

LEPIDOPTERA

By

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NYMPHALIDAE

Hypolimnas bolina Linn.

Wake Island, July 28 and 30, Aug. 4, 1923 (Bryan): 4 ragged specimens (1 female, 3 males).

LYCAENIDAE

Lycaena boetica (Linn.)

Necker Island, June 17-29, 1923 (Bryan): 32 specimens.

SPHINGIDAE

Herse convolvuli (Linn.)

Wake Island, July 30-August 5, 1923 (Bryan): 4 live and 3 dead specimens rolled up in spider webs.

This is the nearest to Honolulu that this sphingid is known to occur. It also occurs in Samoa. *Herse cingulata* (Fab.), the American species, occurs in Hawaii, but the name *H. convolvuli* has often been used for it in literature and has resulted in confusion in regard to the geographic distribution of the two species.

ARCTIIDAE

Utetheisa pulchelloides Hampson

Wake Island, July 27-August 4, 1923 (Bryan): 63 specimens, including 15 larvae, one labelled "from scaevola." The larvae were found feeding on *Tournefortia argentea*, and some were reared.

NOCTUIDAE

Chloridea obsoleta (Fab.)

Nihoa Island, June 13, 1923 (Bryan): 1 specimen. Necker Island, June 17-20, 1923 (Bryan): 9 specimens, 5 larvae, 1 pupa.

Euxoa kerri Swezey

French Frigate Shoals, June 22-26, 1923 (Bryan): 13 specimens and 2 larvae. Two of the moths were taken on board the "Tanager" two miles off shore.

Euxoa bryani new species

Male and Female

Head and thorax grey mixed with dark fuscous, palpi the same; antennae greyish fuscous, that of the male shortly pectinate for about two-thirds of its length; legs pale greyish, tibiae and tarsi mixed with fuscous; abdomen pale grey, anal tufts slightly yellowish. Forewings grey mixed with fuscous; subbasal, first and second lines indicated by dark fuscous (none of the specimens perfect enough for full description of these); orbicular large, oval, outlined with dark fuscous; reniform large, outlined with dark fuscous, more pronounced anteriorly; sometimes a connection of dark fuscous between orbicular and reniform near dorsal side of cell; claviform large, extending to beyond origin of vein 2, outlined with dark fuscous; cilia greyish fuscous. Hindwings pale greyish with a brownish shade toward termen. Expanse, 45-55 mm.

Resembles somewhat *E. eremioides* from Laysan Island, but the markings of forewings are much more distinct and the ground color is grey, whereas in *E. eremioides* it is of a brownish tinge.

Nihoa Island, June 11-14, 1923 (Bryan): 23 specimens. Mostly collected at lights, and none of the specimens perfect. Nihoa Island, June 11, 1923 (Thaanum): 2 larvae.

Type: Cat. No. 251, Bernice P. Bishop Museum.

Feltia dislocata (Walker)

Laysan Island, April 12, 1923 (Fullaway): 1 specimen reared from a pupa found. Laysan Island, April 13, 1923 (Fullaway): 1 larva in tobacco patch.

Cirphis unipuncta (Haw.)

Lisiansky Island, May 17, 1923 (Grant): 1 specimen collected on ulva and 4 larvae in grass patch.

Prodenia litura (Fabricius)?

Pearl and Hermes Reef, April 27, 1923 (Fullaway): 1 specimen reared from pupa found. The specimen is too much abraded for positive determination, but this species is widely distributed and has been recorded from Hawaii, so that it is very likely the same.

Spodoptera mauritia (Boisduval)

French Frigate Shoals, June 25-27, 1923 (Bryan): 18 specimens. Pearl and Hermes Reef, April 27, 1923 (Fullaway): 2 specimens. French Frigate Shoals, June 22-27, 1923 (Bryan): 41 caterpillars.

Achaea melicerta (Drury)

Wake Island, July 28-August 5, 1923 (Bryan): 18 specimens. Some of the specimens were collected on *Pemphis acidula*. Wake Island (Bryan): 2 caterpillars.

Plusia chalcites Esp. (**verticillata** Guen.)

Ocean Island, April 18, 1923 (Fullaway): 9 caterpillars.

PHYCITIDAE

Ephestia elutella Hub.

Laysan Island, April, 1923, "in Reno's tent" (Ball): 1 larva.

CRAMBIDAE

Talis hyacinthina Meyrick

Nihoa Island, June 13-14, 1923 (Bryan): 6 specimens.

PYRAUSTIDAE

Hymenia recurvalis Fab.

Necker Island, June 17-29, 1923: 17 specimens, 2 larvae. Nihoa Island, June 14, 1923; 1 specimen. French Frigate Shoals, June 22, 1923 (Bryan) 1 specimen.

PTEROPHORIDAE

Trichoptilus oxydactylus (Walker)

French Frigate Shoals, June 22-27, 1923 (Bryan): 54 adults and 1 larva, collected from Boerhaavia. Nihoa Island, June 14, 1923 (Bryan): 7 specimens. Johnston Island, July 11-19, 1923 (Bryan): 7 specimens.

GELECHIIDAE

Stoeberhinus testaceus Butler

Midway Island, April 22, 1923 (Fullaway): 1 larva.

TORTRICIDAE

Crociosema plebiana Z.

French Frigate Shoals, June 22, 1923: 3 specimens. Necker Island, June 19-29, 1923 (Bryan): 7 specimens.

PLUTELLIDAE

Plutella maculipennis Curtis

Midway Island, April, 1923: 3 specimens. Pearl and Hermes Reef, April 27, 1923 (Fullaway): 3 specimens on *Lepidium* (also collected at Laysan Island, April 18, but specimens lost). Ocean Island, April 18, 1923 (Fullaway): 19 specimens. Wake Island, July 28-Aug. 1, 1923 (Bryan): 3 specimens.

HYPONOMEUTIDAE

Hyposmocoma arenella Walsingham

Nihoa Island, June 14, 1923 (Bryan): 4 poor specimens collected at lights.

Hyposmocoma mimica Walsingham

Necker Island, June 18-29, 1923 (Bryan) : 36 poor specimens, some collected on rocks and some at lights.

Hyposmocoma quinquemaculata Walsingham

Nihoa Island, June 11-14, 1923 (Bryan) : 11 poor specimens collected at lights. Necker Island, June 20-29, 1923 (Bryan) : 29 poor specimens.

Hyposmocoma sp.

Nihoa Island, June 12-14, 1923 (Bryan) : 14 poor specimens collected at lights. Necker Island, June 20, 1923 (Bryan) : 8 poor specimens collected at lights. These specimens represent a different species from the others, but they are too imperfect for determination or description.

Hyposmocoma spp.

Gardner Rock, May 22, 1923 (Ball) : 3 specimens of one species and one of another, too much abraded for determination.

Hyposmocoma larval cases.

Several kinds of larval cases were collected in different places and situations. Undoubtedly they belong to the species enumerated, but it is hardly possible to associate them properly. At least three kinds of these cases were found on Nihoa Island; two kinds on Necker Island; one similar to *H. notabilis* quite numerous on Laysan Island, April 25, 1923 (Ball). One kind (thorn-shaped) attached to under surface of rocks by hundreds, Gardner Rock, May 22, 1923 (Ball).

TINEIDAE

Tineola uterella Walsingham

Four larval cases of this moth were collected in a shack, Laysan Island, April 29, 1923 (Fullaway) : one case in guano pile, Laysan Island, April 25, 1923 (Ball) ; two larval cases and empty pupae, French Frigate Shoals, June 24, 1923 ; four larval cases, Johnston Island, July 15-17, 1923 (Bryan).

One larval case similar to *Tineola uterella*, but having a larva that was different was found on Nihoa Island, June 14, 1923 (Bryan).

Monopis meliorella (Walker)

Gardner Rock, May 22, 1923 (Ball) : 1 specimen. Necker Island, June 29, 1923 (Bryan) : 1 specimen.

Gracilaria marginestrigata Walsingham

Nihoa Island, June 13, 1923 (Bryan) : 13 specimens, collected on Sida.

Ereunetis kerri new species

Head, palpi, antennae, thorax, legs and abdomen very pale ochreous. Forewings nearly uniform ochreous, basal third of costa brown; cilia concolorous. Hindwings and cilia whitish. Expanse 12-14 mm.

The type specimen was reared from a larva in dead grass stem collected on French Frigate Shoals, Oct., 1914, by Dr. Wm. Kerr of the U. S. Navy. French Frigate Shoals, June 25-27, 1923 (Bryan): 10 specimens (much abraded). Also 6 larvae and 1 empty chrysalis.

Type: Cat. No. 252, Bernice P. Bishop Museum.

Ereunetis incerta new species

Head, palpi, antennae and thorax whitish, front of head and terminal segment of antennae slightly infuscated. Forewings sordid whitish, slightly sprinkled with fuscous scales and a wide fuscous longitudinal streak in middle of wing (more pronounced in the male, hardly evident in the female); cilia whitish, sprinkled with fuscous, and a patch of fuscous at apex. Hindwings and cilia cinereous. Abdomen and legs whitish, tarsi slightly barred with fuscous. Expanse, 15-16 mm.

The specimens are hardly perfect enough for description, but it is evident enough that this is a different species from any other known in the Hawaiian islands.

Pearl and Hermes Reef, April 27, 1923 (Fullaway): 6 specimens. Johnston Island, July 11-20, 1923 (Bryan): 21 specimens, appear to be the same, but most of them are too abraded for positive determination. A pupa collected from a tobacco stem, Laysan Island, April 9, 1923 (Fullaway), may be this species. The moth died just before issuing, but the coloration of the fore wing as showing through the wing sheaths seems to indicate that it is this moth. Johnston Island, July 12-18, 1923 (Bryan): 12 larvae in bunch grass.

Type: Cat. No. 253, Bernice P. Bishop Museum.

Comodica fullawayi new species

Head, palpi, antennae and thorax ochreous, terminal joint of palpi darker on outer side. Forewings uniform ochreous; basal half of costa dark brown, beyond middle of costa a white streak with brown borders extends obliquely towards termen finally curving to apex, a short, oblique, costal brown bar near apex; beyond middle of costa three brown bars extend obliquely outward, between the first two a white streak extends nearly to termen then curves around a brown spot to apex bordered by brown streak along termen; costal cilia near apex white, a few brown scales in apical cilia, rest of cilia ochreous mixed with grey. Hindwings pale slaty grey, the cilia paler grey. Legs ochreous, fore tibiae and tarsi brown posteriorly, mid tarsi with a brown spot near apex, hind tibiae and tarsi brownish exteriorly. Abdomen brownish above, pale ochreous below, anal tufts ochreous. Expanse, 9-10 mm.

Ocean Island, April 18, 1923 (Fullaway): 14 specimens.

Type: Cat. No. 254, Bernice P. Bishop Museum.

CYGNODIIDAE

Petrochroa dimorpha Busck

Ocean Island, April 18, 1923 (Bryan): 5 specimens. Midway Island, April, 1923: 3 specimens. Pearl and Hermes Reef, April 27, 1923 (Full-away): 1 specimen. Nihoa Island, June 14, 1923 (Bryan): 9 specimens at lights. Necker Island, June 20, 1923 (Bryan): 1 specimen. Wake Island, July 28 to Aug. 4, 1923 (Bryan): 17 specimens.

Petrochroa neckerensis new species

Antennae greyish fuscous spotted with white. Palpi fuscous spotted with white. Head and thorax greyish fuscous. Forewings greyish fuscous with dark fuscous scales mixed; two white transverse bars, the first about middle of wing, interrupted by fuscous scales at middle, the second beyond three-fourths, curved outwardly in middle and widened towards costa; cilia greyish, darker at base. Hindwings and cilia greyish fuscous. Abdomen greyish fuscous, a few white scales at apex and white below. Legs whitish, tibia and tarsi banded with fuscous. Expanse, 6 mm.

Necker Island, June 18-20, 1923 (Bryan): 3 specimens collected on rocks. Gardner Rock, May 22, 1923 (Ball): 1 specimen. The specimens are too much abraded for proper description, but are readily made out as different from other Hawaiian species. This description is given, with the hope that more material may sometime be available and the description emended.

Type: Cat. No. 255, Bernice P. Bishop Museum.

Tineid?

Laysan Island, April 18, 1923 (Schlemmer): 1 undetermined larva found in tobacco patch.

LIST OF LEPIDOPTERA PREVIOUSLY COLLECTED ON THE OUTLYING HAWAIIAN ISLANDS.

1894. Rothschild, W. (1)²⁴

Peridroma fasciata Roths. Midway Island.
Peridroma evanescens Roths. Laysan Island.
Prodenia laysanensis Roths. Laysan Island.

In the description of these three species, the name of the collector and the dates of capture are not mentioned.

1896. Schauinsland, H. (2)

Apamea chersotoides Butler, Laysan Island.
Spaelotis crinigera Butler, Laysan Island.

These species were determined by Dr. Rebel. They were later described by Meyrick (3) as new species, respectively:

Agrotis eremioides Meyrick.
Agrotis procellaris Meyrick.
Zinckenia recurvalis Fab., Laysan Island.
 Undetermined Tineid.

²⁴ The numbers in parentheses refer to the bibliography, p. 79.

1905. Wilder, G. P. (5)
Agrotis saucia, Laysan Island.
Agrotis sp., Laysan Island.
Prodenia sp.? Midway Island.
Plusia verticillata, Midway Island.
Hymenia recurvalis, Laysan Island.
Pterophorid, Laysan Island.
1911. Bryan, W. A.
Agrotis eremioides Meyrick, Laysan Island, April: 6 specimens.
This may be the moth described by Rothschild (1, p. 539) as *Peridoma evanescens*. Specimens agree with his description, which, however, is too meager for positive determination. Rothschild makes no mention of collector, or date of collection, or the place where the specimens are deposited.
Not previously recorded. (Specimens at Hawaiian Sugar Planters' Experiment Station.)
1912. Fullaway, D. T. (6)
Euxoa eremioides Meyrick (4), Laysan Island, 13 specimens.
Euxoa procellaris Meyrick (4), Laysan Island, 1 specimen.
Agrotis dislocata Walker, Laysan Island, 3 specimens.
Agrotis saucia (Hübner), Laysan Island.
Spodoptera mauritia (Boisduval), French Frigate Shoals, 2 specimens.
Nesamiptis laysanensis Swezey (7), Laysan Island, 12 specimens.
Pyrausta dryadopa (Meyrick), Laysan Island, 3 specimens.
Hymenia recurvalis (Fab.), Laysan Island, 9 specimens.
Omiodes laysanensis Swezey (7), Laysan Island, 3 specimens.
Trichoptilus oxydactylus (Walker), French Frigate Shoals, 7 specimens.
Crociosema plebiana Z., Laysan Island, 9 specimens.
Hyposmocoma notabilis Walsingham, Laysan Island (larval case only).
Ereunetis kerri Swezey, Laysan Island, 1 specimen; French Frigate Shoals, 2 specimens.
Petrochroa dimorpha Busck, Laysan Island, 7 specimens.
Specimens at Hawaii Experiment Station, Honolulu.
1914. Kerr, Wm. (8)
Euxoa kerri Swezey (9), French Frigate Shoals.
Trichoptilus oxydactylus (Walker), French Frigate Shoals.
Ereunetis kerri Swezey, French Frigate Shoals.

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9. SWEZEY, O. H., Some new Hawaiian Lepidoptera: Hawaiian Ent. Soc. Proc., Vol. 4, p. 378, 1920. (Description of *Euxoa kerri*.)