

rounded at the periphery; irregularly banded in the direction of the growth lines with dark reddish-brown and pale brownish-yellow, the first two-and-a-half whorls dark, the epidermis being rubbed off. Upper surface finely irregularly granulated by deeply undulating impressed lines, lower surface smooth and polished. Interior calcareous, bluish white. Greatest diameter about 2 inches, and least diameter,  $1\frac{1}{2}$  inch.

The lower surface is broken off, so as to leave the shape of the umbilicus and the aperture uncertain.

The single specimen was found on the saddle between the Mokihinui and Lyell Rivers, and was lent me by Dr. Gaze, of Westport, for description.

The slowly increasing whorls and apparently narrow umbilicus ally this species to *P. hochstetteri*, from which, however, it is sufficiently distinguished by its colours, and by the finer granulation of the upper surface.

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ART. XI.—*Supplement to a Monograph of New Zealand Noctuidæ.*

By E. MEYRICK, B.A., F.E.S.

[Read before the Philosophical Institute of Canterbury, 6th October, 1887.]

SINCE writing my paper on the *Noctuidæ*, I have been enabled to again visit the British Museum, and compare the material acquired with the collection there. After a careful examination I have made several corrections in nomenclature, which are here set forth, together with the description of a small new species hitherto overlooked.

NOCTUIDÆ.

LEUCANIA, Tr.

*Leuc. griseipennis*, Feld.

(*Mamestra griseipennis*, Feld., pl. cix., 22; *Cheia virescens*, Butl., Cist. Ent. ii, 489; *Spaelotis inconstans*, ib. 545; *Leucania moderata*, Meyr., "Trans. N.Z. Inst.," 1886 (nec Walk).)

This is the species described by me as *L. moderata*, Walk., which name I find to be correctly applicable to the following species; Felder's name is therefore to be adopted for this. The other synonymy is correct as published, but in this and other cases I have repeated it in full, to avoid possible confusion.

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\* See "Trans. N.Z. Inst.," vol. xix., p. 3.

*Leuc. moderata*, Walk.

(*Agrotis moderata*, Walk., Suppl. 705; *Eumichtis sistens*, Gn., Ent. Mo. Mag., v., 39; *Mamestra sistens*, Meyr., "Trans. N.Z. Inst.," 1886.)

I think this species may advantageously be transferred to this genus, the indications of crests being very slight; but it must be admitted that the species occupying the borderland between *Mamestra* and *Leucania* may be placed almost equally well in either. *L. moderata* is closely allied and very similar to *L. griseipennis*. They may be distinguished by the cilia of the hindwings, which are partially grey in *L. moderata*, wholly white in *L. griseipennis*.

*Leuc. temperata*, Walk.

(*Bryophila temperata*, Walk., 1648 (nec Meyr.); *Xylina inceptura*, ib., 1736; *X. deceptura*, ib., 1737.)

This is not the species described by me under the name of *Mamestra temperata*, for which a new name is proposed below; but appears to be distinct from any hitherto known to me. I have only seen the British Museum specimens, of which I could not make a proper examination, but the species appears to be a *Leucania*. The following is a short description: Terminal joint of palpi moderate; form of wing as in *L. griseipennis*; forewings grey, first and second lines whitish, inconspicuous, margined with black dots, second line evenly curved, subterminal not perceptible, cilia grey, distinctly barred with white; hindwings grey.

## MAMESTRA, Tr.

*Mam. insignis*, Walk.

(*Euplexia insignis*, Walk., Suppl., 724; *Xylina turbida*, ib., 754 (teste Butl.); *Mamestra polychroa*, Meyr., "Trans. N.Z. Inst.," 1886.)

I failed to find any specimens under the name of *turbida*, Walk.

*Mam. vitiosa*, Butl.

(*Apamea vitiosa*, Butl., Proc. Zool. Soc., Lond., 1877, 384, pl. xlii., 3 (nec Meyr.); *Mamestra ochthistis*, Meyr., "Trans. N.Z. Inst.," 1886.)

The species described by me as *M. vitiosa* is really the following.

*Mam. proteastis*, n. sp.

(*Mamestra vitiosa*, Meyr., "Trans. N.Z. Inst.," 1886 (nec Butl.))

This species is consequently re-named as above.

*Mam. infensa*, Walk.

(*Orthosia infensa*, Walk., 748; *Mamestra arachnias*, Meyr., "Trans. N.Z. Inst.," 1886.)

Although variable, this species is easily recognised.

*Mam. phricias*, n. sp.

(*Mamestra temperata*, Meyr., "Trans. N.Z. Inst.," 1886 (nec Walk.)

As noted above, Walker's *M. temperata* proves to be a quite different species; I have, therefore, re-named this one.

## XANTHIA, Tr.

*Xanth. purpurea*, Butl.

(*Graphiphora purpurea*, Butl., Cist. Ent., ii.; *Xanthia ceramodes*, Meyr., "Trans. N.Z. Inst.," 1886.)

Butler's species was formerly unrecognised.

## AGROTIS, Tr.

*Ag. sericea*, Butl.

(*Chersotis sericea*, Butl., Cist. Ent., ii., 490; *C. inconspicua*, ib., 545; *Agrotis sericea*, Meyr., "Trans. N.Z. Inst.," 1886; *A. inconspicua*, ib.)

After comparison of the original specimens, I have come to the conclusion that we have, under these two names, only one somewhat variable species, for which the synonymy is as above.

## PLUSIADÆ.

The following additional genus and species in my collection was accidentally overlooked; it may be placed after *Rhapsa*.

## HYPENODES, Gn.

Ocelli absent. Palpi very long, straight, porrected, second joint with dense roughly projecting scales above and beneath; terminal joint rather short, somewhat rough-scaled, tolerably pointed. Antennæ in male rather strongly biciliated. Thorax smooth. Abdomen with a small dorsal crest near base. Legs smooth, spurs long. Forewings with veins 6 and 7 approximated at base, 9 and 10 out of 8. Hindwings with veins 3 and 4 stalked, 6 and 7 stalked.

In the absence of ocelli and peculiar neurulation of forewings this genus differs from all others of the group in New Zealand. It appears to range throughout the Northern Hemisphere, but only a few species are known.

*Hyp. exsularis*, n. sp.

*Male*.—16 mm. Head, antennæ, thorax, and abdomen whitish-ochreous, brownish-tinged; abdominal crest black. Palpi dark fuscous. Legs dark fuscous, posterior pair whitish-ochreous. Forewings elongate, posteriorly gradually dilated, costa slightly arched, hindmargin obliquely rounded; ochreous-brown, closely irrorated with rather dark fuscous; a black mark beneath costa at base; a cloudy blackish longitudinal mark in disc beyond middle; second line obscurely indicated, paler, anteriorly partly blackish-edged, from posterior extremity of discal

mark to inner margin beyond middle; an oblique wedge-shaped white spot from apex, touching second line; a subterminal series of white dots; a hindmarginal row of black dots: cilia fuscous, with a basal series of whitish-ochreous dots. Hindwings pale whitish-grey; a grey transverse discal spot; a dark grey interrupted hindmarginal line; cilia grey-whitish.

Taranaki, in March; one specimen.

In the British Museum is an unnamed specimen from China, which appears to be certainly the same species; it, therefore, probably ranges through many of the South Pacific islands. From its small size and inconspicuous appearance it is doubtless often overlooked.

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ART. XII.—Notes on New Zealand Geometrina.

By E. MEYRICK, B.A., F.E.S.

[Read before the Philosophical Institute of Canterbury, 6th October, 1887.]

I HAVE collected here such notes of additional localities and descriptions of new species as have accumulated since the publication of my former papers on the group. These bring up the number of recognized species to 113. To those who are desirous of discovering new species of this group, I would recommend (1) examination of the forest country north of Auckland; (2) searching unexplored mountains, at about 4,000 feet, especially in the extreme south; (3) the study of the genus *Pasiphila*; in the closely-allied genus *Eupithecia* the numerous similar species are frequently only obtainable by breeding, the small larvæ feeding principally in flower-heads or shoots and requiring special search; the presumption of similar habits here is very strong.

I hope before long to have made sufficient progress with the study of exotic material to modify and improve the classification of the group, but in the present paper I have only touched on it slightly.

LARENTIADÆ.

PROBOLÆA, Meyr.

*Prob. megaspilata*, Walk.

Also from Auckland.

ARCTEUTES, Meyr.

The following new species differs in some respects (small points of neuration, noted in the specific description) from *A.*