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The insects and certain other arthropods of Canton Island

by

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The Insects and Certain other Arthropods of Canton Island

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The basis of the present list of arthropods known to occur on Canton Island, in the Phoenix group, is the writer's paper "The Insects of Canton Island", which appeared in 1943 in the "Proceedings" of the Hawaiian Entomological Society (vol.11: 300-312). Ninety-six species were listed in that paper. Since then, following increased air transportation to and from Canton during the recent war, several additions have been made to the fauna of the atoll. Besides including the new records, the present list corrects a few earlier errors of identification, omits some doubtful records, and supplies synonymous names whenever these have been discovered.

CRUSTACEA

Isopoda

Metaponorthrus pruinosus Brandt. Under heaps of old coconuts.

Undetermined sp. Found in similar locations with the preceding sowbug.

Amphipoda

Undetermined sp. Beneath stranded timbers on the lagoon beach.

ARACHNIDA

Scorpionoidea

Isometrus maculatus Degeer. Occasionally found in buildings.

Areneida

Lycosidae

Undetermined sp. In and about buildings.

Sicariidae

Scytodes sp.

Oonopidae

Gamasomorpha minima Berland. Described from Canton Island in Bishop Museum, Occ. Papers, 17 (1): 5, 1942.

Pholcidae

Undetermined sp. A single specimen in a building, September, 1941.

Theridiidae

Latrodectus mactans (Fabricius). The black widow spider was first found on Canton in July, 1949.

Argiopidae

Undetermined sp. The orb-webs of a spider are conspicuous about buildings.

Acarina

Gamasidae

Laelaps sp. On the ground-nesting Polynesian rat. Dr. C. E. Pemberton studied this material and reports that the Canton species more closely resembles Laelaps hawaiiensis Ewing, than L. echidninus (Berlese).

Listrophoridae

Listrophorides sp. A hair mite on the Polynesian rat.

Oribatidae

Undetermined sp. In vegetable mould under Sesuvium plants.

Ixoidae

Argasidae

Ornithodoros sp. The exuvium of an argasid tick was found on a shrub; no other material is available.

MYRIOPODA

Chilopoda

Mecistocephalus maxillaris (Gervais). In soil beneath old coconuts, and under sacking in outbuildings. The species is probably the same as that occurring in Hawaii.

INSECTA

Thysanura

Lepismidae

Undetermined sp. A single specimen among papers.

Collembola

Entomobryidae

Undetermined sp. One or more species in moist soil beneath old coconuts.

Orthoptera

Blattidae

Cutillia soror (Brunner). Under bags on the beach, and in soil beneath fallen coconuts.

Periplaneta americana (L.). Common both indoors and out.

Pycnoscelus surinamensis (L.). This cockroach was found under coconuts.

Supella sunellectilium (Serville). A single specimen was found indoors, November, 1940.

Blattia sp. Collected in the housing area by Degner in April, 1951.

Gryllidae

Gryllodes sigillatus (Walker). Numerous in dwellings.

Tettigoniidae

Aiolopus tamulus (Fabricius). First noted on Canton by N.L.H. Krauss in September, 1950, and more recently reported to be numerous. One of the few grasshoppers which is attracted to lights.

Note- The record of Conocephalus saltator (Saussure) from Canton was based on a dead specimen taken to the island in glassware from Honolulu; it should be deleted from the list.

ISOPTERA

Kalotermitidae

Kalotermes immigrans Snyder. Dr. A. E. Emerson considers Calotermes curvithorax Kelsey to be a synonym; this latter name was proposed for termites first found on Canton in May, 1937.

EMBIOPTERA

Oligotomidae

Oligotoma saundersii (Westwood). Not uncommon under dead birds, in soil beneath old coconuts and in debris of rats' nests.

DERMAPTERA

Labiduridae

Anisolabis eteronoma Borelli. A single specimen was found among plants brought from Honolulu in June, 1941. The species probably is not established on Canton.

ODONATA

Libellulidae

Diplacodes bipunctata (Brauer). First noted in June, 1941.

Pantala flavescens (Fabricius). First noted on Canton in February, 1941. Dragon fly populations on Canton presumably die out during adverse periods, but are continually being recolonized by adults flying in from other Pacific islands.

CORRODENTIA

Liposcelidae

Undetermined sp. Taken in vegetable mould under Sesuvium bushes.

Peripsocidae

Ectopsocus perkinsi Banks. One specimen collected by N. L. H. Krauss in September, 1950, was identified as this species by Dr. D. E. Hardy.

HOMOPTERA

Cicadellidae

Orosius argentatus (Evans). The synonym, Nesaloha cantonis Oman, was described from material first collected on Canton in August, 1940. This leafhopper has a wide range in the Pacific. On Canton it was numerous on Boerhavia diffusa and is suspected of being a possible vector of a "yellows" disease of Boerhavia leaves.

Aphididae

Aphis gossypii Glover. Very common on Portulaca lutea and on the introduced Coccolobis uvifera; less common on Sida fallax and Scaevola.

Coccidae

Asterolecanium pustulans (Cockerell). On Sida and on the introduced Thespesia populnea. Probably an introduction from Hawaii.

Chrysomphalus bonidum (L.). On coconut foliage and on introduced Callophyllum.

Coccus hesperidum L. On introduced milo and oleander; an accidental immigrant, probably from Hawaii.

Pinnaspis strachani (Cooley). This is the species previously listed from Canton as Henichionaspis minor (Maskell), a misidentification. On Canton it was found on Tournefortia argentea.

Pseudococcus palmarum (Ehrhorn). On coconut; this is the species listed as Ripersia palmarum in the 1943 List of Canton insects.

Pseudococcus adonidum (L.). On Scaevola; this is the species which earlier was recorded as F. longispinus (Targioni-Tozzetti).

Saissetia hemisphaerica (Targioni-Tozzetti). A probable immigrant from Hawaii, on introduced plants such as Hibiscus tiliaceus and Calotropis gigantea ("crown flower").

Undetermined sp. A mealybug was common on Sida, on the stem at the base of the plant, and on the leaves, which were distorted as a result of the infestation.

HETEROPTERA

Cynidae

Geotomus pygmaeus (Dallas). At light.

Pentatomidae

Oechalia, probably consocialis (Boisduval). Nymphs and adults of this bug were taken in the housing area on Canton by Otto Degener in April, 1951. It is probably consocialis which is a widespread species in the Pacific and occurs on Fanning and Christmas islands to the north-east of Canton.

Nabidae

Nabis capsiformis Germar. This predaceous bug is common on low herbage; it was recorded earlier under the generic name Reduviolus.

Miridae

Campylomma near hawaiiensis Usinger. Collected in the housing area in April, 1951 by Otto Degener.

Trigonotylus brevipes Jakowlef. A nearly cosmopolitan grass-inhabiting bug. Two specimens were collected by Van Zwaluwenburg in August, 1940.

Cyrtorhinus zwaluwenburgi Usinger. Described from material swept from Boerhavia in 1940 ("Proceedings", Hawaiian Entomological Society, 12 (1): 148, 1944). Dr. Usinger suggests that this species which preys on leafhopper eggs, may, in the absence of Delphacidae on Canton, be feeding on the eggs of the cicadellid, Orosius argentatus (Evans).

Note- The undetermined mirid listed in the 1943 paper was later identified by Dr. R. L. Usinger as Pycnoderes quadrimaculatus Guerin. The species has not been seen on Canton since 1940, and there is good reason to believe it was brought there from Honolulu in a collecting bottle.

Gerridae

Halobates micans Eschscholtz. This marine strider is often found stranded on the ocean beach at Canton.

COLEOPTERA

Carabidae

Tachys mucescens Blackburn. Two specimens at light in June, 1941. Identified by E. C. Zimmerman as this species, known previously only from Hawaii.

Tachys sp. A single specimen in the hotel kitchen, March, 1941.

Histeridae

Carcinops quatuordecimstriata (Stephens). In bird droppings under rookeries.

Corymetidae

Necrobia rufipes (Degeer). The "copra" or "ham" beetle.

Elateridae

Conoderus pallipes (Eschscholtz). First taken on Canton by Otto Degener, in May, 1951.

Dermestidae

Dermestes cadaverinus Fabricius. Adults in dead mollusk shells.

Nitidulidae

Carporphilus hemipterus (L.).

Coccinellidae

Harmonia arcuata (Fabricius). Often numerous on Sida, the adults clustering on the undersides of the leaves. Also associated with Aphis gossypii on Scaevola; on Boerhavia the larvae have been observed to feed on droplets excreted by Orosius.

Anthicidae

Anthicus oceanicus Laferte. Under dead seabirds.

Tenebrionidae

Gonocephalum addressiforme Kaszab. First taken on Canton in January, 1951, by Dr. P. M. Corboy. Occurs also on Luzon in the Philippines, and on Oahu.

Scarabaeidae

Pleurophorus parvulus Chevrolat. A single specimen taken in July, 1941.

Sanrosites pygmaeus Harris. One specimen in soil under old coconuts, September, 1940.

Anthribidae

Araecerus vieillardii (Montrouzier). First taken on Canton by Otto Degener, April 28, 1951.

Curculionidae

Calandra oryzae (L.). In hotel kitchen.

Dryotribus mimeticus Horn. Two specimens taken by N.L.H. Krauss in September, 1950.

LEPIDOPTER A

Tineidae

Petrochroa dimorpha Dusck. This tiny moth feeds in the dead trash about bunchgrass clumps, and is often exceedingly abundant. It occurs on Wake Island also.

Hyposmocomicidae

Aphthonetus sp. Taken at light; first noted in October, 1940.

Pyralidae

Hymenia recurvalis (Fabricius). Adults come to lights; the larvae will probably be found to feed on Amaranthus on Canton.

Arctiidae

Utetheisa pulchelloides Hampson. Breeds on Tournefortia, on the leaves of which the early stages of the larvae produce a "window pane" effect.

Phalaenidae

Achaea janata (L.). The larvae feed on Cordia subcordata.

Amyna octo Guenee. The green caterpillars feed on Sida leaves.

Heliothis armigera (Hubner). The notorious "corn ear" worm, or "tomato worm".

Laphygma exempta (Walker). The larvae of this armyworm feed on bermuda grass, and on the bunch grasses, Digitaria pacifica and Lepturus repens. An egg-parasite, Telenomus nawai was introduced from Honolulu in 1941, and promptly began breeding in Laphygma eggs; it is not known if it still survives on Canton.

Prodenia litura (Fabricius). On Canton the larvae of this destructive species feed on Lepturus, Digitaria, Sida, tomato and sweet-potato.

Undetermined sp. Irregular feeding holes are common on Scaevola leaves, made by a bright-green caterpillar probably belonging to this family of moths. The damage is conspicuous, but during my stay on the island caterpillars were rare. Apparently they feed by night and hide in the sand during the day. Attempts to rear caterpillars to the adult stage were unsuccessful.

Danaidae

Danaida plexipus (L.). Occasional tattered specimens of the monarch butterfly were seen on Canton during 1940 and 1941, but the species was not breeding there at that time. Since then occasional fresh specimens have been taken which suggest that they are breeding locally, perhaps on the introduced crown-flower.

Nymphalidae

Hypolimnas bolina (L.). Well established in 1941 and breeding on Sida.

DIPTERA

Mycetophilidae

Undetermined sp. On soil under old coconuts.

Tendipedidae

Undetermined sp. On native vegetation.

Sciaridae

Undetermined sp. On vegetation.

Dolichopodidae

Chrysosoma sp.

Hydrophorus sp. Abundant on brackish pools.

Syrphidae

Ischiodon penicillatus (Hull). This fly was misidentified as Ischiodon scutellaris (Fabricius) in the 1943 list.

Lonchaeidae

Lamprolonchaea aurea (Macquart). First taken on Canton by Krauss in September, 1950; identified by D. E. Hardy.

Otitidae

Pseudeuxesta prima Osten Sacken. Determined by D. E. Hardy. A synonym is Euxesta semifasciata Malloch. This is probably the Euxesta sp. of the 1943 list, on bits of organic matter along the beach.

Scholastes bimaculatus Hendel. Breeds in rotten meat of green coconuts.

Tethinidae

Tethina insularis Aldrich.

Ephydridae

Hecamede persimilis Hendel.

Paralimna lineata de Meijere. Collected in November, 1940 by R. R. Danner; identified by Dr. W. W. Wirth.

Scatella sp. On brackish ponds.

Agromyzidae

Ophiomyia scaevolae Frick. A leafminer in Scaevola frutescens; it is parasitized by a eulophid, Enigalio sp. The description of O. scaevolae appeared in the "Proceedings" of the Hawaiian Entomological Society, 15:209, 1953.

Milichiidae

Desmometopa m-nigrum Zettersted. Breeds in dead mollusks.

Milichiella lacteipennis (Loew). Common, hovering over foliage.

Chloropidae

Cadrema pallida (Loew). In the 1943 list as Prohippelates.

Siphunculina signata Wollaston. Not common.

Muscidae

Atherigona excisa trilineata Stein.

Musca domestica L.

Calliphoridae

Phaenicia sericata (Meigen). Bred from dead rat; very common.

Sarcophagidae

Sarcophaga dux Thomson. Very common.

HYMENOPTERA

Evaniidae

Evania appendigaster (L.). This species was introduced to Canton from Honolulu in August, 1940, and soon became well established in the egg-cases of Periplaneta americana. It apparently continues to be present, for Otto Degner collected a specimen in May, 1951.

Eulophidae

Phygadeuon sp., probably external (Timberlake). This insect was bred from mines of the agromyzid leafminer in Scaevola, Ophiomyia scaevolae (called Notoniscormorphomyia in the 1943 list).

Note - In September, 1941, adults of Euplectrus plathpenae Ashmead, were brought to Canton from Honolulu to parasitize the larvae of Laphygma. There appears to be no evidence that this wasp became established.

Scelionidae

Telenomus newai Ashmead. This egg parasite of Laphygma exempta was introduced from Honolulu in August, 1941, and one month later was reared from eggs of the army worm moth. It is not known if it still survives on Canton.

Formicidae

Tetramorium Guineense (Fabricius).

Tetramorium simillimum (F. Smith). In soil beneath piles of coconuts, etc.

Tapinoma melanocephalum (Fabricius). On Sida plants.

Camponotus variegatus hawaiiensis Forel. The first specimens of the carpenter ant to be known from Canton, were collected there in the housing area by Otto Degener in April, 1950.

Paratrechina longicornis (Latreille). The "crazy ant" was the dominant species on Canton in 1940-41.

Paratrechina bourbonica hawaiiensis Forel..

Sphecidae

Sceliphron caementarium Drury. This mud-dauber wasp was first collected on Canton by N. L. H. Krauss in October, 1950. It was collected subsequently by Degener also.

Vespidae

Pachodynerus nasidens (Latreille). First collected on Canton by J. P. Martin on December 30, 1946. It appears to be abundant there now.

Megachilidae

Undetermined sp. Found as early as November, 1941. A series was collected later by Degener.

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Numerical summary of Canton Island arthropods

Isopods	2	Insects	
Amphipods	1	Dermaptera	1
Scorpions	1	Embioptera	1
Spiders	6	Dragon flies	2
Mites	3	Corrodentia	2
Ticks	1	Homoptera	10
Myriopods	1	Heteroptera	7
Insects		Coleoptera	15
Thysanura	1	Lepidoptera	12
Collembola	1	Diptera	22
Orthoptera	7	Hymenoptera	12

The above list gives a total of 108 arthropods, 93 of them insects, and 15 belonging to related orders.

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