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Lepidoptera Collecting at the Homer, with Descriptions of New Species.

By W. George Howes.

[*Read before the Otago Branch, 1945; received by Editor, February 20, 1946; issued separately, September, 1946.*]

The results of my first entomological expeditions to the Homer area proved so interesting that two further collecting expeditions have since been made. They were all at similar seasonal periods—from the second week in December to the end of the first week in January.

In 1943–44 Mr. J. T. Salmon, Entomologist to the Dominion Museum, and Mr. T. Murray Smith, of Dunedin, accompanied me; in 1944–45 the same entomologists made the trip, and also Dr. W. R. B. Oliver, Director of the Dominion Museum, who concentrated on the botany of the district.

Weather conditions were those usual to the Homer district, that is to say it rained most of the time and the last expedition included periods of heavy rain, often continuous for many days at a time. Sometimes over an inch of rain fell in an hour and the sides of the mountains streamed with water. The collecting conditions were as bad as they could be, but, despite this, we secured excellent series of rare insects, further new locality records, and species new to science.

Each night, whenever collecting conditions allowed, we used attracting lamps. Each collector selected some suitable locality and placed his lamp on a flat-topped rock sufficiently high off the ground for ease of collecting. Despite the cold and miserable weather, we secured good results on most nights. During this last expedition one outstanding night calls for special record. We then had the amazing experience of moths coming to the light in almost unbelievable numbers. Standing alongside the lamp was like being in the midst of a swarm of bees. They were so numerous it was almost impossible to follow with the eye some desired specimen as it crawled and fluttered around the lamp. Numbers fell to the ground around the rock table, and so we often walked over rarities that would have been welcome in any collection. This went on until midnight, when we were all forced to give up. This wonderful evening was followed by the most continuous and heavy rain we experienced. The large number of beautiful specimens secured that night provided welcome indoor occupation in preparing and setting our catch for several days during which it was impossible to collect.

In addition to the previously published list of Homer Lepidoptera (see *Trans. Roy. Soc. of N.Z.*, vol. 73, pp. 90–96), I now place on record a note of the additional species taken, further remarks incidental to previous records, and add the list of the Micro-lepidoptera

secured on all the expeditions. In going to the Homer we stopped at certain places on the way, and so species are listed also from these places, viz., Gorge Hill (a few miles beyond Mossburn), the Wilderness, the upper Eglinton River Flats, the Divide, Key Summit, and Marion P.W.D. camp.

MACRO-LEPIDOPTERA.

RHOPALOCERA.

Erebia pluto: fairly plentiful close to the Tunnel in perfect condition.

Vanessa gonerilla: rather scarce, but a few at Marion and Eglinton River.

Argyrophenga antipodum: Gorge Hill and Wilderness; not seen higher up.

Chrysophanus boldenarum: specimens from Monkey Flat, close to Homer, were large and brilliantly coloured.

ARCTIADAE.

Metacrias huttoni: especially common at Homer, but males were noted flying as far down as Marion.

„ sp.?: a single caterpillar taken at the Wilderness by Mr. T. Murray Smith was not reared, but appeared to be distinct from the caterpillars of *huttoni*.

NOCTUIDAE.

Euxoa admirationis: common at Wilderness.

Ichneutica nervosa: a single male specimen taken at Homer.

„ *lata*: Mr. Salmon secured one at Homer.

„ *cana*: six specimens taken at Homer, including one female.

„ *lindsayi*: fairly abundant and the good series secured shows a great amount of variation.

The Homer district has now produced all the species of *Ichneutica* recorded throughout New Zealand and, in addition, the fine *I. homerica*. The identification of *I. ceraunias* is slightly doubtful, being based on an abbreviated wing specimen which might be a female of *lindsayi*.

Aletia empyrea, as identified in my paper in vol. 73 of the *Transactions*, proves to be a new species which is now described as *A. nobilia*. *A. empyrea* has to be deleted from the Homer record of species.

„ *probenota*: further specimens of this new species secured at Homer.

„ *micrastra*: occurred at the Wilderness.

Melanchra plena: the Homer again produced many beautiful varieties which differ from any seen in other localities.

„ *petrograpta*: as common at Homer as *M. mutans* is in the lower areas.

„ *maya* and *M. lithias*: fairly common at Homer and well coloured.

„ *coeleno*: at Wilderness, but not in the higher areas.

„ *exquisita*: one specimen taken at Homer by T. Murray Smith.

„ *sericata*: a few additional specimens of this new species secured.

„ *ustistriga* and *M. morosa* at the Wilderness.

„ *prionistis*: a few worn specimens at Homer.

Leucania falsidica, L. semivittata, L. alopa taken at Homer.

Dipaustica epiastra: a few taken both at Wilderness and Homer.

Persectania propria: a few large and brightly coloured from Homer

„ *infensa*: occurred both at Wilderness and Homer.

„ *sequens*: fairly common at Wilderness.

„ *composita*: taken only at Wilderness.

Rhapsa scotosialis: at Wilderness and Marion.

GEOMETRIDAE.

Tatosoma tipulata, T. alta, T. fasciata, T. monoviridisata have to be added to the species previously recorded from Homer.

Elvia glaucata was fairly common at Homer.

Chloroclystis species require quite a number of additions to the Homer records. These are: *semialbata, bilineolata, ida, urticae, aristias, malachita, lichenodes, cotinea* (?), *nereis, sandycias, muscosata, punicea, fumipalpata, lacustris, dryas,* and *paralodes.*

Hydriomena praerupta: a further series of this beautiful moth were taken.

Xanthorhoe cinnabaris: flying in the sunshine of a swampy, tussock-covered area at Gorge Hill, on similar ground to where I took the original specimens; we secured a fine series. Apparently this is the first record of this species since the original specimens were secured.

„ *stinaria* was taken along with *cinnabaris* on Gorge Hill.

„ *chionogramma*: two specimens only secured at Homer.

„ *clarata, X. camelias, X. rosearia* were taken at Homer.

„ *chlamydota*: one specimen only taken at the Wilderness by M. Smith.

Paradetis porphyrias: fairly common at the Homer.

Notoreas orphnaea: occurred at Homer.

Dasyuris octans, D. enysii, D. partheniata, and *D. anceps* at Homer.

„ *transaureus*: a few specimens were taken at Homer. These were all very dark, and probably this melanic form is due to the excessively wet conditions.

The Homer area under better weather conditions should produce further new species of the day-flying moths—the weather conditions of the last two years provided very little sunshine.

Selidosema fascialata: one specimen only from Homer.

„ *productata* was taken at Marion.

„ *dejectaria* and *S. panagrata* also taken at Marion.

Sestra humeraria: a few at Homer, but plentiful at Marion.

Azelina fortinata: those taken at Homer were large and of striking appearance.

Declana griseata, D. niveata, D. egregia were common at Homer.

„ *feredayi* was plentiful at Homer and a fine series was secured. Previous references in my last paper to *D. hermione* apply to *feredayi,* as we have no records of *hermione* from Homer.

„ *glacialis*: this richly-coloured day-flying member of the genus was taken in fair numbers near the tunnel entrance.

MICRO-LEPIDOPTERA.

The combined list which follows is a record of the species taken during the various visits to the district from early December to early January in each year.

PYRALIDAE.

Delogenes limodoxa: a single specimen taken at the Wilderness.
Orocrambus thymiastes: Wilderness.
„ *cultus*: Wilderness.
„ *pervius*: Homer.
„ *caesius*: Homer.
Crambus heliotes: Plentiful and in good condition at Gorge Hill.
„ *melitastes*: Wilderness.
„ *scutatus*: Gorge Hill.
„ *flexuosellus*: Gorge Hill and Homer.
„ *diplorrhous*: Wilderness.
„ *haplotomus*: Homer.
„ *vittelus*: Wilderness.
„ *sophistes*: Homer.
„ *oppositus*: Wilderness.
„ *xanthogrammus*: Homer, Divide.
Tauroscopa nebulosa: Homer.
Diptycophora interrupta: Marion, Homer.
„ *leucoxantha*: Marion, Homer.
„ *epiphaea*: Marion, Homer.
„ *helioctypa*: Wilderness, Homer.
„ *metalifera*: Wilderness.
Musotima nitidalis: Marion, Homer.
Nesarcha hybrealis: Marion, Homer; all extra large.
Mecyna notata: Marion, Homer.
„ *flavidalis*: Wilderness, Marion.
Scoparia thyridias: Marion.
„ *melilurga*: Marion.
„ *acharis*: Marion.
„ *saphronellus*: Wilderness.
„ *scutatus*: Wilderness, Gorge Hill.
„ *cyclostomus*: Wilderness.
„ *epicomyia*: Homer.
„ *parmifera*: Marion, Homer.
„ *hemicycla*: Marion, Homer.
„ *ergatis*: Marion, Homer.
„ *encapna*: Eglinton River.
„ *critica*: Marion, Homer.
„ *ustimacula*: Marion, Homer.
„ *melanaegis*: Marion, Homer.
„ *triscelis*: Homer.
„ *diptheralis*: Homer.
„ *submarginalis*: Homer.
„ *asaleuta*: Homer.
„ *tetracycla*: Homer.
„ *psammittis*: Homer.
„ *leptalea*: Marion.

„ *fimbriata*: Homer.
„ *feredayi*: Gorge Hill, Wilderness, Divide, Homer.
„ *acompa*: Marion, Homer.
„ *cyptastis*: Key Summit, Homer.
„ *petrina*: Homer.
„ *axena*: Homer.
„ *exilis*: Homer.
„ *paltomacha*: Gorge Hill, Homer.
„ *deltophora*: Homer.
„ *sabulosella*: Gorge Hill, Marion, Homer.
„ *trivirgata*: Gorge Hill, Wilderness, Marion, Homer.
„ *scripta*: Marion.
„ *cyameuta*: Marion, Homer.
„ *niphospora*: Homer.
„ *declivis*: Homer.
„ *astragalota*: Divide.
„ *rotuella*: Gorge Hill, Marion.
„ *aspidota*: Marion.
„ *caliginosa*: Marion, Homer.
„ *sinuata*: Homer.
„ *asterisca*: Marion, Homer.
„ *valenternota* n.sp.: Homer only.
„ *claranota* n.sp.: Homer only.

PTEROPHORIDAE.

Platyptilia aelodes: Marion, Homer.
„ *celidota*: Elglinton River, Wilderness.
Alucita lycosema: Marion.
„ *monospilalis*: Homer.
„ *innototalis*: Wilderness, Homer.

PSYCHIDAE.

Orophora unicolor: larval cases plentiful below stones, but only a few of them contained larvae.

TORTRICIDAE.

Carposina exochana: Homer.
„ *gonosemana*: Divide, Homer.
„ *morbida*: Homer.
„ *cyrodana*: Homer.
Pyrgotis pyramidias: Homer.
Catamacta gavisana: Homer.
Capua semiferana: Homer.
„ *plagiatana*: Homer.
Ascerodes prochlora: Homer.
Tortrix alopecana: Homer.
„ *fervida*: Homer.
„ *sphenias*: Homer.
„ *excessana*: Homer.
„ *conditana*: Homer.
Ctenopseutis obliquana: Marion, Homer.
Epichorista emphanes: Homer.
Harmologa amplexana: Homer.

TINEIDAE.

Stomopteryx teraphala: Homer.
Anisoplaca acrodactyla: Homer.
„ *achyrota*: Homer.
Borkhausenia berenice: Homer.
„ *armigerella*: Marion, Homer.
„ *opaca*: Homer.
„ *monodonta*: Marion, Homer.
„ *basella*: Homer.
„ *aphrontis*: Homer.
„ *ophiodryas*: Eglinton River.
„ *afflicta*: Homer.
„ *robiginosa*: Homer.
„ *nycteris*: Homer.
Leptocroca asphaltis: Homer.
Gymnobathra bactrias: Homer.
„ *calliploca*: Marion, Homer.
Trachypepla ingenua: Homer.
Proteodes carnifex: Homer.
„ *profunda*: Homer.
„ *smithi* n.sp.: Homer.
Cryptolechia semnodes: Divide.
Batrachedra agaura: Marion.
Simaethis iochondra: Marion, Homer.
„ *albifasciata*: Homer.
Gliphipteryx barbata: Gorge Hill, Homer. The late Mr. S. Lindsay considered this species should be removed to *Charaxana*.
Elachista thallophora: Eglinton River.
Gracilaria elaeas: Homer.
Dolichernis chloroleuca: Marion.
Protosynaema questosa: Marion.
„ *steropuca*: Marion.
Plutella megalynta: Homer; a regular visitor at the light; specimens very large.
Hectama stilbella: Wilderness, Homer.
Mallobathra tonnoiri: Homer.

HEPIALIDAE.

Porina leonina: Mrs. J. Sutherland forwarded a fine series to me, taken at Homer in April, 1942.
„ *umbraculata*: Wilderness; one or two large, well-coloured specimens came to the light.
„ *fusca*: Homer. Taken in fair numbers flying in the late afternoon and early evening. Males were plentiful; a few females also taken. This species shows considerable variation.

NEW SPECIES.

Aletia nobilia n.sp. (Plate 9, Fig. 3.)

Wing expanse varying, in males from 48 to 50 mm.; in females from 45 to 54 mm. Head and thorax bluish-grey with the face lighter in shade. Antennae serrate, grey. Palpi very short. Forelegs bluish-

grey. Forewings shining bluish-grey, with all markings extremely faint. Basal and first lines indistinct, but the first line shows plainly just above and down to dorsum; second line slightly indicated by a narrow darker shading on costa and on the vein crossings. Subterminal line slightly deeper in colour than main wing surface and narrowly edged outwardly with ochreous. Subterminal area bluish-grey. Reniform, orbicular, and claviform almost indistinguishable, but indicated by faint ochreous patches which are more noticeable in the female. Cilia white, with light brown-grey bars between vein endings in males; grey, with a grey-white basal line in females. There is no appearance of a lunule in the underwings, which are an even grey. Cilia of lower wings grey-white in males, ochreous-white in females.

Ten specimens taken at Homer in December and early January included both sexes, and showed practically no variation. Despite the absence of distinct markings, the even silken sheen of the wings makes this a most beautiful insect. Faintness of markings and absence of the lunule will enable this species to be readily distinguished from *A. empyrea,* which is apparently the nearest form to it.

Types in the collection of W. George Howes, Dunedin.

Xanthorhoe frigida n.sp. (Plate 9, Fig. 2..)

Wing expanse 35 mm. Head and face grey. Antennae grey with fairly long ciliations. Thorax grey with a thin dark line transversely across shoulders. Abdomen silver-grey with dark brown marks at the base of each segment. Forewings grey, faintly brown tinged and crossed with grey-white lines. There is a small white patch at base in which a thin grey line runs centrally from costa to dorsum. First line dark grey, almost black, fading into a white patch on the basal side and edged on the terminal side with a narrow clear white line. Beyond this is a light grey area with a darker central line crossing the wing. The second line is white with a narrow grey line edging it on the basal side, and a dark grey patch on the terminal side. In the centre of this patch and halfway across the wing there is a clear white patch which starts on the costa to swell out into an elongate oval area in which is the distal dot. This patch then narrows into a smaller white area reaching halfway to the dorsum. The rest of this area is grey. Then follows a narrow white band centred with a thin grey line and edged with dark grey on the basal side. The outer terminal area of the wing is grey with a brownish suffusion, and on this the subterminal line appears in clear white. All lines are bluntly indented. The veins are indicated by dark lines lightly dotted with minute white dots. *On the termen at the vein endings there are distinct X marks in dark brown.* Cilia grey-brown with a slight ochreous basal line. Lower wings silver-grey with three faint grey transverse lines and an incomplete subterminal line. Cilia greyish-brown with slightly darker tufts at the vein endings. Somewhat resembling *X. orophylla,* but in this new species the markings are not so straight, there is no apical patch, and *the X marks on the vein endings of the forewings form a most unusual distinction.*

The single male specimen secured was attracted to light at Homer in December, 1944. Each collector used his own light, but Mr. T. M. Smith came to see how I was faring, and netted the moth as it came to the light I was using—so each must share the honours.

Although we were keenly alert for further specimens, no others appeared during the rest of our stay at the Homer.

The type is in the collection of W. George Howes, Dunedin.

Proteodes smithi n.sp. (Plate 9, Fig. 5.)

Wing expanse 31 mm. Head and face uniform golden brown, antennae brown. Palpi prominent, upcurved, basal portions pink, the tips yellow. Thorax and crests warm brown. First two pairs of legs pink, hindlegs ochreous. Forewings: costa bowed; apex not obtuse—termen rather rounded. An orange band runs along costa narrowing at base and apex. From the base an orange coloured area extends through centre of wing as far as the discal dot. The rest of the forewing is a warm orange brown deepening to warm brown at the termen. Along the veins thin orange coloured streaks extend out towards the termen. Cilia brown, duller than the main wing colouring. Lower wings silvery white with a pink suffusion along the terminal edge. Cilia pink.

The late Mr. S. Lindsay compared this specimen with the type of *P. clarkei* in the Canterbury Museum collection and agreed that this species was distinct. It differs from *P. clarkei* in having the antennal pectinations about half the length of those of *clarkei*. The terminal joint of the palpi is much shorter, the wings are broader, the termen less oblique, and the general colour pattern is much brighter.

One male specimen was taken by Mr. T. M. Smith at Homer in early January, 1945.

Type in the collection of W. George Howes, Dunedin.

Scoparia valenternota n.sp. (Plate 9, Fig. 1.)

Wing expanse 37 mm. Head and thorax white. Palpi moderate, white above, with the sides deep brown. Antennae brown. Patagia brown-black at the centre of their base and white at the sides and on the lower portions. Forelegs brownish-grey. Costa almost straight—apex rounded, termen oblique. Forewings white with a thin streak of ochreous-brown shading along costa, and light ochreous-brown shading around the black marks and along the veins at their terminal endings. There is a bold black line from base on costal edge extending for 6 mm., narrow at each end and broadening in the centre. Another similar line, slightly above the first, starts at 4 mm. from base, runs parallel to costa for 6 mm. and then inclines upwards to end at apex. The upward extremity of this subcostal line is broadened by joining with the subterminal black line. The subterminal line curves inwards as it traverses the wing and then sharply outwards to finish at tornus. The subterminal and subcostal lines combined form a Y-shaped mark with the base of the Y at the apex of the wing. The reniform is indicated by a dark mark projecting above the subcostal line. There is a double series of terminal dots, the first between the vein endings, the second on the veins at the base of the cilia. This double row of

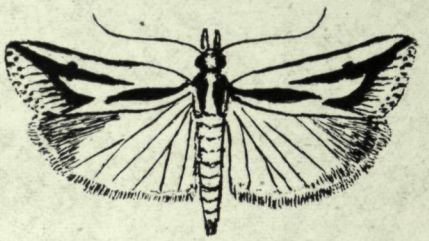

Fig. 1.

Fig. 2.

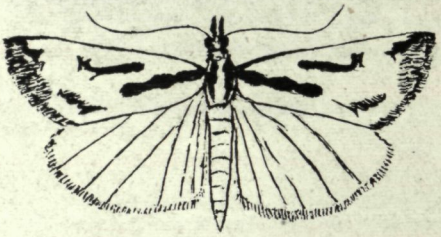

Fig. 3.

Fig. 4.

Illustrating the distinction and localisation of the forewing markings.

All X 2.

1. *Scoparia valenternota* n.sp.
2. *Scoparia claranota* n.sp.
3. *Scoparia clavata*
4. *Scoparia trivirgata*

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FIG. 1.

FIG. 2.

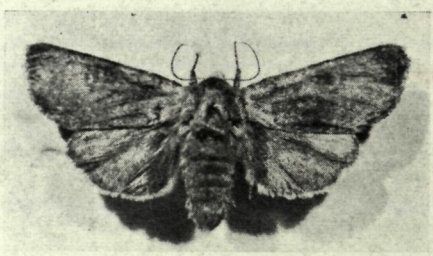

FIG. 3.

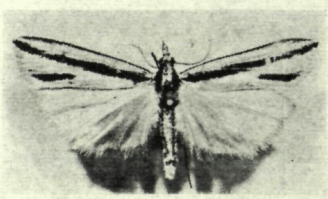

FIG. 4.

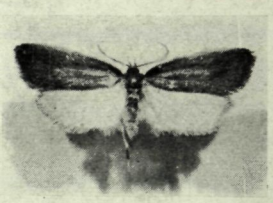

FIG. 5.

FIG. 1.—*Scoparia valenternota* n.sp. FIG. 2.—*Xanthorhoe frigida* n.sp.

FIG. 3.—*Aletia nobilia* n.sp.

FIG. 4.—*Scoparia claranota* n.sp. FIG. 5.—*Protcodes smithii* n.sp.

All natural size. *L. D. Coombs photo.*

dots does not appear in the related species. Cilia ochreous-grey lightly barred with grey. Hindwings grey-white, darker on the upper costal and outer terminal areas. Cilia silvery-white.

Ten specimens taken at the Forks, close to Homer Tunnel. All were taken in this limited area during December in 1942, 1943, and 1944.

Types in the collection of W. George Howes, Dunedin.

Scoparia claranota n.sp. (Plate 9, Fig. 4.)

Wing expanse 39 mm. Head and thorax white. Palpi moderate, white above with the sides deep brown. Antennae brown. Patagia black. This blackness extends for their full length. Abdomen pearly white. Forelegs brown. Costa almost straight, but bowed close to apex, termen oblique. Forewings silvery-white with a thin streak of ochreous-brown along costa and with light ochreous-brown bordering the main dark markings. A clear-cut black line from the centre of the base extends for 7 mm. into the centre of the wing and is fairly sharply pointed at each end. Another line starts slightly above this at 5 mm. from base, runs parallel to the costa to termen just below apex. There is no indication of a subterminal line. A sharply-pointed black line starts from the centre of the wing and runs parallel to dorsum to end near termen slightly above tornus. Reniform, orbicular and claviform are not distinguishable. There are a few faint marks on termen at vein endings. The cilia are white faintly barred with ochreous. Hindwings silvery-white with silvery-white cilia. Although close to *S. trivergata,* the dark markings are a good distinction, especially the long streak from wing centre to tornus, this being short and wedge-shaped in *trivergata.*

In this new species all the specimens taken were large and even in size, light in colouring, and included both sexes. Twelve specimens were taken at Homer in December.

Types in the collection of W. George Howes, Dunedin.