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INSECT NOTES FROM COSTA RICA IN 1936

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This paper is a continuation of the supplements being published each year in the Insect Pest Survey Bulletin on the collection records made by C. H. Ballou. The previous publications are Supplements to No. 4, Vol. 15, 1935, and Supplement to No. 9, Vol. 15, 1936. The present paper does not include the entire collection records for the year, but only those giving additional data to the preceding lists. The plants are those from which the insects were collected and do not in all instances indicate the food plants. If the insect was feeding, the plant name is followed by "f" and if it was destroying the plant or ruining the crop, by "F".

Although a few localities new to the lists have been added, it is not thought practicable to reissue the map this year.

C O L E O P T E R A

Insect and locality	C o l l e c t e d o n		Date and notes
ANTHICIDAE			
Notoxus eximius Champ. Paso Ancho	Cestrum lanatum Cestrum macrophyllum Coix mayuen Ficus carica	Linum usitatissimum Tournefortia foetidissima Trichilia havanensis Watsonia sp.	
BRENTHIDAE			
Brentus mexicanus Boh. Paso Ancho Rancho Redondo Waldeck	Cestrum nocturnum Citharexylum caudatum Elaphrium simaruba	Impatiens balsamina Pennisetum clandestinum "Tora blanca"	May, July, September
BUPRESTIDAE			
Agrilus furcillatus Chevr. Santa Ana	Buddleia sp.		July
Brachys anthrenoides Wtrh. Paso Ancho	Inga roussoviana		April
Chrysobothris costaricana Obenberger San Pedro	Coffea arabica		December
Chrysobothris convexiusculatus Wtrh. San Rafael de Coronado	Rosa sp.		March
Liopleura nodiery Thery Paso Ancho San Pedro	Cucurbita pepo Eugenia jambos Ficus sp.		September to December
Lius hoscheki Obenberger San Pedro	Vernonia brachiata		April

Insect and locality	C o l l e c t e d o n	Date and notes
Pachyschelus pittieri Fisch. Paso Ancho	Inga roussovia	March, June, November
CANTHARIDAE		
Belotus abdominalis (Lec.) San Pedro	Persea americana	June
Chauliognathus histrio (Dej.)	Acnistus arborescens Citrus limonia	Tabernaemontana bignoniae- flora
Chauliognathus oedemeroides Gorh. Paso Ancho San Pedro	Asparagus officinalis Dombeya wallichii Inga roussovia	Lactuca sativa Trichilia havanensis
Diaphron proteum Gorh.	Citrus limonia Cucurbita pepo Coffea arabica Diphysa robinoides Euphorbia hoffmaniana	Hamelia erecta Impatiens balsamina Melanthera aspera Randia mitis
Discodon plicatum Gorh. Paso Ancho San Pedro	Persea americana Eriobotrya japonica	June, December
CARABIDAE		
Calleida chryseis Bates Paso Ancho San Pedro Tarrazu	Acnistus arborescens Cornutia pyramidata Malpighia glabra Persea americana	May, June, August
Euproctus metricus Bates San Pedro	Persea americana	October
Lebia charilla Bates San Pedro	Persea americana	June

Insect and locality	C o l l e c t e d o n	Date and notes
Leptotrachelus puncticollis Bates San Isidro del General	Zea Mays	June
CERAMBYCIDAE		
Adesmus druryi Thoms. Paso Ancho San Pedro	Acnistus arborescens	<u>f</u>
Adesmus spectabilis Bates Paso Ancho	Acnistus arborescens Eriobotrya japonica	<u>f</u>
Adetus muticus Thomson San Pedro	Spondias purpurea	May
Antodice cretata Bates		June
Compsa textilis Thoms. San Pedro	Persea americana	
Dorcasta geometrica Bates San Pedro	Chayota edulis	July
Erana leuconoe Bates San Pedro	Ipomoea tiliacea	June
Eucharassus dispar Bates Guadalupe	Erythrina rubrinervia	June
Evander unicolor Bates Santa Elena de Tarrazu	Inga tonduzii	January
Hippopsis lemniscata (F.) Paso Ancho	Coix mayuen Inga roussoviana	Vernonia brachiata
		May, July, November

Insect and locality	C o l l e c t e d o n			Date and notes
Neoclytus cacicus (Chevr.) Waldeck	Theobroma cacao			April
Nyssodrysina haldemani (Lec.) Waldeck	Theobroma cacao			April
Ochresthes pollinosus (Chevr.) Paso Ancho	Cosmos sulphureus	<u>f</u>		November. Abundant in flower.
Oncideres trinodatus Csy. Tarrazu	Coffea arabica			September
Ozineus arietinus Bates Waldeck	Theobroma cacao			April, July
Pterichthya longicauda Bates	Chayota edulis		Leonurus sibericus	<u>f</u> November, July, September
Pyrodes rhomboderus (Bates) San Isidro del General	Blighia sapida			September June
Trachyderes succinctus L. Paso Ancho San Isidro del General	Bidens pilosa Lycopersicum esculentum			March, November
CHRYSOMELIDAE				
Allochroma coccineum Clark? Waldeck	Theobroma cacao			July
Allochroma sexmaculatum Clark Paso Ancho	Caladium bicolor Colocasia esculenta	<u>f</u> <u>f</u>	Xanthosoma helleborii- folium Xanthosoma sagitti- folium	<u>f</u> <u>f</u> May. Injurious

Insect and locality	C o l l e c t e d o n		Dates and notes
Altica jamaicensis Oliv. San Isidro del General San Pedro	Byrsonima crassifolia Citrus sinensis Jussiaea decurrens F Jussiaea suffruticosa f	Phaseolus vulgaris Polygonum punctatum f	May to September
Anomoea sanguinipennis Lacord. San Pedro	Lippia berlandieri Rosa sp.	Zea mays f	May. Eating pollen on Zea mays.
Asphaera abdominalis (Chevr.) Paso Ancho	Buddleia davidi f Vernonia brachiata f		April, December
Asphaera nobilitata (F.) Paso Ancho	Chrysophyllum cainito Coix mayuen Elaeis guineensis	Urera baccifera Vernonia brachiata	April, November
Calligrapha elegantula Jacoby Paso Ancho Rancho Redondo	Chayota edulis f Curcubita pepo Ipomoea purga f Ipomoea tiliacea	Pennisetum clandestinum Polygonum punctatum Vernonia brachiata Xanthosoma helleboriifolium	May, July
Calligrapha fulvipes Stål San Pedro Waldeck	Commelina sp.	Sida rhombifolia Vitis tiliacifolia	April, July
Carinispa nevermanni Uhmman Paso Ancho	Bunchosia costaricensis f	Malpighia glabra	January, August
Cerotoma rogersi Jacoby San Isidro del General Ujarras	Hamelia erecta Hibiscus sabdariffa f Musa sapientum Panicum barbinode Pennisetum purpureum	Phaseolus helvolus f Solanum tuberosum Vitis vinifera Vitis tiliacifolia	
Cerotoma ruficornis (Oliv.) San Pedro	Phaseolus vulgaris Zea Mays		May, December

Insect and locality	C o l l e c t e d o n	Date and notes
Chalcophana mutabilis Harold San Pedro Guadalupe	Dahlia sp. (local name Catalina) Solanum torvum	
Chalepus clypeatus Baly Waldeck	Panicum barbinode	July
Championaspis interrupta (Champ.) San Pedro	Ipomoea purga <u>f</u> Ipomea tiliacea <u>f</u>	January, June. Adults emerged January 23.
Chelymorpha gressoria Boh. var. Cartago Tarrazu Waldeck	Calea urticifolia axillaris Coffea arabica Panicum barbinode	July, September
Chirida guttata (Oliv.) San Isidro de Coronado	Ipomoea batatas Ipomoea tiliacea	Pennisetum purpureum <u>f</u> August, October, December
Colaspis hypochlora Lef. San Pedro Waldeck	"Lirio virginal" Theobroma cacao	Hibiscus rosa-sinensis April, July.
Colaspis prasina Jacoby San Pedro	Clerodendron fragrans	July
Colaspis submetallica Jacoby?	Monstera pertusa	
Colaspoides batesi Jacoby Paso Ancho San Pedro	Hamelia erecta Trichilia havanensis <u>f</u>	February, June, August to December.

Insect and locality	C o l l e c t e d o n		Date and notes
Coptocycla amoena Boh. San Pedro	Eugenia jambos Sida rhombifolia	Tabernaemontana begnoniae- flora	January, March, May
Coptocycla atalanta Boh. Paso Ancho San Pedro	Citharexylum caudatum Eugenia jambos Trichilia havanensis <u>f</u>		November to January
Cryptocephalus trizonatus Suffr. Alajuelita San Isidro de Coronado Tarrazu	Alnus acuminata Asclepias curassavica Cestrum aurantiacum Chayota edulis Citrus aurantifolia <u>f</u> Ipomoea tiliacea Lagerstroemia indica	Morus rubra Psidium molle Ricinus communis <u>f</u> Spondias purpurea Tournefortia foetidissima Viola odorata	
Ctenochira aberrata Weise Waldeck	Elaeis guineensis	Paspalum fasciculatum	July
Ctenochira cumulata (Boh.) Cachi Paso Ancho San Vicente de Moravia Torito	Anacardium occidentale Citrus limonia Coffea arabica Coix mayuen Elaeis guineensis Erythrina rubrinervia Eupatorium odoratum	Hibiscus rosa-sinensis Inga roussovia <u>f</u> Ipomoea tiliacea Panicum barbinode Phytolacca octandra Spondias purpurea	February, April, June, August, December
Ctenochira rubrocincta (Boh.) Paso Ancho	Inga roussovia		December

Insect* and locality	C o l l e c t e d o n	Date and notes
Ctenochira vivida (Boh.) San Pedro	Annona cherimola Erythrina rubrinervia	Sapium caudatum April, June, December
Dachrys bipartita Jacoby? San Pedro	Rosa sp.	June
Deloyala testudinaria (Boh.) Paso Ancho Santa Ana Waldeck	Cestrum macrophyllum Chayota edulis Malpighia glabra Physalis lagascae	Solanum seaforthianum <u>f</u> Theobroma cacao April to August, November
Diabrotica balteata Lec. Alajuela Paso Ancho Pavas de Turrialba San Isidro del General	Aleurites moluccana Allium cepa Althaea rosea Amaranthus cruentus Brassica japonica Citrus sinensis Coffea arabica Cucumis sativus <u>f</u> Cucurbita pepo Ficus carica Fragaria chiloensis	Gossypium barbadense <u>f</u> Grass Helianthus annuus Impatiens balsamina Ipomoea batatas Portulaca oleracea Rosa spp. Solanum nigrum Triticum aestivum Verbena spp. Vernonia brachiata
Diabrotica corusca Jacoby Tarrazu	Coffea arabica	August

Insect and locality	C o l l e c t e d o n		Date and notes
Diabrotica fulvicornis Jacoby La Carpintera Paso Ancho San Isidro de Coronado Santa Barbara de Heredia	Annona cherimola Blakea gracilis Canangium odoratum f Conostegia lanceolata Cornutia pyramidata Cucurbita pepo Daucus carota Hamelia erecta	Lycopersicum esculentum Sapium caudatum f Solanum nigrum Solanum tuberosum Tabebuia pentaphylla Terminalia catappa Trichilia havanensis	Throughout the year.
Diabrotica fulvosignata Baly	Anacardium occidentale Panicum maximum	Pennisetum purpureum	April
Diabrotica nummularis Harold Alajuela San Isidro de Coronado Santa Ana Tarrazu	Althaea rosea Amaranthus spinosus Borago officinalis f Brassica japonica Brassica rapa Cajanus bicolor Calonyction aculeatum f Canna indica f Capsicum annuum f Casuarina equisetifolia Cirsium costaricensis Citrullus vulgaris f Citrus limonia Coix lacryma-jobi f Coix mayuen Coriandrum sativum Cornutia pyramidata f Cynara scolymus Cyperus alternifolius	Erythrina glauca Fortunella japonica f Fragaria chiloensis Fuchsia sp. Garcinia tinctoria Gossypium barbadense f Grevillea robusta Helianthus annuus f Hibiscus esculentus Hibiscus sabdariffa f Hibiscus schizopetalus Holcus sorghum Indigofera suffruticosa Ipomoea purga f Iresine herbsti Jacaranda ovalifolia Jacobinia coccinea Linum usitatissimum f Lonicera japonica	

Insect and locality	C o l l e c t e d o n		Date and notes
Diabrotica nummularis-- Cont'd.	Malacra radiata <u>f</u> Mangifera indica <u>f</u> Nicotiana tabacum Passiflora ligularis Passiflora quadrangularis <u>f</u> Pennisetum purpureum <u>f</u> Persea pittieri Petroselinum hortense <u>f</u> Phaseolus helvolus <u>f</u> Phytolacca octandra Pisum sativum <u>f</u> Rubus spp. (Blackberry) <u>f</u>	Salix chiloensis Salvia splendens <u>f</u> Sambucus mexicanus <u>f</u> Sapium caudatum Solanum lanceolatum sinu- atum <u>f</u> Spondias purpurea Tephrosia toxicaria <u>f</u> Trema micrantha Triticum aestivum Valerianoides cayannense Vernonia brachiata <u>f</u> Vitis rotundifolia Vitis tiliacifolia Zantedeschia aethiopica <u>f</u>	
Diabrotica porracea Harold Orosi Paso Ancho San Isidro de Coronado Santa Ana Santa Barbara de Heredia	Borago officinalis <u>f</u> Coix mayuen Coreopsis lanceolata Cucurbita pepo Cyclanthera pedata Helianthus annuus <u>f</u>	Hibiscus rosa-sinensis <u>f</u> Holcus sorghum Linum usitatissimum Pyrus communis Zinnia elegans <u>f</u>	Throughout the year.
Diabrotica theimei Baly Paso Ancho	Cirsium costaricensis <u>f</u> Citrullus vulgaris Cucurbita pepo <u>f</u>	Diphyssa robinoides Impatiens balsamina <u>f</u> Spondias mombin	January to March, July to September, December
Diabrotica variabilis Jacoby? Paso Ancho San Pedro	Desmodium sp. Ficus carica Ipomoea purga Lantana camara Meibomia sp. <u>f</u>	Passiflora ligularis Phaseolus helvolus Phaseolus vulgaris Spondias purpurea Zea mays	February, July, October, December.

Insect and locality	C o l l e c t e d o n		Date and notes
<i>Diabrotica viridula</i> (F.) Orosi Paso Ancho Santa Ana	<i>Amygdalus persica</i> <i>Brassica japonica</i> <i>Cajanus bicolor</i> <i>Citrus paradisi</i> <i>Coix mayuen</i> <i>Dahlia rosea</i> <i>Holcus sorghum</i>	<i>Ipomoea batatas</i> <i>Ipomoea purga</i> <i>Prunus salicina</i> <i>Psidium cattleianum</i> <i>Solanum tuberosum</i> <i>Tripsacum laxum</i>	Throughout the year.
<i>Diabrotica vittata</i> (F.) Pas Ancho	<i>Citrullus vulgaris</i> <i>Mangifera indica</i>	<i>Passiflora ligularis</i>	Throughout the year.
<i>Diphaulaca nitida</i> Jacoby Cachi La Carpintera San Pedro	<i>Cestrum aurantiacum</i> <i>Sapium caudatum</i> <u>f</u>		January, February
<i>Disonycha austriaca</i> (Schauf.) var. Waldeck	<i>Achyranthes aspera</i>	<i>Sida rhombifolia</i>	July
<i>Disonycha collata</i> (F.) Waldeck	<i>Amaranthus cruentus</i> <u>f</u>	<i>Panicum barbinode</i>	April, July
<i>Disonycha figurata</i> Jacoby Alajuelita	<i>Crotalaria striata</i> <u>f</u>		January
<i>Disonychaglabrata</i> (F.) San Pedro	<i>Amaranthus cruentus</i>		June, July
<i>Disonycha recticollis</i> Jacoby San Pedro	<i>Citrus limonia</i> <i>Lycopersicum esculentum</i> <u>f</u> <i>Polygonum punctatum</i> <u>f</u>	<i>Prunus salicina</i>	April, May, July to September.

Insect and locality	C o l l e c t e d o n	Date and notes
Dolichotoma bisbiplagiata Boh. Waldeck	Cornutia pyramidata	April, June, July
Doryphora spectanda Stål Santa Ana	"Huesillo"	July
Epitrix fuscata (Duv.) San Isidro de Coronado Santa Ana	Amaranthus cruentus Apium graveolens Celosia cristata Cucurbita pepo Ficus carica Fragaria chiloensis	Hibiscus esculentus Malpighia glabra Nicotiana tabacum Persea pittieri Solanum nigrum Triticum aestivum
Galeruca encaustica Germ. Alajuela Tarrazu Waldeck	Cestrum macrophyllum Coffea arabica Theobroma cacao	July, August
Galerucella lineatipennis Jacoby San Pedro	Cornutia pyramidata Croton gossypifolium	Datura candida
Griburius panamensis (Jacoby) Guadalupe	Solanum torvum	May
Homopnoeta albofasciata Jacoby San Pedro	Solanum tuberosum	March

Insect and locality	C o l l e c t e d o n		Date and notes
Homophoeta cyanipennis octo- maculata (Crotch) San Isidro del General Waldeck	Aleurites moluccana Blighia sapida Citharexylum caudatum Citrus limetta Coix mayuen Cytisus fragrans Helianthus annuus Hibiscus sabdariffa Linum usitatissimum Lucuma mammosa Manihot esculenta	Melinis minutiflora Nicotiana tabacum Panicum barbinode Paspalum fasciculatum Passiflora ligularis Persea pittieri Portulaca oleracea Sesamum orientale Solanum tuberosum Triticum aestivum Vitis tiliaefolia	Throughout the year.
Lema chiriquensis Jacoby San Pedro	Chayota edulis Ipomoea tiliacea Malacra radiata	Physalis lagascae Solanum nigrum Solanum torvum	July, August, November
Lema dorsalis Oliv. Pavas de Turrialba San Pedro	Grass Ipomoea purga		January, February
Lema foveipennis Jacoby? San Pedro	Rumex crispus		January
Lema sallaei Jacoby Pavas de Turrialba San Pedro	Grass Ipomoea purga		January, February
Leptinotarsa undecimlineata (Stål) La Carpintera San Isidro de Coronado			

Insect and locality	C o l l e c t e d o n		Date and notes
Malacorhinus decempunctatus Jacoby Paso Ancho	Annona cherimola Colocasia esculenta Inga leptolaba	Inga roussoviaana <u>f</u> Malpighia glabra	August, October to December. Usually found between leaves webbed together by other insects.
Metriona crucipennis (Boh.) San Pedro	Cestrum aurantiacum	Meibomia sp. <u>f</u>	Abundant. July.
Metriona emarginata (Boh.)	Ipomoea purga Ipomoea tiliacea	Vernonia brachiata <u>f</u>	July
Metriona zona (F.)	Elaeis guineensis		April
Nodonota irazuensis (Jacoby): Orosi San Isidro de Coronado San Isidro del General Santa Ana Tarrazu	Aleurites moluccana Althaea rosea <u>f</u> Amaranthus spinosus Antigonon leptopus Apium ammi Bauhinia violacea Beta vulgaris cicla Blighia sapida <u>f</u> Brassica japonica Cajanus bicolor <u>f</u> Calonyction aculeatum <u>f</u>	Cassia alata <u>f</u> Cassia reticulata Celosia cristata Cestrum macrophyllum <u>f</u> Citrus nobilis x C. para- disi Codiaeum variegatum Coix mayuen Coriandrum sativum <u>f</u> Cosmos sulphureus <u>f</u> Dahlia sp. (Catalina) <u>f</u>	Throughout the year. Causes serious injury.

Insect and locality	C o l l e c t e d o n	Date and notes
Nodonota irazuensis--Cont'd.	Dahlia rosea f Desmodium sp. f Dovyalis hebecarpa f Eucalyptus trachyphoia f Eugenia malaccensis f Fortunella japonica f Gardenia jasminoides f Garcinia tinctoria f Gossypium barbadense f Guilielma utilis f Helianthus annuus f Hibiscus esculentus f Hibiscus sabdariffa f Hicoria pecan f Inga roussoviae f Ipomoea purga f Iris laevigata f Jacobinia coccinea f Jussiaea decurrens f Lactuca sativa f Lycopersicum esculentum f Maranta arundinacea f Melia azedarach f Mimosa sp. f Nicotiana tabacum f Ochroma lagopus f Ocimum basilicum f Passiflora edulis f Pennisetum purpureum f Phaseolus helvolus f	Philadelphus trichapetalus Phoebe tonduzii Poinciana regia f Poinsettia pulcherrima f Polygonum punctatum f Pouteria cainito Psidium cattleianum f Psidium friedrichstahlianum f Radicula armoracia f Rheum rhaponticum f Rhododendron mucronatum Ricinus communis Rubus spp. (Blackberry) Ruta graveolens Salvia splendens f Sambucus mexicana f Scabiosa atropurpurea f Sida rhombifolia f Solanum torvum Spondias purpurea Telanthera ficoides Tephrosia toxicaria f Tetragonia expansa Thymus vulgaris f Tournefortia foetidissima f Triticum aestivum f Vinca rosea Vitis rotundifolia f Vitis tiliaefolia f Watsonia sp. Xanthosoma helleborii- folium f

Insect and locality	C o l l e c t e d o n		Date and notes		
Nodonota lateralis (Jacoby)	Acacia costaricensis	<u>f</u>	Gomphrena globosa	<u>f</u>	Throughout the year.
Cartago	Acacia farnesiana		Gossypium barbadense	<u>f</u>	
Paso Ancho	Amaranthus cruentus		Hibiscus esculentus		
San. Isidro de Coronado	Amygdalus persica		Hibiscus rosa-sinensis		
San Isidro del General	Anethum graveolens		Hibiscus sabdariffa		
Santa Ana	Annona cherimola	<u>f</u>	Holcus sorghum		
	Annona squamosa		Impatiens balsamina	<u>f</u>	
	Antigonon leptopus		Inga roussoviaeana		
	Asclepias curassavica		Ipomoea batatas		
	Bidens pilosa		Lactuca sativa		
	Bombacopsis fendleri		Lantana camara	<u>f</u>	
	Borago officinalis	<u>f</u>	Linum usitatissimum	<u>f</u>	
	Bryophyllum pinnatum		Malanthera aspera		
	Buddleia davidi		Morus rubra		
	Byrsonima crassifolia		Nicotiana tabacum		
	Cajanus bicolor	<u>f</u>	Ocimum basilicum	<u>f</u>	
	Capsicum annuum		Phaseolus helvolus		
	Casimiroa edulis		Philadelphus trichapetalus		
	Cassia alata	<u>f</u>	Phytolacca octandra		
	Cassia reticulata		Polyanthes tuberosa	<u>f</u>	
	Cassia spectabilis		Punica granatum	<u>f</u>	
	Chayota edulis		Rosa spp.	<u>F</u>	
	Citrus aurantium		Rubus sp. (Blackberry)	<u>f</u>	
	Clerodendron fragrans		Scabiosa atropurpurea	<u>f</u>	
	Coix lacryma-jobi		Salvia splendens		
	Coix mayuen		Sambucus mexicana		
	Coriandrum sativum	<u>f</u>	Solanum tuberosum		
	Cosmos sulphureus	<u>f</u>	Solanum wendlandi	<u>f</u>	
	Cucurbita pepo		Tagetes erecta	<u>f</u>	
	Fortunella japonica		Tournefortia foetidissima		
	Erythrina rubrinervia	<u>f</u>	Triumfetta josefina		
	Garcinia tinctoria		Vernonia brachiata		
	Gardenia jasminoides				
Nuzonia isthmica Champ. Waldeck	Theobroma cacao				April, July

Insect and locality	C o l l e c t e d o n	Date and notes
Oedionychis championi Jacoby San Pedro	Citharexylum caudatum <u>f</u> Hamelia erecta	June, August
Oedionychis inscripta Jacoby Paso Ancho	Jasminum sambac	April
Oedionychis reichei Harold Waldeck		April, July. Abundant.
Oedionychis tenuicincta Jacoby Santa Barbara	Coffea arabica Lippia berlandieri	November
Pachybrachys femoratus (Oliv.) Paso Ancho	Ficus carica Rosa spp.	
Plagiodera bis-tripunctata Duvivier? San Pedro	Xylosma flexuosa Xylosma panamense	June
Plagiodera congesta Stål? Paso Ancho San Pedro	Coffea arabica Polygonum punctatum Xylosma sp. <u>f</u>	March to November
Pseudomesomphalia isthmica (Champ.) San Pedro	Chayota edulis Citrus sinensis Holmskjoldia sanguinea <u>f</u> Ipomoea purga <u>f</u> Ipomoea tiliacia	January, June to November
Pseudomesomphalia pictilis (Boh.) San Pedro	Citrus sinensis	July, October

Insect and locality	Collected on	Date and notes
Rhabdopterus jansoni Jacoby Alajuela	Coffea arabica	May
Sangaria haagi Harold? San Pedro	Annona cherimola	June
Systema s-littera (L.) Chiz Pavas de Turrialba San Pedro Waldeck	Achyranthes aspera Panicum barbinode Panicum maximum Paspalum fasciculatum Solanum tuberosum	February, May, July
Systema ustulata Harold Chiz Pavas de Turrialba Turrialba	Panicum maximum Vernonia brachiata	February. Abundant.
Uroplata aterrima Guer? La Carpintera San Pedro	Vernonia brachiata	February, April, October
Xenochalepus amplipennis (Baly) Paso Ancho San Pedro	Erythrina rubrinervia <u>f</u>	January, November
Xenochalepus omogerus (Crotch) San Jose San Isidro de Coronado San Pedro	Canavalia ensiformis <u>f</u> Coffea arabica Phaseolus lunatus	January, August, December
Xenochalepus waterhousi (Baly) San Pedro	Erythrina rubrinervia <u>f</u>	July

Insect and locality	C o l l e c t e d o n		Date and notes
CLERIDAE			
Ptinus latefasciatus Gorh. Paso Ancho San Pedro	Eriobotrya japonica Eugenia jambos	Persea americana	June, December
COCCINELLIDAE			
Cycloneda pallidula (Muls.) Tarrazu	Coffea arabica		August
Cycloneda sallaei (Muls.) San Pedro	Persea americana		September
Epilachna defecta Muls. Epilachna vincta Crotch Vuelta de Jorco	Chayota edulis Citrus aurantium Hibiscus rosa-sinensis	Solanum lanceolatum sin- uatum <u>f</u>	July
Epilachna virgata Muls.	Eugenia jambos	Trichilia havanensis	April, August
Scymnus horni Gorh. Paso Ancho San Pedro			January, May Predacious on Aph. gossypii Glov. and A. nerii Boyer.
CUCUJIDAE			
Telephanus grossicornis Nevermann Santa Barbara de Heredia	Saccharum officinarum		August
Telephanus melanchlorus Nevermann San Pedro	Sapium caudatum		September

Insect and locality	C o l l e c t e d o n		Date and notes
DASCYLLIDAE Ptilodactyla maculata Champ.? Waldeck	Theobroma cacao		April
DERMESTIDAE Cryptorhopalum balteatum Lec.? San Pedro	Chrysanthemum maximum Dombeya wallichii	<u>f</u> Indigofera suffruticosa	January, December. Feeds on pollen.
Cryptorhopalum triste Lec.? Paso Ancho	Chrysanthemum maximum Guilielma utilis	<u>f</u> Tagetes erecta <u>f</u>	December, January. Feeds on pollen.
ELATERIDAE Aeolus facetus Canad. Waldeck	Theobroma cacao		April
Aptopus chiriquensis Champ. Santa Barbara de Heredia	Zea mays		August
Glyphonyx quadraticollis Champ. San Pedro	Persea americana		June
Semiotus superbus Kirsch. La Carpintera	Lantana trifolia		February
ENDOMYCHIDAE Stenotarsus flavago Gorh. Tarrazu	Coffea arabica		September
EROTYLIDAE Homoeotelus jansoni Crotch	Cestrum lanatum	Hibiscus rosa-sinensis	December
Mycotretus luteipes Lacord.	Cestrum macrophyllum		April
Zonarius jansoni Crotch Waldeck	Theobroma cacao		July

Insect and locality	C o l l e c t e d o n	Date and notes
HISTERIDAE		
Hololepta quadridentata (F.) San Pedro	Chayota edulis	July
LAGRIIDAE		
Statira triangulifer Champ. Santa Barbara de Heredia	Zea mays	August
Statira tropicalis Champ. Waldeck	Theobroma cacao	July
LAMPYRIDAE		
Aspidosoma aegrotum Gorb. San Pedro	Sambucus mexicanus	June
Aspidosoma laterale (F.) San Pedro	Cissus sicyoides Croton gossypifolium	August
Hyas bipunctatus Gorb. Santa Ana	Guazuma ulmifolia	July
Lucidota bella Gorb? Waldeck	Inga sp.	Theobroma cacao April
Lucio castelnaui Kirsch. Waldeck	Elaeis guineensis	Passiflora sp. April
Photinus volcanicus Gorb? Waldeck	Theobroma cacao	April

Insect and locality	C o l l e c t e d o n	Date and notes
LANGURIIDAE,		
Teretilanurgia metallica Gornh. Urera baccifera Waldeck		July
LYCIDAE		
Caenia cardinalis Gornh. Rosa sp. Paso Ancho	<u>f</u>	December
Calopteron bifasciatum Gornh. Annona muricata San Isidro del General Conostegia lanceolata		June, November
Calopteron cyaneum Erichs. Ricinus communis Paso Ancho		October
Calopteron obliquum (Say) Passiflora quadrangularis San Pedro	<u>f</u>	May
Calopteron papale Kirsch. Zea mays San Isidro del General		June
Calopteron pennatum Bourgeois Canangium odoratum San Pedro Coffea arabica		November, December
Calopteron reticulatum (F.) Bixa orellana Paso Ancho Cestrum lanatum San Isidro del General Coix lacryma-jobi San Pedro Coix mayuen Santa Ana Citharexylum caudatum Croton gossypiiifolium <u>f</u> Cucurbita pepo Elaphrium simaruba		June to August, October, December. Abundant
	Erythrina rubrinervia Jasminum sambac Rosa sp. Solanum umbellatum Veronia brachiata <u>f</u> Zea mays	

Insect and locality	C o l l e c t e d o n		Date and notes
Calopteron suturale Gorb. San Pedro	Rosa spp.		January
Plateros evanides Gorb.	Spondias purpurea		July
Plateros ochraceus Gorb. San Pedro Tarrazu	Citrus sinensis Coffea arabica Hamelia erecta Inga tonduzii	Ipomoea purga Verbesina turbacensis Veronia brachiata	January, April to June, August, September
MELACHIIDAE			
Attalus carinatus Gorb.? Paso Ancho San Pedro	Inga roussovia	Spondias purpurea	April, November
MELASIDAE			
Deltometopus foveolatus Guer. Paso Ancho	Casimiroa edulis		May
MELOIDAE			
Epicauta grammica (Fisch.) San Pedro	Canna indica		November
MELYRIDAE			
Listrus canescens Mann. Paso Ancho San Pedro	Calliandra grandiflora Callistephus chinensis Calonyction aculeatum Chenopodium embrosiodes Chrysanthemum maximum f Coreopsis lanceolata Cosmos sulphureus Dahlia rosea f Dombeya wallichii	Gerbera jamesoni Impatiens balsamina Iris laevigata Lonicera japonica Phaseolus vulgaris Phytolacca octandra Rosa spp. Sambucus mexicana Tagetes patula	January, July, November, December. Adult injures flower by eating pollen.

Insect and locality	C o l l e c t e d o n		Date and notes
MYCETOPHAGIDAE			
Litargus balteatus Lec. San Pedro	Penicillium sp.	<u>f</u>	May
NITIDULIDAE			
Conotelus mexicanus Murr.	Dahlia sp. (Catalina) Polianthes tuberosa	Trichilia havanensis	February, June, December. In the flower
Conotelus stenoides Murr. Paso Ancho	Calonyction aculeatum Chrysanthemum maximum Dahlia rosea Datura candida Dombeya wallichii	Hibiscus rosa-sinensis Sobralia decora Tabernaemontana bignoni- aeiflora Vernonia brachiata	January, February, June, September to December. In the flower.
SCARABAEIDAE			
Calomacraspis haroldi Cand. San Isidro del General	"Cola de Chive" (Fern)	Grass	March
Canthon viridis (Beauv.) San Pedro	Solanum tuberosum		August
Dichromina dimidiata (Burm.) San Pedro	Datura candida		October. In flower.
Euphoria candezei Janson San Pedro	Vernonia brachiata	<u>f</u>	May

Insect and locality	C o l l e c t e d o n		Date and notes
<i>Faula brunneipennis</i> Bates San Pedro Paso Ancho Guadalupe	<i>Acnistus arborescens</i> <i>Citrus limonia</i> <i>Citrus sinensis</i> <u>f</u> <i>Dahlia rosea</i> <i>Gossypium</i> sp. <u>f</u> <i>Hibiscus rosa-sinensis</i> <i>Impatiens balsamina</i>	<i>Ipomoea</i> sp. <i>Lonicera japonica</i> <u>f</u> <i>Musa paradisiaca</i> <i>Polygonum punctatum</i> <i>Vernonia brachiata</i> <u>f</u> <i>Zea mays</i> <u>f</u>	April
<i>Gymnetis liturata</i> (Oliv.) Paso Ancho San Isidro del General	<i>Ananas sativus</i> <i>Musa sapientum</i> <i>Psidium guajava</i>	<i>Spondias purpurea</i> <i>Trichilia havanensis</i>	June to October
<i>Gymnetis stellata</i> (Latr.) Grecia	<i>Citrus nobilis</i>		November. Adult drinking sap at wound in bark.
<i>Hoplia argyritis</i> Bates	<i>Vernonia brachiata</i> <u>f</u>		
<i>Hoplia surata</i> Bates	<i>Persea americana</i> <u>f</u>		June
<i>Macraspis lucida</i> (Oliv.) San Isidro del General	<i>Citrus sinensis</i> <u>f</u> <i>Anacardium occidentale</i> <u>f</u>		May. Abundant on flowers of <i>C. si-</i> <i>nensis</i> and on fruit of <i>A. occidentale</i> .
<i>Macroductylus lineatus</i> Chevr. Paso Ancho San Pedro	<i>Byrsonima crassifolia</i> <i>Citrus limonia</i> <u>f</u> <i>Hymenaea courbaril</i>	<i>Impatiens balsamina</i> <i>Polygonum punctatum</i>	June

Insect and locality	C o l l e c t e d o n		Date and notes
Macroductylus suavis Bates Alajuela	Citrus nobilis x C. paradisi Coffea arabica Fortunella japonica Heliotropium peruvianum	f f f f	Hicoria pecan Persea americana Spondias purpurea Vernonia brachiata
Macroductylus sylphis Bates	Citrus limonia Citrus nobilis x C. paradisi	f f	Fortunella japonica Vernonia brachiata
Onthophagus marginicollis Harold Santa Ana	Verbesina turbacensis		July
Pachystethus marginata (F.) Rancho Redondo	Zantedeschia aethiopica		March
Pachystethus nitidula (Blanch.) Rancho Redondo	Calonyction aculeatum Panicum barbinode	f	March. Feeding in flower of C. aculea- tum.
Pelidnota costaricensis Bates Paso Ancho San Pedro	Asparagus plumosus Nicotiana tabacum		May, June
Pelidnota strigosa Castelnau Santa Ana	Tripsacum laxum		September
Strigoderma rutelina Bates	Asparagus plumosus		
STAPHYLINIIDAE			
Xanthophagus solskyi Sharp Paso Ancho San Pedro			August, September. Eating Nodonota ira- zuensis and Diabrotica nummularis.

Insect and locality	C o l l e c t e d o n		Dates and notes
Xanthophagus solskyi Sharp--Cont'd. San Pedro--Cont'd.	Impatiens balsamina	<u>f</u>	Feeding at leaf glands.
TENEBRIONIDAE			
Choaspes purpureus Champ. Waldeck	Theobroma cacao		July
Ditaphrenotus foveicollis Champ. San Pedro	Coffea arabica		May. In bark wound.
Epitragopsis godmani (Champ.) Alajuelita	Vernonia brachiata		January
Gnathocerus cornutus (F.) Palmares del General	Stored tobacco seed	<u>f</u>	March
Hegemona costaricensis Champ. San Pedro	Sporolobus indicus		December
Lobometopon guatemalensis (Champ.) Alajuelita San Isidro de Coronado Santa Barbara de Heredia	Annona squamosa Brassica japonica Byrsonima crassifolia Calliandra grandiflora Chrysanthemum maximum	Coreopsis lanceolata Helianthus annuus <u>f</u> Hibiscus rosa-sinensis Inga roussovia Polianthes tuberosa	Throughout the year. Eats pollen and rust fungus on wheat and on I. roussovia.
Schoenicus panamensis Champ. Alajuelita	Crotalaria striata Poinsettia pulcherrima Psidium guajava	Sambucus mexicana Trichilia havanensis	November. Feeding at nectary of flower of P. pulcherrima.
Strongylium permodicum Maklin? Alajuela	Inga sp. Urera baccifera		May, July

Insect and locality	C o l l e c t e d o n	Date and notes
Zopherus costaricensis Champ. Tarrazu	Coffea arabica	August. Common and well-known insect.
THROSCIDAE		
Drapetes taeniolatus Horn San Pedro	Cestrum aurantiacum	Impatiens balsamina
Lissomus inopinatus Horn San Isidro del General	Citrus sinensis	June
RHYNCHOPHORA		
Acanthoscelides obtectus (Say) San Jose	Stored beans	August
Anypotactus exilis Boh.	Pyrus communis	Trichilia havanensis Verbesina turbacensis
Anypotactus bicaudatus Champ. Waldeck	Theobroma cacao	April
Attelabus laesicollis Gyll. Guadalupe San Pedro	Spondies purpurea	July, November
Centrinaspis trivittatus Champ. Paso Ancho San Pedro	Cestrum aurantiacum Impatiens sultani	Solanum tuberosum
Cleistolophus similis (Chevr.) Paso Ancho Ujarras	Gassia sophora Dahlia rosea Gynerium sagittatum	Lantana camara Phyllanthus sp. Solanum torvum
Conotrachelus fulvescens Champ.	Cornutia pyramidata	December

Insect and locality	C o l l e c t e d o n	Date and notes
Conotrachelus perseae Barber San Pedro	Pyrus communis	
Conotrachelus rectirostris Champ. Paso Ancho	Inga paterno <u>f</u>	June, August September. Reared in fruit.
Copturus ruficollis Champ. Waldeck	Theobroma cacao	April
Cosmopolites sordidus (Germ.) Guacimo San Carlos		October
Eurhinus festivus (F.) Paso Ancho	Cissus sicyoides	
Exophthalmus jekelianus (White)	Citrus nobilis <u>f</u>	Theobroma cacao April
Geraeus lentiginosus (Boh.) Paso Ancho San Pedro Turrialba Waldeck	Celosia argentea Chayota edulis Citharexylum caudatum Coix mayuen Crotalaria fulva Erythrina rubrinervia Gomphrena globosa	Rosa spp. Solanum tuberosum Tagetes erecta Theobroma cacao Tournefortia foetidissima Vernonia brachiata
Geraeus lineellus (Lec.) Paso Ancho Waldeck Ujarras	Andropogon bicornis Coix lachryma-jobi Inga roussoviana Myosotis sylvatica	Tradescantia sp. <u>f</u> July to September, December
Geraeus senilis Gyll. Santa Ana		

Insect and locality	C o l l e c t e d o n		Date and notes
Heilipus pittieri Fisch. Guadalupe	Persea americana	<u>f</u>	March, September. Eats holes in leaves.
Heilipus trifasciatus F. San Pedro	Citrus sinensis		
Hoplocopturus varipes Champ. San Pedro	Xanthosoma sp.	<u>f</u>	August
Lechriops auritus Boh. Paso Ancho San Pedro	Dovyalis hebecarpa	Ricinus communis	January, June.
Lepidobaris acnisti Champ. Paso Ancho	Acnistus arborescens		August
Lixus apterus Champ. La Carpintera	"Purca"		February
Metamasius sericeus (Oliv.) Alajuela Guadalupe Paso Ancho	Cocos nucifera Musa paradisica	<u>f</u>	January, May, October. Eats into midribs of plantain.
Metamasius submaculatus Champ. Paso Ancho	Musa paradisiaca		May
Nicentrus lineicollis Boh. Paso Ancho Turrialba	Impatiens balsamina Indigofera suffruticosa Iris laevigata Leonurus sibericus Myosotis sylvatica	Nicotiana tabacum Phaseolus vulgaris Rosa spp. Vernonia brachiata	January, February, May, August.

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Insect and locality	C o l l e c t e d o n		Date and notes
Phaenithon curvipes (Germ.) Santa Elena de Tarrazu	Inga leptolaba		January
Rhinospathe albomarginata Chevr. Santa Ana	Pennisetum purpureum		
Rhinochenus stigma (L.) San Isidro del General	Hymenaea courbaril	<u>f</u>	May. Reared in seed
Rhodoabaenus cinctus Gyll. San Pedro	Vernonia brachiata	<u>f</u>	May, June
Rhynchophorus palmarum (L.) San Isidro del General	Musa sapientum	<u>f</u>	July. In fruit.
Scyphophorus interstitialis Gyll. San Jose	In processed coffee		January
Sitophilus oryzae (L.) Guadalupe San Pedro Santa Barbara de Heredia	Stored dried plantain fruit Zea mays		January, July, August
Steirarrhinus cupreotinctus Champ. San Pedro	Annona cherimola	Persea americana	May, June
Steirarrhinus sp.	Bidens pilosa Byrsonima crassifolia Cestrum aurantiacum Jussiaea decurrens	Sambucus mexicana Trema micrantha <u>f</u> Tournefortia foetidissima	Preyed upon by Apionerus subpiceus Stål.

H E M I P T E R A

Insect and locality	C o l l e c t e d o n		Date and notes
ANTHOCORIDAE			
Triphleps tristicolor White San Pedro	Amaranthus spinosus	Triticum aestivum	April, December
COREIDAE			
Acanthocephala declivis guatemalena Dist. Paso Ancho	Citrus aurantifolia Citrus medica Citrus paradisi	<u>f</u> <u>f</u> <u>f</u>	Ficus carica Persea americana
Acanthocephala luctuosa(Stal) San Pedro	Vernonia brachiata		
Anasa bellator (F.) San Pedro	Polakowskia tacaco	<u>f</u>	June
Anasa litigiosa Stal Ujarras	Lantana camara		February
Anasa madida Dist. San Pedro	Annona muricata Passiflora quadrangularis		August, October
Anisoscelis gradadia Dist.	Erythrina rubrinervia Passiflora ligularis		January, July, August
Archimerus scutellaris(Stål)	Chayota edulis		October
Burtinus notatipennis (Stål) San Isidro del General San Pedro Tarrazu	Eugenia uniflora Ipomoea purga Vernonia brachiata Coffea arabica		January, March, July, August

Insect and locality	C o l l e c t e d o n		Date and notes
<i>Carpia punctata</i> Dallas San Pedro	<i>Cucurbita pepo</i>		February
<i>Cebrenis modesta</i> Dist.	<i>Impatiens balsamina</i>		January
<i>Corecoris fuscus</i> (Thunb.) Guadalupe San Pedro	<i>Brassica japonica</i> <i>Fragaria chiloensis</i> <i>Ipomoea tiliacea</i> f	<i>Physalis lagascae</i> <i>Saccharum officinarum</i> <i>Solanum tuberosum</i>	f April, May, June, August, October
<i>Corecoris granulatus</i> (Stål) San Pedro	<i>Passiflora ligularis</i>		September
<i>Corizus bohemani</i> Sign. San Pedro	<i>Polygonum punctatum</i>		May
<i>Corizus lateralis</i> (Say) San Pedro	<i>Hibiscus rosa-sinensis</i>		June
<i>Corizus sidae</i> (F.) Guadalupe Paso Ancho Ujarras San Isidro del General	<i>Erythrina rubrinervia</i> <i>Grevillea robusta</i> <i>Hibiscus rosa-sinensis</i> <i>Inga roussovia</i> <i>Meibomia</i> spp.	<i>Nicotiana tabacum</i> <i>Solanum tuberosum</i>	February, April, May
<i>Harmostes affinis</i> Dallas Paso Ancho San Pedro	<i>Asparagus officinalis</i> f <i>Coix mayuen</i>		October
<i>Hyalymenus tarsatus</i> (F.) Ujarras Waldeck	<i>Citrus limonia</i> <i>Meibomia</i> sp. <i>Paspalum fasciculatum</i>	<i>Psidium guajava</i>	February, April, July

Insect and locality	C o l l e c t e d o n	Date and notes
Hypselonotus atratus Dist. Alajuelita Cartago San Isidro de Coronado	Acnistus arborescens Annona cherimola <u>f</u> Antigonon leptopus Bidens pilosa Bryophyllum pinnatum Byrsonima crassifolia Buddleia davidi Cajanus bicolor <u>f</u> Calea urticifolia ax- illaris Calliandra grandiflora Capsicum annuum Cassia alata Casuarina equisetifolia Citrus limetta Citrus limonia Citrus sinensis Coriandrum sativum Cosmos sulphureus <u>f</u> Dahlia rosea Ficus carica Gossypium barbadense Hibiscus rosa-sinensis	Hibiscus sabdariffa <u>f</u> Inga laurina Inga roussoviana Ipomoea purga Ixophorus unisetus Jussiaea decurrens Leonurus sibericus Linum usitatissimum Lycaste deppei Musa paradisiaca Myosotis sylvatica Pennisetum purpureum Phaseolus helvolus Psidium guajava Ricinus communis Rosa spp. Rosmarinus officinalis Tournefortia foetidi- ssima Verbesina turbacensis Xanthosoma sagitti- folium Zinnia elegans Zea mays
Hypselonotus lineatus Stål. ^o Santa Ana	"Huesillo" "Manteco"	July
Leptoglossus balteatus F. [?] San Pedro	Chayota edulis <u>f</u>	July
Leptoglossus stigma (Hbst.) Paso Ancho	Inga roussoviana Zea mays	May

Insect and locality	C o l l e c t e d o n		Date and notes
Leptoglossus zonatus (Dallas) Paso Ancho San Isidro del General	Casuarina equisetifolia Cyperus alternifolius Gossypium sp.	Linum usitatissimum Psidium guajava Zea mays	
Nematopus lepidus Stål Waldeck	Coix lacryma-jobi Elaeis guineensis	Inga sp. Panicum barbinode	April, July
Pachylis hector Stål San Isidro del General	Inga edulis <u>f</u>		May
Phthia lunata (F.)	Chayota edulis <u>f</u>		March
Phthia picta (Drury) San Isidro del General San Pedro	Annona cherimola Inga edulis Lycopersicum esculentum	Solanum nigrum Solanum tuberosum Zea mays	February, May, June, March, November
Staluptus marginalis Burm. Paso Ancho	Cajanus bicolor <u>f</u> Chayota edulis <u>f</u> Citrus nobilis x C. paradisi	Hibiscus sabdariffa <u>f</u> Solanum tuberosum	March, July, August
Zicca commaculata Dist. Waldeck	Amaranthus spinosus Panicum maximum		April, July
Zicca taeniola (Dallas) San Isidro del General Waldeck	Coix lacryma-jobi Coix mayuen Ipomoea purga Lantana trifolia Malacra radiata	Panicum maximum Polygonum punctatum Psidium guajava Solanum tuberosum	March, May, June, November
CYDNIDAE			
Allocoris elegans McA. & M. San Pedro	Pennisetum purpureum Zea mays		May, August

Insect and locality	C o l l e c t e d o n	Date and notes
<i>Pangaenus piceatus</i> Stål Paso Ancho San Isidro del General San Jose	<i>Cucurbita pepo</i> <i>Nicotiana tabacum</i> <i>Rheum rhaponticum</i>	<i>Sida rhombifolia</i>
<i>Thyreocoris guttiger</i> Stål San Isidro del General Santa Ana	<i>Amaranthus cruentus</i> <i>Zea mays</i>	March, July
LYGAEIDAE		
<i>Acroleucus brevicollis</i> (Stål) Paso Ancho	<i>Acnistus arborescens</i> <i>Citrus limonia</i>	<i>Mangifera indica</i>
<i>Acroleucus tullus</i> (Stål) San Pedro	<i>Impatiens balsamina</i>	<i>Solanum nigrum</i> <i>Solanum umbellatum</i>
<i>Epipolops oculus-caneri</i> Deg. Alajuelita	<i>Psidium guajava</i>	January
<i>Geocoris pallens</i> Stål Paso Ancho	<i>Inga roussovia</i>	April
<i>Ligyrocoris litigiosus</i> (Stål) San Isidro del General	<i>Zea mays</i>	February
<i>Ligyrocoris multispinus</i> Stål San Isidro de Coronado San Pedro	<i>Brassica japonica</i> <i>Sida rhombifolia</i>	July, December

Insect and locality	C o l l e c t e d o n		Date and notes
Lygaeus bistriangularis Say La Carpintera Paso Ancho San Isidro del General	Coix mayuen Crotalaria sp. Ipomoea tiliacea Pennisetum purpureum	Terminalia catappa Zea mays	February, June, October
Lygaeus formosus Blanch. Alajuela San Pedro	Canna indica Citrus sinensis		March, November
Lygaeus pallido-cinctus Stål San Pedro	Jacaranda ovalifolia		January
Lygaeus reclivatus Say San Pedro	Amaranthus cruentus Rosa spp.		February, July
Lygaeus uhleri Stål	Citrus sinensis	Holcus sorghum	June, October
Nysius californicus Stål	Amygdalus davidiana Annona cherimola Carissa grandiflora Persea pittieri	Prunus salicina Salvia splendens Solanum tuberosum	March, April, June
Oncopeltus cingulifer Stål	Annona cherimola Citrus aurantifolia <u>f</u>	Ficus carica Polygonum punctatum	December
Oncopeltus fasciatus (Dallas) Paso Ancho	Calyptranthes costaricensis		July

Insect and locality	C o l l e c t e d o n	Date and notes
Orthaea bilobata (Say) San Rafael de Coronado Santa Ana Torito	Amaranthus cruentus Amaranthus spinosus Annona cherimola Artemisia absinthium Buddleia sp. Caladium bicolor Carissa grandiflora Coix mayuen Fragaria chiloensis Gerbera jamesoni Heliotropium peruvianum	Hibiscus sabdariffa Holcus sorghum Lucuma mammosa Medicago sativa Morus rubra Ocimum basilicum Portulaca oleracea Phaseolus helvolus Phaseolus vulgaris Salvia splendens Solanum tuberosum
Ortholomus jamaicensis Dallas Paso Ancho	Coffea arabica Cucurbita pepo Ocimum basilicum	Petunia hybrida Salvia splendens Solanum tuberosum
MIRIDAE		
Calondas fasciatus Dist. San Pedro	Hamelia erecta	August
Ceratocapsus punctulatus (Reut.) Paso Ancho	Linum usitatissimum	July
Collaria oleosa (Dist.) Paso Ancho San Isidro de Coronado Waldeck	Amaranthus cruentus Apeiba tibourbon Arachis hypogaea Capricola dactylon Coix mayuen Cucurbita pepo	Holcus halepensis Holcus sorghum Ixophorus unisetus Panicum barbinode Solanum tuberosum Triticum aestivum
Creontiades rubrinervis (Stål) Paso Ancho San Isidro de Coronado San Isidro del General	Amaranthus spinosus Crotalaria spectabilis Dianthus caryophyllus Fragaria chiloensis	Hibiscus sabdariffa Holcus halepensis Holcus sorghum Ligustrum japonicum

Insect and locality	C o l l e c t e d o n		Date and notes	
Creontiades rubrinervis-- Cont'd.	Nicotiana tabacum Panicum barbinode Phaseolus vulgaris Rumex crispus Solanum tuberosum	Solanum torvum Spondias mombin Telanthera ficoides Triticum aestivum Vitis vinifera Zea mays	f	December
Cyrtocapsus caliginus (Stål) San Isidro de Coronado	Ipomoea purga			December
Cyrtopeltis notatus (Dist.) Palmares de San Ramon San Isidro del General San Isidro de San Ramon San Pedro de Barba Santa Barbara Santa Rosa Turrialba				
Eurycipitia vestitus Dist. San Pedro San Raphael de Coronado	Cattleya dowiana Cattleya skinneri Epidendrum prismatocarpum Epidendrum violaceum Lycaste deppei	F f f	Odontoglossum sp. Piscatoria sp.	F f January, March to May

Insect and locality	C o l l e c t e d o n		Date and notes
<i>Halticus bracteatus</i> (Say) Paso Ancho San Isidro del General San Pedro	<i>Althaea rosea</i> <i>Amaranthus spinosus</i> <i>Apeiba tibourbon</i> <i>Apium graveolens</i> <i>Arachis hypogaea</i> <i>Brassica oleracea capitata</i> <i>Brassica rapa</i> <i>Chenopodium ambrosioides</i> <i>Citrullus vulgaris</i> <i>Citrus sinensis</i> <i>Crotalaria fulva</i> <i>Cucumis sativus</i> <i>Cucurbita ficifolia</i> <i>Cucurbita pepo</i> <i>Cynara scolymus</i> <i>Dahlia rosea</i> <i>Eschscholtzia californica</i> <i>Helianthus annuus</i> <i>Ipomoea batatas</i>	 <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>F</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> 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Insect and locality	C o l l e c t e d o n		Date and notes
<i>Lygus sallei</i> Stål Paso Ancho San Isidro de Coronado San Jose San Rafael de Coronado R	<i>Ageratum conyzoides</i> <i>Allium cepa</i> <i>Amaranthus cruentus</i> <i>Apium anmi</i> <i>Asparagus officinalis</i> <i>Bidens pilosa</i> <i>Byrsonima crassifolia</i> <i>Celosia cristata</i> <i>Coffea arabica</i> <i>Chrysanthemum</i> sp. <i>Coix lacryma-jobi</i> <i>Coix mayune</i> <i>Conostegia lanceolata</i> <i>Curcubita pepo</i> <i>Euphorbia hoffmaniana</i>	<i>Helianthus annus</i> <i>Hibiscus sabdariffa</i> <i>Inga laurina</i> <i>Myosotis sylvatica</i> <i>Panicum barbinode</i> <i>Phaseolus lunatus</i> f <i>Phaseolus vulgaris</i> <i>Sapium caudatum</i> <i>Solanum tuberosum</i> <i>Tetragonia expansa</i> <i>Vitis vinifera</i> <i>Vitis rotundifolia</i> <i>Zea mays</i> <i>Zinnia elegans</i>	Throughout the year
<i>Mala unicolor</i> Dist. Paso Ancho San Pedro	<i>Erythrina rubrinervia</i> f		October. A pest of <i>Erythrina</i> spp.
<i>Monalonia annulipes</i> Sign. Paso Ancho Waldeck	<i>Hibiscus sabdariffa</i>	<i>Panicum barbinode</i> <i>Theobroma cacao</i>	April, August, October
<i>Neurocolpus mexicanus</i> Dist.	<i>Citharexylum caudatum</i> <i>Gossypium barbadense</i> <i>Impatiens balsamina</i> <i>Indigofera suffructicosa</i> <i>Lantana camara</i>	<i>Rumex crispus</i> <i>Salvia splendens</i> f <i>Solanum tuberosum</i> <i>Tephrosia toxicaria</i> f	May, July, August to November
<i>Paracalocoris annulatus</i> Dist. Paso Ancho	<i>Dianthus caryophyllus</i> f <i>Erythrina rubrinervia</i> <i>Fortunella japonica</i> f <i>Hamelia erecta</i>	<i>Impatiens balsamina</i> <i>Indigofera suffructicosa</i> <i>Salvia splendens</i> <i>Solanum nigrum</i> L. <i>Tephrosia toxicaria</i>	May, June, September to December

Insect and locality	C o l l e c t e d o n		Date and notes
Paracalocoris jurgiosus (Stål)	Salvia splendens		
Paracalocoris molliculus Dist. Alajuela	Lantana camara		March
Platytylellus latipennis (Stål) Paso Ancho Santa Ana	Bidens pilosa Phaseolus vulgaris Sesamum orientale		January, July, October
Polymerus cuneatus (Dist.) Paso Ancho San Jose	Amaranthus cruentus Asclepias curassavica Beta vulgaris cicla Byrsonima crassifolia Cestrum aurantiacum	Hibiscus sabdariffa Leonurus sibericus Panicum barbinode Solanum tuberosum	April to October f
Pycnoderes atratus (Dist.) Paso Ancho Pavas de Turrialba	Grass Hibiscus sabdariffa		February, November
Pycnoderes incurvus (Dist.)	Ageratum conyzoides		
Pycnoderes quadrimaculatus Guer. Paso Ancho San Isidro de Coronado San Pedro	Coix mayuen Cucurbita pepo	Inga roussoviriana f Triadescantia sp.	January, August, October, December
Reuterocopus ornatus (Reut.) San Jose	Amaranthus spinosus		May, August
Stenodema guatemalana (Dist.) Rancho Redondo	Pennisetum clandestinum		May
Sysinas centralis Dist. Paso Ancho San Pedro	Canna indica Persea americana Sapium aucuparium	Sapium caudatum f	August, September, October, November

Insect and locality	C o l l e c t e d o n		Date and notes
NABIDAE			
Nabis capsiformis Germ. San Isidro del General San Pedro	Solanum tuberosum	Zea mays	January, February
Nabis constrictus Champ. San Pedro Waldeck	Phaseolus vulgaris	Theobroma cacao	April, July, December
Nabis nigriventris Stål ^o San Pedro	Amaranthus cruentus Crotalaria spectabilis	Diphysa robiniodes	June, July
NEIDIDAE			
Jalysus mollitus Dist. San Pedro Santa Ana	Buddleia sp. Byrsonima crassifolia Citrus aurantifolia Coix mayuen	Eugenia malaccensis Lagenaria leucantha Vernonia brachiata	April to August
Jalysus reversus Van D. San Pedro	Amaranthus cruentus	Persea pittieri	January, May
PENTATOMIDAE			
Acrosternum marginatum (Beauv) Paso Ancho San Isidro del General San Jose	Beta vulgaris cicla Cajanus bicolor Coix mayuen Hibiscus rosa-sinensis	<u>f</u> Phytolacca octandra Verbesina turbacensis Vernonia brachiata	February to Octo- ber
Chlorocoris aberrans Dist.	Casimiroa edulis	Elaeagnus umbellata	October

Insect and locality	C o l l e c t e d o n	Date and notes
Chlorocoris atrispinus Stål Paso Ancho San Pedro Waldeck	Antigonon leptopus Casimiroa edulis <u>f</u> Ixophorus unisetus <u>f</u> Psidium friedrichsthalianum	Theobroma cacao April, December
Cosmopepla coeruleata Montd. Paso Ancho San Pedro	Apium ammi Leonurus sibericus <u>f</u>	September, November
Edessa cornuta Burm.	Canna indica Erythrina rubrinervia Ipomoea purga	Panicum barbinode Vernonia brachiata <u>f</u> January
Edessa junix Stål Paso Ancho Waldeck	Elaeis guineensis Theobroma cacao	Trichilia havanensis April, July
Edessa nigrispina Dallas San Pedro	Cornutia pyramidata <u>f</u>	September
Edessa rufomarginata (Deg.) San Isidro del General Santa Ana	Saccharum officinarum Solanum torvum <u>f</u>	February July
Edessa salvini Dist. Paso Ancho		July, August, September
Edessa vinula Stål San Isidro del General	Mangifera indica	February

Insect and locality	C o l l e c t e d o n	Date and notes
Euschistus bifibulus (Beauv.) Paso Ancho San Isidro del General	Brassica japonica Byrsonima crassifolia Cleome spinosa Polygonum punctatum <u>f</u>	Psidium guajava <u>f</u> Solanum torvum Solanum tuberosum March, May, August, September
Euschistus bififormis Stål Paso Ancho San Isidro de Coronado San Pedro	Bidens pilosa Celosia cristata Lactuca sativa Linum usitatissimum	Zea mays June, August, September, October, November, December
Euschistus crenator (F.) Paso Ancho	Croton gossypifolium Myosotis sylvatica	October
Euschistus spurculus Stål Paso Ancho	Bidens pilosa	June
Euthyrhynchus floridanus (L.) San Pedro		October. Predacious on Antianthe expansa (Germ.) and Colaspis prasina Jacoby
Homaemus proteus Stål San Pedro	Ligustrum japonicum	February
Macropygium reticulare (F.) San Isidro del General	Musa paradisiaca	Zea mays June
Mecistorhinus melanoleucus (Westw.) Paso Ancho	Malpighia glabra Musa paradisiaca	June, September
Mecistorhinus tripterus (F.) San Isidro del General	Chayota edulis <u>f</u>	Passiflora ligularis February

Insect and locality	C o l l e c t e d o n	Date and notes
Mormidea notulata (H.-S.) Paso Ancho	Bryophyllum pinnatum Chaetium bromoides Cucurbita pepo Hibiscus escelentus Hibiscus sabdariffa	Ipomoea purga Meibomia sp. Vernonia brachiata Xanthosoma helleborii- folium
Mormidea ypsilon (L.) San Pedro Waldeck	Coix lacryma-jobi Panicum barbinode Paspalum fasciculatum	July, August
Nezara viridula (L.) Paso Ancho Alajuelita San Isidro de Coronado	Annona cherimola Brassica japonica <u>f</u> Cajanus bicolor <u>f</u> Cassia alata Cattelya dowiana <u>f</u> Cobaea scandens <u>f</u> Coix mayuen Commelina sp. <u>f</u> Crotalaria striata Dianthus caryophyllus <u>f</u> Galinzoga hispida Helianthus annuus <u>f</u> Hibiscus rosa-sinensis Hibiscus sabdariffa <u>f</u> Hymenaea courbaril	Linum usitatissimum <u>f</u> Malacra radiata <u>f</u> Passiflora edulis <u>f</u> Passiflora quadrangularis <u>f</u> Phaseolus helvolus <u>f</u> Phaseolus lunatus <u>f</u> Phytolacca octandra Polygonum punctatum Radicula armoracia Ricinus communis Rosa spp. Salvia splendens <u>f</u> Trichopilia marginata <u>f</u> Vernonia brachiata
Pharypia nitidiventris (Stål) San Pedro	Randia mitis	February, June, October
Piezodorus guildinii (Westw.) San Isidro del General	Psidium guajava Spondias mombin	February

Insect and locality	Collected on	Date and notes
Podisus congregatus (Stål) Paso Ancho San Isidro de Coronado San Pedro	Annona cherimola Musa sapientum	Verbesina turbacensis April, July, December
Podisus lineolatus (H.-S.) Paso Ancho San Pedro	Inga roussoviae	Polygonum punctatum August, October
Podisus thetis (Stål) Waldeck	Theobroma cacao	 April
Proxys punctulatus (Beauv.)	Grass	Vernonia brachiata June
Thyanta perditor (F.) Alajuela Alajuelita Paso Ancho San Isidro del General Santa Barbara de Heredia	Althaea rosea Amygdalus davidiana Amygdalus persica Apium ammi Bidens pilosa Calliandra grandiflora Cajanus bicolor Cassia sophora Chayota edulis Citrus limonia Coffea arabica Crotalaria juncea Crotalaria striata Crotalaria vitellina Dianthus caryophyllus Fragaria chiloensis Hamelia erecta Helianthus annuus	f Heliotropium peruvianum f f Hibiscus sabdariffa Holcus sorghum Impatiens balsamina Indigofera suffruticosa Malus sylvestris f Psidium molle Saccharum officinarum Salvia splendens f Sida rhombifolia Triumfetta josefina Vernonia brachiata Vitis vinifera Zea mays

Insect and locality	C o l l e c t e d o n	Date and notes
PYRRHOCORIDAE		
Dysdercus flavo-limbatus Stål	Coix lacryma-jobi	Theobroma cacao
Dysdercus mimulus Hussey Alajuelita Santa Ana	Acnistus arborescens Althaea rosea Amaranthus cruentus Annona muricata Asclepias curassavica Bidens pilosa Bryophyllum pinnatum Buddleia sp. Cestrum macrophyllum Chrysanthemum maximum Citharexylum caudatum Citrus aurantifolia Citrus limetta Citrus limonia Coix mayuen Crotalaria striata Erythrina rubrinervia Guazuma ulmifolia	Hamelia erecta Hibiscus esculentus f Hibiscus rosa-sinensis Impatiens balsamina Ipomoea purga Ipomoea tiliacea f Leonurus sibiricus Malacra radiata f Persea americana Sedum sp. f Sida rhombifolia Solanum nigrum Solanum tuberosum Taraxacum officinale Theobroma cacao Verbesina turbacensis Vernonia brachiata Zea mays
		Throughout the year

Insect and locality	C o l l e c t e d o n				Date and notes
Dysdercus obliquus (H.-S.) Paso Ancho Tarrazu	Calonyction aculeatum Calyptranthes costaricensis Ceiba pentandra <u>f</u> Citharexylum caudatum Dahlia sp. (Catalina) Gossypium barbadense <u>f</u> Grass Hibiscus abelmoschus <u>f</u>	Hibiscus mutabilis <u>f</u> Malacra radiata Pelargonium zonale <u>f</u> Persea americana <u>f</u> Schinus molle Serjania sp. Trichilia havanensis Coffea arabica			January June August Most important pest noted on cotton
Dysdercus oncopeltus Dist. San Pedro	Malus sylvestris				April
Dysdercus ruficeps (Perty) Waldeck	Theobroma cacao				April
Euryophthalmus cinctus (H.-S.) San Isidro del General San Pedro Santa Ana Torito Waldeck	Ananas sativus Heliotropium peruvianum Ipomoea sp. Malacra radiata Persea americana <u>f</u> Zea mays				April, June, July
Stenomacra marginella (H.-S.) Paso Ancho Santa Barbara de Heredia	Acnistus arborescens Ageratum conyzoides Amaranthus spinosus <u>f</u> Averrhoa carambola Bauhinia monandra Bidens pilosa Bombax ellipticum Brassica japonica Byrsonima crassifolia <u>f</u> Calonyction aculeatum <u>f</u> Calyptranthes costaricensis <u>f</u>	Casimiroa edulis Cassia sophora Cedrela glaviiovii pu- berula Cedrela montana mexi- cana Cestrum lanatum Cestrum macrophyllum <u>f</u> Citrus aurantifolia Citrus limonia <u>f</u> Citrus medica <u>f</u>			

Insect and locality	Collected on	Date and notes
Stenomacra marginella--Cont'd	Citrus nobilis x C. paradi-	Melanthera aspera
	si <u>f</u>	Musa sapientum <u>f</u>
	Coix lacryma-jobi	Oreopanax sp. <u>f</u>
	Coleus blumei	Panicum barbinode
	Conostegia macrantha	Persea pittieri
	Cornutia cymosa	Phoebe tonduzii
	Cornutia pyramidata <u>f</u>	Podocarpus sp.
	Cucurbita pepo <u>f</u>	Poinsettia pulcherrima
	Dahlia rosea <u>f</u>	Psidium guajava
	Dillenia indica	Randia mitis
	Eriobotrya japonica <u>f</u>	Rumex crispus
	Gossypium barbadense <u>f</u>	Sapium aucuparium
	Guarea caoba <u>f</u>	Solanum tuberosum
	Indigofera suffructicosa <u>f</u>	Spondias cytharea
	Inga roussoviana <u>f</u>	Tabebuia guayacan <u>f</u>
	Ipomoea purga	Tabebuia pentaphylla <u>f</u>
	Lantana camara <u>f</u>	Tephrosia toxicaria
	Malus sylvestris <u>f</u>	Trema micrantha
	Martinezia caryotaefolia	Vitis rotundifolia
		Xanthosoma helleboriifol- ium
REDUVIIDAE		
Empicornis armatus Champ.? San Pedro	Persea americana	June
Sinea raptoria Stål ^o Paso Ancho	Citharexylum caudatum	November
SCUTELLARIDAE		
Pachycoris torridus (Scop.) San Isidro de Coronado	Cupressus benthami Musa paradisiaca	Passiflora ligularis Rosa spp. January, June

Insect and locality	C o l l e c t e d o n	Date and notes
TINGIDIDAE		
Corythaica planaris Uhl. San Isidro del General	Solanum torvum	February, March
Corythucha gossypii (F.) San Isidro del General	Annona muricata Artocarpus communis <u>f</u> Blighia sapida <u>f</u> Canavalia ensiformis <u>f</u>	Melanthera aspera Ricinus communis <u>f</u> Xanthosoma sagittifolium January, February, March, May, July, August
Corythucha spinosa (Duges) San Pedro	Triumfetta josefina F	January, February, May, September
Gargaphia patricia (Stål) Alajuelita La Carpintera		February
Leptobyrssa chiriquensis Champ. Paso Ancho	Citrus limonia	September
Leptopharsa tumida Champ. Paso Ancho	Malpighia glabra <u>f</u>	April, May, June, October, November, December
Piesma cinerea (Say) Torito	Ipomoea sp.	July
Teleonemia sacchari (F.) Orosi San Pedro	Lantana camara	February, September

H O M O P T E R A

Insect and locality	C o l l e c t e d o n		Date and notes
ALEYRODIDAE			
Aleurocanthus woglumi Ashby	Annona reticulata	Fortunella japonica	Preyed on by
Orosi	Annona squamosa	Lucuma mammosa	Pentilia discors
Waldeck	Citrus limetta <u>f</u>	Rheedia edulis <u>f</u>	Gorh.
	Citrus paradisi <u>f</u>	Trichilia havanensis <u>f</u>	
Aleuroplatus oculireniformis	Passiflora punctata <u>f</u>		November
Quaint. and Baker			
Paso Ancho			
Aleurothrixus howardi (Quaint.)	Blakea gracilis	Eugenia uniflora <u>f</u>	Throughout the
Alajuelita	Citrus limetta <u>f</u>	Malpighia glabra	year. Preyed on
San Isidro del General	Citrus sinensis <u>f</u>	Psidium guajava	by Pentilia dis-
San Josesito	Citharexylum caudatum	Spondias cytherea <u>f</u>	cors

Insect and locality	Collected on	Date and notes
Aleyrodicus cocolobae Quaint. and Baker San Jose San Pedro	Citrus aurantifolia Fortunella japonica <u>f</u>	June, October
APHIDIIDAE		
Aphis gossypii Glov. Paso Ancho San Jose	Gossypium barbadense <u>f</u> Hibiscus esculentus <u>f</u>	May, September, November. Preyed on by Neda retro- spiciens Cr.
Aphis illinoisensis Shim.	Vitis tiliaefolia	
Aphis nerii Boyer Orosi Paso Ancho		October to December
Aphis pomi Deg. Paso Ancho San Rafael de Coronado		Preyed upon by Cycloneda san- guinea L.
Aphis rumicis L.? San Pedro	Chrysanthemum maximum <u>f</u> Gerbera jamesoni	January to March, July to December. Tended by Solenopsis geminata F.
Aphis spiraeicola Patch	Citrus sinensis <u>f</u>	
Ceratephis lataniae (Bdv.) Rio Grande	Epidendrum violacium	March. Tended by S. geminata

Insect and locality	C o l l e c t e d o n	Date and notes
Eriosoma lanigerum (Hausm.) San Isidro de Coronado San Jose de La Montana San Pedro		1,500 adults (Aph- elinus mali Hald.) liberated.
Rhopalosiphum pseudobrassicae (Davis) Orosi San Isidro de Coronado Santa Ana		January, July, November
Toxoptera aurantiae Boyer Santa Ana Santa Barbara de Heredia Tarrazu	Citrus aurantium f Citrus limetta f Citrus medica f	Preyed upon by Coccinella emar- ginata, Cyclon- eda sanguinea L., Azya lutei- pes Muls., Pen- tilia discors
CERCOPIDAE		
Clastoptera funesta Stål Orosi	Acnistus arborescens Dahlia sp. (Catalina) Hibiscus sabdariffa Impatiens sultani Iresine aspera Ixora chinensis Ocimum basilicum	Phaseolus vulgaris Psidium friedrichsthali- anum f Rosmarinus officinalis f Russelia equisetiformis f Vigna sesquipedalis
Clastoptera obtusa (Say) Paso Ancho	Calliandra grandiflora	July, September

Insect and locality	C o l l e c t e d o n	Date and notes
Epicranion championi Fowl. Paso Ancho	Citrus sinensis Conostegia lanceolata <u>f</u> Jasminum sambac	Persea americana <u>f</u> Polygonum punctatum <u>f</u> Sapium caudatum
Tomaspis bicincta (Say)	Asclepias curassavica Bidens pilosa Clerodendron fragans Cocos nucifera Coix mayuen Holcus sorghum	Ipomoea tiliacea Jussiaea decurrens Heibomia sp. Panicum barbinode Phaseolus vulgaris Sesamum orientale
Tomaspis bipunctata Say San Pedro	Polygonum punctatum	May
Tomaspis lineata (Walk.)? Sabanilla	"Espino"	October
Tomaspis postica (Walk.) Orosi Paso Ancho	Grass Hibiscus sabdariffa Musa sapientum	Solanum nigrum Solanum tuberosum Zacate carracillo
CHERMIDAE		
Freysuila ernstii Schwarz	Cedrela glaziovii pu- <u>f</u> berula	Injurious
Trioza nicaraguensis Crawf. San Pedro	Bryophyllum pinnatum Rumex crispus	January

Insect and locality	C o l l e c t i o n o n		Date and notes
CICADELLIDAE			
Agallia ingens Oman Paso Ancho	Impatiens balsamina Tetragonia expansa	Verbena sp.	April, July, October
Agallia lingula Van D. Waldeck Turrialba	Acnistus arborescens Amaranthus cruentus Arachis hypogaea Cajanus bicolor Coix mayuen Cucumis sativus	Gerbera jamesoni Ipomoea batatas Linum usitatissimum Theobroma cacao Vernonia brachiata Viola sp.	Throughout the year.
Agallia modesta O. and B. Chiz Alajuela Crosi Payas de Turrialba San Isidro de Coronado Santiago Turrialba	Apeiba tibourbon Asclepias curassavica Cajanus bicolor Cucurbita pepo Hamelia erecta Hibiscus sabdariffa Holcus sorghum Impatiens balsamina Impatiens sultani Inga roussoviana Lantana camara	Malachra radiata Meibomia spp. Melanthera aspera Mentha sativa Panicum barbinode Panicum maximum Pelargonium zonale Radicula armoracia Tournefortia foetidissima Verbena spp. Vernonia brachiata	
Agalliopsis novella tropicalis Van D. Paso Ancho San Isidro de Coronado	Artemisia absinthium Beta vulgaris crassa Cajanus bicolor Calyptanthus costaricensis Chrysanthemum maximum Crotalaria fulva Codineum variegatum Cucurbita pepo Dahlia rosea Dombeya wallichii Ficus carica Fortunella japonica	Gerbera jamesoni Grass Hibiscus sabdariffa Impatiens sultani Indigofera suffruticosa Jacaranda ovalifolia Jatropha curcas Phaseolus helvolus f Saccharum officinarum Terminalia catappa f Tradescantia sp.	Throughout the year

Insect and locality	C o l l e c t e d o n		Date and notes
Agallia producta O. and B. Turrialba	Vernonia brachiata		February
Agallia repleta Van D. Paso Ancho	Coix lacryma-jobi Ficus cerica		July, September
Amblydisca gigas Fowl. Waldeck	Hura crepitans	<u>f</u>	July
Aulacizes panamensis Fowl. Guadalupe Orosi	Annona cherimola Annona muricata Canarium odoratum Coffea arabica		March
Aulacizes thunbergii Stål San Pedro Tarrazu	Coffea arabica Coix mayuen	<u>f</u>	August, September, December
Carneocephala sagittifera Uhl. San Rafael de Coronado	Canna indica Coffea arabica Digitalis sp. Linum usitatissimum		Throughout the year
Chinaia bella Bruner and Met. Waldeck	Theobroma cacao		January, July
Chlorotettix curvidens Osb. Waldeck	Zea mays		April

Insect and locality	C o l l e c t e d o n		Date and notes
Cicadella anita (Fowl.)	Heliconia imbricata		Abundant
Cicadella areolata (Sign.)	Acalypha wilkesiana		
Orosi	Ageratum conyzoides	<u>f</u>	
Santa Ana	Althea rosea		
Tarrazu	Beta vulgaris cicla	<u>f</u>	
Ujarras	Bidens pilosa		
	Byrsonima crassifolia		
	Cajanus bicolor		
	Canna indica		
	Carissa grandiflora		
	Citrus limonia		
	Coffea arabica		
	Croton gossypifolium		
	Cyperus alternifolius		
	Daucus carota	<u>f</u>	
	Eriobotrya japonica		
	Galinzoga hispida		
	Gossypium barbadense		
	Helianthus annuus		
	Holcus vulgare	<u>f</u>	
	Hibiscus rosa-sinensis		
Cicadella coeruleovittata Sign.	Acnistus arborescens		
Juan Vinas	Beta vulgaris cicla	<u>f</u>	
La Carpintera	Ceiba pentandra		
Pavas de Turrialba	Chayota edulis		
Tarrazu	Cirsium costaricensis		
	Citrus limonia		
	Clerodendron fragrans		
	Coffea arabica		
	Coix mayuen		
	Cucurbita pepo		
	Impatiens balsamina		
	Ipomoea purga		
	Ipomoea tiliacea		
	Hibiscus sabdariffa		
	Impatiens balsamina		
	Inga roussovia		
	Ixophorus unisetus		
	Lactuca sativa		
	Linum usitatissimum		
	Lippia berlandieri		
	Meibomia sp.		
	Mimosa sp.		
	Musa sapientum		
	Persea pittieri	<u>f</u>	
	Phaseolus helvolus		
	Phoebe tonduzii		
	Psidium molle		
	Sesamum orientale		
	Solanum tuberosum		
	Tetragonia expansa		
	Verbesina turbacensis		
	Xanthosoma helieboriifolium		
	Zacata carracillo		
	Jussiaea decurrens		
	Leonurus sibericus		
	Meibomia spp.		
	Melanthra aspera		
	Mentha sativa		
	Petroselinum hortense	<u>f</u>	
	Polygonum punctatum		
	Purca		
	Tagetes patula		
	Triticum aestivum		
	Verbena spp.		
	Zea mays	<u>f</u>	
			Throughout the year

Insect and locality	C o l l e c t e d o n		Date and notes
Cicadella costaricensis (Dist.) San Isidro de Coronado	Rubus spp. (Blackberry)		August
Cicadella induta (Fowl.) Carpintera San Isidro de Coronado San Pedro	Conostegia lanceolata Conostegia macrantha	Vernonia brachiata	January, February
Cicadella lativittata (Fowl.) Orosi San Isidro del General Turrialba	Anacardium occidentale Codiaeum variegatum Vernonia brachiata		February, March, November
Cicadella lutea (Sign.)	Acalypha wilkesiana	Hibiscus rosa-sinensis <u>f</u>	
Cicadella mineaticeps (Fowl.) Guayabo San Isidro de Coronado San Isidro del General Santa Ana	Achillea sp. Anacardium occidentale <u>f</u> Apeiba tibourbon Apium ammi Asclepias curassavica Beta vulgaris cicla Bidens pilosa Byrsonima crassifolia Cajanus bicolor	Callistephus chinensis Citrus medica Citrus sinensis Codiaeum variegatum Coix mayuen Congea velutina Coriandrum sativum Crotalaria fulva <u>f</u> Crotalaria striata	

Insect and locality	C o l l e c t e d o n	Date and notes
Cicadella miniaticeps--Cont'd.	Dahlia rosea Eugenia uniflora Euphorbia hoffmaniana Fragaria chiloensis Gerbera jamesoni Heliotropium peruvianum Hibiscus sabdariffa Holcus halepensis Impatiens balsamina Ipomoea tiliacea Ixophorus unisetus Lactuca sativa Lilium longiflorum Mangifera indica Meibomia sp. f Morus rubra Myosotis sylvatica Papaver rhoeas f Pennisetum purpureum f Phaseolus helvolus Phoenix canariensis Raphanus sativus Rumex crispus Sesamum orientale Tephrosia toxicaria Tournefortia foetidissima Tragopogon porrifolius Verbena spp.	
Cicadella mollicella (Fowl.) Alajuela Orosi Paso Ancho San Pedro	Ageratum conyzoides Althaea rosea Arachis hypogaea Brassica japonica Lantana camara	Lycopersicum esculentum Psidium molle Sporolobus indicus Throughout the year
Cicadella occatoria (Say) Alajuelita Guadalupe La Carpintera Orosi San Isidro de Coronado San Isidro del General Tarrazu Tarrialba Tucurrique Ujarras	Acalypha wilkesiana Ageratum conyzoides Althaea rosea Anacardium occidentale f Apeiba tibourbon f Apium ammi Artemisia absinthium Asclepias curassavica Beta vulgaris cicla Bidens pilosa Borago officinalis Brassica oleracea Bryophyllum pinnatum	Bunchosia costaricensis Byrsonima crassifolia f Cajanus bicolor f Canna indica Ceiba pentandra f Cirsium costaricensis Citharexylum caudatum Coix lacryma-jobi Coix mayuen Cosmos bipinnatus Cucurbita pepo Cynara scolymus f Datura stramonium

Insect and locality	Collected on	Date and notes
Cicadella occatoria (Say) -- Cont'd.	Duranta plumieri Erythrina rubrinervia Eugenia jambos Eugenia malaccensis Eugenia uniflora Galinzoga hispida Grevillea banksi Hedychium coronarium Helianthus annuus f Hibiscus mutabilis Hibiscus sabdariffa f Hymenaea courbaril Inga sp. Ipomoea purga Ixora chinensis Jacobinia coccinea f Lactuca sativa Lantana trifolia Mangifera indica Meibomia spp. Melanthera aspera Mentha sativa f Morus rubra	Mirabilis jalapa Petroselinum hortense f Phaseolus helvolus Psidium friedrichsthalianum Pyrus communis Raphanus sativus Rumex crispus Sambucus mexicana f Sedum sp. Sesamum orientale Solanum lanceolatum sinuatum Spondias purpurea Tephrosia toxicaria Theobroma cacao Thunbergia grandiflora Tournefortia foetidissima Triumphetta josefina f Verbena spp. Vernonia brachiata f Vitis vinifera Xylosma sp. Yucca elephantipes f Zantedeschia aethiopica
Cicadella pardalina (Fowl.) San Jose	Althaea rosea f Calliandra grandiflora f Citrus medica f Cydonia oblonga f Diospyros virginiana Dovyalis hebecarpa f Eucalyptus alba	Eucalyptus trachyphoia f Fortunella japonica f Grevillea robusta Guarea caoba Plumeria rubra Terminalia catappa
Cicadella pulchella (Guer.) Alajuelita Cachi Cartago	Ageratum conyzoides Beta vulgaris crassa Bidens pilosa	Daucus carota Fragaria chiloensis Galinzoga hispida

Insect and locality	C o l l e c t e d o n	Date and notes
Cicadella pulchella (Guer.)-- Cont'd.	Jussiaea decurrens Mimosa asperata Petroselinum hortense <u>f</u> Phaseolus helvolus	Polygonum punctatum Solanum tuberosum Valerianoides cayennense Verbena spp. <u>f</u>
Cicadella quadriplagiata(Walk.) Santa Barbara de Heredia Tarrazu	Coffea arabica	September
Cicadella reservata (Fowl.) Alajuelita	Antigonon leptopus Blakea gracilis Cajanus bicolor <u>f</u> Cassia alata Citrus limonia Dovyalis hebecarpa <u>f</u> Eriobotrya japonica <u>f</u> Ficus carica Gardenia jasminoides <u>f</u> Gossypium barbadense <u>f</u> Hedychium coronarium Hibiscus esculentus	Hibiscus sabdariffa <u>f</u> Hyptis suaveolens Ixora chinensis Sylvestris malus Phaseolus helvolus Psidium friedrichsthalianum Psidium guajava Rosa spp. Salvia hispanica Trichilia havanensis Zinnia elegans
Cicadella similis (Walk.) Alajuelita Guadalupe Guayabo Pavas de Turrialba San Isidoro de Coronado San Isidro del General Santa Barbara de Heredia Waldeck	Ageratum conyzoides Apeiba tibourbon Arachis hypogaea <u>f</u> Boehmeria nivea Borago officinalis Bryophyllum pinnatum Celosia cristata Coix mayuen Crotalaria striata Elaeis guineensis Guilielma utilis Heliotropium peruvianum	Hibiscus sabdariffa Impatiens balsamina Ixophorus unisetus Jussiaea decurrens Linum usitatissimum Lycopersicum esculentum Meibomia sp. Melanthera aspera Mentha sativa Nicotiana tabacum Pelargonium zonale Pennisetum purpureum <u>f</u>
		Throughout the year

Insect and locality	C o l l e c t e d o n		Date and notes
Cicadella similis--Cont'd.	Persea americana Petroselinum hortense Philadelphus trichapetalus Plantago major Polygonum punctatum Solanum nigrum	Sporolobus indicus Tragopogon porrifolius f Tripasium latifolium Triticum aestivum f Zea mays f	Throughout the year
Cicadella sociata (Fowl.) Turrialba	Vernonia brachiata		February Abundant
Cicadella testudinaria (Fowl.) San Isidro del General Santa Barbara de Heredia Tarrazu	Acnistus arborescens Alnus acuminata f Anacardium occidentale f Byrsonima crassifolia Cajanus bicolor Canna indica Cassia spectabilis Chalcas exotica Cosmos sulphureus Croton gossypifolium Crotalaria striata Dahlia rosea Eugenia malaccensis Gardenia jasminoides f Heliotropium peruvianum Hibiscus abelmoschus	Hibiscus esculentus f Ixora chinensis Leonurus sibericus Ligustrum japonicum Malpighia glabra Myosotis sylvatica Poinsettia pulcherrima Psidium cattleianum Psidium friedrichsthalianum f Pyrus communis Serjania sp. Schinus molle Solanum nigrum Terminalia catappa Vinca rosea Zinnia elegans	Throughout the year
Cicadula maidis DeLong and Wolcott San Isidro del General	Coix mayuen f Ficus carica Phaseolus vulgaris		March

Insect and locality	C o l l e c t e d o n		Date and notes
Cyrtodisca major (Sign.) Tarrazu	Coffea arabica		August
Deltocephalus flavicosta Stål	Coix mayuen Fragaria chiloensis	Panicum barbinode Triticum aestivum	August
Diedrocephala limbaticollis (Stal) Guadalupe Paso Ancho San Pedro	Acnistus arborescens Bidens pilosa Canangium odoratum Cestrum lanatum Chayota edulis Citrus limonia Codiaeum variegatum Conostegia lanceolata Cornutia pyramidata Croton gossypiiifolium Cucurbita pepo Erythrina rubrinervia Gossypium barbadense	Hamelia erecta Hibiscus rosa-sinensis Impatiens balsamina Ipomoea purga Ipomoea tiliacea Phenax medicanus Piper spp. Ricinus communis Sapium aucuparium f Solanum nigrum Spondias purpurea Tephrosia toxicaria Vernonia brachiata f	Throughout the year
Diedrocephala sanguinolenta (Coqueb.)	Coix lacryma-jobi	Inga sp.	
Diedrocephala satella (Fowl.)	Ipomoea purga	Tabernaemontana bignoniace- flora	January July to December
Diestostemma ruforeticulatum Schmidt Guadalupe Paso Ancho Santa Barbara	Citrus limonia Coffea arabica f	Hibiscus rosa-sinensis Inga roussoviana f Sterculia diversifolia	Causes tip-wilt of coffee

Insect and locality	C o l l e c t e d o n	Date and notes
Diestostemma schmidti Mel. Alajuela Paso Ancho San Pedro	Anacardium occidentale <u>f</u> Eriobotrya japonica Pelargonium zonale Terminalia catappa	March, July, October to December
Draeculacephala lenticula Ball La Gloria	Bidens pilosa Coix mayuen Panicum maximum Pennisetum purpureum <u>f</u>	June to October
Draeculacephala soluta Gibs. Guadalupe Paso Ancho Santa Ana	Coix mayuen Holcus sorghum Impatiens balsamina Sporolobus indicus	July to December
Empoasca perelegans Oman	Annona squamosa Sapium aucuparium	June, July
Erythroneura elegantula Ost.? San Pedro	Vernonia brachiata <u>f</u>	January, February, April, July

Insect and locality	C o l l e c t e d o n		Date and notes	
tianus picatus (Gibs.) Pavas de Turrialba San Isidro de Coronado	Artemisia absinthium Coix mayuen Cyclanthera pedata Fragaria chiloensis	<u>f</u> 	Hibiscus sabdariffa Solanum tuberosum Tetragonia expansa Viola sp.	August to November
phocephala aurolineata(Fowl.) San Pedro	Bidens pilosa			August
phocephala coccinea (Forst.) Alajuelita San Isidro de Coronado Santa Ana	Acalypha wilkesiana Amaranthus cruentus Amygdalus davidiana Anacardium occidentale Artemisia absinthium Averrhoa carambola Bauhinia monandra Bauhinia violacea Bixa orellana Byrsonima crassifolia Cajanus bicolor Callistemon lanceolatus Canavalia ensiformis Carissa grandiflora Cedrela glaziovii puberula Citharexylum caudatum Citrus aurantifolia	<u>f</u> 		

Insect and locality	C o l l e c t e d o n	Date and notes
Graphocephala coccinea--Cont'd.	<i>Jasminum simplicifolium</i> <u>f</u> <i>Jatropha curcas</i> <u>f</u> <i>Lagerstroemia indica</i> <i>Lucuma mammosum</i> <i>Malpighia glabra</i> <i>Morus rubra</i> <i>Oreopanax sp.</i> <i>Passiflora edulis</i> <i>Poinsettia pulcherrima</i> <i>Psidium guajava</i> <u>f</u>	<i>Rumex crispus</i> <i>Sapium aucuparium</i> <i>Sapium caudatum</i> <u>f</u> <i>Solanum tuberosum</i> <u>f</u> <i>Spondias mombin</i> <i>Spondias purpurea</i> <u>f</u> <i>Tabebuia guayacan</i> <i>Tephrosia toxicaria</i> <i>Vitis vinifera</i> <i>Zinnia elegans</i>
Graphocephala obtusior (Fowl.) San Rafael de Coronado	<i>Malus silvestris</i>	February
Graphocephala pileata (Fowl.) San Isidro del General	"Purra"	February
Graphocephala propior (Fowl.) San Isidro del General	<i>Cajanus bicolor</i> <i>Hamelia erecta</i>	February, March
Graphocephala rufimargo (Walk.) San Isidro del General San Pedro San Rafael de Coronado Turrialba Waldeck	<i>Coreopsis lanceolata</i> <i>Hamelia erecta</i> <i>Malus sylvestris</i> <i>Pyrus communis</i> <i>Rumex crispus</i> <i>Spondias purpurea</i>	July

Insect and locality	C o l l e c t e d o n		Date and notes	
Graphocephala sexlineata (Sign.)	Acalypha wilkesiana	Hibiscus sabdariffa	f	Throughout the year
Baso Ancho	Acnistus arborescens	Jasminum sambac		
San Isidro de Coronado	Aleurites moluccana	Jasminum simplicifolium	f	
San Isidro del General	Althaea rosea	Lagenaria leucantha	f	
	Amaranthus cruentus	Leonurus sibericus		
	Anacardium occidentale	Mangifera indica		
	Apeiba tibourbon	Mimusops balata		
	Beta vulgaris	Oreopanax sp.	f	
	Cassia sophora	Persea americana		
	Ceiba pentandra	Phaseolus lunatus		
	Clerodendron fragrans	Phenax mexicanus	f	
	Crotalaria spectabilis	Rumex crispus		
	Dahlia sp. (Catalina)	Solanum lanceolatum		
	Dombeya wallichii	sinuatum	f	
	Eriobotrya japonica	Solanum torvum		
	Erythrina rubrinervia	Tabebuia guayacan	f	
	Gomphrena globosa	Tabernaemontana bignoniace-		
	Gossypium barbadense	flora		
	Helianthus annuus	Tephrosia toxicaria	f	
	Heliotropium peruvianum	Tabebuia pentaphylla		
		Verbesina turbacensis	f	

Insect and locality	C o l l e c t e d o n		Date and notes
Graphocephala versuta (Say) Alajuela Tarrazu	Anacardium rhinocarpus Bauhinia monandra Bauhinia purpurea Calyptranthes costaricensis Cassia alata Citharexylum caudatum Citrus aurantifolia Eriobotrya japonica Erythrina rubrinervia Gardenia jasminoides Hamelia erecta Impatiens balsamina	Oreopanax sp. Pelargonium zonale Persea americana Rosmarinus officinalis Sambucus mexicanus Saccharum officinarum Spondias purpurea Terminalia catappa Trichilia havanensis Vernonia brachiata Xanthosoma sagittifolium Yucca elephantipes	
Gypona praeterita Fowl. Alajuelita	Psidium guajava Solanum lanceolatum sinuatum		January
Gypona puncticollis Spangb.	Ocimum basilicum		January
Gypona signoreti Stål	Hibiscus rosa-sinensis Lantana camara	Randia mitis	September, December
Gypona vinula Stål Tarrazu	Ageratum conyzoides Coffea arabica	Cornutia pyramidata Meibomia sp.	June, October

Insect and locality	Collected on		Date and notes
<i>Gypona vulnerata</i> Walk. Alajuela Guadalupe San Jose	<i>Acalypha wilkesiana</i> <i>Anacardium rhinocarpus</i> <u>f</u> <i>Annona squamosa</i> <u>f</u> <i>Apeiba tibourbon</i> <i>Cajanus bicolor</i> <u>f</u> <i>Cydonia oblonga</i> <i>Eugenia malaccensis</i> <u>f</u> <i>Gossypium</i> sp. <i>Helianthus annuus</i> <i>Hymenaea courbaril</i> <u>f</u>	<i>Inga roussovia</i> <u>f</u> <i>Persea pittieri</i> <i>Phaseolus vulgaris</i> <i>Psidium molle</i> <i>Rubus</i> sp. (Blackberry) <i>Solanum lanceolatum sinuatum</i> <i>Solanum tuberosum</i> <i>Vernonia brachiata</i>	Throughout the year
<i>Homalodisca triquetra</i> (F.) Santa Ana	<i>Calliandra grandiflora</i> <i>Citrus aurantifolia</i> <u>f</u>	<i>Citrus aurantium</i> <u>f</u> <i>Mimosa asperata</i> <u>f</u>	July
<i>Kolla fasciata</i> (Walk.) Alajuelita Paso Ancho	<i>Byrsonima crassifolia</i> <i>Calonyction aculeatum</i> <i>Canna indica</i> <i>Clerodendron fragrans</i> <i>Crotalaria striata</i>	<i>Hibiscus sabdariffa</i> <i>Linum usitatissimum</i> <i>Ocimum basilicum</i> <i>Phytolacca octandra</i> <i>Polygonum punctatum</i>	
<i>Kolla geometrica</i> (Sign.) Orosi Tarrazu	<i>Apeiba tibourbon</i> <i>Bocconia frutescens</i>	<i>Coffea arabica</i> <i>Eugenia malaccensis</i> <u>f</u>	February, March, September
<i>Neonirvana hyalina</i> Oman Paso Ancho San Pedro	<i>Annona cherimola</i> <i>Citharexylum caudatum</i> <i>Cornutia pyramidata</i> <i>Hamelia erecta</i>	<i>Hibiscus rosa-sinensis</i> <u>f</u> <i>Passiflora ligularis</i> <i>Tournefortia foetidissima</i> <i>Trichilia havanensis</i>	January, February, June to August, November
<i>Oncometopia anceps</i> Fowl. Waldeck	<i>Paspalum fasciculatum</i>		July
<i>Oncometopia obtusa</i> (F.) ? Guadalupe Paso Ancho San Isidro de Coronado San Jose San Pedro Tarrazu	<i>Acalypha wilkesiana</i> <i>Althaea rosea</i> <u>f</u> <i>Annona cherimola</i> <i>Bauhinia monandra</i> <i>Byrsonima crassifolia</i> <i>Cajanus bicolor</i> <u>f</u> <i>Callistemon lanceolatus</i>	<i>Calypttranthes costaricensis</i> <i>Canarium odoratum</i> <i>Carissa grandiflora</i> <i>Citrus aurantifolia</i> <u>f</u> <i>Citrus limonia</i> <u>f</u> <i>Citrus paradisi</i> <i>Citrus sinensis</i> <u>f</u>	Throughout the year

Insect and locality	C o l l e c t e d o n		Date and notes
Oncometopia obtusa--Cont'd.	Codiaeum variegatum	Mangifera indica	Throughout the year
	Coffea arabica	Morus rubra	
	Coleus blumei	Panicum barbinode	
	Colocasia esculenta	Parkinsonia aculeata	
	Crotalaria juncea	Persea americana	
	Croton gossypiiifolium	Prunus salicina	
	Diphyssa robinoides	Pyrus communis	
	Dovyalis hebecarpa	Rosa spp.	
	Elaeagnus umbellata	Rubus spp.	
	Erythrina rubrinervia	Rumex crispus	
	Eugenia jambos	Sambucus mexicana	
	Fortunella japonica	Solanum lanceolatum	
	Gossypium barbadense	sinuatum	
	Grevillea robusta	Spondias mombin	
	Guarea caoba	Spondias purpurea	
	Hamelia erecta	Sterculia diversifolia	
	Hibiscus esculentus	Tabebuia pentaphylla	
	Hibiscus rosa-sinensis	Terminalia catappa	
	Hicoria pecan	Thevetia neriifolia	
	Impatiens balsamina	Tournefortia foetidissima	
	Lantana camara	Trichilia havanensis	
	Lonicera japonica	Veronia brachiata	
	Malus sylvestris	Xylosma sp.	
		Zinnia elegans	
Oncometopia undata (F.)	Acalypha wilkesiana	Inga roussovia	November
	Alajuelita	Lippia berlandieri	
	Cartago	Mimosa asperata	
	Paso Ancho	Psidium friedrichs-	
	Peralta	thalianum	
	San Jose	Rosa spp.	
	Tarrazu	Terminalia catappa	
	Trichilia havanensis		

Insect and locality	C o l l e c t e d o n	Date and notes
Osbornellus mexicanus Obs. San Isidro de Coronado	Acnistus arborescens Bixa orellana Cestrum macrophyllum Cestrum lanatum Citrus nobilis x C. para- disi Conostegia lanceolata Dahlia sp. Datura stramonium Hamelia erecta	Inga roussoviriana Iresine herbsti Mormodes sp. <u>f</u> Psidium guajava <u>f</u> Prunus cerasifera pissardi Rheum rhaponticum Solanum tuberosum Ternanthera ficoides Trichilia havanensis Zea mays
Parallaxis calthrata McA. Paso Ancho	Mirabilis jalapa	October
Phera obtusifrons Fowl. Paso Ancho	Coix mayuen Panicum barbinode	Pennisetum purpureum <u>f</u>
Platymetopius frontalis Van D. Alajuelita Pavas de Turrialba San Isidro de Coronado	Amaranthus spinosus Bauhinia monandra Bidens pilosa Elaxea gracilis Blighia sapida Borago officinalis Buddleia davidi Bryopyllum pinnatum Byrsonima crassifolia <u>f</u> Cajanus bicolor Chrysanthemum sp. Citrus aurantium Citrus limonia Clitoria ternatea Codiaeum variegatum <u>f</u>	Coffea arabica <u>f</u> Coix mayuen Coleus blumei <u>f</u> Conostegia lanceolata Cornutia pyramidata Crotalaria fulva Crotalaria striata Dovyalis hebecarpa Erythrina rubrinervia Eugenia malaccensis <u>f</u> Grass Guilielma utilis Helianthus annuus Heliotropium peruvianum

Insect and locality	C o l l e c t e d o n		Date and notes
Platymetopius frontalis-- Cont'd.	Hibiscus sabdariffa Inga roussoviriana Indigofera suffruticosa Leonurus sibiricus Mangifera indica Myosotis sylvatica Nicotiana tabacum Ocimum basilicum Persea pittieri	f Phaseolus helvolus Phytolacca octandra Podocarpus sp. Salvia hispanica Salvia splendens Spondias purpurea Vigna sesquipedalis Vinca rosea Vitis vinifera	February to September
Protalebra decorata (Osb.) Paso Ancho	Inga roussoviriana		April, August. Abundant
Protalebra signata McA. San Pedro	Tabebuia pentaphylla		July
Spangbergiella mexicana Bak. Santa Ana	Ipomoea sp.		February
Stirellus bicolor (Van D.) Pavas de Turrialba	Grass		March July, September
Thamnotettix comatus (Ball) Alajuela Alajuelita Pavas de Turrialba San Isidro de Coronado San Pedro de Barba	Clerodendron fragrans Eriobotrya japonica Grass Panicum barbinode Vernonia brachiata		
Thamnotettix fasciaticollis (Stal) Paso Ancho San Isidro de Coronado Santa Barbara de Heredia	Amaranthus cruentus Bauhinia monandra Brassica oleracea acephala Byrsonima crassifolia Calyptranthes costaricensis Citrus sinensis Colocasia esculenta Cupressus benthami Dahlia sp. (Catalina)	Fortunella japonica Impatiens balsamina Oreopanax sp. Passiflora ligularis Persea pittieri Raphanus sativus Solanum umbellatum Pyrus communis Thunbergia grandiflora	Throughout the year.

Insect and locality	C o l l e c t e d o n	Date and notes
Typhlocybella minima Bak. Paso Ancho	Grass	September
Xestocephalus tessellatus Van D. Paso Ancho Waldeck	Linum usitatissimum Theobroma cacao	July
CICADIDAE		
Fidicina pronee (Walk.) San Isidro del General	Erythrina rubrinervia Gliricidia maculata	February. Abundant
Quesada gigas (Oliv.) San Isidro del General	Cassia spectabilis Gliricidia maculata	February

Insect and locality	C o l l e c t e d o n	Date and notes
COCCIDAE		
Aspidiotus destructor Sign. Limon Waldeck	Cocos nucifera <u>f</u> Elaeis guineensis <u>f</u> Pandanus utilis <u>f</u>	Persea americana <u>f</u> July, September
Aulacaspis pentagona (Targ.) Guadalupe	Amygdalus davidiana <u>f</u> Hibiscus rosa-sinensis <u>f</u>	Jacobinia aurea <u>f</u> Mangifera indica <u>f</u>
Aulacaspis rosae (Bouche) Paso Ancho San Jose	Epidendrum spp. <u>F</u> Rosa spp. <u>f</u>	March, May, July, September
Ceroplastes floridensis Comst. Alajuelita Paso Ancho San Isidro de Coronado	Antigonon leptopus <u>f</u> Citrus paradisi <u>f</u> Eugenia uniflora <u>f</u> Gardenia jasminoides <u>f</u> Lagerstroemia speciosa <u>f</u>	Lucuma mammosa , Mammea americana <u>f</u> Psidium molle <u>f</u> Russelia equisetifolius <u>f</u>
Chrysomphalus dictyospermi (Morg.)	Amygdalus persica <u>f</u> Cinnamomum camphora <u>f</u>	Citrus mitis <u>f</u> January
Coccus acuminatus (Sign.) Desamparados de Alajuela	Gardenia jasminoides <u>f</u> Gonolobus edulis <u>f</u>	Jasminum simplicifolium <u>f</u> February to Psidium guajava <u>f</u> August
Coccus hesperidum L. Ochomogo Santa Ana	Blighia sapida <u>f</u> Citrus aurantium <u>f</u> Clusea sp. <u>f</u> Codiaeum variegatum <u>f</u> Dianthus barbatus <u>f</u> Eugenia malaccensis <u>f</u> Gardenia jasminoides <u>f</u>	Iris laevigata <u>f</u> May to September. Mangifera indica <u>f</u> Tended by Solenop- Mimusops balata <u>f</u> sis geminata. Nephrolepis spp. <u>f</u> Rheedia sp. <u>f</u> Viola odorata <u>f</u>

Insect and locality	C o l l e c t e d o n		Date and note
Coccus viridis (Green)	Coffea arabica	<u>f</u>	February
Fiorinia fioriniae (Targ.- Tozz.) San Jose	Cocos nucifera	<u>f</u>	
Hemichionaspis aspidistrae (Sign.) Guadalupe Limon Ochonogo Paraiso de Cartago San Isidro de Coronado San Jose			January, February, September
Icerya montserratensis Riley and Howard	Jacaranda ovalifolia	<u>f</u>	Malus sylvestris
Ischnaspis longirostris (Sign.) Guadalupe San Jose	Asparagus sprengeri Chamaedorea bifurcata Cocos nucifera	<u>f</u> <u>f</u> <u>f</u>	February, March, June
Lepidosaphes beckii (Newm.) San Isidro del General	Citrus limetta	<u>f</u>	
Orthezia insignis Dougl. San Rafael de Coronado	Cestrum nocturnum Chrysanthemum sp. Clerodendron thomsonae Eugenia jambos Fragaria sp. Gardenia jasminoides Gonolobus edulis Iresine herbsti	<u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u>	Jacobinia aurea Lantana camara Lippia berlandieri Mentha sativa Randia mitis Rosmarinus officinalis Russelia equisetifolius
			Throughout the year

Insect and locality	C o l l e c t e d o n			Date and notes
Protopulvinaria pyriformis Ckll. Paso Ancho San Pedro	Eugenia malaccensis <u>f</u> Psidium friedrichsthalianum <u>f</u>			July, September, October, December
Pseudaonidia articulatus Morg. Paso Ancho	Citrus limonia <u>f</u> Coffea arabica <u>f</u>	Jasminum sambac <u>f</u> Tabernaemontana coronaria <u>f</u>		April, May, Septem- ber, October
Pseudischnaspis bowreyi (Ckll.) San Jose				
Pseudococcus citri (Risso) Paso Ancho Tarrazu	Sambucus mexicanus <u>f</u> Lagenaria leucantha <u>f</u>	Sobralia sp. <u>f</u>		July
Pseudococcus longispinus (Targ.) Limon	Caladium bicolor			September
Pseudococcus virgatus (Ckll.) Paso Ancho San Jose	Bauhinia violacea Blakea gracilus Byrsonima crassifolia <u>f</u>	Eugenia uniflora <u>f</u> Psidium guajava <u>f</u> Serjania sp. <u>f</u>		January, February, May, June, August, October
Pulvinaria psidii Mask. Paso Ancho	Acalypha wilkesiana <u>f</u> Blighia sapida <u>f</u> Eugenia jambos <u>f</u> Eugenia malaccensis <u>f</u> Gardenia jasminoides <u>f</u>	Gonolobus edulis <u>f</u> Iresine herbsti <u>f</u> Ixora chinensis <u>f</u> Rheedia sp. <u>f</u> Viola odorata <u>f</u>		Preyed on by Azya luteipes. Tended by Solenop- sis geminata.
Rhizoecus coffeae Laing Guadalupe				May

Insect and locality	C o l l e c t e d o n	Date and notes
<i>Saissetia hemisphaerica</i> (Targ.) Ochomogo Sabanilla San Isidro del General San Jose	<i>Acnistus arborescens</i> f	<i>Iresine herbsti</i> f
	<i>Antigonon leptopus</i> f	<i>Lantana trifolia</i> f
	<i>Asparagus sprengeri</i> F	<i>Lucuma mammosa</i> f
	<i>Blighia sapida</i> f	<i>Malus sylvestris</i> f
	<i>Calypttranthes costaricensis</i>	<i>Miltonia andresi</i> f
	<i>Chalcas exotica</i> f	<i>Persea pittieri</i> f
	<i>Chrysophyllum cainito</i> F	<i>Prunus salicina</i> f
	<i>Citrus limetta</i> f	<i>Psidium friedrich-</i>
	<i>Citrus paradisi</i> f	<i>sthalianum</i> f
	<i>Clerodendron fragrans</i> f	<i>Punica granatum</i> f
	<i>Coleus blumei</i> f	<i>Sanchezia nobilis</i> f
	<i>Colocasia esculenta</i> f	<i>Spondias mombin</i> f
	<i>Dahlia rosea</i> f	<i>Spondias purpurea</i> f
	<i>Impatiens balsamina</i> f	<i>Tabernaemontana bignon</i>
	<i>Impatiens sultani</i> f	<i>iaeflora</i> f
		<i>Tournefortia foetidissima</i> f
		<i>Zinnia elegans</i> f
<i>Saissetia nigra</i> (Nietn.) Paso Ancho	<i>Ocimum basilicum</i> f	December
<i>Saissetia oleae</i> (Bern.)	<i>Annona cherimola</i> f	<i>Eugenia malaccensis</i> f
	<i>Annona muricata</i> f	<i>Ficus carica</i> f
	<i>Antigonon leptopus</i> f	<i>Malus sylvestris</i> f
	<i>Citrus limetta</i> f	<i>Punica granatum</i> f
	<i>Erythrina rubrinervia</i> f	
<i>Trionymus sacchari</i> Ckll. Santa Barbara de Heredia		August
FULGORIDAE		
	<i>Anotia invalida</i> Fowl.	<i>Theobroma cacao</i>
	Waldeck	April, July Abundant
	<i>Paspalum fasciculatum</i>	

Insect and locality	C o l l e c t e d o n		Date and notes
Biolleyana costalis Fowl. Waldeck	Theobroma cacao		April, July
Bladina magnifrons Walk. Waldeck	Panicum barbinode		April, July. Abundant
Bothriocera tinealis Klug. Pavas de Turrialba San Isidro del General Turrialba Waldeck	Codiaeum variegatum Coix lacryma-jobi Cornutia pyramidata Grass Impatiens balsamina		February, July
Colgorma proxima (Fowl.) Waldeck	Citharexylum caudatum Coffea arabica	Hamelia erecta Pennisetum purpureum	April, September
Copicerus irroratus Swartz Orosi	Cupressus benthami Ipomoea purga Ipomoea tiliacea Lantana camara	Meibomia sp. Phenax mexicanus Sida rhombifolia	February, July October
Delphacodes nigrifacies Muir. Waldeck	Grass		January
Delphacodes propinqua Fieb. Paso Ancho Pavas de Turrialba	Grass		March
Delphacodes teapae (Fowl.) Paso Ancho	Phaseolus vulgaris		September, December

Insect and locality	C o l l e c t e d o n		Date and notes
Dictyophara florens (Stål) Santa Ana	Leonurus sibericus	Ricinus communis	July
Dictyophara herbida (Walk.) Paso Ancho Santa Ana Waldeck	Achyranthes aspera Gliricidia maculata Inga roussovia Panicum barbinode	Poinsettia pulcherrima Psidium guajava Theobroma cacao Vernonia brachiata	July, September, December
Dictyophara obtusifrons (Walk.) Paso Ancho San Pedro	Casuarina equisetifolia Cleome spinosa Coix mayuen Hibiscus sabdariffa	Poinsettia pulcherrima Sapium caudatum Trichilia havanensis	July, November, December
Enchophora florens Dist. Santa Ana	Bunchosia costaricensis		July
Flatoides humeralis Walk. Paso Ancho	Amygdalus persica Casimiroa edulis Citrus sinensis	Passiflora edulis	March, June
Oecleus addendus Fowl. Pavas de Turrialba Waldeck	Elaeis guineensis Grass		February, July
Peregrinus maidis (Ashm.) Paso Ancho Waldeck	Coix mayuen		April, October, November
Sogata furcifera Horv. Pavas de Turrialba	Grass Triticum aestivum		February, December

Insect and locality	C o l l e c t e d o n		Date and notes
Syntames chiriquensis Fowl. San Isidro del General	"Purra"		February
Thionia variegata Stål San Pedro	Erythrina rubrinervia	Jatropha aconitifolia	September, October
MEMBRACIDAE	Annona muricata		Eucalyptus trachyphoia
Aconophora pallescens Stål	Cajanus bicolor	f	Lucuma mammosa
Alajuelita	Cassia reticulata	f	Prunus armeniaca
Guadalupe	Citharexylum caudatum	Vernonia brachiata	
Navarro	Elaphrium simaruba		
San Isidro de Coronado			
San Jose			
Santa Ana			

Insect and locality	C o l l e c t e d o n	Date and notes
Acutalis fusconervosa Fairm. Santa Elena de Tarrazu	Coffea arabica	January
Aethalion quadratum Fowl. Paso Ancho	Canangium odoratum <u>f</u> Sida rhombifolia	November, December
Aethalion reticulatum (L.) Alajuelita Paso Ancho San Isidro de Coronado	Bombacopsis fendleri Codiaeum variegatum Elaeagnus umbellata Elaphrium simaruba <u>f</u> Erythrina crista-galli Erythrina rubrinervia	Morus rubra <u>f</u> Persea pittieri Sapindus saponaria <u>f</u> Spondias cytheria Trema micrantha <u>f</u> Throughout the year
Alchisme grossa (Fairm.) La Carpintera San Isidro de Coronado	Acnistus arborescens <u>f</u> Cestrum aurantiacum <u>f</u> Cestrum lanatum <u>f</u>	Cestrum macrophyllum <u>f</u> Solanum aculeatissimum January, February, November, Decem- ber
Amastris obtegens (F.)		April
Antianthe expansa (Germ.) Alajuelita Desamparados de Alajuela La Carpintera San Isidro de Coronado San Jose San Rafael de Coronado Santa Rosa Tarrazu	Cestrum nocturnum <u>f</u>	Tended by Solano- pis geminata and Parachartergus apicalis (F.)

Insect and locality	C o l l e c t e d o n	Date and notes
Bolbonota inaequalis (Fairm.) Alajuelita	<i>Annona cherimola</i> <i>Baccharis nervosa</i> <i>Bauhinia violacea</i> f <i>Cestrum aurantiacum</i> <i>Citrus limetta</i> <i>Coix lacryma-jobi</i> <i>Cola acuminata</i> <i>Cydonia oblonga</i> <i>Eucalyptus trachyphoia</i> <i>Eugenia malaccensis</i>	<i>Inga roussovia</i> <i>Psidium friedrichsthali-</i> <i>anum</i> <i>Spondias purpurea</i> <i>Terminalia catappa</i> <i>Thevetia neriifolia</i> f <i>Tournefortia foetidissima</i> <i>Trema micrantha</i> <i>Xylosma sp.</i>
Bolbonota inconspicua Fowl. Orosi Paso Ancho San Pedro	<i>Acnistus arborescens</i> f <i>Cassia sp. near alata</i> <i>Inga roussovia</i> <i>Ixora chinensis</i>	<i>Malpighia glabra</i> <i>Mangifera indica</i> <i>Psidium friedrichsthali-</i> <i>anum</i>
Bolbonota insignis Fowl. Guadalupe La Carpintera Orosi San Isidro del General Waldeck	<i>Anacardium rhinocarpus</i> <i>Annona squamosa</i> <i>Baccharis nervosa</i> f <i>Blighia sapida</i> <i>Byrsonina crassifolia</i> f <i>Cajanus bicolor</i> f <i>Cassia alata</i> <i>Cassia reticulata</i> f <i>Citrus medica</i> <i>Clerodendron fragrans</i> f <i>Elaphrium simaruba</i> <i>Erythrina rubrinervia</i> <i>Ficus carica</i> f <i>Gardenia jasminoides</i> <i>Helianthus annuus</i> <i>Hibiscus rosa-sinensis</i> <i>Hibiscus sabdariffa</i>	<i>Hymenaea courbaril</i> <i>Inga sp.</i> <i>Inga roussovia</i> <i>Lucuma salecefolia</i> f <i>Piper spp.</i> <i>Poinciana regia</i> <i>Psidium guajava</i> <i>Rosa spp.</i> f <i>Rubus spp. (Blackberry)</i> <i>Rumex crispus</i> <i>Solanum umbellatum</i> <i>Spondias cytheria</i> <i>Spondias mombin</i> <i>Tephrosia toxicaria</i> f <i>Theobroma cacao</i> <i>Verbesina turbacensis</i>

Insect and locality	C o l l e c t e d o n		Date and notes
Campylocentrus hamifer (Fairm.)	Acnistus arborescens	Triumfetta josefina	January, September
Campylocentrus pusillus (Fairm.) Torito	Ageratum conyzoides Ipomoea purga	Medicago sativa Passiflora ligularis	August, October
Ceresa minor Fowl. San Isidro del General Santa Ana	Chrysophyllum cainito Fagopyrum esculentum Paspalum fasciculatum	Vernonia brachiata Zea mays	February, April
Ceresa testacea Fairm. San Isidro de Coronado	Inga roussoviaana Philadelphus trichopetalus	Prunus salicina Sterculia diversifolia	December
Ceresa vitulus (F.)	Ageratum conyzoides Amaranthus cruentus	Colocasia esculenta Pennisetum purpureum	January
Cyphonia clavata (F.) Torito			
Enchenopa binotata (Say) Paso Ancho San Isidro de Coronado	Annona cherimola Antigonon leptopus Blakea gracilis Byrsonima crassifolia Canarium odoratum <u>f</u> Carissa grandiflora Citrus sinensis Crotalaria maypurensis Croton gossypifolium Dahlia rosea <u>f</u> Eucalyptus brachyphloea? Eugenia jambos <u>f</u>	Fortunella japonica <u>f</u> Inga laurina Jacquinia aurea Jacquinia coccinea Lucuma salicifolia Mangifera indica Phyllanthus sp. Rosa spp. Sambucus mexicanus Radicula armoracia Solanum seaforthianum Spondias purpurea Tephrosia toxicaria <u>f</u> Trema micrantha	Throughout the year

Insect and locality	Collected on			Date and notes
Enchenopa lanceolata (Stoll) Guadalupe Peralta San Isidro de Coronado San Isidro del General	Antignon leptopus Byrsonima crassifolia Calyptranthes costaricensis f Canangium odoratum	Citrus sinensis Grevillea robusta f Solanum seaforthianum f Tephrosia toxicaria Zexmenia costaricensis f		Throughout the year
Enchophyllum dubium Fowl. Paso Ancho	Citrus sinensis Inga leptolaba	Inga roussoviriana Malpighia glabra		March, November, December
Entylia sinuata (F.) San Isidro de Coronado San Isidro del General Santa Ana	Artemisia absinthium f Bunchosia costaricensis Byrsonima crassifolia Cajanus bicolor Coix mayuen Cosmos bipinnatus Crotalaria striata Eriobotrya japonica Ficus carica Ficus religiosa f	Helianthus annuus Hibiscus sabdariffa f Inga roussoviriana Melanthera asperata Polygonum punctatum Psidium guajava Ricinus communis Solanum tuberosum Vitis vinifera Zea mays		Throughout the year
Erechtia sallaei (Fowl.) Paso Ancho	Eugenia jambos f Hamelia erecta f Hymenaea courbaril	Mangifera indica Rosa spp.		Throughout the year. Tended by Parachartergus apicalis
Heteronotus nodosus (Germ.) Paso Ancho San Pedro	Hymenaea courbaril f Inga leptolaba	Inga roussoviriana		January, December

Insect and locality	C o l l e c t e d o n		Date and notes
Horiola picta (Coqueb.)	Cornutia pyramidata		April
Hypsoprora coronata (F.) San Pedro	Byrsonima crassifolia		July
Ischnocentrus niger Stål Peralta	Mistletoe		July
Lycoderes phasianus Fowl. San Isidro del General	"Purra"		February
Membracis humilis Fowl. Orosi	Grevillea robusta		November
Membracis mexicana Guer. Orosi San Isidro de Coronado San Isidro del General San Jose Santa Barbara de Heredia	Annona squamosa	Gossypium sp.	Tended by Solen- opsis geminata
	Antigonon leptopus	Guarea caoba	
	Bauhinia purpurea	Inga roussoviriana	
	Bixa orellana	Iresine herbsti	
	Cajanus bicolor f	Lucuma salicifolia	
	Cassia alata	Meibomia spp.	
	Cassia sophora f	Passiflora ligularis	
	Cassia spectabilis f	Piper sp.	
	Cinnamomum camphora	Poinciana regia	
	Cornutia pyramidata	Prunus armeniaca	
	Diphysa robinoides f	Punica granatum	
	Dombeya wallichii	Spondias purpurea	
	Elaeagnus umbellata	Tripsacum latifolium	
	Elaphrium simaruba f	Xylosma sp.	
	Eugenia jambos f	Xanthosoma sagittifolium	
Micrutalis albivitta Fowl.	Byrsonima crassifolia f		February

Insect and locality	C o l l e c t e d o n		Date and notes
Micrutalis ephippium (Burm.) La Gloria Peralta San Isidro del General	Acnistus arborescens Annona muricata Apeiba tibourbon Capsicum annuum	Chenopodium ambrosiodes <u>f</u> Panicum maximum	February, June, July
Micrutalis lugubrina (Stål)	Conostegia macrantha Guarea caoba	Tournefortia foetidissima Vernonia brachiata	January, August, October, November
Polyglypta costata Burm. Paso Ancho San Pedro	Annona cherimola <u>f</u> Passiflora ligularis Verbesina turbacensis	Vernonia brachiata	June, August to December
Polyglypta dispar Fowl. La Carpintera	"Purca"		February
Potnia brevicornis Fowl. La Carpintera Paso Ancho	Philadelphus trichopetalus Tournefortia foetidissima		January, February, April, June. Tended by Para- chartergus apicalis
Pterygia bituberculata Fowl. Paso Ancho Santa Ana	Eriobotrya japonica Eugenia jambos Serjania sp.	Spondias purpurea	July, November, December
Pterygia cerviceps Fowl. Waldeck	Theobroma cacao		April
Spongophorus ballista (Germ.) Peralta Santa Ana	Acnistus arborescens Annona cherimola Antigonon leptopus <u>f</u> Bauhinia monandra <u>f</u> Bauhinia violacea Capsicum annuum Cosmos sulphureus	Elaphrium simaruba Grevillea robusta Hibiscus rosa-sinensis Hymenaea courbaril Ipomoea tiliacea Tephrosia toxicaria <u>f</u> Vernonia brachiata	Throughout the year

Insect and locality	C o l l e c t e d o n			Date and notes
Stictocephala festina (Say) Alajuelita San Isidro de Coronado San Isidro del General	Borago officinalis Cajanus bicolor Crotalaria fulva Crotalaria retusa Crotalaria striata Helianthus annuus Hibiscus sabdariffa	 f f	Linum usitatissimum Meibomia sp. Panicum barbinode Raphanus sativus Saccharum officinarum Vernonia brachiata	Throughout the year
Stictopelta acutula (Fairm.)? San Isidro del General San Pedro	Annona muricata		Pyrus communis	April, July
Tylopelta gibbera (Stål) Paso Ancho San Pedro Ujarras	Meibomia sp. Phaseolus vulgaris	 f		January, February, June, October, December
Umbonia crassicornis (Am. & Serv.) Santa Ana	Acacia costaricensis Acacia farnesiana Cajanus bicolor Cassia sopora	f f	Coffea arabica Cupressus benthami Enterolobium cyclocarpum Inga roussovia	June, September to December
Vanduzeeia segmentata (Fowl.)	Acacia farnesiana Cajanus bicolor Calyptranthes costaricensis Cassia alata Cassia grandis	 f f f	Cestrum macrophyllum Helianthus annuus Hibiscus rosa-sinensis Hibiscus sabdariffa Tephrosia toxicaria Xylosma sp.	January, November, December; Tended by Solenopsis geminata

Insect and locality	Collected on	Date and notes
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LEPIDOPTERA

Acraga coa Schaus Guadalupe	Coffea arabica f	June
Agraulis juno (Cr.) San Isidro del General	Zinnia elegans f	February, June
Agraulis poeyi Butl. San Pedro	Passiflora quadrangularis	February. Preyed on by Podisus congrex Stal
Amastus aconia H.-S. San Pedro	Ligustrum japonicum	January, March, April
Aprotopos melantho (Bates) Guadalupe Santa Ana		June, July
Aprotopos chiriquensis Champ. San Pedro Santa Barbara de Heredia	Diospyros virginiana Persea americana Zea mays	May, June, August
Atarnes sallaei (Feld.) San Pedro	Annona cherimola Annona reticulata f	Annona squamosa June, July, September, October
Automeris boucardi Druce	Annona cherimola Canna indica Cydonia oblonga f f	Gladiolus hybrida Ligustrum vulgare Rosa sp. f f April, June, December
Automeris rubrescens Walk. Paso Ancho	Croton gossypifolium f	November
Automeris tricolor H.-S.	Lonicera japonica f	November, December

Insect and locality	C o l l e c t e d o n		Date and notes
Azochis gripusalis Walk. Paso Ancho			Throughout the year
Brassolis isthmia Bates Limon Waldeck	Chrysalidocarpus lutescens Cocos nucifera Roystonea regia	<u>f</u> <u>F</u> <u>f</u>	April, September Very abundant and destructive along entire Atlantic seaboard
Catopsilia philea L. Paso Ancho San Pedro	Cassia alata Cassia reticulata	<u>f</u> <u>f</u>	October, November, January
Cocytius antaeus medor Mer. San Isidro del General	Annona cherimola Annona muricata	<u>f</u> <u>f</u>	February, May
Copaxa nadari Bouv. Paso Ancho	Phoebe tonduzii	<u>f</u>	December
Cydimon fulgens (Walk.) San Pedro			July. Observed flying
Danaus menippe (Hbn.) San Pedro Torito	Asclepias curassavica	<u>f</u>	July
Dircenna klugii (Geyer) Alajuelita	Solanum torvum		January, July
Eantis pallida (Feld.) Paso Ancho San Isidro de Coronado	Buddleia davidi Citrus limetta	<u>f</u>	Throughout the year

Insect and locality	C o l l e c t e d o n			Date and notes
Erinnyis ello L. Santa Ana	Manihot esculenta	<u>f</u>		July
Eueides zorcaon Reak. San Pedro Santa Ana	Passiflora edulis Passiflora sp.	<u>f</u> <u>f</u>		June, July
Eurema eugenia Wall. Alajuelita				January
Eurema limoneus Feld. San Pedro	Cassia sp.			March
Gloveria balloui Schaus Paso Ancho	Psidium friedrichsthalianum Psidium molle	<u>f</u> <u>f</u>	Rubus spp. (Black- berry) <u>f</u>	April to September
Halisidota underwoodi Rothsch.	Passiflora ligularis	<u>f</u>		November
Heliconius charithonia (L.) San Pedro	Passiflora quadrangularis			October
Hemerocampa costaricensis Schaus	Hicoria pecan		Prunus cerasifera pis- sardi	May, October
Hylesia alinda Druce Paso Ancho San Pedro	Coix lacryma-jobi Pelargonium zonale Persea americana	<u>f</u> <u>f</u> <u>f</u>	Psidium friedrichsthali- anum <u>f</u> Psidium guajava <u>f</u>	May, June, Octo- ber, December

Insect and locality	C o l l e c t e d o n	Date and notes
Hypanartia lethe (F.) San Pedro	Trema micrantha <u>f</u>	January
Hyphypena colpodes (Wlsm.) San Josesito		Throughout the year
Jocara claudalis Mosch. San Isidro de Coronado	Persea pittieri <u>f</u>	
Laphygma frugiperda (S. & A.) San Isidro de Coronado	Holcus sorghum	January
Leucoptera coffeella (Guer. and Prrott.) Paso Ancho San Josesito		September
Lichnoptera cavillator Walk. Paso Ancho	Pyrus communis Ricinus communis	Taetsia fruticosa February, July
Lycorea atergatis (Doubl. and Hewits.) San Jose	Ficus carica <u>f</u>	August
Melittia curcurbitae Harr. San Pedro	Curcubita pepo	May

Insect and locality	C o l l e c t e d o n			Date and notes
Opharus astur Cram. San Pedro	Hibiscus rosa-sinensis	<u>f</u>		January, February
Opsiphanes corrosus Stichel	Musa sapientum	<u>f</u>	Phoenix canariensis <u>f</u>	September
Pachylia ficus (L.) Paso Ancho San Jose	Ficus sp. Ficus carica	<u>f</u> <u>f</u>		November, December
Papilio anchisiades idaeus F. Paso Ancho				December
Papilio polyxenes stabilis R. and J.	Daucus carota			May
Papilio thoas autocles Rothsch. Paso Ancho Santa Ana	Buddleia davidi Citrus aurantifolia Citrus limonia	<u>f</u> <u>f</u> <u>f</u>	Citrus nobilis <u>f</u>	July
Phobetron hipparchia Cram. Guadalupe	Aristolochia rigens Lucuma mammosa	<u>f</u> <u>f</u>	Musa textilis <u>f</u> Passiflora ligularis <u>f</u>	June, September
Pholus fasciatus Drury Paso Ancho	Jussiaea decurrens	<u>f</u>		June, July
Pieris elodia Bdv. San Isidro de Coronado San Pedro	Brassica oleracea botritis Brassica oleracea capitata Cleome spinosa	<u>f</u> <u>f</u> <u>f</u>	Radicula armoracia <u>f</u>	January, April, October
Plutella maculipennis (Curt.) San Isidro de Coronado	Brassica japonica Brassica oleracea acephala Brassica oleracea		Cucurbita pepo Radicula armoracia	January, June, August

Insect and locality	C o l l e c t e d o n		Date and notes
Prolimacodes triangulifera Schaus San Pedro	Persea americana	<u>f</u>	June
Sibine ophelians Dyar? Guadalupe Paso Ancho	Ricinus communis Solanum wendlandi	<u>f</u>	June, November
Stenoma annonella Sepp. Paso Ancho	Annona cherimola	<u>F</u>	Entire crop of cherimola destroyed.
Stenoma sororia (Zell.)	Persea pittieri	<u>f</u>	Throughout the year
Telegonus alardus (Stoll) San Pedro	Erythrina rubrinervia	<u>f</u>	July to September
Thagana tibialis Walk. Limon-	Terminalia catappa	<u>f</u>	September
Tolyte celeste Dyar San Pedro			April
Utetheisa ornatrix (L.)	Coriandrum sativum Crotalaria juncea	<u>f</u> <u>f</u>	Cupressus benthami Eugenia jambos <u>f</u> January, February

O R T H O P T E R A

Aidemona azteca (Sauss.) Paso Ancho San Isidro del General San Pedro	Acnistus arborescens Dahlia rosea Ipomoea tiliacea Linum usitatissimum Lippia berlandieri Malacra radiata Passiflora ligularis	<u>f</u> <u>f</u> <u>f</u> <u>f</u>	Physalis lagascae Polygonum punctatum <u>f</u> Radicula armoracia Scabiosa atropurpurea Viola sp. Zea mays	February, May, July to November
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Insect and locality	C o l l e c t e d o n		Date and notes
Chorisoneura panamae Hebard Waldeck	Theobroma cacao		April.
Cocconotus ravus Rehn ^{1/} San Isidro de Coronado	Brassica oleracea acephala f	Mentha sativa f	
	Canna indica f	Passiflora quadrangularis f	
	Cattleya dowiana f	Persea americana f	
	Cobaea scandens f	Roystonea regia	
	Dahlia rosea f	Tabernaemontana bignoni- aeiflora	
	Hedychium coronarium	Tournefortia foetidissima f	
	Iris laevigata f	Trichopelia marginata f	
	Lonicera japonica	Viola odorata	
	Malacra radiata f	Xanthosoma helleborii- folium f	
	Maranta arundinacea		
Conocephalus cinereus Thunb. Alajuelita Santa Ana Waldeck	Acnistus arborescens	Holcus sorghum	Throughout the year
	Artemisia absinthium f	Inga roussoviriana	
	Coix lacryma-jobi	Ipomoea purga	
	Coix mayuen	Ixoporus unisetus f	
	Crotalaria striata f	Lippia berlandieri	
	Cucurbita pepo	Malacra radiata	
	Daucus carota f	Melanthera aspera	
	Hedychium coronarium	Panicum barbinode	
	Hibiscus esculentus	Pelargonium zonale	
	Hibiscus sabdariffa	Polygonum punctatum	

^{1/} The oviposition slits in bark of trees noted in the Insect Pest Survey Bulletin, vol. 15, Supplement to no. 4, page 210, under C. ravus Rehn, were probably made by the tettigoniid Erioloides longipennis Redt. Two females and one male of C. ravus were kept in a tower cage with branches of coffee, avocado, and apple from the last nymphal instar until they died. Copulation took place November 3 and 7, the male died December 9, and the last female died in March. The soil was examined on March 5 and egg clusters were found just below the surface.

Insect and locality	C o l l e c t e d o n		Date and notes
Conocephalus cinereus--Cont'd	Ricinus communis Solanum tuberosum Verbesina turbacensis Vernonia brachiata	Viola odorata Vitis tiliaefolia Zea mays	<u>f</u> <u>f</u>
Ellipes minuta (Scudd.) Paso Ancho	Allium sativum Aleurites moluccana Artemisia absinthium Beta vulgaris cicla Brassica oleracea capitata Celosia argentea Citrus sinensis Cucurbita pepo	Cucumis sativus Cynara scolymus Gossypium barbadense Ipomoea batatas Lactuca sativa Petroselinum hortense Tragopogon porrifolius Triticum aestivum	September
Epilampra abdomennigrum Deg. Paso Ancho San Pedro	Colocasia esculenta Musa paradisiaca		January, June
Erioloides longipennis Redt. San Pedro	Amygdalus persica Hicoria pecan		May. Damage by egg punctures
Eurycotis biolleyi Rehn San Pedro	Cobaea scandens Fuchsia sp.	<u>f</u> <u>f</u>	Musa paradisiaca Pelargonium zonale <u>f</u>
Holocompsa azteca Sauss.	Erythrina rubrinervia	<u>f</u>	August
Insara intermedia (Brunner) San Isidro de Coronado Tarrazu	Acalypha wilkesiana Acnistus arborescens Artemisia absinthium Bauvardia humboldti Brassica japonica Byrsonima crassifolia Calathea zebrina Calyptranthes costaricensis	<u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u> <u>f</u>	Chenopodium ambrosioides <u>f</u> Cleome spinosa Cobaea scandens <u>f</u> Conostegia lanceolata Cosmos sulphureus <u>f</u> Crotalaria fulva Croton gossypifolium <u>f</u> Dahlia rosea <u>f</u> Datura candida

Insect and locality	C o l l e c t e d o n	Date and notes
Insara intermedia--Cont'd.	Desmodium spp. Dianthus caryophyllus <u>f</u> Diospyros kaki Erythrina rubrinervia <u>f</u> Fragaria chiloensis Garcinia tinctoria Hamelia erecta Impatiens balsamina <u>f</u> Indigofera suffructicosa Ipomoea purga Ipomoea tiliacea <u>f</u> Iresine herbsti <u>f</u> Iris laevigata <u>f</u> Jacobinia coccinea Jussiaea decurrens Lactuca sativa Lippia berlandieri Lonicera japonica Lycopersicum esculentum <u>f</u> Malacra radiata <u>f</u> Mentha sativa <u>f</u> Miribilis jalapa <u>f</u> Nicotiana tabacum <u>f</u> Pelargonium graveolens Persea americana Phoenix canariensis Polygonum punctatum <u>f</u> Randia mitis <u>f</u> Rosmarinus officinalis <u>f</u> Salvia splendens <u>f</u> Sapium caudatum Sida rhombifolia <u>f</u> Tagetes patula <u>f</u> Thuja orientalis <u>f</u> Viola odorata Zinnia elegans <u>f</u>	July
Latiblattella sp. Waldeck	Theobroma cacao	November
Microcentrum ephippium Burm. San Pedro	Amaranthus spinosus	April to December
Neoxabea bipunctata (Deg.) Paso Ancho Tarrazu	Alnus acuminata Bunchosia costaricensis Coffea arabica Indigofera suffructicosa Malus sylvestris	January
Orphulella punctata (Deg.) San Pedro	Solanum tuberosum Grass	

Insect and locality	C o l l e c t e d o n		Date and notes
Panchlora cubensis Sauss. Paso Ancho	Guilielma utilis		June, August Household pest
Paratettix mexicana abortus Hancock Alajuelita San Rafael de Coronado Santa Ana	Bidens pilosa Cucurbita pepo Dianthus caryophyllus Fragaria chiloensis Jussiaea decurrens Rubus spp. (Blackberry)	Trifolium fragiferum Triticum aestivum Vinca rosea Viola odorata Viola tricolor	Throughout the year
Paroecanthus mexicanus Sauss.? Paso Ancho	Zantedeschia aethiopica		October. In flower
Pycnopalpa bicordata (Serv.) Tarrazu	Coffea arabica		September
Rhipipteryx biolleyi Sauss. Paso Ancho San Isidro de Coronado	Althaea rosea Blighia sapida Byrsonima crassifolia Canarium odoratum Celosia cristata Chrysophyllum cainito Cirsium costaricensis Codiaeum variegatum Coffea arabica Conostegia lanceolata Dianthus caryophyllus Dillenia indica	Eugenia malaccensis Grass Grevillea robusta Lactuca sativa Phaseolus vulgaris Phoenix canariensis Poinciana regia Ruta graveolens Tabebuia guayacan Tragopogon porrifolius Triticum aestivum Veronia brachiata	Throughout the year
Rhipipteryx tricolor Sauss. Juan Vinas Orosi	Asclepias curassavica Grass		February, November
Schistocerca impleta Walk. San Isidro de Coronado San Isidro del General Rancho Redondo	Althaea rosea Annona reticulata Aristolocha rigens Artocarpus communis	Baccharis nervosa Brassica oleracea capitata Callistephus chinensis Ceiba pentandra	Throughout the year

Insect and locality	C o l l e c t e d o n		Date and notes		
Schistocerca impleta--Cont'd.	Citrus sinensis	f	Pisum sativum	f	
	Codiaeum variegatum		Pithecollobium saman		
	Coix mayuen		Poinciana regia	f	
	Cecropia sp.		Prunus cerasifera pis-	f	
	Crotalaria fulva		sardi		
	Crotalaria striata	f	Punica granatum	f	
	Cyperus alternifolius		Rheum rhaponticum	f	
	Diphysa robinioides		Rosa spp.	f	
	Gomphrena globosa		Rumex crispus	f	
	Gossypium barbadense		Saccharum officinarum		
	Guilielma utilis	f	Sedum sp.		
	Helianthus annuus	f	Solanum tuberosum		
	Heliotropium peruvianum	f	Tephrosia toxicaria		
	Melinis minutiflora	f	Thuja orientalis		
	Nicotiana tabacum	F	Viola sp.		
	Pennisetum clandestinum		Zinnia elegans	f	
Scopiorus mucronatus S. and P. San Pedro	Bryophyllum pinnatum		Randia mitis		November
	Croton gossypifolium				
Stilpnochloa azteca (Sauss.) Paso Ancho	Acalypha wilkesiana	f	Sapium aucuparium	f	July
	Bixa orellana	f	Trema micrantha		
Syntechna tarasca (Sauss.) Guadalupe	Acnistus arborescens		Malus sylvestris		January, May, June,
Paso Ancho	Amydalus persica	f	Manihot esculenta		July, August,
San Isidro de Coronado	Cajanus bicolor	F	Morus rubra	f	September
San Pedro	Calliandra graniflora		Pelargonium zonale		
	Coffea arabica		Rosa spp.	f	
	Citrus sinensis		Trema micrantha	f	
	Dombeya wallichii		Vernonia brachiata		
	Eriobotrya japonica	f	Zea mays	f	
	Grevillea robusta				

Insect and locality	C o l l e c t e d o n			Date and notes
Taeniopoda centurio (Drury)	Carludovica palmata	<u>f</u>	Panicum maximum	April,
Limon	Citrus aurantifolia		Saccharum officinarum	May,
Santa Ana	Codiaeum variegatum			July,
Waldeck	Nephrolepis sp.	<u>f</u>		September
Taeniopoda varipennis Rehn	Canna indica	<u>f</u>	Hibiscus esculentus	<u>f</u> November
Santa Ana	Dolichos lablab		Panicum maximum	
	Hemerocallis fulva	<u>f</u>	Pelargonium zonale	

D I P T E R A

Achaetoneura rileyi Will.			May. Parasite of
San Pedro			Dicentria violascens
			H.-S.
Anastrepha ludens (Loew)	Casimiroa edulis	<u>F</u>	April, July.
San Jose			Reared in fruit.

Insect and locality	C o l l e c t e d o n		Date and notes
Calominettia geminata (F.) Waldeck	Theobroma cacao		July
Camptoprosopella xanthoptera Hendel	Triticum aestivum		April, July, December. Reared in fruit.
Carpolonchaea pendula Bezzi	Manihot glaziovii	<u>f</u>	February, August
Dermatobia hominis (L.) Santa Ana	Dog		July
Desmometopa m-nigrum Zett. San Pedro			February
Dichelacera marginata Macq. San Isidro del General	Horse	<u>f</u>	February
Dilophus melanarius V. de Wulp Paso Ancho San Isidro de Coronado	Myosotis sylvatica Oreopanax sp. Pennisetum purpureum	<u>f</u>	Rosmarinus officinalis Zantedeschia aethiopica <u>f</u> April, August
Eusimulium callidum D. and S. Paso Ancho	Man Calf		August, September, October Abundant on calf
Eusimulium metallicum (Bell.) La Carpintera Paso Ancho	Man Calf		January, October
Eusimulium quadrivittatum (Loew) Paso Ancho	Man		April
Eutreta sparsa (Wied.) Paso Ancho San Pedro	Citharexylum caudatum	Hibiscus sabdariffa	January, October. Maggots in galls

Insect and locality	C o l l e c t e d o n		Date and notes
Euxesta sororcula Wied. San Pedro	Zea mays		October (Adult only)
Euxesta stigmatias Loew San Isidro del General San Pedro	Zea mays		March, June, September
Rhynchosciara brevicornis Rubs.? La Carpintera Paso Ancho	Impatiens balsamina Indigofera suffruticosa Trichilia havanensis Vernonia brachiata		
Stomoxys calcitrans (L). San Pedro			August, September
Stratiomyia subalba Bellardi Paso Ancho	Inga roussovia		October
Tetraeuaesta obscuriventris (Loew) Cartago Paso Ancho	Amaranthus spinosus Calea urticifolia axillaris Calyptranthes costaricensis Hibiscus rosa-sinensis Ixora chinensis	Psidium friedrichsthalianum Spondias purpurea Terminalia catappa Vinca rosea	February to July
Toxotrypana curvicauda Gerst. Atenas San Pedro	Gonolobus edulis f		August. Reared in fruit. September
Volucella purpurifera Bigot Paso Ancho	Philadelphus trichapetalus		September. Eating pollen from P. trichapetalus.
Volucella tricineta Bigot Paso Ancho	Philadelphus trichapetalus f		September. Eats pollen.

Insect and locality	:	Collected on	:	Date and notes
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H Y M E N O P T E R A

Atta sexdens (L.) Alajuela Heredia Limon Turrialba				January, February, May, August. General feeder. Injurious and very abundant.
Bombus ephippiatus Say Rancho Redondo	Trifolium pratense			March. Feeds in flower.
Bombus mexicanus Cress. San Pedro	Coreus Leonurus sibericus	f		July, August. Feeds in flower.
Gymnopolybia sulfureofasciata Ducke Paso Ancho Sofia ? Waldeck	Acnistus arborescens Boehmeria nivea Canangium odoratum Cestrum lanatum Cirsium costaricensis Congea velutina		f	Throughout the year. Taking tomentum from leaves.
Megachile zapoteka Cress. San Pedro	Rose			April. Serious injury to a few plants by cutting the leaves.

Dombeya wallichii
Grevillea banksi
Grevillea robusta
Persea pittieri
Theobroma cacao
Hedychium coronarium

Insect and locality	C o l l e c t e d o n				Date and notes
Odontomachus haematoda (L.) San Pedro	Persea americana				October
Polybia fasciata Sauss. Paso Ancho	Clcome spinosa				April. Eating Pieris elodia Bdv.
Solenopsis geminata (F.) San Isidro del General	Ananas sativus	f	Ixora chinensis	f	
Santa Ana	Casimiroa edulis	f	Rheedia sp.	f	
Tarrazu	Cassia alata	f	Terminalia catappa	f	
Turrialba	Citrus limetta	f	Vigna sesquipedalis	f	
	Citrus paradisi	f	Zantedeschia aethiopicaf	f	
Tatua tatua (Cuvier) Paso Ancho	Dovyalis hebecarpa	f			August
	Impatiens balsamina				
Trigona amalthea (Oliv.) Santa Barbara de Heredia	Zea mays				August taking pollen.
Trigona cupira Smith Paso Ancho	Bocconia frutescens		Polygonum punctatum		June, August, Octo-
	Calonyction aculeatum		Salvia splendens		ber. Feeds in
	Coriandrum sativum		Trichilia havenensis		flower.
Trigona ruficrus corvina Cr. Waldeck	Theobroma cacao	f			April. Eats leaves and pods of cacao
San Isidro del General					
Trigona silvestriana Vachal Orosi	Cassia sp. near alata	f			February, July, November. Scallops
Ujarras	Citrus paradisi	f			the leaves and
Waldeck	Citrus sinensis	f			eats flowers..
	Eucharis sp.	f			
Tripoxylon rugifrons Cameron Paso Ancho	Conostegia lanceolata				April
Xylocopa frontalis (Oliv.) San Isidro del General	Gliricidia maculata	f			February; abundant at flowers

Insect and locality	:	C o l l e c t e d o n	: Date and notes
T H Y S A N O P T E R A			
Liothrips zeteki Hood	Phoebe tonduzii		September
Thrips tabaci Lind. San Isidro de Coronado San Pedro	Allium cepa	<u>f</u>	January to June; October, November. Injurious
I S O P T E R A			
Kaloterme holmgreni (Banks) Paso Ancho San Pedro	wood		March to July. Attacked principal building of Escuela Nacional de Agri- cultura.
Nasutiterme costalis (Holmg.)	Elaeis guineensis		
D E R M A P T E R A			
Doru lineare (Esch.) San Isidro del General San Pedro Santa Ana	Bixa orellana Grass Mentha sativa	<u>f</u>	February, July, August
Metrosura ruficeps (Burm.) Guadalupe	Musa paradisiaca		

Insect and locality	Collected on	Date and notes
<i>Psalis americana</i> (Peauv.) Guadalupe	<i>Musa paradisiaca</i>	January

MALLOPHAGA

<i>Bovicola caprae</i> Gult San Pedro	Goat	February, August. A common pest of goat.
<i>Goniodes dissimilis</i> Nitz. San Pedro	Chicken	May
<i>Goniodes meleagridis</i> L. San Pedro	Turkey	December

CORRODENTIA

<i>Nesacus flavatus</i> Navas Guadalupe La Carpintera San Isidro de Coronado	<i>Citrus sinensis</i> <i>Coffea arabica</i> <i>Persea americana</i> <i>Piper auritum</i>	February, May, December
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SIPHONAPTERA

<i>Xenopsylla cheopis</i> (Rothsch.) San Pedro	Rat	June
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Insect and locality	C o l l e c t e d o n		Date and notes
	A R A C H N I D A		
Anychus clarki McG. San Pedro	Chrysophyllum cainito Citrus aurantium	Citrus sinensis <u>f</u>	January, March April. Checks growth and prevents budding of young stock.
Tetranychus telarius (L.) (Epitetranychus althaea von H.) San Pedro	Coffea arabica		March

