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Check List of the Cecidomyidae of Oceania

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ROTHAMSTED EXPERIMENTAL STATION, HARPENDEN, ENGLAND

INTRODUCTION

The area included in this list is bounded by Hawaii on the north, by the Bonin, Bismarck and Trobriand islands on the west, by New Caledonia and Rapa on the south, and by Easter Island and the Galapagos on the east. From this area exceedingly few Cecidomyidae or gall midges have been recorded. Five species (and one other recorded but not determined) have been described from the Samoan islands, while five described species and four unnamed ones have been recorded from the Hawaiian islands. In addition, the Pacific Entomological Survey collected "three or four species, all obscure forms which could not very well be described or determined without data regarding their life-history" (E. P. Mumford, personal communication, November 16, 1934). Professor T. D. A. Cockerell took a single male specimen in New Caledonia in 1928 (Sir Guy A. K. Marshall, personal communication, June 27, 1930), but so far as the writer is aware, this has not yet been determined.

All the named species from Samoa were caught individuals but the unidentified *Lestodiplosis* sp. was bred from fowl dung.

Among the Hawaiian species, *Contarinia maculipennis* Felt, the hibiscus bud midge, was described from specimens bred in Oahu. *C. sorghicola* (Coquillett), the sorghum midge, lives in the larval stage on the heads of sorghum and Johnson grass preventing seed formation and is a well known pest in the southern part of the United States of America. The larvae of *Phaenobremia meridionalis* (Felt) feed on sugar cane aphids. This species has been reported

from the mainland of the United States as feeding on a number of different species of aphids, as well as from England on the hop aphid. *Lobodiplosis pseudococci* Felt was introduced from Mexico into Oahu in 1930 and its larvae are predaceous on the pineapple mealy bug. *C. solani* (Rübsaamen) was bred from tomato buds. I believe that this is an erroneous identification and that the midge in question must be *C. lycopersici* Felt which is closely allied to *C. solani* but is distinct. *C. solani* was recorded originally from *Solanum dulcamara* whereas *C. lycopersici* was described (7) from larvae doing exactly the same type of damage to tomato buds in St. Vincent, W. I. as O. H. Swezey described was taking place on Oahu. *C. lycopersici* has since been recorded from Trinidad (2) and specimens (in my collection) have been received from Barbados. Three of the four unnamed species were reared from larvae found feeding on the spores of rust on sorghum leaves, from the remains of *Livistona* palm seeds partly destroyed by Scolytid beetle, and from mango seed refuse. The remaining species was caught ovipositing in the terminal bud of *Pelea clusiaefolia*.

It is interesting to observe that even in this fragmentary representation of the Cecidomyiidae there is that great diversity in habits of the larvae known to exist in the family as a whole. There are plant bud feeders, plant refuse feeders, a rust eater, and forms predaceous on aphids and coccids.

The arrangement of the list is in systematic order based on Felt's studies (8) though naturally when dealing with so few species and genera in such a large family such an arrangement cannot convey much. The numbers, followed by page numbers, refer to the bibliography.

SUBFAMILY LESTREMIINAE

Tribe LESTREMIINARIAE

Genus **LESTREMIA** Macquart: 16, p. 173; 16a, p. 117.

(Type, *Lestremia cinerea* Macquart)

Lestremia (s. g. **Anaretella**) **nitida** Edwards: 5, pp. 39-40.

Samoa: Upolu.

(Type locality, Upolu.)

Genus ANARETE Haliday: 11, p. 156.

(Type, *Anarete candidata* Haliday)

Anarete pallida Edwards: 5, p. 39.

Samoa: Tutuila.

(Type locality, Tutuila.)

SUBFAMILY CECIDOMYINAE

Tribe PORRICONDYLIARIAE

Genus LIEBELIOLA Kieffer and Jörgensen: 15, p. 428.

(Type, *Liebeliola prosopidis* Kieffer and Jörgensen)

Liebeliola bifurcata Barnes: 1, pp. 106-107.

Samoa: Upolu.

(Type locality, Upolu.)

Genus PHAENEPIDOSIS Kieffer: 14, p. 273.

(Type, *Epidosis abbreviata* Kieffer)

Phaenepidosis auriculata Barnes: 1, pp. 107-108.

Samoa: Upolu.

(Type locality, Upolu.)

Tribe CECIDOMYTARIAE

Subtribe BIFILA

Genus CONTARINIA Rondani: 18, p. 289.

(Type, *Tipula loti* De Geer)

Contarinia maculipennis Felt: 10, pp. 247-248; 17, vol. 7, p. 370;
17, vol. 8, pp. 212, 236, and 358; 17, vol. 8, p. 361; 3, pp. 406-407,
and 447.

Hawaii: Oahu, Kauai.

(Type locality, Oahu.)

Contarinia solani (Rübsaamen)¹: 19, pp. 396-397 (*Diplosis*); 17, vol. 1, p. 79; 3, pp. 406 and 447.
Hawaii: Oahu (Germany, England).
(Type locality, Germany.)

Contarinia sorghicola (Coquillett): 4, pp. 81-82 (*Diplosis*); 17, vol. 1, p. 79; 3, p. 79; 3, pp. 406 and 447.
Hawaii: Oahu, Maui (U. S. A., Sudan).
(Type locality, U. S. A.)

Subtribe TRIFILA

Genus ALLOBREMIA Barnes: 1, pp. 103-104.

(Type, *Allobremia upolui* Barnes)

Allobremia upolui Barnes: 1, pp. 104-105.

Samoa: Upolu, Savaii.
(Type locality, Upolu.)

Genus PHAENOBREMIA Kieffer: 13, p. 1.

(Type, *Aphidoletes urticariae* Kieffer)

Phaenobremia meridionalis (Felt): 6, pp. 384 and 397 (*Aphidoletes*); 17, vol. 4, pp. 329-330 and 339; 17, vol. 7, p. 372; 21, p. 274; 3, pp. 406 and 447.

Hawaii: Oahu, Hawaii (U. S. A., England).
(Type locality, Washington, D. C.)

Genus LOBODIPLOSIS Felt: 6, pp. 397-398.

(Type, *Mycodiplosis acerina* Felt)

Lobodiplosis pseudococci Felt: 9, pp. 87-88; 17, vol. 8, pp. 237 and 360; 3, pp. 406 and 447; 17, vol. 9, p. 22.

Hawaii: Oahu (introduced species from Mexico).
(Type locality, Oahu.)

¹This is probably an erroneous determination for *C. lycopersici* (see Introduction) and in this case the entry should read:

Contarinia lycopersici Felt: 7, pp. 303-304; 2, p. 482; 17, vol. 1, p. 79.
Hawaii: Oahu (Trinidad, St. Vincent, W. I.).
(Type locality, St. Vincent, W. I.).

Genus **LESTODIPLOSIS** Kieffer: 12, p. 28.

(Type, *Lestodiplosis alternans* Kieffer)

Lestodiplosis sp.: 1, p. 103.

Samoa: Upolu (reared from fowl dung).

UNPLACED SPECIES

“**Diplosis**” sp.: 17, vol. 1, p. 79; 3, pp. 406 and 447.

Hawaii: Oahu (larvae feeding on rust on sorghum leaves).

“**Itonidid**” sp.: 20, p. 380; 3, p. 406.

Hawaii: Oahu (female ovipositing in terminal bud of *Peleaclusiaefolia*).

Cecidomyid sp.: 17, vol. 4, p. 42; 3, p. 407.

Hawaii (reared from remains of *Livistona* palm seeds which had been partly destroyed by a Scolytid beetle).

Cecidomyid sp.: 17, vol. 8, p. 389; 3, p. 407.

Hawaii (reared from mango seed refuse).

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- 16a² MACQUART, J., *Insectes Diptères du Nord de la France. Tipulaires*; 175 pages, c. 1826.
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²The reference cited as 16a is merely a reprint of the one cited as 16.