

ART. IV.—*Descriptions of New Zealand Lepidoptera.*

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I HAVE again to thank Mr. G. V. Hudson for a further contribution of interesting material. It is evident that there must be a large number of species still awaiting discovery, and New Zealand entomologists should lose no time in searching them out. Many are obscure and easily overlooked from their resemblance to others; some are probably very retired in habit; and some also are doubtless now rare, and verging on extinction. There must also be large areas of promising ground where no entomologist has yet set foot, especially on the west coast of the South Island and towards the northern extremity of the North Island.

CARADRINIDAE.

Aletia fibriata n. sp.

♂. 44–46 mm. Head and thorax whitish-fuscous mixed with fuscous hairs. Antennae brownish-ochreous, bipectinated almost to apex, pectinations *a* 3, *b* 4. Forewings elongate-triangular, costa almost straight, apex obtuse, termen obliquely bowed, somewhat waved; light fuscous, irregularly strewn with whitish-ochreous and brownish or fuscous scales; costa somewhat marked with fuscous and dark fuscous; first and second lines very fine, dentate, formed of fuscous and dark-fuscous irroration, first very indistinct, second fairly distinct, dentations sometimes tipped with pale dots; orbicular and reniform somewhat paler, partially edged with dark-fuscous irroration, which sometimes forms a spot between them, orbicular oval, reniform narrow-transverse, somewhat oblique; claviform obsoletely indicated; a terminal series of indistinct dark-fuscous dots: cilia pale fuscous, tips whitish. Hindwings light fuscous; cilia whitish-fuscous.

Mount Richmond, 4,500 ft., in December (F. G. Gibbs); two specimens. An inconspicuous species, but apparently quite distinct.

HYDRIOMENIDAE.

Phrissogonus laticostatus Walk.

Larentia laticostatus Walk., 1196; *Scotosia canata*, ib., 1357; *Phrissogonus laticostatus* Meyr., Proc. Linn. Soc. N.S.W., 1890, 801.

♂♀. 16–18 mm. Forewings triangular, costa in ♂ moderately arched, bent and protuberant at $\frac{1}{3}$, with a projecting tuft on protuberance, in ♀ gently arched; grey-whitish, with numerous curved waved cloudy dark-grey transverse lines sprinkled with black; anterior edge of median band marked by a slightly curved blackish line mixed with ochreous-brown, posterior edge more or less marked with black, upper $\frac{2}{3}$ rather strongly curved and forming two slight angles, indented on fold, on upper half partially preceded by ochreous-brown suffusion: cilia whitish obscurely barred with grey. Hindwings with termen rounded, in ♂ grey-whitish, in ♀ pale whitish-grey, marked towards dorsum with numerous short grey lines; in ♂ a large patch of black irroration extending along costa from $\frac{1}{3}$ to near apex, and reaching nearly half across wing.

Nelson (Hudson). Very common throughout Australia, whence it has probably been recently introduced by artificial means.

Chloroclystis Hüb.

Mr. Hudson has of late years supplied me very liberally and judiciously with specimens of this genus, so that I have now long series of some of the most variable species, and am enabled to comprehend them better. As a result I have perceived that I possess several undescribed species, and, having discriminated these, I compared the whole afresh with Walker's types in the British Museum, and believe all are now satisfactorily determined. I therefore take the opportunity to give a full list of the species, correcting two or three errors that have arisen. Hudson's *Chloroclystis rectilineata* (N.Z. Moths, 45, pl. 6, 22, *bis*) is not a species of this genus at all, but is a synonym of *Microdes quadristrigata* Walk. *C. maculata* Huds. (N.Z. Moths, 44, pl. 6, 18) is not known to me, but I doubt if it belongs here.

Sect. A. Antennae in ♂ simple.

1. *C. semialbata* Walk., 1708 ; *indicataria*, *ib.*, 1708.

This is the species hitherto known as *bilineolata*. I use the name *semi-albata*, as the type is a ♂, and therefore certain ; moreover, there is another species of the genus, *indicata* Walk., from India.

2. *C. inductata* Walk., 1322 ; *subitata*, *ib.*, 1362.

Sect. B. Antennae in ♂ with long fasciculate ciliations.

3. *C. sandycias* Meyr., Trans. Ent. Soc. Lond., 1905, 219.

A variable and very delicately coloured species, received in plenty.

4. *C. plinthina* Meyr., Trans. N.Z. Inst., 1888, 49.

5. *C. melochlora* Meyr., Trans. N.Z. Inst., 1911, 58.

6. *C. muscosata* Walk., 1246 ; *cidariaria* Guen., Ent. Mo. Mag., 5, 62 ; *aquosata* Feld., pl. 132, 38.

7. *C. paralodes* n. sp.

♂♀. 23–25 mm. Palpi 2. Antennal ciliations 4. Abdomen with blackish antemedian band. Forewings triangular, termen obliquely bowed ; varying from pale greyish-ochreous to dull light green, always more or less greenish-tinged towards termen, sometimes thinly sprinkled with dark fuscous ; basal area with some curved blackish striae ; median band limited anteriorly by a curved fuscous fascia edged with waved blackish striae, posterior edge more or less marked with black, especially on a crescentic supramedian mark edged posteriorly with white, band itself sometimes suffusedly striated with white ; praesubterminal blotches of blackish irroration or suffusion on costa and above middle, and sometimes indications of one towards tornus, subterminal stria sometimes white : cilia whitish-ochreous or greyish-ochreous, with grey bars narrowed and blackish towards base. Hindwings rather elongate, more so in ♂, termen unevenly rounded ; whitish-grey, on dorsal third sprinkled with grey and sometimes with green, with striae of blackish irroration ; a dark-grey discal dot : cilia as in forewings, sometimes rosy-tinged.

Wellington, Lake Wakatipu (Hudson) ; seven specimens.

8 *C. zatricha* n. sp.

♂. 22 mm. Palpi 1½. Antennal ciliations 3½. Abdomen with blackish subbasal band. Forewings elongate-triangular, termen obliquely rounded; light brownish-ochreous partially suffused with dull-greenish; a curved blackish stria near base; rear beyond this a fascia of light red-brownish suffusion, marked with black on costa; median band margined anteriorly by a light brownish-tinged fascia edged with blackish striae, and posteriorly by a blackish spot on costa, a black subrescentic mark above middle, and some black dots below this; a blackish transverse discal dot on end of cell; praesubterminal fascia tinged with brownish on upper half, marked with black towards costa, and with a spot of black suffusion above middle, above tornus narrowly brownish; an interrupted black terminal line: cilia light-greyish, basal half pale-brownish spotted with blackish. Hindwings elongate, unusually narrow, termen rounded; lower half of disc anteriorly clothed more densely than usual with long hairs; ochreous-grey-whitish, dorsal half suffused with light ochreous, edges of median band indicated on dorsal half by striae of blackish irroration; a round dark-grey discal dot; a blackish-grey terminal line: cilia whitish-grey, basal half crimson-tinged and spotted with dark grey.

Wellington (Hudson); one specimen.

9. *C. lacustris* n. sp.

♂. 24-25 mm. Palpi 2. Antennal ciliations 4. Abdomen with blackish antemedian band. Forewings triangular, termen bowed, rather oblique; dull light-greenish, sometimes finely sprinkled with black specks; basal and subbasal brown-reddish fasciae marked with blackish; median band broad, brown-reddish, marked with black on veins and edges; in one specimen these brown-reddish markings are mostly replaced by blackish irroration; brownish blotches marked with black on costa before subterminal stria, on termen above middle, and on tornus, two latter cut by greenish subterminal stria: cilia greenish-grey, towards base reddish-tinged, at base whitish, spotted towards base with blackish. Hindwings rather elongate, termen unevenly rounded; pale grey, on dorsal third irrorated with blackish-grey and sometimes tinged with reddish, a grey discal dot: cilia as in forewings.

Lake Wakatipu (Hudson); three specimens.

10. *C. bilineolata* Walk., 1246; *antarctica* Huds., N.Z. Moths, 42, pl. 6, 20.

Walker's type is a ♀, but a ♂ has subsequently been placed with it; both are correctly referable to the species described and figured by Mr. Hudson as *antarctica*. Later Mr. Hudson has been regarding as varieties of *antarctica* some of the forms described above as new.

11. *C. lunata* Philp., Trans. N.Z. Inst., 1912, 115.

I have two ♀ specimens received from Mr. Hudson, but no ♂ that I can identify with the description; it seems, however, to be undoubtedly a good species.

12. *C. cotinaea* n. sp.

♂. 23 mm. Palpi 2½. Antennal ciliations 3½. Abdomen with dark-fuscous subbasal band. Forewings triangular, termen bowed, oblique,

sinuate just above tornus; light pinkish-fuscous, striated with fuscous, towards costa and termen suffused with pale dull green; veins pale-greenish marked with dark fuscous; median band hardly defined; a narrow dark-fuscous spot preceding subterminal stria above tornus: cilia fuscous, base spotted with dark fuscous. Hindwings moderate, termen rather unevenly rounded, sinuate above tornus; light grey, towards dorsum tinged with pale-greenish and striated with dark-fuscous irroration; a dark-grey roundish discal dot: cilia whitish-grey.

Masterton, in March, one specimen taken by myself in 1883; I have never seen another.

13. *C. dryas* Meyr., Trans. N.Z. Inst., 1891, 97.
14. *C. aristias* Meyr., Trans. Ent. Soc. Lond., 1897, 385.
15. *C. halianthes* Meyr., Trans. N.Z. Inst., 1907, 107.
16. *C. charybdis* Butl., Cist. Ent., 2, 503; *calida*, *ib.*, 504.

Sect. C. Antennae in ♂ shortly and evenly ciliated.

17. *C. malachita* n. sp.

♂♀. 19–25 mm. Palpi $1\frac{2}{3}$ – $1\frac{3}{4}$. Antennal ciliations 1. Abdomen with blackish antemedian band. Forewings triangular, termen bowed, rather oblique; bright moss-green, sometimes partially tinged with yellowish, in one specimen partly brownish on basal area; some indistinct darker-green transverse striae, partially marked with blackish, especially towards costa; posterior edge of median band marked above middle with a black lunule edged with white posteriorly, and irregularly marked with black towards dorsum; a well-defined blackish blotch on costa towards apex; well-defined blackish blotches on termen above middle and on tornus, cut by a fine waved greenish subterminal stria, tornal blotch more or less suffused with dark brown-reddish: cilia brownish, base greenish, suffusedly barred with blackish. Hindwings with termen somewhat unevenly rounded; pale-greyish, towards dorsum tinged with brown-reddish and striated with dark grey: cilia pale-greyish, more or less rosy-tinged, and indistinctly spotted with dark-grey suffusion.

Lake Harris and Lake Wakatipu (Hudson); four specimens.

18. *C. lichenodes* Purd., Trans. N.Z. Inst., 1887, 70.
19. *C. sphragitis* Meyr., Trans. N.Z. Inst., 1888, 51.
20. *C. nereis* Meyr., Trans. N.Z. Inst., 1888, 51.

- Xanthorhoe cymozeugta* n. sp.

♂♀. 23–25 mm. Head and thorax whitish-ochreous, face with conical tuft. Palpi $2\frac{2}{3}$. Antennal pectinations in ♂ *a* 5, *b* 6. Abdomen whitish-ochreous sprinkled with fuscous, with double dorsal row of blackish spots. Forewings triangular, costa sinuate, apex obtuse, termen rather obliquely rounded, waved, subconcave on upper half; greyish-ochreous, irregularly sprinkled with fuscous and dark fuscous, towards costa and termen whitish-ochreous; first two fasciae each formed of two or three striae of blackish irroration; third and fourth fasciae of two and three blackish striae respectively, more or less suffused with fuscous, third preceded and fourth followed

by a white stria, fourth irregular and forming an obtuse obliquely bidentate projection in middle; a black transverse-linear discal mark between these; a waved white subterminal stria edged anteriorly with more or less dark-fuscous suffusion, space between this and fourth fascia more or less suffused with dull brown-reddish; a spot of dark-fuscous suffusion before apex; an interrupted blackish terminal line: cilia whitish, barred with dark fuscous. Hindwings somewhat elongate, termen rounded, somewhat waved; grey-whitish; median band indicated by traces of grey striae; a blackish linear discal dot: cilia whitish, with a series of small dark-grey spots.

Ohakune (Hudson); three specimens. Allied to *chorica* and *obarata*.

Xanthorhoe frivola n. sp.

♂. 28 mm. Head and thorax ferruginous-ochreous. Palpi $2\frac{1}{2}$. Antennal pectinations *a* 4, *b* 6. Abdomen whitish-ochreous mixed with brownish-ochreous. Forewings triangular, costa posteriorly arched, apex obtuse, termen somewhat bowed, rather oblique; whitish-ochreous tinged with grey, towards costa light yellow-ochreous; costa suffused with fuscous towards base; first two fasciae faintly indicated with fuscous on dorsal half; third and fourth fasciae slender, fuscous, third curved, fourth stronger, shortly angulated-prominent in middle; a dark-fuscous discal dot between these; a faint fuscous praesubterminal shade, and oblique subapical mark; a fuscous terminal line: cilia ochreous-whitish tinged with brownish. Hindwings rather elongate, termen rounded; pale-yellowish, towards base faintly greyish-tinged: cilia as in forewings.

Invercargill (Philpott); one specimen. Apparently intermediate between *imperfecta* and *recta*, but distinct from either.

TORTRICIDAE.

Capua polias n. sp.

♂. 14 mm. Head grey-whitish, sides of crown grey. Palpi $2\frac{1}{2}$, grey, suffused with white above. Antennal ciliations 1. Thorax light grey, shoulders mixed with dark fuscous. Abdomen grey mixed with whitish. Forewings elongate, rather narrow, somewhat dilated posteriorly, costa gently arched, fold reaching from base to $\frac{2}{5}$, apex tolerably pointed, termen faintly sinuate, rather strongly oblique; whitish, with a few scattered fuscous and black scales; markings dark grey; a short streak along base of costa; a transverse spot in disc at $\frac{1}{5}$, marked with black on posterior edge; a suffused spot on dorsum before middle; central fascia moderate, oblique, rather irregular posteriorly, marked in middle with a spot of blackish suffusion mixed with ochreous; costal patch elongate-flattened-triangular, trifold on costa; a spot on costa before apex, and another before termen in middle: cilia whitish, on outer half tinged with pale-yellowish, on termen with a blackish basal line. Hindwings grey; cilia whitish-grey.

Wellington (Hudson); one specimen. Allied to *semiferana*.

OECOPHORIDAE.

Atomotricha exsomnia n. sp.

♂. 24 mm. Head and thorax whitish-ochreous, collar dark fuscous. Palpi whitish-ochreous, second joint sprinkled and towards base suffused with fuscous. Abdomen whitish-ochreous, segments yellowish-ochreous towards the base. Forewings elongate, somewhat dilated posteriorly, costa

moderately arched, apex obtuse, termen very obliquely rounded; whitish-ochreous, somewhat sprinkled with fuscous and dark fuscous; a suffused dark-fuscous streak running from base of costa to plical stigma; stigmata large, dark fuscous, pale-centred, especially second discal, plical obliquely beyond first discal; a spot of dark-fuscous suffusion on costa above second discal stigma, and a larger spot on costa at $\frac{3}{4}$, whence an indistinct angulated dark-fuscous line runs to dorsum before tornus: cilia whitish-ochreous, on upper half of termen spotted with fuscous at base. Hindwings whitish-ochreous; a grey discal dot: cilia whitish-ochreous.

Ohakune (Hudson); one specimen.

GLYPHIPTERYGIDAE.

Descriptions of the three following species have already appeared elsewhere, as I am preparing the family for the "Genera Insectorum."

Hierodoris Meyr.

Head smooth; ocelli present; tongue developed. Antennae $\frac{4}{5}$, in ♂ minutely ciliated, basal joint elongate, without pecten. Labial palpi moderately long, curved, ascending, with appressed scales, terminal joint $\frac{2}{3}$ of second, pointed. Maxillary palpi obsolete. Posterior tibiae with scales somewhat rough above. Forewings with 1b furcate, 2 from towards angle, 7 absent, 11 from middle. Hindwings over 1, ovate, cilia $\frac{1}{2}$; 3 and 4 connate, 5-7 somewhat approximated towards base.

Hierodoris iophanes Meyr., Exot. Micr., 1, 42.

♂. 13 mm. Head deep bluish-bronze. Palpi bronzy-fuscous. Thorax deep bronze suffused with purple. Antennae and abdomen dark fuscous. Forewings elongate, posteriorly slightly dilated, costa slightly arched, faintly sinuate in middle, apex obtuse, termen rounded, somewhat oblique; dark bronzy-fuscous; a shining purple fascia from base of costa almost to dorsum at $\frac{1}{4}$, followed by a spot of blackish suffusion beneath costa, beyond which is a short metallic-blue oblique strigula; a narrow shining purple fascia from a silvery-whitish dot beneath costa before middle to a pale-ochreous spot on middle of dorsum; a pale blue-metallic linear mark on end of cell; triangular shining purple spots above and below middle beyond this, their anterior angles tending to meet in disc; an undefined shining purple spot before middle of termen: cilia deep purplish-bronze. Hindwings blackish; cilia fuscous, with blackish basal shade.

Wellington, in January (Hudson); one specimen. A fine and interesting species.

Heliostibes callispora Meyr., Exot. Micr., 1, 41.

♂. 17-mm. Head deep metallic-green, with purple reflections, collar ferruginous-orange. Palpi ferruginous-orange, terminal joint rather more than half second, blackish anteriorly. Antennae dark fuscous, ciliations $\frac{1}{2}$. Thorax shining deep greenish-purple-bronze. Abdomen dark fuscous. Forewings elongate, posteriorly dilated, costa slightly arched, faintly sinuate in middle, apex obtuse, termen straight, little oblique, rounded beneath; dark indigo-fuscous, closely strewn with pale greenish-yellowish hair-scales: cilia fuscous, basal third dark fuscous mixed with deep ferruginous. Hindwings blackish; cilia fuscous, with blackish basal shade.

Wellington, in January (Hudson); one specimen.

Glyphipteryx aerifera Meyr., Exot. Micr., 1, 57.

♀. 11 mm. Head and thorax shining bronze. Palpi on basal and second joints with three whorls of black white-tipped scales, terminal joint white with black anterior and interior streaks. Abdomen grey. Forewings elongate, costa gently arched, apex tolerably pointed, termen somewhat rounded, rather strongly oblique; bright shining bronze; markings pale golden-metallic; five slender streaks from costa, first from middle, short, oblique, indistinct, others edged with a few blackish scales, second and third rather oblique, reaching half across wing, fourth and fifth short, transverse; a transverse mark from tornus, not reaching half across wing, lying between second and third costal streaks and not meeting either; small spots on termen above and below middle: cilia bronzy, on outer half grey, with pale golden-metallic basal spots on terminal markings. Hindwings rather dark grey; cilia grey, towards tips paler.

Mount Ruapehu, 4,500 ft., in January (Hudson); one specimen.

PLUTELLIDAE.

Orthenches saleuta n. sp.

♀. 9-10 mm. Head, palpi, and thorax grey mixed with whitish. Abdomen light grey. Forewings elongate, rather narrow, costa gently arched, apex tolerably pointed, termen very obliquely rounded; grey, strewn with dark-fuscous scales tending to form small spots and strigulae, and irregularly suffused with white between these, especially in disc and towards apex: cilia white, with dark-fuscous basal line, tips round apex bright coppery, on lower half of termen with outer third bronzy-grey. Hind-wings grey; cilia whitish-grey, with grey basal line.

Waiouru, in February (Hudson); two specimens.

TINEIDAE.

Endophtora roseata n. sp.

♀. 12 mm. Head whitish. Palpi whitish, laterally streaked with blackish towards apex of second and base of terminal joints. Antennae grey-whitish. Thorax light rosy-brownish, shoulders marked with dark fuscous. Abdomen whitish-ochreous, ovipositor surrounded with a dense tuft of ochreous-whitish hairs. Forewings narrowly elongate-lanceolate, acute; light rosy-purple-brownish; about eight small blackish costal marks; an irregular brown mark on fold towards base, terminated by a few blackish scales, and edged with some whitish suffusion; a narrow oblique brown fascia from before middle of costa to beyond middle of dorsum, partially edged with blackish posteriorly; a streak of brown suffusion from middle of disc to middle of termen, including a line of black scales, and edged above posteriorly by a fine white streak: cilia pale yellow-ochreous, sprinkled with blackish. Hindwings grey; cilia ochreous-whitish.

Wadestown, in November (Hudson); one specimen.

Thallostoma n. g.

Head densely rough-haired; ocelli present; tongue absent. Antennae $\frac{3}{4}$, basal joint elongate, compressed, with slight pecten. Labial palpi moderately long, porrected, slightly rough-scaled beneath, terminal joint shorter than second, obtuse-pointed. Maxillary palpi moderate, curved, ascending, apparently three-jointed, loosely scaled, tolerably pointed. Posterior

tibiae shortly rough-scaled. Forewings with cell very long, 2-4 short, 2 tolerably remote from angle, 3 from angle, 7 to costa, 11 from much before middle. Hindwings under 1, narrowly elongate-ovate, cilia 1; 2-4 remote, 5 and 6 short-stalked, approximated to 7 at base.

Allied to *Tinea*, but characterized by the peculiar maxillary palpi.

Thallostoma eurygrapha n. sp.

♂♀. 18-19 mm. Head and palpi ochreous-whitish, palpi externally blackish except towards apex. Thorax dark fuscous, patagia whitish except shoulders. Forewings elongate, narrow, costa gently arched, apex obtuse-pointed, termen very obliquely rounded; dark purplish-fuscous; markings pale whitish-ochreous; a rather broad irregular streak along dorsum and termen throughout, just reaching costa at base, triangularly prominent upwards before middle of wing, narrowed to a point at tornus, thence expanded to apex; a semioval blotch extending on costa from before middle to near $\frac{3}{4}$, and reaching nearly half across wing: cilia pale whitish-ochreous. Hindwings grey; cilia ochreous-whitish.

Wadestown, in November (Hudson); two specimens, both damaged.

Trithamnora n. g.

Head with dense rough projecting scales; ocelli absent; tongue absent. Antennae $\frac{4}{5}$, in ♂ ciliated, basal joint moderate, stout, with slight pecten. Labial palpi moderate, porrected, stout, considerably expanded with dense rough scales projecting beneath, second joint with a few short lateral bristles, terminal joint short, obtuse. Maxillary palpi moderately long, slender, filiform, drooping. Posterior tibiae clothed with long hairs above and beneath. Forewings with subdorsal tufts of raised scales; cell long, 2 tolerably remote from angle, 3 from angle, 7 to costa, sometimes stalked with 8, 11 from $\frac{1}{4}$. Hindwings 1, elongate-ovate, cilia $\frac{3}{4}$; 2-4 remote, 5 and 6 approximated towards base, 7 nearly parallel.

Trithamnora improba n. sp.

♂. 16 mm. Head and antennae fuscous. Palpi dark fuscous mixed with black, apex of joints pale ochreous. Thorax dark purplish-fuscous. Abdomen dark fuscous. Forewings elongate, narrow, costa gently arched, apex tolerably pointed, termen very obliquely rounded; dark purplish-fuscous, sprinkled with blackish scales and whitish specks, dorsal and terminal areas lighter; a series of four raised tufts of rough pale greyish-ochreous scales beneath fold: cilia dark fuscous sprinkled with ochreous-whitish, beneath tornus with a patch of whitish-ochreous suffusion. Hindwings dark purplish-fuscous, lighter anteriorly; cilia fuscous, with dark fuscous subbasal line.

Wellington (Hudson); two specimens. Easily confused with dark forms of *Tinea certella*, and therefore probably hitherto overlooked; it may, however, be immediately distinguished by the subdorsal tufts of scales. It is likely that the larva would feed in dead wood, and the imago be found on the trunks in dark forests.