

A THIRD CONTRIBUTION TO A KNOWLEDGE OF THE LEPIDOPTEROUS FAUNA OF EBOR SCRUB, N.S.W.

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I paid four visits to this scrub this year, the dates being January 3rd, 5th, 7th, and 11th, and made 128 captures belonging to 40 species. Of these, 22 species have been already recorded by me. Of the remaining 18, there are six species which have been recorded from other localities, and 12 are here described as new. I describe also a very interesting Geometrid captured in 1914, but overlooked in my previous papers; it constitutes a new and primitive genus of the *Acidaliæ*.

This further material confirms without modifying my previous conclusions. We are here dealing with a small but highly peculiar fauna, which has distinct relationship to that of Mount Tambourine in Queensland, and, to a less extent, to that of Victoria. The number of recognised species (excluding those undetermined) amounts to 69, and, of these, only 24 are known from other localities. Of the *Ecophorinæ*, in which the fauna is particularly rich, there are 26 species, of which 21 are not known to occur elsewhere; of the *Tortricidæ*, the corresponding numbers are 13 and 7; of the *Geometridæ*, 10 and 4.

Fam. ARCTIADÆ.

Thallarcha erotis Turn. One ♀ rather rubbed. Expansion 16 mm.

Fam. GEOMETRIDÆ.

Subfam. LARENTIANÆ.

Eulype leucophragma Meyr. One ♂, two ♀.

Diploctena pantæa Turn. One ♂, two ♀, all in poor condition.

Subfam. GEOMETRINÆ.

Prasinocyma lychnopasta Turn. Three ♂; in two of these, 6 is stalked shortly with 7; and, in two, 11 anastomoses first with 12, and then with 10.

Subfam. BOARMIANÆ.

Philolochma celænochroa Turn. One ♂, two ♀, showing no variation in the neurulation.

Planolocha autoptis Meyr. Three ♂. This species and the preceding were beaten out of the dead fronds of treeferns.

Fam. PYRALIDÆ.

Aboëtheta pteridonoma Turn. Thirteen ♂, three ♀.

Fam. TORTRICIDÆ.

Capua paraloza Meyr. One ♀.

Capua hedyma Turn. Two ♂.

Cnephasia thiopasta Turn. Two ♀.

Fam. TINEIDÆ.

Subfam. CECOPHORINÆ.

Dasycerca apocrypha Turn. Three ♂.

Ocystola symbleta Turn. Three ♂.

Cæsyra bathrophæa Turn. Six ♀. Apparently the ♂ should be sought for earlier in the season.

Cæsyra syneches Turn. Three ♂.

Protomacha leucophara Turn. Four ♂, one ♀. Antennal ciliations of ♂ 1.

Philobota alypa Turn. One ♂. Antennal ciliations 6.

Philobota isomora Turn. One ♂, one ♀.

Eutorna eurygramma Meyr. One ♂.

Subfam. AMPHITHERINÆ.

Enchoptila idiopis Turn. Thirteen ♂, six ♀. This species was plentiful, and readily obtained by beating the dead fronds of the treeferns. The eyes are not divided as in *Amphithera*, but are strongly indented on their posterior edge by a median process, which reaches about $\frac{1}{4}$ across. The ♂, in addition to a

large, abdominal tuft, has a pair of hair-tufts from the under-surface of the penultimate segment.

Subfam. TINEINÆ.

Narycia (Xysmatodoma) polystona Turn. Two ♂; forewings darker than in ♀, being more generally suffused with fuscous, but pale sub-basal dorsal blotch well marked; antennal ciliations 1.

Fam. LYMANTRIADÆ.

PORTHESIA EUTHYSANA.

Porthesia euthysana Turn., Trans. R. Soc. S. Aust., 1902, p. 175.

Four ♂ examples. I took also a ♀ at rest on a rock in the gorge beneath Ebor Falls. The species was previously known only from Mount Tambourine, Queensland. The Ebor males have the yellowish dorsal fringe on forewings less marked, and the blackish colour on the dorsum of abdomen restricted to the basal segments.

Fam. GEOMETRIDÆ.

Subfam. ACIDALIANÆ.

EOIS HALMÆA.

Acidalia halmæa Meyr., Proc. Linn. Soc. N. S. Wales, 1887, p. 846.

I took five ♂ examples of this variable species in the Scrub. A widely distributed species, occurring also in Queensland: Nambour, Brisbane, Mt. Tambourine, Toowoomba.—N.S.W.: Sydney, Bulli, Kiama.—Vic.: Gisborne.—Tasm.: George's Bay.

Gen. PROTOTYPA, n.g.

πρωτοτυπος, primitive.

Face smooth. Tongue well-developed. Palpi moderately long, projecting well beyond frons, shortly rough-haired, porrect; terminal joint minute. Antennæ of ♂ dentate, ciliated. Thorax not hairy beneath. Posterior tibiæ of ♂ slender, with two pairs of spurs. Forewings with 2 from $\frac{4}{5}$, 5 from above middle, 6 separate, 7, 8, 9 stalked from before end of cell, 10 arising from cell and anastomosing with 11 and 9 to form a double areole. Hindwings with 3 and 4 widely separate at origin, 5 well-de-

veloped, from middle of cell, 6 and 7 separate, 8 not connected with cell, but closely approximated from near base to middle.

Certainly a primitive genus in this subfamily, probably the most primitive known. The neuration of the forewings and the structure of the male posterior tibiæ agree with *Rhodostrophia* Hb., which, however, has 6 and 7 of hindwings stalked. *Autanepsia* Turn., agrees in antennal structure, but has also 6 and 7 of hindwings stalked, and has lost the middle spurs of the posterior tibiæ in the ♂. Independently of these differences, the structure of 8 of hindwings is more similar to that of the *Monoctenianæ* and *Boarmianæ* than of other *Acidalianæ*; but the neuration of the forewings clearly shows that the genus belongs to the latter group.

PROTOTYPA DRYINA, e.sp.

δρυινος, of the woods.

♂. 25 mm. Head whitish, face pale ochreous. Palpi $1\frac{1}{2}$; pale ochreous, towards base whitish. Antennæ whitish; in ♂ dentate, ciliations 1. Thorax and abdomen whitish. Legs whitish; anterior pair fuscous-whitish. Forewings triangular, costa nearly straight, apex pointed, termen bowed, oblique, whitish; a slender, pale fuscous line from $\frac{3}{5}$ dorsum towards, but not reaching, costa a little before apex; a pale fuscous terminal line; cilia whitish. Hindwings with termen gently rounded, whitish; a pale fuscous terminal line; cilia whitish.

One specimen, taken on January 7th, 1914. This species was overlooked in my previous papers on the scrub-fauna.

Subfam. BOARMIANÆ.

Gen. LYELLIANA, n.g.

Frons smooth or with a triangular, anterior tuft of scales. Tongue well-developed. Palpi rather long, porrect, shortly rough-haired; terminal joint short, concealed. Antennæ of ♂ bipectinate, apex simple. Thorax not crested; hairy beneath. Femora smooth-scaled or slightly hairy. Posterior tibiæ of ♂ not dilated. Forewings oblong, base of costa very strongly arched; in ♂ with a well-marked fovea; 10 long-stalked with 7, 8, 9, 11 from cell free or connected with 12. Hindwings broader than forewings; neuration normal.

Characterised by the peculiar shape of forewings, broader hindwings, and the long-stalking of vein 10. I dedicate the genus to Mr. Geo. Lyell, who has given me so much generous help. In addition to the following, I have two undescribed species, one from Mt. Tambourine, Queensland, and one from Victoria.

LYELLIANA PHÆOCHLORA, n.sp.

φαιοχλωρος, dusky green.

♂♀. 42-46 mm. Head fuscous, crown pale green, face with anterior tuft. Palpi $2\frac{1}{2}$; fuscous mixed with ochreous-whitish. Antennæ fuscous-grey; pectinations in ♂ 4, apical $\frac{1}{2}$ simple. Thorax pale green mixed with fuscous. Abdomen ochreous-whitish. Legs fuscous, tibiæ and tarsi annulated with ochreous-whitish; posterior pair wholly ochreous-whitish. Forewings oblong, costa very strongly arched at base, thence nearly straight, apex rectangular, termen strongly bowed, slightly oblique; pale green marked and strigulated with dark fuscous and partly suffused with fuscous; basal arch of costa edged with long scales; an incomplete sub-basal line from costa; a dentate line from $\frac{1}{6}$ costa to $\frac{1}{4}$ dorsum, angled in disc; a dentate line from costa before middle to mid-dorsum; a circular, pale-centred, discal spot beyond middle; a line from $\frac{2}{3}$ costa to $\frac{3}{4}$ dorsum sharply and finely dentate; a dentate subterminal line; a terminal series of blackish dots; cilia grey. Hindwings with termen rounded, wavy towards apex; grey-whitish, towards termen pale fuscous; an indistinct, fuscous, subterminal line; a blackish terminal line, sometimes obsolete; cilia grey-whitish. Underside pale fuscous.

Two examples, one of each sex, beaten from undergrowth, and taken on the wing.

Fam. TORTRICIDÆ.

Subfam. TORTRICINÆ.

ISOCHORISTA HELOTA.

Isochorista helota Meyr., Proc. Linn. Soc. N. S. Wales, 1910, p.168.

One ♂ example. Also from N.S.W.: Bulli.—Vic.: Healesville.—Tasm.: Deloraine.

CAPUA sp.

One example, apparently of the species noted in these Proceedings, 1915, p 189.

CAPUA EUZONA, n.sp,

εὐζώνος, well girdled.

♂. 10-12 mm. Head and palpi pale brown. Antennæ pale brown annulated with blackish; cilia in ♂ 1. Thorax pale brown, with a prominent, posterior, dark fuscous crest. Abdomen fuscous gradually darkening to apex, extreme base pale brown. Legs fuscous; tarsi annulated with ochreous-whitish; posterior pair, except tarsi, ochreous-whitish. Forewings moderate, somewhat dilated posteriorly, costa rather strongly arched, apex rounded, termen nearly straight, oblique; without costal fold in ♂; pale brown; a dark fuscous line from $\frac{1}{4}$ costa to $\frac{1}{4}$ dorsum, rather acutely angled on fold, outlining basal patch, which is scarcely darker than groundcolour; a well marked, nearly transverse, dark fuscous, median fascia, its anterior edge well-defined, sinuate, its posterior edge suffused; two dark fuscous, costal dots follow this, and then a triangular, costal, sub-apical spot; a slender, fuscous, terminal line; cilia pale brownish barred with fuscous. Hindwings and cilia fuscous grey.

Distinguishable by the dark, transverse, median fascia. One ♂ example. I also took two examples under a waterfall, six miles from the Scrub. Also from Queensland: Killarney, in November. In all, five examples, all ♂.

CAPUA CRYPSERYTHRA, n.sp.

κρυψερυθρος, with hidden red.

♀. 17 mm. [Head and thorax rubbed. Palpi broken]. Antennæ whitish, upper surface finely barred with dark fuscous. [Thorax rubbed]. Abdomen pale grey. Legs ochreous-whitish; anterior tibiae and all tarsi annulated with fuscous. Forewings broad, posteriorly dilated, costa strongly arched, apex rectangular, termen slightly sinuate, rounded towards tornus; dark grey obscurely reticulated with reddish-orange; costa finely strigulated with dark fuscous; a semilunar, whitish blotch on dorsum, not extending to base or tornus, on this the reddish-orange reticula-

tions are conspicuous; cilia fuscous, with an obscure, median, reddish line, apices whitish. Hindwings with termen strongly sinuate; grey-whitish obscurely strigulated with grey; cilia grey-whitish.

One example.

Subfam. COSMOPTERYGINÆ.

MICROCOLONA CELÆNOSPILA, n.sp.

κελαινοσπιλος, dark-spotted.

♂♀. 9-10 mm. Head pale fuscous. Palpi whitish; second joint dark fuscous anteriorly except at apex; terminal joint with basal, median, and apical dark fuscous rings. Antennæ fuscous. Thorax dark fuscous, with a posterior whitish spot. Abdomen dark fuscous. Legs fuscous, inferior surface and tarsal annulations whitish. Forewings narrow; whitish suffused with grey, especially towards costa, and with scanty, dark fuscous irroration; a blackish discal dot narrowly ringed with whitish at $\frac{2}{5}$, a second preceding first on fold, a third similar to first in disc at $\frac{3}{4}$; a blackish, apical dot surrounded with whitish; cilia dark grey. Hindwings narrowly lanceolate; grey; cilia grey.

Three examples, two ♂ in good condition, and a wasted ♀.

HOPLOPHANES(?) LITHOCOLLETA, n.sp.

λιθοκολλητος, inlaid with precious stones.

♀. 9 mm. Head and palpi ochreous-whitish. Antennæ grey; basal joint ochreous-whitish. Thorax whitish-ochreous. Abdomen grey. Legs ochreous-whitish; anterior tibiæ and tarsi fuscous anteriorly; posterior tibiæ grey on upper surface. Forewings rather broadly lanceolate; ochreous, suffused with whitish towards base and before apex; a lustrous, opaline, median streak from base to $\frac{1}{3}$, edged with fuscous; a similar and nearly parallel streak from costa near base extending an equal distance; a short, transverse, opaline mark on midcosta; an opaline spot on dorsum before tornus, and another on tornus, the former thickly edged with blackish; a transverse, dark fuscous line from beneath $\frac{3}{4}$ costa extending $\frac{2}{3}$ across disc; a large, apical, fuscous spot; cilia fuscous, on costa, beneath apex, and on tornus whitish-ochreous. Hindwings lanceolate, acute; grey; cilia grey.

I doubt whether this is a true *Hoplophanes*, but think it best included in this genus provisionally. One example, taken flying in the sunshine.

Subfam. XYLORYCTINÆ.

Gen. XYLOMIMETES, n.gen.

ξύλομιμητης, an imitator of wood.

Palpi moderately long, ascending, recurved; second joint long, reaching base of antennæ, thickened with closely appressed scales, rather strongly expanded at apex; terminal joint about $\frac{1}{2}$ second, more slender, smooth, acute. Antennæ of ♂ slightly serrate, shortly ciliated. Thorax not crested. Forewings with tufts of raised scales in disc on upper surface; 2 from $\frac{3}{4}$, 7 absent, 8 and 9 short-stalked, or closely approximated at base and for some distance. Hindwings with 3 and 4 connate, 5 weakly developed, 6 and 7 connate. Anterior tibiæ expanded with dense hair-scales.

Type *Pilostibes trachyptera* Turn., (Trans. Roy. Soc. S. Aust., 1900, p.6). A very distinct genus, most nearly allied to *Pilostibes* Meyr.

XYLOMIMETES SCHOLASTIS, n.sp.

σχολαστις, sluggish.

♂. 40 mm. Head white, base of sidetufts and face brownish. Palpi brownish, terminal joint and apex of second joint white. Antennæ brown-whitish; ciliations in ♂ $\frac{1}{2}$. Thorax whitish, posteriorly brownish-tinged. Abdomen whitish; second segment and bases of succeeding segments on dorsum ferruginous irrorated with whitish. Legs brown-whitish; posterior pair whitish. Forewings oblong, somewhat dilated posteriorly, costa moderately arched near base and apex, in middle nearly straight, apex rounded, termen slightly oblique, rounded beneath; four, strong tufts of raised scales, one at base of dorsum, one on fold about middle, and one at each posterior angle of cell; pale whitish-brown; a broad, suffused, white, costal streak, narrow at base, and not reaching apex; a fine, blackish, longitudinal streak from $\frac{1}{4}$ to middle along upper edge of cell; two or three, fine, short, similar streaks on veins beyond middle; cilia pale brownish

barred with whitish. Hindwings considerably broader than forewings; ochreous-whitish; cilia ochreous-whitish.

Closely allied to *X. trachyptera*, which is also a scrub-species.

One example, beaten from undergrowth. It fell to the ground and remained motionless, exactly resembling a fragment of dead wood.

Subfam. *CECOPHORINÆ*.

EULACHNA XANTHOSPILA, n.sp.

ξανθοσπιλος, yellow-spotted.

♂. 9-12 mm. Head blackish, lower edge of face ochreous. Palpi ochreous; terminal joint dark fuscous. Antennæ blackish; ciliations in ♂ $1\frac{1}{2}$. Thorax and abdomen blackish. Legs blackish; coxæ and femora ochreous; tibiæ and tarsi annulated with ochreous. Forewings narrow, posteriorly somewhat dilated, costa slightly arched, apex round-pointed, termen very obliquely rounded; blackish; markings ochreous-yellow, a narrow, oblique, sub-basal fascia from base of costa gradually expanding towards dorsum; a costal spot just beyond $\frac{1}{3}$, and another just beyond $\frac{2}{3}$; a larger spot on $\frac{3}{4}$ dorsum, with an acute apex reaching mid-disc; cilia blackish. Hindwings ovate-lanceolate; dark fuscous; cilia dark fuscous.

Two ♂ examples.

OCYSTOLA OXYTONA, n.sp.

ὀξύτονος, sharp.

♂. 12-14 mm. Head and thorax yellow. Palpi ochreous, terminal joint and a broad subapical ring on second joint dark fuscous. Antennæ pale yellow annulated with blackish; ciliations in ♂ 6. Abdomen grey. Legs grey; anterior coxæ, middle, and posterior femora ochreous-whitish; anterior tarsi annulated with ochreous-whitish. Forewings narrow, costa gently arched, apex acute, termen very obliquely rounded; yellow; a broad, fuscous, terminal band; a transverse, dark fuscous, discal mark at $\frac{2}{3}$, confluent with terminal band; cilia yellow, on tornus fuscous. Hindwings ovate-lanceolate; dark grey; cilia dark grey.

Two ♂ examples.

CÆSYRA BASILICA Meyr.

Cæsyra basilica Meyr., Proc. Linn. Soc. N. S. Wales, 1884 p.770.

One ♀ example in poor condition, probably referable to this species.

Also from N.S.W.: Sydney, Kiama.— Vic.: Melbourne.— Tasm.: Hobart.—S.A.: Wallaroo.

PHILOBOTA ANARRECTA Meyr.

Philobota anarrecta Meyr., Proc. Linn. Soc. N. S. Wales, 1888, p.1620.

Antennal ciliations of ♂ 6. Two examples, one of each sex. Also from N.S.W.: Mt. Kosciusko(4,000 ft.).— Vic.: Melbourne, Gisborne.

EULECHRIA EMBOLOGRAMMA, n.sp.

ἐμβολογραμμος, wedge-marked.

♂. 12-14 mm. Head whitish-ochreous. Palpi dark fuscous; terminal joint and apex of second joint whitish-ochreous. Antennæ fuscous, ciliations of ♂ 1. Thorax whitish-ochreous; patagia dark fuscous. Abdomen grey, apices of segments whitish, tuft whitish-ochreous. Legs fuscous; posterior pair whitish-ochreous. Forewings moderate, not dilated, costa rather strongly arched, apex rounded, termen obliquely rounded; whitish-ochreous; markings blackish-fuscous; a broad, wedge-shaped, basal fascia, produced on costa to $\frac{2}{5}$; a triangular spot on costa beyond middle; an oblique streak from tornus towards but not reaching costal spot; a triangular, costal spot before apex giving rise to a subterminal series of dots, which reaches tornus; several terminal dots; cilia whitish-ochreous with a few fuscous scales, on costa before apex fuscous. Hindwings grey-whitish; cilia ochreous-whitish.

Two ♂ examples.

EULECHRIA STRAMENTARIA, n.sp.

Stramentarius, straw-coloured.

♀. 18 mm. Head whitish-ochreous. Palpi whitish-ochreous; external surface of second joint dark fuscous except at apex. Antennæ grey. Thorax whitish-ochreous. Abdomen ochreous-whitish, bases of segments ochreous-brown. Legs fuscous; pos-

terior pair whitish-ochreous. Forewings moderate, not dilated, costa gently arched, apex rounded, termen obliquely rounded; whitish-ochreous; markings blackish-fuscous, a large spot on base of costa; a spot on costa at $\frac{1}{4}$ giving off a fine oblique line to near base of dorsum, a spot on midcosta; a minute discal dot at $\frac{1}{3}$, a second beneath it on fold, and a larger transverse mark at $\frac{2}{3}$; a spot on $\frac{3}{4}$ costa giving off a curved, subterminal line to tornus; this is preceded and followed by more or less fuscous suffusion; some indistinct terminal dots; cilia whitish-ochreous, with indications of a median fuscous line. Hindwings grey; cilia whitish-ochreous.

Two ♀ examples.

EULECHRIA EXIGUA, n.sp.

Exiguus, little.

♂. 10-11 mm. Head and thorax grey-whitish. Palpi grey-whitish; external surface of second joint fuscous. Antennæ dark fuscous; ciliations in ♂ 3. Abdomen ferruginous-ochreous, apices of segments and tuft grey-whitish. Legs fuscous, tarsi with whitish annulations; posterior pair, except tarsi, grey-whitish. Forewings narrow, costa gently arched, apex round-pointed, termen very obliquely rounded; grey-whitish; base of costa dark fuscous; some dark fuscous irroration toward dorsum and termen, and a dark fuscous discal dot at $\frac{3}{4}$; cilia grey-whitish, with a few fuscous scales. Hindwings narrow-ovate; pale grey; cilia pale grey.

Three ♂ examples.

BAREA PASTEODES

Compsotropha pasteodes Turn., Proc. Linn. Soc. N. S. Wales, 1914, p.559.

Nine ♂ examples, mostly in very good condition, in addition to the pair originally taken. This is a true *Barea* (*Phlæopola*), in spite of vein 7 of forewings running beneath apex. It comes near *B. nymphica* Turn.

Subfam. LYONETIANÆ.

BEDELLIA SOMNULENTELLA.

Bedellia somnulentella Zel., Isis, 1847, p.894; Meyr., Proc. Linn. Soc. N. S. Wales, 1880, p.170.

One example. Also from Q.: Duaringa, Brisbane, Coolangatta, Warwick.—N.S.W.: Murwillumbah, Glen Innes, Sydney, Bulli, Bathurst.—Vic.: Warragul. —Tasm.: Hobart.—S.A.: Pt. Lincoln. —W.A.: Geraldton. Also from New Zealand, Europe, and North America. This insignificant species is one of the most generally distributed.

Subfam. TINEINÆ..

NARYCIA NEMORIVAGA, n.sp.

Nemorivagus, wandering in the woods,

♀. 15 mm. Head white. Palpi very short; fuscous. Antennæ fuscous; basal joint white. Thorax dark fuscous. Abdomen grey; tuft whitish-ochreous. Legs fuscous; tarsi annulated with whitish-ochreous, posterior pair wholly whitish-ochreous. Forewings elongate-oval, not dilated, costa rather strongly arched, apex round-pointed, termen very obliquely rounded; 7 absent; white, on costa ochreous-tinged; markings dark fuscous; a narrow, basal fascia slightly prolonged on costa; a broad, slightly oblique fascia from $\frac{1}{3}$ costa to mid-dorsum, edges slightly irregular but approximately straight and parallel; a triangular, subapical fascia, very broad on costa where it is interrupted by a white dot before middle, narrowing to tornus; a triangular, apical blotch containing a subapical, white dot on costa; cilia fuscous, twice interrupted by ochreous-whitish on costa, on lower half of termen and tornus ochreous-whitish. Hindwings and cilia grey.

One ♀ example.



Turner, Alfred Jefferis. 1916. "A third contribution to a knowledge of the lepidopterous fauna of Ebor scrub, N.S.W." *Proceedings of the Linnean Society of New South Wales* 41, 249–260. <https://doi.org/10.5962/bhl.part.15314>.

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