

Notes on Hawaiian Otitidae (Diptera)

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Since my review of the Pacific Ulidiinae (Steyskal, 1952), some nomenclatural changes and two additional species of Otitidae have been recorded from Hawaii. I revised the genus *Notogramma* recently (Steyskal, 1963) and showed that the species recorded from Hawaii as *N. stigma* (Fabricius) should be known as *N. camiciforme* Loew and placed in the subfamily Otitinae. Another species of the Otitinae was reported by Hardy in these Proceedings (1956) as *Ceratoxys latiuscula* (Loew); this fly should be known as *Ceroxys latiusculus* (Loew). The species previously recorded as *Euxesta quadrifasciata* (Macquart) should be known as *E. annonae* (Fabricius), with Macquart's name as a synonym.

In re-examining the series of Hawaiian specimens in the U. S. National Museum under the name *Euxesta annonae*, I noted that another very similar species was included. This species seemed to be *Euxesta wettsteini* Hendel, described from "Brasilien (Exped. Wettstein)," but our material did not agree with the description in a few details. Through the kindness of Dr. A. Kaltenbach, of the Naturhistorisches Museum, Wien, I was able to examine types of *E. wettsteini*. Two female specimens were loaned, bearing the labels "Young, Iguape/Bras. Exped. Wettstein '91/wettsteini H., det. Hendel/TYPE." The 2 specimens appear identical in every way, and our material agrees with them very well. Iguape is a town on the Atlantic coast of the State of Sao Paulo, about 100 km from its border with Parana. The wing patterns of *E. annonae* and *E. wettsteini* are very similar, consisting of 4 transverse dark brown bands. Other characters are confusingly alike as might well be imagined in species that have been kept together for many years in a collection as one species. The best means of separation seems to lie in the size and shape of the wing, and the most obvious character is the shape of the blackish mark in the anterior base of the costal cell. In *E. wettsteini*, this mark extends along the costa for about half the length of the cell. The pterostigma in *E. wettsteini* is also relatively shorter than in *E. annonae*, and the whole fly, including the wing, is somewhat larger than *E. annonae* (cf. accompanying figures).

I have seen the following material of *Euxesta wettsteini* from Hawaii: Hawaii: Kona, Sept. 1915 (A. Busck), 1 ♂ (USNM); Lanai: Lanai City, 27 Sept. 1963 (M. R. Wheeler), 1 ♀, morning glory flowers; Molokai: Airport, 26 Sept. 1963 (M. R. Wheeler), 3 ♂, 1 ♀; Oahu: "Oahu," 29 Jan. 1945 (Pepper), 1 ♂; "Oahu," 13 Jan. 1947, interception Hawaii #2534,

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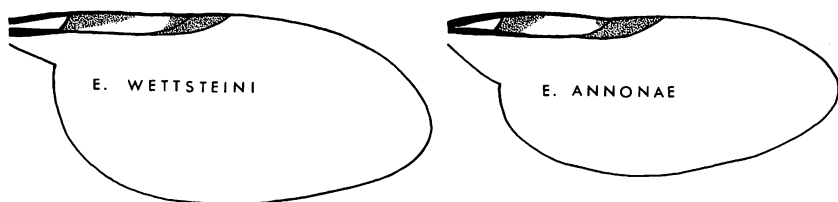


FIG. 1. Outline, relative size, and shape and pattern of antero-basal cells of wing of *Euxesta* species.

pineapple plant, 2 ♀ (USNM); "Oahu," 22 July 1952 (H. A. Mueller), 1 ♀ (USNM); Barbers Pt., March 1960 (E. J. Ford, Jr.) 1 ♂ (USNM); Honolulu, Manoa Valley, 3 Feb. 1934 (Carl T. Schmidt), 1 sex?; Palolo, 2 April 1922 (J. F. Illingworth), 1 ♀ (Melander collection, USNM); Puu Palikea, April 1960 (E. J. Ford, Jr.), 1 ♂ (USNM); Wahiawa, 24 April 1964 (J. W. Beardsley), ex Ambrosia, 1 ♂; Waipio, Feb. 1952 (D. E. Hardy), 2 ♀. It may be noted that the earliest collection was in 1915. Material in the U. S. National Museum collection is designated "USNM"; the other material has been loaned by D. Elmo Hardy.

Euxesta annonae (Fabricius) is represented in the USNM collection by the following Hawaiian material. Oahu: "Light trap, John Rodgers, Oahu, 5-53" (E. J. Ford, Jr.), 1 ♀; Honolulu, 10 Oct. 1915 (O. H. Swezey), 1 ♀; same, 11 Oct. 1915, 1 ♂, 1 ♀; Honolulu, 1916 (J. C. Bridwell), 1 ♂; Honolulu, 4 March 1941, dead rice stem, Hawaii #608, 1 ♂, 2 ♀; Honolulu, Nov. 1951 (D. E. Hardy), 1 ♀; Kailua, 1 April 1946 (W. W. Wirth), on window near beach, 1 ♀; Kipapa, 22 Jan. 1940, sweet potatoes, Hawaii #161, 2 ♂, 1 ♀.

The revised list of Hawaiian Otitidae follows.

Subfamily Otitinae

Ceroxys latiusculus (Loew), 1873, Smithsn. Misc. Collect. 11 (3 = publ. 256): 130 (*Anacampta*).

Notogramma cimiciforme Loew, 1867, Berlin. Entomol. Zts. 11: 289.

Subfamily Ulidiinae

Acrosticta apicalis (Williston), 1896, Trans. Entomol. Soc. London 1896: 375 (*Euxesta*).

Euxesta annonae (Fabricius), 1794, Entomol. Syst. Emend. Auct. 4: 358 (*Musca*).

E. wettsteini Hendel, 1909, Ann. Mus. Nat. Hung. 7: 165.

Physiphora aenea (Fabricius), 1794, Entomol. Syst. Emend. Auct. 4: 335 (*Musca*).

Pseudeuxesta prima (Osten Sacken), 1881, Ann. Mus. Civ. Stor. Nat. Genova 16: 470 (*Euxesta*).

REFERENCES

- Hardy, D. E. 1956. Notes and exhibitions. Proc. Hawaiian Entomol. Soc. **16**: 11.
- Steyskal, G. C. 1952. Ulidiinae (Diptera, Otitidae) of Australasian regions. Occas. Pap. Bernice P. Bishop Mus. **20**(15): 277-287.
- 1963. The genus *Notogramma* Loew (Diptera Acalyptratae, Otitidae). Proc. Entomol. Soc. Wash. **65**: 195-200.