

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

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

[Read before the Wellington Philosophical Society, 4th October, 1911.]

I AM again enabled by the kindness of Messrs. G. V. Hudson and A. Philpott to present descriptions of a further series of new species of *Lepidoptera*, representing the results of their labours during the past season. These include some forms of remarkable interest.

## CARADRINIDAE.

*Melanchra xanthogramma* n. sp.

♂. 37 mm. Head and thorax reddish-brown mixed with whitish-ochreous, sides of patagia and ridge of collar streaked with black and whitish irroration. Antennae bipectinated ( $a$  2,  $b$   $1\frac{1}{2}$ ), apical third simple, ciliated. Abdomen fuscous, sides and apex tufted with reddish-brown scales mixed with whitish-ochreous. Forewings elongate-triangular, costa slightly arched, apex obtuse, termen rather obliquely rounded, crenulate; light reddish-brown; subbasal, first, and second lines waved, indicated by interrupted edgings of black irroration, lower end of subbasal connected with base by a bent dark red-brown and blackish mark surmounted with yellow, second obsolete from near costa to below reniform; an elongate-oval suffused yellow spot beneath submedian fold between subbasal and first lines, and a streak of yellow suffusion along dorsum from  $\frac{1}{4}$  to  $\frac{3}{4}$ ; spots darker reddish-brown, edged with yellow and then with blackish, orbicular short-oval, rather oblique, somewhat paler-centred, claviform rather smaller, roundish, anteriorly defined by first line, reniform with posterior half pale and whitish-mixed; space between these darker, with some yellow and blackish scales; a dark-fuscous elongate patch extending from second to subterminal lines above submedian fold; some whitish suffusion towards dorsum beneath this; three whitish dots on costa between second and subterminal lines; subterminal line slender, yellow, straight and edged with blackish posteriorly, towards extremities dentate and unmarginated, at  $\frac{1}{4}$  with a dilatation, below middle with a very abrupt acute double dentation reaching termen; a terminal series of lunulate blackish marks: cilia reddish-brown mixed with paler and whitish. Hindwings fuscous; cilia whitish, basal half fuscous.

Wellington (Hudson); one specimen. At first sight much like a variety of *insignis*, but (as Mr. Hudson correctly points out) the antennal pectinations in that species are somewhat longer. An easy distinction is afforded by the absence of the well-defined short black basal streak of *insignis*.

## SELIDOSEMIDAE.

*Selidosema lactiflua* n. sp.

♂. 36 mm. Head and thorax olive-greenish mixed with yellow-whitish. Antennal pectinations,  $a$  6,  $b$  5; about 8 apical joints simple. Abdomen whitish-yellowish. Forewings triangular, costa slightly arched,

apex rounded-obtuse, termen evenly rounded, rather oblique; 10 and 11 separate; olive-greenish, sprinkled with blackish; costal area strigulated with white from  $\frac{1}{4}$  to  $\frac{2}{3}$ ; lines formed by blackish suffusion, first and second double, waved, first somewhat curved, second slightly and rather irregularly curved, somewhat sinuate inwards towards dorsum, median thick, somewhat curved; a blackish transverse discal mark beyond median line; second line followed by a white band strigulated with olive-greenish, subterminal line slender, waved, white, preceded and followed by blackish suffusion tending to form spots; a terminal series of black lunulate marks: cilia pale olive-greenish, sometimes sprinkled with blackish, narrowly and obscurely barred with white. Hindwings whitish-yellow-ochreous, towards dorsum and termen sometimes finely and slightly sprinkled with grey; a grey discal dot, sometimes faint; a terminal series of slight dark-grey marks; cilia whitish-ochreous-yellow.

Lake Wakatipu (Hudson), in February; two specimens. A fine distinct species, resembling *melinata* and *leucelaea*.

#### CRAMBIDAE.

##### *Orocrambus pervius* n. sp.

♂. 25 mm. Head, palpi, and thorax dark fuscous, palpi mixed beneath with whitish hairs, shoulder with a slight white mark. Antennae shortly ciliated ( $\frac{1}{3}$ ). Abdomen dark grey, apex whitish. Forewings elongate, posteriorly dilated, costa hardly arched, apex obtuse, termen rounded, somewhat oblique; dark fuscous, irregularly strewn or partially suffused with ochreous-brown scales; costal edge slenderly whitish on median area; a rather narrow white median longitudinal streak from base to termen, beyond middle shortly attenuated or interrupted: cilia grey, with a white bar on median streak. Hindwings dark grey, pectinations ochreous-whitish; cilia ochreous-whitish, basal third grey. Hindwings beneath largely suffused with ochreous-whitish.

Lake Wakatipu, 3,600 ft. (Hudson), in February; two specimens. Closely allied to *catacaustus*, which, however, is browner, with a white shoulder-stripe (not mentioned in my description), and with the median stripe only seldom showing a tendency to interruption; but the reliable distinguishing character lies in the form of the forewings, of which in *catacaustus* the termen is not oblique on the upper portion.

#### PYRAUSTIDAE.

##### *Scoparia triscelis* Meyr.

This distinct species, originally described from Auckland Island ("Subantarctic Islands of New Zealand," p. 71), has now been found by Mr. Hudson at Lake Wakatipu; a very interesting observation.

##### *Scoparia locularis* n. sp.

♂. 21 mm. Head ochreous-whitish. Palpi  $2\frac{2}{3}$ , dark fuscous, basal joint white. Antennal ciliations  $\frac{2}{3}$ . Thorax white mixed with grey and dark fuscous. Abdomen grey. Forewings elongate-triangular, narrow at base, costa posteriorly moderately arched, apex obtuse, termen sinuate, oblique; light grey, irregularly mixed with white, with some scattered black scales; an oblique streak of black suffusion from base of costa; first line white, rather oblique, slightly sinuate, posteriorly strongly edged with black suffusion; orbicular and claviform represented by elongate marks

of black suffusion connected with this; discal spot 8-shaped, outlined with black, upper half larger but less defined, connected with costa by a spot of black irroration; second line slender, irregular, white, anteriorly interruptedly edged with black, slightly curved, indented beneath costa and more strongly on submedian fold; subterminal suffused, whitish, strongly sinuate inwards in middle to touch second line and more or less interrupted above the connection, the sinuation filled with a spot of blackish suffusion: cilia pale fuscous, with blackish ante-median and fuscous post-median lines, broadly barred with whitish. Hindwings  $1\frac{1}{4}$ , without hairs in cell, pale grey, becoming darker posteriorly; discal mark and post-median line faintly darker; cilia grey-whitish, with interrupted dark-fuscous subbasal line.

Mount Arthur, 3,400 ft., and Lake Wakatipu (Hudson), in January and February; two specimens. Allied to *torodes*.

*Scoparia agana* n. sp.

♂. 23–25 mm. Head white. Palpi 3, rather dark fuscous, basal joint white. Antennal ciliations  $\frac{1}{2}$ . Thorax purplish-grey. Abdomen pale greyish-ochreous. Forewings elongate, narrow at base, posteriorly dilated, costa posteriorly gently arched, apex obtuse, termen straight, rather oblique; fuscous, irregularly mixed with white; indistinct streaks of dark-fuscous irroration along fold from base to first line, and posteriorly between veins; lines formed of white suffusion, first curved, oblique, second rather curved, indented beneath costa and above dorsum; orbicular and claviform represented by indistinct longitudinal marks of dark-fuscous suffusion resting on first line; discal mark obscurely X-shaped, formed by blackish irroration, lower half filled with whitish suffusion; subterminal line broad, suffused, whitish, almost terminal, rather sinuate inwards in middle but not reaching second line: cilia grey-whitish, with interrupted grey ante-median line. Hindwings  $1\frac{1}{2}$ , without hairs in cell; grey-whitish, with brassy-yellowish reflections; cilia yellow-whitish.

Lake Wakatipu, in February (Hudson); one specimen. A second taken by myself on Arthur's Pass, at 3,000 ft., in January. Allied to *crypsinosa*.

PTEROPHORIDAE.

*Stenoptilia vigena* Feld.

*Oxyptilus vigena* Feld., Reis. Nov., pl. cxl, 49.

♀. 19 mm. Head pale brownish, sides whitish, face prominent. Palpi  $2\frac{1}{2}$ , ochreous-brown, lower edge whitish towards base. Thorax ochreous-white, suffused with light brownish anteriorly. Abdomen whitish-ochreous, towards base white. Forewings cleft to  $\frac{3}{4}$ , segments rather broad, apex pointed, termen oblique, on second segment slightly bowed; reddish-brown, suffusedly mixed with whitish in disc, with a broad streak of white suffusion along dorsum, dorsal edge tinged with reddish-ochreous; costa suffused with dark fuscous, dotted with whitish from base to beyond middle, a dark red-brown spot mixed with black on base of cleft, above which is a patch of white suffusion not quite reaching costa; posterior area of first segment occupied by a blotch of darker red-brown suffusion mixed with black, marked with a bar of white suffusion close before termen; second segment somewhat sprinkled with whitish posteriorly: cilia on costa dark fuscous, on termen and in cleft white, with a small blackish patch at lower angle of first segment and upper angle of second, and a

blackish basal line on termen of second segment; cilia round tornus and on dorsum fuscous. Hindwings rather dark fuscous; cilia grey, base grey-whitish.

Lake Wakatipu (Hudson), in February. This is an interesting re-discovery, as Felder's species had never been recognized before, and his localities are frequently quite erroneous. It is allied to *charadrias*.

#### *Stenoptilia zophodactyla* Dup.

Mr. Hudson sends a specimen of this nearly cosmopolitan species, taken near Wellington in November, stating it to be very rare. It has not been previously recorded from New Zealand. It is common in Europe, which is probably its place of origin; but I have also received it freely from India, Australia, South Africa, and South America. The larva feeds on *Erythraea*, but must also be attached to other *Gentianaceae*, and is probably artificially introduced. It may have reached New Zealand only quite recently.

#### CARPOSINIDAE.

##### *Carposina morbida* n. sp.

♂. 26 mm. Head ochreous-whitish. Palpi 2½, porrected, ochreous-whitish, basal half suffused with dark olive-grey. Antennal ciliations 4. Thorax ochreous-whitish, shoulders with an ochreous spot. Abdomen ochreous-whitish. Forewings elongate, rather narrow, posteriorly somewhat dilated, costa gently arched, apex obtuse, termen straight, rather oblique; silvery-whitish-ochreous, irregularly strewn with ochreous scales, costa and dorsum somewhat sprinkled with grey; a small brownish-ochreous basal patch, edge parallel to termen; six small shots of grey suffusion on costa between this and apex; tufts brownish-ochreous, posteriorly white—viz., one beneath costa at  $\frac{1}{3}$ , preceded by a dash of black irroration, one beneath this towards dorsum, a larger one in disc beyond these, preceded by a black dash on submedian fold, two towards costa in and beyond middle edged with black beneath, one below middle edged with black above, and a ridge on transverse vein, irregularly edged with black anteriorly, between these in middle of disc is an elongate patch of grey suffusion; some scattered black irroration crossing wing at  $\frac{5}{8}$ ; cilia whitish, with two greyish shades. Hindwings and cilia whitish. Under-surface of forewings and hindwings largely clothed on anterior half with modified pale yellow-ochreous scales, on forewings anteriorly suffused with grey.

Lake Wakatipu (Hudson), in February; one specimen. Can only be confused with *exochama*; but the ♂ of that species has much longer porrected palpi (4).

#### TORTRICIDAE.

##### *Harmologa tritochlora* n. sp.

♀. 22 mm. Head and palpi pale ochreous, palpi 3. Thorax whitish-ochreous, patagia suffusedly mixed with grey. Abdomen ochreous-whitish. Forewings elongate-oblong, costa moderately arched towards base, thence nearly straight, apex obtuse, termen slightly rounded, somewhat oblique; whitish-grey suffused with pale brassy-yellowish, becoming whitish-yellowish towards costa and termen, irrorated with darker grey on dorsal half towards base: cilia whitish-yellowish. Hindwings and cilia creamy-white.

Lake Wakatipu, 4,000 ft. (Hudson), in February; one specimen. Allied to *siraea* and *aenea*, but cannot be united with either; doubtless the ♂, as in those species, is very different, with dark hindwings.

## OECOPHORIDAE.

*Izatha metadelta* Meyr.

Mr. Hudson suggests that *percnitis* Meyr. is the ♂ of this species, and on consideration of the available material, having now several specimens of each form, all the *percnitis* being ♂ and all the *metadelta* ♀, I have no doubt his view is correct, and they must be united as sexes.

## GLYPHIPTERYGIDAE.

*Simaethis zomeuta* n. sp.

♀. 18 mm. Head and thorax bronzy-brown; sprinkled with whitish. Palpi with whorls of blackish white-tipped scales, base white. Antennae dark fuscous dotted with white. Abdomen dark fuscous. Forewings elongate, posteriorly dilated, costa gently arched, apex obtuse, termen bowed, rather oblique; bronzy-ochreous-fuscous; some violet-white irroration towards base and termen; a moderately broad darker median transverse fascia, angulated above middle, edged by obscure shades of violet-white irroration, becoming more distinct on costa, where the second forms a clear white oblique mark: cilia bronzy-ochreous, with two dark-fuscous shades, and white patches on outer half above and below middle. Hindwings bronzy-fuscous, becoming blackish on posterior half; a rather incurved white streak crossing dorsal half of wing from  $\frac{2}{3}$  of disc to tornus, and some whitish irroration between this and termen; cilia whitish, basal third dark fuscous.

Mount Arthur, 4,600 ft.; one specimen taken by myself in January, not in fine condition, but twenty-five years have passed without further captures. Near *combinatana*, but distinguishable by clear white streak of hindwings, and the joints of antennae are relatively much more elongate and slender.

*Simaethis ministra* n. sp.

♂. 9 mm. Head dark fuscous, face sprinkled with white. Palpi with whorls of dark-fuscous white-tipped scales, base white. Antennae dark fuscous, shortly pubescent-ciliated. Thorax dark fuscous. Abdomen dark fuscous, segmental margins partially white. Forewings sub-oblong, costa moderately arched anteriorly, apex obtuse, termen slightly rounded, somewhat oblique; dark bronzy-fuscous; five very undefined irregular transverse shades of white irroration, first three rather curved or bent, fourth forming a clear white spot on costa beyond middle and then a fine silvery quadrangular loop passing behind a transverse linear discal mark of white irroration, fifth straight, interrupted above middle; two or three silvery-metallic scales before termen above middle: cilia white with dark-fuscous shade (imperfect). Hindwings light fuscous, becoming darker towards termen; dorsal half with scattered white scales; a well-marked irregular white streak extending across dorsal half of wing from disc at  $\frac{2}{3}$  nearly to tornus, its lower half approximated to termen; cilia white, with fuscous subbasal and post-median shades.

Mount Holdsworth (Hudson); one specimen. This and the two following species are closely allied and very similar, agreeing together in

having the antennae of ♂ shortly pubescent-ciliated, whilst in *S. marmarea*, which is also very similar superficially, they are ciliated with long fascicles (3), as is usual in the genus. *S. ministra* differs from the other two in having the antennae wholly dark fuscous, the forewings obviously broader anteriorly, with costa more arched than in either of the others, the white markings of forewings less defined, the white streak of hindwings broader and more irregular, reaching termen at  $\frac{2}{3}$  from apex and continued almost to tornus.

*Simaethis microlitha* Meyr.

♂♀. 9–10 mm. Head and thorax irrorated with white above; scales of palpi longer and more projecting than in *analoga*; antennae dotted with white; abdomen with segmental margins strongly white. Forewings more narrowed towards base than in *ministra*, fasciae of white irroration more strongly marked, fourth slender, but more sharply marked and brightly silvery-metallic above discal mark and at apex of dorsal section. Hindwings with white streak slender, regular, well-marked, extending  $\frac{2}{3}$  across wing from  $\frac{1}{2}$  of disc to middle of termen and thence running partially interrupted near termen almost to tornus.

Arthur's Pass, 3,000 ft., in January; two specimens. In my description of this species I included also the following, which I now separate from it, and therefore specify the more characteristic points which distinguish the true *microlitha* from the preceding and following species; the character of the marking of hindwings is the most obvious of these.

*Simaethis analoga* n. sp.

♂♀. 8–9 mm. Head dark fuscous, face and sides of crown irrorated with white. Palpi with whorls of dark-fuscous white-tipped scales, base white. Antennae dark fuscous dotted with white, in ♂ shortly pubescent-ciliated. Thorax dark fuscous, somewhat sprinkled with white, inner edge of patagia white. Abdomen dark fuscous, segmental margins strongly white. Forewings rather elongate-triangular, costa gently arched, apex obtuse, termen slightly rounded, somewhat oblique; dark bronzy-fuscous; three curved cloudy transverse lines of white irroration on anterior half, two posterior sometimes irregularly confluent; a white line beyond middle forming a quadrangular loop behind a transverse-linear white discal mark, upper side of loop silvery-metallic, lower absent, a silvery-metallic dot on upper extremity of dorsal segment; a straight cloudy line of white irroration from  $\frac{1}{4}$  of costa to tornus, interrupted above middle; a transverse silvery-metallic mark before termen above middle: cilia white with two thick dark-fuscous lines, and dark patches at apex, middle of termen, and tornus. Hindwings fuscous, becoming dark fuscous posteriorly; a very short white detached transverse mark before middle of termen, and sometimes a dot on tornus; cilia white, with two thick dark-fuscous lines.

Mount Arthur, 4,000 ft., in January; ten specimens. As explained above, I originally regarded this as a form of *microlitha*, but now think it distinct. Doubtless more species of this group will be discovered in the mountains, and an attempt should be made to ascertain their food-plants.

*Ereunetis acrodina* n. sp.

♀. 14 mm. Head whitish-ochreous, hairs of forehead slightly mixed with dark fuscous. Antennae grey-whitish, basal joint with a blackish

spot. Palpi whitish, second joint streaked with dark fuscous above and beneath, terminal joint dark fuscous towards base. Thorax whitish-ochreous, shoulders with a dark-fuscous spot. Abdomen ochreous-whitish. Forewings elongate, narrow, costa moderately arched; apex round-pointed, upturned, termen extremely obliquely rounded; greyish-ochreous, with a few dark-fuscous scales; markings fuscous mixed with blackish; four oblique patches from costa, more or less confluent with a broad irregular submedian streak from near base to apex, first near base, second broadest, before middle, third narrow, fourth reduced to a streak; an irregular dark-fuscous apical spot surrounded with white: cilia whitish, with an interrupted black subbasal line, and fuscous post-median line, tips fuscous at apex. Hindwings grey-whitish; cilia whitish, at apex with two dark-grey lines.

Wellington (Hudson); one specimen. Intermediate between *erebistis* (which has hitherto stood rather isolated) and *fulguritella*.

#### Taleporia Hb.

The genus *Taleporia* has not previously been identified from the Southern Hemisphere, but the following species agrees fully with it, except that veins 7 and 8 of the forewings are separate, whereas in the typical European species they are stalked; in this group, however, this character is of little importance, and I have no hesitation in regarding the species as a true *Taleporia*, a very interesting discovery.

#### *Taleporia aphrostcha* n. sp.

♂ 22 mm. Head, palpi, and antennae dark fuscous, antennal cilia-tions  $2\frac{1}{2}$ . Thorax dark fuscous, with several whitish dots posteriorly. Abdomen dark grey, somewhat whitish-mixed. Forewings elongate, rather narrow at base, posteriorly dilated, costa gently arched, apex obtuse, termen obliquely rounded; all veins separate; white, mixed with grey in disc and towards costa, coarsely reticulated throughout with dark fuscous; the white colour forms a more conspicuous quadrate spot on dorsum before middle, including a dark-fuscous dorsal strigula, and preceded and followed by irregular dark-fuscous spots: cilia fuscous, basal half spotted with white. Hindwings dark grey; cilia fuscous.

♀ apterous, active.

Hump Ridge, Invercargill, 3,500 ft. (Philpott); a pair in December.

#### HEPIALIDAE.

#### *Porina copularis* n. sp.

♂ 38–40 mm., ♀ 44–50 mm. Head and thorax pale ochreous, sometimes partially tinged with fuscous. Antennae in ♂ shortly bipectinated with flattened-wedge-shaped teeth. (2). Abdomen pale ochreous, in ♀ infuscated except anal tuft. Forewings formed nearly as in *umbraculata*, but costa more sinuate; pale ochreous, in ♀ tinged with fuscous; a white dot finely edged with dark fuscous in disc at  $\frac{1}{3}$ , and an elongate mark beyond middle; in ♂ sometimes a smaller dot beneath submedian fold rather beyond first; a faint pale irregular sinuate transverse shade at  $\frac{2}{3}$ , sometimes marked with a few indistinct fuscous strigulae, and sometimes a series of indistinct fuscous dots beyond this: cilia whitish-ochreous, barred with ochreous or greyish-ochreous. Hindwings pale fuscous tinged with ochreous; cilia as in forewings.

West Plains, Invercargill (Philpott); five specimens.

*Porina jocosa* n. sp.

♂ 40-44 mm., ♀ 44-51 mm. Head and thorax varying from light fuscous or brownish-ochreous to dark fuscous, posterior extremity of thorax sometimes whitish. Antennae in ♂ shortly bipectinated with flattened-wedge-shaped teeth (2). Abdomen fuscous or ochreous. Forewings formed nearly as in *copularis*, but slightly broader and less elongate; fuscous, sometimes dark fuscous in disc, in one ♂ ochreous-brown; a white or whitish dot edged with dark fuscous in disc towards base (in ♀ sometimes absent), a second at  $\frac{1}{4}$ , sometimes enlarged into an irregular spot or lengthened posteriorly into a streak, and an irregular longitudinal mark somewhat beyond middle; in ♂ some whitish suffusion or ring-marks towards dorsum anteriorly; a confluent irregular series of small dark whitish-ringed sometimes pale-centred marks crossing wing about  $\frac{2}{3}$ , more defined in ♂, sometimes preceded in disc by a partial second series of similar marks, sometimes connected with a whitish patch beneath middle of disc; a whitish ring-mark on costa before apex; a terminal series of small dark semicircular spots edged with whitish: cilia whitish or whitish-ochreous, barred with fuscous or dark fuscous. Hindwings fuscous, in one ♂ suffused with light ochreous; cilia as in forewings.

West Plains, Invercargill (Philpott); six specimens.

## MICROPTERYGIDAE.

*Sabatinca* Walk.

This generic name supersedes *Palaeomicra* Meyr., but I have formed a new genus, *Micropardalis*, to contain *dorozena* Meyr.

*Sabatinca caustica* n. sp.

♂. 9-10 mm. Head and thorax bronzy-orange-ochreous, thorax sometimes marked with whitish. Antennae ochreous, towards apex blackish. Abdomen dark purple-grey. Forewings ovate-lanceolate, costa moderately arched, apex pointed, termen extremely obliquely rounded; violet-coppery-ochreous, in one specimen largely suffused with whitish; in one specimen a spot of dark purple-fuscous suffusion on dorsum towards base, one in disc beyond middle, and some irregular marking towards termen, and in the whitish-suffused specimen the dark purple-fuscous suffusion forms a blotch along anterior portion of costa connected with a large oblique blotch in middle of disc, a streak along dorsum from base to  $\frac{2}{3}$ , a subterminal fascia enclosing a white spot on costa, and a mark along termen in middle, but in the other two specimens there are no markings: cilia golden-ochreous. Hindwings deep purple; cilia pale golden-ochreous.

Seaward Moss, Invercargill, in October (Philpott); four specimens. The amount of variation is remarkable, but all the specimens were taken together, and are undoubtedly the same species; the shape of forewings is characteristic, being more pointed than in any other species. The species may be placed between *zonodoxa* and *chrysargyra*.

*Sabatinca incongruella* Walk.

This name supersedes *chalcophanes* Meyr.

*Sabatinca calliarcha* n. sp.

♂. 12 mm. Head light bronzy-ochreous, hairs extremely long. Antennae pale ochreous [ringed with dark fuscous. Thorax clothed

with long bronzy-ochreous hairs, beneath which is a white bent stripe on each side of back. Abdomen blackish, apex ochreous-whitish. Forewings elongate-ovate, costa moderately arched, apex obtuse, termen very obliquely rounded; yellow; dorsum suffused with ferruginous-brown, with a few black scales on edge; four golden-whitish streaks from costa between base and  $\frac{3}{4}$  converging towards posterior half of dorsum, first edged posteriorly with ferruginous-brown mixed with indigo-black, hardly reaching dorsum, other three margined on both sides with ferruginous-brown streaks and on costa with black, second and fourth reaching dorsum, third reaching about half across wing; posterior area ferruginous-brownish somewhat mixed with pale yellowish, with an irregular black dot in disc at  $\frac{3}{4}$ , and four black dots on costa edged beneath with golden-whitish; a thick black streak lying along termen from near apex to tornus, edged with ochreous-yellowish and interrupted to form a long upper and short lower portion, upper portion including two golden-metallic terminal dots: cilia light ochreous-yellowish, with a violet-coppery basal line edged externally with grey. Hindwings deep purple, disc and veins blackish; cilia blackish-grey.

Bluecliff, Invercargill, in December (Philpott); one fine specimen. This is a beautiful and remarkably distinct species, showing some superficial approximation to *Micropardalis dorozena*, but structurally a true *Sabatinca* in all respects. I regard it, however, as the earliest form of the genus. I entertain no doubt that other forms of this primitive family remain to be discovered in New Zealand, and, as they are amongst the most important and interesting elements of the fauna, it is very desirable that collectors should make special efforts to find them. Probably the larvae feed on damp mosses, and Conifer forests are the most likely locality, especially in the early part of the season, perhaps before collectors usually take the field. The perfect insects fly in the sunshine, but in partially shaded places, and are sometimes extremely difficult to see.

#### ADDENDUM.

Since writing the above, additional material has been submitted to me, which includes the two following species:—

#### *Eucosma querula* n. sp.

♂♀. 21–28 mm. Head, palpi, and thorax dark fuscous. Abdomen fuscous, not hairy. Forewings elongate-triangular, costa gently arched, in ♂ with very short and narrow basal fold, apex obtuse, termen rounded, rather oblique; purplish-bronzy-fuscous suffusedly mixed and strigulated with dark fuscous; costa obscurely pale-strigulated on posterior  $\frac{3}{4}$ ; a whitish or ochreous-whitish dot in disc at  $\frac{3}{4}$ ; two or three variable curved transverse series of small dark-fuscous spots or dots between this and termen: cilia fuscous, with darker line near base. Hindwings fuscous, posteriorly sometimes faintly darker-strigulated; in ♂ without special characters; cilia pale fuscous.

Christchurch and Wellington, in April (Philpott, Hudson); four specimens. I have also two ♀ from Queensland which I refer with little doubt to this species; I suppose it to be indigenous in Australia (and very likely in some of the Malayan islands), and to have been recently introduced into New Zealand. It belongs to a group of several Indian and Malayan species which are almost exactly alike in superficial appearance, but possess good

characters for discrimination in the secondary sexual structures of the ♂—viz., the costal fold of forewings, the folding and tufting of the dorsal margin of hindwings, and the presence of hairy tufts on the abdomen.

*Sabatinca quadrijuga* n. sp.

♂. 13 mm. Head pale-greyish. Antennæ dark fuscous. Thorax purplish. Abdomen grey, lateral claspers and supraanal projection longer and narrower than in *caustica*. Forewings ovate-lanceolate, less acute than in *caustica*, stalk of 7 and 8 extremely short; deep purple, irregularly mixed with coppery-golden, darker and bluish on costa; four subquadrate ochreous-whitish spots on costa between base and  $\frac{3}{4}$ , larger anteriorly, and a dot towards apex; cilia grey-whitish, with several dark-grey bars. Hindwings violet-grey, darker towards apex; cilia grey-whitish, on costa barred with grey suffusion.

Invercargill (Philpott); one specimen received through the kindness of Mr. Hudson.

ART. X.—Notes on some Dragon-flies from the Kermadec Islands.

By R. J. TILLYARD, M.A., F.E.S.

[Read before the Wellington Philosophical Society, 9th August, 1911]

IN a small collection forwarded to me by Mr. A. Hamilton, of Wellington, New Zealand, five species are represented, four being species of wide distribution in the Australasian region, and the fifth (represented by a solitary female) probably a local race of a widely distributed oceanic genus of which the species and races have not yet been correctly worked out. They are the following.

Fam. LIBELLULIDAE.

Subfam. LIBELLULINAE.

1. *Tramea* sp., 1 ♀ (label No. 2).

Somewhat immature, and of pale coloration. The dark patch at the base of the hindwings is exceedingly small, and does not spread downwards into the anal areas of the wing. The male of the insect should be obtained, as from the form of the ♂ appendages and genitalia the species could be determined with certainty. I am of opinion that this will prove to be a local race of a widely distributed oceanic species. The genus is highly migratory, and one species is rapidly travelling down the east coast of Australia, and getting a strong hold there.

Subfam. CORDULINAE.

2. *Hemicordulia australiae* Rambur (label No. 3).

2 ♀, 2 ♂. In good condition, a dark and handsome form, practically identical in size and colouring with the specimens found in the Sydney district. This beautiful species, recognizable by the brilliant metallic-green