to form a fascia, which extends on dorsum from near base to $\frac{3}{8}$, and is sharply toothed posteriorly above dorsum; two suffused spots on dorsum before and after middle, the first larger and produced across disc towards costa; a spot on mid-costa; a narrow fascia from $\frac{3}{4}$ costa to $\frac{3}{4}$ dorsum, posteriorly suffused, anteriorly sharply defined, with a circular anterior process containing a central blackish dot beneath costa; a slender, interrupted, subterminal line; a series of wedge-shaped black marks beyond this, separated in female by some whitish suffusion; terminal edge blackish; cilia blackish barred with white. Hindwings with termen rounded; blackish with a large central orange blotch, sometimes preceded by a small triangular spot near base; cilia orange barred with blackish, on apex and costa blackish. Underside pale orange; forewings with basal patch, oblique median fascia, costal spot

and terminal fascia blackish; hindwings with oblique fascia from $\frac{1}{4}$ costa to mid-dorsum, and broad band from costa before middle around apex and termen to tornus.

Tasmania: Cradle Mountain (3,000-3,500 ft.), in January; four specimens received from Dr. R. J. Tillyard.

Fam. OENOCHROMIDAE.

OENOCHROMA LISSOSCIA, n. sp.

λίσσοσκίος, smoothly shaded.

♀, 46-48 mm. Head, palpi, and thorax grey. Antennae dark grey. Abdomen grey with a few blackish scales; under-surface reddish. Legs grey, partly reddish tinged; tarsi fuscous. Forewings elongate-triangular, costa bisinuate, apex acute, termen strongly bowed, becoming straight towards tornus; grey with a few scattered blackish scales; some fine fuscous-brown transverse strigulae from basal half of costa; a fuscous-brown suffusion on costa from middle nearly to apex, leaving costal edge for a short distance at about $\frac{3}{4}$ whitish; a fine blackish line from costa shortly before apex to $\frac{3}{5}$ dorsum, outwardly bowed in middle, towards dorsum preceded by a fuscous-brown parallel line, costal half edged posteriorly by whitish, which extends to apex; some grey-brown suffusion on termen, preceded in middle by a suffused blackish spot; cilia fuscous-brown. Hindwings with termen slightly rounded, tornus prominent, rectangular; as forewings but with blackish line antemedian, straight, preceded by a fuscous-brown line, which diverges somewhat towards costa; no subterminal spot. Underside similar; but forewings with a blackish spot on costa near apex, with two blackish dots on veins beneath it, and no brownish suffusion; disc purplish tinged with darker median transverse line; hindwings with a purplish antemedian fascia; posteriorly to this brownish, with suffused reddish subterminal spot between veins 3 and 4.

Exceptional in the genus is that veins 10 and 11 of forewings arise separately from the cell.

Queensland: National Park (3,000 ft.), in March; three specimens taken at light.

OENOCHROMA ARTIA, n. sp.

ἀρτίος, perfect.

♂, 38 mm. Crown of head yellow with a dark-reddish anterior line; face whitish. Palpi whitish with a few crimson scales. Antennae brownish-ochreous; pectinations in male $1\frac{1}{2}$. Thorax pale green; bases of patagia yellow; pectus whitish, margin of eyes and forewings ochreous-yellow. Abdomen whitish. Legs whitish irrorated with crimson. Forewings

triangular, costa straight, apex pointed, termen nearly straight, oblique; pale green; a yellow line along costa to $\frac{2}{3}$; an oblique yellow line from mid-dorsum, moderately broad, but narrowing to extremity, which lies just beneath $\frac{2}{3}$ costa; terminal edge whitish; cilia pale yellow. Hindwings with termen rounded; whitish; a yellowish suffusion on mid-dorsum giving rise to a short transverse line; a greenish suffusion on dorsum before tornus; a large round brownish-ochreous subtornal blotch; cilia whitish, around tornus yellow. Underside of forewings similar to upperside, but paler and without oblique line; of hindwings greenish-white, tornal blotch anteriorly orange, posteriorly deep crimson.

Western Australia: Dardanup, in October; one specimen received from Mr. G. F. Berthoud. Type in Coll. Lyell.

Gen. NOREIA, Wlk.

NOREIA LOXOSTICHA, Turn. (*Idiodes*).

I have since received a male example, which shows a small hairy tuft on underside of hindwing over vein 2, and has the posterior tibiae dilated with internal groove and tuft. The species has some close allies in the Indo-Malayan region, and I will not be sure of its distinctness.

Northern Queensland: Kuranda in April and May; two specimens received from Mr. F. P. Dodd.

Gen. CELERENA, Walk.

Face smooth. Tongue well developed. Palpi moderate, porrect; second joint shortly rough-haired; terminal joint short, with smoothly adpressed hairs. Antennae rather more than $\frac{1}{2}$; in male shortly ciliated, usually with a small tuft of scales about middle, beyond this with moderately long bristles. Thorax densely hairy beneath, usually with an expansile posterior tuft of hairs. Abdomen of male usually with a basal tuft of long hairs on under-surface. Femora densely hairy. Posterior tibiae of male dilated with inner expansile tuft of hairs, long crooked median spurs, inner terminal spur only, its apex prolonged into a strong outer horny process. Forewings in male with a deep basal furrow beneath in cell: 7, 8, 9 stalked, 10 and 11 stalked, their stalk anastomosing strongly with 12, 10 connected with 8, 9. Hindwings with 5 from above middle of cell, 6 and 7 separate, 8 moderately remote from cell, connected with it by an oblique bar near base.

Type *C. divisa*, Wlk. An Indo-Malayan genus which is rather largely represented in New Guinea.



Turner, Alfred Jefferis. 1922. "Australian Lepidoptera of the Group Geometrites." *Transactions and proceedings of the Royal Society of South Australia (Incorporated)* 46, 225–294.

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