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THE INSECT FAUNA OF ST. CROIX,
UNITED STATES VIRGIN ISLANDS

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TAXONOMIC OUTLINE
INSECT FAUNA OF ST. CROIX

	NUMBER OF SPECIES	PAGE
CLASS INSECTA		14
SUBCLASS APTERYGOTA		14
ORDER THYSANURA		14
SUPERFAMILY LEPISMATOIDEA.....		
FAMILY Lepismatidae.....	1	
FAMILY Nicoletiidae.....	1	
SUBCLASS PTERYGOTA		14
ORDER ODONATA		14
SUBORDER ZYGOPTERA.....		
SUPERFAMILY COENAGRIONOIDEA.....		
FAMILY Coenagrionidae.....	3	
SUBORDER ANISOPTERA.....		
SUPERFAMILY AESHNOIDEA.....		
FAMILY Aeshnoidae.....	1	
SUPERFAMILY LIBELLULOIDEA.....		
FAMILY Libellulidae.....	12	
ORDER BLATTARIA		15
SUPERFAMILY PHYLLODROMIOIDEA.....		
FAMILY Areolariidae.....	1	
FAMILY Blaberidae.....	1	
FAMILY Panchloridae.....	1	
FAMILY Phyllodromiidae.....	2	
SUPERFAMILY BLATTOIDEA.....		
FAMILY Blattidae.....	10	
SUPERFAMILY CORYDIOIDEA.....		
FAMILY Euthyrrhaphidae.....	1	
ORDER ORTHOPTERA		17
SUBORDER MANTEODEA.....	2	
FAMILY Manteidae.....	2	
SUPERFAMILY TETTIGONIOIDEA.....		
FAMILY Tettigoniidae.....	3	

	NUMBER OF SPECIES	PAGE		NUMBER OF SPECIES	PAGE
FAMILY Gryllacridae.....	3		SUPERFAMILY THRIPOIDEA.....		
FAMILY Gryllidae.....	8		FAMILY Thripidae.....	4	
FAMILY Gryllotalpidae.....	2		SUBORDER TUBULIFERA.....		
SUPERFAMILY ACRIDODIEA.....			SUPERFAMILY PHLOEOTHRIPOIDEA.....		
FAMILY Acrididae.....	3		FAMILY Phloeothripidae.....	1	
SUBORDER PHASMATODEA.....			ORDER MALLOPHAGA.....		22
SUPERFAMILY PHASMATOIDEA.....			SUBORDER AMBLYCERA.....		
FAMILY Phasmatidae.....	1		FAMILY Gyropidae.....	1	
SUPERFAMILY BACTERIOIDEA.....			FAMILY Boopidae.....	1	
FAMILY Bacunculidae.....	2		FAMILY Menoponidae.....	9	
ORDER DERMAPTERA.....		19	FAMILY Ricinidae.....	1	
SUBORDER FORFICULINA.....			SUBORDER ISCHNOCERA.....		
SUPERFAMILY LABIDUROIDEA.....			FAMILY Trichodectidae.....	1	
FAMILY Psalididae.....	4		FAMILY Philopteridae.....	10	
SUPERFAMILY FORFICULOIDEA.....			ORDER ANOPLURA.....		24
FAMILY Forficulidae.....	1		FAMILY Haematopinidae.....	5	
SUPERFAMILY LABIOIDEA.....			FAMILY Pediculidae.....	1	
FAMILY Labiidae.....	1		FAMILY Phthiriidae.....	1	
ORDER EMBIODEA.....		20	ORDER HEMIPTERA.....		25
FAMILY Anisembiidae.....	1		SUBORDER HOMOPTERA.....		
FAMILY Oligotomidae.....	1		DIVISION AUCHENORRHYNCHIA.....		
FAMILY Oligembiidae.....	1		SUPERFAMILY CICADOIDEA.....		
ORDER ISOPTERA.....		20	FAMILY Cicadidae.....	1	
FAMILY Kalotermitidae.....	6		SUPERFAMILY CICADELLOIDEA.....		
FAMILY Rhinotermitidae.....	1		FAMILY Cicadellidae.....	15	
FAMILY Termitidae.....	5		SUPERFAMILY FULGOROIDEA.....		
ORDER CORRODENTIA.....		21	FAMILY Cixiidae.....	2	
SUBORDER PARAPSOCIDA.....			FAMILY Delphacidae.....	6	
FAMILY Liposcelidae.....	2		FAMILY Achilidae.....	1	
FAMILY Archipsocidae.....	1		FAMILY Tropicuchidae.....	1	
SUBORDER EUPSOCIDA.....			FAMILY Flatidae.....	5	
FAMILY Caeciliidae.....	3		FAMILY Issidae.....	3	
FAMILY Psocidae.....	3		FAMILY Acanaloniidae.....	1	
ORDER THYSANOPTERA.....		22	DIVISION STERNORRHYNCHIA.....		
SUBORDER TEREBRANTIA.....			SUPERFAMILY CHERMOIDEA.....		
			FAMILY Chermidae.....	1	
			SUPERFAMILY ALEYRODOIDEA.....		

	NUMBER OF SPECIES	PAGE
FAMILY Aleyrodidae.....	4	
SUPERFAMILY APHIDOIDEA.....		
FAMILY Aphididae.....	12	
SUPERFAMILY COCCOIDEA.....		
FAMILY Ortheziidae.....	3	
FAMILY Margarodidae.....	3	
FAMILY Diaspididae.....	20	
FAMILY Conchaspidae.....	1	
FAMILY Asterolecaniidae.....	3	
FAMILY Coccidae.....	15	
FAMILY Pseudococcidae.....	7	
SUBORDER HETEROPTERA.....		
DIVISION GYMNO CERATA.....		
SUPERFAMILY SCUTELLEROIDEA.....		
FAMILY Cydnidae.....	2	
FAMILY Scutelleridae.....	6	
FAMILY Pentatomidae.....	18	
SUPERFAMILY COREOIDEA.....		
FAMILY Alydidae.....	3	
FAMILY Coreidae.....	9	
FAMILY Corizidae.....	5	
SUPERFAMILY GERROIDEA.....		
FAMILY Gerridae.....	1	
FAMILY Veliidae.....	2	
SUPERFAMILY ARADOIDEA.....		
FAMILY Saldidae.....	2	
SUPERFAMILY LYGAEOIDEA.....		
FAMILY Lygaeidae.....	13	
FAMILY Neididae.....	1	
FAMILY Pyrrhocoridae.....	1	
SUPERFAMILY TINGOIDEA.....		
FAMILY Tingidae.....	3	
SUPERFAMILY REDUVIOIDEA.....		
FAMILY Nabidae.....	1	
FAMILY Reduviidae.....	5	
FAMILY Plioriidae.....	3	
SUPERFAMILY POLYCTEXOIDEA.....		
FAMILY Polycetenidae.....	1	
SUPERFAMILY CIMICOIDEA.....		
FAMILY Cimicidae.....	1	
FAMILY Anthocoridae.....	8	

	NUMBER OF SPECIES	PAGE
FAMILY Miridae.....		
DIVISION CRYPTO CERATA.....	14	
FAMILY Belostomatidae.....	1	
FAMILY Notonectidae.....	5	
FAMILY Corixidae.....	2	
ORDER NEUROPTERA.....		43
SUBORDER PLANIPENNIA.....		
SUPERFAMILY HEMEROBIOIDEA.....		
FAMILY Chrysopidae.....	4	
SUPERFAMILY MYRMELEONTOIDEA.....		
FAMILY Myrmeleontidae.....	3	
ORDER LEPIDOPTERA.....		43
SUBORDER HETERONEURA.....		
DIVISION MONOTRYZIA.....		
SUPERFAMILY NEPTICULOIDEA.....		
FAMILY Oenophilidae.....	1	
DIVISION DITRYZIA.....		
SUPERFAMILY TINEOIDEA.....		
FAMILY Tineidae.....	1	
FAMILY Acrolophidae.....	1	
FAMILY Plutellidae.....	1	
FAMILY Argyresthiidae.....	1	
FAMILY Aegeriidae.....	1	
FAMILY Blastobasidae.....	1	
FAMILY Cosmopterygidae.....	1	
FAMILY Gelechiidae.....	7	
SUPERFAMILY TORTRICOIDEA.....		
FAMILY Olethreutidae.....	2	
SUPERFAMILY PYRALIDOIDEA.....		
FAMILY Galleriidae.....	2	
FAMILY Crambidae.....	4	
FAMILY Phycitidae.....	12	
FAMILY Epipaschiidae.....	1	
FAMILY Pyraustidae.....	31	
FAMILY Pyralidae.....	2	
FAMILY Chrysaugidae.....	1	
FAMILY Hyblaeidae.....	1	
SUPERFAMILY GEOMETROIDEA.....		

	NUMBER OF SPECIES	PAGE
FAMILY Geometridae.....	4	
SUPERFAMILY SPHINGOIDEA.....		
FAMILY Sphingidae.....	15	
SUPERFAMILY NOCTUOIDEA.....		
FAMILY Noctuidae.....	38	
FAMILY Arctiidae.....	3	
SUPERFAMILY HESPERIOIDEA.....		
FAMILY Hesperidae.....	12	
FAMILY Ctenuchidae.....	6	
SUPERFAMILY PAPILIONOIDEA.....		
FAMILY Papilionidae.....	2	
FAMILY Pieridae.....	9	
FAMILY Lycaenidae.....	11	
FAMILY Danaidae.....	1	
FAMILY Nymphalidae.....	12	
ORDER DIPTERA.....		58
SUBORDER NEMATOCERA.....		
TIPULIMORPHA.....		
SUPERFAMILY TIPULOIDEA.....		
FAMILY Limoniidae.....	3	
PSYCHOMORPHA.....		
SUPERFAMILY PSYCHODOIDEA.....		
FAMILY Psychodidae.....	2	
FAMILY Corethridae.....	1	
SUPERFAMILY CULICOIDEA.....		
FAMILY Culicidae.....	24	
SUPERFAMILY CHIRONOMOIDEA.....		
FAMILY Chironomidae.....	2	
FAMILY Ceratopogonidae.....	7	
FAMILY Simuliidae.....	2	
SILVICOMORPHA.....		
SUPERFAMILY MYCETOPHILOIDEA.....		
FAMILY Mycetophilidae.....	1	
FAMILY Sciaridae.....	2	
SUPERFAMILY CECIDOMYOIDEA.....		
FAMILY Cecidomyiidae.....	4	
SUPERFAMILY BIBIONOIDEA.....		
FAMILY Scatopsidae.....	1	
SUBORDER BRACHYCERA.....		
DIVISION ORTHORRHAPHA.....		

	NUMBER OF SPECIES	PAGE
RHAGIOMORPHA.....		
SUPERFAMILY STRATIOMYOIDEA.....		
FAMILY Stratiomyidae.....	6	
SUPERFAMILY TABANOIDEA.....		
FAMILY Tabanidae.....	2	
SUPERFAMILY ASILOIDEA.....		
FAMILY Aslidae.....	4	
SUPERFAMILY BOMBYLIOIDEA.....		
FAMILY Bombyliidae.....	8	
SUPERFAMILY EMPIDIDOIDEA.....		
FAMILY Empididae.....	1	
FAMILY Dolichopodidae.....	10	
DIVISION CYCLORRHAPHA.....		
SERIES ASCHIZA.....		
PHOROMORPHA.....		
SUPERFAMILY PHOROIDEA.....		
FAMILY Phoridae.....	4	
SUPERFAMILY SYRPHOIDEA.....		
FAMILY Syrphidae.....	23	
SERIES SCHIZOPHORA.....		
CALYPTRATAE.....		
MUSCOMORPHA.....		
SUPERFAMILY MUSCOIDEA.....		
FAMILY Calliphoridae.....	5	
FAMILY Sarcophagidae.....	11	
FAMILY Tachinidae.....	15	
FAMILY Dexiidae.....	2	
FAMILY Muscidae.....	11	
FAMILY Anthomyiidae.....	6	
FAMILY Hypodermatidae.....	1	
SUPERFAMILY HIPPOBOSCOIDEA.....		
FAMILY Hippoboscidae.....	9	
FAMILY Streblidae.....	5	
ACALYPTRATAE.....		
OTIDIMORPHA.....		
SUPERFAMILY TYLOIDEA.....		
FAMILY Tylidae.....	2	
SUPERFAMILY OTITOIDEA.....		
FAMILY Otitidae.....	8	
FAMILY Tephritidae.....	4	
FAMILY Lonchaeidae.....	1	
SCIOMYZOMORPHA.....		

	NUMBER OF SPECIES	PAGE
SUPERFAMILY SEPSOIDEA.....		
FAMILY Sepsidae.....	1	
FAMILY Piophilidae.....	1	
LAUXANIOMORPHA.....		
SUPERFAMILY LAUXANIOIDEA.....		
FAMILY Lauxaniidae.....	5	
SUPERFAMILY HELOMYZOIDEA.....		
FAMILY Chyromyiidae.....	1	
DROSOPHILOMORPHA.....		
SUPERFAMILY DROSOPHILOIDEA.....		
FAMILY Drosophilidae.....	6	
FAMILY Diastatidae.....	1	
FAMILY Asteiidae.....	2	
SUPERFAMILY EPHYDROIDEA.....		
FAMILY Leptoceridae.....	2	
FAMILY Chloropidae.....	17	
FAMILY Ephydriidae.....	9	
SUPERFAMILY MILICHIOIDEA.....		
FAMILY Agromyzidae.....	6	
FAMILY Odiniidae.....	1	
FAMILY Milichiidae.....	4	
ORDER SIPHONAPTERA.....		77
FAMILY Pulicidae.....	5	
FAMILY Tungidae.....	2	
ORDER COLEOPTERA.....		78
SUBORDER ADEPHAGA.....		
SUPERFAMILY CARABOIDEA.....		
FAMILY Cicindelidae.....	4	
FAMILY Carabidae.....	15	
FAMILY Haliplidae.....	1	
FAMILY Dytiscidae.....	12	
SUPERFAMILY GYRINOIDEA.....		
FAMILY Gyrinidae.....	2	
SUBORDER POLYPHAGA.....		
SUPERFAMILY HYDROPHILOIDEA.....		
FAMILY Hydrophilidae.....	13	
SUPERFAMILY STAPHYLINOIDEA.....		
FAMILY Scaphidiidae.....	1	
FAMILY Staphylinidae.....	38	
SUPERFAMILY CUCUJOIDEA.....		
FAMILY Cucujidae.....	5	
SUPERFAMILY CANTHAROIDEA.....		

	NUMBER OF SPECIES	PAGE
FAMILY Lampyridae.....	3	
FAMILY Cantharidae.....	3	
FAMILY Lycidae.....	2	
SUPERFAMILY MORDELLIOIDEA.....		
FAMILY Oedemeridae.....	5	
FAMILY Mordellidae.....	1	
FAMILY Meloidae.....	2	
FAMILY Anthicidae.....	1	
SUPERFAMILY ELATEROIDEA.....		
FAMILY Elateridae.....	6	
FAMILY Buprestidae.....	3	
SUPERFAMILY DASCYLLOIDEA.....		
FAMILY Dermestidae.....	6	
FAMILY Ptinidae.....	2	
SUPERFAMILY HISTEROIDEA.....		
FAMILY Histeridae.....	3	
SUPERFAMILY COLYDIOIDEA.....		
FAMILY Ostomatidae.....	1	
FAMILY Monotomidae.....	1	
FAMILY Cryptophagidae.....	4	
FAMILY Nitidulidae.....	10	
FAMILY Ciidae.....	2	
FAMILY Mycetophagidae.....	1	
FAMILY Phalacridae.....	3	
FAMILY Lyctidae.....	1	
FAMILY Anobiidae.....	3	
FAMILY Bostrichidae.....	7	
FAMILY Lathridiidae.....	1	
FAMILY Coccinellidae.....	17	
FAMILY Orthoperidae.....	1	
SUPERFAMILY TENEBRIONOIDEA.....		
FAMILY Tenebrionidae.....	18	
FAMILY Cistelidae.....	1	
SUPERFAMILY CERAMBYCOIDEA.....		
FAMILY Cerambycidae.....	25	
FAMILY Chrysomelidae.....	22	
FAMILY Bruchidae.....	5	
SUPERFAMILY SCARABAEOIDEA.....		
FAMILY Trogidae.....	1	
FAMILY Scarabaeidae.....	20	
SUPERFAMILY CURCULIONOIDEA.....		
FAMILY Brenthididae.....	2	

THE INSECT FAUNA OF ST. CROIX,
 UNITED STATES VIRGIN ISLANDS
 George W. Miskimen* and Richard M. Bond†

INTRODUCTION

	NUMBER OF SPECIES	PAGE
FAMILY Curculionidae.....	23	
FAMILY Scolytidae.....	12	
ORDER HYMENOPTERA.....		101
SUBORDER CLISTOGASTRA.....		
SUPERFAMILY ICHNEUMONOIDEA.....		
FAMILY Evariidae.....	3	
FAMILY Braconidae.....	9	
FAMILY Ichneumonidae.....	12	
SUPERFAMILY CHALCIDOIDEA.....		
FAMILY Torymidae.....	1	
FAMILY Agaontidae.....	1	
FAMILY Chalcididae.....	9	
FAMILY Eucharididae.....	1	
FAMILY Encyrtidae.....	5	
FAMILY Pteromalidae.....	3	
FAMILY Eulophidae.....	7	
FAMILY Trichogrammatidae.....	1	
SUPERFAMILY PROCTOTRYPOIDEA.....		
FAMILY Scelionidae.....	2	
SUPERFAMILY CYNIPOIDEA.....		
FAMILY Cynipidae.....	1	
FAMILY Figitidae.....	1	
FAMILY Eucolidae.....	1	
SUPERFAMILY BETHYLOIDEA.....		
FAMILY Bethylidae.....	1	
SUPERFAMILY SCOLIOIDEA.....		
FAMILY Scoliidae.....	3	
SUPERFAMILY FORMICOIDEA.....		
FAMILY Formicidae.....	40	
SUPERFAMILY VESPOIDEA.....		
FAMILY Vespidae.....	5	
SUPERFAMILY POMPILOIDEA.....		
FAMILY Pompilidae.....	5	
SUPERFAMILY SPHECOIDEA.....		
FAMILY Sphecidae.....	3	
FAMILY Bembicidae.....	2	
FAMILY Larridae.....	4	
SUPERFAMILY APOIDEA.....		
FAMILY Halictidae.....	2	
FAMILY Megachilidae.....	5	
FAMILY Apidae.....	10	

St. Croix, in the United States Virgin Islands, remains an interesting island from an entomological standpoint despite the influence of man, who has obscured natural insect dispersal and distributional relationships by carrying many insects throughout the Antilles during the course of his travel and commerce. Nevertheless, detection of new species, particularly those of restricted distribution, has demonstrated the importance of a thorough investigation of the insect fauna of St. Croix. Additional studies are desirable elsewhere in the Caribbean before humans further alter natural patterns.

St. Croix is one of the more isolated of the small Caribbean islands zoogeographically. Its nearest neighbors are St. Thomas, St. John, and the British Virgin Islands, forty miles northward across water two miles deep. Prevailing easterly winds in the vicinity do not favor distribution from this direction. Windward, over 100 miles away, lie Antigua, Montserrat, St. Martin, and several other small islands. Survival of insects while crossing this expanse of water, plus actually arriving at the small target presented by St. Croix would present a considerable problem. Apparent geological history and marine topography in the area seem to preclude land connections in the past between St. Croix and other islands (Whetten 1961).

Approximately 100 miles southeast of San Juan, Puerto Rico, St. Croix has a land area of about 84 square miles, the largest of the United States Virgin Islands. The twenty-three mile long island is oriented almost east-west and tapers from about six miles wide at its western extremity to a point at the east end.

The eastern one-third of St. Croix consists largely of rugged extensively faulted Cretaceous manzonitic volcanic andesite hills up to 500 or 600 feet in altitude. Rainfall here averages below twenty inches annually; effective available water is further reduced by evaporation encouraged by almost continuous easterly breezes. Xerophytic vegetation, including organ pipe (*Cephalocereus royenti*), prickly pear (*Opuntia* spp.), and turks head cacti, (*Mammocatus intortus*), is common along with increasing numbers of *Acacia* sp. as rainfall becomes more abundant westward.

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The northwestern portion of St. Croix is of similar geologic composition and terrain. The highest elevations on the island, up to 1165 ft., are attained here. These western hills lie within the maximum rainfall belt, averaging 50 or more inches annually and reaching over 70 inches in occasional years. The climax dominant plants here probably would be evergreen hardwoods, but at present vegetation is quite variable, depending on location and past land use. Flowering trees belonging to the families *Caesalpinaceae* and *Mimosaceae* are prominent in addition to the naturalized mahogany.

The southwestern section of St. Croix is much flatter than other parts of the island. It is composed principally of calcareous marl laid down during Miocene fringing reef activity south of an original land mass now represented by the northwestern highlands. The reef and its enclosed lagoon area were subsequently uplifted in late Miocene. Low hills marking locations of former reefs are plainly seen. Overlaying the marl is a relatively thin mantle of soil. Southwestern St. Croix lends itself to successful sugarcane culture and livestock raising, its principal uses at present. Rainfall here averages 40 or more inches annually. Vegetation in uncultivated places consists of cactus, *Acacia* sp., fast-growing flowering trees, and naturalized grasses.

Temperatures on St. Croix vary little both daily and seasonally; monthly means range from about 72° to 85° F. Relative humidity averages 55 to 70 per cent. Evaporation rate averages over six feet per annum because of nearly constant easterly trade winds averaging 15 to 20 knots. Rainfall is quite variable, extreme drought occurring all too frequently. A short rainy season usually occurs from April through June and a longer season from September to December. Vegetation clearly reflects local environmental conditions.

PREVIOUS STUDIES

Insect fauna studies of only a few of the numerous smaller Caribbean islands have been published. Such information is useful to agriculturists on these islands as well as for scientists interested in taxonomy, systematics, zoogeography, and other aspects of academic biology. Faunistic studies of insular species of insects cast light on the role of man in insect dispersal, ability of insects to overcome water and wind barriers, and competitive relationships between new arrivals and indigenous species.

The only substantial contribution to the general knowledge of the insects of St. Croix has been Beatty's paper (1944). This able collector and naturalist did a remarkable job of assembling information on the fauna of St. Croix. Previously published papers on entomology in *The New York Academy of Sciences Scientific Series on Porto Rico and the Virgin Islands* have paid minor heed to St. Croix, but their excellent coverage of Puerto Rican species has, nevertheless, made them useful for purposes of comparison. It is hoped that this paper will supply some of the omitted data for that series.

The information in this paper is largely derived from insect collections made by representatives of the Plant Quarantine Division of the Agricultural Research Service of the United States Department of Agriculture including Messrs. Ramon Delgado-Murphy, Dean C. Hamilton, Elbert C. Dixon, and by Dr. George W. Miskimen during a tour of duty on St. Croix as Plant Quarantine Officer and Entomologist for the Virgin Islands Agricultural Program. Most identifications in this collection were made by insect taxonomists on the staff of the U.S.D.A.'s Insect Identification Unit and by staff and collaborators of the Smithsonian Institution's Department of Entomology. Additional data were gleaned from Beatty's (1944) records and from *The New York Academy of Sciences Scientific Series on Porto Rico and the Virgin Islands*.

Species records are annotated by the authors in so far as information and importance permit. General habitat and temporal distribution is given when known. "Year round" distribution records indicate all life stages except where noted otherwise. Representatives of every life stage of the majority of St. Croix insect species may be collected throughout the year. Only a few insects are what one might regard as seasonal in the temperate zone sense. An asterisk preceding the name of a taxon indicates that it is listed in Wolcott's "Insectae Borinquenses," (1936 or its supplement 1941), the standard check list of Puerto Rican insects.

Brues, Melander, and Carpenter's "Classification of Insects," 1954 edition, was used as a general basis for nomenclature. Other classification criteria could be used but the authors feel that this reference represents a standard widely accepted throughout the world. Several deviations, however, have been made from the above classification system. Among the *Lepidoptera* all *Pyralidae* (sens. lat.) subfamilies are considered to be families, the subfamily *Danainae* of the *Nymphalidae* as a full family, and the family name *Noctuidae* is used rather than *Phalaenidae* in accordance with general usage by non-specialists. In the *Homoptera* the superfamily designation *Cicadelloidea* has priority over *Jassoidea*. The better known familial names *Delphacidae* and *Cicadellidae* are used rather than *Areopodidae* and *Tettigellidae*, respectively. Alterations in the *Diptera* include *Asteiidae* for *Astiidae*, *Tephritidae* for *Trypetidae*, and *Otitidae* for *Ulididae*; the first and second because of priority, and the third because of the union of two families. The Order *Anoplura* is placed next to *Mallophaga* rather than after the *Hemiptera* for convenience and for ecological considerations. The *Pupiparia* are included among calypterate *Diptera*, reflecting their evolutionary affinities. Finally, subfamily names are used where they contribute to better understanding of numerically large groups. In some instances these designations are often regarded by specialists as full families, for example the subfamilies included under *Cicadellidae*.

We have not attempted to include an exhaustive bibliography of the insects of St. Croix, but instead have included only a few general papers directly applicable to our study. Further bibliographic information can be obtained by contacting individual specialists. It should also be pointed out that this list is by no means complete but is intended to be a working tool to which the non-specialist may refer for information when facing day-to-day problems common to many of the islands of the West Indies.

Finally, preceding the main list, we have made a taxonomic index, using Brues, Melanders and Carpenter's (1954) system as modified above, that includes categories from class to family, number of species listed in each family, and the page number on which familial listing begins. Eighteen orders, 233 families, and 1,220 species of insects are included in our annotated check list.

CLASS INSECTA
SUBCLASS APTERYGOTA
ORDER THYSANURA
(silverfish, bristle tails)
SUPERFAMILY LEPISMATOIDEA
FAMILY Lepismatidae

- *1. *Lepisma saccharina* L.
In houses and buildings. Year round.

FAMILY Nicoletiidae

- *1. *Nicoletia* sp.
Abundant in sugarcane fields. Year round.

*Species (or genus, if species is not identified) recorded from Puerto Rico.

SUBCLASS PTERYGOTA
ORDER ODONATA
SUBORDER ZYGOPTERA
(damselflies)
SUPERFAMILY COENAGRIONOIDEA
FAMILY Coenagrionidae (Coenagriidae)

- *1. *Enallagma coecum* (Hagen)
Common in permanent ponds. Year round.
- *2. *Ischnura ramburii credula* Calvert
Common in permanent ponds. Year round.
- *3. *Telebasis dominicana* (Selys)
Crique Dam. January. (Beatty 1944).

SUBORDER ANISOPTERA
(dragonflies)
SUPERFAMILY AESHNOIDEA
FAMILY Aeshnidae (Aeschnidae)

- *1. *Anax junius* (Drury)
Uncommon. January, March and November. (Beatty 1944).

SUPERFAMILY LIBELLULOIDEA
FAMILY Libellulidae

- *1. *Cannacia herbida* (Gundlach)
Orange Grove stream. November. (Beatty 1944).
- *2. *Dythemis rufinervis* (Burmeister)
Annaly stream. October. (Beatty 1944).
- *3. *Erythrodiplax naeva* (Hagen)
Common in salt ponds. Year round.
- *4. *Erythrodiplax justiniana* (Selys)
Common in running fresh water. Year round.
- *5. *Erythrodiplax umbrata* (L.)
Uncommon. October. (Beatty 1944).
- *6. *Lepthemis vesiculosa* (F.)
Common in permanent ponds and streams. Year round.
- *7. *Macrothemis celeno* (Selys)
Common in permanent ponds. Year round.
- *8. *Micrathyria* sp.
One adult taken at Jealousy stream. November. (Beatty 1944).
- *9. *Orthemis ferruginea* (F.)
Common in ponds and intermittent streams. Year round.
- *10. *Pantala flavescens* (F.)
Orange Grove stream. Year round. (Beatty 1944).
- *11. *Perithemis metella* (Selys)
Common in ponds and streams. Year round.
- *12. *Tramea abdominalis* (Rambur)
Orange Grove stream. November. (Beatty 1944).

ORDER BLATTARIA
(roaches)
SUPERFAMILY PHYLLODROMIOIDEA
FAMILY Areolariidae

- *1. *Plectoptera infulata* Rehn and Hebbard

Uncommon. Found in sugarcane fields. August.

FAMILY Blaberidae

- *1. *Hemiblamera* sp.
Recorded as uncommon in the arid east end of St. Croix (Beatty 1944).

FAMILY Panchloridae

- *1. *Leucophaea maderae* (F.)
Common plant material scavenger. Year round.

FAMILY Phyllodromiidae (Pseudomopidae)

- *1. *Blattella germanica* (L.)
A fairly common household pest, especially in the towns, but seldom the most abundant cockroach. Year round.
- *2. *Ischnoptera rufa* DeGeer
Easily found in rubbish and shrubbery at night in April (Beatty 1944).

SUPERFAMILY BLATTOIDEA

FAMILY Blattidae

- *1. *Aglaopteryx diaphana* (F.)
Common scavenger. Year round.
- 2. *Cariblatta antiguensis* Sein
Apparently a common scavenger in sugarcane fields. Year round.
- 3. *Eurycotis improcera* Rehn
Common in rotten stumps. Year round.
- *4. *Periplaneta americana* (L.)
Common household pest. Year round.
- *5. *Periplaneta australasiae* (F.)
Common field scavenger. Year round.
- *6. *Periplaneta brunnea* Burmeister
Uncommon, in buildings. (Beatty 1944).
- *7. *Pycnoscelus surinamensis* (L.)
Common scavenger and household pest. Year round.
- *8. *Supella supellectilium* (Serville)
Common scavenger. Often attracted by light. Year round.
- *9. *Symploce bilabiat* Rehn and Hebbard
Common field scavenger. Often attracted by light. Year round.

- 10. *Symploce hospes* Perkins
Common field scavenger. Attracted to light. Year round.

SUPERFAMILY CORYDIOIDEA

FAMILY Euthyrrhaphidae

- *1. *Holocompsa nitidula* (F.)
Apparently rare, in houses. January, March, and August.

ORDER ORTHOPTERA

SUBORDER MANTEODEA

(praying mantids)

FAMILY Manteidae (Mantidae)

- *1. *Callimantis antillarum* Saussure
Uncommon here, perhaps because of mongoose predation. Seen year round on grasses.
- *2. *Gonatista grisea* (F.)
Uncommon on grasses. Year round.

SUBORDER SALTATORIA

SUPERFAMILY TETTIGONIOIDEA

FAMILY Tettigoniidae (Locustidae, Phasgonuridae)

(katydids, longhorn grasshoppers)

- *1. *Conocephalus cineris* Thunberg
Perhaps our most common katydid. Regularly eaten by cattle egrets and mongoose. Year round.
- 2. *Heteroecous* sp. near *dubius* Caudell
On rotting logs in November (Beatty 1944).
- 3. *Neoconocephalus triops* (L.)
Common in fields. Year round. Recently taken specimens have been identified as **N. t. macropterus* Redtenbacher. Beatty (1944) reports only **N. t. fuscostriatus* Redtenbacher, and listed it as common. It seems doubtful that both subspecies are here or that one has replaced the other.

FAMILY Gryllacridae

- 1. *Abelona guadeloupensis* (Karney)
Attracted to fruit fly traps in July. Also found in mongoose stomach by Wolcott (1953).
- 2. *Gryllacris* sp.
Attracted to fruit fly traps. December.

FAMILY Gryllidae (Achetidae)
(crickets)

- °1. *Acheta assimilis* (F.)
The common field cricket. Feeds on plants roots, often becoming a pest. Year round.
- °2. *Amphiacusta caraibeae* Saussure
A common household and garden pest. Year round.
- °3. *Anurogryllus muticus* DeGeer
Common, attacks roots and young plants. Year round.
- °4. *Cycloptilum antillarum* Redtenbacher
Apparently uncommon field cricket. September, October.
- °5. *Cyrtoxiphus gundlachi* Saussure
Uncommon field cricket. November.
- °6. *Grylloides sigillatus* Walker
Uncommon, usually associated with human habitation. Year round.
- °7. *Oecanthus niveus* DeGeer
The common tree cricket. Year round.
- 8. *Orocharis* sp. near *saltator* Uhler
Found in rotting wood by Beatty (1944). October. We also have a record of *Orocharis* sp. in a dwelling, March.

FAMILY Gryllotalpidae
(mole crickets)

- °1. *Scapteriscus* sp. prob. *abbreviatus* Scudder
Found in soil. March.
- °2. *Scapteriscus vicinus* Scudder
Beatty (1944) suggests that this very well known Puerto Rican cricket known as the "Changa", may have been brought in fairly recently from Puerto Rico. It is apparently uncommon on St. Croix.

SUPERFAMILY ACRIDOIDEA
FAMILY Acrididae (Locustidae, Acridiidae)
(locusts, grasshoppers)

- °1. *Schistocerca americana* (Drury)
An uncommon field grasshopper. November.
- °2. *Schistocerca columbiana* Thunberg
Our commonest field grasshopper. Commonly eaten by cattle egret. Year round.
- °3. *Scyllina gregarius* Saussure

Common field grasshopper. Year round.

SUBORDER PHASMATODEA
SUPERFAMILY PHASMATOIDEA
FAMILY Phasmatidae (Pseudophasmidae)
(stick insects)

- °1. *Diapherodes* sp. prob. *longiscapha* Redtenbacher
This very large species is not often found. Year round.

SUPERFAMILY BACTERIOIDEA
FAMILY Bacunculidae

- °1. *Dyme* sp.
The commonest member of the family on St. Croix. Year round.
- °2. *Clonistria* sp.
September. (Beatty 1944).

ORDER DERMAPTERA
(earwigs)
SUBORDER FORFICULINA
SUPERFAMILY LABIDUROIDEA
FAMILY Psalididae (Psalidae, Anisolabidae)

- 1. *Anisolabis caraibeae* (Hebard)
Found on the fruit of *Mammea americana*. April.
- °2. *Anisolabis maritima* (Gene)
The common seaside earwig found at the high tide level. Year round.
- °3. *Euborellia annulipes* (Lucas)
Common ring-legged earwig, associated with decaying plant matter. Year round.
- 4. *Euborellia plebeja* (Dohrn)
Under rubbish in January (Beatty 1944).

SUPERFAMILY FORFICULOIDEA
FAMILY Forficulidae

- °1. *Doru albipes* (F.)
Large common earwig found in sugarcane trash. Year round.

SUPERFAMILY LABIOIDEA
FAMILY Labiidae

- °1. *Labia curvicauda* Motschulsky
Taken in light traps and found in decaying vegetable matter. January, October (Beatty 1944).

ORDER EMBIODEA (EMBIOPTERA)

(embiids, webspinners)

FAMILY Anisembiidae

1. *Mesembia* sp.
One specimen only, taken on sugarcane in June.

FAMILY Oligotomidae

1. *Oligotoma saundersi* (Westwood) = *O. latreillii* (Rambur); *Embia latreillii* Rambur
Reported by Beatty (1944) as under rubbish and attracted to light. October.

FAMILY Oligembiidae

1. *Oligembia brevicauda* Ross
August (Beatty 1944).

ORDER ISOPTERA

(termites)

FAMILY Kalotermitidae (Protermitidae, Calotermitidae)

(dry wood termites)

- *1. *Cryptotermes brevis* (Walker)
Our most common and perhaps most serious termite pest. Year round.
- *2. *Cryptotermes cavifrons* Banks
Recorded by Beatty (1944) in March from rotten mango stumps.
3. *Kalotermites bequaerti* Snyder
From rotten log in Crique Dam area in April according to Beatty (1944).
4. *Kalotermites incisus* Silvestri
Fairly common year round in old dry stumps.
- *5. *Kalotermites snyderi* Light
Fairly common year round in old dry stumps (Beatty 1944).
6. *Procryptotermes* sp.
Uncommon. March.

FAMILY Rhinotermitidae (Mesotermitidae)

(subterranean termites)

- *1. *Heterotermes convexinotatus* (Snyder)
Our most common subterranean pest of buildings. May be found year round.

FAMILY Termitidae (Metatermitidae)

(nesting termites)

- *1. *Microcerotermes arboreus* Emerson
An uncommon woodland ground species. Year round.
- *2. *Nasutitermes acajullae* Holmgren - *N. nigriceps* (Haldeman).
A common woods species on St. Croix. Found year round.
- *3. *Nasutitermes costalis* (Holmgren)
The most common woods species on St. Croix. Makes the conspicuous "niggerhead" nests on trees. Year round.
4. *Nasutitermes ephratae* (Holmgren)
Only one record in September. Caught in net sweeps.
5. *Termes panamaensis* (Snyder)
Winged adults taken at light in May. (Beatty 1944).

ORDER CORRODENTIA (PSOCOPTERA)

(booklice, psocids)

SUBORDER PARAPSOCIDA

FAMILY Liposcelidae (Pachytroctidae, Troctidae)

- *1. *Liposcelis* sp. probably *divinatorius* Muller
Our most common cereal psocid. May be found year round.
2. *Tapinella* sp.
One capture on record, attracted to fruit fly trap in May.

FAMILY Archipsocidae

- *1. *Archipsocus* sp.
Attracted to a fruit fly trap. Only one record, in November. (*Archipsocus brazilianus* is found in Puerto Rico).

SUBORDER EUPSOCIDA

FAMILY Caeciliidae (Lachesillidae) (Peripsocidae)

- *1. *Ectopsocus* sp.
Cereal pest on St. Croix. Year round.
- *2. *Lachesilla pedicularia* (L.)
Recorded by Beatty (1944).
- *3. *Peripsocus* sp.
Attracted to fruit fly traps. January.

FAMILY Psocidae

1. *Copostigma* probably n. sp.
One record only, taken by net in November.

°2. *Pseudocaecilius citricola* (Ashmead)
Our principal scavenging psocid. Year round.

3. *Psocus* sp.
Fruit fly trap. July.

ORDER THYSANOPTERA
(thrips)
SUBORDER TEREBRANTIA
SUPERFAMILY THRIPOIDEA
FAMILY Thripidae (Stenopteridae)

- °1. *Frankliniella diffcilis* Hood
Recorded by Beatty (1944), known on citrus in Puerto Rico.
- °2. *Frankliniella insularis* (Franklin)
Probably the most common flower thrips on St. Croix. Year round.
- °3. *Frankliniella williamsi* Hood
The yellow sugarcane thrips. Not known to be serious pest on St. Croix. Year round.
- °4. *Selenothrips rubrocinctus* (Giard)
One of the most common fruit and vegetable thrips. Year round.

SUBORDER TUBULIFERA
SUPERFAMILY PHLOEOTHRIPOIDEA
FAMILY Phloeothripidae

- 1. *Liothrips* sp.
Recorded by Beatty (1944) on rocks at Buck Island. January. No Puerto Rican record known.

ORDER MALLOPHAGA
(chewing lice)
SUBORDER AMBLYCERA
FAMILY Gyropidae
(guinea pig lice)

- °1. *Gyropus ovalis* Burmeister
Beatty (1944) found this species on a guinea pig. It apparently has no other hosts and if present on St. Croix at this time is probably uncommon.

FAMILY Boopiidae
(kangaroo lice)

- °1. *Heterodoxus spiniger* (Enderlein)

Beatty (1944) records this species as *H. longitarsus*. It is an occasional dog pest, and is found worldwide on that host.

FAMILY Menoponidae
(bird lice)

- 1. *Colpocephalum flavescens* (Nitzsch)
Beatty (1944) records this as *Neocolpocephalum flavescens* Nitzsch on the red-tailed hawk, *Buteo jamaicensis jamaicensis*.
- 2. *Colpocephalum tausi* (Ansari)
Beatty (1944) records this as *Colpocephalum* sp. from the domestic turkey.
- °3. *Hohorstiella* sp.
Beatty (1944) found this as *Menacanthus* sp. on the ground dove, *Columbigallina passerina*.
- °4. *Menacanthus numidiae* (Giebel) - *Menopon numidiae* Giebel
On guinea fowl (Beatty 1944).
- °5. *Menacanthus stramineus* (Nitzsch)
A common chicken louse, seldom of consequence. Year round.
- °6. *Menopon gallinae* (L.)
Our commonest chicken louse, but seldom a serious pest. Year round.
- °7. *Myrsidea incerta* (Kellogg)
Taken on the pearly-eyed thrasher, *Margarops fuscatus fuscatus* (Beatty 1944).
- 8. *Osborniella crotophagae* (Stafford)
Beatty (1944) records this as *Colpocephalum* sp. from our black witch, *Crotophagus ani*.
- 9. *Trinoton querquedulae* (L.)
Found on the Bahama pintail, *Anas bahamensis* (Beatty 1944).

FAMILY Ricinidae

- 1. *Tricholoectes* sp.
Beatty (1944) found this species on the green-throated carib hummingbird, *Sericotes holosericeus*.

SUBORDER ISCHNOCERA
FAMILY Trichodectidae
(mammal lice)

- °1. *Felicola subrostrata* (Burmeister)
The common cat louse; rare on St. Croix.

FAMILY Philopteridae
(bird lice)

- °1. *Anaticola crassicorne* (Scopoli)
The common duck louse, taken off a Bahama pintail, *Anas bahamensis*, by Beatty (1944).
- °2. *Chelopistes meleagridis* (L.)
Recorded from turkey by Beatty (1944).
- °3. *Columbicola macrourae* (Wilson)
Found here on the ground dove *Columbigallina passerina*.
- °4. *Goniodes dissimilis* Denny
An occasional chicken louse on St. Croix, not known to be a pest.
- °5. *Goniodes numidae* Mjoeberg
Taken on guinea fowl.
- °6. *Numidilipeurus lawrensis tropicalis* (Peters)
From domestic fowl according to Beatty (1944).
- °7. *Oxylipeurus polytrapezius* (Burmeister)
Beatty (1944) records this as *Lipeurus gallipavonis* Goeffrey, on a turkey.
- °8. *Philopterus* sp.
Relatively common song bird louse on St. Croix.
- °9. *Physonelloides zenaïdurae* (McGregor)
Taken by Beatty (1944) on the ground dove, *Columbigallina passerina*.
10. *Rallicola ortyometrae californicus* (Kellogg and Chapman)
Taken on the clapper rail, *Rallus longirostris*, recorded by Beatty (1944), as *Rallicola bisetosa* (Piaget).

ORDER ANOPLURA
(sucking lice)

FAMILY Haematopinidae

- °1. *Linognathus stenopsis* (Burmeister)
Frequently found on goats and sheep. Year round.
- °2. *Haematopinus suis* (L.)
The hog louse. Occasionally found on swine.
- °3. *Haematopinus eurysternus* (Nitzsch)
The short-nosed ox louse. Frequently found on local cattle.
- °4. *Haematopinus asini* (L.)
Found on donkeys and horses year round.
5. *Polyplax spinulosa* (Burmeister)

Taken on a rat by G. A. Seaman.

FAMILY Pediculidae
(man and monkey lice)

- °1. *Pediculus humanus* (L.)
The human louse. Apparently not common at present.

FAMILY Phthiriidae
(crab lice)

- °1. *Phthirus pubis* (L.)
The classical crab louse. Known on the island, but is not common.

ORDER HEMIPTERA
SUBORDER HOMOPTERA
SERIES AUCHENORRHYNCHA
SUPERFAMILY CICADOIDEA
FAMILY Cicadidae

- °1. *Proarna hilaris* (Germer)
Common, attracted to light. Year round.

SUPERFAMILY CICADELLOIDEA
FAMILY Cicadellidae (Tettigellidae, Proconiidae, Jassidae)
(leafhoppers)
SUBFAMILY Deltocephalinae

- °1. *Acinopterus reticulatus* (Fab.)
Beatty (1944) reported this species as *A. angulatus* Lawson. It was also recorded by Wolcott (1936) from Puerto Rico.
- °2. *Balclutha incisa* (Matsumura)
A common species attacking a wide variety of grasses. Year round.
- °3. *Balclutha neglectus* (DeLong and Davidson)
An uncommon species which may be found year round.
4. *Balclutha rufofasciatus* (Merino)
A common St. Croix species found year round.
- °5. *Balclutha rosea* (Scott)
Beatty (1944) recorded this species as *Nesosteles calcarus* DeLong and Davidson as did Wolcott (1936) in Puerto Rico.
- °6. *Chlorotettix minimus* Baker
A sugarcane leafhopper that never becomes particularly serious. Year round.
- °7. *Chlorotettix tethys* Van Duzee
Common on grasses including sugarcane. Year round.

- °8. *Deltocephalus flavicostus* (Stal)
Widely distributed elsewhere, apparently not abundant on St. Croix.
Year round.
- °9. *Deltocephalus sonorus* Ball
Recorded by Beatty (1944), and by Wolcott (1936) in Puerto Rico.
- °10. *Exitianus obscurinervis* (Stal)
Recorded by Beatty (1944). A pest of Bermuda grass in Puerto Rico.
- °11. *Sanctanus fasciatus* (Osborn)
An uncommon leafhopper of sugarcane and other grasses. Year round.

SUBFAMILY Agaliinae

- °1. *Agalliana sticticollis* (Stal)
A common leafhopper on vegetables on St. Croix, although it is seldom an economic pest. Year round.

SUBFAMILY Cicadellinae

- °1. *Hortensia similis* (Walker)
A very common leafhopper of sugarcane and other grasses. Year round. This species is a vector of sugarcane mosaic elsewhere and if mosaic should spread to St. Croix this species would no doubt be regarded as a serious pest.
- °2. *Cannecephala sagittifera* (Uhler)
An uncommon leafhopper of grasses. Apparently present year round.

SUBFAMILY Tetrinae

- °1. *Xerophloea viridis* (F.)
Common on St. Croix on grasses. Year round.

SUPERFAMILY FULGOROIDEA

FAMILY Cixiidae

- 1. *Bothriocera undata* (F.)
Commonly taken in fruit fly traps. Year round.
- 2. *Oliarus complectus* Ball
The cotton-tail plant hopper. A common species on sugarcane, apparently not damaging. Year round.

FAMILY Delphacidae (Areopodidae)

- °1. *Delphacodes havanensis* (Crawford)
One record in April on *Cynoden dactylon*.
- °2. *Delphacodes propinqua* Fieber

Beatty (1944) records this species from St. Croix.

- °3. *Delphacodes teapae* Fowler
Common on grasses year round. Also often taken at light.
- °4. *Peregrinus maidis* (Ashmead)
Widely found on grasses and other foliage. Year round.
- °5. *Sogata cubana* Crawford
Often found on sugarcane and other grasses. Year round.
- °6. *Sogata furcifera* Horvath
Uncommon here, on various grasses. Vector, in Surinam, of a serious disease of Pangola grass.

FAMILY Achilidae

- °1. *Catonia* sp.
Recorded by Beatty (1944). Three species are found in Puerto Rico.

FAMILY Tropicuchidae

- °1. *Neurotmeta viridis* (Walker)
Found on a variety of shrubs and trees including citrus, sour sop (*Annona* sp.), and manjack (*Cordia* sp.). Also taken in fruit fly traps. Year round.

FAMILY Flatidae

- °1. *Flatoidinus* sp.
Beatty (1944). Three species of minor importance are found in Puerto Rico.
- 2. *Flatormenis* sp.
Recorded once on Guinea grass (*Panicum maximum*) in May.
- °3. *Ormenis quadripunctata* F. - *Melormenis antillarum* (Kirkaldy)
Common sugarcane and other vegetation. Year round.
- 4. *Puertormenis* sp.
One record at light in August.
- °5. *Petrusa epilepsis* (Kirkaldy)
Often recorded on manjack, lantana, and grasses. Year round.

FAMILY Issidae

- 1. *Colpoptera flavifrons* Osborn
Beatty (1944).
- °2. *Colpoptera maculifrons* Muir
Beatty (1944).

- *3. *Thionia* sp.
Beatty records this in 1944. This species looks very much like Dozier's *Thionia borinquensis*. Often found at seaside on grasses and sea grape, *Coccoloba uvifera*.

FAMILY Acanaloniidae

1. *Acanalonia vitida* (F.)
Taken on brush in May and August.

SERIES STERNORRHYNCHA (HYMENELYTRA)
SUPERFAMILY CHERMOIDEA
FAMILY Chermidae (Psyllidae)
(jumping plant lice)

- *1. *Euphalcrus nidifex* (Schwarz)
Recorded in a field survey by USDA Plant Quarantine Division, June 1948.

SUPERFAMILY ALEYRODOIDEA
FAMILY Aleyrodidae
(whiteflies)

- *1. *Aleurodicus cocois* (Curtis)
Often found on palms but the species is not believed to be a serious pest. Year round.
- *2. *Metaleurodicus minimus* (Quaintance)
Found on various fruit trees, especially guava. Year round pest species.
- *3. *Aleurothrixus floccosus* (Maskell) - *Aleyrodes howardi* Quaintance
Commonly found on various fruits including banana, guava, citrus, etc. Year round.
- *4. *Bemisia tabaci* (Genn.)
Recorded on cabbage as *Bemisia inconspicua* Quaintance by Beatty (1944).

SUPERFAMILY APHIDOIDEA
FAMILY Aphididae
(aphids, plant lice)

1. *Aphis fabae* Scopoli
One record in a fruit fly trap. January.
- *2. *Aphis gossypii* Glover
Commonly found year round on wild cotton and okra.
- *3. *Aphis maidis* (Fitch) - *Rhopalosiphum maidis* (Fitch)

A common pest of corn, sugarcane, sorghum, and other grasses on St. Croix. Seldom serious. Year round.

- *4. *Aphis craccivoca* Koch
Commonly found on beans and peas although it is not known to be an economic pest. Year round.
- *5. *Aphis nerii* Fonscolombe
Rare here, usually on wild shrubs. April.
- *6. *Aphis rumicis* (L.)
Beatty (1944) records this species on *Samanea saman*.
- *7. *Aphis spiraeicola* Patch
Often found on citrus and papaya leaves but is not believed to be economically important. Year round.
- *8. *Brevicoryne brassicae* (L.)
Common pest of crucifers. Year round.
- *9. *Pentalonia nigronervosa* Coquerel
Commonly found on papaya, banana, and other fruits. Year round.
- *10. *Rhopalosiphum pseudobrassicae* Davis
A common crucifer pest found year round.
- *11. *Sipha flava* (Forbes)
The yellow sugarcane aphid which becomes serious locally on sugarcane and on Pangola grass, but is at least partially checked by the coccinellid *Cycloneda sanguinea*. Year round.
- *12. *Toxoptera aurantiae* (Fonscolombe)
Widespread on the foliage of many kinds of fruit trees. Year round.

SUPERFAMILY COCCOIDEA
FAMILY Ortheziidae
(ensign coccids)

- *1. *Orthezia insignis* Browne
Widespread on a variety of shrubs, especially ornamentals. Year round.
- *2. *Orthezia praelonga* Douglas
An occasional pest on ornamentals. Year round.
3. *Phakopsora desmium* Cummins
One record on cotton leaf. December.

FAMILY Margarodidae (Monophlebidae)
(ground pearls, giant coccids)

- *1. *Icerya purchasi* Maskell

Cottony cushion scale of citrus. Does not usually become a serious pest here. Also found on certain vegetables including egg plant, okra, etc., and on Australian pine. Year round.

- *2. *Margarodes formicarum* Guilding
Occasionally found around sugarcane roots. Not known to be a serious pest. Year round.
- *3. *Margarodes rileyi* Giard
The ground pearl commonly seen around sugarcane roots.

FAMILY Diaspididae (armored scales)

- 1. *Aonidiella orientalis* (Newstead)
The Oriental scale. Found on a wide variety of ornamentals and fruit trees. Year round.
- *2. *Aspidiotus destructor* Signoret
The coconut palm scale. Very common on St. Croix and a serious pest. Partially controlled by the coccinellid *Azya trinitatis*. Year round.
- *3. *Aspidiotus lataniae* (Signoret)
The latania scale. Rare here, occasionally found on Australian pine and palms.
- *4. *Chrysomphalus aonidium* (L.)
The Florida red scale. Attacks a wide variety of ornamentals and fruit trees. Year round.
- *5. *Chrysomphalus dictyospermi* (Morgan)
Although this species is a notable Florida avocado pest, it is of little importance on St. Croix. Year round.
- *6. *Diaspis boisduvalii* Signoret
This scale does not become a pest here because of its parasites. Nevertheless, it is well known on a wide variety of hosts. Year round.
- *7. *Diaspis echinocacti* (Bouche)
The cactus scale. May be found on cactus of all Cruzan species but does not exert any real control. Never common.
- 8. *Furcaspis bififormis* (Cockerell)
One record in May on wild orchids.
- *9. *Howardia biclavis* (Comstock)
The mining scale. This scale almost conceals itself in the bark of many kinds of ornamentals and fruit trees. Uncommon on St. Croix.
- *10. *Ischnaspis longirostris* (Signoret)
The black thread scale. Attacks many plants, especially palms, but

does not become an economic pest here. Year round.

- 11. *Lepidosaphes alba* (Cockerell)
The cassava Scale. Only found occasionally on St. Croix.
- *12. *Lepidosaphes beckii* (Newman)
The purple scale of citrus. Although often found here, this scale is apparently kept in check by parasites. Year round.
- *13. *Pinnaspis strachani* (Cooley) - *Hemichionaspis minor* Maskell
The lesser snow scale. Attacks a very wide variety of plants. It is known to be a pest in Florida but is unimportant on St. Croix, presumably due to parasitization. Year round.
- *14. *Pseudaulacaspis pentagona* (Targioni)
The white peach scale. On St. Croix this scale is the most serious pest attacking papaya. Can be controlled with regular and frequent applications of soapy water or chemicals. Year round.
- *15. *Pseudischnaspis bowreyi* (Cockerell)
An American tropical scale attacking a wide variety of fruits. Year round.
- *16. *Pseudoparlatoria ostreata* Cockerell
The grey papaya scale. Occasionally a leaf pest of papaya. Year round.
- *17. *Selenaspis articulatus* (Morgan)
The rufous scale. Attacks citrus trees but is not important here. Year round.
- *18. *Targionia hartii* Cockerell
Occasionally found on root crops. Year round.
- *19. *Targionia sacchari* (Cockerell)
The sugarcane scale. This is our most serious diaspine pest of sugarcane. Year round.
- 20. *Unaspis citri* (Comstock)
The citrus snow scale. Apparently only found on citrus. Seldom serious on St. Croix. Year round.

FAMILY Conchaspidae

- *1. *Conchaspis angraeci* Cockerell
Apparently uncommon. Recorded once in August on mahogany.

FAMILY Asterolecaniidae (pit scales)

- *1. *Asterolecanium bambusae* (Boisduval)
The bamboo scale. Not particularly common here as our bamboo is widely scattered. Year round.

- °2. *Asterolecanium pustulans* (Cockerell)
Widespread on many hosts, but not regarded as an economic pest. Year round.
- 3. *Cerococcus* sp.
One record only on *Hibiscus* sp. in a nursery in May. Severe infestation, all affected plants were destroyed.

FAMILY Coccidae
(soft scales)

- °1. *Ceroplastes cirripediformis* Comstock
The barnacle scale. Relatively uncommon here, no apparent host preferences. Year round.
- °2. *Ceroplastes denudatus* Cockerell
Another uncommon scale. Our records indicate that it may favor *Annona* sp. and *Ficus* sp. Year round.
- °3. *Ceroplastes floridensis* Comstock
Florida wax scale. This scale is found on a wide range of hosts but never becomes abundant. Year round.
- °4. *Coccus acuminatus* (Signoret)
The acuminate scale. Wide ornamental host range. Apparently not a serious pest here. Year round.
- °5. *Coccus hesperidum* (L.)
The soft brown scale. It is often common here on foliage of a wide variety of plants but seldom is a serious pest.
- °6. *Coccus mangiferae* (Green)
Mango shield scale. This scale occasionally becomes a real pest on mango tree foliage. Year round.
- °7. *Coccus viridis* (Green)
The green scale. Another scale of wide host range. It often reaches considerable numbers but seemingly does not cause severe damage.
- °8. *Eucalymnatus tessellatus* (Signoret)
Palm scale. In spite of its name this scale is not often encountered on our palms. Year round.
- 9. *Protopulvinaria pyriformis* (Cockerell)
Pyriform scale. Another uncommon scale; recorded on avocado, citrus, guava, and some ornamentals. Year round.
- °10. *Pulvinaria psidii* Maskell
The green scale. Occasionally found in substantial numbers on guava. Not regarded as a pest. Year round.
- °11. *Pulvinaria urbicola* Cockerell

Beatty (1944) found this scale on beans, carrots, and sweet potato.

- °12. *Saissetia hemisphaerica* Targioni
Hemispherical scale. This and the following two scales are our chief ornamental pests. Also attacks guava and other fruits.
- °13. *Saissetia nigra* (Nietner)
Black scale. Hibiscus is the principal victim of this scale on St. Croix. Parasitization by the wasp *Eupelmus saissetiae* gives only partial control. Found throughout the year.
- °14. *Saissetia oleae* (Bernard)
Black scale. This abundant pest is also parasitized extensively by the wasp *Eupelmus saissetiae*. Found year round.
- °15. *Vinsonia stellifera* (Westwood)
This relatively uncommon scale attacks leaves of mango and other fruit trees. Year round.

FAMILY Pseudococcidae (Eriococcidae)
(mealy bugs)

- °1. *Ferrisia virgata* (Cockerell)
Beatty (1944) records this species on many local vegetables.
- °2. *Pseudococcus adonidium* (L.)
The long-tailed mealy bug. Not especially common on St. Croix although it occasionally appears in large numbers on oleander. Year round.
- °3. *Pseudococcus boninsis* (Kuwana)
The grey sugarcane mealy bug. This serious cane pest is present on St. Croix, but thus far has not been important.
- °4. *Pseudococcus brevipes* (Cockerell)
Pineapple mealy bug. Attacks a variety of fruits and vegetables. Pineapples here are not usually selected, perhaps because of small and scattered plantings. Recorded by Beatty as *P. bromeliae* Bouche (1944).
- °5. *Pseudococcus citri* (Risso)
Citrus mealy bug. This pest occasionally is a nuisance on young citrus stock. Year round.
- °6. *Pseudococcus nipae* (Maskell)
The coconut mealy bug. A pest of guava, sapodilla, coconut and avocado, although it is never especially abundant. Found year round.
- °7. *Trionymus sacchari* (Cockerell)
The pink sugarcane mealy bug. Damage to sugarcane is not fully known, but the abundance of this mealy bug suggests that it is a serious pest. Year round.

SUBORDER HETEROPTERA
GYMNOCERATA
SUPERFAMILY SCUTELLEROIDEA
FAMILY Cydnidae
(ground bug)

- °1. *Rhytidoporus indentatus* (Uhler)
Uncommon, occasionally attracted to light during fall rainy season.
- °2. *Amnestus pusio* (Stal)
Taken by a car net in November (Beatty 1944).

FAMILY Scutelleridae
(shield bug)

- °1. *Augocoris illustris* (F.)
Beatty (1944) records this shield bug in June on *Sapota achras*.
- °2. *Pachycoris torridus* (Scopoli)
Uncommon here, but may be found year round on ornamentals.
- °3. *Diolcus bosci* (F.)
An uncommon species seen in grasses from time to time.
- °4. *Diolcus disjunctus* Barber
Beatty (1944).
- °5. *Diolcus irroratus* (F.)
An uncommon, apparently unimportant species here. Preferred hosts are not known. Year round.
- 6. *Tetyra antillarum* Kirkaldy
One record at light in May.

FAMILY Pentatomidae
(stink bugs)

- °1. *Acrosternum marginatum* (Beauvois)
A common plant pest species, especially on tomato and other vegetables. Year round.
- °2. *Arvelius albopunctatus* (DeGeer)
Our principal tomato plant bug. Can be controlled by carbaryl insecticides. Year round.
- 3. *Banasa herbacea* (Stal)
One record taken in our light trap in May.
- °4. *Edessa cornuta* Burmeister
Widely found on grasses and wild morning glory on St. Croix. Year round.

- °5. *Euschistus bifibulus* Beauvois
Rather common on a wide variety of garden trees.
- °6. *Euschistus crenator* (F.)
A common species here, often found on cucurbit vegetables.
- 7. *Loxa pilipes* Horvath
One record taken in May at light. Two others by Wolcott (1936) from Puerto Rico.
- °8. *Mormidea angustata* Stal
Uncommon here on grasses and legumes. Year round.
- °9. *Mormidea cubrosa* (Dallas)
Well known here, but not common. Found on cotton. Year round.
- °10. *Nezara viridula* (L.)
Our most common plant feeding stink bug. Attacks many vegetables. Year round.
- °11. *Oebalus pugnax* (F.)
Not common. Found on various grasses and other plants year round.
- °12. *Piezodorus guildinii* (Westwood)
A common plant bug attacking beans and other legumes year round.
- °13. *Podisus sagitta* (F.)
We have one record of this species on grass. Westwood (1936) lists it as predaceous on the larvae of Noctuidae.
- °14. *Proxys victor* (F.)
Not common here, but is found on a wide variety of plants year round.
- 15. *Thyanta antiguensis* (Westwood)
A common species here found on many plants. Very damaging. Year round.
- 16. *Thyanta bimini* Ruckles
One record, in April, on pepper plants.
- °17. *Thyanta casta* Stal
Beatty (1944).
- °18. *Thyanta perditor* (F.)
Our worst pest in this genus. Abundant. Attacks many plants but can be controlled by chemicals. Year round.

SUPERFAMILY COREOIDEA
FAMILY Alydidae (Corisidae)

1. *Burtinus luteomarginatus* Maldonado
One record taken at light in May 1954.
- °2. *Leptocorisa filiformis* (F.)
Taken at light in October.
- °3. *Megalotomus rufipes* (Westwood)
Generally associated with weeds, but it is now known to attack cucurbits on St. Croix. Year round.

FAMILY Coreidae
(squash bugs)

- °1. *Anasa scorbatica* (F.)
The squash bug. This species is our principal cucurbit coreid. Parasitization by the tachinid, *Trichopoda pennipes* fails to hold it in check. Year round.
- °2. *Catorhintha guttula* (F.)
Often taken in net sweeps on roadside grasses and weeds. Seldom found on fruits or vegetables.
- °3. *Chariesterus gracilicornis* Stal
A fairly common species on various vegetables. Year round.
- °4. *Leptoglossus balteatus* (L.)
A species often recorded from guava but does not apparently reach economically important numbers.
- °5. *Leptoglossus gonagra* (F.)
One of our more important pest species which attacks many plants including cucurbits, citrus, guava, corn and others. Found commonly year round.
- °6. *Leptoglossus stigma* (Herbst)
Rather common here on guava. Found year round but is not regarded as a severe pest.
- °7. *Phthia picta* (Drury)
One of our most common coreid pests. This species is especially damaging to tomatoes and cucurbits unless controlled with insecticides. Year round.
- °8. *Spartocera batatas* (F.)
This species which can easily be confused with others is a severe potential pest on sweet potatoes. Its numbers are relatively small on St. Croix. Can easily be controlled with insecticides. Year round.

- °9. *Spartocera fusca* (Thunberg)
A fairly uncommon species here which may be found occasionally on eggplant and *Solanum nigrum*. Year round.

FAMILY Corizidae (Rhopalidae)
(grass bugs)

- °1. *Jadera rufofusca* Barber
Plant hosts are not known here. Attracted to light in October, November, and December.
2. *Harmostes affinis* Dallas
One record from St. Croix taken in net sweeps on weeds in April.
- °3. *Harmostes serratus* (F.)
Occasionally seen here on weeds year round.
- °4. *Liorhyssus hyalinus* (F.)
A not too widespread species. Found year round on grasses, eggplant, tomatoes, etc.
- °5. *Niesthrea sidae* (F.)
More common than the preceding species, but attacks mostly wild plants. Year round.

SUPERFAMILY GERROIDEA
FAMILY Gerridae (Hydrobatidae)
(water striders)

1. *Limmogonus franciscanus* (Stal)
Pond species occasionally taken at light. Year round.

FAMILY Veliidae
(water striders)

- °1. *Microvelia albonotata* Champion
On ponds and occasionally taken at light. Year round.
- °2. *Microvelia robusta* Uhler
Captured by Beatty (1944) in car net at dusk in September.

SUPERFAMILY ARADOIDEA
FAMILY Saldidae (Acanthiidae)
(shore bugs)

1. *Pentacora sphaelata* (Uhler)
Recorded once on St. Croix on an unknown plant in November.
- °2. *Saldula pallipes* (F.)
Found on pond shores but is rare, perhaps because of excessive dryness during the last two decades. Year round, fewer in dry season.

SUPERFAMILY LYGAEOIDEA
FAMILY Lygaeidae (Geocoridae, Myodochidae)
(chinch bugs)

- °1. *Blissus insularis* Barber
The West Indian chinch bug. This species, often a severe pest elsewhere, is not especially prominent here. Found year round.
2. *Heraeus guttatus* Dallas
One adult record, taken at light in October.
- °2. *Kleidocerus virescens* (F.)
This uncommon species has been seen only a few times here on foliage of various shrubs and grasses.
- °3. *Lygaeus bicrucis* (Say)
Attracted to light. Year round in small numbers.
- °4. *Lygaeus collaris* (F.)
This species is seen often on grasses and in brushy areas.
- °5. *Lygaeus pulchellus* (F.)
This is our most common *Lygaeus* although it seldom reaches pest proportions. Attacks a wide variety of plants.
- °6. *Oncopeltus aulicus* (F.)
Often found on ornamentals. Taken at light year round.
- °7. *Oncopeltus fasciatus* (Dallas)
Taken on ornamentals and wild shrubs regularly. Apparently not a severe pest.
- °8. *Ortholomus jamaicensis* (Dallas)
Beatty (1944). Also found in Puerto Rico by Wolcott (1936).
9. *Ozophora quinque maculata* Barber
We have one record of this species taken in October in a fruit fly trap.
10. *Pachybrachius albocinctus* Barber
Found on cucurbits. July.
- °11. *Pachybrachius bilobatus scutellatus* (Dallas)
A common species attacking many vegetable crops as well as grasses and wild legumes. Year round.
- °12. *Pachybrachius vinctus* (Say)
Found mainly on pasture grasses and legumes. Not common.
- °13. *Paromius longulus* (Dallas)
Widely found on pasture grasses, weeds, and legumes. Year round, but not a severe pest.

FAMILY Neididae (Berytidae)
(stilt bugs)

1. *Protacanthus decorus* (Uhler)
Beatty (1944) records this as *Metacanthus decorus* Uhler.

FAMILY Pyrrhocoridae
(cotton stainers)

- °1. *Dysdercus andreae* (L.)
This common bug may be found year round on wild cotton and other malvaceous plants. Also is found on cotton. Not regarded as a pest.

SUPERFAMILY TINGOIDEA
FAMILY Tingidae (Tingididae, Tingitidae)
(lacebugs)

1. *Corythaica cyathicollis* (Costa)
A common pest on eggplant on St. Croix. Found year round. Can cause severe damage but is controlled by nicotine.
- °2. *Corythucha gossypii* (F.)
Apparently was formerly associated with our sea island cotton but now is usually found on castor bean and wild physic nut (*Jatropha* sp.). Year round.
- °3. *Teleonemia sacchari* (F.)
A very uncommon species on grasses.

SUPERFAMILY REDUVIOIDEA
FAMILY Nabidae
(damsel bugs)

- °1. *Nabis capsiformis* Germar
This predacious bug is not very common here, feeds on various stink bugs, cotton stainers, and coreids. Year round.

FAMILY Reduviidae
(assassin bugs, kissing bugs)

1. *Narvesus carolinensis* Stal
One record at light from St. Croix in May.
2. *Oncocephalus* sp.
Recorded on an unidentified weed species in August.
- °3. *Stenopoda cinera* Laporte
An uncommon species on St. Croix, but may be found year round.
4. *Triatoma rubrofasciata* (DeGeer)
This reduviid often is attracted to light and enters houses. It is

capable of biting painfully and Beatty (1944) says it has been known to carry trypanosomes.

- °5. *Zelus longipes* (L.)
One of our best hemipteran predators of plant bugs. Widely found year round.

FAMILY Ploiariidae (Emesiidae)
(thread-legged bugs)

- °1. *Empicoris armatus* (Champion)
Probably the most common ploiariid on St. Croix but is rather secretive in habits. Year round.
- °2. *Emesopsis nubilus* Uhler
Taken in net sweeps on weeds. Beatty (1944) records it at light.
3. *Ploiaria bispina* McAtee and Malloch
A seldom seen but actually a rather common predacious species, which can be taken in net sweeps on grasses and shrubs.

SUPERFAMILY POLYCTENOIDEA

FAMILY Polyctenidae
(bat bugs)

1. *Hesperoctenes* sp.
Beatty (1944) records this bat parasite taken from the free-tailed bat, *Molossus major*.
2. *Buchananiella constrictus* (Stal)
Taken at light in October.
3. *Cardiastethus cubanus* Poppius
Beatty (1944) records this species as captured in a car net at dusk in October.
4. *Cardiastethus rugicollis* Champion
An uncommon species apparently predacious on scales and aphids.
- °5. *Lastochilus divisus* Champion
The pink-sheath bug of sugarcane. Presumably predacious on mites and young mealy bugs. Year round.
- °6. *Paratriphleps pallidus* (Reuter)
Predacious on scale insects. Year round.

- °7. *Orius insidiosus* (Say)
Predacious on aphids and other small insects. Year round.

- °8. *Xylocoris flavipes* (Reuter)
Uncommon here but the species may be found year round.

SUPERFAMILY CIMICOIDEA

FAMILY Cimicidae (Acanthiidae, Clinocoridae)
(bed bugs)

- °1. *Cimex hemipterus* (F.)
The common bed bug. No more need be said!

FAMILY Anthoceridae
(flower bugs)

- °1. *Asthenidea picta* Uhler
A predator on scale insects, unfortunately not common.

FAMILY Miridae (Capsidae)
(plant bugs)

1. *Creontiades debilis* Van Duzee
Recorded once on weeds in March.
- °2. *Creontiades rubrinervis* (Stal)
Found frequently on various vegetables although it does not seem to be a pest. Year round.
- °3. *Cyrtopeltis tenuis* Reuter
Recorded on sesame plants in February.
- °4. *Cyrtopeltis varians* Distant
Uncommon here but it may be found on wide-leaved plants such as *Jatropha* sp. Year round.
- °5. *Dolichomiris linearis* Reuter
Uncommon on grasses. Year round.
- °6. *Lygus fasciatus* Reuter
Found occasionally on grasses and weeds. Relatives transmit plant diseases elsewhere but no transmission is known here.
- °7. *Polymerus testaceipes* (Stal)
Common on a wide variety of vegetable crops. A moderate pest year round.
8. *Prepops* sp.
One record at light in September.

- °9. *Pycnoderes quadrimaculatus* Guerin-Meneville
The small black squash bug. Our most common mirid, found especially on cucurbits but also on sweet potato, tomato, etc. Year round.
- 10. *Reuteroscopus ornatus* (Reuter)
Beatty (1944) records this species as captured in a car net at dusk in October.
- 11. *Rhinacloa forticornis* Reuter
Swept from grass in November (Beatty 1944).
- 12. *Sixeonotus* sp.
On grass in November (Beatty 1944).
- 13. *Trigonotylus brevipes* Jakovlev
Occasionally taken on various grasses. Apparently not common.
- 14. *Trigonotylus pulcher* Reuter
At light in October.

CRYPTOCERATA
FAMILY Belostomatidae
(giant water bugs)

- °1. *Belostoma subspinosum* (Beauvois)
Our most common belostomid which often comes to light in rural area. Year round.

FAMILY Notonectidae
(back swimmers)

- 1. *Buenoa albida* (Champion)
Taken by car net at dusk in October (Beatty 1944).
- 2. *Buenoa femoralis* (Fieber)
A fairly commonly seen species in permanent ponds. Year round.
- 3. *Buenoa pallens* (Champion)
Taken by car net and in Slob pond (Beatty 1944).
- 4. *Buenoa pallipes* (F.)
Our most common notonectid. Often collected in ponds located in the wet areas.
- 5. *Notonecta indica* L.
Fairly common in local permanent water sources. Year round.

FAMILY Corixidae
(water boatman)

- 1. *Centrocorisa kollari* (Fieber)

- Occasionally taken at light. Also found in brackish ponds. Year round.
- 2. *Trichocorixa verticalis* (Fieber)
In brackish ponds during May and September (Beatty 1944).

ORDER NEUROPTERA
SUBORDER PLANIPENNIA
SUPERFAMILY HEMEROBIOIDEA
FAMILY Chrysopidae
(green lacewing, golden eyes)

- °1. *Chrysopa collaris* Schneider
This species is quite common; feeds on the sugarcane aphids, *Sipha flava*, and certain scale insect crawlers.
- °2. *Chrysopa bimaculata* McClendon
Often found attacking mealy bugs and scales on guava.
- °3. *Chrysopa exterior* Navas
The most common species of chrysopid here; feeds on homopterans that attack guava. Year round.
- 4. *Nodita* sp.
One record in a fruit fly trap. April.

SUPERFAMILY Myrmeleontoidea
FAMILY Myrmeleontidae
(ant lions)

- °1. *Myrmeleon insertus* Hagen
Our most common ant lion. Frequently found in beach areas and taken at light. Year round.
- °2. *Vella fallax* Rambur
Uncommon on St. Croix. Usually taken at light.
- 3. *Vella haitiensis* Smith
Another uncommon species here that is occasionally taken at light.

ORDER LEPIDOPTERA
SUBORDER HETERONEURA
DIVISION MONOTRYSIA
SUPERFAMILY NEPTICULOIDEA
FAMILY Oenophilidae (Oinophilidae)

- °1. *Ereunetis minuscula* Walsingham
Found on various vegetables and fruits where it is probably a scavenger and possibly a predator on scales and other small insects. Year round.

SUPERFAMILY CYNIPOIDEA

FAMILY Cynipidae
(gall wasps)

1. *Hexacola* sp.
Beatty (1944).

FAMILY Figitidae
(aphid parasites)

1. *Dicerataspis* sp.
Beatty (1944).

FAMILY Eucolidae

- *1. *Pseudeucoila (Hexamerocera) atriceps* (Ashmead)
This parasite is frequently taken around fruit fly infested fruit.

DIVISION ACULEATA
SUPERFAMILY BETHYLIOIDEA
FAMILY Bethylidae
(bethylid wasps)

1. *Perisierola* sp.
This parasitic species was taken once in net sweeps over a sweet potato planting. Host not known.

SUPERFAMILY SCOLIOIDEA
FAMILY Scoliidae
(hairy flower wasps)

- *1. *Campsomeris dorsata* (F.)
Adults may be seen around various wild flowers, larvae are effective parasites of grubs. Common year round.
- *2. *Campsomeris ephippium* (Say)
A fairly common species with habits similar to *C. dorsata* above.
- *3. *Campsomeris trifasciata* (F.)
Less common than *C. dorsata* above, but is often caught in net sweeps of flowers.

SUPERFAMILY FORMICOIDEA
FAMILY Formicidae (Formicoidea, Heterogyna)
(ants)

SUBFAMILY Ponerinae
(bulldog ants)

- *1. *Anochetus mayri* Emery

A not too common species here, found mainly in open fields.

- *2. *Leptogenys puncticeps vincentensis* Forel
Beatty (1944).
- *3. *Odontomachus haematoda* (L.)
This common, large, robust species is found in nests around tree roots.
Enters dwellings from time to time.
- *4. *Platyhyrea punctata* (Smith)
An uncommon field species.
- *5. *Ponera ergatandria* Forel
Beatty (1944).
- *6. *Ponera opaciceps* Mayr
A woodland form found in wetter areas.

SUBFAMILY Formicinae
(typical ants)

7. *Acropyga (Rhizomyrma)* sp.
Beatty (1944).
- *8. *Brachymyrmex* sp. near *heeri* Forel
Frequently attracted to fruit fly traps. Year round.
- *9. *Camponotus sexguttatus* (F.)
Very common. It apparently tends aphids for honeydew.
- *10. *Camponotus ustus* Forel
A relatively common seaside and dry region species. May be seen year round.
- *11. *Myrmelachista ambigua ramulorum* Wheeler
Beatty (1944). In Puerto Rico it is a coffee pest.
- *12. *Paratrechina fulva* (Mayr)
This unwelcome species is found in sugarcane fields where it will bite humans as well as attend scales.
- *13. *Paratrechina longicornis* (Latreille) = *Prenolepis longicornis* (Latreille)
This species is often associated with stored products such as beans, cottonseed meal, etc. It also attends mealy bugs in sugarcane fields and unfortunately may invade country homes where its bite is well known.
- *14. *Paratrechina vividula* (Nylander)
Beatty (1944).

SUBFAMILY Myrmicinae
(parasol ants)

- *15. *Cardiocondyla emeryi* Forel
A widely found beach species.
- *16. *Cardiocondyla venustula* Wheeler
Beatty (1944).
- *17. *Cremastogaster steinheili* Forel
A common species often found in dwellings, possibly seeking water in dry times. Nests under bark or in hollow twigs.
- *18. *Cyphomyrmex rimosus minutus* Mayr
Beatty (1944).
- *19. *Monomorium carbonarium ebeninum* Forel
A fairly common species often found attending the yellow sugarcane aphid, *Sipha flava*. Year round.
- *20. *Monomorium destructor* (Jerdon)
An uncommon field species.
- *21. *Monomorium floricola* (Jerdon)
An active field species commonly found. Year round.
- *22. *Monomorium pharaonis* (L.)
The Pharaoh's ant. A field species that all too often enters dwellings and buildings on St. Croix. Found year round.
- *23. *Mycocepurus smithi borinquensis* (Wheeler)
An occasionally green woodland fungus cultivator.
- *24. *Quadristruma emmae* (Emery)
Beatty (1944).
- *25. *Pheidole fallax jelskii* Mayr
Uncommon in drier areas.
- *26. *Pheidole flavens sculptor* Forel
Beatty (1944).
- *27. *Pheidole megacephala* (F.)
The wild ant (also applied to *Solenopsis geminata*). Our most common species of this genus often seen attending scale insects. This ant is aggressive and bites viciously.
- *28. *Pheidole moerens* Wheeler
Beatty (1944).
- *29. *Solenopsis corticalis* Forel
Beatty (1944).
- *30. *Solenopsis geminata* (F.)
The brown fire-ant. This is our most common fire ant. It attends mealy bugs on a variety of plants and can be injurious to young fruit trees,

especially citrus. Also is regarded as a capable biter.

- *31. *Solenopsis globularia* (Smith)
Apparently the only other common fire ant here, this species may be encountered on beaches and other sandy areas.
- *32. *Strumigenys eggeri* Emery
Beatty (1944).
- *33. *Strumigenys rogeri* Emery
An uncommon beach and dry area species.
- *34. *Tetramorium guineense* (F.)
The Guinea or crazy ant. A frequent invader of dwellings, especially during dry weather. Year round.
- *35. *Tetramorium lucayanum* Wheeler
Beatty (1944).
- *36. *Tetramorium simillimum* (Smith)
Beatty (1944). The species is found in sugarcane fields and on beaches.
- *37. *Wasmannia auropunctata* (Roger)
An aggressive field ant that attends scale insects and aphids. Fairly common.

SUBFAMILY Dolichoderinae
(tapinoma ants)

- 38. *Dorymyrmex pyramicus* (Roger)
A beach species often taken while swarming. Year round and common.
- 39. *Iridomyrmex melleus* Wheeler
A not too common species. It may be seen primarily in trees where it makes paper-like nests. Its cousin, the Argentine ant, is recorded from Puerto Rico but is apparently absent here.
- *40. *Tapinoma melanocephalum* (F.)
A ground-dweller that is capable of ejecting a gummy substance that tangles up enemies.

SUPERFAMILY VESPOIDEA
FAMILY Vespidae
SUBFAMILY Eumeninae

- *1. *Monobiella atrata* F.
A tiny wasp occasionally taken when sweeping low weeds in pasture areas.
- *2. *Odynerus* sp.
Beatty (1944).

- *3. *Pachodynerus cinerascens* (F.)
Attracted to fruit fly traps and taken at light. Year round.

SUBFAMILY Polistinae

- *4. *Mischocyttarus phthisicus* F.
Little Jack Spaniard. Common in brushy areas but seldom stings.
- *5. *Polistes crinitus* Felton
Our common hard-stinging Jack Spaniard, predacious on small insects. Year round.

SUPERFAMILY POMPILOIDEA

FAMILY Pompilidae
(*Psammocharidae*, *Ceropalidae*)
(spider hunters)

- 1. *Anoplius amethystinus* (F.)
Taken flying on several occasions in sugarcane fields. Host not known.
- *2. *Anoplius* sp. = *Psammochares* sp.
This ground-burrowing spider hawk may be seen around beach areas.
- 3. *Apones prolixus* Bradley
Reported by Beatty (1944) as *Planiceps* sp.
- *4. *Pepsis rubra* Drury
A well known spider hunter found mainly in drier, sandy areas near the beach.
- *5. *Poecilopompilus mundiferms* (Rohwer)
Beatty (1944) reported this species as *Batazonus mundiformis* Rohwer.

SUPERFAMILY SPHECOIDEA

FAMILY Sphecidae
(mud daubers)

- 1. *Pluto atricornis* Malloch
A common sphecid wasp often captured flying in wetter habitats.
- 2. *Prionyx thomae* = *Chlorion pubidorsum* (Costa) = *Chlorion thomae* (F.)
Taken in net sweeps over blooming sweet potato flowers. Year round and common.
- *3. *Sphex dorsalis* Lepeletier = *Chlorion singularis* (Smith)
Our most common mud dauber, particularly numerous in the wet areas.

FAMILY Bembicidae
(sand wasps)

- *1. *Bembix muscicapa* Handlirsch
The burrowing solitary wasp feeds its young on flies, especially muscids. Fairly common.
- *2. *Stictia signata* L.
Our most common bembicid. This species takes flies on the wing and feeds them to its larvae that occupy ground cells.

FAMILY Larridae
(sand-loving wasps)

- 1. *Motes fuliginosa* (Dahlbom)
We have only two records of this species, captured in flight in May and June.
- *2. *Motes trifasciata* (Smith) = *Notogonidae trifasciatus* Smith Beatty (1944).
- *3. *Motes vinulenta* (Cresson) = *Notogonidae vinulenta* Cresson
This species may be taken occasionally in net sweeps on the northwest coast.
- *4. *Tachytes argentipes* (Smith)
This common moderate-sized species provisions its nests with young grasshoppers. Year round.

SUPERFAMILY APOIDEA

FAMILY Halictidae
(burrowing bees)

- *1. *Halictus busckiiellus* Cockerell
Beatty (1944). We have seen *Halictus* here but are not certain of the species.
- 2. *Lastiglossum* (*Chloralictus*) sp.
A beneficial flower pollinator frequently taken in net sweeps. Year round.

FAMILY Megachilidae (Panurgidae)
(leaf-cutting bees)

- *1. *Coelioxys abdominalis* Guérin
A woods species not often seen.
- 2. *Megachile flavitarsata* Smith
Beatty (1944).
- *3. *Megachile lanata* (F.)
An uncommon forest species that nests in the fissures in the bark of trees.

- °4. *Megachile luctifera* Spinola = *M. binotata* Guérin
This large megachilid builds solitary cells in rotten wood. Often found in dwellings. Common year round.
5. *Megachile vittrasi* Perez
An uncommon leaf-cutting bee. Apparently nests in bamboo.

**FAMILY Apidae (Bombidae,
Anthophoridae, Ceratinidae)**
SUBFAMILY Apinae
(bees)

- °1. *Apis mellifera* L.
The common honey bee. Year round but not especially abundant.

SUBFAMILY Anthophorinae
(hairy flower bees)

- °2. *Anthophora krugii* Cresson
This large flower bee is often seen on tomato flowers.
3. *Centris poecila* Lepeletier
Beatty (1944).
- °4. *Centris versicolor* (F.)
Seen around flowering fabaceous plants. Year round and common.
5. *Exomalopsis globosa* (F.)
On flowers in June (Beatty 1944).
6. *Exomalopsis pubescens* Cresson
We have captured this species once on *Cleome spinosa* in June.
- °7. *Hemisia* sp.
Captured in net sweeps in November.
8. *Hypochrotaenia pilipes* Cresson
Apparently rare, caught in net sweeps on one occasion in May.
- °9. *Melissodes trifasciata* Cresson
This species is a pollinator of various plants; seen year round.

SUBFAMILY Xylocopinae
(carpenter bees)

- °10. *Xylocopa brasilianorum* L.
A large, conspicuous bee that may be found tunneling into fence posts and deserted buildings where it establishes egg cells. Uncommon.

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- Part 3. Descriptive Flora Spermatophyta (Continued).
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- Part 2. Descriptive Flora Spermatophyta (Continued).
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