

## PYRALES AND MICROLEPIDOPTERA OF THE MARQUESAS ISLANDS \*

By

EDWARD MEYRICK  
MARLBOROUGH, ENGLAND

The Pyrales and Microlepidoptera taken in the Marquesas by the Pacific Entomological Survey, numbering about 1,537 specimens, were committed to me for study. For various reasons less attention was paid by the collectors to these groups of insects than to the other orders. Also, as many of the specimens were taken either at light or by sweeping, they were much damaged and denuded of scales (260 specimens) and could not be used for accounts of specific determinations.

In two papers <sup>1</sup> I included all the Marquesan species that I knew at the time, and I am aware of nothing added since. I will therefore assume knowledge of these papers as a basis, and avoid unnecessary repetition.

Three introduced species, *Phacellura indica*, *Achroia (Meliphora) grisella*, *Tinea despecta*, are recorded as Marquesan for the first time, but are of no particular interest, being domesticated. Two others, however, *Labdia leucoxantha* and *Trissodoris honorariella*, though probably also artificially conveyed, are less familiar and more worthy of notice.

Two genera and 37 species are described as new to science; the type specimens of these are placed in Bernice P. Bishop Museum in Honolulu. Probably all of these are endemic, and I proceed to indicate the interesting features of this fauna. Before doing so, I would point out that 22 endemic species found by the collectors of the St. George Expedition, distributed in four islands, were not met with, and others appear to have occurred in very different ratio, some of the diversities being extremely curious. From a general consideration of these results I should infer that the number of species still awaiting discovery is much larger than might be supposed. Many are perhaps now much restricted in habitat and verge on extinction.

The disproportionate development of the two old Palaeonesian genera, *Dichelopa* and *Asymphorodes*, becomes still more striking. On comparison with the small group of Australian species which are the only other known representatives of *Dichelopa*, I am satisfied that they may be regarded as derivatives of a single form transported originally from Palaeonesia by a chance storm to the shores of Australia. I now perceive that my forecast of the probable extent of these two genera was an underestimate, and may reasonably be doubled. They are an example of unusual specific develop-

\* Pacific Entomological Survey Publication 7, article 28. Issued November 16, 1934.

<sup>1</sup> Meyrick, Edward, Micro-Lepidoptera of the St. George Expedition: Ent. Soc. London, Trans., pp. 489-507, 1928. Pacific Pyrales of the St. George Expedition: Ent. Soc. London, Trans., pp. 155-169, 1929.

ment on a narrow generic basis in the absence of competition, such as is found in very similar circumstances in the Mascarene Islands.

The identification of *Idioblasta* Warren with the Hawaiian genus *Mestolobes* Butler is of great interest. With the additions in this paper *Mestolobes* now contains 5 Marquesan species and about 30 Hawaiian, and is not known elsewhere. I take the opportunity to note that I now agree with Hampson that the peculiar Hawaiian genus *Orthomecyna*, which has curious points of resemblance to *Mestolobes*, is really an abnormal form of the Crambidae and not genetically related. On the evidence available there must, I think, have been at least 20 recent species of *Mestolobes* in the Marquesas, though they may not be all still in existence; they do not, however, show the curious development of secondary sexual structures possessed by many of the Hawaiian species. The genus appears to have most affinity with the *Scoparia* group, and as I have previously remarked the similarity of type between the Marquesan and Hawaiian species of *Scoparia*, it may well be that the Marquesan elements of these two genera were derived from the Hawaiian at about the same period of time.

The genera other than the four mentioned above which reached the Marquesas sufficiently long ago to have developed from a single immigrant form, several distinct species with structural as well as superficial differences, are *Ernophthora*, *Imma*, and *Decadarchis*, all of which doubtless have further representatives awaiting discovery. Of these, *Decadarchis* is an Asiatic genus which is more or less at home throughout the Pacific, and *Imma* is mainly attached to the figs (*Ficus*) and their allies, which it has followed in their tropical distribution; but the presence of *Ernophthora*, an unusually specialized form of recent development, seems to lack any adequate explanation. It is regrettable that no further evidence was obtained towards the solution of this problem; the discovery of new forms or of larval habits might have been helpful.

Setting apart the above seven genera, the remainder (whose number has been considerably augmented by the present collection) are represented by only one or perhaps two disconnected forms which in themselves afford no testimony of age. The absence of such testimony is no proof of the converse, as no species need break up into several, even in a very long passage of time, as such testimony may still turn up at any moment, and as its discovery in other parts of the Palaeonesian area would affect conclusions as to the Marquesan material. I think that the interesting genera *Gracilaria* and *Cosmopteryx* should be especially watched in this connection.

The proved existence of the two endemic genera (*Dichelopa* and *Asymphorodes*) with a large specific development over the area which I have termed Palaeonesia fully justifies my inference of the former greater develop-

ment of land surface over this area, which is the only possible explanation. It is associated in geological time with Hawaii, where there are similar endemic genera rich in species and of similarly unknown origin. It is with equal certainty dissociated from Samoa and Fiji, where the endemic genera are only monotypic. *Mestolobes* and *Scoparia* must now be regarded as referable to nearly the same period.

FAMILY PHYCITIDAE

Genus ERNOPHTHORA Meyrick

This genus is identical with and supersedes *Aspithra* Ragonot and *Mimistis* Hampson.

**Ernophthora denticornis** Meyrick.

Tahuata: Amatea, altitude 2000 feet, July 1, 1930, at light, 1 specimen, LeBronnec and H. Tauraa.

Uapou: Teoatea, Hakahetau Valley, altitude 1950 feet, November 17, 1931, at light, 24 specimens; Tekohepu Summit, altitude 3200 feet, November 28, 1931, at light, 10 specimens; Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 4 specimens; LeBronnec.

Hivaoa: Mount Temetiu, slope north of summit, altitude 3860 feet, December 29, 1930, at light, 15 specimens, LeBronnec and H. Tauraa; Kaava Ridge, altitude 2460 feet, January 5-6, 1932, at light, 78 specimens; Tenatinaei, Feani Ridge, altitude 3970 feet, January 14, 1932, at light, 7 specimens; Temetiu Summit, altitude 3900 feet, January 20, 1932, at light, 5 specimens; LeBronnec.

As a rule the males are much darker in forewings, with less white marking, the hindwings more suffused gray. The females have more white markings on forewings and yellower hindwings, but there is much variation in these particulars.

**Ernophthora dryinandra** Meyrick.

Hivaoa: slope north of Temetiu, altitude 3860 feet, December 30, 1930, at light, 1 specimen, LeBronnec and H. Tauraa; Temetiu Summit, altitude 3900 feet, January 20, 1932, at light, 9 specimens; Tenatinaei, Feani Ridge, altitude 3970 feet, January 14, 1932, at light, 36 specimens; Kaava Ridge, altitude 2460 feet, January 5, 1932, at light, 4 specimens; LeBronnec.

Nukuhiva: Tapuaooa, altitude 3000 feet, June 1, 1931, under dead leaves, 1 specimen, LeBronnec and H. Tauraa.

Uapou: Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 1 specimen; Tekohepu Summit, altitude 3200 feet, November 28, 1931, 2 specimens, at light; LeBronnec.

**Ernophthora chrysur** Meyrick.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 1 specimen, LeBronnec.

Eiao: above Vaituha, altitude 1200 feet, October 3, 1929, at light, 1 specimen, Adamson.

**Phycita orthoclina** Meyrick.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 1 specimen, LeBronnec.

Eiao: above Vaituha, altitude 1200 feet, October 3, 1929, at light, 4 specimens, Adamson.

**Ctenomeristis ochrodepta** Meyrick.

Hivaoa: Kaava Ridge, altitude 2460 feet, at light, 1 specimen, LeBronnec.

Uapou: Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 1 specimen; LeBronnec.

## FAMILY PYRAUSTIDAE

**Aulacodes eupselias** Meyrick.

Expanse, 19-21 mm. Forewings elongate-triangular; cilia whitish-fuscous, a gray sub-basal shade. Hindwings postmedian area ochreous-whitish, with short dark fuscous interneural dashes; sometimes a sixth smaller white mark in subterminal fascia at upper end, terminal area beyond this fascia tinged lilac-golden-metallic; cilia gray, with narrow whitish bars.

Uapou: Koputukea, Hakahetau Valley, altitude 1250 feet, November 16, 1931, at light, 1 specimen, LeBronnec.

Hivaoa: Avaao Valley, altitude 1350 feet, January 4, 1932, 4 specimens; Kaava Ridge, altitude 2460 feet, January 5-6, 1932, 23 specimens; Tenatinaei, Feani Ridge, altitude 3970 feet, January 14, 1932, 3 specimens; all at light, LeBronnec.

**Bradina tormentifera** Meyrick.

Hivaoa: ridge northwest of Taaoa, altitude 2800 feet, June 3, 1929, at light, 1 specimen, Mumford and Adamson; Mount Temetiu, slope north of summit, altitude 3860 feet, December 29, 1930, at light, 2 specimens, LeBronnec and H. Tauraa; Feani Ridge, altitude 3970 feet, January 13, 14, 1932, at light, 13 specimens; LeBronnec.

**Bradina perlucidalis** Hampson.

Fatuhiva: ridge east of Omoa [Oomoa] Valley, altitude 3100 feet, August 28, 1930, 1 specimen; Uia [Ouia] Valley, September 2, 1930, 1 specimen; Tahuna, altitude 2050 feet, September 3, 1930, 1 specimen; LeBronnec.

Uapou: Teoatea, Hakahetau Valley, altitude 1950 feet, November 21, 1931, beating from ferns, 1 specimen, LeBronnec.

**Tatobotys vibrata** Meyrick.

Hivaoa: Mount Temetiu, slope north of summit, altitude 3860 feet, December 30, 1930, at light, 1 specimen, LeBronnec and H. Tauraa.

**Piletocera signiferalis** Wallengren.

Uapou: Hapava, altitude 600 feet, December 13, 1929, bunchgrass, 1 specimen, Whitten; Koputukea, Hakahetau Valley, altitude 1250 feet; Teoatea, Hakahetau Valley, altitude 1950 feet, November 20, 1931, at light, 1 specimen; Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 4 specimens; LeBronnec.

Tahuata: Kiinui Valley, altitude 1200 feet, June 14, 1930, at light, 1 specimen, LeBronnec and H. Tauraa.

Fatuhiva: Omoa [Oomoa] Valley, sea level, 1 specimen; Vaikooa, altitude 1600 feet, August 21, 1930, at light, 1 specimen; LeBronnec and H. Tauraa.

Mohotani: altitude 1500 feet, February 1, 1931, at light, 1 specimen, LeBronnec and H. Tauraa.

Uahuka: Hane Valley, altitude 150 feet, March 9, 1931, at light, 1 specimen; Vaipae, altitude 250 feet, March 17, 1931, at light, 2 specimens; LeBronnec and H. Tauraa.

Eiao: altitude 1600 feet, April 23, 24, 1931, at light, 3 specimens, LeBronnec and H. Tauraa.

**Hymenia fascialis** Cramer.

Tahuata: Hanahevane, seashore, July 15, 1930, 8 specimens, LeBronnec and H. Tauraa.

Uahuka: Vaipae Valley, altitude 250 feet, March 17, 1931, 2 specimens; Hitikau Crest, altitude 2950 feet, March 3, 1931, 1 specimen, LeBronnec and H. Tauraa.

Eiao: altitude 1600 feet, April 24, 1931, 1 specimen, LeBronnec and H. Tauraa.

**Marasmia trapezalis** Guenée.

Nukuhiva: Tapuaooa, altitude 3100 feet, November 11, 1929, 1 specimen, Mumford and Adamson; Tapuaooa, altitude 2500 feet, May 30, 1931, 2 specimens; LeBronnec and H. Tauraa.

Uapou: Teavanui Pass, altitude 2900 feet, November 28, 1931, 1 specimen, LeBronnec.

Hivaoa: Avaooa Valley, altitude 1350 feet, January 4, 1932, 1 specimen, at light, LeBronnec.

Genus **CHRYSOPHYLLIS**, new genus

Face very oblique, with projecting hairscales on apical edge; tongue well-developed. Antennae 5/6, in male with long fine ciliations except near apex.

Labial palpi long, straight, porrect, loosely scaled, beneath with long dense rough projecting hairs throughout, terminal joint concealed. Maxillary palpi moderate, triangularly expanded with dense scales. Hind tibiae with outer spurs  $1/3$  of inner, basal joint of tarsi rough-scaled above. Forewings with costal area contracted and deflexed on basal half, beyond middle costal area suddenly expanded but contorted and somewhat rolled over downwards to  $4/5$ ; 2 from  $3/4$ , 3-5 approximated at base, 7 nearly straight, 8 and 9 stalked, 10 nearly approximated. Hindwings without cubital pecten, but area beneath cell clothed with hairs; 2 from  $2/3$ , 3-5 nearly approximated at base, 7 out of 6 near origin, anastomosing with 8 to  $1/3$ . Probably related to *Margaronia*.

**Chrysophyllis lucivaga**, new species.

Expanse, 33 mm. Head whitish, face grayish-ochreous. Palpi gray, base white beneath. Antennal ciliation three. Thorax whitish, shoulders brown. Abdomen whitish. Forewings very narrow anteriorly, appearing suddenly dilated beyond middle, costa bent at  $4/5$ , termen obliquely rounded; light gray, appearing violet-subhyaline in places but probably through accidental denudation, costal half suffused yellow-ochreous; a dark purple-fuscous streak along costa from base to near middle, thence obliquely across wing to lower margin of cell, and a similar median streak from base to near middle, space between these ochreous-orange; a transverse blue-purple blotch edged metallic golden-bronze on end of cell; rolled costal margin between middle and  $4/5$  clothed with raised pale lilac-gray scales; beyond cell an oblique blue-subhyaline fasciate patch narrowed downwards, finely gray-edged on sides; midway between this and termen a thinly scaled, pale, iridescent purplish straight streak nearly parallel to termen from near costa to dorsum, edged golden-metallic lines appearing dark fuscous in certain lights, and near beyond this a dark fuscous parallel line not reaching so far towards costa; terminal edge dark fuscous; cilia shining whitish. Hindwings subhyaline pale gray with violet-blue reflections; a straight, transverse, rather narrow, gray-yellowish fascia at  $2/3$ , finely edged blackish anteriorly and submetallic-gray posteriorly, and a broader, similar terminal fascia narrowed downwards and meeting it at tornus, edged submetallic-gray anteriorly and blackish on termen, enclosing a small black spot at its lower end; cilia submetallic-white.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 1 male, LeBronnec.

The specimen is partly rubbed and the description will require some emendation, but the species is unmistakable, and a very curious form. I believe the distortion to be natural and normal.

**Phacellura indica** Saunders.

Nukuhiva: Taiohae, sea level, August 4, 1931, at light, 1 specimen, LeBronnec and H. Tauraa.

**Margaronia euthalassa**, new species.

Expanse, 50-54 mm. Head green-whitish, lower angles of face ferruginous. Labial palpi ferruginous, lower half white. Maxillary palpi ferruginous. Thorax pale sea-green, shoulders ferruginous. Abdomen pale sea-green, apex in female pale ochreous, anal tuft of male blackish. Legs pale sea-green, hind tarsi green-whitish. Forewings elongate-

triangular, costa posteriorly moderately arched, apex obtuse, termen oblique, slightly bowed; pale sea-green; a moderate ferruginous costal streak, attenuated and suffused towards base; no discal spot or terminal dots; cilia pale greenish. Hindwings color and cilia as in forewings.

Hivaoa: Tenatinaei, Feani Ridge, altitude 3970 feet, January 14, 1932, at light, 11 specimens, LeBronnec.

Closest to *M. nereis* Meyrick, but at once distinguished by absence of black discal spot and terminal dots.

**Margaronia phormingopa**, new species.

Expanse, 31-34 mm. Head white, a gray median mark on face. Palpi white, second joint with two blackish bars. Thorax white, irregularly striped dark gray. Abdomen whitish, striped blackish-gray, anal tuft of male blackish with whitish median pencil. Forewings elongate-triangular, costa gently arched towards apex, termen obliquely rounded; violet-whitish tinged, pale yellowish near costa; markings taking the form of five pale ochreous-yellowish fasciae edged by strong dark-gray lines, first sub-basal, oblique, second near and parallel to this (representing first line), its dorsal end connected with the third, third and fourth representing the second line, of which the lower portion forms a completed circular loop rising to middle of disc and there connected by a transverse blotch with costa, a dark mark within this blotch and another within the circular loop, the small pale yellowish, dark-edged orbicular spot within the space preceding this, fifth fascia broader, terminal, its anterior edge waved, within it a series of dark-gray arrowheads between veins; cilia whitish, base within a grayish line pale yellowish. Hindwings violet-whitish; markings pale ochreous-yellowish edged by thick dark-gray lines, viz., a triangular discal blotch at  $1/3$  connected by a line with costa, a straight post-median fascia not quite reaching tornus but connected by two gray lines near dorsum with base, and a broad terminal fascia narrowed to tornus with thick dark gray central line as well as marginal; cilia as in forewings.

Hivaoa: Tenatinaei, Feani Ridge, altitude 3970 feet, January 13-14, 1932, at light, 10 specimens, LeBronnec.

Nearest the Hawaiian *M. cyanomichla* Meyrick, and therefore probably indicating the origin of that species.

**Maruca testulalis** Hübner.

Hivaoa: Tahauku, near shore, October 7, 1929, at light, 1 specimen, Mumford and Adamson; Avaao Valley, altitude 1350 feet, at light, 7 specimens; Kaava Ridge, altitude 2460 feet, January 5, 6, 1932, at light, 61 specimens; Tenatinaei, Feani Ridge, altitude 3970 feet, January 14, 1932, at light, 11 specimens; LeBronnec.

Tahuata: Hanateio Valley, altitude 1000 feet, at light, 1 specimen, LeBronnec; Vaitahu Valley, seashore, May 21, June 17, 1930, at light, 4 specimens, LeBronnec and H. Tauraa.

Fatuhiva: Tahuna, altitude 2050 feet, September 3, 1930, at light, 2 specimens; Ihiota, Hanavave Valley, altitude 450 feet, September 10, 1930, at light, 5 specimens; LeBronnec and H. Tauraa.

**Pachyzancla stultalis** Walker.

Hivaoa: Avaao Valley, altitude 1350 feet, January 4, 1932, at light, 1 small female, LeBronnec.

**Oeobia cleoropa**, new species.

Expanse, 35 mm. Head, palpi, thorax rather dark fuscous. Forewings elongate-triangular, costa posteriorly gently arched, termen bowed, rather oblique; rather dark fuscous, paler towards base; whitish-ochreous dots on base of costa and dorsum, and near base in middle; a rounded dark fuscous spot on end of cell, and one near before this, separated or partially edged by irregular marking of gray-white suffusion; second line about  $\frac{3}{4}$ , ochreous-white, interruptedly waved or dotted, more distinct towards costa, median third forming a moderate loop posteriorly, accompanied throughout by obscure spots of darker suffusion; an obscure subterminal series of indistinct ochreous-whitish dots; a terminal series of well-marked ochreous-whitish dots; cilia fuscous. Hindwings as forewings, but only a single smaller discal spot.

Hivaoa: Avaao Valley, altitude 1350 feet, January 4, 1931, 1 female; Kaava Ridge, altitude 2460 feet, January 6, 1932; at light, 1 female; LeBronnec.

**Oeobia phthorosticta** Meyrick.

Hivaoa: Tenatinaei, Feani Ridge, altitude 3970 feet, January 14, 1932, at light, 1 specimen, LeBronnec.

Described as a *Pyrausta*.

Genus **MESTOLOBES** Butler

I have recognized that *Idioblasta* Warren is certainly identical with this considerable Hawaiian genus.

**Mestolobes acleropa**, new species.

Expanse, 14 mm. Head, palpi, thorax brownish-ochreous, base of palpi whitish. Forewings somewhat elongate-triangular, costa hardly arched, termen somewhat obliquely rounded; pale yellow-ochreous, irregularly speckled brownish-ochreous, especially towards base; a small brownish spot on end of cell; second line faintly brownish, hardly traceable, from costa at  $\frac{2}{3}$  to dorsum at  $\frac{3}{4}$ , rather excurved; a preterminal series of small brownish spots; cilia pale ochreous-yellowish, slightly sprinkled brownish. Hindwings ochreous-whitish; a narrow terminal fascia of pale ochreous suffusion on upper  $\frac{2}{3}$  of termen; cilia ochreous-whitish.

Eiao: above Vaituha, altitude 1200 feet, October 3, 1929, at light, 1 male, Adamson.

**Mestolobes isoterma**, new species.

Expanse, 15-16 mm. Forewings formed as in *M. acleropa*; almost wholly denuded, but apparently very pale ochreous sprinkled gray, origin of first line indicated by a slight grayish costal spot, second line whitish, from  $\frac{3}{4}$  of costa to  $\frac{4}{5}$  of dorsum, rather excurved, preceded by a grayish spot on costa, and followed by a terminal fascia of gray suffusion containing a series of small darker gray praeterterminal spots. Hindwings ochreous-yellow; a moderate dark fuscous marginal fascia round termen and dorsum throughout, broader at apex.



Fatuuku: altitude 860 feet, November 19, 1930, 13 specimens, H. Tauraa.

All these have the forewings extraordinarily denuded, probably not naturally but through being shaken up together. The species is recognizable by the hindwings.

**Mestolobes procellaris**, new species.

Expanse, 20 mm. Head, palpi, thorax pale yellowish, terminal joint of palpi gray. Forewings formed nearly as in *M. acleropa*; yellow-whitish, slightly sprinkled ochreous-yellow, a gray dot on costa at 2/3; an undefined terminal fascia of ochreous-yellow suffusion. Hindwings pale yellowish, suffusedly irrorated dark gray, dorsal area wholly gray; a broad blackish-gray terminal fascia occupying 2/5 of wing, a yellow-whitish streak along fold intersecting this; cilia yellow-whitish.

Fatuhiva: Vaikoao, Omoa [Oomoa] Valley, altitude 1500 feet, August 30, 1930, 1 female, LeBronnec and H. Tauraa.

The forewings in this insect are also partially rubbed, but apparently the absence of lines is natural; the species is easily known by the hindwings.

**Mestolobes lacteata** Warren.

Uapou: Hakahetau Valley, altitude 1500 feet, December 26, 1929, 15 specimens, Whitten.

In the hindwings 3 and 4 are usually stalked, sometimes only approximated; in one example the lines of forewings are almost obsolete.

**Scoparia citrocosma** Meyrick.

Uapou: Tekohepu Summit, altitude 3200 feet, November 28, 1931, at light, 11 specimens; Teavanui, altitude 2900 feet, November 28, 1931, at light, 4 specimens; LeBronnec.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 2 specimens; Tenatinaei, Feani Ridge, altitude 3970 feet, January 14, 1932, at light, 6 specimens; Temetiu Summit, altitude 3900 feet, January 20, 1932, at light, 2 specimens; LeBronnec.

**Scoparia chrysomicta** Meyrick.

Hivaoa: Mount Temetiu, slope north of summit, altitude 3860 feet, December 29, 1930, at light, 1 specimen, LeBronnec and H. Tauraa; Kaava Ridge, altitude 2460 feet, January 5, 6, 1932, at light, 17 specimens; Tenatinaei, Feani Ridge; altitude 3970 feet, January 14, 1932, at light, 7 specimens; Temetiu summit, January 20, 1932, at light, 5 specimens; LeBronnec.

Uapou: Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 1 specimen; Tekohepu summit, altitude 3200 feet, November 28, 1931, at light, 2 specimens; LeBronnec.

I am satisfied that *S. commercialis* Meyrick is not specifically distinct from this.

**Scoparia clerica** Meyrick.

Hivaoa: Mount Temetiu, slope north of summit, altitude 3860 feet, December 30, 1930, at light, 2 specimens, LeBronnec and H. Tauraa; Kaava Ridge, altitude 2460 feet, January 5, 6, 1932, at light, 53 specimens; Tenatinaei, Feani Ridge, altitude 3970 feet, January 14, 1932, at light, 1 specimen; LeBronnec.

Uapou: Teoatea, altitude 1950 feet, November 17, 1931, at light, 1 specimen; Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 3 specimens; Tekohepu summit, altitude 3200 feet, November 28, 1931, at light, 1 specimen; LeBronnec.

**Scoparia spectacularis** Meyrick.

Hivaoa: Mount Temetiu, altitude 3860 feet, December 30, 1930, at light, 1 specimen, LeBronnec and H. Tauraa; Kaava Ridge, altitude 2460 feet, January 5, 6, 1932, at light, 80 specimens; Avaoa Valley, altitude 1350 feet, January 4, 1932, 1 specimen; Tenatinaei, Feani Ridge, altitude 3970 feet, January 14, 1932, at light, 1 specimen; Temetiu summit, altitude 3900 feet, January 20, 1932, at light, 2 specimens; LeBronnec.

Uapou: Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 1 specimen, LeBronnec.

**Scoparia officialis** Meyrick.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 1 specimen, LeBronnec.

Uapou: Hakahetau Valley, altitude 1950 feet, November 17, 20, 1931, at light, 2 specimens; Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 1 specimen; LeBronnec.

**Scoparia apostactis** Meyrick.

Uapou: Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 1 specimen; Tekohepu summit, altitude 3200 feet, November 28, 1931, at light, 1 specimen; LeBronnec.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 1 specimen, LeBronnec.

## FAMILY PTEROPHORIDAE

**Marasmarcha pumilio** Zeller.

Fatuhiva: Tapuhiva, Hanavave Valley, altitude 500 feet, September 9, 1930, 1 specimen, LeBronnec and H. Tauraa.

## FAMILY ORNEODIDAE

**Orneodes** species.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 1 specimen, LeBronnec. Much damaged and unfit for determination, but resembles *O. pselioxantha* Meyrick from the Tuamotus.

## FAMILY GALLERIADAE

**Achroia grisella** Fabricius.

Fatuhiva: Oomoa, near sea level, September 20, 1930, 4 specimens, LeBronnec and H. Tauraa.

## FAMILY TORTRICIDAE

**Dichelopa argosphena**, new species.

Expanse, 14 mm. Head, palpi, thorax purplish-gray, face tinged whitish. Antennae fasciculate-ciliated ( $2\frac{1}{2}$ ). Abdomen dark gray, anal tuft ochreous-yellow. Forewings moderately broad, rather dilated, costa anteriorly moderately, posteriorly gently arched, apex somewhat prominent, termen hardly perceptibly sinuate beneath it, then somewhat obliquely rounded; dark gray irregularly mixed light reddish, some irregular small white marks on costa and dorsum; a small whitish spot in disc towards base; markings hardly darker, edged with blackish-gray striae; basal patch occupying  $\frac{1}{3}$  of wing, edge oblique, angulated below middle; central fascia broad, oblique, followed on costa by a wedge-shaped white blotch reaching half across wing, dorsal third ill-defined, preceded and followed by some whitish strigulation; a terminal series of small white marks; cilia gray. Hindwings 3 and 4 short-stalked; rather dark gray; cilia gray.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 5, 1932, at light, 1 male, LeBronnec.

**Dichelopa praestrigata** Meyrick.

Uapou: Teavanui Pass, altitude 2900 feet, November 28, 1931, 1 specimen, LeBronnec.

**Dichelopa pyrsogramma**, new species.

Expanse, 8 mm. Head, thorax pale ochreous-bronzy, collar tinged reddish. Palpi pale brownish-ochreous mixed fuscous. Abdomen short-pointed. Forewings rather elongate-oblong, costa anteriorly gently arched, posteriorly straight, termen rather obliquely rounded; shining pale bronzy; markings not darker, but defined by slender crimson-orange streaks edged externally with scattered dark fuscous scales; basal patch occupying  $\frac{1}{4}$  of wing, edge straight, somewhat oblique; central fascia broad, rather oblique, anterior edge straight, posterior rather irregularly sinuate; a terminal band, broad on costa, narrowed to a point at tornus. Hindwings 3 and 4 connate; rather light bronzy-gray; cilia light gray.

Nukuhiva: Ooumu summit, altitude 3890 feet, on *Cyrtandra* species, July 20, 1931, 1 female, LeBronnec and H. Tauraa.

**Dichelopa orthiostyla**, new species.

Expanse, 16-19 mm. Head light brownish. Antennae whitish. Palpi dark gray. Thorax dark lilac-brownish. Apex of abdomen shortly attenuated, ovipositor short, slender, projecting. Forewings somewhat elongate-oblong, costa anteriorly moderately,

posteriorly slightly arched, termen rounded, little oblique; brown, somewhat sprinkled or strigulated gray; markings darker, edged by thick irregular dark brown striae; basal patch occupying  $\frac{1}{4}$  of wing, edge rather oblique, nearly straight; central fascia broad, rather oblique; three or four small spots on costa posteriorly, and a strong dark erect transverse stria from tornus; cilia brownish. Hindwings 3 and 4 connate; gray; cilia gray.

Hivaoa: Mount Temetiu, slope north of summit, altitude 3860 feet, December 30, 1930, at light, 9 females, LeBronnec and H. Tauraa.

None of these is in good condition, but the species is distinct.

***Dichelopa porphyrophanes*, new species.**

Expanse, 17 mm. Head, thorax light purplish-gray. Palpi dark gray. Apical  $\frac{2}{5}$  of abdomen abruptly attenuated, with slender projecting ovipositor. Forewings suboblong, costa anteriorly moderately arched, posteriorly nearly straight, termen somewhat obliquely rounded; light purplish-gray; markings hardly darker, edged by brown striae with a few blackish specks; basal patch occupying somewhat more than  $\frac{1}{4}$ , edge straight, oblique; central fascia moderate, evenly broad throughout, straight, strongly oblique; costal patch confluent with terminal band, including one or two series of irregular strigulae; cilia purplish-gray. Hindwings 3 and 4 connate; light gray, some obscure darker strigulae; cilia whitish-gray, a gray sub-basal line.

Uapou: Teoatea, Hakahetau Valley, altitude 1950 feet, November 20, 1931, at light, 1 female, LeBronnec.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 1 female, LeBronnec.

***Dichelopa phalaranthes*, new species.**

Expanse, 14-16 mm. Head, palpi, thorax whitish-yellow or yellow-whitish. Apical half of abdomen slenderly attenuated and acuminate, with linear projecting ovipositor. Forewings suboblong, costa anteriorly moderately arched, posteriorly straight, termen somewhat obliquely rounded; ochreous-whitish somewhat strigulated ferruginous; markings pale submetallic purplish, somewhat strigulated ferruginous, and edged by dark ferruginous striae; basal patch occupying about  $\frac{1}{3}$  of wing, edge angulated on fold; central fascia evenly broad, oblique, connected by broad bar above middle with a dark patch occupying apical fourth; cilia pale ochreous, on costa brown, on tornus light grayish. Hindwings 3 and 4 connate; gray, suffused darker toward apex; cilia light gray.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 1 female; Feani Ridge, altitude 3970 feet, January 13, 1932, at light, 2 females; LeBronnec. Two specimens much defaced.

***Dichelopa cirrhodoris*, new species.**

Expanse, 17-18 mm. Head pale yellow-brownish, face browner. Palpi brownish. Thorax pale yellowish, shoulders or sometimes wholly suffused brownish. Apex of abdomen rather obliquely truncate. Forewings elongate-oblong, costa anteriorly moderately arched, posteriorly straight, termen somewhat obliquely rounded; pale yellowish, tinged or suffusedly strigulated ferruginous, but usually clearer yellow on costal half before and beyond central fascia; markings purplish-ferruginous edged dark ferruginous; basal patch occupying about  $\frac{1}{4}$  of wing, edge oblique, irregular, rather prominent in middle; central fascia broad, oblique, considerably dilated on dorsal half; costal patch triangular, confluent with a broad terminal fascia; cilia ferruginous-brown, on termen pale yellowish except base, on tornus suffused light gray. Hindwings 3 and 4 connate;

light gray or whitish-gray, termen grayer-suffused; cilia gray-whitish, a gray sub-basal shade.

Hivaoa: Avaova Valley, altitude 1350 feet, January 4, 1932, at light, 1 female; Kaava Ridge, altitude 2460 feet, January 5, 6, 1932, at light, 10 females; LeBronnec.

**Dichelopa castanopis**, new species.

Expanse, 16-30 mm. (the largest and smallest examples are females). Head chestnut-brown. Palpi rather dark fuscous, base whitish. Antennae of male fasciculate-ciliated (nearly 4). Thorax dark lilac-brownish. Apex of abdomen of female rather obliquely truncate. Forewings suboblong, costa anteriorly moderately arched, posteriorly nearly straight, termen somewhat obliquely rounded; rather light chestnut-fuscous, somewhat darker-strigulated; markings darker, edged by dark chestnut-brown striae; costa marked with short dark fuscous strigulae; basal patch occupying nearly 1/3 of wing, edge oblique, slightly prominent in middle or subconvex; central fascia broad throughout, oblique, becoming obsolescent dorsally, posterior edge angulated in middle, space before and beyond this in male more or less tinged or mixed whitish towards costa; costal patch triangular, well-defined anteriorly, suffused posteriorly, one or two indistinct interrupted striae from this towards termen; cilia fuscous. Hindwings 3 and 4 connate; rather dark gray, indistinctly mottled darker; cilia gray.

Uapou: Teoatea, Hakahetau Valley, altitude 2000 feet, November 19, 1931, 1 specimen, beating on *Metrosideros collina*; Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 6 specimens; Tekohepu summit, altitude 3200 feet, November 28, 1931, at light, 10 specimens, 1 specimen, beating on *Metrosideros collina*; LeBronnec.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 5, 6, 1932, at light, 3 specimens; Tenatinaei, Feani Ridge, altitude 3970 feet, January 13, 1932, at light, 20 specimens; LeBronnec.

**Dichelopa harmodes** Meyrick.

Uapou: Teoatea, Hakahetau Valley, altitude 1950 feet, November 19, 1931, at light, 4 specimens; Tekohepu summit, altitude 3200 feet, November 28, 1931, at light, 7 specimens; Teavanui, Paaumea Valley, altitude 2900 feet, November 30, 1931, 3 specimens, beating on *Metrosideros collina*; LeBronnec.

Hivaoa: Kaava Valley, altitude 2460 feet, January 6, 1932, at light, 2 specimens, LeBronnec.

Nukuhiva: Tapuaooa Hill, altitude 3500 feet, July 20, 1931, 1 specimen, on *Metrosideros collina*, LeBronnec and H. Tauraa.

FAMILY EUCOSMIDAE

**Acroclita eocnephaea**, new species.

Expanse, 11-13 mm. Head light gray, small pinky-whitish spots at base of antennae. Palpi 3, rosy ochreous mixed dark gray. Thorax grayish. Abdomen dark gray. Forewings elongate, somewhat dilated, costa gently arched, apex obtuse-pointed, termen slightly sinuate, somewhat oblique; dark gray, obscurely tinged rose-pink, especially towards costa and terminal area, tips of scales gray-whitish, forming a fine transverse

striolation; costa obliquely strigulated whitish and blackish-gray; posterior edge of central fascia indicated by irregular blackish-gray suffusion, oblique, slightly convex; a suffused blue-leaden preterminal striga, angulated near costa. Hindwings gray; cilia light gray.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 6 specimens, LeBronnec.

**Crociosema plebeiana** Zeller.

Eiao: above Vaituha, altitude 1200 feet, October 3, 1929, 15 specimens, Adamson.

Tahuata: Vaitahu, seashore, June 17, 1930, 8 specimens; Hanahevane, seashore, July 15, 1930, 79 specimens; LeBronnec and H. Tauraa.

Fatuhiva: Omoa [Oomoa] Valley, near seashore, August 18, 1930, 2 specimens, LeBronnec and H. Tauraa.

**Eucosma chaomorpha** Meyrick.

Eiao: above Vaituha, altitude 800-1200 feet, October 3, 1929, 2 specimens, Adamson.

**Argyroploce eumenica** Meyrick.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 5, 6, 1932, 8 specimens, at light, LeBronnec.

These are all females, and the unique type was a male, but I am satisfied of their specific identity; there is no white blotch on the costa before central fascia, probably a normal sexual distinction.

FAMILY GELECHIADAE

**Stoerberhinus testacea** Butler.

Hivaoa: Atuona, May 15, 1929, 2 specimens, Mumford and Adamson; Avaoa Valley, altitude 1350 feet, January 4, 1932, 5 specimens, LeBronnec.

Tahuata: Vaitahu Valley, seashore, June 17, 1930, 13 specimens; Hanahevane, seashore, July 15, 1930, 5 specimens; LeBronnec and H. Tauraa.

Fatuhiva: Omoa [Oomoa] Valley, sea level, August 18, 1930, 6 specimens, LeBronnec and H. Tauraa.

Uahuka: Penau Ridge, March 4, 1931, 1 specimen; Hane Valley, March 8, 1931, 43 specimens; Vaipae Valley, altitude 150 feet, March 19, 1931, 1 specimen; LeBronnec and H. Tauraa.

FAMILY COSMOPTERYGIDAE

**Cosmopteryx**, species indeterminable.

Might be the nearly cosmopolitan *C. flavofasciata* Wollaston.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 1 specimen, LeBronnec.

**Labdia ceriocosma**, new species.

Expanse, 11 mm. Head dark bronzy, palpi broken. Antennae white lined black, becoming ringed on apical half. Thorax dark bronzy, four fine white lines. Abdomen dark fuscous, apex whitish. Forewings lanceolate, apex acute-produced; dark bronzy; a short white streak along base of dorsum; a very fine iridescent blue-whitish line from base beneath costa to  $1/5$ , then bent obliquely down and again continued longitudinally suprmedian to  $2/5$ , a second line straight median from near base to  $1/3$ , and a third beneath fold from  $1/5$  to  $2/5$ ; posterior half of wing pale ochreous-yellow, limited anteriorly by a somewhat obliquely curved iridescent golden-whitish streak, its costal edge marked from near beyond middle to near apical projection with a fine sinuate whitish streak crossed by about 12 fine direct black strigulae, and having on tornus a small pale iridescent golden spot preceded by a small wedge-shaped whitish mark crossed by four similar black strigulae; apical projection dark fuscous, with a fine white line extended to tip of dark gray cilia. Hindwings dark fuscous; cilia gray.

Fatuhiva: Omoa [Oomoa] Valley, near sea level, August 18, 1930, at light, 1 female, LeBronnec.

This interesting and very distinct species, allied to the Australian *L. deliciosella*, will not improbably prove to have been introduced, but is not known elsewhere at present.

**Labdia dicyanitis**, new species.

Expanse, 9 mm. Head, thorax leaden-metallic, face shining ochreous-whitish. Palpi white, anterior edge of terminal joint dark gray. Abdomen leaden-gray, dorsally ochreous-gray on basal half. Forewings very narrow, apex produced, acute; ochreous-yellow; a broad leaden-gray dorsal streak from base to first fascia, rather broad transverse antemedian and postmedian silvery-blue fasciae thickly edged blackish suffusion, connected by white costal edge extending to a small white spot preceding a blackish apical blotch; cilia dark gray, a white apical bar. Hindwings and cilia rather dark gray.

Uapou: Hakahetau, altitude 1000 feet, December 14, 1929, 1 female, reared from dead wood, Whitten.

Uahuka: Hane Valley, altitude 30 feet, March 13, 1931, 1 female at light, LeBronnec and H. Tauraa.

Hivaoa: Avaoa Valley, altitude 1350 feet, January 4, 1932, 1 female, at light, LeBronnec.

**Labdia leucoxantha** Meyrick.

Uapou: Teavanui Pass, altitude 2900 feet, November 28, 1931, 1 specimen, LeBronnec.

Hivaoa: Avaoa Valley, altitude 1350 feet, January 4, 1932, 6 specimens, at light, LeBronnec.

Also occurs in Samoa and Ellice Islands.

**Pyroderces lunulifera**, new species.

Expanse, 9-10 mm. Head, thorax gray-whitish, faintly pinkish-tinged. Palpi gray-whitish, terminal joint suffused dark gray anteriorly, sometimes tinged pinkish. Forewings very narrow, acute-pointed; grayish-flesh-colored, basal fourth slightly darker, limited by a slender, somewhat oblique white fascia edged with some black scales anter-

iorly, suffused posteriorly, expanded on costa and containing a black subcostal dot; a narrow irregular suffused direct white fascia beyond middle, preceded by an irregular black transverse mark below middle, not reaching dorsum, and sometimes a blackish dot above middle; costa posteriorly grayish; a suffused white spot on lower part of termen, preceded by a blackish-gray spot; a lunulate blackish mark across apex edged white suffused anteriorly; cilia light grayish, mixed white on costa. Hindwings gray, in male without expansible hairpencil; cilia light gray.

Hivaoa: Tapeata, Mount Ootua, east slope, altitude 2500 feet, May 25, 1929, at light, 1 specimen, Mumford and Adamson.

Eiao: Vaituha, sea level, October 2, 1929, at light, 2 specimens, Adamson.

Tahuata: Amatea, altitude 2000 feet, July 1, 1930, at light, 4 specimens, LeBronnec and H. Tauraa.

Fatuhiva: Vaikoao, altitude 1600 feet, August 21-27, 1930, at light, 34 specimens, LeBronnec and H. Tauraa.

Uapou: Tekohepu summit, altitude 3200 feet, November 28, 1931, at light, 1 specimen, LeBronnec.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, at light, 1 specimen, LeBronnec.

Allied to *P. anaclastis* and *P. incertulella*.

**Trissodoris honorariella** Walsingham.

Fatuhiva: Vaikoao, altitude 1600 feet, August 21, 1930, 1 specimen at light; Teavaipuhiau, altitude 2150 feet, August 21, 1930, 1 specimen; LeBronnec and H. Tauraa.

Hivaoa: Kaava Ridge, altitude 2800 feet, January 8, 1932, beating on *Hibiscus tiliaceus* and from leaves of *Pandanus* species, 5 specimens, LeBronnec.

**Stigmatophora spintheropa**, new species.

Expanse, 10 mm. Head, palpi, thorax, abdomen blackish. Forewings elongate-lanceolate; blackish; a narrow rather oblique snow-white fascia at  $1/5$  from costa to fold; a pale blue-metallic dot on costa in middle, one somewhat before it on fold, one somewhat beyond it in disc, and one on tornus; a small snow-white spot on costa at  $3/4$ ; a round snow-white apical dot, and smaller linear one on termen near it; cilia blackish-fuscous, opposite apex light fuscous on outer half. Hindwings and cilia dark gray.

Uapou: Tekohepu summit, altitude 3000 feet, November 30, 1931, beating *Freycinetia*, 1 female, LeBronnec.

Allied to the several species of the Indo-Malayan *faceta* group, but distinct.

**Limnoecia astathopis**, new species.

Expanse, 8 mm. Head ochreous-whitish. Palpi whitish, anterior edge of terminal joint blackish. Thorax whitish, tegulae dark gray. Forewings blackish-gray; rather narrow, somewhat irregular transverse silvery-white fasciae at  $1/4$ , middle, and  $3/4$ , second and third slightly approximated dorsally; a white apical dot; cilia gray, round apex blackish-gray at base. Hindwings and cilia gray; frenulum of three discrete parallel bristles.



Hivaoa: Mount Temetiu, slope north of summit, altitude 3860 feet, December 29, 1930, at light, 1 female, LeBronnec and H. Tauraa.

Resembles Australian types.

**Asymphorodes (?) admiranda**, new species.

Expanse, 8 mm. Head whitish-yellowish, face whitish. Palpi white (terminal joint missing). Antennae whitish-yellowish. Thorax yellow-ochreous. Forewings yellow-ochreous, deeper towards apex; very oblique white wedge-shaped strigae from costa before and beyond middle, second edged fuscous anteriorly; two short curved blackish streaks from dorsum towards base; a finely pointed, curved oblique black streak from dorsum beyond middle reaching half across wing and meeting apex of second costal streak; a black apical longitudinal mark, white marginal spots above and below this; cilia ochreous-whitish, base suffused gray above apex and mixed dark fuscous beneath it, dark fuscous median and apical lines on costa. Hindwings dark gray; cilia yellow-whitish.

Uapou: Vaihakaatiki, Hakahetau Valley, altitude 3000 feet, November 18, 1931, 1 female, LeBronnec.

The superficial characters are strikingly peculiar, suggesting an erechthiad (which it is not); the (apparently) missing terminal joint of each palpus raises doubts and the condition of the unique specimen precludes correct ascertainment of the neuration, but I cannot place it otherwise.

**Asymphorodes coesyrias** Meyrick.

Tahuata: Vaitahu, seashore, June 17, 1930, 1 specimen; Hanahevane, altitude 45 feet, July, 1930, 2 specimens; LeBronnec and H. Tauraa.

Hivaoa: Avaova Valley, altitude 1350 feet, January 4, 1932, 1 specimen, at light, LeBronnec.

Anterior half of thorax and a spot on base of dorsum sometimes also brown.

**Asymphorodes oculisignis**, new species.

Expanse, 11-12 mm. Head, palpi, antennae, thorax glossy ochreous-whitish, shoulders and inner side of tegulae sometimes grayish. Forewings glossy ochreous-whitish; markings variable, dark fuscous-gray, faintly purplish; sometimes a slender irregular streak across base, extended along costa and dorsum to first fascia; four irregular fasciae, first about 1/5, curved, oblique, slender or interrupted, second antemedian, rather oblique, broader, variably interrupted, in one specimen a discal dot between second and third, third postmedian, broadly expanded in disc, where it encloses a round ochreous-whitish spot centered with a round dark fuscous spot, fourth terminal, irregular, connected with third by a bar in disc; cilia gray becoming whitish towards tips, on costa dark fuscous on markings, ochreous whitish between these. Hindwings gray; cilia light gray.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 5, 1932, at light, 1 male, Temetiu summit, altitude 3900 feet, January 20, 1932, at light, 1 male, LeBronnec.

**Asymphorodes circopis** Meyrick.

Hatutu [Hatutaa]: middle of east side, altitude 1010 feet, 1 specimen on *Pisonia* species, September 3, 1929, Adamson.

Eiao: above Vaituha, altitude 1200 feet, October 3, 1929, 38 specimens, Adamson.

Tahuata: Vaitahu, sea level, June 18, 1930, 1 specimen, LeBronnec and H. Tauraa.

Uahuka: Hane Valley, altitude 150 feet, March 15, 1931, 1 specimen, LeBronnec and H. Tauraa.

Uapou: Tekohepu summit, altitude 3300 feet, November 27, 1931, beating *Weinmannia* species, 1 specimen, LeBronnec.

**Asymphorodes phaeochorda** Meyrick.

Eiao: Vaituha, sea level to 1200 feet, October 2, 3, 1929, 59 specimens, Adamson.

Hatutu: middle of east side, altitude 1010 feet, September 30, 1929, on *Pisonia* species, 2 specimens, Adamson.

Tahuata: Vaitahu Valley, seashore, July 13, 1930, 3 specimens; Hanehevane, altitude 45 feet, July, 1930, 7 specimens; LeBronnec and H. Tauraa.

Fatuhiva: Omoa [Omoa] Valley, sea level, August 18, 1930, 1 specimen, LeBronnec and H. Tauraa.

Uahuka: Hane Valley, altitude 150 feet, March 15, 1931, 15 specimens; Vaipae Valley, altitude 250 feet, March 17, 1931, 1 specimen; LeBronnec and H. Tauraa.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 5, 1932, at light, 1 specimen, LeBronnec.

**Asymphorodes ingravescens**, new species.

Expanse, 13-14 mm. Head, palpi, thorax whitish, shoulders dark fuscous. Abdomen gray, anal tuft of male yellowish. Forewings glossy white, slightly iridescent; markings dark fuscous, variable in development; in the simplest form a short costal streak from base, and narrow fasciae at 1/3 and 2/3, others have an apical patch and the fasciae broader, in the darkest forms these are united by two thick longitudinal streaks, or almost the whole wing infuscated except median area; cilia ochreous-whitish or gray-whitish, in the darkest specimens basal half suffused dark fuscous. Hindwings and cilia gray, in male a thickened dark gray longitudinal streak above middle from base to 3/5; in male an expansible hairpencil of very fine light grayish hairs from base of costa.

Hivaoa: Mount Temetiu summit, altitude 3860 feet, January 20, 1932, at light, 10 specimens, LeBronnec.

Allied to *A. phaeochorda*.

**Asymphorodes xanthostola**, new species.

Expanse, 11-13 mm. Head, palpi, thorax ochreous-yellow, seldom some fuscous irroration on shoulder. Antennae whitish-yellow. Forewings ochreous-yellow; markings lilac-gray; seldom a small spot on costa near base; sometimes a straight, narrow, slightly inwards-oblique fascia at 1/3, another more or less expanded in disc beyond 2/3, and one somewhat broader along termen, confluent on tornus, but all these markings often greatly reduced or entirely obsolete or absent; cilia light yellowish. Hindwings light gray; in male a thickened dark gray suprmedian streak from base to middle; cilia pale grayish.

Hivaoa: Mount Temetiu, slope north of summit, altitude 3860 feet, December 30, 1930, at light, 81 specimens, LeBronnec and H. Tauraa; Aavao Valley, altitude 1350 feet, January 4, 1932, at light, 4 specimens; Kaava Ridge, altitude 2460 feet, January 5, 1932, at light, 1 specimen; LeBronnec.

Uapou: Teoatea, Hakahetau Valley, altitude 2200 feet, November 21, 1931, at light, 2 specimens; Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 1 specimen; Tekohepu summit, altitude 3200 feet, November 28, 1931, beating on *Metrosideros collina*, 2 specimens; LeBronnec.

Allied to *A. valligera*, which has more developed basal markings and dark fuscous tegulae.

***Asymphorodes xestophanes*, new species.**

Expanse, 12 mm. Head, antennae, palpi pale iridescent whitish-ochreous. Thorax pale glossy grayish-colored. Abdomen rather dark gray. Forewings pale glossy submetallic grayish-ochreous, grayer towards apex; cilia light gray. Hindwings gray; cilia light gray.

Hivaoa: Aavao Valley, altitude 1350 feet, January 4, 1932, at light, 1 female, LeBronnec.

***Asymphorodes ergodes*, new species.**

Expanse, 6 mm. Head grayish-ochreous. Palpi blackish, apex of second joint and base of terminal white. Thorax dark gray. Ovipositor of female linear. Forewings dark fuscous, bases of scales gray-whitish, forming a minute striolation; second discal stigma forming a small blackish spot, preceded and followed by pale grayish-ochreous scales; cilia pale grayish-ochreous, in female more whitish, base mixed dark fuscous. Hindwings gray; cilia pale grayish-ochreous; in male an expansible pencil of very fine long hairs from base of costa.

Hivaoa: Aavao Valley, altitude 1350 feet, January 4, 1932, at light, 3 specimens, LeBronnec.

***Asymphorodes acrophrictis*, new species.**

Expanse, 7 mm. Head fuscous, face whitish. Palpi white, anterior edge of terminal joint dark fuscous. Antennae whitish ringed fuscous. Thorax rather dark fuscous, slightly sprinkled whitish. Forewings dark fuscous; small whitish spots on costa beyond middle and at 4/5; second discal stigma in one example dark fuscous ringed whitish; several small whitish marks on costa and termen towards apex, sometimes a fine oblique line across apex; cilia gray. Hindwings and cilia gray.

Uapou: Teoatea, Hakahetau Valley, altitude 1950 feet, November 17, 1931, at light, 1 male; Teavanui Pass, altitude 2900 feet, November 28, 1931, at light, 1 male, LeBronnec.

***Asymphorodes balanotis*, new species.**

Expanse, 7-8 mm. Head, palpi, thorax dark fuscous. Antennae whitish, ringed dark fuscous. Anal tuft of male yellowish. Forewings dark fuscous; small subtriangular white spots on costa about middle and 4/5; sometimes a small white apical dot; cilia gray. Hindwings and cilia pale grayish; in male an iridescent green-blackish swollen streak beneath costa on median third.

Eiao: above Vaituha, altitude 800 feet, October 5, 1929, at light, 1 specimen, Adamson.

Hivaoa: Avaao Valley, altitude 1350 feet, January 4, 1932, at light, 10 specimens, LeBronnec.

**Asymphorodes holoporphyra**, new species.

Expanse, 19-20 mm. Head pale bronzy-ochreous, crown centrally suffused light purple. Palpi pale ochreous, anterior edge of terminal joint dark fuscous. Antennae pale ochreous, barred dark fuscous above. Thorax purple. Forewings deep purple; cilia gray. Hindwings rather light fuscous gray; cilia light grayish-ochreous; in male a pale grayish-ochreous expansible hairpencil from base of dorsum.

Hivaoa: Mount Temetiu, slope north of summit, altitude 3860 feet, December 29-30, 1930, at light, 5 specimens, LeBronnec and H. Tauraa.

Allied to *A. porphyrrarcha*.

FAMILY HELIODINIDAE

Genus **LISOCNEMITIS**, new genus

Head smooth, forehead narrow, face very retreating. Antennae 4/5, in male serrulate, simple, scape moderately long, subovate, rather flattened, with small apical tuft. Labial palpi very long, recurved, slender, smooth, terminal joint rather shorter than second, acute. Maxillary palpi absent. Hind tibiae slender, smooth, tarsal joints with minute apical bristles. Forewings very narrow, apex caudate. Hindwings 1/2, linear-lanceolate, cilia 5. Neuration not determinable.

Apparently allied to *Pachyrhabda*, which it resembles in general characters, as far as ascertainable, but differs in legs.

**Lissocnemitis argolyca**, new species.

Expanse, 6 mm. Head, palpi, antennae, thorax, abdomen, legs silvery-white, face tinged ochreous. Forewings and hindwings silvery-white.

Hivaoa: Atuona Valley, altitude 300 feet, July 6, 1929, 1 male, Mumford and Adamson.

If really related to *Pachyrhabda*, this should be a fern-feeding species.

FAMILY GLYPHIPTERYGIDAE

**Inma catapsesta**, new species.

Expanse, 23-26 mm. Head pale ochreous. Palpi light ochreous-gray, posteriorly pale ochreous, terminal joint half second. Antennae of male dentate, fasciculate-biciliated (3). Thorax light ochreous-gray. Forewings moderate, rather dilated, costa gently arched, termen rounded, little oblique; 7 and 8 stalked, 8 to termen; light gray with faint yellowish tinge; a slightly irregular fuscous line from middle of costa to dorsum before tornus, obscurely pale-edged anteriorly, sometimes faint but with darker marks on costa and in middle; a scalloped dark fuscous terminal line; cilia whitish-gray, base sometimes spotted gray. Hindwings pale grayish, a suffused gray terminal fascia; cilia gray-whitish.

Fatuhiva: Vaikoao, altitude 1000 feet, August 21, 1930, at light, 1 specimen, LeBronnec and H. Tauraa.

Uahuka: Penau Ridge, altitude 2170 feet, March 4, 1931, at light, 1 specimen, LeBronnec and H. Tauraa.

Nukuhiva: Taiohae, sea level, June 4, 1931, 1 specimen, at light, LeBronnec and H. Tauraa.

Uapou: Teoatea, Hakahetau Valley, altitude 1950 feet, November 17, 1931, at light, 1 specimen; Vaikokoo, Paaumea Valley, altitude 1850 feet, November 30, 1931, at light, 1 specimen; LeBronnec.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 5, 6, 1932, at light, 3 specimens, LeBronnec.

Allied to *I. semiclara* Meyrick, but distinct by antennal structure as well as coloring. Probably the exceptional female from Tahuata mentioned under my description of *I. semiclara* was an example of this species. I am moreover of the opinion that the discrimination of the present species from *I. semiclara* shows that the other exceptional female from Hivaoa described in the same passage is likewise a good species, and now propose for it the name *I. ochrilactea*.

***Imma fulminatrix*, new species.**

Expanse, 20-21 mm. Head dark fuscous, collar and sides of face ochreous-whitish. Palpi (broken) dark fuscous, suffused whitish posteriorly. Antennae of male dentate, fasciculate-biciliated (nearly 2). Thorax ochreous-whitish, suffusedly mixed fuscous and dark fuscous. Forewings moderately broad, rather dilated, costa gently arched, termen rounded, little oblique; 7 and 8 stalked, 8 to apex (indefinite); dark fuscous; base narrowly ochreous-whitish, in the female a broad streak of ochreous-whitish suffusion extended from base along submedian fold to middle, sending a short branch from near base to dorsum at  $\frac{1}{4}$ , the main streak confluent with an irregular, strongly dentate streak of ochreous-whitish suffusion from costa before middle to dorsum about  $\frac{2}{3}$ , in the male the wings are so badly denuded that these markings (except basal) are not discernible, but they are probably really less developed; a terminal series of darker markings indicated; cilia rather dark fuscous. Hindwings dark fuscous, rather lighter anteriorly; a whitish-ochreous oval blotch in disc beyond cell, larger in female; cilia ochreous-whitish, a gray basal line.

Hivaoa: Kakahopuanui, altitude 2460 feet, January 5, 1932, at light, 2 specimens, LeBronnec.

Both examples, but especially the male, are in much-damaged condition, but the species is easily recognized.

***Simaethis chelaspis* Meyrick.**

Uapou: Tekohepu summit, altitude 3200 feet, November 28, 1931, 1 specimen, LeBronnec.

Hivaoa: Kaava Ridge, altitude 2460 feet, January 6, 1932, 1 specimen, LeBronnec.

## FAMILY GRACILARIADAE

**Gracilaria deltanthes**, new species.

Expanse, 12-13 mm. Head pale yellowish, crown suffused ferruginous. Palpi pale yellow. Thorax ferruginous. Forewings narrowly elongate-lanceolate, bronzy-purple; markings brassy-yellow, edged dark bronzy-fuscous scales; an oblique-triangular blotch nearly occupying basal fourth, touching base with one angle but otherwise not quite reaching margins anywhere; a large subtriangular patch extending on costa from  $\frac{1}{4}$  to beyond middle, narrow downwards, apex rounded and not quite reaching dorsum; a triangular spot on costa about  $\frac{3}{4}$  reaching half across wing, and a small spot on tornus opposite; cilia bronzy-purplish. Hindwings rather dark gray; cilia gray.

Uapou: Teoatea; Hakahetau Valley, altitude 2200 feet, November 20, 1931, 3 females, LeBronnec.

## FAMILY LYONETIADAE

**Opogona trissostacta**, new species.

Expanse, 11 mm. Head, thorax shining purple-gray, fillet whitish, scales behind fillet slightly rough, face pale silvery-gray. Palpi whitish, anteriorly light gray. Forewings purplish-slaty-gray, with bright purple-blue reflections especially towards base and dorsum; small white spots on costa at  $\frac{2}{5}$  and  $\frac{3}{4}$ , and on dorsum rather beyond first costal, sometimes a narrow white dorsal stripe from base to this; cilia gray. Hindwings and cilia dark gray.

Uahuka: Penau Ridge, March 4, 1931, 1 specimen, LeBronnec and H. Tauraa.

Hivaoa: Avaao Valley, altitude 1350 feet, January 4, 1932, 11 specimens; Kaava Ridge, altitude 2460 feet, January 5, 1932, 1 specimen; LeBronnec.

**Opogona aurisquamosa** Butler.

Eiao: above Vaituha, altitude 1200 feet, October 3, 1929, at light, 2 specimens, Adamson.

Fatuhiva: Tetana, Omoa [Oomoa], altitude 485 feet, August 22, 1930. 2 specimens, LeBronnec and H. Tauraa.

Uahuka: Vaipae Valley, altitude 150 feet, March 19, 1931, 1 specimen, LeBronnec and H. Tauraa.

**Decadarchis coleosema**, new species.

Expanse, 25-32 mm. Head yellow-brown. Palpi hairy anteriorly, brownish, externally suffused dark fuscous. Thorax dark fuscous, with a whitish-ochreous stripe on each side of back anteriorly, tegulae brown. Forewings very elongate, costa gently arched, apex obtuse, termen very obliquely rounded; dark bronzy-fuscous; a rather broad suffused light brownish-ochreous stripe along fold, dorsal area beneath this blackish, the pale streak projecting more or less into the middle of the dark area; a fine irregular pale ochreous terminal line from tornus to near apex; cilia dark brown, base somewhat suffused pale ochreous on terminal line. Hindwings gray; cilia light grayish-ochreous.

Hivaoa: Mount Temetiu, slope north of summit, altitude 3860 feet, December 26-30, 1930, at light, 4 specimens (type female), LeBronnec and H. Tauraa.

**Decadarchis rufimacula**, new species.

Expanse, 26 mm. Head light gray. Thorax brownish, shoulders suffused dark fuscous. Forewings very elongate, costa gently arched, apex obtuse, termen very obliquely rounded; ferruginous-brown, some scattered dark fuscous scales; basal third of costa suffused dark fuscous; a small blackish mark at base of dorsum; stigmata forming small dark brown spots, plical very obliquely beyond first discal, an additional spot obliquely before and beneath first discal, and one towards costa in middle; cilia reddish-gray. Hindwings gray; cilia pale grayish.

Uapou: Teoatea, Hakahetau Valley, altitude 1950 feet, November 17, 1931, at light, 1 male, LeBronnec.

As the example is in poor condition the description will require correction, but should be sufficient for recognition.

**Decadarchis percnomicta**, new species.

Expanse, 16 mm. Head fuscous. Palpi with rough hairscales anteriorly, gray mixed whitish, some black bristles. Thorax dark gray, somewhat mixed brown. Forewings elongate, costa gently arched, apex obtuse, termen very obliquely rounded; gray with faint reddish tinge, irregularly mixed blackish, accumulations of blackish scales appearing to indicate three or four oblique irregular fasciae, especially one from middle of costa reaching half across wing; some rough scales towards costa at  $\frac{3}{4}$ ; cilia gray suffused pale ochreous towards base and barred dark fuscous. Hindwings gray; cilia pale grayish-ochreous.

Eiao: above Vaituha, altitude 1200 feet, October 3, 1929, at light, 1 male, Adamson.

**Decadarchis simulans** Butler.

Tahuata: Vaitahu Valley, seashore, July 13, 1930, 2 specimens; Hanahevane, seashore, July 15, 1930, 1 specimen; LeBronnec and H. Tauraa.

Uahuka: Hane Valley, altitude 150 feet, March 8, 1931, 4 specimens, LeBronnec and H. Tauraa.

## FAMILY TINEIDAE

**Tinea despecta** Meyrick.

Hivaoa: Kakahopuanui, altitude 2460 feet, January 5, 1931, at light, 1 specimen, LeBronnec.