R. W. E. Tucker¹

INTRODUCTION²

Barbados is of the greatest entomological interest to Puerto Rico, not only because many of its insect pests are the same as those found in Puerto Rico, but also because some outstanding differences in insect fauna occur. Because of a most stringent and well-enforced quarantine, the "piche" of sweetpotatoes, *Cylas formicarius* Fabricius, does not occur in Barbados, but a quite similar tuber borer, the "scarabee", *Euscepes postfasciatus* Fairmaire (= *E. batatae* Waterhouse) is a major pest in Barbados, yet, although present in Puerto Rico, is so scarce that no recent collections have been made here. The same species of vaquita, *Diaprepes abbreviatus* Linnaeus, occurs in both Puerto Rico and Barbados, although the species of *Diaprepes* present in the islands of the Lesser Antilles between Puerto Rico and Barbados are quite distinct and obviously and conspicuously different.

The insect pests of cotton are identical in the two islands, and presumably invasions of the moths of Alabama argillacea Hübner could be anticipated in Puerto Rico if outbreaks of its caterpillars in the cotton fields of Barbados were promptly reported. Both Barbados and Puerto Rico have similar white grub problems from endemic species of May beetles, and in both islands, the introduced Surinam toad, Bufo marinus Linnaeus, is the principal agent in natural control. In both islands, the endemic white grubs are also parasitized by endemic species of Tiphia, the Barbadian species being of appreciable economic importance as compared with the scarcity of the one in Puerto Rico which has not been abundant since the time of Gundlach. The "cucubano" of Puerto Rico, Pyrophorus luminosus Illiger, an important predator on white grubs before the introduction of the Surinam toad, has become established in Barbados, but a Barbadian lady-beetle, Hyperaspis trilineata Mulsant, feeding on the mealybugs of sugarcane, and preferring to live under sugarcane leaf sheaths, has not become established in Puerto Rico despite repeated. introductions. The parasitic wasp, Tetrastichus haitiensis Gahan, the major factor in the natural control of the "vaquita" or sugar-cane weevil rootstalk borer, Diaprepes abbreviatus Linnaeus, in Puerto Rico, has not become established in Barbados despite repeated introductions.

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In some cases we may be able to surmise the reasons for the success or failure of parasite introductions, or why the same insect is present, or not, in the two islands, but it is important to have a record of the known insect fauna of both that a direct comparison may be made. Mr. Tucker has been Entomologist in Barbados for many years, and although working primarily on economic problems, during that extended period has been able to accumulate the following records, admittedly not complete or exhaustive, but of the greatest value to his fellow entomologists, not only in Puerto Rico, but everywhere in the world.

ARACHNIDA

Superfamily-Ixodoidea

Argas miniatus Koch Found on poultry.

FAMILY-IXODIIDAE

Boöphilus (or Margaropus) annulatus Say var. microplus (Can.) Found on cattle.
Rhipicephalus sanguineus Latreille Found on dogs.

FAMILY-DERMANYSSUS

Dermanyssus gallinae Linnaeus Found on poultry.

FAMILY-ACARIDAE

Tyrophagus (= Tyroglyphus) sp.

Attacking seeds of Indian corn, Zea Mais, and also the larvae of Clemora (Phytalus) smithi Arrow kept in tins for experimental purposes.

FAMILY-CUNAXIDAE

Cunaxa sp.

Found on cane leaves and suspected of sucking or damaging eggs of *D. saccharalis*.

FAMILY-ERYTHRAEIDAE

Atomus sp.

This identification has since been stated to be probably any genus in family and that this (*Atomus*) is a larval genus of *Trombidiidae*, Definitely known to suck contents of eggs of *D. saccharalis* in canefields.

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FAMILY-ORIBATOIDEA

Genus unknown

These mites were found on stem of shaddock, *Citrus decumana*, associated with *Chionaspis citri*. The mites of this family are vegetable feeders, but probably not of economic importance.

INSECTA

Order-Thysanura

FAMILY-LEPISMIDAE

Lepisma saccharina Linnaeus

Infests books, papers, photographs etc., a common household pest.

Order-Dermaptera

FAMILY-FORFICULIDAE

Doru lineare Esch

Found in leaf sheaths of sugarcane and also in stems of old canes badly damaged by moth borer.

FAMILY-LABIDURIDAE

Anisolabis maritima Géné

Record only.

Euborellia janierensis Dohrn

West Indian records of *Janierensis* actually apply, in many cases, to other species, due to misidentification.

Order-Orthoptera

FAMILY-BLATTIDAE

Aglaopteryx diaphana Fabricius Record only. Supella supellectilium Serville Record only.

Blatella conspersa Brunner

This record is correct, but proper use of name now uncertain.

Blatella germanica Linnaeus

Common in cupboards, drawers etc.

Chorisoneura barbadensis Rehn and Hebard

Record only.

Ischnoptera rufa rufa DeGeer

Found in canefields occasionally.

Periplaneta australasiae Fabricius

Frequents houses and ships.

ORDER-ORTHOPTERA (Cont'd)

FAMILY-BLATTIDAE

Leucophaea maderae Fabricius Found in trash heaps, canefields, outhouses etc.
Panchlora cubensis Saussure Record only.
Pycnoscelus surinamensis Linnaeus Frequents canefields.

FAMILY-MANTIDAE

Lobocnema lobipes Record only. Musonia surinama Saussure Found in houses.

FAMILY-PHASMATIDAE

Bostra maxwelli Redtenbacher These insects feed on plant leaves.
Calynda keratosqueleton Olivier Record only.
Clonistria linearis Drury Record only.

FAMILY-ACRIDIDAE

Orphulina balloui Rehn Frequents grasslands.
Orphulella punctata DeGeer Record only.
Schistocerca pallens Thunberg Eats leaves of sugarcane, cotton etc.

FAMILY-TETTIGONIIDAE

Neoconocephalus triops Linnaeus Frequents grass pastures.
Neoconocephalus maxillosus Fabricius Record only.
Turpilia punctata Stål Record only.
Xerophyllopteryx fumosa Bruner Record only.

ORDER-ORTHOPTERA (Cont'd)

FAMILY-GRYLLIDAE

Acheta assimilis Fabricius Record only.

Amphiacusta cariabea Saussure Record only.

Orocharis antillarum Saussure

Record only.

Gryllotalpa hexadactyla Perty Record only.

Scapteriscus variegatus Burmeister

Specimens taken under a dripping tap, also in a muddy situation.

ORDER-ISOPTERA

FAMILY-TERMITIDAE

Coptotermes havilandi Holmgren

Causes considerable damage to buildings in Bridgetown.

Coptotermes marabitanus Hagen

(Probably C. havilandi according to A. M. Adamson. If so, this might indicate the source of introduction of C. havilandi, for the record was prior to 1928. The species has since then not been found in sugarcane, but only in Bridgetown; even now (1941) planters are seldom cognizant of the fact that wood ants damage sugarcanes. The species so far found almost universally in canefields, is Nasutilermes costalis). Taken from a single sugarcane sent to the Office badly eaten into by large members of the species.

Cryptotermes brevis Waker

Dry-wood termites less serious (1941) than C. havilandi.

Eutermes haitiensis Holmgren

(Probably Nasutitermes costalis (see A. M. Adamson's letter, 1st November, 1934). Similarly with Eutermes morio Latreille.)

Found attacking sugarcane on a fairly large area on one plantation where old megass which was attacked had been placed on the fields; also found in buildings on the same plantation.

Heterotermes tenuis Hagen

Also causes damage in buildings.

Kalotermes sp.

Neotermes sp.

Nasutitermes costalis Holmgren

In canefields, mahogany woods etc.

Rhinotermes nasutus Perty

(Record suspect by A. M. Adamson.) Attacking woodwork of buildings.

ORDER-MALLOPHAGA

Lipeurus polytrapezius Nitzsch Taken from domestic fowl.
Lipeurus tropicalis Peters Taken from domestic fowl.
Ricinus sp. (near angulatus Kellogg) Taken from Tyrannus dominicensis.
Menopon gallinae Linnaeus Found on poultry.
Goniocotes gigas Taschenberg Found on poultry.

ORDER-ODONATA

Erythrodiplax umbrata Linnaeus Record only.
Lepthemis vesiculosa Fabricius Record only.
Orthemis sulphurata Hagen This identification is doubtful.
Pantala flavescens Fabricius Record only.
Tramea abdominalis Rambur Record only.
Ischnura ramburii Selys Record only.

ORDER-NEUROPTERA

FAMILY-CHRYSOPIDAE

Chrysopa sp. Feeds on plant lice, white flies etc. Chrysopa antillana Navas Record only. Chrysopa exterior Navas Record only.

Order-Thysanoptera

Corynothrips stenopterus Williams
 Cassava.
 Dendrothripoides ipomeae Bagnall
 Specimens from sweetpotato. Confined apparently to Ipomaeae.
 Frankliniella melanommata Williams
 Frankliniella (Euthrips) insularis Franklin
 Attacks leaves of many plants.

ORDER-THYSANOPTERA (Cont'd)

Heliothrips haemorrhoidalis Bouché

Attacks leaves of fiddlewood, *Citharexylum quadrangulare*. Also mango. This species has legs all yellow.

Hoplandothrips xanthopoides Bagnall

Attacks leaves of cassava.

Selenothrips (Heliothrips) rubrocincta Giard

Attacks grape vine, croton, mango. This species has darker legs. Thrips tabaci Lindeman

Attacks onion and eschalot.

ORDER-ANOPLURA

Solenoptes capillatus Enderlein Found on cattle.

ORDER-HOMOPTERA

FAMILY-CICADELLIDAE

Hortensia similis Walker

Caught abundantly at light traps, Codrington, 1.3.1929. Baldulus maidis Delong & Wolcott

Ex. maize at Codrington.

Balchutha sp.

Found on Zea mays Linnaeus.

Empoasca sp.

From leaves of English lettuce, Lactuca sativa.

Empoasca fabae Harris

Ex. pigeon peas at Codrington and elsewhere.

Empoasca solana DeLong

On sweetpotato vines (becoming very prevalent 1940.41)

Empoasca sp.

On okra at Eastpoint. Suspected of causing browning of leaves and stunting.

FAMILY-DELPHACIDAE

Delphax saccharivora Westwood

This is a minor pest of sugarcane, its eggs being parasitised to a very large extent by the Mymarid *Anagrus flavescens* Waterhouse.

Peregrinus maidis Ashmead

This is a minor pest of maize, sorghum etc.

ORDER-HOMOPTERA (Cont'd)

FAMILY-ALEYRODIDAE

Aleurodicus cocois Curtis White fly on coconut and other palms. Dialeurodes citrifolii Morgan Found on citrus trees.

FAMILY-APHIDIDAE

Sipha flava Forbes On leaves of sugarcane.
Aphis gossypii Glover Attacks cotton, melon, and okra.
Aphis maidis Fitch Taken on sorghum sp., Imphee etc.
Myzus persicae Sulzer

Taken from cabbage.

FAMILY-COCCIDAE

Icerya purchasi Maskell

On casuarina and other garden plants. First found around 1938, had increased 1941. Also on citrus and flowering pea tree. Under control by *Rodolia cardinalis*, 1943–8.

Asterolecanium pustulans Cockerell

From Bougainvillea.

Pseudococcus sp.

(Probably related to *P. inquiliniss*). Found under bark of tree tended by ant *Crematogaster*.

Trionymus sacchari Cockerell

Mealybug on sugarcane.

Ferrisia virgata Cockerell

From tomato plants.

Geococcus radicum Green

From roots of shaddock, Citrus decumanus.

Vinsonia stellifera Westwood

On coconut, citrus, and other plants.

Coccus hesperidium Linnaeus

Record only.

Coccus viridis Green

Found on citrus trees frequently.

Saissetia nigra Nietner

On citrus and flowering pea trees.

ORDER-HOMOPTERA (Cont'd)

FAMILY-COCCIDAE

Diapis echinocacti opuntiae Cockerell On cactus. Lepidosaphes alba Cockerell On cassava. Lepidosaphes beckii Newman Found on citrus trees frequently. Aulacaspis rosae Bouché Common on mango leaves. Aspidiotus cydoniae Comstock On oleander. Aspidiotus destructor Signoret Found under bark of tree tended by ant Crematogaster. Aspidiotus longispina Morgan Found on papaw trees, Carica papaya Linnaeus. Selenaspidus articulatus Morgan Found on citrus trees. Aonidiella comperei McKenzie Found under bark of tree tended by ant Crematogaster. Pseudaonidia trilobitiformis Green Found on citrus trees fairly frequently. Chrysomphalus aonidium Linnaeus Found on citrus trees.

ORDER-HEMIPTERA

FAMILY-CIMICIDAE

Cimex lectularius Linnaeus Record only.

FAMILY-PENTATOMIDAE

Edessa meditabunda Fabricius Found on many plants, including cotton and cordia.
Mormidea ypsilon Linnaeus Record only.
Nezara viridula Linnaeus Habits similar to *Edessa*.

FAMILY-COREIDAE

Leptocorisa filiformis Fabricius Caught on *Coccoloba uvifera*. Leptocorisa tipuloides DeGeer Record only.

ORDER-HEMIPTERA (Cont'd)

FAMILY-COREIDAE

Phthia picta Drury

This is a reddish bug, sometimes a pest of tomato plants; it commonly occurs on various weeds in large numbers during June and July.

FAMILY-LYGAEIDAE

Oncopeltus fasciatus Dallas

Record only.

Pachybrachius bilobata Say

Taken on Gossypium barbadense Linnaeus.

FAMILY-GERRIDAE

Gerris marginata Say

Record only. Determination questionable.

FAMILY-ANTHOCORIDAE

Asthenidea sp.

Found in rooms containing wheat for breeding *Sitotroga cerealella*. Some found most years and suspected of sucking and destroying eggs laid by the moths.

Cardiastethus elegans Uhler

Reared from cotton leaves and stems during close season.

FAMILY-TINGIDAE

Corythaica cyathicollis Costa

Attacks leaves of eggplant Solanum melongera.

Corythucha gossypii Fabricius

Larvae attack leaves of *Hibiscus esculentus*; also attacks cassava in considerable numbers.

FAMILY-REDUVIIDAE

Nabis capsiformis Germar

Caught in field plot of flowering alfalfa, Medicago sativa.

Sirthenea stria Fabricius

Found in house at Worthings. Det. as known from Lesser Antilles, Venezuela and Central America. Is not known to bite man, unless provoked.

Triatoma sanguisuga Leconte

(This probably should be changed to *rubrofasciata* (Degees).) Apparently there are no authentic records of *sanguisuga* from the West Indies. Blood-sucking cone-nose bug, sometimes found in houses.

ORDER-COLEOPTERA

FAMILY-CICINDELIDAE

Cicindela suturalis Fabricius

Found on the sea beach, Maxwell coast.

FAMILY-CARABIDAE

Apenes marginalis Dejean

Record only.

Galerita unicolor Latreille & Dejean (listed as beauvoisi Chaudoir by Blackwelder 1944–69)

Record only.

Harpalus sp.

Record only.

FAMILY-DYTISCIDAE

Eretes stictica Linnaeus

Record only.

Megadytes giganteus Castelnau

Larvae feed on tadpoles of Giant toad, *Bufo marinus*, and are a serious factor in limiting the numbers of this beneficial toad.

FAMILY-STAPHYLINIDAE

Oligota oviformis Casey

Larvae feed on eggs of red spider. Identification unlikely, unless this is an introduced species. Most probably the species is *L. parva* Kraatz. Carpelimus aridus DuVal

Specimens in the British Museum from northern Barbados.

Dr. Richard E. Blackwelder, in his "Monograph of the West Indian Beetles of the Family Staphylinidae", U. S. National Museum Bulletin 182, pp. 658, Washington, D. C., 1943, records collection by himself of the following species of Staphylinidae in Barbados:

Carpelimus correctus Blackwelder, TYPE from St. Lucia

Three Barbadian collections.

Carpelimus flavipes Erichson, TYPE from St. John

One Barbadian collection, in dung.

Oxytelus incisus Motschulsky

Five Barbadian collections. "This is probably the commonest and most wide-spread staphylinid in the West Indies and will undoubtedly be found on all the islands where cattle and horses are kept. I have collected it from dung, manure, excrement, and bat guano, flying at dusk and on muddy banks of ponds". Blackwelder 1943-98.

Platystethus spiculus Erichson

One Barbadian collection.

ORDER-COLEOPTERA (Cont'd)

FAMILY-STAPHYLINIDAE

Lithocharis limbata Erichson

Five Barbadian collections.

Lithocharis ochracea Gravenhorst

Cosmopolitan, two Barbadian collections.

Lithocharis sororcula Kraatz

Three Barbadian collections.

Scopaeus pygmaeus Erichson, TYPE from Puerto Rico One specimen in the British Museum.

Erichsonius humilis Erichson, TYPE from Puerto Rico One Barbadian collection.

Philonthus ventralis Gravenhorst

Cosmopolitan, seven Barbadian collections.

Cafius bistriatus Erichson, TYPE from Long Island, New York

From under seaweed at three localities on the beach at Barbados. Diochus nanus Erichson

Cosmopolitan, collected at two Barbadian localities under cane trash. Leptacinius parumpunctatus Gyllenhal

Cosmopolitan, two Barbadian collections, under dung.

Xantholinus attenuatus Erichson, TYPE from St. Thomas and Puerto Rico

Eight Barbadian collections.

Leucoparyphus silphoides Linnaeus

Cosmopolitan, one Barbadian collection, under dung.

FAMILY-HYDROPHILIDAE

Hydrophilus ater Olivier (listed as insularis Laporte, Blackwelder 1944-171)

Larvae feed on tadpoles of Bufo marinus.

Tropisternus apicipalpia Chevrolat

Tropisternus lateralis Fabricius

Dactylosternum abdominale Fabricius (listed by Blackwelder 1944-170 to 173)

FAMILY-SCARABAEIDAE

Aphodius cuniculus Chevrolat Ataenius beattyi Chapin Ataenius edwardsi Chapin Ataenius frater Arrow Ataenius gracilis Melsheimer

ORDER-COLEOPTERA (Cont'd)

FAMILY-SCARABAEIDAE

Ataenius luteomargo Chapin

Ataenius miami Cartwright

Ataenius strigicauda Bates (listed by Blackwelder 1944-212 to 215, after Dr. E. A. Chapin's A Revision of the West Indian Beetles of the Scarabaeid Subfamily Aphodiinae, Proc. U. S. National Museum, 89 (3092): 1-41. Washington, D. C., May 23, 1940.)

Clemora (or Phytalus) smithi Arrow

Larvae injure roots of sugarcane, rose trees, citrus, palms, bananas; adults found at night on sugarcane, rose trees, cassava, bananas. The leaves of rose trees are often badly eaten by the adults.

Cyclocephala signata Drury

Record only.

Ligyrus cuniculus Fabricius

Larvae found in decaying vegetable matter. Adults fly to the lights in houses.

Trox suberosus Fabricius

Feeds on carcasses, hides, hoofs etc.

Phileurus valgus Linnaeus

Record only.

FAMILY-ELATERIDAE

Chalcolepidius porcatus Linnaeus

Taken from and destroying whitewood tree. Also from imported wallaba wood.

Heteroderes lauranti Guérin-Méneville

From imported wallaba wood, probably from Demerara, 1929.

Pyrophorus luminosus Illiger

Introduced in 1935 (3,670 larvae) and previously in 1932 (1,200 adults) from Puerto Rico. Successfully established and still to be found in wetter, hillier regions of Barbados, where there is more tree growth. Numbers still found in May–June, 1951.

FAMILY-BUPRESTIDAE

Chrysobothris sexpunctata Fabricius

Imported in firewood.

Chrysobothris antillarum Fisher 1925-101: TYPE from Barbados Described from a single specimen collected by Dayton Stoner, May 11,

1918, at Bridgetown.

ORDER-COLEOPTERA (Cont'd)

FAMILY-CLERIDAE

Necrobia rufipes DeGeer

On empty copra bags; probably imported with copra to Barbados 1940-41.

FAMILY-OSTOMIDAE

Tenebriodes mauritanicus Linnaeus Found in sacks of peanuts from India.

FAMILY-DERMESTIDAE

Attagenus gloriosae Fabricius

Found on vanilla beans from Trinidad, 1928. Also found in various habitats in Barbados.

FAMILY-BOSTRICHIDAE

Amphicerus (Schistocerus) cornutus Pallas

Specimens from a wood dealer.

Heterobostrychus aequalis Waterhouse

Adults similar to S. anale.

Sinoxylon conigerum Gerstaecker

Adults, pupae, and larvae in wooden cases shipped direct from India.

Tetrapriocera longicornis Olivier

Hatched from ebony wood.

FAMILY—ANOBIIDAE (PTINIDAE)

Catorama herbarium Gorham

Eats into books, upholstered furniture, provisions, etc.

Catorama zeae Waterhouse

Listed by Blackwelder 1945-406.

Stegobium panicea Linnaeus

Attacking onion seed from Teneriffe. Cosmopolitan pest of stored foodstuffs.

FAMILY-LYMEXYLONIDAE

Atractocerus brasiliensis Laporte and Serville Black borer of ebony, *Albizzia Lebbek* Bentham.

FAMILY-NITIDULIDAE

Carpophilus dimidiatus var. mutilatus Erichson

Collected on imphee leaves around decayed material.

Haptoncus luteola Erichson

Found in decaying mango.

ORDER-COLEOPTERA (Cont'd)

FAMILY-CUCUJIDAE

Oryzaephilus surinamensis Linnaeus

Infesting sugar. Barbados.

FAMILY-COCCINELLIDAE

Azya trinitatus Marshall

Introduced in large numbers (3,000 or 4,000) from Trinidad to control Aspidiotus destructor. Found on coconut palms weeks after liberation. Coleomegilla maculata DeGeer

Feeds on aphids, etc.

Cryptognathus nodiceps Marshall

Introduced from Trinidad to control Aspidiotus destructor on coconut palms. Reared in captivity in large cage, but not recovered from field.

Cycloneda sanguinea Linnaeus

Feeds on aphids, etc.

Hyperaspis trilineata Mulsant

Found associated with the sugarcane mealybug, on which it feeds. Rodolia cardinalis Mulsant

Introduced in 1943 from California (via Imp. Inst. Ent. Ontario, Canada) for control of *Icerya purchasi*. Well established in April, 1943.

Scymnus ochroderus Mulsant

Feeds on aphids and white flies.

Pentilia insidiosa Mulsant

Also introduced from Trinidad.

FAMILY-MYCETOPHAGIDAE

Typhaea stercorea Linnaeus Record only.

FAMILY-RHIPIPHORIDAE

Macrosiagon octomaculatus Gerstaecker

Parasite of *Campsomeris dorsata* Fabricius. Also found on cottony cushion scale, *Icerya purchasi*; apparently feeding on the egg sacs, which it had torn open.

FAMILY-MELOIDAE

Cissites maculata Swederus

Listed by Blackwelder 1945-482.

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ORDER-COLEOPTERA (Cont'd)

FAMILY-OEDEMERIDAE

Copidita lateralis Waterhouse

Frequently found at lights.

FAMILY-TENEBRIONIDAE

Alphitobius diaperinus Panzer

Found in decaying cottonseed.

Alphitobius piceus Olivier

From cottonseed, a cosmopolitan species, not infrequently found in flour. Found in wheat in parasite units in 1947, causing considerable damage. Probably came in ships, during war.

Alphitobius laevigatus Fabricius

From cottonseed from Puerto Columbia after fumigation.

Opatrinus gemellatus Olivier

Said to injure young cotton plants in other Islands.

Phaleria chevrolata Fleutiaux and Serville

Caught on Dover Beach, Christ Church.

Schoenicus antillarum Champion

Some specimens found in a cellar; some also found under the bark of a tree.

Tribolium castaneum Herbst

Attacks stored maize, flour, etc.

Zophobas morio Fabricius

Occurs frequently in houses.

FAMILY-CERAMBYCIDAE

Achryson surinamum Linnaeus

Bores into ebony, Albizzia Lebbek Bentham.

Chlorida festiva Linnaeus

Bores into ebony, Albizzia Lebbek Bentham.

Cylindera flava Fabricius

Caught at light trap. Codrington, February, 1929.

Eburia decemmaculata Fabricius

Taken from borings in Spanish ash tree, Bishop's Court., tree killed by borers and white ants.

Eburia octomaculata Chevrolat

Found at Codrington, July, 1929

Heterachthes quadrimaculatus Fabricius

Record only.

ORDER-COLEOPTERA (Cont'd)

FAMILY CERAMBYCIDAE

Lissonotus shepherdi Pascoe From imported wallaba wood. Phryneta verrucosa Drury Bores into Ficus lentiginosa and F. nitida. Polyrraphis spinosa Drury Record only. Trachyderus succinctus Linnaeus Record only. Lagochirus araneiformis Linnaeus Record only. Leptostylus posticalis Gahan Taken from borings in branch of Hura crepitans. Leptostylus praemorsus Fabricius Bores into bark of lime and other citrus trees. Batocera rubus Linnaeus Recorded by Blackwelder 1946-596 as also from St. Croix and China. Hypsioma insularis Fisher 1935-199: TYPE from Barbados Lepturges guadeloupensis Fleutiaux and Sallé Borings in twigs of mango.

FAMILY-CHRYSOMELIDAE

Lema sharpi Jacquelin-Duval

Found on various weeds.

Myochrous armatus Baly

Larvae found at roots of sugarcane; adults on sugarcane shoots and corn leaves, and eating sweetpotato stems.

Chaetocnema amazona Baly

Flea beetle of sweetpotato

Haltica satellitia Jacquelin-Duval

Feeds on weed Jussiaea suffruticosa Linnaeus.

Homophoeta aequinoctialis Linnaeus

Sometimes very numerous on the common weed *Stachytarpheta indica* Vahl.

FAMILY-BRUCHIDAE

Bruchus spp.

Attacking stored seeds, etc. Bruchidius incarnatus Boheman In Bonavist beans from Egypt.

ORDER-COLEOPTERA (Cont'd)

FAMILY-BRUCHIDAE

Caryedon fuscus Goerc

An introduced Asiatic species.

Collosobruchus analis Fabricius

In imported peas.

Collosobruchus chinensis Linnaeus

Attacking black-eye peas stored, grown and imported.

Collosobruchus maculatus Fabricius

Reared from imported black-eye peas, known locally as "pope". Probably attacks black-eye peas in field in Barbados. Parasitised by *Bruchobius vagabundus* Timberlake.

FAMILY-SCOLYTIDAE

Coccotrypes thrinacis Hopkins

Boring in seeds of *Thrinax radiata* and *Thrinax argentea*, and found boring into and destroying buttons on a suit (St. Lucy, Barbados). Buttons had been turned out of ivory nuts, *Phytelephas* sp. Species usually associated with this sort of injury is *C. eggersii*. Hagendorn, but present species is smaller and darker.

Cryphalus sp.

Boring in twigs of mango. Also attacks stored sweetpotato seriously. Noted 1930.

Hypocryphalus mangiferae Stebbing

Boring in twigs of mango.

Hypothenemus sp.

Boring in twigs of Mangifera indica.

Pycnarthrum pallidum Chapuis

Found in bark of Artocarpus incisa and Ficus nitida.

Stephanoderes seriatus Eichhoff

Record only.

Xylebrous confusus Eichhoff

Mango.

Xyleborus perforans Wollaston

Attacks acid sugarcane.

FAMILY-PLATYPODIDAE

Platypus punctatus Chapuis Listed by Blackwelder 1947-790.

ORDER-COLEOPTERA (Cont'd)

FAMILY-CURCULIONIDAE

Artipus corycaeus Sahlberg

Found in pods of *Caesalpinia* sp. and among seeds of *Abrus precatorius* Linnaeus.

Diaprepes abbreviatus Linnaeus

This is a very bad pest of sugarcane; the larvae bore into the cane bases, sometimes completely severing them.

Diaprepes famelicus Olivier, var. barbadensis Marshall

Adults found in Barbados feeding on epidermis of Agave leaves.

Euscepes postfasciatus Fairmaire

This is a very bad pest of sweetpotato.

Litostylus bovelli Marshall

Record only.

Metamasius sericeus Olivier

Attacks sugarcane after fermentation has begun, or attacks moth borer damaged cane and produces fermentation and almost complete destruction of attacked cane. Attacks some cane varieties more than others, and damages ratoon stumps. Recorded once (1946) as attacking banana corms and stumps.

Promecops lunatus Fahraeus

Attacks leaves of bean, Phaseolus lunatus.

Rhyssomatus nigerrimus Fahraeus

Record only.

Sitophilus granarius Linnaeus

Grain weevil-cosmopolitan.

Sitophilus linearis Herbst

Record only.

Order-Diptera

FAMILY-CULICIDAE

Aedes aegypti Linnaeus Record only. Culex quinquefasciatus Say Record only.

FAMILY-TIPULIDAE AND PSYCHODIDAE

Genera and species of these families are present in Barbados, but are not on record.

FAMILY-TENDIPEDIDAE

Tendipes spp.

ORDER-DIPTERA (Cont'd)

FAMILY-HELEIDAE

Culicoides sp.

Taken sucking human blood. Culicoides paraensis Goeldi

Record only.

FAMILY-ITONIDIDAE

Asynapta mangiferae Felt

Attacks mango twigs and also leaves.

Contarinia lycopersici Felt

Cause severe blossom fall in tomatoes in some years.

Porricondyla gossypii Coquillett

Gets into bruises on the stems, lives under the bark and finally causes death of the attacked branches.

FAMILY-SCATOPSIDAE

Scatopse sp.

Collected from soil containing bulbous plants (Liliaceae) imported from United Kingdom.

FAMILY-STRATIOMYIDAE

Hermetia illucens Linnaeus

Frequently found on imphee leaves, okra leaves, etc., evidently following honeydew of aphids. Pupae are flat, grey, segmented (with bristles on segment edges) and mobile.

FAMILY-TABANIDAE

Tabanus hookeri Knab var. Caught on okra plant.

FAMILY-BOMBYLIIDAE

Geron sp.

Record only.

FAMILY-SYRPHIDAE

Allograpta obliqua Say Record only. Tubifera vinetorum Fabricius Record only.

ORDER-DIPTERA (Cont'd)

FAMILY-DOLICHOPODIDAE

Psilopus chrysoprasius Walker Frequently seen on plant leaves.Psilopus unifasciatus Say Habits similar to the preceding.

FAMILY-EPHYDRIDAE

Leptopsilopa nigrimana Williston Bred from mines in sweetpotato leaves.

FAMILY-CHLOROPIDAE

Cadrena pallida Loew Record only.

Hippelates pallidus Loew

From diseased tomato cutting (1934). Probably same species as H. planiscatellatis.

Oscinella sp.

On plant leaves.

FAMILY-PHORIDAE

Megaselia sp. Record only. Megaselia scalaris Loew Recorded as in soil; presumably, pupae found in soil.

FAMILY-OTITIDAE

Euxesta annonae Fabricius Common on plant leaves; same species as *E. eluta* Loew.

FAMILY-LAUXANIIDAE

Sapromyza maculosa Williston

May be same species as S. macula Loew. Record only.

FAMILY-CALLIPHORIDAE

Callitroga macellaria Fabricius

Taken on sorghum with honeydew of aphids.

Phaenicia eximia Wiedemann (= Lucilia ruficornis Macquart) Taken on leaves.

ORDER-DIPTERA (Cont'd)

FAMILY-SARCOPHAGIDAE

Sarcophaga chaetopygialis Williston

Caught in field of sweetpotato which was infested with larvae of *Herse cingulata* Fabricius.

Sarcophaga chrysostoma Wiedemann Record only. Sarcophaga lambens Wiedemann

Bred from larvae feeding on decaying larva of *Herse cingulata* Fabricius.

Sarcophaga plinthopyga Wiedemann Record only.

Sarcophaga trivittata Macquart Record only.

Sarcophaga ventricosa Van der Wulp Found on Zea mays.

FAMILY-LARVAEVORIDAE

Ormia depleta Wiedemann Caught in house. Peleteria robusta Wiedemann Parasitic on Leucania (or Cirphis) microgonia Hampson. Sturmia distincta Wiedemann Parasitic on Herse cingulata Fabricius Zygosturmia inca Townsend Bred from sphingid larvae feeding on sweetpotato.

FAMILY- MUSCIDAE

Atherigona exisa Thomson Reared from cotton bolls infested with pink bollworm; also possibly from rotten tubers of cassava. Musca domestica Linnaeus

Housefly.

Stomoxys calcitrans Linnaeus

Record only.

FAMILY-TYLIDAE

Hrallomyia (Calobata or Taeniaptera) annulata Fabricius Occurs along grass paths.

ORDER-DIPTERA (Cont'd)

FAMILY-AGROMYZIDAE

Agromyza sp.

Leaf-miner of cow-pea. Agromyza sorosis Williston

Bred from young leaves of Zea Mays attacked by a leaf-miner.

FAMILY-DROSOPHILIDAE

Drosophila melanogaster Meigen

The "wine fly" of Europe. Bred from decaying mango.

FAMILY-MILICHIIDAE

Milichiella lacteipennis Loew Taken on leaves of papaw, *Carica papaya*,

ORDER-APHANIPTERA

FAMILY-PULICIDAE

Pulex irritans Linnaeus Record only.

Order-Lepidoptera

FAMILY-NYMPHALIDAE

Agraulis vanillae Linnaeus Larva feeds on Passiflora spp.
Danaus plexippus Linnaeus Larva feeds on weed Asclepias curassavica.
Hypolimnas misippus Linnaeus Larva feeds on Portulaca sp.
Junonia genoveva Cramer Larva feeds on Stachytarpheta indica Vahl.
Vanessa cardui Linnaeus

Record only.

FAMILY-LYCAENIDAE

Hemiargus hanno Stoll

Small blue butterfly, larva feeds on Phaseolus sp.

FAMILY-PIERIDAE

Ascia monuste Linnaeus

Larva feeds on cruciferous plants.

ORDER-LEPIDOPTERA (Cont'd)

FAMILY-PIERIDAE

Eurema elathea Cramer

Female similar to above sp. Male small and well coloured. Phoebis eubule Linnaeus

Larva feeds on Cassia spp.

FAMILY-PAPILIONIDAE

Papilio polydamas Linnaeus Larva feeds on Aristolochia.

FAMILY-HESPERIIDAE

Calpodes ethlius Cramer Attacks canna, arrowroot, and tous-les-mois plants.
Eudamus retracta Record only. May be *Goniurus dorantes retractus*.
Hylephila phyleus Drury Record only.
Proteides zestos Geyer Record only.

Urbanus proteus Linnaeus Attacks bean plants. (*Phaseolus* sp.).

FAMILY-ARCTIIDAE

Utethesia ornatrix Linnaeus Feeds on *Crotolaria retusa*.

FAMILY-NOCTUIDAE

Agrotis malefida Guenée

Agrotis subterranea Fabricius

These two species feed on cotton, sweetpotato. Bred from tobacco, soybeans and curcurbits. Also found in soil under tomatoes, causing serious damage to fruits resting on the ground.

Anicla infecta Ochsenheimer

Reared from sweetpotato leaves.

Xanthopastis timais Cramer

Feeds on lily (Crinum sp.)

Bagisara subusta Hübner

Reared from larva feeding on Sida glomerata.

Cydosia histrio Fabricius

Feeds on Spigelia anthelmia Linnaeus

ORDER-LEPIDOPTERA (Cont'd)

FAMILY-NOCTUIDAE

Elaphria agrotina Guenée

Reared from cotton leaves and stems kept at Laboratory during the close season.

Heliothis armigera Hübner

This is pest of cotton, corn, and tomato.

Heliothis virescens Fabricius

Feeds on pigeon pea, *Cajanus cajan*. Reared from cotton bolls and from tomato; also from larva feeding on rose bushes.

Laphygma frugiperda Smith and Abbot

Besides being a bad pest of Indian corn, is also a minor pest of cotton, injuring the bolls. Reared from curcurbits; bores also into stems of Indian corn and feeds on young ears and tassels. Feeds on shoots of sugarcane.

Leucania microgonia Hampson

Larvae attacking leaves of sugarcane. Reared from larvae at root of sugarcane.

Leucania multilinea Walker

Record only.

Prodenia dolichos Fabricius

Attacks cotton, sweetpotatoes, and many garden plants, also tobacco; caught often at light traps.

Prodenia (Xylomyges) eridania Cramer

Reared from larvae on sweetpotato. Pupae also dug up in sweetpotato fields, September, 1929.

Prodenia sunia Guenée

Feeds on Zephyranthes sp., also reared from sweetpotato, October 1928.

Lithoprosopus confligens Walker

Caught at light. Barbados. Recorded also from Dominica.

Meridyrias progenies Guenée

Caught at light in house.

Micrathetis triplex Walker

Reared from sweetpotato leaves.

Alabama argillacea Hübner

This is a common pest of cotton.

Aletia luridula Guenée

This is not as bad a pest of cotton as the preceding. Reared also from tomatoes.

Spragueia dama Guenée

Larvae found eating blossoms of sweetpotato.

ORDER-LEPIDOPTERA (Cont'd)

FAMILY-NOCTUIDAE

Mocis repanda Fabricius

Attacks Guinea grass, *Panicum maximum*; periodic outbreaks occur. Otosema odorata Linnaeus

Record only.

Platysenta albigera Guenée

Reared from larvae attacking leaves of Chrysanthemum.

Pseudoplusia rogationis Guenée

Feeds on sweetpotato, woolly pyrol and curcurbits.

Ptichodis immunis Guenée

Record only.

Gonodonta nutrix Stoll

Reared from soursop.

Gonodonta famelica Guenée

Feeds on Leucaena glauca.

Gonodonta fasciolaris Hübner

Feeds on the leaves of the lignum-vitae, Guaiacum officinale.

Anticarsia gemmatalis Hübner

Attacks beans, bonavist, woolly pyrol, and other related leguminous plants.

Argyrogramma verruca Fabricius

Reared from sweetpotato vines; not so numerous as Xylomyges eridania Cramer

FAMILY-SPHINGIDAE

Herse cingulata Fabricius

Pest of sweetpotato; periodic outbreaks occur.

Cocytius antaeus Drury

Feeds on plants of Anonaceae

Epistor (or Enyo) lugubris Linnaeus

Feeds on Vitis spp. and Datura spp.

Erinnyis ello Linnaeus

Feeds on cassava (Manihot); periodic outbreaks occur. Reared from caterpillars from roots of cane.

Erinnyis alope Drury

Feeds on Hippomane and Jatropha.

Erinnyis obscura Fabricius

Record only.

Pachylia ficus Linnaeus

Feeds on Ficus nitida and Chlorophora tinctoria.

Pholus fasciatus Sulzer

Feeds on water-hyacinth, Jussiaea.

ORDER-LEPIDOPTERA (Cont'd)

FAMILY-SPHINGIDAE

Pholus labruscae Linnaeus Feeds on Cissus sicyoides.
Protambulyx strigilis Fabricius Feeds on hog plum, Spondias lutea.
Protoparce rustica Fabricius Feeds on wild coffee, Clerodendron aculeatum.
Protoparce sexta Johansson Feeds on Solanaceous plants, e.g. tomato, pepper.
Pseudosphinx tetrio Linnaeus Feeds on Allamanda or Frangipani,-Plumeria alba.
Sesia tantalus Linnaeus sub. sp. zonata Drury Record only.
Xylophanes pluto Fabricius Feeds on Erythroxylon.
Xylophanes tersa Linnaeus

Feeds on rose. Reared from milkweed, September, 1928.

FAMILY-SYNTOMIDAE

Syntomeida syntomoides Boisduval

Feeds on *Ipomoea*. Larvae very ornate with long tufts of hair and bristles, etc.

FAMILY-GEOMETRIDAE

Melanchroia cephise Cramer

Caught at *Cordia interrupta* bushes, September 1928. Larva black and yellow. Feeds on *Phyllocanthus* and Barbados gooseberry.

Semiothisa ochrata Warren

Record uncertain.

Synchlora frondaria Guenée Record only.

FAMILY-URANIIDAE

Urania leilus Linnaeus

Occurs sometimes in Barbados after a gale.

FAMILY-GALLERIIDAE

Corcyra cephalonica Stainton

From bags of cottonseed in hold of steamers. Also reared from chocolate bars from stores, and caught in rooms stored with grain.

Galleria mellonella Linnaeus

The wax moth; a cosmopolitan pest.

ORDER-LEPIDOPTERA (Cont'd)

FAMILY -CRAMBIDAE

Diatraea saccharalis Fabricius

Larvae tunnel shoots and stems of sugarcane.

FAMILY-PHYCITIDAE

Crocidomera sp.

Reared from seed pods of *Swietenia mahagoni* Linnaeus. Ephestia cautella Walker

Reared from chocolates from stores in town.

Fundella pellucens Zeller

(= Fundella cistipennis Dyar)

Attacks and damages pods of pigeon peas, *Cajanus cajan*, and beans. Hypsipyla grandella Zeller

Bores into shoots of mahogany trees.

Nephopteryx ephestiella Hampson Reared from tamarind fruits.

FAMILY-PYRAUSTIDAE

Anania florella Cramer

Hosts plants not recorded.

Asciodes anormales Guenée

Feeds on sweetpotato leaves.

Sylepta (or Asciodes) gordialis Guenée

Feeds on Bougainvillaea.

Diaphania sibillalis Walker

Host plants not recorded.

Diaphania hyalinata Linnaeus

Feeds on curcubitaceous plants.

Pyrausta cerata Fabricius

(= Epicorsia mellinalis Hübner)

Attacks fiddle-wood, Citharexylum quadrangulare.

Hymenia perspectalis Hübner

Host plants not recorded.

Hymenia recurvalis Fabricius

Host plants not recorded.

Hedylepta indicata Fabricius

Feeds on bean leaves.

Psara (or Pachyzancla) bipunctalis Fabricius

Feeds on many plants: canna, garden beans, swordbeans, etc. Also reared from beet leaves.

ORDER-LEPIDOPTERA (Cont'd)

FAMILY-PYRAUSTIDAE

Pionea cervinalis Warren Host plants not recorded. Paradosis flegia Cramer Host plants not recorded.

FAMILY-COSSIDAE

Xyleutes punctifera Hampson

Larvae tunnel into certain trees, shrubs etc.—Ipomoea sp., Anona muricata, Codiaeum spp., Tecoma leucoxylon (whitewood), the lastnamed tree being specially favored by it, causing large limbs to break off.

FAMILY-GELECHIIDAE

Dichomeris melissia Walsingham

Reared from larva on leaf of potato, Solanum tuberosum.

Lecithocera emigrans Meyrick

Reared from leaves of sweetpotato.

Sitotroga cerealella Olivier

Reared from imphee seed; Andropogon sorghum saccharatus caught in canefield 1928.

Platyedra gossypiella Saunders

The pink bollworm of cotton.

FAMILY-COSMOPTERYGIDAE

Pyroderces stigmatophora Walsingham

Reared from sorghum seeds and castor-oil seeds.

Pyroderces coriacella Snellen

Reared from larva in cotton kept during "close season" at laboratory.

FAMILY-BLASTOBASIDAE

Blastobasis grenadensis Walsingham

Reared from cotton leaves and stems kept during "close season". Pigritia troctis Meyrick

Reared from cotton leaves and stems kept during "close season".

FAMILY-HYPONOMEUTIDAE

Plutella maculipennis Curtis Attacking leaves of cabbage.

ORDER-HYMENOPTERA

FAMILY-BRACONIDAE

Apanteles sp.

Reared from leaves of *Cordia interrupta*, attacked by a leaf-miner. Apanteles glomeratus Linnaeus

Introduced from Canada to combat larvae of cabbageworm, Ascia monuste Linnaeus. Field recoveries made.

Apanteles sp.

Reared from pink bollworm from okra seeds.

Microbracon hebetor Say

Taken from bags of stored cottonseed.

FAMILY-EVANIIDAE

Evania appendigaster Linnaeus Egg parasite of cockroach.

FAMILY-ICHNEUMONIDAE

Enicospilus sp.

FAMILY -- MYMARIDAE

Anagrus flaveolus Waterhouse

Egg parasite of the "cane fly", Delphax saccharivora Westwood.

FAMILY-TRICHOGRAMMATIDAE

Trichogramma minutum Riley

Parasitizes many lepidopterous eggs. Found extensively in cane fields, parasitizing eggs of the sugarcane moth-borer, *Diatraea saccharalis* Fabricius. Its mass rearing on *Sitotroga cerealella* Olivier, by making possible mass liberation in young canefields, has proved to be a successful form of biological control of the moth-borer in Barbados.

Trichogramma spp.

Introduced to supplement the above.

FAMILY-EULOPHIDAE, APHELININAE

Aspidiotiphagus citrinus Craw

Reared from Aulacaspis rosae Bouché infesting leaves of mango. Encarsia sp.

Reared from pupae of white flies on guava leaves. Prospaltella sp.

Introduced for control of Aleurodicus cocois Curtis.

ORDER-HYMENOPTERA (Cont'd)

SUBFAMILY-TETRASCHINAE

Tetrastichus hagenowi Ratzenburg

Parasitic on eggs of cockroach.

Tetrastichus haitiensis Gahan

Introduced from Puerto Rico, reared in Barbados and many thousands liberated for control of *Diaprepes abbreviatus* Linnaeus. No recoveries in the field.

SUBFAMILY-ELACHERTINAE

Euplectrus furnius Walker

Reared from larvae of *Herse cingulata* Fabricius found parasitized in a field of sweetpotatoes.

Zagrammosoma sp.

Reared from leaves of Cordia interrupta attacked by a leaf-miner.

SUBFAMILY-ENTEDONTINAE

Achrysocharis sp.

Reared from leaf-miners in sweetpotato leaves.

FAMILY-ENCYRTIDAE

Ageniaspis (Holcothorax)

Parasitic on larvae of *Nephopteryx* (or *Anypsipla*) ephestiella Hampson reared from tamarind fruits.

Habrolepis sp.

Parasitic on the scale insect Aspidiotus (or Hemiberlesia) longispina Morgan.

FAMILY-EUPELMIDAE

Lecanobius cockerelli Ashmead

Parasitic on black scale, Saissetia nigra Nietner.

FAMILY-CHALCIDIDAE

Brachymeria ovata Say

Pupal parasite of Alabama argillacea Hübner and Anticarsia gemmatilis Hübner.

Brachymeria sp.

Record only.

FAMILY-PTEROMALIDAE

Habrocytus cerealellae Ashmead

Parasitic on larvae of *Sitotroga cerealella* Olivier in moth breeding units.

ORDER-HYMENOPTERA (Cont'd)

FAMILY-PTEROMALIDAE

Prophanurus alecto Crawford

Parasitizes eggs of *Diatraea saccharalis* Fabricius, but is not common. Pteromalus puparum Linnaeus

Introduced from Canada and reared in puparia of Ascia monuste Linnaeus, several thousand liberated. No recoveries made in the field and it is not known whether it has become established in Barbados.

Bruchobius vagabundus Timberlake-det. A. B. Gahan

Parasitizes "pope" in black-eye peas.

FAMILY-DIAPRIDAE

Trichopria cubensis Fouts

Parasitizes pupae of the Amazon fly, *Metagonistylum minense* TT. Trichopria (Planopria) sp.

Reared from pupae of Paratheresia sp. from Trinidad, 1934.

FAMILY-FORMICIDAE

Cardiocondyla sp.

Crematogaster brevispinosa Mayr var. brevidentata Forel Acrobatic ant.

Acrobatic ant.

Cremastogaster (Orthocrema) brevispinosa Mayr

Bores into telephone-wire insulation in Barbados and is found on trees, fenceposts etc.

Monomorium destructor Jerdon

A troublesome house-infesting ant present in many localities in the West Indies.

Monomorium carbonarium F. Smith subsp. ebeninum Fabricius

On sugarcane.

Rhizomyrma sp.

Record only.

Solenopsis geminata Fabricius

Fire ant.

Solenopsis corticalis Forel

Attacking eggs, larvae, and pupae of *Clemora* (*Phytalus*) *smithi*, under experimental conditions.

Acropyga (Rhizomyrma) marshalli Crawley

From soil around base of cane stool.

Paratrachina longicornis Latreille

Crazy ant.

Brachymyrmex spp.

Record only.

ORDER-HYMENOPTERA (Cont'd)

FAMILY-FORMICIDAE

Camponotus sexguttatus Fabricius

From sugarcane field.

Camponotus (Myrmosphincta) sexguttatus Fabricius var. grenadensis Forel.

Found under bark of mahogany tree.

FAMILY-BETHYLIDAE

Perisierola nigrifemur Ashmead

Parasitic on Pyrocerces coriacella Snellen.

Rhabdepyris zeae Turner and Waterston

Found in numbers in units breeding *Sitotroga cerealella* Olivier. Not nearly so detrimental as *Habrocytus cerealellae* Ashmead.

FAMILY-VESPIDAE

Odynerus grenadensis Ashmead

Occupies cells of *Sceliphron cementarium* Drury, stocking them with caterpillars.

Ancistrocerus sp.

Habits similar to those of Odynerus grenadensis Ashmead.

Polistes annularis Linnaeus

Predaceous on cottonworm.

Polistes bellicous Cresson

Habits similar to preceeding.

Polistes canadensis Linnaeus var. cinctus Levs

Polistes fuscatus Fabricius var. nestor Fabricius

These records are from J. E. Bequaert, Jour. N. Y. Ent. Soc. 48: 1-31, 1940.

FAMILY-POMPILIDAE

Anoplius (Arachnophroctonus) Americanus Juxtus Cresson

Record only.

Anoplius (Notiochares) A. Amethystinus Fabricius Record only.

FAMILY-SCOLIIDAE

Campsomeris dorsata Fabricius

Parasitic on larva of Ligyrus cuniculus Fabricius

ORDER-HYMENOPTERA (Cont'd)

FAMILY-TIPHIIDAE

Myzine (or Elis) ephippium Fabricius Tiphia parallela Smith Parasitic on larva of *Clemora (Phytalus) smithi* Arrow.

FAMILY-SPHECIDAE

Chlorion (Ammobia) dubitatum Cresson Burrows in marlholes.
Motes luteipennis Cresson Burrows in marlholes.
Motes vinulenta Cresson Burrows in marlholes.
Sceliphron cementarium Drury Makes mud nests in outbuildings.

Tachytes argentipes Smith

Once observed in the act of catching a small grasshopper.

FAMILY-HALICTIDAE

Halictus cyaneus Ashmead Record only.

FAMILY-MEGACHILIDAE

Megachile barbadense Cockerell Record only.
Megachile binotulata Dalla Torre Leaf-cutting bee.
Megachile concinnata Smith Record only.

FAMILY-APIDAE

Apis mellifera Fabricius Honeybee. Hemisia versicolor Fabricius

Record only.

Hemisia sp.

Occupied nests of *Sceliphron cementarium* Drury, which it stores with a mixture of honey and pollen.

Xylocopa brasilianorum Linnaeus

Builds in decayed branches, posts etc.

Xylocopa fimbriata Linnaeus

Builds in old posts, old tree branches etc.