

ANNALS

OF THE

QUEENSLAND MUSEUM.

No. 4.

THE XYLORYCTIDÆ OF QUEENSLAND,

BY

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BRISBANE:

EDMUND GREGORY, GOVERNMENT PRINTER, WILLIAM STREET.

1897.

THE XYLORYCTIDÆ OF QUEENSLAND.

THE family Xyloryctidæ was instituted by Mr. E. Meyrick, B.A., F.E.S., to receive a large and important section of the *Tineina*. His monograph, published in the transactions of the Royal Society of South Australia, 1890, page 23, laid the foundation of all our knowledge of this group, which he defines as follows:—

“Head smooth or with more or less loosely appressed hairs; ocelli absent; tongue developed. Antennæ $\frac{2}{3}$ — $\frac{3}{4}$; in male pectinated, ciliated, or simple, basal joint without pecten. Labial palpi recurved, terminal joint pointed. Maxillary palpi very short, more or less appressed to tongue. Abdomen in male with uncus developed, variable in length. Forewings with vein 1 furcate towards base, 7 and 8 stalked or rarely separate or coincident, 11 from middle of cell. Hindwings as broad or generally broader than forewings, trapezoidal to ovate, 1b clothed with long hairs above towards base, shortly furcate at base, 3 and 4 from a point or stalked, 6 and 7 stalked or approximated towards base, 8 connected with upper margin of cell by a short bar.”

The family is most nearly related to the Oecophoridæ, and many species of both families present such a close general resemblance that care is necessary to avoid confusing them. This can always be done by observing the neuration of the hindwings, and there are also usually other points of distinction which are however not quite absolute. For the classification of the genera we are indebted to Meyrick's paper quoted above, which will be repeatedly referred to in the following pages. In the few instances in which I have ventured to differ from Mr. Meyrick it has been in the endeavour to apply his methods to the more ample material at my disposal.

A number of species have been more recently described by Dr. T. P. Lucas, of Brisbane, and by Mr. Oswald Lower, of South Australia. Of these, I have noticed all those of the former author, having had the good fortune to obtain access in all but one instance to the original types. Those of Lower's species which occur in Queensland are also referred to.

This paper owes its value mainly to the splendid collection placed at my disposal by Mr. R. Illidge, whose assiduous labours in the discovery and rearing of the larvæ have resulted in a rich harvest of specimens of new or previously little known species. Mr. F. P. Dodd has obtained a small but highly interesting collection of specimens reared from larvæ found in the neighbourhood of Charters Towers; these are now in Mr. Illidge's collection. Our previous knowledge of this family in Queensland was mainly due to specimens obtained by the late Mr. G. Barnard, of Duaringa.

There yet remain however many new species, more particularly of the less conspicuous genera, to be discovered in the locality of Brisbane; and our knowledge of those in the more distant parts of the colony is still extremely fragmentary.

The following tabulation includes those of Meyrick's genera, which are not at present known in Queensland. These are distinguished by a *; the remainder are numbered in the order in which they follow in the present paper:—

1. Forewings with 11 veins (7 and 8 coincident)	2.	
" 12 "	3.	
2. Hindwings with 6 and 7 from a point		<i>Hypertricha</i> .*
" " separate ...	15	<i>Catoryctis</i> (in part).
3. Forewings with 7 and 8 separate ...	22	<i>Agriophara</i> .
" " stalked ...	4.	
4. Forewings with 3 and 4 stalked ...	21	<i>Phylomictis</i> .
" " separate ...	5.	
5. Forewings with vein 8 to hindmargin	6.	
" " apex or costa	7.	
6. Hindwings with 6 and 7 separate ...	12	<i>Neodrepta</i> .
" " stalked ...	13	<i>Paralecta</i> .
7. Antennæ of male pectinated ...	1	<i>Cryptophaga</i> .
" not pectinated ...	8.	
8. Hindwings with 6 and 7 separate ...	9.	
" " from a point or stalked	15.	
9. Antennæ of male ciliated	10.	
" simple	14.	
10. Thorax crested	11.	
" smooth	12.	
11. Palpi very long, terminal joint as long as second		<i>Notosara</i> .*
Palpi moderate, terminal joint shorter than second	7	<i>Arignota</i> .
12. Hindwings in male with long costal hair-pencil from base	6	<i>Crypsicharis</i> .
Hindwings in male without costal hair-pencil	13.	
13. Palpi with terminal joint longer than second		<i>Phthonerodes</i> .*
Palpi with terminal joint not longer than second	5	<i>Lichenaula</i> .
14. Forewings with vein 7 to hindmargin	16	<i>Illidgea</i> .
" " apex ...	15	<i>Catoryctis</i> (in part).
" " costa ...	18	<i>Gonioma</i> .
15. Antennæ in male ciliated	16.	
" simple	23.	
16. Forewings with vein 7 to costa ...	14	<i>Scieropepla</i> .
" " apex ...	17.	
" " hindmargin	21.	
17. Abdomen stout, with dense projecting hairs... ..	8	<i>Maroga</i> .
" moderate, without dense projecting hairs	18.	

- | | | |
|---|-----|-----------------------|
| 18. Anterior tibiæ and tarsi much dilated,
with scales | 9 | <i>Compsotorna</i> . |
| Anterior tibiæ and tarsi normal ... | 19. | |
| 19. Antennal ciliations of male, 1 ... | | <i>Clerarcha</i> .* |
| „ „ $\frac{1}{4}$ - $\frac{1}{2}$... | 20. | |
| 20. Hindwings with 6 and 7 from a point,
inner margin hairy | 11 | <i>Plectophila</i> . |
| Hindwings, 6 and 7 stalked, inner
margin not hairy | | <i>Chalarotona</i> .* |
| 21. Thorax crested | 3 | <i>Tymbophora</i> . |
| „ smooth | 22. | |
| 22. Antennal ciliations of male, 5 ... | 4 | <i>Hylypnès</i> . |
| „ „ $\frac{1}{4}$ -2 ... | 2 | <i>Xylorycta</i> . |
| 23. Hindwings in male with very long
costal hairs towards base... .. | 20 | <i>Procometis</i> . |
| Hindwings without long costal hairs | 24. | |
| 24. Antennæ of male much thickened
with scales towards base | 17 | <i>Mylocera</i> . |
| Antennæ not thickened | 25. | |
| 25. Posterior tibiæ in male smooth-scaled | 19 | <i>Uzucha</i> . |
| „ „ rough-haired... .. | 10 | <i>Phlæophorba</i> . |

1. CRYPTOPHAGA, Lw.

This is the best-known genus of the family. The perfect insects are large, and for the most part conspicuous, but are rarely met with. They may, however, be reared in abundance from the larvæ, as has been done with conspicuous success by Mr. R. Illidge. The increased material so obtained has enabled me to remove from the genus *epigramma*, Meyr, *porphyrinella*, Walk., and *cephalochra*, Lower, of which species only the females were previously known. For the first I have instituted the new genus *Illidgea*; the remainder are referred to *Xylorycta*.

The genus *Pilostibes*, Meyr., I have dropped, as in all the specimens I have examined veins 7 and 8 are stalked. I can only conjecture that Mr. Meyrick was misled by an abnormal specimen in which vein 7 happened to be absent. *P. enchidias*, Meyr., is included under the present genus; *P. stigmatias*, Meyr., under *Xylorycta*.

The following is a tabulation of the Queensland species:—

- | | | |
|--|----|------------------------|
| 1. Forewings with conspicuous longi-
tudinal fuscous streak | 1 | <i>enchidias</i> . |
| Forewings, without conspicuous longi-
tudinal fuscous streak | 2. | |
| 2. Forewings with well-defined posterior
(reniform) spot | 3. | |
| Forewings without well-defined pos-
terior (reniform) spot | 6. | |
| 3. Hindwings yellowish | 4 | <i>platypedimela</i> . |
| „ fuscous or grey | 4. | |

- | | |
|--|--------------------------|
| 4. Forewings at base clear white ... | 3 <i>albicosta</i> . |
| „ „ not white ... | 5. |
| 5. Forewings with a well-defined anterior spot ... | 5 <i>nephrosema</i> . |
| Forewings without a well-defined anterior spot ... | 2 <i>irrorata</i> . |
| 6. Forewings with a white streak along costa ... | 7. |
| „ without white costal streak ... | 8. |
| 7. Forewings dark-grey ... | 6 <i>stenoleuca</i> . |
| „ fuscous-red ... | 9 <i>russata</i> . |
| 8. Forewings reddish-brown or ferruginous ... | 9. |
| Forewings not reddish-brown ... | 10. |
| 9. Hindwings pale ochreous ... | 10 <i>phaëthontia</i> . |
| „ orange-ochreous ... | 11 <i>rubescens</i> . |
| 10. Forewings with 3 or 4 conspicuous dots in middle part of disc ... | 11. |
| Forewings without 3 or 4 conspicuous dots in middle part of disc ... | 16. |
| 11. With 4 discal dots, 4th on fold ... | 12. |
| „ only 3 discal dots ... | 13. |
| 12. Hindwings uniformly fuscous in both sexes ... | 12 <i>sarcinota</i> . |
| Hindwings in male blackish, in female dark-fuscous with whitish apices ... | 13 <i>acroleuca</i> . |
| 13. Forewings with hindmargin decidedly oblique ... | 14. |
| Forewings with hindmargin but slightly oblique ... | 15. |
| 14. Hindwings in male black, in female wholly or partly white ... | 16 <i>nigricincta</i> . |
| Hindwings in male grey ... | 14 <i>eumorpha</i> . |
| 15. Forewings snow-white, with apex very obtusely rounded ... | 18 <i>pultenææ</i> . |
| Forewings greyish, whitish irrorated with fuscous, rarely white, apex moderately rounded ... | 19 <i>nubila</i> (part). |
| 16. Forewings with yellow lines ... | 21 <i>flavolineata</i> . |
| „ without „ ... | 17. |
| 17. Forewings with coppery-purple hindmarginal band ... | 20 <i>ecclesiastis</i> . |
| Forewings without coppery-purple hindmarginal band ... | 18. |
| 18. Forewings with hindmargin sinuate ... | 22 <i>spilonota</i> . |
| „ „ rounded ... | 19. |
| 19. Hindwings with hindmarginal black dots ... | 20. |
| Hindwings without hindmarginal black dots ... | 22. |

20. Forewings with hindmargin decidedly oblique 15 *chionodes*.
 Forewings with hindmargin but slightly oblique 21.
 21. Forewings shining snow-white ... 17 *epadelpha*.
 „ greyish or whitish or irrorated with fuscous, rarely white 19 *nubila* (part).
 22. Forewings grey, with 5 indistinct cloudy dark-grey dots arranged longitudinally 7 *stochastis*.
 Forewings grey, with 3 conspicuous black dots arranged longitudinally 8 *tecta*.

1. CRYPTOPHAGA ENCHIDIAS, *Meyr.* (*Pilostibes enchidias*, Meyrick, Trans. Roy. Soc. S.A. 1890, 27.) Male, 30-32 mm.; antennal pectinations, 1-1½. Female, 39-42 mm.

Nudgee, near Brisbane: larvæ tunnel the stems of *Melaleuca nodosa* and *Callistemon salignus* dragging in leaves for food; moths emerge in November and December.

2. CRYPTOPHAGA IRRORATA, *Lw.* (*Cryptophasa irrorata*, Lewin, Ins. N. S. W.) Meyrick, 34. Antennal pectinations, 6-7, reaching their maximum in this species.

Brisbane: larvæ common on *Casuarina*.

3. CRYPTOPHAGA ALBICOSTA, *Lw.* (*Cryptophasa albicosta*, Lewin, Ins. N. S. W.) Meyrick, 33. Duaringa.

4. CRYPTOPHAGA PLATYPEDIMELA, *Lower.* Proc. Roy. Soc. S. A., 1894, 90. I have not seen this species. Lower's type was received from Mackay.

5. CRYPTOPHAGA NEPHROSEMA, *n.sp.* Male, 35 mm.; antennal pectinations, 2; vein 2 of forewings from $\frac{3}{5}$. (Head and face rubbed bare. Palpi broken.) Antennæ whitish. Thorax white irrorated with grey scales. Abdomen whitish; second segment reddish-brown. Legs white; anterior and middle tibiæ and tarsi annulated and irrorated with fuscous. Forewings oblong, posteriorly somewhat dilated, costa nearly straight, apex rounded, hindmargin slightly rounded, somewhat oblique; white finely irrorated with pale-grey; three conspicuous blotches in disc, pale-grey outlined with fuscous; first rather obscure near base; second before middle, irregularly constricted at and above fold; third beyond middle, reniform; three fuscous spots on costa, first at $\frac{2}{5}$ nearly confluent with second blotch, second and third at $\frac{3}{5}$ and $\frac{4}{5}$; an ill-defined greyish suffusion between third blotch and hindmargin; a row of fuscous dots along hindmargin; cilia white with two interrupted grey lines. Hindwings fuscous; towards base and inner margin whitish; cilia whitish.

Cairns: one specimen taken by Mr. C. J. Wild in November (Coll. Brisbane Museum).

6. CRYPTOPHAGA STENOLEUCA, *Lower.* Proc. Roy. Soc. S.A. 1894, 89. Male, 39 mm.; antennal pectinations, 4. Female, 47 mm.

A fine and very distinct species. Mr. Dodd obtained a pair at Charters Towers from larvæ found on a species of *Grevillea* (?). Lower's type came from Duaringa.

7. *CRYPTOPHAGA STOCHASTIS*, *Meyr.* Meyrick, 30. Mr. Lower records this species from Herberton, North Queensland (Proc. Roy. Soc. S.A. 1894, 89).

8. *CRYPTOPHAGA TECTA*, *Lucas.* (*Pilostibes tecta*, Lucas, Proc. Linn. Soc. N.S.W. 1893, 161.) Not having seen any type of this species, I can only refer it to this genus conjecturally. Duaringa.

9. *CRYPTOPHAGA RUSSATA*, *Bull.* (*Cryptophasa russata*, Butler, Proc. Zool. Soc. 1877, 475.) Meyrick, 36. Male, 33 mm.; antennal pectinations, 4. One specimen in Mr. Illidge's collection, said to be from North Queensland.

10. *CRYPTOPHAGA PHAETHONTIA*, *Meyr.* Meyrick, 36. Duaringa.

11. *CRYPTOPHAGA RUBESCENS*, *Lw.* (*Cryptophasa rubescens*, Lewin, Ins. N.S.W.) Meyrick, 35. Brisbane: larvæ on various species of *Acacia*.

12. *CRYPTOPHAGA SARCINOTA*, *Meyr.* Meyrick. Male, 37 mm.; antennæ, white; pectinations, $1\frac{1}{2}$. Female, 51 mm.

Charters Towers: three specimens obtained by Mr. Dodd from larvæ feeding on *Eucalyptus*. Meyrick's types were received from Duaringa.

13. *CRYPTOPHAGA ACROLEUCA*, *n. sp.* Male, 32-34 mm.; antennal pectinations, $\frac{2}{3}$. Female, 40-62 mm. Forewings with vein 2 from $\frac{4}{5}$; hindwings with 6 and 7 from a point. *Male*: Head and thorax dark ochreous-brown. Face whitish. Palpi whitish, terminal joint whitish or dark fuscous. Antennæ blackish. Abdomen blackish; second segment orange-red; tuft reddish-ochreous. Legs whitish, tinged with pale reddish; annulated with black. Forewings narrow oblong, costa almost straight, apex round-pointed, hindmargin obliquely rounded; dark ochreous-brown, a dark dot in disc at $\frac{1}{3}$; a second, sometimes double, on fold below middle, and two placed transversely in disc at $\frac{2}{5}$, the lower somewhat anterior; three black dots on apical $\frac{1}{3}$ of costa, sometimes obsolete; a narrow black line along hindmargin, sometimes interrupted; cilia dark ochreous-brown. Hindwings with hindmargin sinuate; dark fuscous, blackish towards base; cilia fuscous, sometimes whitish except towards anal angle. *Female*: Head and thorax whitish, tinged with reddish-ochreous. Palpi whitish. Antennæ dark fuscous. Legs whitish, tinged with pale reddish; annulated with black. Abdomen blackish; second segment orange-red; tuft and margin of penultimate segment whitish, tinged with reddish-ochreous. Forewings oblong, somewhat dilated posteriorly, costa slightly arched, apex round-pointed, hindmargin almost straight, moderately oblique; pale ochreous-brown, along costa inclining to whitish; discal dots as in male; a row of black dots along hindmargin and apical $\frac{1}{5}$ of costa, sometimes inclining to be obsolete; cilia pale fuscous. Hindwings fuscous at base, gradually passing into whitish over apical third of disc, on which veins are outlined in fuscous; cilia white, towards anal angle fuscous.

Closely allied to *C. sarcinota*, *Meyr.*, but appears a good species. The male is very different in general appearance. The female may be best distinguished by the whitish apices of the hindwings. Brisbane: a series bred by Mr. Illidge from *Eucalyptus saligna*. Also found on other species of this genus.

14. *CRYPTOPHAGA EUMORPHA*, *n. sp.* Male, 25 mm.; antennal pectinations, 3; forewings with vein 2 from $\frac{3}{4}$; hindwings with 6 and 7 stalked. Head ochreous-yellow. Palpi small, terminal joint minute, whitish. Antennæ blackish. Thorax whitish, anterior margin tinged with reddish-brown. Abdomen whitish, barred with fuscous; second segment reddish-brown. Legs blackish, annulated with white. Forewings narrow oblong, costa slightly arched, apex round-pointed, hindmargin obliquely rounded; slate-coloured; a black dot in disc beyond $\frac{1}{3}$, and two in disc at $\frac{3}{5}$, placed transversely, the upper one almost obsolete; a row of black dots along hindmargin and apical $\frac{1}{3}$ of costa; cilia whitish. Hindwings pale greyish-fuscous; a series of black dots along hindmargin; between dots hindmargin is whitish; cilia whitish.

Allied to the following species. Charters Towers: one specimen bred by Mr. Dodd.

15. *CRYPTOPHAGA CHIONODES*, *n. sp.* Male, 36 mm.; antennal pectinations, 4. Female, 57-58 mm. Forewings with vein 2 from $\frac{3}{4}$; hindwings with 6 and 7 from a point or short-stalked. Head whitish, ochreous, or pale reddish-brown. Palpi small, terminal joint minute, whitish. Antennæ fuscous. Thorax white, anterior margin faintly tinged with ochreous or reddish-brown. Abdomen white, barred with fuscous; second segment dull reddish-brown. Legs dark fuscous, annulated with white. Forewings oblong, costa slightly arched in male, moderately in female, apex round-pointed, hindmargin obliquely rounded; shining white; a black dot in disc at $\frac{3}{5}$ (wanting in the two female specimens); a series of black dots along hindmargin and apical $\frac{1}{3}$ of costa, encroaching into cilia; cilia white. Hindwings shining white; extreme base somewhat irrorated with fuscous; a series of black dots along hindmargin, encroaching on cilia; cilia white.

A fine and distinct species. Charters Towers: one male and two female specimens bred by Mr. Dodd from larvæ tunnelling the stems of *Eucalyptus* (a kind of Bloodwood).

16. *CRYPTOPHAGA NIGRICINCTA*, *n. sp.* Male, 25-30 mm.; antennal pectinations, 3. Female, 40-45 mm. Forewings with 2 from $\frac{3}{4}$; hindwings with 6 and 7 from a point. *Male*: Head and face pale-orange. Palpi ochreous-whitish, terminal joint minute, dark fuscous, apex sometimes white. Antennæ blackish. Thorax dark slate-coloured, with a transverse pale-orange bar near anterior margin, which is usually whitish. Abdomen blackish; segments slenderly outlined with white scales; traces of orange suffusion usually present on second segment. Legs black with white annulations. Forewings rather narrowly oblong, costa slightly arched, apex round-pointed, hindmargin obliquely rounded; dark slate-coloured; a large black dot in disc beyond $\frac{1}{3}$, and two placed transversely in disc at $\frac{3}{5}$; a row of black dots along hindmargin and apical $\frac{1}{4}$ of costa; cilia white. Hindwings blackish; cilia white. *Female*: Head and face ochreous-whitish, or pale-orange. Palpi white, base of minute terminal joint fuscous. Antennæ fuscous. Thorax white, with traces of a transverse pale-orange line anteriorly. Abdomen alternately barred with white and dark fuscous; second segment black. Legs black with white annulations. Forewings oblong, posteriorly slightly dilated, costa gently arched, apex round-pointed, hindmargin obliquely rounded;

clear white; a black dot in disc beyond $\frac{1}{8}$, and two in disc at $\frac{3}{5}$ placed transversely—the lower rather posterior; a series of black dots along hindmargin and apical $\frac{1}{3}$ of costa; cilia white. Hindwings white; sometimes irregularly suffused with fuscous; a row of black dots along hindmargin, sometimes extending into cilia; cilia white.

Closely allied to *C. delocentra*, Meyr., and subsequent research may show that it is merely a geographical form of this species. The male, however, appears very distinct, and the female may be distinguished by the black second abdominal segment. A considerable series shows these differences to be constant. We have seen both sexes of *C. delocentra* taken by Mr. Lower in South Australia, and in these the forewings of the male are white. (Trans. Roy. Soc. S.A. 1892.) Brisbane: larvæ found in the stems of several species of *Eucalyptus*.

17. CRYPTOPHAGA EPADELPHA, Meyr. Meyrick, 36. Male, 31-36 mm. (I have seen one specimen, perhaps starved, only 25 mm.); antennal pectinations, 4. Female, 40-48 mm. The hindwings in male are uniform blackish-fuscous.

Brisbane: larvæ found commonly tunnelling the stems of *Tristania conferta* (Box-tree), less commonly *Tristania suaveolens* (Swamp Mahogany), dragging in leaves for food; moths emerge in November and December. This and the two following species are closely allied, and the larvæ are also closely similar. *C. epadelpha* may be distinguished by the total absence of discal dots on the forewings; *C. pultenææ* by the more rounded apices of the forewings and the presence of discal dots; the white variety of *C. nubila* resembles *C. epadelpha* in shape of wing, the discal dots are usually present, and it never has the pure snow-white tinge possessed by fresh specimens of the other two species.

18. CRYPTOPHAGA PULTENÆÆ, Lw. (*Cryptophasa pultenææ*, Lewin, Ins. N. S. W.) Meyrick, 38. Male, 31-33 mm.; antennal pectinations, 4. Female, 32-33 mm.

Brisbane: bred by Mr. Illidge from larvæ tunnelling the stems of *Eugenia myrtifolia* and *Eugenia Smithii*. Meyrick gives *Pultenæa villosa* as the foodplant.

19. CRYPTOPHAGA NUBILA, Lucas. Proc. Linn. Soc. N.S.W. 1893, 161. (*Cryptophasa intermedia*, ibid., 162.) Male, 28-33 mm.; antennal pectinations 4. Females, 32-42 mm. Forewings with vein 2 from $\frac{2}{3}$. Hindwings with 6 and 7 from a point. Head, face, and palpi white. Antennæ white at base, passing into fuscous. Thorax white, ochreous-whitish, or pale slate-coloured. Abdomen in male fuscous, segments narrowly edged with white; in female white; in both sexes second segment orange-red. Legs white, tarsi annulated with fuscous. Forewings oblong, costa in male very slightly, in female moderately arched, apex moderately rounded, hindmargin rounded, slightly oblique; white, ochreous-whitish, or pale slate-coloured, frequently sparsely, sometimes densely, irrorated with dark fuscous scales; costal margin white; a black dot in disc at $\frac{1}{3}$, and two others transversely placed at $\frac{3}{5}$, lower somewhat posterior—these are very rarely obsolete, but sometimes lost in the fuscous suffusion; a row of black dots along hindmargin and apical $\frac{1}{5}$ of costa, sometimes obsolete; cilia

white or tinged with pale fuscous, in which case a darker line at $\frac{1}{3}$ can usually be traced. Hindwings in male dark fuscous, in female white, sometimes more or less suffused with fuscous; a hindmarginal series of black dots; cilia white.

Var. Alba.—It is convenient to denote by this name the specimens with white ground-colour of forewings without fuscous irroration.

A very variable species. I have bred a large series, and have obtained the most extreme examples from the same food-plant. I regard the white colouration as ancestral, the darker varieties as a protective adaptation to the colours of the bark of the trees to which the species is attached.

Brisbane: the larvæ tunnelling the stems and dragging in for food the leaves of *Melaleuca leucodendron* (Tea-tree), *Melaleuca linariifolia*, *Callistemon salignus*, *Callistemon lanceolatus*, and probably other species of these genera; also of *Tristania suaveolens* (Swamp Mahogany) and *Backhousia myrtifolia*; and in gardens of the Guava. The moths emerge in November and December.

20. CRYPTOPHAGA ECCLESIASTIS, *Meyr.* Meyrick, Proc. Linn. Soc. N.S.W., 1886, 1040; and *op. cit.* 32. Male, 30-35 mm.; antennal pectinations, 3; forewings fuscous; hindwings dark-fuscous with a purple iridescence; abdomen dark-fuscous. Female, 53-59 mm.; forewings very pale whitish-grey; hindwings similar, suffused with fuscous towards hindmargin. (Meyrick's type from Victoria was shining white.)

This species is readily distinguished by the curious coppery-purple hindmarginal fascia. It is also characterised by the minute labial palpi. Brisbane: four specimens bred by Mr. Illidge from larvæ tunnelling the stems of *Eucalyptus corymbosa* (Bloodwood).

21. CRYPTOPHAGA FLAVOLINEATA, *Walk.* (*Cryptolechia flavolineata*, Walker, 749; *Cryptophaga flavolineata*, Meyrick, 36). Male, 33-36 mm.; antennal pectinations, $\frac{1}{2}$. Female, 39-45 mm.

Brisbane: larvæ live in stems of *Banksia integrifolia*, dragging in leaves for food.

22. CRYPTOPHAGA SPILONOTA, *Scott.* (*Cryptophasa spilonota*, Scott, Austr. Lep. 10, pl. 3.) Meyrick, 35. Male, 37 mm.; antennal pectinations, $\frac{1}{2}$. Female, 41 mm.

Darra, near Brisbane: bred by Mr. Illidge from larvæ tunnelling the stems of *Banksia integrifolia*.

2. XYLORYCTA, *Meyr.*

Antennal ciliations of male, $\frac{1}{4}$ to 2. This genus differs from *Cryptophaga* only in the non-pectinated antennæ of the male. Recent discoveries have brought the two into very near relationship. I have been compelled to drop Meyrick's genus, *Telecrates*, which was distinguished only by the shorter antennal ciliations, as the new species referable to the present genus render it no longer tenable. Meyrick himself anticipated that this might come to be the case (*op. cit.* 57).

The following is a tabulation of the Queensland species :—

1. Palpi small, terminal joint minute ... 28 *neomorpha*.
 „ long, terminal joint well developed 2.
2. Forelegs much thickened with scales 23 *stigmatias*.
 „ normal ... 3.
3. Forewings with dark streaks along veins 24 *cephalochra*.
 „ without „ 4.
4. Hindwings yellow or yellowish ... 5.
 „ not yellow ... 7.
5. Forewings with ground-colour fuscous 38 *heliomacula*.
 „ white ... 6.
6. Forewings with a broad fuscous longitudinal band ... 25 *porphyrinella*.
 Forewings with oblique fasciæ ... 37 *ophiogramma*.
7. Forewings yellow, with purple fasciæ 39 *lætiorrella*.
 „ not yellow ... 8.
8. Forewings slaty-grey ... 9.
 „ not slaty-grey ... 10.
9. Costa yellow ... 26 *flavicosta*.
 „ white ... 27 *molybdina*.
10. Forewings grey or fuscous, with white costal streak ... 11.
 Forewings white ... 12.
11. Costal streak reaching apex ... 29 *tapeina*.
 „ not reaching apex ... 30 *melaleuca*.
12. Forewings with one or more longitudinal streaks ... 13.
 Forewings without markings ... 14.
13. Forewings with central and dorsal streaks ... 31 *strigata*.
 Forewings with dorsal streak only ... 33 *candescens*.
14. Antennal ciliations of male, $\frac{1}{4}$ - $\frac{1}{3}$... 36 *placidella*.
 „ „ $1\frac{1}{2}$ -2 ... 15.
15. Face wholly white ... 32 *homoleuca*.
 „ not wholly white ... 16.
16. Sides of face orange ... 34 *cosmopis*.
 „ fuscous ... 35 *argentella*.

23. *XYLORYCTA STIGMATIAS*, *Meyr.* (*Pilostibes stigmatias*, *Meyrick*, 27.) Male, 38 mm; antennæ serrate in terminal half; ciliations, $\frac{2}{3}$; anterior tarsi thickened with long scales.

Mount Tambourine: one specimen at light in November.
 Recorded from Brisbane by Lucas (Linn. Soc. N.S.W. 1893).

24. *XYLORYCTA CEPHALOCHRA*, *Lower.* (*Cryptophaga cephalochra*, *Lower*, Proc. Roy. Soc. S.A. 1894, 90.) Male, 34 mm; antennæ slightly serrate towards extremity; ciliations, $1\frac{1}{4}$.

Brisbane: two specimens in October.

25. *XYLORYCTA PORPHYRINELLA*, *Walkr.* (*Cryptolechia porphyrinella*, *Walk.*, 771; *Cryptophaga porphyrinella*, *Meyrick*, 32; *Brunia intersecta*, *Lucas*, Proc. Linn. Soc. N.S.W., 1889; *Xylorycta*

porphyrinella, Lower, Proc. Roy. Soc. S.A. 1894, 91.) Male, 27-30 mm.; antennæ slightly serrate towards extremity; ciliations, $\frac{2}{3}$. Female, 31-35 mm.

Brisbane: a series bred by Mr. Illidge from larvæ tunnelling the stems of *Exocarpus cupressiformis* (Native Cherry), and dragging in leaves for food.

26. *XYLORYCTA FLAVICOSTA*, Lucas. (*Cryptophaga flavicosta*, Lucas, Proc. Linn. Soc. N.S.W. 1893, 163.) Male, 26 mm.; antennal ciliations, $1\frac{1}{2}$ -2. Female, 35-36 mm. Readily distinguished by the slate-coloured forewings with orange costal streak.

Brisbane: larvæ discovered by Mr. Illidge in the stems of several species of *Eucalyptus*.

Var. pallida.—Mr. Dodd has brought a male and female specimen from Charters Towers with whitish hindwings, forewings rather paler than in Brisbane types, with broader orange costal streak, and more black dots on hindmargin.

27. *XYLORYCTA MOLYBDINA*, *n.sp.* Female, 22-29 mm. Head, face, palpi, and antennæ white. Thorax pale slate-colour. Abdomen grey. Legs whitish. Forewings oblong, dilated posteriorly, costa slightly arched, apex round-pointed, hindmargin obliquely rounded; pale slate-colour; a white streak along costal edge not reaching apex; cilia pale slate-colour. Hindwings grey, paler towards base; cilia grey.

Brisbane: several female specimens bred from larvæ found in the stems of *Melaleuca leucadendron* (Tea-tree).

28. *XYLORYCTA NEOMORPHA*, *n.sp.* Male, 25 mm. Female, 34 mm. Antennal ciliations in male, 2. Labial palpi very short, not reaching base of antennæ, terminal joint minute. Head, face, and palpi white. Antennæ whitish. Thorax white or whitish-grey. Abdomen fuscous. Legs reddish, posterior tibiæ white. Forewings posteriorly dilated, costa gently arched, apex rather acute, hindmargin very obliquely rounded; whitish-grey; a pale-orange line along costa (in female specimen absent); a large blotch in disc, extending to inner margin, but not to costa, irrorated more or less densely with reddish-brown scales; in this are two elongate pale-orange spots at $\frac{2}{5}$ and $\frac{3}{5}$ of disc; a third similar spot on fold obliquely below first, sometimes obsolete; cilia pale reddish-brown. Hindwings dark fuscous; cilia pale ochreous.

Differs from the rest of the genus by the very short labial palpi; but I think it wiser to include it here, than to make a new genus. Charters Towers: two specimens received from Mr. Dodd.

29. *XYLORYCTA TAPEINA*, *n.sp.* Male, 24 mm.; antennal ciliations, $\frac{1}{2}$. Head, face, palpi, and antennæ whitish. Thorax fuscous, irrorated with whitish scales. Abdomen ochreous-whitish. Legs whitish with fuscous irroration. Forewings elongate, costa gently arched, apex round-pointed, hindmargin obliquely rounded; fuscous irrorated with white scales; a broad white streak along whole of costa, narrowing to a point at base and apex; an obscure whitish spot above middle of inner margin; a dark spot in disc at $\frac{2}{3}$; cilia fuscous. Hindwings and cilia pale-grey.

Charters Towers: two specimens received from Mr. Dodd.

30. *XYLORYCTA MELALEUCAE*, *n.sp.* Male, 17-18 mm.; antennal ciliations, $\frac{1}{4}$. Head, face, palpi, and antennæ whitish-grey. Thorax grey. Abdomen ochreous. Legs whitish; anterior pair infuscated. Forewings elongate, costa rather strongly arched near base, thence straight, apex round-pointed, hindmargin obliquely rounded; fuscous-grey, irrorated with dark fuscous scales; a broad snow-white streak along costa near base, ceasing rather abruptly beyond middle; some dark suffusion in basal part of disc; two fuscous dots placed transversely in disc at $\frac{2}{3}$; hindmarginal edge barred with fuscous and whitish; cilia dark fuscous; some white scales about middle of hindmargin. Hindwings and cilia pale-grey.

Coomera River, Moreton Bay: two specimens from larvæ tunnelling the stems of *Melaleuca genistifolia*. The specimens were unfortunately considerably damaged, so that the description may not be accurate as to finer details.

31. *XYLORYCTA STRIGATA*, *Lw.* (*Cryptophasa strigata*, Lewin, Ins. N.S.W.; *Xylorycta strigata*, Meyrick, 59.) Brisbane: found by Mr. Illidge feeding in the stems of *Banksia integrifolia*.

32. *XYLORYCTA HOMOLECA*, *Lower.* Trans. Roy. Soc. S.A. 1894, 91. Male and female, 31-35 mm.; antennal ciliations in male, $1\frac{1}{2}$.

This is certainly very near *X. orectis*, Meyr., differing only in the total absence of ochreous tinge on head, thorax, and costal margins and the fuscous colouration of legs. In my specimens the forewings are snow-white. Charters Towers: three specimens from Mr. Dodd. Lower's type was from near Duaringa. Mr. Dodd informs me that he found the larvæ feeding under a web on the bark of *Cupania*.

33. *XYLORYCTA CANDESCENS*, *Lower.* Trans. Roy. Soc. S.A. 1896, 163. I do not know this species. It is described by Lower from a specimen taken in Brisbane in December.

34. *XYLORYCTA COSMOPIS*, *Meyr.* Meyrick, 60. Antennal ciliations of male, 2. Brisbane: one specimen. I am not sure whether this species is distinct from the following.

35. *XYLORYCTA ARGENTELLA*, *Walk.* (*Cryptolechia argentella*, Walk. 750; *Xylorycta argentella*, Meyrick, 60.) Antennal ciliations of male, 2. Brisbane: one specimen.

36. *XYLORYCTA PLACIDELLA*, *Walk.* (*Cryptolechia placidella*, Walk. 750; *Telecrates placidella*, Meyrick, 63.) Antennal ciliations of male, $\frac{1}{2}$. Brisbane: not uncommon.

37. *XYLORYCTA OPHIOGRAMMA*, *Meyr.* Meyrick, 58. Two specimens from the Dawson River. (Brisbane Museum.) Meyrick's types were from Duaringa.

38. *XYLORYCTA HELIOMACULA*, *Lower.* (*Telecrates heliomacula*, Lower, Proc. Roy. Soc. S. A. 1894, 92.) Antennal ciliations in male, 1. One specimen (Brisbane Museum): the locality is not recorded, but it was probably taken in the neighbourhood of Brisbane.

39. *XYLORYCTA LÆTIORELLA*, *Walk.* (*Oecophora lætiorella*, Walk. 677; *Telecrates lætiorella*, Meyrick, 62.) Antennal ciliations of male, $\frac{1}{5}$. Brisbane: Mr. Illidge informs me that he has found this species commonly feeding on the inner bark of *Eucalyptus* (Stringybark), but has never observed it to tunnel the stems.

3. TYMBOPHORA, Meyr.

40. TYMBOPHORA PELTASTIS, *Meyr.* Meyrick, 56. Brisbane: not uncommon. Mr. Illidge has observed the larvæ feeding on the back of a smooth-barked *Eucalyptus*.

4. HYLYPNES, n. g.

Head with appressed hairs; ocelli absent; tongue well developed. Antennæ moderate, in male filiform, with very long ciliations (5), basal joint rather stout, without pecten. Labial palpi long, recurved, second joint with appressed scales, terminal joint nearly as long as second, smooth, acute. Maxillary palpi very short. Thorax smooth. Abdomen moderate. Posterior tibiæ rough-haired above and beneath. Forewings with vein 1 long—furcate towards base, 2 from $\frac{5}{6}$, 3 from angle, 7 and 8 stalked, 7 to hindmargin, 11 from middle. Hindwings 1, towards base below median and inner margin densely clothed with long hairs, 3 and 4 stalked, 5 approximated to 4 at base, tolerably parallel, 6 and 7 stalked, 8 connected with cell at a point near base.

Distinguished from *Xylorycta* by the very long antennal ciliations.

41. HYLYPNES PUDICA, *Lower.* (*Crypsicharis pudica*, Lower, Proc. Roy. Soc. S.A. 1896, 164.) Male, 16-19 mm. Female, 20-23 mm. Antennal ciliations in male, 5. The sexes differ in shape of forewing. In male apex is obtuse and hindmargin rounded; in female apex acute and hindmargin slightly sinuate.

Brisbane: commonly taken among tropical forest growth.

5. LICHENAULA, Meyr.

I regard this as the central and probably the largest genus of the family. Veins 6 and 7 of the hindwings are closely approximated at base, and it is not always easy to observe that they are really separate. This may often be most conveniently made evident by cautiously moistening the wing with spirit, and viewing it with a good lens by oblique light. In at least one species, *L. choriodes*, Meyr., these veins sometimes vary, in some abnormal specimens proceeding from a point or even being stalked. In the length of the antennal ciliations in the male, and in the termination of vein 7 of the forewings, there is considerable variation. Nevertheless, I am of opinion that the genus should not be divided.

The following is a tabulation of the Queensland species:—

- | | |
|--|----------------------------|
| 1. Forewings with a well-marked inner-marginal streak | 2. |
| Forewings without a well-marked inner-marginal streak | 3. |
| 2. Inner-marginal streak strongly toothed | 45 <i>undulatella</i> . |
| " " straight | ... 47 <i>dissimilis</i> . |
| 3. Thorax white or whitish | 4. |
| " fuscous or grey | 13. |
| 4. Thorax with a black anterior bar | 5. |
| " without a black anterior bar | 7. |

5. Cilia of hindwings ochreous-tinged ... 53 *callisema*.
 „ „ not ochreous-tinged 6.
6. Forewings with a well-defined white
 fascia 52 *melanoleuca*
 Forewings without a well-defined
 white fascia 51 *lichenea*.
7. Forewings with fuscous streaks along
 veins 48 *phloeochroa*.
 Forewings without fuscous streaks
 along veins 8.
8. Forewings with an angulated posterior
 line 9.
 Forewings without an angulated
 posterior line 11.
9. Forewings with a distinct inner-
 marginal blotch 43 *goniodes*.
 Forewings without a distinct inner-
 marginal blotch 10.
10. Forewings with longitudinal streaks
 in disc 58 *micradelpha*.
 Forewings without longitudinal streaks
 in disc 44 *oxygona*.
11. Forewings with 2 or more fasciæ ... 12.
 „ without distinct fasciæ ... 13.
12. Forewings with 3 broad transverse
 blackish fasciæ 56 *arisema*.
 Forewings without 3 broad transverse
 blackish fasciæ 57 *eucrines*.
13. Forewings ochreous-brown with white
 blotches 54 *laniata*.
 Forewings not ochreous-brown with
 white blotches 14.
14. Forewings clear white 59 *inscripta*.
 „ white irrorated with fuscous 15.
15. Forewings with an oblique fuscous
 streak near base 55 *melanosema*.
 Forewings without an oblique fuscous
 streak near base 50 *choriodes*.
16. Forewings with blackish transverse
 streaks 49 *onychodes*.
 Forewings without blackish transverse
 streaks 17.
17. Forewings with costal portion of disc
 suffused with whitish 46 *haplochroa*.
 Forewings with costal portion of disc
 not suffused with whitish ... 18.
18. Hindwings with hindmargin sinuate 60 *ignota*.
 „ „ rounded 42 *fumata*.

42. *LICHENAULA FUMATA*, *n.sp.* Male, 25-28 mm.; antennal ciliations, $1\frac{1}{2}$ -2; forewings with vein 7 to hindmargin. Head fuscous more or less irrorated with whitish scales. Face and palpi whitish. Antennæ fuscous or whitish. Thorax dark fuscous irrorated with whitish scales. Abdomen robust; grey. Legs grey-whitish; anterior tibiæ and tarsi infuscated. Forewings somewhat dilated posteriorly, costa moderately arched, apex round-pointed, hindmargin obliquely rounded; pale fuscous confusedly irrorated with blackish-fuscous, and sometimes also with white scales; a blackish-fuscous crescentic mark in disc at $\frac{3}{5}$; cilia fuscous, sometimes with a darker median line. Hindwings grey-whitish, fuscous tinged towards hindmargin; cilia grey-whitish, with a fuscous line at $\frac{2}{3}$.

To this species I refer two specimens, male and female, taken by Mr. Dodd, at Charters Towers, in which the forewings are without white irroration, and a brighter-coloured male taken by Mr. Illidge in Brisbane. The former came from larvæ found on a species of *Grevillea* (?).

43. *LICHENAULA GONIODES*, *n.sp.* Males, 24 mm.; antennal ciliations, 2; vein 7 of forewings to hindmargin. Head, face, palpi, and antennæ white. Thorax white. Abdomen white; posterior part of each segment reddish-fuscous. Legs whitish; anterior pair fuscous. Forewings moderate, costa moderately arched, apex round-pointed, hindmargin slightly sinuate, somewhat oblique; white, sparsely irrorated with reddish-fuscous scales; basal third of costa blackish; a squarish reddish-fuscous blotch on inner margin before middle, reaching above fold; a conspicuous reddish fuscous line from costa at $\frac{3}{4}$, very sharply angulated in disc, and continued parallel to hindmargin to before anal angle; cilia pale reddish-fuscous with a few whitish scales towards anal angle. Hindwings and cilia pale ochreous-whitish.

Brisbane: one specimen taken at light by Mr. C. J. Wild (Coll. Brisbane Museum).

44. *LICHENAULA OXYGONA*, *Lucas. Trans. Nat. His. Soc., Q.* 1894, 14. Male, 24 mm. Forewings with vein 7 to hindmargin. Head and face white. Palpi white, terminal joint fuscous anteriorly. Antennæ ochreous-fuscous. Thorax white, shading into whitish-grey posteriorly. Abdomen grey. Legs whitish. Forewings oblong, somewhat dilated posteriorly, costa slightly arched, apex round-pointed, hindmargin moderately oblique, almost straight; pale whitish-grey irrorated with pale fuscous scales; along costa broadly whitish; costal edge fuscous at extreme base, thence ochreous to $\frac{3}{5}$; a short very outwardly oblique ochreous-fuscous streak from costa at $\frac{3}{5}$; bounded externally by a white line which is sharply bent in disc, and continued in an inwardly convex line to anal angle; this line is sharply defined anteriorly, beyond it disc is pale whitish-grey; three ochreous fuscous dots on apical $\frac{1}{4}$ of costa; a narrow blackish line outlining apex, joined by a short narrow longitudinal blackish line from disc; a few blackish marginal scales at anal angle; cilia grey, with a white basal line and an ochreous-fuscous line at $\frac{1}{3}$ at apex. Hindwings grey; towards apex whitish; cilia whitish-grey; at apex darker with a fuscous line before middle.

Redescribed from the original type. Brisbane: reared by Mr. Illidge from a larva tunnelling the stem of an unknown shrub.

45. *LICHENAULA UNDULATELLA*, Walk. (*Cryptolechia undulatella*, Walker, 756; *Lichenaula undulatella*, Meyrick, 47.) Male, 17-20 mm. Female, 23 mm. Mr. Illidge has a variety of the male in which the whitish costal coloration extends beyond middle of disc, reducing the red-brown ground-colour to a minimum, and giving the specimen at first sight a very distinct appearance.

Brisbane: Mr. Illidge has found the larvæ feeding in a tube among the leaves of *Jacksonia scoparia* (Dogwood), also of *Acacia*.

46. *LICHENAULA HAPLOCHROA*, n.sp. Male, 22-25 mm. Female, 31 mm. Forewings with vein 7 to hindmargin. Head and face grey. Palpi whitish, terminal joint pale fuscous. Antennæ grey; ciliations in male, $1\frac{1}{2}$. Thorax grey. Abdomen ochreous-whitish. Legs whitish; anterior pair slightly infuscated. Forewings narrow-oblong, costa moderately arched, apex obtuse, hindmargin very oblique, scarcely rounded; whitish sparsely irrorated with grey scales; below fold grey; a grey dot on fold below middle, and a single or double dot in disc at $\frac{2}{3}$, sometimes obsolete; cilia grey. Hindwings and cilia grey-whitish.

Brisbane: four specimens.

47. *LICHENAULA DISSIMILIS*, n.sp. Male, 21 mm. Antennal ciliations, 2. Female, 35 mm. Forewings with vein 7 to hindmargin. Head and face white. Palpi fuscous; base of second joint whitish. Antennæ whitish. Thorax fuscous; anterior margin narrowly, lateral margins broadly, snow-white. Abdomen ochreous-whitish. Legs ochreous-whitish, anterior pair infuscated. Forewings narrow-elongate, costa scarcely arched, apex rounded, hindmargin almost straight, moderately oblique; shining snow-white; costal edge narrowly ochreous; a broad fuscous streak along inner margin from near base to hindmargin; cilia at apex snow-white, along hindmargin and at anal angle ochreous-fuscous. Hindwings pale grey; cilia whitish, becoming greyish towards anal angle.

This species is a striking example of the deceptiveness of superficial characters. It so closely resembles *Chalarotona craspedota*, Meyr., that I at first mistook it for that species, and had no doubt that it was closely allied, until examination of the structural characters showed that the two were widely separated. Charters Towers: two specimens from Mr. Dodd, who says that the larvæ spin together the leaves of a species of *Grevillea* (?).

48. *LICHENAULA PHLOEOCHROA*, n.sp. Male, 19-24 mm. antennal ciliations, $\frac{2}{3}$. Forewings with vein 7 to hindmargin. Head and face whitish. Palpi whitish, apical $\frac{1}{3}$ of terminal joint fuscous. Antennæ whitish. Thorax whitish. Abdomen ochreous-whitish. Legs whitish; anterior tibiæ fuscous internally, anterior tarsi annulated with fuscous. Forewings oblong, dilated posteriorly, costa moderately arched, apex round-pointed, hindmargin slightly sinuate below apex, obliquely rounded; whitish; the veins partly outlined by blackish fuscous scales; basal part of disc sparsely irrorated with fuscous; a pale reddish-brown suffusion over middle and posterior portions of disc above fold; several inconspicuous black dots on apical $\frac{1}{3}$ of costa; cilia whitish irrorated with fuscous scales. Hindwings pale grey; cilia whitish.

Brisbane: two specimens from larvæ found in stems of *Melaleuca leucadendron* (Tea-tree), emerging in November.

49. *LICHENAULA ONYCHODES*, *n.sp.* Male and female, 16-18 mm. Antennal ciliations in male, $\frac{1}{2}$. Forewings with vein 7 to hindmargin. Head and face grey. Palpi ochreous-whitish; terminal joint slightly infuscated. Antennæ fuscous. Thorax grey. Abdomen ochreous-fuscous. Legs ochreous-whitish; anterior pair infuscated. Forewings oblong, posteriorly dilated, costa gently arched, apex sub-rectangular, hindmargin nearly straight, scarcely oblique; grey with blackish markings; extreme base of costa blackish; a black line from base to inner-margin at $\frac{1}{5}$; from this another line proceeds obliquely towards but not reaching costa; an inwardly curved transverse line in disc before $\frac{1}{3}$, not quite reaching either margin; an inwardly oblique line from costa at $\frac{3}{5}$ towards but not reaching middle of inner-margin; another inwardly curved line from before anal angle not reaching costa; a faint outwardly curved line in disc beyond this; cilia grey. Hindwings and cilia whitish-grey.

Brisbane: seven specimens at light.

50. *LICHENAULA CHORIODES*, *Meyr.* Meyrick, 50. In this species veins 6 and 7 of the hindwings are very close together at base, so that sometimes they proceed from a point, and I have one abnormal specimen in which they are actually stalked on both sides. Brisbane.

51. *LICHENAULA LICHENEA*, *Meyr.* Meyrick, 49. Common among the granite rocks at Ballandean (2,500 feet), near Wallangarra.

52. *LICHENAULA MELANOLEUCA*, *n.sp.* Female, 15 mm. Forewings with vein 7 to apex. Head and face white. Palpi white, base of second, base and apex of terminal joint blackish. Antennæ blackish; basal joint white. Thorax white, with a transverse black band anteriorly. Abdomen grey. Legs whitish, anterior pair infuscated. Forewings elongate, costa gently arched, apex round-pointed, hindmargin obliquely rounded; blackish-fuscous with white markings; base narrowly white; an outwardly oblique, irregularly outlined fascia from costa at $\frac{1}{6}$ to inner-margin at $\frac{1}{4}$; a large white spot on costa at $\frac{2}{5}$ not reaching fold; another on costa at $\frac{3}{5}$; a similar spot in disc at $\frac{2}{3}$ confluent with the preceding; a smaller spot below centre of disc; a fifth spot at anal angle; and two minute dots at and before apex of costa; cilia whitish, bases blackish-fuscous except opposite costal dots and anal angle. Hindwings and cilia grey.

Ballandean (2,500 feet), near Wallangarra: one specimen in February.

53. *LICHENAULA CALLISEMA*, *n.sp.* Male, 18 mm. Antennal ciliations, $\frac{1}{2}$. Forewings with vein 7 to apex. Head and face snow-white. Palpi white, base of second joint and base and apex of terminal joint fuscous. Antennæ fuscous, basal joint white. Thorax white, anterior margin broadly, posterior narrowly fuscous. Abdomen pale ochreous-whitish. Legs ochreous-whitish, anterior pair infuscated. Forewings elongate, costa gently arched, apex round-pointed, hindmargin nearly straight, moderately oblique, snow-white, markings fuscous; costal edge narrowly fuscous towards base; a strongly marked oblique fascia near base; a broad fuscous blotch on middle-half of inner-margin, enclosing a small white spot; this blotch narrows in disc and gives off two lines, one of which reaches costa at $\frac{1}{2}$, the other is prolonged beneath costa towards base of wing; an irregular blotch extending from costa at $\frac{5}{6}$ to anal angle, giving off a fine line joining the central

blotch near inner-margin, and a short line to costa at $\frac{2}{3}$; two or three fuscous dots on hindmargin; cilia white, barred with fuscous. Hindwings and cilia pale-grey.

A very distinct species nearest *L. calligrapha*, Meyr. Ballandean (2,500 feet), near Wallangarra: two specimens in February.

54. *LICHENAULA LANIATA*, Meyr. Meyrick, 47. The markings of this species are somewhat variable, but it is always easily recognised. Brisbane: not uncommon.

55. *LICHENAULA MELANOSEMA*, *n.sp.* Male, 14 mm. Antennal ciliations, $1\frac{1}{2}$. Forewings with vein 7 to hindmargin. Head, face, palpi, and antennæ white. Thorax white, irrorated with fuscous, with a dark fuscous spot posteriorly. Abdomen whitish. Legs whitish. Forewings elongate, costa very slightly arched, apex round-pointed, hindmargin very obliquely rounded; white, irrorated with fuscous; a well-marked dark fuscous streak from inner-margin at base, not quite reaching costa at $\frac{1}{6}$; a dark fuscous blotch resting on middle of fold; pale fuscous suffusions below costa at $\frac{3}{5}$ and $\frac{4}{5}$, and above anal angle; a few dark fuscous scales in disc at $\frac{2}{3}$; cilia white, with pale fuscous irroration. Hindwings and cilia grey.

This species seems referable here, but I should like to examine further specimens before being quite certain. Brisbane: one specimen.

56. *LICHENAULA ARISEMA*, Meyr. Meyrick, 48. Wynnum, near Brisbane: one specimen on New Year's Day.

57. *LICHENAULA EUCRINES*, *n.sp.* Male, 13 mm. Antennal ciliations, 1. Forewings with vein 7 to hindmargin. Head, face, and palpi snow-white. Antennæ whitish. Thorax snow-white, a small ochreous-fuscous dot on each shoulder. Abdomen whitish. Forewings elongate, costa gently arched, apex round-pointed, hindmargin sinuate beneath apex, thence straight, slightly oblique; snow-white; costal edge at base fuscous; a broad ochreous-fuscous line from base to inner-margin at $\frac{1}{5}$; an outwardly curved ochreous-fuscous fascia from costa at $\frac{1}{3}$ to inner-margin at $\frac{2}{5}$; a triangular fuscous blotch on hindmargin from apex to anal angle, joined by two ochreous-fuscous lines from costa at $\frac{3}{5}$ and $\frac{4}{5}$; cilia white, at apex and anal angle fuscous. Hindwings and cilia grey.

Brisbane: one specimen taken by Mr. Illidge.

58. *LICHENAULA MICRADELPHA*, *n.sp.* Male and female, 14-15 mm. Antennæ in male thickened, slightly serrulate; ciliations extremely short, about $\frac{1}{6}$. Forewings with vein 7 to just below apex. Head and face white. Palpi white, terminal joint fuscous towards apex. Antennæ fuscous. Thorax white. Abdomen grey. Legs whitish. Forewings elongate, costa gently arched, apex round-pointed, hindmargin nearly straight, oblique; white, inner and hindmarginal portions of disc more or less suffused with greyish; costal edge fuscous towards base; a narrow fuscous line along fold; a longitudinal fuscous line in central third of disc; an outwardly oblique greyish line from costa at $\frac{2}{3}$ towards hindmargin, sharply bent in disc and continued to anal angle, posteriorly this line is margined with white, anteriorly it is more or less lost in the greyish suffusion; a short fuscous longitudinal streak from apex; a greyish suffusion along hindmargin; cilia greyish with a narrow white basal line. Hindwings and cilia pale-grey.

The angulated fascia recalls *L. oxygona*, Lucas. Brisbane: two specimens taken by Mr. Illidge.

59. *LICHENAULA INSCRIPTA*, *n.sp.* Male, 20 mm. Antennal ciliations, $\frac{1}{3}$. Forewings with vein 7 to just below apex. Head and face white. Palpi white, terminal joint pale fuscous towards apex. Antennæ fuscous, paler towards base. Thorax white. Abdomen (broken). Legs ochreous-whitish. Forewings elongate, costa moderately arched, apex round-pointed, hindmargin slightly sinuate, moderately oblique; white; basal $\frac{1}{3}$ of costal edge fuscous; a fuscous dot on middle of fold; faint indications of a line from costa at $\frac{2}{3}$ to anal angle, consisting of a fuscous dot on costa, two smaller dots in disc, and a pale fuscous suffusion at anal angle; hindmargin suffusedly outlined with fuscous; cilia white. Hindwings and cilia pale-grey.

This species may be somewhat variable in the intensity of markings. Brisbane: one specimen in December.

60. *LICHENAULA IGNOTA*, *n.sp.* Male and female, 15-18 mm. Antennal ciliations in male, $\frac{1}{4}$. Forewings with vein 7 to hindmargin. Head, face, and palpi grey, densely irrorated with blackish-fuscous. Antennæ dark fuscous. Thorax blackish-fuscous with a few grey scales. Abdomen grey. Legs grey, irrorated with fuscous. Forewings elongate, costa gently arched, apex round-pointed, hindmargin obliquely rounded; whitish-grey irrorated with black scales; a black dot in disc at $\frac{2}{3}$; an obscure, outwardly oblique, short, black marking from middle of inner-margin; beyond this is a small whitish-grey patch; a blackish suffusion at anal angle; cilia blackish-fuscous irrorated with whitish-grey. Hindwings with hindmargin sinuate beneath apex; pale-grey; cilia pale-grey.

Brisbane: five specimens at light.

6. *CRYPsICHARIS*, Meyr.

61. *CRYPsICHARIS NEOCOSMA*, Meyr. Meyrick, 45. Male and female, 17-23 mm.

Manly, near Brisbane, rather common; also from Charters Towers. From larvæ found by Mr. Illidge and Mr. Dodd spinning together leaves of *Eucalyptus*.

7. *ARIGNOTA*, n.g.

Head with appressed scales; ocelli absent; tongue well developed. Antennæ in male deeply serrated, moderately ciliated ($\frac{2}{3}$ -1); basal joint somewhat swollen, without pecten. Labial palpi moderately long, curved, ascending, second joint with appressed scales, slightly rough beneath, terminal joint about half second, smooth, acute. Maxillary palpi very short. Thorax with a dense posterior crest. Abdomen rather stout. Anterior tarsi and tibiæ somewhat thickened with scales, middle tibiæ rough-haired above, posterior tibiæ densely rough-haired above and beneath. Forewings with vein 1 long-furcate towards base, 2 from $\frac{3}{5}$, 3 from angle, 3, 4, and 5 closely approximated at base, 7 and 8 stalked, 7 to apex, 11 from middle. Hindwings over 1, oblong-ovate, towards base below median and towards inner-margin densely clothed with long hairs, 3 and 4 short-stalked, 5 tolerably parallel, 6 and 7 separate but very closely approximated at base, 8 connected with cell near base.

A connecting link between *Lichenaula* and *Maroya*, but distinguished from both by the thoracic crest. From *Notosara*, Meyr., it is distinguished by the palpi.

62. *ARIGNOTA STERCORATA*, Lucas. (*Xylorycta stercorata*, Lucas, Proc. Linn. Soc. N.S.W. 1893, 164.) Male, 28-35 mm. Head, face, and palpi creamy-whitish. Antennæ white, gradually becoming fuscous towards apex. Thorax creamy-whitish, faintly reddish-tinged; posteriorly fuscous; a small slaty-grey spot on each shoulder. Abdomen whitish; second segment reddish-brown, overlapped by long whitish hairs from first segment; third, fourth, and fifth segments edged with reddish-brown. Legs whitish; anterior tibiæ and tarsi barred anteriorly by fuscous spots. Forewings oblong, costa rather strongly arched, apex obtuse, hindmargin not oblique, rounded towards anal angle; creamy-whitish, very faintly reddish-tinged; with slaty-grey spots; first faintly marked at base of costa; second beneath costa near base; third rather larger resting on fold at $\frac{1}{6}$; fourth triangular at costa at $\frac{2}{5}$ (this sometimes contains a fuscous dot); fifth on fold before middle; four spots in outer half of disc ranged in a circle, sometimes partly confluent; within the circle are two blackish dots placed transversely in disc at $\frac{3}{5}$; a tenth spot on inner margin before anal angle; and an eleventh in disc at $\frac{5}{6}$; a series of minute blackish dots parallel to hindmargin; an interrupted reddish-brown line along hindmargin; cilia reddish-brown, with a pale line at base and another at $\frac{1}{3}$. Hindwings whitish; cilia whitish, at apex fuscous.

Brisbane: several specimens from larvæ discovered by Mr. Illidge living in the stems of *Elæocarpus obovatus*, dragging in leaves for food.

8. MAROGA, Walk.

63. *MAROGA UNIPUNCTANA*, Don. (*Tortrix unipunctana*, Don, Ins. N. Holl.; *Maroga gigantella*, Walker, 827.) Meyrick, 40. Brisbane: larvæ feed on the bark of many different trees, spinning a web over the surface, and also tunnelling into the stem, which is frequently ring-barked. Found on various species of *Acacia*, *Jacksonia scoparia* (Dogwood), *Casuarina*, and probably other native trees. In gardens is very destructive to *Cassia* and many leguminous trees, and also some trees of other orders.

64. *MAROGA SETIOTRICA*, Meyr. Meyrick, 40. Charters Towers, Dawson River, and Duaringa: Mr. Dodd found the larva on *Acacia*.

65. *MAROGA UNDOSA*, Lucas. Proc. Linn. Soc. N.S.W. 1893, 164. I am not quite sure of the distinctness of this species from *Maroga mythica*, Meyr. The peculiar shape of the forewings is identical in both, though the coloration appears different. Brisbane: the larvæ discovered by Mr. Illidge feeding on the bark and tunnelling the stem of *Eugenia*.

9. COMPSOTORNA, Meyr.

66. *COMPSOTORNA OLIGARCHICA*, Meyr. Meyrick, 41. Described from a specimen taken at Toowoomba.

10. PHLOEOPHORBA, n.g.

Head with appressed scales; ocelli absent; tongue short. Antennæ moderate, in male filiform, simple, basal joint somewhat swollen, without pecten. Labial palpi moderately long, curved, ascending, second joint with appressed scales, slightly rough beneath, terminal joint nearly as long as second, smooth, acute. Maxillary palpi very short. Thorax smooth. Abdomen moderate. Anterior tibiæ somewhat thickened with scales, posterior tibiæ densely rough-haired above and beneath. Forewings with vein 1 long-furcate towards base, 2 from $\frac{2}{3}$ to $\frac{3}{4}$, 3 from angle, 7 and 8 stalked, 7 to apex or costa, 11 from middle. Hindwings over 1, oblong-ovate, with a dense tuft of hairs near base below median, 3 and 4 from a point or short-stalked, 5 parallel, 6 and 7 from a point or short-stalked, 8 connected with cell at a point near base. Differs from *Maroga*, Meyr., in the absence of antennal ciliations in the male.

67. PHLOEOPHORBA CODONOPTERA, n.sp. Male, 25-35 mm. Female, 31-35 mm. Veins 3 and 4 of hindwings from a point, 6 and 7 from a point. Head, face, palpi, and antennæ dark fuscous. Thorax anteriorly fuscous, shading off posteriorly into reddish-ochreous. Abdomen ochreous-brown. Legs, anterior and middle pair reddish-fuscous, posterior ochreous-whitish; anterior coxæ shining white. Forewings moderate, costa strongly arched in female, in male this is exaggerated, apex produced into a finger-shaped process with rounded extremity, hindmargin sinuate, very oblique; shining ochreous-whitish; in female shining reddish-ochreous; edges of costa and inner-margin orange, at base of costa fuscous; a white spot margined with fuscous in disc at $\frac{3}{5}$; in male this may be partially obsolete; traces of fuscous suffusion about all margins and apex; costal cilia orange, hind-marginal fuscous. Hindwings ochreous-whitish; cilia ochreous-whitish, at apex pale fuscous.

The very peculiar forewings distinguish this from any other known species. Brisbane: larvæ found abundantly feeding on the bark of *Elæocarpus grandis* (Quandong), and *Eugenia ventenatii*, under roundish blotches composed of silk and fragments of bark, in the centre of which the pupæ may be found in a separate chamber.

68. PHLOEOPHORBA LACTEA, n.sp. Female, 22-29 mm. Veins 3 and 4 of hindwings short-stalked, 6 and 7 from a point. Head and face dark fuscous. Palpi dark fuscous; terminal joint whitish except at base. Antennæ dark fuscous. Thorax white. Abdomen whitish, obscurely annulated with reddish-brown. Legs, anterior and middle pair fuscous, posterior pair ochreous-whitish; anterior coxæ white. Forewings moderate, costa rather strongly arched, apex obtuse, hind-margin slightly rounded, very oblique; uniform milky-white, without markings; a very faint indication of pale fuscous suffusion towards hindmargin; cilia white. Hindwings white; a very faint indication of pale fuscous suffusion towards apex; cilia white.

In the absence of the male the generic position of this species cannot be determined with certainty. Charters Towers: two female specimens received from Mr. Dodd.

11. PLECTOPHILA, Meyr.

69. PLECTOPHILA ELECTELLA, *Walk.* (*Oecophora electella*, Walker, 679; *Plectophila electella*, Meyrick, 55.) Gympie: one specimen taken by Mr. Illidge.

70. PLECTOPHILA PYRGODES, *n.sp.* Female, 18 mm. Head and face snow-white. Palpi white; terminal joint pale fuscous towards apex. Antennæ fuscous. Thorax, anterior half snow-white, posterior dark fuscous. Abdomen pale ochreous. Legs pale ochreous. Forewings elongate, costa scarcely arched, apex round-pointed, hindmargin oblique, slightly sinuate; white; markings ochreous-fuscous; costal edge fuscous at extreme base; a broad streak along inner margin from $\frac{1}{4}$ to anal angle; from this arises a broad transverse bar crossing disc at $\frac{1}{3}$, ceasing abruptly at $\frac{1}{3}$ breadth of wing from costa; a very broad fascia from costa beyond middle to anal angle, both margins irregularly dentate; a dark-fuscous longitudinal streak at apex, attenuated anteriorly; between this and costa an ochreous-brown area with two white dots on costa; hindmarginal part of disc irrorated with fuscous; cilia white, a median fuscous line at apex, at anal angle slightly ochreous-tinged. Hindwings dark-grey; cilia ochreous-whitish.

Probably attached to *Acacia*. Brisbane: one specimen.

12. NEODREPTA, n.g.

Head with loosely appressed scales; ocelli absent; tongue well developed. Antennæ moderate, in male with moderate or rather long ciliations (1-2), basal joint moderate, without pecten. Labial palpi moderate, curved, ascending, second joint with appressed scales, terminal joint shorter than second, acute. Maxillary palpi very short. Thorax smooth. Abdomen moderate. Posterior tibiæ rough-haired above and beneath. Forewings with vein 1 long-furcate towards base, 2 from $\frac{2}{3}$ to $\frac{3}{4}$, 3 from angle, 7 and 8 stalked, 8 to hindmargin, 11 from middle. Hindwings 1 or over 1, oblong-ovate, towards base below median, and towards inner-margin densely clothed with long hairs, 3 and 4 from a point, 5 parallel, 6 and 7 separate but closely approximated at base, 8 connected with cell at a point towards base.

Distinguished from all except the following genus by the termination of vein 8 of forewing below apex.

71. NEODREPTA LUTEOTACTELLA, *Walk.* (*Cryptolechia luteotactella*, Walker, 750; *C. cognatella*, ib. 751; *Xylorycta luteotactella*, Meyrick, 61.) Brisbane: Mr. Illidge finds the larvæ usually between spun-together leaves of *Banksia integrifolia*, occasionally tunnelling the smaller stems. Also from Ballandean (2,500 feet) near Wallangarra.

72. NEODREPTA APHELES, *n. sp.* Male, 22 mm. Antennal ciliations, 1. Head, face, and palpi snow-white. Antennæ white at base, shading into fuscous towards apex. Thorax white, posteriorly slaty-grey. Abdomen grey, tuft ochreous-grey. Legs white; anterior pair, except coxæ, fuscous. Forewings dilated posteriorly, costa gently arched, apex round-pointed, hindmargin straight, slightly oblique; whitish-grey, sparsely irrorated with grey; costal edge

fuscous at base, thence ochreous-whitish almost to apex; an ill-defined grey triangular blotch on centre of inner-margin, its oblique posterior edge very distinct; an ill-defined greyish line from costa at $\frac{3}{4}$ to before anal angle, gently outwardly curved in disc; cilia pale fuscous. Hindwings and cilia grey.

Mount Tambourine: one specimen at light in December. The type is somewhat worn.

13. PARALECTA, n.g.

Head with loosely appressed scales; ocelli absent; tongue short. Antennæ moderate, in male very shortly ciliated ($\frac{1}{5}$), basal joint moderate, without pecten. Labial palpi moderate, curved, ascending, second joint with appressed scales, slightly roughened beneath, terminal joint shorter than second, acute. Maxillary palpi very short. Thorax smooth. Abdomen moderate. Posterior tibiæ rough-haired above and beneath. Forewings with vein 1 long-furcate towards base, 2 from $\frac{2}{3}$, 3 from angle, 7 and 8 stalked, 8 to hindmargin, 11 from middle. Hindwings 1, oblong-ovate, towards base below median, and towards inner-margin densely clothed with long hairs, 3 and 4 stalked, 5 parallel, 6 and 7 stalked, 8 connected with cell at a point near base.

Distinguished from the preceding by the stalking of veins 6 and 7 of the hindwings.

73. PARALECTA TINCTORIA, Lucas. (*Xylorycta tinctoria*, Lucas, Proc. Linn. Soc. N.S.W. 1893, 163.) Male and female, 21-23 mm. Head, face, and palpi white. Antennæ whitish, becoming fuscous towards apex. Thorax white, shading into pale fuscous posteriorly. Abdomen whitish. Legs whitish. Forewings much dilated posteriorly, costa gently arched, apex round-pointed, hindmargin straight, slightly oblique; whitish, irrorated with reddish-brown scales; towards costa and hindmargin mostly free from irroration; a conspicuous but ill-defined reddish-brown blotch on inner margin before middle; cilia reddish-brown, bases whitish, with a fuscous line at $\frac{1}{3}$, at anal angle whitish. Hindwings white; with a narrow grey line along margin; cilia white, with a faint greyish median line.

Brisbane: five specimens beaten from *Eugenia ventenatii*.

14. SCIEROPEPLA, Meyr.

74. SCIEROPEPLA POLYXESTA, Meyr. Meyrick, 67. Ballandean (2,500 feet) near Wallangarra: one specimen in February.

75. SCIEROPEPLA REVERSELLA, Walk. (*Cryptolechia reversella*, Walker, 752; *C. abrosella*, i.b., 752.) Meyrick, 68. Wynnum, near Brisbane: seven specimens from larvæ feeding gregariously in a *Banksia* cone.

15. CATORYCTIS, Meyr.

Antennæ of male filiform, simple. Meyrick describes the antennæ of male as shortly ciliated ($\frac{1}{4}$ - $\frac{1}{2}$), but I have always found a total absence of cilia. In the forewings vein 7 is absent (coincident with 8) in *mediolinea* and *subparallela*, present in all the other species.

1. Forewings with a conspicuous white

median streak 2.

Forewings without a conspicuous white

median streak 80 *nonolinea*.

2. Median streak reaching to apex ... 3.
 „ „ not reaching to apex... 76 *mediolinea*.
 3. Median streak interrupted transversely 78 *eugramma*.
 „ „ not interrupted trans-
 versely 4.
 4. Hindwings whitish-ochreous 77 *subparallela*.
 „ grey 79 *tricrena*.

76 CATORYCTIS MEDIOLINEA, *Lucas*. Proc. Linn. Soc. N.S.W. 1893, 166. Male, 23 mm. Forewings with vein 7 absent. A fine species, easily recognisable by the single broad white median streak not reaching apex. Brisbane: one specimen taken by Mr. Illidge.

77. CATORYCTIS SUBPARALLELA, *Walk.* (*Oecophora subparallela*, Walker, 690; *Oec. nexella*, ib., 692; *Oec. fissulella*, ib., 1032; *Catoryctis subparallela*, Meyrick, 42.) Brisbane.

78. CATORYCTIS EUGRAMMA, *Meyr.* Meyrick, 43. Brisbane.

79. CATORYCTIS TRICRENA, *Meyr.* Meyrick, 44. *Var. Brisbaneensis*. Differs from the typical form in the presence of an additional white streak close to inner-margin from base to anal angle.

Brisbane.

80. CATORYCTIS NONOLINEA, *Lucas*. Proc. Linn. Soc. N.S.W. 1893, 165. Male and female, 13-15 mm. Forewings with vein 7 present. Head and face white. Palpi white; terminal joint pale fuscous. Antennæ white, sharply annulated with dark fuscous. Thorax ochreous-brown, with three longitudinal white lines. Abdomen ochreous-whitish. Legs ochreous-whitish; anterior pair infuscated. Forewings moderate, costa gently arched, apex rounded, hindmargin obliquely rounded; ochreous-brown, with numerous fine white lines; costal edge fuscous at extreme base; a subcostal line from base to middle of costa; a median line from base, bifurcating at $\frac{1}{5}$, upper limb reaching $\frac{2}{5}$, lower limb along fold, parallel and equal to upper limb; an inner marginal line commencing at $\frac{1}{5}$ and reaching margin just before anal angle; four streaks parallel to veins running to costa; a second short median line from middle of disc, ending in a white spot at $\frac{4}{5}$; four fine short streaks parallel to hindmarginal veins; an irregular white spot close to inner-marginal line near its termination; cilia whitish, extremities brownish. Hindwings in male white with a sharply defined dark-grey patch at apex; in female grey, darker at apex; cilia white.

Brisbane: two specimens taken by Mr. Illidge.

16. ILLIDGEA, n.g.

Head with appressed scales; ocelli absent; tongue moderate. Antennæ moderate, in male rather stout, not ciliated; basal joint moderate, without pecten. Labial palpi moderately long, curved, ascending; second joint with appressed scales; terminal joint much shorter than second, acute. Maxillary palpi very short. Thorax smooth. Abdomen rather stout. Posterior tibiæ densely rough-haired above and beneath. Forewings with vein 1 long-furcate towards base, 2 from $\frac{3}{5}$, 3 from angle, 7 and 8 stalked, 7 to hindmargin, 11 from $\frac{1}{4}$. Hindwings over 1, oblong-ovate; towards base

below median, and towards inner-margin densely clothed with long hairs; 3 and 4 short-stalked, 6 and 7 separate but closely approximated at base, 8 connected with cell at a point near base.

Distinguished from *Xylorycta* and *Lichenaula* by the antennæ of the male. I have great pleasure in naming this genus after my friend Mr. R. Illidge, to whom our knowledge of this group owes so much.

81. ILLIDGEA EPIGRAMMA, *Meyr.* (*Cryptophaga epigramma*, Meyrick, 31; *Xylorycta epigramma*, Lower, Proc. Roy. Soc. S.A. 1894, 91.) Male, 26-32 mm. Female, 30-40 mm. A very variable species. The variation consists partly in the greater distinctness and number of the transverse black lines, in particular one from costa at $\frac{2}{3}$ to before anal angle, angulated in disc, is often present; partly also in the presence of conspicuous squarish whitish blotches in middle of disc and at anal angle. A very distinct variety has a conspicuous longitudinal black streak from first transverse line to hindmargin.

Brisbane: Mr. Illidge has found the larvæ abundantly on the trunks, or larger branches, of several species of *Eucalyptus*, usually tunnelling the young wood on the edge of a fractured branch, or some other injury. Also three specimens from Charters Towers, bred by Mr. Dodd. These are much smaller (23-26 mm.) than the Brisbane types, and have paler hindwings.

17. MYLOCERA, n.g.

Head smooth; ocelli absent; tongue developed. Antennæ moderate, in male much thickened with scales towards base, not ciliated, basal joint short, without pecten. Labial palpi short, curved, ascending, second joint rough-scaled anteriorly, terminal joint less than half second, acute. Maxillary palpi very short. Thorax smooth. Abdomen stout. Posterior tibiæ shortly rough-haired above, smooth beneath. Forewings with vein 2 from $\frac{2}{3}$, 3 from angle, 7 and 8 stalked, 7 to hindmargin immediately below apex, 11 from middle. Hindwings over 1, oblong-ovate, inner-margin hairy, 3 and 4 from a point, 5 parallel, 6 and 7 short-stalked.

A very distinct genus, immediately distinguished by the peculiar antennæ of the male.

82. MYLOCERA TENEBRIFERA, *n.sp.* Male, 18 mm. Head, face, palpi, antennæ, thorax, and abdomen uniform glossy black. Legs black; anterior and middle tarsi annulated with white. Forewings posteriorly dilated, costa straight, apex rounded, hindmargin straight, slightly oblique; black; sparsely irrorated with pearly-white scales; cilia black with a bluish-purple lustre. Hindwings dark fuscous; towards base free from scales and transparent, except along veins; cilia fuscous, at apex black with purplish lustre.

A very extraordinary species in general appearance. Brisbane: one specimen taken by Mr. Illidge.

18. GONIOMA, n.g.

Head with loosely appressed scales; ocelli absent; tongue developed. Antennæ moderate, in male filiform, simple, basal joint moderate, without pecten. Labial palpi moderate, curved, ascending, second joint thickened with rough scales towards apex, terminal joint

shorter than second, smooth, slender, acute. Maxillary palpi very short. Thorax smooth. Abdomen moderate. Posterior tibiæ rough-haired above in male, smooth beneath. Forewings with costa strongly arched at base, vein 2 from $\frac{3}{5}$, 3 from angle, 7 and 8 stalked, 7 to costa, 11 from middle. Hindwings over 1, oblong-ovate, with a tuft of hairs from base below median, 3 and 4 short-stalked, 5 parallel, 6 and 7 separate but closely approximated at base, 8 connected with cell near base.

A peculiar genus, interesting as forming to some extent a connecting link between *Lichenaula* and *Uzucha*.

83. *GONIOMA XANTHOPSIS*, *n. sp.* Male, 33-35 mm. Head and face whitish-grey. Palpi whitish, with a few fuscous scales. Antennæ whitish-grey. Thorax whitish-grey, irrorated with fuscous. Abdomen ochreous. Legs ochreous; anterior pair whitish, anterior tarsi fuscous. Forewings oblong, costa very strongly and abruptly arched near base, thence moderately arched, apex rounded, hindmargin very obliquely rounded; whitish-grey, sparsely irrorated with blackish scales; cilia whitish-grey. Hindwings ochreous-yellow; with a pale fuscous suffusion at apex; cilia pale fuscous, with darker line at $\frac{2}{3}$ towards anal angle ochreous-yellow.

Charters Towers: two specimens, obtained by Mr. Dodd from larvæ feeding under a web on the bark of a Myrtaceous tree.

19. UZUCHA, Walk.

Labial palpi short or moderate. Posterior tibiæ in male smooth-scaled, in female rough-scaled above, smooth beneath. Forewings with vein 7 to apex or costa. Hindwings with 6 and 7 from a point or short-stalked.

It seems better for the present to widen the definition of this genus than to establish a new genus for Lower's species.

84. *UZUCHA HYPOXANTHA*, *Lower*. Proc. Roy. Soc. S.A. 1894., 88. Female, 40 mm. Forewing with vein 7 to costa. Hindwings with 6 and 7 from a point. Chinchilla, Western Darling Downs: one specimen (Coll. Brisbane Museum). Lower also records it from near Duaringa.

85. *UZUCHA HUMERALIS*, *Walk.* Walker, 826; Meyrick, 26. Male and female, 42-53 mm. (one specimen, probably starved, 35 mm.). Palpi very short. Forewings with vein 7 to apex. Hindwings with 6 and 7 stalked. Brisbane: larvæ found very commonly feeding under a web on the bark of *Angophora* and smooth-barked species of *Eucalyptus*. Also recorded from Duaringa.

86. *UZUCHA BOREALIS*, *n. sp.* Male, 47 mm. Palpi very short. Forewings with vein 7 to apex. Hindwings with 6 and 7 stalked. Head, face, and palpi deep orange-ochreous. Antennæ pale ochreous-brown, annulated with darker brown. Thorax pale ochreous-brown. Abdomen dark-fuscous, base of segments and two whole apical segments ochreous-orange. Legs ochreous-orange; anterior pair infuscated. Forewings oblong, slightly narrowed posteriorly, costa very strongly and abruptly arched near base, thence nearly straight, apex obtuse, hindmargin nearly straight, hardly oblique; pale ochreous-brown; a semi-circular dark reddish-fuscous spot on base of costa; a conspicuous squarish

reddish-fuscous spot in disc at $\frac{2}{3}$; cilia pale ochreous-brown. Hindwings pale ochreous; basal third fuscous; division suffused; cilia pale ochreous, at anal angle fuscous.

Differs from *Uzucha humeralis* only in the colouration. Further discoveries may show that it is only a geographical variety of this species, which, however, is quite constant in its colouring in the neighbourhood of Brisbane. Charters Towers: one specimen from Mr. Dodd.

20. PROCOMETIS, Meyr.

An interesting genus probably destined to be much increased in number of species.

I have omitted *Proc. diplocentra*, Meyr., 73, as of doubtful occurrence in Queensland. I have seen no specimens from this colony, and have one captured during a short stay in Hobart, Tasmania. As Mr. G. Barnard, from whom the type specimens were received, is known to have collected in this island, I think there may be some mistake in the locality, which is given as Duaringa.

The following is a tabulation of the Queensland species:—

- | | | |
|---|--------|-----------------------|
| 1. Forewings with fuscous streaks along veins | ... .. | 87 <i>phlæodes</i> . |
| Forewings without fuscous streaks along veins | ... .. | 2. |
| 2. Forewings partly yellowish | ... .. | 89 <i>lipara</i> . |
| „ fuscous or grey, not yellowish | ... .. | 3. |
| 3. Apex of forewings dark fuscous | ... .. | 88 <i>melanthes</i> . |
| „ not dark fuscous | ... .. | 4. |
| 4. Forewings grey, apex acute | ... .. | 90 <i>hylonoma</i> . |
| „ apex obtuse | ... .. | 91 <i>acompsa</i> . |

87. PROCOMETIS PHLOEODES, *n. sp.* Male, 25-27 mm.; female, 30-34 mm. Head and face whitish-grey. Palpi, second joint whitish with two longitudinal fuscous streaks anteriorly, terminal joint fuscous, apex whitish. Antennæ fuscous, with a few whitish scales. Thorax fuscous, with a few whitish scales. Abdomen ochreous-fuscous, apices of segments whitish. Legs whitish; anterior tarsi with fuscous annulations. Forewings elongate, costa moderately arched, apex rounded, hindmargin obliquely rounded; whitish; all veins outlined in fuscous; a more or less obsolete, interrupted fuscous line from base to hindmargin; cilia whitish, barred with fuscous. Hindwings fuscous; cilia whitish, with a fuscous basal line.

Brisbane: five specimens.

88. PROCOMETIS MELANTHES, *n. sp.* Male, 30 mm. Head and face blackish-fuscous. Palpi blackish-fuscous; second joint irrorated with white scales, and with two longitudinal white lines anteriorly; apex of terminal joint whitish. Antennæ black. Thorax blackish-fuscous. Abdomen fuscous; apices of segments whitish. Legs whitish, irrorated with fuscous scales; anterior pair blackish-fuscous, tibiæ irrorated, and tarsi annulated with white. Forewings elongate, costa moderately arched, apex rounded, hindmargin obliquely rounded; blackish-fuscous irrorated with whitish scales. The absence of these leaves the following markings:—A short longitudinal line from base;

an indistinctly double spot in disc before middle, placed obliquely; a closely similar spot in disc beyond middle; a blackish area at apex sharply bounded internally, division starting from costa at $\frac{3}{4}$, sharply bent inwards in disc to form a sharp process, thence outwardly curved to anal angle; cilia alternately blackish-fuscous and whitish. Hindwings fuscous; paler towards base; cilia paler, with a darker basal line.

Ballandean (2,500 feet), near Wallangarra: one specimen in February.

89. *PROCOMETIS LIPARA*, *Meyr.* Meyrick, 72. Ballandean (2,500 feet), near Wallangarra: one specimen in February.

90. *PROCOMETIS HYLONOMA*, *Meyr.* Meyrick, 72. Stradbroke Island: one specimen in November.

91. *PROCOMETIS ACOMPSA*, *n.sp.* Male, 20 mm. Head, face, palpi, and antennæ whitish-grey. Thorax grey; anterior margin and shoulders whitish-grey. Abdomen dark ochreous-fuscous; apices of segments whitish-ochreous. Legs whitish; anterior pair infuscated. Forewings narrow-elongate, costa slightly arched, apex very obtusely rounded, hindwings very oblique, scarcely rounded; pale whitish-grey irrorated with darker grey; an ill-defined whitish streak along costa to $\frac{3}{4}$; cilia whitish-grey. Hindwings and cilia dark-grey.

Best distinguished from the preceding by the shape of the forewings. Brisbane: one specimen in November.

21. *PHYLOMICTIS*, *Meyr.*

A very interesting genus, being probably a remnant of a very ancient group, of which the majority are now extinct. It forms, as Meyrick remarks, an important connecting link between *Agriophara* and the rest of the family.

The present species presents slight differences from Meyrick's type, which are noted below, but not sufficient to separate it from his genus.

92. *PHYLOMICTIS PALAEOMORPHA*, *n.sp.* Male, 15-18 mm. Forewings with vein 7 and 8 very short-stalked, 7 to costa. Hindwings with 3 and 4 extremely long-stalked. Head grey-whitish, with fuscous irroration. Face and palpi whitish. Antennæ grey. Thorax grey-whitish, irrorated with fuscous. Abdomen grey. Legs whitish; anterior pair infuscated. Forewings narrow-elongate, costa strongly arched, apex rounded, hindmargin very obliquely rounded; whitish, thickly irrorated with fuscous between veins; costal edge whitish; cilia whitish. Hindwings and cilia grey.

An inconspicuous species, easily overlooked, resembling in general appearance an *Agriophara*. Brisbane: two specimens in November. From its general appearance I conclude that it frequents bark.

22. *AGRIOPHARA*, *Ros.*

The following is a tabulation of the Queensland species:—

- | | | | |
|-------------------------------------|--------|----|----------------------|
| 1. Forewings with brownish blotches | ... | 93 | <i>confertella</i> . |
| „ without brownish blotches | | 2. | |
| 2. Forewings blackish | ... .. | 96 | <i>cremnopis</i> . |
| „ grey or whitish | ... .. | 3. | |

3. Forewings with a short oblique streak from base of costa ... 4.
Forewings without a short oblique streak from base of costa... 5.
4. Forewings with an interrupted longitudinal streak in disc ... 94 *cinerosa*.
Forewings with an oblique fascia before middle ... 98 *plagiosema*.
5. Forewings whitish, with a pale fuscous fascia before middle ... 97 *leucanthes*.
Forewings grey ... 6.
6. Hindwings of male whitish anteriorly, fuscous towards apex ... 99 *fascifera*.
Hindwings uniformly whitish-grey ... 95 *polioepepla*.

93. AGRIOPHARA CONFERTELLA, *Walk.* (*Cryptolechia confertella*, Walker, 758; *Agriophara confertella*, Meyrick, 76.) Brisbane: taken mostly at light.

94. AGRIOPHARA CINEROSA, *Ros.* Ann. Mag. Nat. Hist. 1885, 439. Brisbane.

95. AGRIOPHARA POLIOPEPLA, *n. sp.* Male and female, 16-22 mm. Head grey. Face and palpi whitish. Antennæ grey. Thorax grey. Abdomen whitish-grey. Legs whitish; anterior pair annulated with fuscous. Forewings narrow-elongate, costa moderately arched, apex rounded, hindmargin very obliquely rounded; grey densely irrorated with whitish scales; markings grey rather obscure; a dot on costa at $\frac{1}{4}$, from which proceeds an outwardly oblique series of dots, the last on fold; a dot on costa at $\frac{2}{5}$, from which extends a second outwardly oblique series of dots ending in a larger dot in disc at $\frac{2}{3}$; a third series of dots from costa at $\frac{3}{5}$, parallel to hindmargin to before anal angle; cilia whitish-grey, basal third irrorated with pale fuscous. Hindwings whitish-grey; cilia whitish.

From *Agriophara gravis*, Meyr., it may be distinguished by the absence of blackish scales. Brisbane: four specimens in September.

96. AGRIOPHARA CREMNOPIS, *Lower.* Lower Proc. Roy. Soc. S.A. 1894, 93. I do not know this species. The type is stated to be from Duaringa.

97. AGRIOPHARA LEUCANTHES, *n. sp.* Male, 14-16 mm. Head and face whitish. Palpi whitish; outside of terminal joint fuscous. Antennæ whitish. Thorax whitish, irrorated with fuscous. Abdomen grey. Legs whitish; anterior pair somewhat infuscated. Forewings oblong, costa rather strongly arched, apex rounded, hindmargin very obliquely rounded; whitish; markings pale fuscous; base of costa fuscous; an obscure fascia near base; a secondly outwardly curved fascia from costa at $\frac{1}{5}$ to middle of inner margin; a darker spot on costa at $\frac{2}{5}$; a suffused interrupted fascia from costa at $\frac{3}{5}$ to anal angle; a series of dots tending to form a third fascia from costa at $\frac{4}{5}$ parallel to hindmargin to anal angle; cilia whitish barred with fuscous. Hindwings and cilia whitish-grey.

Apparently nearest *Agriophara horridula*, Meyr. Brisbane: Two specimens.

98. *AGRIOPHEARA PLAGIOSEMA*, *n. sp.* Male and female, 16-18 mm. Head, face, and palpi whitish, irrorated with grey. Antennæ grey. Thorax whitish, irrorated with grey. Abdomen ochreous-whitish. Legs whitish; anterior pair fuscous. Forewings elongate, costa rather strongly arched, apex rounded, hindmargin very obliquely rounded; whitish, irrorated with grey and with a few blackish scales; markings blackish; very short oblique streak from base of costa; a conspicuous oblique fascia from costa at $\frac{1}{3}$ to middle of inner margin, often partly obsolete towards either margin; a short oblique streak from middle of costa, sometimes continued by a series of dots to a blackish suffusion above anal angle, which is, however, frequently obsolete; a series of dots parallel to hindmargin, frequently partly obsolete; cilia whitish, irrorated with grey and blackish scales. Hindwings and cilia grey.

Readily distinguished by the oblique anterior fascia. Brisbane: four specimens in October.

99. *AGRIOPHARA FASCIFERA*, Meyr. Meyrick, 80. Male and female, 12-16 mm. Brisbane: not uncommon.

ADDENDUM.

It seems convenient to describe here the following species; although, not being a Queensland insect, so far as is known, it does not come strictly within the scope of this paper:—

AGRIOPHARA DISCOBOLA, *n. sp.* Male and female, 25-28 mm. Head pale fuscous with whitish irroration; face whitish. Palpi dark fuscous irrorated with whitish. Antennæ fuscous-grey; in male showing whitish annulations. Thorax fuscous with whitish irroration. Abdomen grey. Legs whitish; anterior pair fuscous. Forewings elongate-oblong, costa moderately arched, apex rounded, hindmargin obliquely rounded; whitish densely irrorated with grey, and with some blackish scales; a well-marked irregular streak from base of costa along fold to beyond middle of disc; immediately beyond this a circular brownish spot in disc at $\frac{2}{3}$, edged posteriorly with blackish; an oblique interrupted line from costa at $\frac{1}{4}$ to central streak; and another more obscure from costa at $\frac{2}{5}$; a circularly curved row of blackish dots in disc beyond brownish spot; cilia grey irrorated with whitish, basal half barred with fuscous. Hindwings dark-grey; cilia grey with a darker basal line.

A very distinct species allied to *Agr. confertella*, Walk. Several specimens received from Mr. G. Lyell, taken at Gisborne, Victoria, in February.

INDEX OF GENERA.

Agriophara, <i>Ros.</i>	...	...	22	Mylocera, <i>n.g.</i>	...	...	17
Arignota, <i>n.g.</i>	...	...	7	Neodrepta, <i>n.g.</i>	...	...	12
Catoryctis, <i>Meyr.</i>	...	...	15	Paralecta, <i>n.g.</i>	...	...	13
Compsotorna, <i>Meyr.</i>	...	...	9	Phloeophorba, <i>n.g.</i>	...	...	10
Crypsicharis, <i>Meyr.</i>	...	...	6	Phylomictis, <i>Meyr.</i>	...	...	21
Cryptophaga, <i>Lw.</i>	...	...	1	Plectophila, <i>Meyr.</i>	...	...	11
Gonioma, <i>n.g.</i>	...	...	18	Procometis, <i>Meyr.</i>	...	...	20
Hylypnès, <i>n.g.</i>	...	...	4	Scieropepla, <i>Meyr.</i>	...	...	14
Illidgea, <i>n.g.</i>	...	...	16	Tymbophora, <i>Meyr.</i>	...	...	3
Lichenaula, <i>Meyr.</i>	...	...	5	Uzucha, <i>Walk.</i>	...	...	19
Maroga, <i>Walk.</i>	...	...	8	Xylorycta, <i>Meyr.</i>	...	...	2

INDEX OF SPECIES.

The numbers refer to those prefixed to each species in order. Synonyms are distinguished by italics.

<i>Ambrosella</i> , <i>Walk.</i>	...	...	75	<i>Mediolinea</i> , <i>Lucas</i>	...	...	76
<i>Acompsa</i> , <i>n.sp.</i>	...	...	91	<i>Melaleuca</i> , <i>n.sp.</i>	...	...	30
<i>Acroleuca</i> , <i>n.sp.</i>	...	...	13	<i>Melanoleuca</i> , <i>n.sp.</i>	...	...	52
<i>Albicosta</i> , <i>Lw.</i>	...	...	3	<i>Melanosema</i> , <i>n.sp.</i>	...	...	55
<i>Apheles</i> , <i>n.sp.</i>	...	...	72	<i>Melanthes</i> , <i>n.sp.</i>	...	...	88
<i>Argentella</i> , <i>Walk.</i>	...	...	35	<i>Micradelpha</i> , <i>n.sp.</i>	...	...	58
<i>Arisema</i> , <i>Meyr.</i>	...	...	56	<i>Molybdina</i> , <i>n.sp.</i>	...	...	27
<i>Borealis</i> , <i>n.sp.</i>	...	...	86	<i>Neocosma</i> , <i>Meyr.</i>	...	...	61
<i>Callisema</i> , <i>n.sp.</i>	...	...	53	<i>Neomorpha</i> , <i>n.sp.</i>	...	...	28
<i>Candescens</i> , <i>Lower</i>	...	...	33	<i>Nephrosema</i> , <i>n.sp.</i>	...	...	5
<i>Cephalochra</i> , <i>Lower</i>	...	...	24	<i>Nexella</i> , <i>Walk.</i>	...	...	77
<i>Chionodes</i> , <i>n.sp.</i>	...	...	15	<i>Nigricinta</i> , <i>n.sp.</i>	...	...	16
<i>Choriodes</i> , <i>Meyr.</i>	...	...	50	<i>Nonolinea</i> , <i>Lucas</i>	...	...	80
<i>Cinerosa</i> , <i>Ros.</i>	...	...	94	<i>Nubila</i> , <i>Lucas</i>	...	...	19
<i>Codonoptera</i> , <i>n.sp.</i>	...	...	67	<i>Oligarchica</i> , <i>Meyr.</i>	...	...	66
<i>Cognatella</i> , <i>Walk.</i>	...	...	71	<i>Onychodes</i> , <i>n.sp.</i>	...	...	49
<i>Confertella</i> , <i>Walk.</i>	...	...	93	<i>Ophiogramma</i> , <i>Meyr.</i>	...	...	37
<i>Cosmopis</i> , <i>Meyr.</i>	...	...	34	<i>Oxygonia</i> , <i>Lucas</i>	...	...	44
<i>Cremnopis</i> , <i>Lower</i>	...	...	96	<i>Palæomorpha</i> , <i>n.sp.</i>	...	...	92
<i>Dissimilis</i> , <i>n.sp.</i>	...	...	47	<i>Peltastis</i> , <i>Meyr.</i>	...	...	40
<i>Ecclesiastis</i> , <i>Meyr.</i>	...	...	20	<i>Phaëthontia</i> , <i>Meyr.</i>	...	...	10
<i>Electella</i> , <i>Walk.</i>	...	...	69	<i>Phlæochroa</i> , <i>n.sp.</i>	...	...	48
<i>Enchidias</i> , <i>Meyr.</i>	...	...	1	<i>Phlæodes</i> , <i>n.sp.</i>	...	...	87
<i>Epadelpha</i> , <i>Meyr.</i>	...	...	17	<i>Placidella</i> , <i>Walk.</i>	...	...	36
<i>Epigramma</i> , <i>Meyr.</i>	...	...	81	<i>Plagiosema</i> , <i>n.sp.</i>	...	...	98
<i>Eucrines</i> , <i>n.sp.</i>	...	...	57	<i>Platypedimela</i> , <i>Lower</i>	...	...	4
<i>Eugramma</i> , <i>Meyr.</i>	...	...	78	<i>Poliopoepla</i> , <i>n.sp.</i>	...	...	95
<i>Eumorpha</i> , <i>n.sp.</i>	...	...	14	<i>Polyxesta</i> , <i>Meyr.</i>	...	...	74
<i>Fascifera</i> , <i>Meyr.</i>	...	...	99	<i>Porphyrinella</i> , <i>Walk.</i>	...	...	25
<i>Fissulella</i> , <i>Walk.</i>	...	...	77	<i>Pudica</i> , <i>Lower</i>	...	...	41
<i>Flavicosta</i> , <i>Lucas</i>	...	...	26	<i>Pultenææ</i> , <i>Lw.</i>	...	...	18
<i>Flavolineata</i> , <i>Walk.</i>	...	...	21	<i>Pyrgodes</i> , <i>n.sp.</i>	...	...	70
<i>Fumata</i> , <i>n.sp.</i>	...	...	42	<i>Reversella</i> , <i>Walk.</i>	...	...	75
<i>Gigantella</i> , <i>Walk.</i>	...	...	63	<i>Rubescens</i> , <i>Lw.</i>	...	...	11
<i>Goniodes</i> , <i>n.sp.</i>	...	...	43	<i>Russata</i> , <i>Bull.</i>	...	...	9
<i>Haplochroma</i> , <i>n.sp.</i>	...	...	46	<i>Sarcinota</i> , <i>Meyr.</i>	...	...	12
<i>Heliomacula</i> , <i>Lower</i>	...	...	38	<i>Setiotricha</i> , <i>Meyr.</i>	...	...	64
<i>Homoleuca</i> , <i>Lower</i>	...	...	32	<i>Spilonota</i> , <i>Scott</i>	...	...	22
<i>Humeralis</i> , <i>Walk.</i>	...	...	85	<i>Stenoleuca</i> , <i>Lower</i>	...	...	6
<i>Hylonoma</i> , <i>Meyr.</i>	...	...	90	<i>Stercorata</i> , <i>Lucas</i>	...	...	62
<i>Hypoxantha</i> , <i>Lower</i>	...	...	84	<i>Sigmatias</i> , <i>Meyr.</i>	...	...	23
<i>Ignota</i> , <i>n.sp.</i>	...	...	60	<i>Stochastis</i> , <i>Meyr.</i>	...	...	7
<i>Inscripta</i> , <i>n.sp.</i>	...	...	59	<i>Strigata</i> , <i>Lw.</i>	...	...	31
<i>Intermedia</i> , <i>Lucas</i>	...	...	19	<i>Subparallela</i> , <i>Walk.</i>	...	...	77
<i>Intersecta</i> , <i>Lucas</i>	...	...	25	<i>Tapeina</i> , <i>n.sp.</i>	...	...	29
<i>Irrorata</i> , <i>Lw.</i>	...	...	2	<i>Tecta</i> , <i>Lucas</i>	...	...	8
<i>Lactea</i> , <i>n.sp.</i>	...	...	68	<i>Tenebrifera</i> , <i>n.sp.</i>	...	...	82
<i>Laetiorella</i> , <i>Walk.</i>	...	...	39	<i>Tinctoria</i> , <i>Lucas</i>	...	...	73
<i>Laniata</i> , <i>Meyr.</i>	...	...	54	<i>Tricrena</i> , <i>Meyr.</i>	...	...	79
<i>Leucanthes</i> , <i>n.sp.</i>	...	...	97	<i>Undosa</i> , <i>Lucas</i>	...	...	65
<i>Lichenea</i> , <i>Meyr.</i>	...	...	51	<i>Undulatella</i> , <i>Walk.</i>	...	...	45
<i>Lipara</i> , <i>Meyr.</i>	89	<i>Unipunctana</i> , <i>Don.</i>	63
<i>Luteotactella</i> , <i>Walk.</i>	71	<i>Xanthopsis</i> , <i>n.sp.</i>	83

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Turner, Alfred Jefferis. 1897. "The Xyloryctidæ of Queensland." *Annals of the Queensland Museum* 4, 1–32.

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