

DIPTERA

By

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CHIRONOMIDAE

An undetermined species was found on Wake Island in the shadow of rocks on the moist lagoon flat at low tide, July 28-30, 1923 (Bryan). A single specimen, beyond recognition, was captured on Laysan Island under drift, April 11, 1923 (Fullaway).

MYCETOPHILIDAE

Neosciara molokaiensis (Grimshaw)?

Ocean Island, April 1923; Midway Island, April 24, 1923 (Fullaway).

These specimens agree closely with specimens of this species from the main Hawaiian islands. So far but one species of this genus has been identified in Hawaii. It is not unlikely that more species will be found when this difficult group of flies has been carefully worked up.

STRATIOMYIDAE

Laysan Island, near the lagoon, April 13, 1923 (Fullaway).

An undetermined species, unlike any other known from the Hawaiian islands.

PHORIDAE

Aphiochaeta scalaris Loew

Pearl and Hermes Reef, April 27, 1923 (Fullaway). Lisiansky Island, in camp, May 16, 1923 (Grant).

ASILIDAE

Wake Island, June 30 to August 5, 1923 (Bryan).

A small, dark species, as yet unidentified, flying rapidly above moist sand along the lagoon. A species with similar habits occurs throughout the south Pacific.

DOLICHOPODIDAE

Psilopus patellifer Thomson

Ocean Island, April, 1923; Midway Island, April 24, 1923 (Fullaway).

Hydrophorus praecox Lehm. (Determined by Aldrich)

Laysan Island, April 8 and 13, 1923 (Fullaway).

Paraphrosylus sp.

Lisiansky Island, northeast corner, on ulva, May 17-19, 1923 (Grant). Nihoa Island, from pools of salt water, June 11-13, 1923 (Bryan). Necker Island from pools of salt water, June 18, 1923 (Bryan). French Frigate Shoals, about a tidal pool at the base of La Parouse Rock, June 27, 1923 (Bryan). Wake Island, June 30 to August 5, 1923, on moist sand (Bryan).

SYRPHIDAE

Simosyrphus (Xanthogramma) grandicornis (Macquart)

Johnston Island, July 11-18, 1923 (Bryan). Wake Island, July 31, 1923, specimens were seen about the remains of the Japanese camp, but none were captured (Bryan).

TACHINIDAE

Frontina archippivora Williston

Nihoa Island, single specimen captured on summit of "Miller Peak," June 14, 1923 (Bryan).

SARCOPHAGIDAE

Genus and species new.

Midway Island, April 23, 1923 (Fullaway). Pearl and Hermes Reef, April 26, 1923 (Fullaway). Laysan Island, bred from seal's skull (Bryan). Nihoa Island, June 11-15, 1923 (Bryan). Necker Island, June 17-20, 29, 1923 (Bryan). French Frigate Shoals, June 22-26, 1923 (Bryan). Johnston Island, July 17-20, 1923 (Bryan).

This species, unknown to all dipterists to whom it has been sent, was the dominant muscoid of the outlying islands of Hawaii, yet not known on the main islands of the group. It bred in numbers in dead birds, fish, and other decaying animal remains, and was a nuisance about camp, much as is the housefly in other localities. It has so much the appearance of a Tachinid, that it is quite likely the "Tachinid" captured and reported by Wilder and Fullaway²³ on Laysan.

MUSCIDAE

Synthesiomyia nudiseta Van der Wulp

Wake Island, July 31, 1923, found in ruins of Japanese shack (Bryan).

Musca vicina Macquart

Laysan Island, May, 1923 (Ball). Pearl and Hermes Reef, April 26, and on S. E. islet, April 27, 1923 (Fullaway). Midway Island, April 23, 1923 (Fullaway). Johnston Island, July 17, 1923 (Bryan).

This is the oriental housefly with the narrow fronted male, found in

²³ Fullaway, D. T., List of Laysan Island insects: Hawaiian Ent. Soc. Proc. Vol. 3, p. 21, 1914.

Hawaii. It was comparatively scarce on the outlying islands, and some individuals might have gone ashore from the "Tanager," on which specimens were found.

CALLIPHORIDAE

Lucilia sericata Meigen

Nihoa Island, June 11-13, 1923 (Bryan). Wake Island, Aug. 4, 1923, a single specimen (Bryan).

Lucilia graphita new species (Described by Shannon. See p. 72.)

Pearl and Hermes Reef, April 26, and S. E. islet, April 27, 1923 (Fullaway). Midway Island, April 23, 1923 (Fullaway). Ocean Island, April, 1923 (Fullaway). Laysan Island, bred from seal's skull, May, 1923 (Bryan).

This distinct species was not found southeast of Laysan Island, although very abundant north-west.

ANTHOMYIDAE

Fannia canicularis Linn.

Ocean Island, April, 1923, rather abundant (Fullaway).

Ophyra chalcogaster Wiedemann

Midway Island, April 23, 1923 (Fullaway).

EPHYDRIDAE

Canace nudata Cresson (Determined by Cresson.)

Lisiansky Island, northeast corner, on ulva, May 19, 1923 (Grant). Wake Island on moist sand, July 30, 1923 (Bryan).

Hecamede sp. (Determined by Cresson)

Wake Island, July 28 to Aug. 5, 1923 (Bryan).

Scatella sexnotata Cresson (Determined by Cresson.)

Laysan Island, April 8-9, 1923 (Fullaway). Nihoa Island, June 13, 1923, in pool of stagnant water (Bryan). Necker Island, June 18 and 29, 1923, from pools of salt water (Bryan).

BORBORIDAE

Limosina venalicia Osten-Sacken

Laysan Island, April 8, 1923 (Fullaway).

Leptocera sp. near **ferruginata** Stenh.

Laysan Island, April 8, 1923 (Fullaway). Midway Island, April 23, 1923 (Fullaway). Lisiansky Island, May 18, 1923, from seaweed (Grant).

Aldrich, to whom specimens were submitted, states that the specimens from Laysan and Lisiansky islands are different.

DROSOPHILIDAE-ASTEINAE

Genus and species new?

Nihoa Island, June 13, 1923 (Bryan).

AGROMYZIDAE

Milichiella lacteipennis (Loew)

Midway Island, April 24, 1923 (Fullaway). Pearl and Hermes Reef, April 27, 1923 (Fullaway).

This species which is abundant about manure and decaying vegetable matter on the main Hawaiian islands, might easily have been carried to Midway and Pearl and Hermes Reef on sampans or other vessels.

Agromyza pusilla MeigenNihoa Island, June 13, 1923, rather rare about *Tribulus* blossoms (Bryan). Johnston Island, July 13-18, 1923, abundant about *Tribulus* blossoms (Bryan).Undetermined *Milichiinae*

Pearl and Hermes Reef, April 27, 1923 (Fullaway). Wake Island, July 27 to Aug. 5, 1923 (Bryan).

Undetermined *Milichiinae*Nihoa Island, June 13-14, 1923, some captured on *Sida* (Bryan). Gardner Island, May 22, 1923 (Ball).

SAPROMYZIDAE

Sapromyza sp.

Wake Island, July 30 to Aug. 4, 1923, attracted to carcasses of dead birds hung up in trees, out of reach of hermit crabs (Bryan).

OSCINIDAE

Hippelatus nigricornis var. **flavus** Thomson (Determined by Aldrich.)Ocean Island, April, 1923 (Fullaway). Midway Island, April 24, 1923 (Fullaway). Lisiansky Island, May, 1923 (Ball). Wake Island, July 30 to Aug. 5, 1923, on *Sesuvium* and other plants (Bryan).

CHLOROPIDAE

Microneurum signatum Wollaston (Determined by Aldrich.)Nihoa Island, June 12-14, 1923, some specimens on *Sida* (Bryan). Necker Island, June 17 and 29, 1923 (Bryan). French Frigate Shoals, June 22-26, 1923 (Bryan). Lisiansky Island, May, 1923 (Ball).

This cosmopolitan species is abundant on these islands. It occurs throughout tropical regions, but is scarce on the main larger Hawaiian islands.

HIPPOBOSCIDAE

***Olfersia spinifera* Leach** (Determined by Malloch.)

Laysan Island, April-May, 1923 (Fullaway and Ball). Lisiansky Island, May 18, 1923 (Ball). Nihoa Island, June 11-15; Necker, June 18-20. French Frigate Shoals, June 26 (Bryan). Johnston Island, July 11-20 (Bryan). Wake Island, July 28 to Aug. 1, 1923 (Bryan).

This species is a troublesome parasite of frigate birds, especially on the young birds. It is abundant on the birds and about their nests. Featherless nestlings were seen to be attacked by a dozen or more of the large black flies, which appeared to cause great distress. Few adult birds were free from them.