

Occasional Papers of the Florida State Collection of Arthropods

CATALOG OF ALEYRODIDAE ON CITRUS AND THEIR NATURAL ENEMIES

(Homoptera - Aleyrodidae)



Ru Nguyen, Reece I. Sailer and Avas B. Hamon

**Florida Department of Agriculture and Consumer Services
Bob Crawford, Commissioner**



**Occasional Papers of the Florida State Collection of Arthropods
Volume 8**

**CATALOG OF ALEYRODIDAE
ON CITRUS AND THEIR NATURAL ENEMIES
(Homoptera - Aleyrodidae)**

by

Ru Nguyen

Entomologist
Division of Plant Industry
P.O. Box 147100, Gainesville, FL
32614-7100

Reece I. Sailer

Graduate Research Professor,
Dept. of Entomology & Nematology
University of Florida
Gainesville, FL 32611

Avas B. Hamon

Taxonomic Entomologist
Division of Plant Industry
P.O. Box 147100, Gainesville, FL
32614-7100

**Florida Department of Agriculture and Consumer Services
Bob Crawford, Commissioner**

**Division of Plant Industry
Richard D. Gaskalla, Director
P.O. Box 147100, Gainesville, FL 32614-7100**

**FLORIDA DEPARTMENT OF AGRICULTURE
AND CONSUMER SERVICES**

DIVISION OF PLANT INDUSTRY

Plant Industry Technical Council

Joseph Welker, Chairman (Horticulture) Jacksonville
Richard Mims, Vice Chairman (Citrus) Orlando
Dr. Thomas Latta (Turfgrass) Deerfield Beach
Michael O. Hunt (Tropical Fruit) Homestead
Ed Holt (Member-at-Large) Jacksonville
John W. Hornbuckle (Citrus) Belleair Beach
Leonard Coward (Commercial Flower) Punta Gorda
Elliot Maguire (Forestry) Green Cove Springs
Ken Jorgensen (Vegetable) Zellwood
Bryan Nelson (Foliage) Apopka
Bill Shearman (Apiary) Wimauma
Richard D. Gaskalla, Secretary Gainesville

Administrative Staff

R. D. Gaskalla, Director Gainesville
C. C. Riherd, Assistant Director Gainesville
D. L. Harris, Methods Development and Biological Control Gainesville
L. Hebb, Pest Eradication and Control Winter Haven
R. A. Clark, Plant and Apiary Inspection Gainesville
W. N. Dixon, Entomology, Nematology and Plant Pathology Gainesville
C. O. Youtsey, Citrus Budwood Registration Winter Haven

TABLE OF CONTENTS

Title page	i
Division of Plant Industry Technical Council and Administrative Council	ii
Table of Contents	iii
Foreword	ix
Acknowledgements	
Introduction	1
 I. Aleyrodidae found on citrus	
Genus: <i>Acaudaleyrodes</i>	2
Species: <i>Acaudaleyrodes citri</i>	2
Genus: <i>Aleurocanthus</i>	2
Species: <i>Aleurocanthus</i> spp.	2
<i>Aleurocanthus cheni</i>	2
<i>Aleurocanthus citriperdus</i>	3
<i>Aleurocanthus delottoi</i>	3
<i>Aleurocanthus hansfordi</i>	3
<i>Aleurocanthus husaini</i>	3
<i>Aleurocanthus incertatus</i>	3
<i>Aleurocanthus mvoutiensis</i>	3
<i>Aleurocanthus punjabensis</i>	4
<i>Aleurocanthus spiniferus</i>	4
<i>Aleurocanthus spinosus</i>	5
<i>Aleurocanthus woglumi</i>	5
Genus: <i>Aleurocybotus</i>	11
Species: <i>Aleurocybotus setiferus</i>	11
Genus: <i>Aleurodicus</i>	11
Species: <i>Aleurodicus</i> spp.	11
<i>Aleurodicus bondari</i>	11
<i>Aleurodicus dispersus</i>	12
<i>Aleurodicus magnificus</i>	12
Genus: <i>Aleurolobus</i>	12
Species: <i>Aleurolobus citri</i>	12
<i>Aleurolobus marlatti</i>	12
<i>Aleurolobus niloticus</i>	12
<i>Aleurolobus setigerus</i>	13
<i>Aleurolobus subrotundus</i>	13
<i>Aleurolobus szechwanensis</i>	13
Genus: <i>Aleuroplatus</i>	13
Species: <i>Aleuroplatus translucidus</i>	13
Genus: <i>Aleurothrixus</i>	13
Species: <i>Aleurothrixus aepim</i>	13
<i>Aleurothrixus floccosus</i>	14
<i>Aleurothrixus porteri</i>	15
Genus: <i>Aleurotrachelus</i>	15
Species: <i>Aleurotrachelus</i> spp.	15
Genus: <i>Aleurotuberculatus</i>	15
Species: <i>Aleurotuberculatus aucubae</i>	15

	<i>Aleurotuberculatus citrifolii</i>	16
	<i>Aleurotuberculatus jasmini</i>	16
	<i>Aleurotuberculatus murrayae</i>	16
Genus: <i>Bemisia</i>		16
Species: <i>Bemisia afer</i>		16
	<i>Bemisia giffardi</i>	18
	<i>Bemisia ovata</i>	18
	<i>Bemisia tabaci</i>	18
Genus: <i>Ceraleurodicus</i>		18
Species: <i>Ceraleurodicus</i> spp.		18
Genus: <i>Dialeurodes</i>		19
Species: <i>Dialeurodes</i> spp.		19
	<i>Dialeurodes citri</i>	19
	<i>Dialeurodes citricola</i>	21
	<i>Dialeurodes citrifolii</i>	21
	<i>Dialeurodes kirkaldyi</i>	22
	<i>Dialeurodes struthanthi</i>	23
Genus: <i>Dialeurolonga</i>		23
Species: <i>Dialeurolonga</i> sp.		23
	<i>Dialeurolonga communis</i>	23
	<i>Dialeurolonga elongata</i>	23
	<i>Dialeurolonga simplex</i>	23
Genus: <i>Hexaleurodicus</i>		23
Species: <i>Hexaleurodicus</i> spp.		23
	<i>Hexaleurodicus jaciae</i>	24
Genus: <i>Metaleurodicus</i>		24
Species: <i>Metaleurodicus cardini</i>		24
	<i>Metaleurodicus manni</i>	24
Genus: <i>Orchamoplatus</i>		24
Species: <i>Orchamoplatus caledonicus</i>		24
	<i>Orchamoplatus citri</i>	24
	<i>Orchamoplatus mammaeferus</i>	24
	<i>Orchamoplatus noumeae</i>	25
Genus: <i>Parabemisia</i>		25
Species: <i>Parabemisia myricae</i>		25
Genus: <i>Paraleyrodes</i>		25
Species: <i>Paraleyrodes</i> spp.		25
	<i>Paraleyrodes bondari</i>	25
	<i>Paraleyrodes citri</i>	26
	<i>Paraleyrodes citricolus</i>	26
	<i>Paraleyrodes naranjiae</i>	26
	<i>Paraleyrodes perseae</i>	26
	<i>Paraleyrodes singularis</i>	26
	<i>Paraleyrodes urichii</i>	26
Genus: <i>Tetraleurodes</i>		26
Species: <i>Tetraleurodes mori</i>		26
	<i>Tetraleurodes ursorum</i>	27
Genus: <i>Trialeurodes</i>		27
Species: <i>Trialeurodes abutilonea</i>		27
	<i>Trialeurodes floridensis</i>	28
	<i>Trialeurodes mirissimus</i>	28

<i>Traileurodes ricini</i>	28
<i>Trialeurodes vaporariorum</i>	29
<i>Trialeurodes variabilis</i>	29
<i>Trialeurodes vitrinellus</i>	29
II. Parasites associated with Aleyrodidae on citrus.	
Hymenoptera: Aphelinidae	29
Genus: <i>Ablerus</i>	29
Species: <i>Ablerus connectens</i>	29
<i>Ablerus macrochaeta</i>	29
<i>Ablerus macrochaeta</i> subsp. <i>inquirenda</i>	29
Genus: <i>Aleurodiphilus</i>	30
Species: <i>Aleurodiphilus americanus</i>	30
Genus: <i>Aphelinus</i>	30
Species: <i>Aphelinus fuscipennis</i>	30
Genus: <i>Cales</i>	30
Species: <i>Cales noacki</i>	30
Genus: <i>Encarsia</i>	30
Species: <i>Encarsia armata</i>	30
<i>Encarsia basicincta</i>	30
<i>Encarsia bella</i>	30
<i>Encarsia bennetti</i>	30
<i>Encarsia bermisiae</i>	30
<i>Encarsia brasiliensis</i>	30
<i>Encarsia ciliata</i>	30
<i>Encarsia citri</i>	30
<i>Encarsia citrofila</i>	31
<i>Encarsia clypealis</i>	31
<i>Encarsia cubensis</i>	31
<i>Encarsia divergens</i>	31
<i>Encarsia elegans</i>	31
<i>Encarsia formosa</i>	31
<i>Encarsia haitiensis</i>	31
<i>Encarsia ishii</i>	31
<i>Encarsia lahorensis</i>	31
<i>Encarsia lutea</i>	32
<i>Encarsia merceti</i>	32
<i>Encarsia merceti</i> var. <i>modesta</i>	32
<i>Encarsia meritoria</i>	32
<i>Encarsia nipponica</i>	32
<i>Encarsia opulenta</i>	32
<i>Encarsia persequens</i>	33
<i>Encarsia perstrenua</i>	33
<i>Encarsia portoricensis</i>	33
<i>Encarsia protransvena</i>	33
<i>Encarsia smithi</i>	33
<i>Encarsia strenua</i>	33
<i>Encarsia variegata</i>	33
Genus: <i>Eretmocerus</i>	33
Species: <i>Eretmocerus aleurolobi</i>	34
<i>Eretmocerus californicus</i>	34

<i>Eretmocerus diversiciliatus</i>	34
<i>Eretmocerus haldemani</i>	34
<i>Eretmocerus mundus</i>	34
<i>Eretmocerus nairobi</i>	34
<i>Eretmocerus paulistus</i>	34
<i>Eretmocerus portoricensis</i>	34
<i>Eretmocerus orientalis</i>	34
<i>Eretmocerus serius</i>	34
<i>Eretmocerus silvestri</i>	35
Family: Encyrtidae	35
Genus: <i>Pseudhomalopoda</i>	35
Species: <i>Pseudhomalopoda prima</i>	35
Family: Eulophidae	35
Genus: <i>Euderomphale</i>	35
Species: <i>Euderomphale aleurothrix</i>	35
<i>Euderomphale vittata</i>	35
Family: Mymaridae	35
Genus: <i>Gonatocerus</i>	35
Species: <i>Gonatocerus cubensis</i>	35
<i>Gonatocerus flaviventris</i>	35
Family: Platygasteridae	35
Genus: <i>Amitus</i>	35
Species: <i>Amitus hesperidum</i>	35
<i>Amitus hesperidum</i> subsp. <i>variipes</i>	36
<i>Amitus spiniferus</i>	36
Family: Signiphoridae	36
Genus: <i>Thysanus</i>	36
Species: <i>Thysanus xanthographa</i>	36
<i>Thysanus townsendi</i>	36
III. Predators associated with <i>Aleyrodidae</i> on citrus	
Coleoptera: Coccinellidae	36
Genus: <i>Axinoscymnus</i>	36
Species: <i>Axinoscymnus beneficus</i>	36
Genus: <i>Botynella</i>	36
Species: <i>Botynella 5-punctata</i>	36
Genus: <i>Brumus</i>	36
Species: <i>Brumus suturalis</i>	36
Genus: <i>Catana</i>	36
Species: <i>Catana clauseni</i>	36
<i>Catana parcesetosa</i>	36
Genus: <i>Clitosthetus</i>	37
Species: <i>Clitosthetus arcuatus</i>	37
Genus: <i>Chilocorus</i>	37
Species: <i>Chilocorus bijugus</i>	37
<i>Chilocorus bivulnerus</i>	37
<i>Chilocorus cacti</i>	37
<i>Chilocorus kuwanae</i>	37
Genus: <i>Cryptognatha</i>	37
Species: <i>Cryptognatha flavescens</i>	37
<i>Cryptognatha flaviceps</i>	37

Genus: <i>Cycloneda</i>	37
Species: <i>Cycloneda sanguinea</i>	37
Genus: <i>Decadiomus</i>	38
Species: <i>Decadiomus bahamicus</i>	38
Genus: <i>Delphastus</i>	38
Species: <i>Delphastus catalinae</i>	38
<i>Delphastus diversipes</i>	38
<i>Delphastus pallidus</i>	38
<i>Delphastus pusillus</i>	38
Genus: <i>Diomus</i>	38
Species: <i>Diomus roseicollis</i>	38
Genus: <i>Hyperaspis</i>	38
Species: <i>Hyperaspis albicollis</i>	38
<i>Hyperaspis calderana</i>	38
Genus: <i>Leis</i>	38
Species: <i>Leis dimitata</i> 15- <i>spilota</i>	38
Genus: <i>Microserangium</i>	39
Species: <i>Microserangium shikokense</i>	39
Genus: <i>Nephaspis</i>	39
Species: <i>Nephaspis amnicola</i>	39
<i>Nephaspis gorhami</i>	39
Genus: <i>Scymnillodes</i>	39
Species: <i>Scymnillodes aeneus</i>	39
<i>Scymnillodes cyanescens</i>	39
<i>Scymnillodes subtropicus</i>	39
Genus: <i>Scymnus</i>	39
Species: <i>Scymnus coloratus</i>	39
<i>Scymnus</i> (Pallus) <i>hilaris</i>	39
<i>Scymnus</i> (Pullus) <i>horni</i>	39
<i>Scymnus pallidicollis</i>	39
<i>Scymnus punctatus</i>	39
<i>Scymnus thoracicus</i>	40
Genus: <i>Serangium</i>	40
Species: <i>Serangium flavescens</i>	40
Genus: <i>Tauravia</i>	40
Species: <i>Tauravia soror</i>	40
Genus: <i>Verania</i>	40
Species: <i>Verania cardoni</i>	40
Neuroptera: Chrysopidae	40
Genus: <i>Chrysopa</i>	40
Species: <i>Chrysopa bimaculata</i>	40
<i>Chrysopa cubana</i>	40
<i>Chrysopa lateralis</i>	40
<i>Chrysopa thoracica</i>	40
Neuroptera: Coniopterygidae	40
Genus: <i>Conwentzia</i>	40
Species: <i>Conwentzia psociformis</i>	40
Genus: <i>Semidalis</i>	40
Species: <i>Semidalis aleyrodiformis</i>	40

Thysanoptera: Thripidae	40
Genus: <i>Aleurodothrips</i>	40
Species: <i>Aleurodothrips fasciapennis</i>	40
Diptera: Dolichopodidae	41
Genus: <i>Condylostylus</i>	41
Species: <i>Condylostylus patibulatus</i>	41
Diptera: Drosophilidae	41
Genus: <i>Acletoxinus</i>	41
Species: <i>Acletoxinus indica</i>	41
Diptera: Syrphidae	41
Genus: <i>Baccha</i>	41
Species: <i>Baccha fuscipennis</i>	41
<i>Baccha clavata</i>	41
<i>Baccha parvicornis</i>	41
Hymenoptera: Formicidae	41
Genus: <i>Cremastogaster</i>	41
Species: <i>Cremastogaster brevispinosa</i>	41
Lepidoptera: Pyralidae	41
Genus: <i>Cryptoblabes</i>	41
Species: <i>Cryptoblabes gnidiella</i>	41
Acarina: Acaridae	41
Genus: <i>Typhlodromus</i>	41
Species: <i>Typhlodromus (Amblyseius) finlandicus</i>	41
Genus: <i>Amblyseius</i>	42
Species: <i>Amblyseius swirskii</i>	42
IV. Fungi associated with Aleyrodidae on citrus.	
Species: <i>Aegerita webberi</i>	42
Species: <i>Aschersonia aleyrodis</i>	42
Species: <i>Aschersonia flavo-citrina</i>	42
Species: <i>Capnodium citri</i>	42
Species: <i>Sphaerostilbe coccophila</i>	42
Species: <i>Verticillium heterocladum</i>	42
Species: <i>Fusarium aleyrodis</i>	43
V. Reference	44
Acknowledgements	57

Cover photos: *Dialeurodes citri*, pupal case

Encarsia lahorensis, depositing egg into *D. citri* nymph.

FOREWORD

This work will prove to be an invaluable reference for anyone specifically interested in the whiteflies of citrus and their enemies. Although much of the data is available in the monumental work by Mound and Halsey in 1978, which the authors themselves point out, extracting the information pertinent only to citrus will save a considerable amount of time for anyone needing information on the whiteflies of citrus. In addition, references since 1977 up through 1987 on this subject have been included. A number of papers on two serious citrus pests, the citrus blackfly (*Aleurocanthus woglumi*) and the citrus whitefly (*Dialeurodes citri*) were published during this time and have been included.

This catalog lists the species of Aleyrodidae associated with citrus throughout the world. Synonyms, hosts, biology and geographic range is listed for each species. Each is cross referenced with their known parasites, predators and pathogens. Separate sections have been included for each category of natural enemy, listing the known aleyrodid hosts for each parasite, predator, or pathogen. A statement of the known economic importance of each species is also included.

Dr. Ru Nguyen was born December 12, 1944, in Nhatrang, Vietnam, the son of Nguyen Tam and Le Thi Van. He was awarded Merit Scholarships (1962-1965) by the Ministry of Education, Government of South Vietnam. He received a B.S. in agriculture from the College of Agriculture in Saigon in 1965. From 1966-1970 he taught applied entomology courses at this institution. He then received an Agency for International Development (US-AID) Scholarship (1970-1975), which enabled him to receive a Ph.D. in Entomology from the University of Florida in 1975. During the summers of 1975 and 1977, Dr. Nguyen assisted with a short course on "The Use of Radiation and Radio-Isotopes in Entomology" held at the University of Florida, sponsored by IAEA of the United Nations. From 1975-1978, he was an assistant in entomology with the Department of Entomology and Nematology at the University of Florida, where he reared parasites for release and introduced *Encarsia lahorensis* for control of the citrus whitefly, *Dialeurodes citri*. During 1978-1979, he was at the Institut für Angewandte Zoologie, Universität Bonn, Germany, on an Alexander Von Humboldt Fellowship, where he worked on 32P-DDT excretion by the cabbage looper, *Trichoplusia ni*. From 1979-1982, he was entomologist and station supervisor, USDA, APHIS, PPQ, Methods Development, Fort Lauderdale, Florida. Here he conducted research on the biological control of the citrus blackfly, *Aleurocanthus woglumi*, including mass rearing and releasing the parasites *Encarsia opulenta*, *Amitus hesperidum*, and studying hyperparasitism of *Encarsia smithi*. Since 1982, he has been employed as a research entomologist with the Florida Department of Agriculture and Consumer Services (FDACS), Division of Plant Industry (DPI), Bureau of Methods Development. Primary areas of research have been on the biological control of insect pests in Florida, including *Ceroplastes rubens*, *Philephedra*, *Perkinsiella*, *Dialeurodes citri*, *Parlatoria ziziphi*, *Aleurocanthus woglumi*, *Bemisia tabaci*, and development of a "Fly Free Zone" for shipping citrus to Japan and other citrus importers without post-harvest fumigation. He received an FDACS Outstanding Service Award in 1988.

Ru became a United States citizen in 1983. He married Kim-Dung Thi Nguyen in 1981. He speaks four languages: Vietnamese, English, French, and German. His hobbies include fishing, swimming, tennis, and volleyball. He is a member of the Entomological Society of America, the Florida Entomological Society, the American Registry of Professional Entomologists (Pest Management), and the International Organization for Biological Control.

The late Dr. Reece I. Sailer was born November 8, 1915, in Roseville, Illinois. After completing high school in Roseville, he attended Western Illinois State Teachers' College at Macomb, Illinois, for two years. He then went to the University of Kansas at Lawrence, where he received an A.B. degree in 1938. He married Jessie M. Bradburg in 1939; they had two daughters, Sigrid and Enid. Reece continued his education at the University of Kansas and received the Ph.D. degree in 1942. Later the same year he joined the staff of the Bureau of Entomology and Plant Quarantine as a taxonomist in charge of the Hemiptera and was stationed with the Taxonomic Unit at the U. S. National Museum.

In addition to his research activity in Hemiptera, he also participated in early studies on the effect of DDT on a forest fauna and conducted studies in Alaska during the years 1948, 1951, and 1953 on biology of mosquitoes, black flies, and biting midges. From 1951 to 1960, he also taught insect ecology at the University

of Maryland. During this period he developed an interest in biological control and in later years was proud of his role as a source of information for Rachel Carson while she wrote *Silent Spring*. His research interests included the role of introgressive hybridization as a factor in evolutionary change of populations, particularly of the stink bug genus *Euschistus* and *Nezara*. From 1960, when he became Officer in Charge of the USDA European Parasite Laboratory at Paris, France, his research work was mostly concerned with biological control.

In 1966, he returned to the United States to serve as Assistant Chief of the Insect Identification and Parasite Introduction Research Branch of the Entomology Research Division and became Chief of Branch in 1967. Following reorganization of ARS in 1962 he became Chairman of the Insect Identification and Beneficial Insect Introduction Institute. Upon retiring from this position in 1973, he was appointed Graduate Research Professor at the University of Florida. Here he taught a graduate level biological control course, served on 26 doctoral committees (chairing 7) and served on 18 master's committees (chairing 6). He conducted an active research program and was responsible for several beneficial insect introductions into Florida. Foremost among these were the demonstration of control of the Mexican bean beetle by inoculative release of the larval parasite *Pediobus foveolatus*; establishment and dissemination of *Encarsia lahorensis*, a parasite of citrus whitefly; and establishment of the wasp, *Larra bicolor*, that parasitizes mole crickets in south Florida.

Dr. Sailer was elected a Fellow of the Entomological Society of America in 1951, and he served as president (1977) as well as on many committees throughout his career. He was also a Fellow (1960) of the American Association for the Advancement of Science. He belonged to several other scientific and professional societies, including Kansas Entomological Society, Entomological Society of Washington, Washington Academy of Science, Ecological Society of America, Arctic Institute of North America, Society of Systematic Zoology (Charter Member), American Institute for Biological Sciences, Cosmos Club Washington D.C., International Organization for Biological Control (Western Hemisphere Regional Section, Charter Member), Phi Sigma, and Sigma Xi. In 1981 he was awarded the Senior Faculty Award for Distinguished Service to Agriculture by Gamma Sigma Delta honor society, University of Florida Chapter. Dr. Sailer was an author or coauthor of over 110 publications. He passed away September 8, 1986.

I would like to add my own personal tribute to the many others which have come to Dr. Sailer. I was little more than a beginning graduate student in entomology at the University of Florida when Dr. Sailer joined the staff after retiring from the USDA, ARS, in Washington, D.C. The year before, I had moved from nearby College Park, Maryland, to attend graduate school, after receiving a B.S. degree from the University of Maryland. My parents then still lived in Hyattsville, Maryland, where my father, Glavis B. Edwards, Sr., at the time was Director of Personnel for USDA, ARS, Washington, D.C. area. He had worked with Dr. Sailer on several occasions and always spoke of him with great respect. When I first met Dr. Sailer shortly after he came to Florida, I mentioned his ARS connection with my father, whom he remembered well. Thereafter, during my all too infrequent interactions with him, Dr. Sailer never failed to ask about my family or have a word of encouragement for a young scientist. There are few who could match his accomplishments and compassion, and he is missed by his many friends throughout the world.

Dr. Avas B. Hamon has been a staff entomologist with the FDACS, DPI, Bureau of Entomology since 1976, where he continues to be the curator of scale insects and whiteflies for the Florida State Collection of Arthropods. He and Dr. Michael L. Williams of Auburn University published *The Soft Scale Insects of Florida (Homoptera: Coccoidea: Coccidae)*, in 1984, which was Volume 11 of the Arthropods of Florida and Neighboring Land Areas, the sister series to this Occasional Papers series. An extensive biography of Avas was included in that volume by the former editor, Dr. Howard V. Weems, Jr., and will not be repeated here.

G. B. Edwards, Jr.
Editor
Entomology
Division of Plant Industry
Florida Department of Agriculture
and Consumer Services
4 January 1993

INTRODUCTION

The following introduction was written by Dr. Reece I. Sailer shortly before his untimely death on September 8, 1986. Since that time we have updated the information through 1987, which substantially increases the amount of current information available.

We dedicate this catalogue to the memory of our friend and colleague.

Ru Nguyen and Avas B. Hamon
1993

This catalog is the result of an initial need for access to published information on the biology and natural enemies of the citrus blackfly, *Aleurocanthus woglumi* Ashby. The information was urgently needed following discovery of the citrus blackfly at Fort Lauderdale, Florida, in January, 1976. While assembling this information, need for a ready means of accessing the literature relating to all species of aleyrodids associated with citrus became evident. One of the more compelling reasons for the extended coverage is the importance of species known to be pests of citrus somewhere in the world but not yet known to occur in Florida. An additional, more immediate concern, relates to natural enemies. While some enemy species are highly host specific, others are known to attack two or more hosts. Thus, a search for natural enemies of the citrus blackfly or any of the other aleyrodids should not be restricted to a single target species. Knowledge of the host plant range of those aleyrodids reported from citrus is also of importance in assessing the likelihood that a species might become a serious pest of citrus should it gain entry to Florida.

To a very considerable degree the problem of finding the literature concerning aleyrodids associated with citrus was alleviated in 1978 with publication of "Whiteflies of the World -- A Systematic Catalogue of the Aleyrodidae (Homoptera) with Host Plant and Natural Enemy Data," by L.A. Mound and S.H. Halsey. This catalog treats 1156 species in 126 genera and provides type data as well as subsequent records of geographic distribution, host plants, parasites, and predators. Nomenclatorial changes involving new specific and generic synonymy together with replacement names and new combinations are included thus making the publication more than a simple catalog to literature.

By 1978 when Mound's and Halsey's Catalog appeared, our survey of the literature relating to the aleyrodids associated with citrus was virtually complete and a manuscript was being typed. Since most of the information to be included in our catalog was now available, we seriously considered abandoning the project. However, after discussing the matter with several people engaged in research or regulatory activities relating to insect pests of citrus, we decided to complete and publish our catalog. This decision was based on the following considerations. (1) From a world viewpoint, citrus is the most important crop at hazard from aleyrodids. By restricting the catalog to those species known to be associated with citrus, access to literature relating to this commodity will be facilitated. Also, as a publication restricted to those species reported from citrus it will likely be more accessible to people with an interest in citrus pests than an all inclusive systematic catalog to the family. (2) By delaying completion of our manuscript until 1987, the catalog provides coverage of the ten-year period, 1977-87, during which a number of publications on citrus blackfly and the citrus whitefly, *Dialeurodes citri* Ashmead, have appeared. (3) Finally, while the Mound and Halsey catalog lists and cross references parasites and predators, we have also included pathogens.

I. Aleyrodidae found on citrus

Genus: *Acaudaleyrodes*

Species: *Acaudaleyrodes citri* (Priesner and Hosny)
 Orig. desc.: *Aleurotrachelus citri* Priesner and Hosny 1934:7
 Syn.: *Aleurotrachelus alhagi* Priesner and Hosny (synonymized by Mound 1965:119)
Acaudaleyrodes citri (Priesner and Hosny) Russell 1962b:64
 Tax.: See Priesner and Hosny 1934:7-8; Bodenheimer 1951:173; Avidov and Harpaz 1969:83; Habib and Farag 1970:32-7; Bink-Moenen 1983:22-4; Martin 1987:298-322
 Hosts: Annonaceae
Hexalobus monopetalus (Bink-Moenen 1983:22)
 Asclepiadaceae
Leptadenia heterophylla (Bink-Moenen 1983:22)
 Balanitaceae
Balanites aegyptiaca (Bink-Moenen 1983:22)
 Combretaceae
Anogeissus leiocarpus (Bink-Moenen 1983:22)
Combretum micranthum (Bink-Moenen 1983:22)
Combretum sp. (Bink-Moenen 1983:22)
Terminalia laxiflora (Bink-Moenen 1983:22)
 Leguminosae
Acacia nilotica (Bink-Moenen 1983:22)
Acacia tortilis (Bink-Moenen 1983:22)
Burkea africana (Bink-Moenen 1983:22)
Cassia italica (Bink-Moenen 1983:22)
Cassia sieberiana (Bink-Moenen 1983:22)
Detarium microcarpum (Bink-Moenen 1983:22)
Dichrostachys glomerata (Bink-Moenen 1983:22)
Entada africana (Bink-Moenen 1983:22)
Lonchocarpus laxiflorus (Bink-Moenen 1983:22)
Parkia clappertoniana (Bink-Moenen 1983:22)
Prosopis africana (Bink-Moenen 1983:22)
Pterocarpus lucens (Bink-Moenen 1983:22)
Tamarindus indica (Bink-Moenen 1983:22)
Tephrosia linearis (Bink-Moenen 1983:22)
 Lythraceae
Lawsonia inermis (Bodenheimer 1951:173)
 Myrtaceae
Psidium guajava (Bodenheimer 1951:173)
 Ochnaceae
Ochna afzelii (Bink-Moenen 1983:22)
 Rhamnaceae
Zizyphus sp. (Bodenheimer 1951:173)
 Bitter orange (Priesner and Hosny 1934:8)
 Pomegranate, Syrian christthorn (Avidov and Harpaz 1969:83)
 Rutaceae
Citrus aurantiifolia (Mansour et al. 1976, in Rev. Appl. Entomol. 66:766, 1978; not seen)
Citrus grandis (Mansour et al. 1976, in Rev. Appl. Entomol. 66:766, 1978; not seen)
Citrus limetta (Mansour et al. 1976, in Rev. Appl. Entomol. 66:766, 1978; not seen)
Citrus limon (Habib and Farag 1971:37; Mansour et al. 1976, in Rev. Appl. Entomol. 66:766, 1978; not seen)
Citrus maxima (Mansour et al. 1976, in Rev. Appl. Entomol. 66:766, 1978; not seen; Bink-Moenen 1983:23)
Citrus x nobilis deliciosa (Priesner and Hosny 1934:8)
Citrus sinensis (Bodenheimer 1951:173; Bink-Moenen 1983:23)
Citrus spp. (Avidov and Harpaz 1969:83)
 Sapindaceae
Dodonaea viscosa (Bodenheimer 1951:173)
 Biol.:
 Geogr. distr.: Cameroun (Bink-Moenen 1983:22)
 Chad (Bink-Moenen 1983:22)
 Egypt (Priesner and Hosny 1934:8; Bodenheimer 1951:173; Mansour et al. 1976, in Rev. Appl. Entomol. 66:766, 1978; not seen; Bink-Moenen 1983:22)
 Israel (Bodenheimer 1951:173)
 Kenya (Bink-Moenen 1983:22)
 Niger (Bink-Moenen 1983:22)
 Nigeria (Bink-Moenen 1983:22)

Palestine (Bodenheimer 1951:173)
 Sierra Leone (Bink-Moenen 1983:22)
 South Africa (Bink-Moenen 1983:22)
 Sudan (Bink-Moenen 1983:22)
 Natur. enem.: Parasites:
Encarsia lutea (Masi) (Rosen 1966:57-8; Rosen 1969:47)
Eretmocerus diversiciliatus Silvestri (Rosen 1966:55-7; Avidov and Harpaz 1969:83)
Eretmocerus sp. (Thompson 1950:9)
 Econ. imp.: It is a minor pest of citrus in Egypt and Israel (Priesner and Hosny 1934:8; Rosen 1966:55).

Genus: *Aleurocanthus*

Species: *Aleurocanthus* spp. indet.
 Orig. desc.: Specimen in BMNH (Mound and Halsey 1978:12)
 Syn.:
 Tax.:
 Hosts: Annonaceae
Annona squamosa (BMNH: India)
 Combretaceae
Combretum bracteatum (BMNH: Nigeria)
Combretum umbricola (BMNH: Uganda)
 Dipterocarpaceae
Dipterocarpus tuberculatus (BMNH: Thailand)
 Euphorbiaceae
Bridelia micrantha (BMNH: Nigeria)
Drypetes gerrardi (BMNH: Kenya)
Lepidoturus laxiflorus (BMNH: Nigeria)
Macaranga sp. (BMNH: Malaya)
 Lauraceae
Persea gratissima (BMNH: Malaya)
Persea sp. (BMNH: New Guinea)
 Leguminosae
Lonchocarpus sericeus (BMNH: Nigeria)
 Melastomataceae
Memecylon sp. (BMNH: Sri Lanka)
 Moraceae
Ficus bengalensis (BMNH: India)
 Myrtaceae
Eucalyptus sp. (BMNH: Australia)
Leptospermum laevigatum (BMNH: Australia)
 Piperaceae
Piper sp. (BMNH: New Guinea)
 Rubiaceae
Morinda tinctoria (BMNH: India)
 Rutaceae
Citrus sp. (BMNH: Sarawak, Sumatra)
 Sterculiaceae
Cola acuminata (BMNH: Nigeria)
Cola nitida (BMNH: Nigeria)
 Tiliaceae
Grewia similis (BMNH: Kenya) (Mound and Halsey 1978:12)
 Biol.:
 Geogr. distr.:
 Natur. enem.: Parasites:
Encarsia clypealis (Silvestri) (Fulmek 1943:4)
Encarsia divergens (Silvestri) (Fulmek 1943:4)
Encarsia sp. (Fulmek 1943:4)
Eretmocerus serius Silvestri (Fulmek 1943:4)
 Predators:
Scymnus pallidicollis Mulsant (Thompson and Simmonds 1964:52)
Scymnus sp. (Thompson and Simmonds 1964:52)
 Econ. imp.: It has not been reported as a serious pest of citrus.
 Species: *Aleurocanthus cheni* Young
 Orig. desc.: *Aleurocanthus cheni* Young 1942:100-1 (Young 1942:100-1)
 Syn.:
 Tax.: See Young 1942:100-1
 Biol.:
 Hosts: Rutaceae
Citrus sp. (Young 1942:101)
 Geogr. distr.: China (Pehpei and Kiangtsing) (Young 1942:98)
 Natur. enem.:
 Econ. imp.: It is a serious pest of citrus in China

(Szechwan)(Young 1942:101).		<i>Citrus</i> sp. (Whellan 1964:22)	
		Sapindaceae	
		<i>Paullinia pennata</i> (Corbett 1935c:242)	
		Sapotaceae	
		<i>Sideroxylon inerme</i> (Cohic 1969:16; Mound and Halsey 1978:16)	
Species:	<i>Aleurocanthus citripedus</i> Quaintance and Baker	Biol.:	
Orig. desc.:	<i>Aleurocanthus citripedus</i> Quaintance and Baker 1916:459-63	Geogr. distr.:	Kenya (Gerling 1970:329)
Syn.:	<i>Aleurocanthus cameroni</i> Corbett 1935 (Mound and Halsey 1978:14)		North Rhodesia and Malawi (Whellan 1964:22)
Tax.:	See Quaintance and Baker 1916:459-63; Martin 1987:298-322		Uganda (Bukalasa) (Corbett 1935c:242)
Hosts:	Rutaceae	Natur. enem.:	<i>Eretmocerus nairobi</i> Gerling (Gerling 1970:329)
	<i>Citrus</i> (Quaintance and Baker 1916:459; Clausen 1934:254)	Econ. imp.:	It has not been reported as a serious pest on citrus.
	<i>Citrus acida</i> (Corbett 1935b:800)		
	<i>Citrus aurantium</i> (Corbett 1935b:800)	Species:	<i>Aleurocanthus husaini</i> Corbett
	<i>Citrus hystrix</i> (Corbett 1935b:800)	Orig. desc.:	<i>Aleurocanthus husaini</i> Corbett 1939:69-70
	<i>Citrus limonum</i> (Corbett 1935b:800)	Syn.:	
Biol.:		Tax.:	See Husain and Khan 1945:21-24; Corbett 1939:69-70
Geogr. distr.:	Burma (Pruthi and Mani 1945:15)	Hosts:	Rutaceae
	Ceylon (Quaintance and Baker 1916:459; Corbett 1926:274; Clausen 1934:254)		<i>Citrus</i> spp. (Husain and Khan 1945:21; Ebling 1950:554; Corbett 1939:69-70)
	China (Kwantung: Canton, Fukien: Fu-Chow, Pekinghai:Peita)(Wu 1935:128)	Biol.:	Life Cycle:
	Hong Kong (Silvestri 1927:10; Lee and Winney 1981:32)		Egg hatch: 9-12 days in April
	India (Quaintance and Baker 1916:459; Husain and Khan 1945:3)		7-9 days in August
	Java (Quaintance and Baker 1916:459; Husain and Khan 1945:3)		8-12 days in October
	Malaysia (Clausen 1934:254)		Larval stage: 26-52 days
	Philippines (Wu 1935:128)		Pupal stage: 64-108 days
	Singapore (Wu 1935:128; Silvestri 1927:10)		(Husain and Khan 1945:25)
	Taiwan (Wu 1935:128)	Life History:	
	Vietnam (Saigon, Phu-Tho, Yen-Bay, Van-Phu, Lang-Son, Nacham, Kuoi-Tao, Lao-Cay, Chapa) (Silvestri 1927:10)		Two generations a year in Pakistan (Husain and Khan 1945:24)
Natur. enem.:		Geogr. distr.:	India (Ebling 1950:553-4)
	Parasites:		Pakistan (Punjab) (Ebling 1950:553-4; Husain and Khan 1945:3; Corbett 1939:70)
	<i>Aberlus macrochaeta</i> sub. sp. <i>inquirenda</i> Silvestri (Fulmek 1943:4)	Natur. enem.:	Predators:
	<i>Amitus hesperidum</i> Silvestri (Clausen 1934:254)		<i>Brumus suturalis</i> Fabricius (Husain and Khan 1945:35)
	<i>Amitus hesperidum</i> sub. sp. <i>variipes</i> Silvestri (Clausen 1934:254)	Econ. imp.:	<i>Chrysopa</i> sp. (Husain and Khan 1945:35)
	<i>Encarsia divergens</i> (Silvestri) (Clausen 1934:254)		It is a serious pest of citrus in Pakistan (Husain and Khan 1945:3).
	<i>Encarsia mereti</i> Silvestri (Clausen 1934:254)	Species:	<i>Aleurocanthus incertus</i> Silvestri
	<i>Encarsia smithi</i> (Silvestri) (Clausen 1934:254)	Orig. desc.:	<i>Aleurocanthus incertus</i> Silvestri 1927:6
	<i>Encarsia</i> sp. (Clausen 1934:254)	Syn.:	
	<i>Eretmocerus serius</i> Silvestri (Clausen 1934:254)	Tax.:	See Silvestri 1927:6-9
	Predators:	Hosts:	Rutaceae
	<i>Acetoxenus indica</i> Malloch (Clausen 1934:254)		<i>Citrus</i> spp. (Silvestri 1927:9; Clausen 1933:17)
	<i>Acetoxenus</i> sp. nov. (Clausen 1934:254)	Biol.:	
	<i>Chrysopa</i> sp. (Clausen 1934:254)	Geogr. distr.:	Vietnam (Van-Phu, Co-Xan, Dong-Mo, Xa-Doai)(Silvestri 1927:9)
	<i>Cryptoblabes gnidiella</i> Milliere (Clausen 1934:254)	Natur. enem.:	Parasites:
	<i>Cybocephalus</i> sp. (Clausen 1934:254)		<i>Aberlus macrochaeta</i> Silvestri (Silvestri 1927:10)
	<i>Scymnus smithianus</i> Silvestri (Clausen 1934:254)		<i>Amitus hesperidum</i> sub. sp. <i>variipes</i> Silvestri (Silvestri 1927:59)
	<i>Scymnus</i> sp. (Clausen 1934:254)		<i>Encarsia clypealis</i> (Silvestri) (Silvestri 1927:30)
	<i>Scymnus</i> sp. near <i>pallidicollis</i> Mulsant (Clausen 1934:254)		<i>Encarsia opulenta</i> (Silvestri) (Silvestri 1927:10)
Econ. imp.:	It is a serious pest of citrus (Quaintance and Baker 1916:461; Husain and Khan 1945:3).		<i>Eretmocerus orientalis</i> Silvestri (Gerling 1969:84-5)
		Econ. imp.:	It has not been reported as a serious pest of citrus.
Species:	<i>Aleurocanthus delottoi</i> Cohic	Species:	<i>Aleurocanthus mvoutiensis</i> Cohic
Orig. desc.:	<i>Aleurocanthus delottoi</i> Cohic 1969:11-5	Orig. desc.:	<i>Aleurocanthus mvoutiensis</i> Cohic 1966:27
Syn.:		Syn.:	
Tax.:	See Cohic 1969:11-5; Mound and Halsey 1978:15	Tax.:	See Cohic 1966:27; Bink-Moenen 1983:36
Hosts:	Rutaceae	Hosts:	Annonaceae
	<i>Citrus</i> sp. (Cohic 1969:11; Mound and Halsey 1978:15)		<i>Hexalobus monopetalus</i> (Bink-Moenen 1983:36)
	Ulmaceae		Bombacaceae
	<i>Chaetachme aristata</i> (Cohic 1969:11; Mound and Halsey 1978:15)		<i>Bombax costatum</i> (Bink-Moenen 1983:36)
Geogr. distr.:	Kenya (Mound and Halsey 1978:15)		Hymenocardiaceae
	South Africa (Mound and Halsey 1978:15)		<i>Hymenocardia aeida</i> (Bink-Moenen 1983:36)
Natur. enem.:			Rutaceae
Econ. imp.:	It has not been reported as a serious pest of citrus.		<i>Citrus</i> sp. (Bink-Moenen 1983:36)
			Strychnaceae
Species:	<i>Aleurocanthus hansfordi</i> Corbett		<i>Strychnos spinosa</i> (Bink-Moenen 1983:36)
Orig. desc.:	<i>Aleurocanthus hansfordi</i> Corbett 1935c:240-2	Biol.:	
Syn.:		Geogr. distr.:	Chad (Bink-Moenen 1983:36)
Tax.:	See Corbett 1935c:240-2		Congo (Brazzaville) (Cohic 1966:26; Bink-Moenen 1983:36)
Hosts:	Rutaceae		Cote d'Ivoire (Bink-Moenen 1983:36)
		Natur. enem.:	
		Econ. imp.:	It has not been reported as an economically important species.

Species: *Aleurocanthus punjabensis* Corbett
 Orig. desc.: *Aleurocanthus punjabensis* Corbett 1935a:8-9
 Syn.:
 Tax.: See Corbett 1935a:8-9
 Hosts: Rutaceae
Citrus sp. (Corbett 1935a:9; Pruthi and Mani 1945:16)
 Biol.:
 Geogr. distr.: Pakistan (Punjab: Lyallpur) (Corbett 1935a:9)
 Natur. enem.:
 Econ. imp.: It has not been reported as an economically important species.

Species: *Aleurocanthus spiniferus* (Quaintance)
 Common name: Orange Spiny Whitefly
 Orig. desc.: *Aleurodes spinifera* Quaintance 1903:63-4
 Syn.: *Aleurodes citricola* Newstead 1911 (Synonymized by Silvestri 1927:2)
Aleurocanthus citricolus (Newstead) (Quaintance and Baker 1914:102)
Aleurocanthus spiniferus var. *intermedia* Silvestri 1927 (Silvestri 1927:2)
Aleurocanthus rosae Singh (Takahashi 1932:47)
Aleurocanthus spiniferus (Quaintance) 1903 (Quaintance and Baker 1916:465)
 Tax.: See Quaintance 1903:63-4; Quaintance and Baker 1916:465; Quaintance and Baker 1917:351-2; Takahashi 1956:10-11; Martin 1987:298-322
 Hosts: Annonaceae
Annona reticulata (Takahashi 1941:357, in Mound and Halsey 1978:22)
Annona squamosa (Takahashi 1941:357, in Mound and Halsey 1978:22)
 Convolvulaceae
Erycibe acutifoliae (Takahashi 1933:3)
 Ebenaceae
Diospyros kaki (Kuwana 1928:46)
 Elacocarpaceae
Sloanea dasycarpa (Takahashi 1956:11)
 Euphorbiaceae
Sapium sebiferus (Mound and Halsey 1978:22)
 Flacourtiaceae
Myroxylon japonicum (Kuwana 1928:46)
 Hamamelidaceae
Liquidambar formosana (Takahashi 1956:11)
 Lardizabalaceae
Akebia lobata (Kuwana 1982:46; Kuwana and Ishii 1929:186-94)
 Rosaceae
Eriobotrya japonica (Takahashi 1934:68, in Mound and Halsey 1978:22)
Pyrus pyrifolia (Burm.) (Kuwana 1928:46; Kuwana and Ishii 1929:186-94)
Rosa indica (Kuwana 1928:46)
Rosa sinensis (Mound and Halsey 1978:22)
 Rutaceae
Citrus limon (Mound and Halsey 1978:22)
Citrus sinensis (Mound and Halsey 1978:22)
Citrus spp. (Quaintance 1903:64)
Zanthoxylum nitida (Takahashi 1956:11)
 Sabiaceae
Meliosma rigida (Takahashi 1933:4)
 Salicaceae
Salix sp. (Takahashi 1956:11)
 Vitaceae
Vitis vinifera (Kuwana 1928:46; Kuwana and Ishii 1929:186-94)
 Biol.: Life history:
 Four generations/year (in Japan) (Kuwana and Ishii 1929:186-94)
 Five generations/year (in Guam) (Peterson 1955:681-3)
 Life cycle:
 Egg stage: 11-22 days
 1st larval stage: 7-11 days
 2nd larval stage: 5-7 days
 3rd larval stage: 7-130 days
 Pupal stage: 7-34 days
 (Kuwana and Ishii 1929:186-94; also see Kuwana 1928:49-52)
 Geogr. distr.: Geographical distribution of *Aleurocanthus spiniferus* (Quaintance) was presented in

Distribution Maps of Pests, Commonwealth Institute of Entomology, Map No. 112, 1990b.
 Africa:
 Kenya (Newstead 1911:173; Quaintance and Baker 1916:459; LePelly 1959, in Rev. Appl. Entomol. 48: 94-5, 1960; APHIS 1975:27; Bink-Moenen 1983:37)
 Mauritius (Moutia 1955, in Rev. Appl. Entomol. 45:252, 1957; APHIS 1975:27)
 Tanzania (APHIS 1975:27; Bink-Moenen 1983:37)
 Uganda (BMNH) (Mound and Halsey 1978:22; Bink-Moenen 1983:37)
 Asia:
 Bangladesh (Alam et al. 1965, in Rev. Appl. Entomol. 55:1556, 1967)
 Borneo (Brunei) (Commw. Inst. Entomol. 1990b, Map No. 112)
 Cambodia (Angkor) (Takahashi 1942:58)
 China:
 Chekiang: Hangchow, Shanghai, Soochow (Silvestri 1926:187; Wu 1935:129)
 Fukien: Amoy, Foochow (Silvestri 1927:3; Wu 1935:129)
 Huanam: Changsha (Silvestri 1927:3; Wu 1935:129)
 Kiangsu: Yangchow, Nanking (Wu 1935:129)
 Wangtung: Canton (Silvestri 1927:3; Wu 1935:129),
 Macao: (Fletcher 1919:90; Silvestri 1927:3; Wu 1935:129),
 Swatow: (Wu 1935:129)
 Yunnan: (Wu 1925:129; Silvestri 1927:3)
 Hong Kong: (Silvestri 1927:3; Wu 1935:129; Lee and Winney 1981:32)
 India:
 Assam: (Pruthi and Mani 1945:16)
 Maharashtra: Bombay (Fletcher 1920, in Rev. Appl. Entomol. 9:168, 1921)
 Pusa: (Misra 1920, in Rev. Appl. Entomol. 9:71, 1921)
 Tamil Nadu: Vizagapatam (Margabandhu 1933, in Rev. Appl. Entomol. 21:502, 1933)
 Utta Pradesh (Anonymous 1959, in Rev. Appl. Entomol. 53:306, 1965)
 Indonesia (Java) (Fletcher 1919:90)
 Japan:
 Kagoshima (Silvestri 1927:3)
 Nagasaki (Kyushi) (Clausen 1927:6; Ishii 1939:365-7; very abundant)
 Ryukyus (Kamaya 1963:129)
 Yamaguchi (Kato 1970:12-8)
 Java (Corbett 1926:275)
 Malaysia (Gater 1924:376; Clausen 1933:17; APHIS 1975:27; native)
 Pakistan (Gentry 1965:96)
 Philippines (Peterson 1955:682; Baltazar 1968:216)
 Taiwan (Silvestri 1927:3; Takahashi 1932:47; Tao and Wu 1969, in Rev. Appl. Entomol. 61:749, 1973; Lin et al. 1975:55-61)
 Thailand (Chiangmai) (Takahashi 1942a:57)
 Vietnam (Ha-Dong, Hanoi, Nacham) (Silvestri 1927:3)
 Central America:
 Jamaica (Gowdey 1923a:34; 1923b:3; Quayle 1938:193)
 Pacific Islands:
 Guam (Peterson 1955:682)
 Hawaii, in Dec. 1974 (APHIS 1975:27; Nakao and Funasaki 1976:329; Paulson and Kumashiro 1985:103-24)
 Micronesia (Truk) (Takahashi 1956:11)
 Natur. Enem.:
 Parasites:
Ablerus macrochaeta Silvestri (Fulmek 1943:5)
Amitus hesperidum Silvestri (Smith et al. 1964:17; Lin et al. 1975:55-61)
Amitus hesperidum sub sp. *variipes* Silvestri (Clausen 1934:254)
Amitus sp. (Smith and Flanders 1949:996)
Encarsia divergens (Silvestri) (Clausen 1934:254)
Encarsia ishii (Silvestri) (Silvestri 1926:187; Lin et al. 1975:55-61)
Encarsia merceti Silvestri (Clausen 1934:261)
Encarsia merceti var. *modesta* Silvestri (Silvestri

1926:189)
Encarsia nipponica Silvestri (Silvestri 1927:44)
Encarsia variegata Howard (Paulson and Kumashiro 1985:106)
Eretmocerus orientalis Silvestri (Gerling 1969:84-5)
Eretmocerus serius Silvestri (Clausen 1934:261)
Eretmocerus silvestri Gerling (Gerling 1969:86-7)
Predators:
Chrysopidae
Chrysopa sp. (Clausen 1934:255)
Coccinellidae
Axinoscymnus beneficus H. Kamiya (Kamiya 1963:127-30)
Cryptognatha sp. (Clausen 1934:255)
Chilocorus kuwanae Silvestri (Yasumatsu and Watanabe 1965:9)
Delphastus sp. (Clausen 1934:255; Kuwana 1928:52)
Microserangium shikokensis Miyatake (Yasumatsu and Watanabe 1965:9)
Scymnus sp. near *pallidicollis* Mulsant (Clausen 1934:255)
Scymnus (Pullus) hilaris Motschulsky (Yasumatsu and Watanabe 1965:9)
Drosophilidae
Acletoxenus indica Malloch (Clausen 1934:255)
Acletoxenus n. sp. (Clausen 1934:255)
Econ. imp.: It is a major pest of citrus; control measures are regularly required in Guam (Peterson 1955:681-3) and Japan (Clausen 1927:6).
Species: *Aleurocanthus spinosus* (Kuwana)
Orig. desc.: *Aleyrodes spinosus* Kuwana 1911:626
Syn.: *Aleurocanthus spinosus* (Kuwana) (Quaintance and Baker 1914:102)
Tax.: See Kuwana 1911:626-7; Quaintance and Baker 1914:102
Hosts: Annonaceae
Annona sp. (Capco 1959:40; Mound and Halsey 1978:23)
Flacourtiaceae
Scolopia oldhami (Takahashi 1933:4; Mound and Halsey 1978:23)
Myrtaceae
Psidium guajava (Tao 1979:312)
Piperaceae
Piper futokadsura (Takahashi 1931:207; Mound and Halsey 1978:23)
Rubiaceae
Gardenia florida (Takahashi 1931:207; Mound and Halsey 1978:23)
Gardenia angusta (Tao 1979:312)
Rutaceae
Citrus sp. (Takahashi 1938:29; Mound and Halsey 1978:23)
Biol.:
Geogr. distr.: China (Takahashi 1938:29; Mound and Halsey 1978:23)
Kenya (Bink-Moenen 1983:37)
Philippines (Fulmek 1943:5)
Taiwan (Kuwana 1911:626)
Tanzania (Bink-Moenen 1983:37)
Uganda (Bink-Moenen 1983:37)
Natur. enem.: Parasites
Encarsia clypealis (Silvestri) (Fulmek 1943:5)
Encarsia sp. (Fulmek 1943:5)
Econ. imp.: It has not been reported as a serious pest of citrus.
Species: *Aleurocanthus woglumi* Ashby
Common name: citrus blackfly
Orig. desc.: *Aleurocanthus woglumi* Ashby 1915:321-2
Syn.: *Aleurocanthus punjabensis* Corbett 1935a:8-9; Husain and Khan 1945:1-2)
A. woglumi var. *formosana* Takahashi 1935:281
Comm. *Mosca prieta*, blackfly, black scale in Jamaica; blue fly, citrus bluefly in Bahamas (Dietz and Zetek 1920:2)
Tax.: Spiny citrus whitefly (Quaintance 1916:463)
See Ashby 1915:321-2; Quaintance and Baker 1916:463-5; Dietz and Zetek 1920:39-42; Corbett 1935a:8-9; Weems 1962:1; Martin 1987:298-322
Hosts:

Table 1. Plants found heavily infested by the citrus blackfly and on which complete development has been observed.

Scientific name	Common name
Anacardiaceae	
<i>Mangifera indica</i> (Ashby 1915:322; Dowell et al. 1979b:2)	Mango
Annonaceae	
<i>Annona cherimola</i> (Dietz and Zetek 1920:1-55)	Cherimoya
Ebenaceae	
<i>Diospyros ebenaster</i> (Delgado 1943; Dowell et al. 1979b:2)	Black sapota
<i>Diospyros kaki</i> (Shaw 1950b:1-16)	Japanese persimmon
<i>Diospyros</i> sp. (Shaw 1950b:1-16)	Persimmon
Malaceae	
<i>Cydonia oblonga</i> (Shaw 1950b:1-16)	Quince
<i>Pyrus communis</i> (Shaw 1950b:1-16)	Pear
Myrtaceae	
<i>Myrtus communis</i> (Zetek Unp.)	Myrtle
Rubiaceae	
<i>Coffea arabica</i> (Newell 1918:209; Dowell et al. 1979b:2)	Coffee
Rutaceae	
<i>Atalantia spinosa</i> (Shaw 1950b:1-16)	
<i>Citrus aurantiifolia</i> (Dietz and Zetek 1920:1-55)	Lime
<i>Citrus aurantium</i> (Dietz and Zetek 1920:1-55; Nguyen et al. 1983b:393-399)	Sour orange
<i>Citrus jambhiri</i> (Angeles et al. 1971:74; Howard 1979a, 380-3)	Rough lemon
<i>Citrus limettoides</i> (Angeles et al. 1971:74; Howard 1979b:38)	
<i>Citrus limon</i> (Dietz and Zetek 1920:1-55; Nguyen et al. 1983:393-399)	Lemon
(<i>Citrus limon</i> x <i>Citrus medica</i>) (Angeles et al. 1972:550)	
<i>Citrus x limonia</i> (Angeles et al. 1972:550)	Rangpur
<i>Citrus limonia</i> (Howard 1979b:38)	
<i>Citrus macrophylla</i> (Howard 1979b:38)	Alemow
<i>Citrus macroptera</i> (Angeles et al. 1972:550)	Malaysian papaya
<i>Citrus maxima</i> (Shaw 1950b)	Shaddock
<i>Citrus medica</i> (Dietz and Zetek 1920)	Citron
<i>Citrus x nobilis deliciosa</i> (Dietz and Zetek 1920)	Mandarin, tangerine
<i>Citrus x paradisi</i> (Delgado de Garay 1943)	Grapefruit
<i>Citrus paradisi</i> x <i>C. reticulata</i> (Angeles et al. 1972:550)	Tangelo
<i>Citrus reticulata</i> (Angeles et al. 1972:550)	Mandarin, tangerine
<i>Citrus sinensis</i> (Ashby 1915:320)	Sweet orange
<i>Citrus sinensis</i> x <i>Poncirus trifoliata</i> (Angeles et al. 1972:550)	Citrange
<i>Fortunella</i> sp. (Shaw 1950b; Dowell et al. 1979b:2)	Kumquat
<i>Poncirus trifoliata</i> (Angeles et al. 1972:550)	Trifoliate orange
<i>Severinia buxifolia</i> (Shaw 1950b; Howard and Neel 1977:49)	Chinese box-orange
<i>Swinglea glutinosa</i> (Shaw 1950b)	Tabog
<i>Triphasia trifolia</i> (Burm.) (Shaw 1920b)	Limeberry
<i>Xcetrofortunella mitis</i> (records in Florida State Collection of Arthropods, DPI)	Calamondin

Table 2. Plants occasionally infested by the citrus blackfly but on which complete development has been observed.

	Scientific name	Common name	Degree of infestation ¹
Anacardiaceae	<i>Anacardium occidentale</i> (Dietz and Zetek 1920)	Cashew	light
	<i>Spondias mombin</i> (Shaw 1950b)	Jobo	light
Apocynaceae	<i>Plumeria rubra</i> forma <i>acutifolia</i> (Zetek. unpub.)	Frangipani	light
Araceae	<i>Monstera deliciosa</i> (Shaw 1950b)	Ceriman	very light
	<i>Philodendron</i> sp. (Shaw 1950b)	Philodendron	light
Bignoniaceae	<i>Parmentiera edulis</i> (Shaw 1950b)	Guajilote	light
	<i>Tabebuia pentaphylla</i> (Shaw 1950b)		heavy
	<i>Tabebuia argentea</i> (Dowell et al. 1979b:2; Dowell and Steinberg 1979:722)	Silver trumpet	heavy
	<i>Tabebuia pallida</i> (Dowell et al. 1979b:2)	Pink trumpet	heavy
Burseraceae	<i>Bursera simaruba</i> (Shaw 1950b)	Gumbo-limbo	light
Buxaceae	<i>Buxus sempervirens</i> (Shaw 1950b)	Common box	heavy
	<i>Buxus microphylla</i> (Dowell and Steinberg 1979:722-3)	Japanese boxwood	light
Cannaceae	<i>Canna indica</i> (Zetek, unpub.)	Canna	very light
Compositae	<i>Raccharis halimifolia</i> (Howard and Neel 1977:491)	Groundsel tree, saltbush	light
	<i>Senecio confusus</i> (Brogdon 1977: 21)	Mexican flame vine	
Ebenaceae	<i>Diospyros digyna</i> (Dowell and Steinberg 1979:722)	Black sapote	heavy
Euphorbiaceae	<i>Bischofia javanica</i> (Dowell et al. 1979b:2)	Toog	moderate
	<i>Cnidococcus urens</i> (Shaw 1950b)	Neetle	light
	<i>Euphorbia heterophylla</i> (records in Florida State Collection of Arthropods, DPI)		light
	<i>Hura polyandra</i> (Shaw 1950b)	Sandbox tree	light
	<i>Jatropha curcas</i> (Shaw 1959b)	Physic nut	light
	<i>Sapium macrocarpum</i> (Shaw 1950b)	Higuerrillo	very light
Guttiferae	<i>Mannea americana</i> (Zetek, unpub.)	Mannee apple	light
Lauraceae	<i>Persea americana</i> (Dietz and Zetek 1920; Howard and Neel 1977: 491; Dowell et al. 1979b:2)	Avocado	very light
Leguminosae	<i>Inga jinicuil</i> (Shaw 1950b)		very light
	<i>Inga</i> sp. (Shaw 1959b)		light
	<i>Myroxylon balsamum</i> var. <i>pereirae</i> (Shaw 1950b)	Peru balsam	light
Lythraceae	<i>Lagerstroemia indica</i> (Dietz and Zetek 1920)	Crape myrtle	moderate
Magnoliaceae	<i>Magnolia x soulangiana</i> (Shaw 1950b)	Saucer magnolia	moderate
Malpighiaceae	<i>Byrsonima crassifolia</i> (Shaw 1950b)		very light
Malvaceae	<i>Hibiscus rosa-sinensis</i> (Angeles et al. 1972:551; Howard and Neel 1977:492)	Chinese hibiscus	moderate
	<i>Hibiscus</i> spp. (Dietz and Zetek 1920)	Hibiscus	moderate
Meliaceae	<i>Cedrela</i> sp. (Shaw 1950b)	Spanish cedar	moderate
	<i>Melia azedarach</i> (Shaw 1950b)	Chinaberry	light
Moraceae	<i>Artocarpus communis</i> Forst. (Zetek unpub.)	Breadfruit	very light

	Scientific name	Common name	Degree of infestation ¹
Musaceae	<i>Musa balbisiana</i> (Angeles et al. 1972:550)		
	<i>Musa x paradisiaca</i> (Angeles et al. 1972:550)		
	<i>Musa</i> spp. (Dietz and Zetek 1920)	Banana	light
	<i>Strelitzia</i> sp. (Shaw 1950b)	Bird of paradise flower	light
Myrsinaceae	<i>Ardisia compressa</i> (Shaw 1950b)		light
	<i>Ardisia escaloanioides</i> (Dowell 1981c:39)	Marlberry	moderate
	<i>Ardisia solanacea</i> (Howard 1979a: 380-3; Dowell et al. 1981c:39)	Ardisia	heavy
Myrtaceae	<i>Eugenia jambos</i> (Dietz and Zetek 1920)	Rose apple	light
	<i>Eugenia uniflora</i> (Dowell et al. 1979b:2)	Surinam cherry	heavy
	<i>Psidium cattleianum</i> (Shaw 1950b; Howard and Neel 1977:491)	Catteley guava	light
	<i>Psidium sartorianum</i> (Delgado de Garay 1943)		moderate
	<i>Syzygium malaccense</i> (Angeles et al. et al. 1972:550)	Malay apple	
Oleaceae	<i>Fraxinus</i> sp.	Ash	moderate
Palmae	<i>Acanthorrhiza mocinni</i> (Shaw 1950b)		very light
	<i>Cocos nucifera</i> (Corbett 1926)	Coconut palm	
	<i>Washingtonia robusta</i> (Shaw 1950b)	Washington palm	light
Punicaceae	<i>Punica granatum</i> (Dietz and Zetek 1920)	Pomegranate	moderate
	<i>Crataegus</i> sp. (Shaw 1950b)	Haw	light
	<i>Eriobotrya japonica</i> (Dowell et al. 1979b:2)		
	<i>Prunus domestica</i> (Shaw 1950b)	Plum	very light
Rubiaceae	<i>Bouvardia multiflora</i> (Shaw 1950b)		heavy
	<i>Gardenia jasminoides</i> (Dowell et al. 1979b:2)	Gardenia	moderate
	<i>Ixora chinensis</i> (Angeles et al. 1972:550)	Ixora	
Rutaceae	<i>Clausena lansium</i> (Dowell et al. 1979b:2; Dowell and Steinberg 1979:722)	Wampi	moderate
Salicaceae	<i>Populus</i> sp. (Shaw 1950b)	Poplar	moderate
Sapindaceae	<i>Cardiospermum</i> sp. (Shaw 1950b)		light
	<i>Sapindus mukorossi</i> (Shaw 1950b)	Soapberry	light
Sapotaceae	<i>Bumelia laete-virens</i> (Shaw 1950b)	Satul	moderate
	<i>Calocarpum mammosum</i> (Dietz and Zetek 1920)	Sapote	moderate
	<i>Lucuma salicifolia</i> HBK (Delgado de Garay 1943; Shaw 1950b)	Canistel	light
	<i>Manilkara zapota</i> (Dietz and Zetek 1920 Dowell et al. 1979b:2; Dowell and Steinberg 1979:722)	Sapodilla	moderate
Solanaceae	<i>Capsicum frutescens conoides</i> (Shaw 1950b)	Chili pepper	moderate
	<i>Cestrum nocturnum</i> (Dietz and Zetek 1929)	Nightblooming Jasmine	very light
	<i>Solandra guttata</i> (Shaw 1950b)	Copa de oro	light
Sterculiaceae	<i>Theobroma cacao</i> (Howard and Neel 1977:491)	Cacao	light
Verbenaceae	<i>Duranta repens</i> (Zetek unpub.)	Golden dewdrop	light
Vitaceae	<i>Vitis</i> sp. (Zetek unpub.)	Grape	moderate
Zingiberaceae	<i>Zingiber clarkei</i> (Shaw 1950b)	Ginger	very light

¹Degree of infestation was classified by Shaw 1950.

Table 3. Plants on which development of the citrus blackfly has not been found to be complete.

	Scientific name	Common name	Stage attained	Degree of Infestation
Acanthaceae	<i>Dicliptera aquatica</i> (Shaw 1950b)		egg	very light
	<i>Thunbergia fragrans</i> (Shaw 1950b)		1st	light
	<i>Thunbergia laurifolia</i> (Shaw 1959b)		1st	very light
Anacardiaceae	<i>Schinus terebinthifolius</i> (Steinberg et al. 1978:62; Dowell et al. 1979b:2)	Brazilian pepper	egg-adult	
Annonaceae	<i>Annona muricata</i> (Dietz and Zetek 1920)	Soursop	3rd	light
	<i>Annona squamosa</i> (Howard and Neel 1977:491)	Sugar apple	egg-pupal	moderate
Apocynaceae	<i>Allamanda cathartica</i> (Shaw 1950b; Howard and Neel 1977:491)	Allamanda	1st	light
	<i>Carissa grandiflora</i> (Shaw 1950b)	Natal plum	egg	light
	<i>Tabernaemontana alba</i> (Shaw 1950b)		1st	light
	<i>Trachelospermum jasminoides</i> (Delgado de Garay 1943:6)	Confederate jasmine	1st	light
Araceae	<i>Aglaonema modestum</i> (Brogdon 1977:21)	Chinese evergreen		
	<i>Anthurium andraeanum</i> (Angeles et al. 1972:551)	Flamingo lily	egg	
	<i>Colocasia</i> sp. (Angeles et al. 1972:551)	Elephant's ear	1st	
	<i>Philodendron</i> sp. (Angeles et al. 1972:551)	Philodendron	1st	
	<i>Xanthosoma</i> sp. (Shaw 1950b)		1st	very light
Asclepiadaceae	<i>Asclepias curassavica</i> (Shaw 1950b)	Bloodflower	pupal	moderate
	<i>Asclepias</i> sp. (Shaw 1950b)	Milkflower		very light
	<i>Gonolobus</i> sp. (Shaw 1950b)	Anglepod	1st	light
Bignoniaceae	<i>Pyrostegia venusta</i> (Shaw 1951b) Flame vine		1st	light
	<i>Tecomaria capensis</i> (Brogdon 1977:21)	Cape honey- suckle		
Bixaceae	<i>Bixa orellana</i> (Shaw 1950b)	Annatto	1st	very light
Caricaceae	<i>Carica papaya</i> (Dietz and Zetek 1920; Howard and Neel 1977: 419)	Papaya	1st	very light
Cucurbitaceae	<i>Momordica charantia</i> (Shaw 1950b)	Balsam pear	egg	very light
	<i>Pittieria grandiflora</i> (Shaw 1950b)		egg	very light
Euphorbiaceae	<i>Ricinus communis</i> (Angeles et al. 1972:551)	Castor bean	1st	
Flacourtiaceae	<i>Casearia aculeata</i> (Shaw 1950b)	Limoncello	1st	light
	<i>Xylosma</i> sp. (Shaw 1950)		pupal	moderate
Geraniaceae	<i>Pelargonium</i> sp. (Shaw 1950b)	Garden geranium	egg	light
Juglandaceae	<i>Carya</i> sp. (Shaw 1950b)	Hickory	pupal	light
Lauraceae	<i>Persea borbonia</i> (Dowell and Bryan 1977, letter to CBF technical committee)			
	<i>Persea</i> sp. (Shaw 1950b)	Red bay	4th	very light
Leguminosae	<i>Bauhinia</i> sp. (Shaw 1950b)	Orchid tree	1st	light
	<i>Canavalia ensiformis</i> (Shaw 1950b)	Jack bean	egg	very light
	<i>Cassia occidentalis</i> (Shaw 1950b)	Coffee senna	1st	light
	<i>Eysenhardtia</i> sp. (Shaw 1950b)		egg	very light
	<i>Pithecellobium dulce</i> (Shaw 1950b)	Manila tamarind	egg	light
	<i>Pithecollobium lanceolatum</i> (Shaw 1950b)		1st	light

	Scientific name	Common name	Stage attained	Degree of Infestation
Loganiaceae	<i>Gelsemium sempervirens</i> (Shaw 1950b)	Yellow jasmine	1st	light
Magnoliaceae	<i>Magnolia grandiflora</i> (Brogdon 1977:21)	Southern magnolia		
Meliaceae	<i>Khaya nyasica</i> (Brogdon 1977:21)	African mahogany		
Moraceae	<i>Ficus aurea</i> (Brogdon 1977:21) <i>Ficus</i> sp. (Shaw 1950b)	Strangler fig	pupal	light
Myrsinaceae	<i>Ardisia escallonioides</i> (Steinberg et al. 1978:62; Dowell et al. 1979b) <i>Ardisia solanacea</i> (Steinberg et al. 1978:62; Dowell et al. 1979b:2; Nguyen et al. 1983b:393-399) <i>Myrsine guianensis</i> (Stein et al. 1978:62; Dowell et al. 1979b:2; Steinberg and Dowell 1980:662) <i>Parathesis serrulata</i> (Shaw 1950b)	Marlberry Ardisia Guianca rapanea Ardisia	egg-adult egg-adult egg-adult 1st	heavy
Myrtaceae	<i>Eugenia uniflora</i> (Brown 1937:22; Steinberg et al. 1978:62) <i>Psidium guajava</i> (Dietz and Zetek 1920)	Surinam cherry Guava	egg-adult pupal	light very light
Nyctaginaceae	<i>Bougainvillea spectabilis</i> (Brown 1937:21)	Bougainvillea	1st	light
Oleaceae	<i>Jasminum humile</i> (Shaw 1959b) <i>Jasminum sambac</i> (Shaw 1950b) <i>Ligustrum lucidum</i> (Brogdon 1977:21) <i>Ligustrum</i> sp. (Shaw 1950)	Jasmin Arabian jasmin Glossy privet Privet	1st 2nd egg	very light very light very light
Opiliaceae	<i>Agonandra racemosa</i> (Shaw 1950b)		1st	moderate
Passifloraceae	<i>Passiflora</i> sp. (Shaw 1950b)	Passion flower	pupal	moderate
Piperaceae	<i>Piper</i> sp. (Zetek unpub.)		1st	very light
Polygonaceae	<i>Antigonon leptopus</i> (Dietz and Zetek 1920)	Coral vine	2nd	light
Rosaceae	<i>Prunus armeniaca</i> (Shaw 1950b) <i>Prunus capuli</i> (Shaw 1950b) <i>Prunus persica</i> (Shaw 1950b) <i>Pyracantha</i> sp. (Shaw 1950b) <i>Rhaphiolepis indica</i> (Brogdon 1977:21) <i>Rosa</i> sp. (Shaw 1950b)	Apricot Peach Pyracantha Indian hawthorn Rose	1st 1st pupal 1st 1st	light very light very light light very light
Rutaceae	<i>Casimiroa edulis</i> (Delgado de Garay 1943) <i>Microcitrus virgata</i> (Shaw 1950b) <i>Murraya exotica</i> (Angeles et al. 1972:551) <i>Murraya paniculata</i> (Shaw 1950b; Howard and Neel 1977:491) <i>Triphasia trifolia</i> (Dowell et al. 1979b:2)	White sapote Orange jasmin Limeberry	1st 1st 1st 2nd	very heavy light very heavy
Salicaceae	<i>Salix caroliniana</i> (Steinberg et al. 1978:62) <i>Salix</i> sp. (Shaw 1950b)	Coastal plain willow Willow	pupal egg	light
Sapindaceae	<i>Sapindus saponaria</i> (Shaw 1950b)	Wild soapberry	1st	light
Smilacaceae	<i>Smilax auriculata</i> (Brogdon 1977:21)	Greenbrier		

- Biol.:** See Berry and McGough 1932:3-17; Smith 1945:87-90; Islas 1950:5-34; Hart et al. 1976:37-43; Rhode and Sanchez Riviello 1977:46-8; Sanchez Riviello et al. 1977:808-10; Dowell and Fitzpatrick 1978:1347-50; Dowell et al. 1978:524-5; Hart et al. 1978a:219-25; Cherry 1979b:35-9; Dowell 1979b:289-96; Fitzpatrick et al. 1979a:731-4; Fitzpatrick et al. 1979b:390-6; Harlan et al. 1979:25-6; Meyerdirk et al. 1979b:395-8; Myerdirk et al. 1979c:326-8; Selhime 1979:32-3; Gilstrap et al. 1980:474-6; Steinberg and Dowell 1980:662-4; Dowell and Cherry 1981a:356-61; Dowell et al. 1981c:3-11; Dowell and Cherry 1981b:19-26; Dowell 1983:201-3; McCluskie 1982:192-6 (rearing techniques); Nguyen et al. 1983b:393-9; Thompson and Reinert 1983 (Bibliographies):11-38; Boscan de Martinez 1983:211-8; Summy et al. 1985:107-12; Summy et al. 1986:81-3; Dowell et al. 1986:301-4
- Life cycle:** See Jimenez 1960:44-7.
- Egg:** 11-20 days (Dietz and Zetek 1920:31)
- Larvae:**
- 1st instar: 7-16 days (Dietz and Zetek 1920:32; Dowell et al. 1978:121-2)
 - 2nd instar: 5-30 days; out door 21 days (Dietz and Zetek 1920:33)
 - 3rd instar: 6-20 days (Dietz and Zetek, 1920:34)
- Pupa:** 16-80 days (Dietz and Zetek 1920:35)
- Adult:**
- Preoviposition: 18 hrs-4 days (Dietz and Zetek 1920:29)
 - Life-span: 7-12 days (Dietz and Zetek 1920:39) Female deposits more than 100 eggs during her life-span (Smith et al. 1964:5); Avg. 61 eggs for first 3 days of life (Sanchez Riviello et al. 1977:809-10)
 - Complete life cycle (Egg-Adult):55-113 days (Dietz and Zetek 1920:24); 95-100 days at 25°C, 85-95% RH (Dowell and Fitzpatrick 1978:1349)
- Life history:**
- Six generations a year in optimum field condition (84.3% RH) (Clausen and Berry 1932:10).
 - 3-6 generations a year (Dietz and Zetek 1920:42).
- Geogr. distr.:**
- Africa:**
- Kenya, 1913. (Wheatley 1964:236; Bink-Moenen 1983:37)
 - Seychelles (Bink-Moenen 1983:37)
 - South Africa (Durban) 1958 (Bosman 1959:6; Bedford and Thomas 1965:117; Bink-Moenen 1983:37)
 - Uganda (Bink-Moenen 1983:37)
- Asia:**
- Aden (Gentry 1965:96; Knorr et al. 1961:97)
 - Bangladesh (Alam et al. 1965, *in Rev. Appl. Entomol.* 55:1556, 1967)
 - Burma (Clausen and Berry 1932:4)
 - Ceylon, in 1910 (Quaintance and Baker 1916:464; Silvestri 1926:182)
- China**
- Southern China (Clausen and Berry 1932:4; Smith et al. 1964:1)(native)
 - Wangtung: Canton (Wu 1935:129)
- India**
- Andra Pradesh, Assam, Bihar, Delhi, Madhya Pradesh (Anonymous 1959, *in Rev. Appl. Entomol.* 53:306, 1965; Commonw. Inst. Entomol. Map No. 91, 1990a)
 - Calcutta (Smith et al. 1964:13)
 - Gujarat: Surat, Ahmadabad (Smith et al. 1964:13)
 - Kalimpong (Quaintance and Baker 1916:464)
 - Maharashtra (Borle and Kharat 1972:370-2); Bombay (Husain and Khan 1945:26); Nagpur (Quaintance and Baker 1916:464); Poona (Smith et al. 1964:13)
 - Mysore (Smith et al. 1964:13)
 - Orissa: Cuttack (Smith et al. 1964:13)
 - Tamil Nadu: Madras (Smith et al. 1964:13)
 - Uttar Pradesh: Dehra Dun, Saharanpur (Smith et al. 1964:13)
- Indochina** (Clausen and Berry 1932:4)
- Indonesia**
- Java, Sumatra (Clausen and Berry 1932:4)
- Iran** (Gentry 1965:96)
- Korea** (Russell, *in* Commonw. Inst. Entomol. Map No. 91, 1990a)
- Malaya** (Kuala Lumpur, Malacca, Serdang, Selangor)(Corbett 1935b:797; Clausen 1936:208)
- Pakistan** (Sind) (Abbas et al. 1955, *in Rev. Appl. Entomol.* 46:72, 1958; Gentry 1965:96)
- Philippines** (Manila) (Quaintance and Baker 1916:464; Pratt 1958:176)
- Oman** (Watts and Alam 1973, *in Rev. Appl. Entomol.* 62:989, 1974; Simmonds 1975:74)
- Seychelles** (Browne 1968:37)
- Singapore** (Silvestri 1926:184; Corbett 1935b:797)
- Taiwan** (Tao 1979:312)
- Thailand** (Bangkok) (Takahashi 1942a:58)
- Turkey** (Anonymous 1968:117)
- Yemen** (Ba-Angood 1977:149-52)
- Central America and West Indies:**
- Bahamas, in 1916 (Quaintance and Baker 1916:464; Newell 1918:209; Richardson 1948:980)
 - Barbados 1962 (Bennett and Van Whervin 1965:2; Bennett and Van Whervin 1966:3)
 - Bermuda (Russell 1962a:37)
 - Canal Zone, 1917 (Dietz and Zetek 1920:2)
 - Costa Rica, 1919 (Zetek 1919:269)
 - Cuba, in 1916 (Quaintance and Baker 1916:464; Hutson 1917:10; Berry and McGough 1932:3-17; Bruner 1954:51)
 - Dominica (Russell 1962a:37)
 - El Salvador, in 1965 (Quezada 1974:243)
 - Guatemala (McGuire and Crandall 1967:34)
 - Haiti (Russell 1962a:37; Dozier 1933:98)
 - Honduras (McGuire and Crandall 1967:34)
 - Jamaica, in 1913 (Ashby 1915:321-2)
 - Nicaragua (Russell 1962a:37)
 - Panama (Dietz and Zetek 1920:2)
- North America:**
- Mexico**
- Aguascalientes, Baja California, Chiapas, Colima, Campeche, Chihuahua, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, Michoacan, Nayarit, Nuevo Leon, Oaxaca, Puebla, Queretaro, Puebla, Queretaro, Sanora, San Luis Potosi, Tabasco, Tamaulipas, Veracruz, Yucatan, Zacatecas (Cooper et al. 1950:767-72; Mateos 1963:14-5; Smith et al. 1964:3; Carrillo et al. 1966:33-4; Jimenez 1968:25; Jimenez 1971:5)
 - Sinaloa: Eldorado, in 1935 (Baker and Dampf 1937, not seen, *in* Smith et al. 1964:1)
 - Tamaulipas: Hermosa, Matamoros (Co-op Econ. Insect. Report 24(18):312, 1974)
- USA**
- Florida**
- Brevard, Collier, Highlands, Lee, Indian River, Martin, Okeechobee, St. Lucie counties (Nguyen et al. 1983a:818-84)
 - Broward County, in 1976 (Anonymous 1976a:3; Cherry et al. 1978:28)
 - Dade County (Cherry et al. 1978:28)
 - Hillsborough, Orange, Manatee, Pinellas, and Sarasota Counties (records in Florida State Collection of Arthropods, DPI)
 - Key West in 1934 (Brown 1937:21; Brown 1939:15; Newell and Brown 1939:680-2)
 - Palm Beach County (Anonymous 1976b:25; Cherry et al. 1978:28)
 - Texas, in 1955 (Coop. Econ. Insect Report 5(14): 300; Enkerlin 1976:65) and

reported in Texas again in 1971 (Hart et al. 1973:190; Summy et al. 1983:782-6)

South America:

Colombia (Bustillo 1970, in Rev. Appl. Entomol. 61:2379, 1973)

Ecuador (Russell 1962a:37; Bennett and Van Whervin 1966:4)

Venezuela, in 1965 (FAO. Plant. Prot. Bull. 15(6):117, 1967; Angeles et al. 1968:487; Angeles et al. 1972:549; Boscan de Martinez et al. 1982:453-8)

Natur. enem.:

Parasites:

Ablerus connectens Silvestri (Silvestri 1927:53-5)

Ablerus macrochaeta inquirenda Silvestri (Silvestri 1927:52)

Aminus hesperidum Silvestri (Silvestri 1927:55; Clausen 1956:41; Dowell et al. 1979a:595-6)

Cales noacki Howard (Dozier 1933:98)

Encarsia bennetti Hayat (Hayat 1984:399-401)

Encarsia clypealis (Silvestri) (Silvestri 1927:28-30)

Encarsia divergens (Silvestri) (Silvestri 1926:182)

Encarsia ishii (Silvestri) (Fulmek 1943:5)

Encarsia merceti Silvestri (Clausen and Berry 1932:57)

Encarsia opulenta (Silvestri) (Silvestri 1927:30-2; Dowell et al. 1979a:595-6)

Encarsia smithi (Silvestri) (Silvestri 1926:179-82)

Eretmocerus serius Silvestri (Silvestri 1927:46-7)

Gonatocerus cubensis Dozier (Dozier 1932c:83)

Pseudohomalopoda prima Girault (Fulmek 1943:5)

Predators:

Coccinellidae

Botynella 5-punctata Weise (Clausen and Berry 1932:46)

Brumus sp. (Husain and Khan 1945:35)

Brumus suturalis Fabricius (Husain and Khan 1945:35)

Catana clauseni Chapin (Clausen 1956:40)

Catana parcesetosa (Sicard) (Smith et al. 1964:20)

Chilocorus cacti (Linnaeus) (Hutson 1918:186)

Cryptognatha flaviceps Crotch. (Dietz and Zetek 1920:45)

Cryptognatha nodiceps Mshl. (Dowell et al. 1981:31)

Cryptognatha sanguinea (L.) (Dowell et al. 1981:31)

Decadiomus bahamicus (Casey) (Clausen and Berry 1932:46)

Delphastus catalinae Horn (Ritchie 1917:30)

Delphastus diversipes Champion (Ritchie 1917:30)

Delphastus pallidus Leconte (Clausen and Berry 1932:46)

Delphastus pusillus Leconte (Dowell et al. 1981:31)

Hyperaspis adelaida Gorham (Clausen and Berry 1932:46)

Hyperaspis albicollis Gorham (Dietz and Zetek 1920:45)

Hyperaspis calderana Gorham (Dietz and Zetek 1920:45)

Scymnillodes aeneus Sicard (Sicard 1922:358)

Scymnillodes cyanescens Sicard (Sicard 1922:357)

Scymnus sp. (Husain and Khan 1945:35)

Scymnus adpersulus Gorham (Dietz and Zetek 1920:45)

Scymnus bahamicus Casey (Clausen and Berry 1932:46)

Scymnus coloratus Gorham (Dietz and Zetek 1920:45)

Scymnus horni Gorham (Dietz and Zetek 1920:45)

Scymnus ochroderus Mulsant (Clausen and Berry 1932:46)

Scymnus thoracicus (Fabricius) (Dietz and Zetek 1920:45)

Chrysopidae

Chrysopa sp. (Husain and Khan 1945:35; Ritchie 1917:30)

Drosophilidae

Aceltoxenus indica Malloch (Smith et al. 1964:20)

Formicidae

Cremastogaster brevispinosa Mayr. subsp. *tumulifera*

Forel var. *tumulicula* Forel (Ritchie 1917:29)

Nitidulidae

Cybocephalus sp. (Thompson and Simmonds 1964:52)

Pathogen:

Aschersonia aleyrodis Webber (Boscan de Martinez et al. 1982:456)

Aschersonia flavo-citrina (Gowdey 1923c:23)

Aschersonia sp. (Dietz and Zetek 1920:45)

Agerita webberi Fawcett (Dietz and Zetek 1920:45; Boscan de Martinez et al. 1982:456-8)

Verticillium heterocladium (LePelly 1968:314)

Econ. Imp.: It was a major pest of citrus in West Indies and Mexico (Dietz and Zetek 1920:2).

Genus: *Aleurocybotus*

Species: *Aleurocybotus setiferus* Quaintance and Baker

Orig. desc.: *Aleurocybotus setiferus* Quaintance and Baker 1917:357

Syn.: See Quaintance and Baker 1917:357; Silvestri 1927:15

Tax.: Gramineae

Hosts: *Imperata arundinacea* (Corbett 1926:274)

Pandanaceae

Pandanus sp. (Silvestri 1927:15; Clausen 1934:256)

Rutaceae

Citrus sp. (Silvestri 1927:15; Clausen 1933:17)

Biol.: Ceylon (Corbett 1926:274, Clausen 1933:17)

Geogr. distr.: Hong Kong (Lee and Winney 1981:32)

Indonesia: Djawa (Java) (Corbett 1926:274)

Philippines: Manila (Silvestri 1927:15; Clausen 1934:256)

Taiwan (Tao 1979:312)

Natur. enem.:

Parasites:

Encarsia persequens Silvestri (Silvestri 1927:15)

Econ. imp.: It has not been reported as a serious pest of citrus.

Genus: *Aleurodicus*

Species: *Aleurodicus* spp. indet.

Orig. desc.: Specimen in BMNH (Mound and Halsey 1978:228)

Syn.: Tax.: Myrtaceae

Hosts: *Psidium* sp. (BMNH: Trinidad; Mound and Halsey 1978:228)

Rutaceae

Citrus sp. (BMNH: Colombia; Mound and Halsey 1978:228)

Biol.: Geogr. distr.: Natur. enem.:

Parasites:

Encarsia aleurodici (Girault) (Thompson 1950:5, Trinidad; Mound and Halsey 1978:228)

Encarsia ciliata (Gahan) (Fulmek, 1943:7, Puerto Rico; Mound and Halsey 1978:228)

Euderomphale vittata Dozier (Thompson 1950:5, Puerto Rico; Mound and Halsey 1978:228)

Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Aleurodicus bondari* Costa Lima

Orig. desc.: *Aleurodicus bondari* Costa Lima 1928:131

Syn.: Tax.: See Costa Lima 1928:131-2

Hosts: Rutaceae

Citrus sinensis (Costa Lima 1928:131-2; D'Araujo e Silva et al. 1968:106)

Citrus sp. (Costa Lima 1928:131-2; D'Araujo e Silva et al. 1968:106)

Biol.: Geogr. distr.: Argentina (Buenos Aires) (Tapia 1968 in Rev. Appl. Entomol. 57:1204, 1969)

Brazil (Minas Gerais) (Costa Lima 1928:132; D'Araujo e Silva et al. 1968:106)

Natur. enem.:

Parasites:

Econ. imp.: *Encarsia* nr. *gallardoi* Morgan (Parker et al. 1953:23)
It has not been reported as a serious pest of citrus.

Species: *Aleurodicus dispersus* Russell
Orig. desc.: *Aleurodicus dispersus* Russell 1965:49-51
Syn.:
Tax.: See Russell 1965:49-51; Martin 1987:298-322
Biol.: Lethal temperatures (Cherry 1979a:1150-2)
Hosts: It has been recorded from 38 genera, belonging to 27 plant families. On Rutaceae, it was found on *Citrus aurantiifolia* and *Citrus* sp. (Russell 1965:52-3); *Citrus x paradisi* (Cherry 1980:222-3)

Geogr. distr.: Central America and West Indies:
Barbados, Costa Rica, Cuba, Dominica, Panama (Russell 1965:52-3)
North America:
USA
Florida (Key West) (Russell 1965:52-3); Southern Florida (Cherry 1980:222-5)
Hawaii (Co-op. Plant Pest Rep. 13:620, 1978; Kumashiro et al. 1983:261-9)
South America:
Ecuador (Jipijapa), Peru, Canary Islands (Russell 1965:52-3)

Natur. enem.: Parasites:
Encarsia ? *haitiensis* Dozier (Kumashiro et al. 1983:261-9)
Predators:
Nephaspis aminicola Wingo (Kumashiro et al. 1983:261-9)

Econ. imp.: It is a potential pest of crops in Florida including citrus (Russell 1965:47-55).

Species: *Aleurodicus magnificus* Costa Lima
Orig. desc.: *Aleurodicus magnificus* Costa Lima 1928:129-31
Syn.:
Tax.: See Costa Lima 1928:129-31
Hosts: Rutaceae
Citrus sp. (Costa Lima 1928:131)

Biol.:
Geogr. distr.: Brazil (Costa Lima 1928:131)
Natur. enem.:
Econ. imp.: It has not been reported as a serious pest of citrus.

Genus: *Aleurolobus*

Species: *Aleurolobus citri* Takahashi
Orig. desc.: *Aleurolobus citri* Takahashi 1932:34
Syn.:
Tax.: See Takahashi 1932:34-5
Host: Malpighiaceae

Hiptage madablota (Takahashi 1942b:208; Mound and Halsey 1978:33)
Rutaceae
Citrus sp. (Takahashi 1932:35)
Biol.:
Geogr. desc.: Taiwan (Takahashi 1932:35; Tao 1979:312)
Natur. enem.:
Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Aleurolobus marlatti* (Quaintance)
Orig. desc.: *Aleurodes marlatti* Quaintance 1903:61-3
Syn.:
Tax.: See Quaintance 1903:61-3; Quaintance and Baker 1916:466; Quaintance and Baker 1917:361-3; Husain and Khan 1945:29-32; Kuwana 1928:54-7
Hosts: Araceae
Colocasia sp. (Takahashi 1954:2; Mound and Halsey 1978:35)
Daphniphyllaceae
Daphniphyllum macropodum (Kuwana 1928:54)
Leguminosae
Dalbergia sissoo (Browne 1968:38)
Moraceae
Ficus sp. (Quaintance and Baker 1916:466)

Morus sp. (Quaintance and Baker 1916:466)
Morus alba (Kuwana 1928:54)

Rutaceae
Citrus sp. (Quaintance and Baker 1916:466)
Citrus trifoliata (Silvestri 1927:12)
Murraya exotica (Husain and Khan 1945:29)
Murraya koenigii (David and Subramaniam 1976:161; Mound and Halsey 1978:35)

Ulmaceae
Aphananthe aspera (Kuwana 1928:54)

Geogr. distr.: China
Chekiang: Hangchow (Wu 1935:130)
Fukien: Foochow (Wu 1935:130)
Kiangsu: Soochow (Wu 1935:130)
Wangtung: Macao, Swatow (Wu 1935:130)
Hong Kong (Wu 1935:130)
India (Pruthi and Mani 1945:17; Gentry 1965:96)
Indo-China (Silvestri 1927:12; Wu 1935:130)
Iran (Gentry 1965:96)
Japan
Fukuoka (Quaintance and Baker 1917:363)
Hakodate (Quaintance 1903:63)
Kumamoto (Quaintance 1903:63)
Nagasaki (Clausen 1927:6)
Java (Botanic Gardens) (Quaintance and Baker 1916:466)
Pakistan (Punjab) (Husain and Khan 1945:29)
Philippines (Silvestri 1927:12; Wu 1935:130)
Taiwan (Takahashi 1932:34; Tao 1979:312)
Life Cycle:
Egg hatch: 5-14 days
Nymphal stage: 12-35 days
Pupal stage: 36-77 days (Husain and Khan 1945:32)
Life History: 3 generations a year in Japan (Kuwana 1928:57)

Natur. enem.: Parasites:
Eretmocerus aleurolobi Ishii (Ishii 1938:32)
Predators:
Brumus suturalis Fabricius (Husain and Khan 1945:35)
Brumus sp. (Husain and Khan 1945:35)
Scymnus sp. (Husain and Khan 1945:35)
Pathogens:
Aschersonia aleyrodii (Kuwana 1928:57)
Econ. imp.: It was a minor pest of citrus in Pakistan and Japan (Kuwana 1928:53; Husain and Khan 1945:29).

Species: *Aleurolobus niloticus* Priesner and Hosny
Orig. desc.: *Aleurolobus niloticus* Priesner and Hosny 1934:1-5
Syn.:
Tax.: See Priesner and Hosny 1934:1-5; Martin 1987:298-322

Hosts: Apocynaceae
Nerium indicum (BMNH) (Mound and Halsey 1978:35)
Araliaceae
Hedera nepalensis (BMNH) (Mound and Halsey 1978:35)
Asclepiadaceae
Leptadenia hastata (Cohic 1969:50; Mound and Halsey 1978:36)
Bignoniaceae
Stereospermum kunthianum (Cohic 1969:50; Mound and Halsey 1978:36)
Bombacaceae
Bombax malabaricum (BMNH) (Mound and Halsey 1978:36)
Boraginaceae
Ehretia aspera (BMNH) (Mound and Halsey 1978:36)
Capparidaceae
Boscia senegalensis, *Capparis corymbosa* (Cohic 1969:50; Mound and Halsey 1978:36)
Ebenaceae
Diospyros mespiliformis (Cohic 1969:50; Mound and Halsey 1978:36)
Euphorbiaceae
Mallotus philippensis (BMNH) (Mound and Halsey 1978:36)
Leguminosae

Dalbergia sissoo (Hayat 1972:100; Mound and Halsey 1978:36)

Liliaceae
Smilax sp. (Mound and Halsey 1978:36)

Lythraceae
Lawsonia alba (BMNH) (Mound and Halsey 1978:36)
Lawsonia inermis (Priesner and Hosny 1934:4; Mound and Halsey 1978:36)

Moraceae
Ficus sycamorus (Priesner and Hosny 1934:4) (BMNH) (Mound and Halsey 1978:36)
Morus alba L. (BMNH) (Mound and Halsey 1978:36)

Oleaceae
Olea cuspidata (BMNH) (Mound and Halsey 1978:36)

Rhamnaceae
Ziziphus hysudricus (BMNH) (Mound and Halsey 1978:36)
Ziziphus mauritiana (Cohic 1969:50; Mound and Halsey 1978:36)
Ziziphus spina-christi (Priesner and Hosny 1934:4; Mound and Halsey 1978:36)

Rosaceae
Rosa indica (BMNH) (Mound and Halsey 1978:36)

Rutaceae
Citrus sp. (BMNH) (Mound and Halsey 1978:36)
Murraya exotica (BMNH) (Mound and Halsey 1978:36)

Salvadoraceae
Salvadora sp. (Priesner and Hosny 1934:5; Mound and Halsey 1978:36)

Sapindaceae
Dodonaea viscosa (Priesner and Hosny 1934:5; Mound and Halsey 1978:36)

Verbenaceae
Duranta sp. (BMNH) (Mound and Halsey 1978:36)

Zygophyllaceae
Balanites aegyptiaca (BMNH) (Priesner and Hosny 1934:5; Mound and Halsey 1978:36)

Biol.:
Geogr. distr.: Cameroon, Chad (Cohic 1969:50; Mound and Halsey 1978:35)
Egypt (Priesner and Hosny 1934:4-5; Mound and Halsey 1978:35)
India (BMNH) (Mound and Halsey 1978:35)
Iran (Kiriukhin 1947:9; Mound and Halsey 1978:35)
Pakistan (BMNH) (Mound and Halsey 1978:35)
Saudi Arabia (BMNH) (Mound and Halsey 1978:35)
Sudan (BMNH) (Mound and Halsey 1978:35)

Natur. enem.: Parasites:
Encarsia elegans Masi (Priesner and Hosny 1934:5; Mound and Halsey 1978:36)
Encarsia lutea (Masi) (Gameel 1969:68; Mound and Halsey 1978:36)
Eretmocerus haldemani Howard (Hayat 1972:100; Mound and Halsey 1978:36)
Eretmocerus sp. (Fulmek 1943:7; Mound and Halsey 1978:36)

Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Aleurolobus setigerus* Quaintance and Baker
Orig. desc.: *Aleurolobus setigerus* Quaintance and Baker 1917:372-3

Syn.:
Tax.: See Quaintance and Baker 1917:372-3; Silvestri 1927:12-3

Hosts: Flacourtiaceae
Scolopia oldhami (Tao 1979:313)
Myrtaceae
Psidium guajava (Tao 1979:313)
Rhodomyrtus sp. (Tao 1979:313)
Rutaceae
Citrus sp. (Silvestri 1927:13; Clausen 1933:17)
Sapindaceae
Harpullia pendula (Corbett 1926:279)
Harpullia sp. (Silvestri 1927:12)

Biol.:
Geogr. distr.: China (Clausen 1933:17)
Ceylon (Corbett 1926:279)
Taiwan (Tao 1979:313)

Natur. enem.:
Econ. imp.: It has not been reported as a pest of citrus.

Species: *Aleurolobus subrotundus* Silvestri
Orig. desc.: *Aleurolobus subrotundus* Silvestri 1927:13-4
Syn.:
Tax.: Silvestri 1927:13-4
Hosts: Rutaceae
Citrus spp. (Silvestri 1927:14)
Clausenia sp. (Silvestri 1927:14)

Biol.:
Geogr. distr.: China (Fu-chou) (Silvestri 1927:14)
Vietnam (Lang Son, Nacham, Khua Tao, Van Phu, Yen Bay, Phu Tho, Vinh) (Silvestri 1927:14)

Natur. enem.: Parasites:
Encarsia armata (Silvestri) (Silvestri 1927:14; Clausen 1934:256)

Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Aleurolobus szechwanensis* Young
Orig. desc.: *Aleurolobus szechwanensis* Young 1942:99-100
Syn.:
Tax.: See Young 1942:99-100
Biol.:
Hosts: Rutaceae
Citrus sp. (Young 1942:100)

Geogr. distr.: China (Kiangtsing, Pehpei) (Young 1942:100)

Natur. enem.:
Econ. imp.: It is a minor pest of citrus in China (Szechwan) (Young 1942:100).

Genus: *Aleuroplatus*

Species: *Aleuroplatus translucidus* Quaintance and Baker
Orig. desc.: *Aleuroplatus translucidus* Quaintance and Baker 1917:397-8
Syn.:
Tax.: See Quaintance and Baker 1917:397-8
Hosts: Rutaceae
Citrus sp. (Quaintance and Baker 1917:397-8)

Biol.:
Geogr. distr.: India (Quaintance and Baker 1917:397-8)
Natur. enem.:
Econ. imp.: It has not been reported as a serious pest of citrus.

Genus: *Aleurothrixus*

Species: *Aleurothrixus aepim* (Goldi)
Orig. desc.: *Aleurodes aepim* Goldi 1886 in Mittheil Schweiz. Ent. Ges. Vol. 7:250, not seen
Syn.: *Aleurothrixus granelli* Blanchard 1918 (Synonymized by Costa Costa Lima 1942:421)
Tax.: Quaintance and Baker 1914:103; Mound and Halsey 1978:62

Biol.:
Hosts: Compositae
Baccharis oxyodonta (Costa Lima 1968:113, in Mound and Halsey 1978:62)
Convolvulaceae
Ipomoea sp. (Blanchard 1918:347, in Mound and Halsey 1978:62)
Euphorbiaceae
Manihot dulcis (Hempel 1922:1188)
Manihot palmata (Bemis 1904:494)
Manihot utilissima (Baker and Moles 1921:632)
Rubiaceae
Coffea sp. (Bondar 1928:83, in Mound and Halsey 1978:62)
Rutaceae
Citrus sp. (Hempel 1922:1188)

Geogr. distr.:

	Argentina (Blanchard 1918:347, in Mound and Halsey 1978:62)	Maroc (Kenitra, Rabat, Casablanca, Azemmour el Jadida) (Abassi 1975:174)
	Brazil (Remis 1904:494)	Asia:
Natur. cnem.:		India
Econ. imp.:	It has not been reported as a serious pest of citrus.	Punjab: Jullunder (Pruthi and Mani 1945:17)
		Europe:
Species:	<i>Aleurothrixus floccosus</i> (Maskell)	Corsica (Onillon 1969:938)
	comm. name: woolly whitefly	France (Alpes Maritimes Cote d'Azur in 1966)
Orig. desc.:	<i>Aleurodes floccosa</i> Maskell 1895:432-3	(Onillon 1969:937; Onillon and Onillon 1972:365; Onillon 1973:17)
Syn.:	<i>Aleurodes horridus</i> Hempel 1899 (Quaintance and Baker 1916:466)	Spain (Alicante and Malaga) (Vazquez et al. 1973, in Rev. App. Entomol. 62:3748, 1974; Onillon 1973:17; Ibanez et al. 1973, in Rev. Appl. Entomol. 63:2098, 1975; Vulic and Beltran 1977:202-14)
	<i>Aleurodes howardi</i> Quaintance 1907 (Bondar 1923:165)	Italy
	<i>Aleurothrixus floccosus</i> (Maskell) 1895 (Quaintance and Baker 1914:103)	Sicily (Genduso and Liotta 1980, in Rev. Appl. Entomol. 69:5992, 1981, not seen)
	<i>Aleurothrixus howardi</i> (Quaintance) 1907 (Quaintance and Baker 1914:104)	North America:
Tax.:	See Maskell 1895:432-3; Hempel 1899:394; Quaintance 1907:91-2; Back 1910:68-70; Quaintance and Baker 1916:466; Quaintance and Baker 1917:403-4; Yother 1919:5; Bondar 1923:165-70; Hamon 1981, Entomol. Circ. No. 232:1-2; Bink-Moenen 1983:69; Martin 1987:298-322	Mexico (McGuire and Crandall 1967:34; DeBach and Rose 1981:664-5)
Biol.:	See Paulson and Beardsley 1986:97-9	Baja California (Coop. Econ. Insect Rep. 19(10):150, 1969)
Hosts:	Anacardiaceae	Veracruz (Martell 1970, in Rev. Appl. Entomol. 58:3484)
	<i>Mangifera indica</i> (Yothers 1919:4)	USA
	Apocynaceae	California
	<i>Plumeria</i> sp. (Quaintance and Baker 1916:466)	San Diego (DeBach 1970:101; DeBach and Rose 1976a:4; DeBach and Rose 1976b:163)
	Compositae	Florida (Back 1909:448; Morrill and Back 1911:11; Quaintance and Baker 1916:466; Quaintance and Baker 1917:404; Davidson and Peairs 1966:545)
	<i>Baccharis genistelloides</i> (Quaintance and Baker 1916:466)	Hawaii (Plant Pest News 1(6):1, 1981; Paulson and Kumashiro 1985:107)
	Liliaceae	Texas (Meyerdirk et al. 1980:1253-8)
	<i>Gloriosa superba</i> (Cohic 1968:34)	Central America and West Indies:
	Myrtaceae	West Indies appears to be the origin of <i>A. floccosus</i> (Yothers 1919:3)
	<i>Eugenia uniflora</i> (Plant Pest News 1(6):1, 1981)	Bahamas (Anonymous 1970, in Rev. Appl. Entomol. 58:1388)
	<i>Guaiacum officinale</i> (Coop. Econ. Insect Rep. U.S.20 (16):257, 1970; Maskell 1895:433)	Barbados (Commonw. Inst. Entomol. Map 327, 1974b)
	<i>Psidium guajava</i> (Quaintance and Baker 1916:446)	Costa Rica (McGuire and Crandall 1967:34)
	Periplocaceae	Cuba (Quaintance 1907:91)
	<i>Parquetina nigrescens</i> (Cohic 1968:34)	Dominican Republic (Coop. Econ. Insect Rep. 20(16):257, 1970)
	Polygonaceae	Guadeloupe (DeBach 1970:101)
	<i>Coccoloba uvifera</i> (Quaintance 1907:91)	Haiti (Dozier 1932b:118-22)
	Rubiaceae	Jamaica (DeBach 1970:101)
	<i>Coffea</i> sp. (LePelley 1968:312)	Puerto Rico (Yothers 1919:4; Dozier 1932a:116)
	Rutaceae	Trinidad (Commonw. Inst. Entomol. Map No. 327, 1974b)
	<i>Citrus aurantiifolia</i> (Quaintance and Baker 1916:466)	Virgin Islands (Commonw. Inst. Entomol. Map No. 327, 1974b)
	<i>Citrus aurantium</i> (Onillon 1969:939)	South America:
	<i>Citrus decumana</i> (Cohic 1968:34)	Argentina
	<i>Citrus limon</i> (Yothers 1919:4)	Concordia (Hayward 1941a:72; Hayward 1941b:50-8)
	<i>Citrus x nobilis deliciosa</i> (Yothers 1919:4)	La Plata, Parana (Blanchard 1936:19)
	<i>Citrus x paradisi</i> (Quaintance and Baker 1916:466; Yothers 1919:4)	Salta (Parker et al. 1953:24)
	<i>Citrus reticulata</i> (Onillon 1969:939)	Tucuman (Baker and Moles 1921:633)
	<i>Citrus sinensis</i> (Quaintance 1907:91)	Brazil
	<i>Fortunella</i> sp. (Yothers 1919:4)	Bahia (Baker and Moles 1921:633; De Azevedo 1926, in Rev. Appl. Entomol. 14:302; LePelley 1968:312-3; Lavabre 1970:160)
	Solanaceae	Campinas (Hempel 1904:11)
	<i>Solanum nigrum</i> (Onillon 1969:939)	Campo Grande (Parker et al. 1953:24)
Biol.:	See Yothers 1919:8; Onillon et al. 1971:183-93; DeBach and Rose 1976b:162; Carrero 1978:145-235; Garrido et al. 1978:89-121; Carrero 1979a:75-91; Carrero 1979b: 107-13; Carrero 1979c: Carrero 1979d:153-62; Carrero 1979e: 163-76; Carrero 1979f:177-81; Carrero and Tarancon 1979:93-106; Cherry 1979a:1150-1152; Garrido et al. 1981:181	Ceara, Guanabara, Maranhao, Minas Gerais, Pernambuco, Parana, Piracicaba, Rio de Janeiro, RioGrande do Sul, Santa Catarina, Sao Paulo (D'Araujo e Silva et al. 1968:14; Silveira et al. 1977:32-9)
	Life history:	Chile (Quaintance and Baker 1917:404)
	4 generations/a year (Yothers 1919:7)	Colombia (Posada et al. 1970:58)
	6-7 generations/a year in Spain (Vulic and Beltran 1977: 206-7)	Guiana (Baker and Moles 1921:633)
Geogr. distr:	Geological distribution of <i>Aleurothrixus floccosus</i> (Maskell) has been presented in Distribution Maps of Pests, Commonwealth Institute of Entomology, Map No. 327.	Guyana (Bondar 1923:165)
	Africa:	Paraguay (Bondar 1923:165)
	Angola (Martins 1965, in Rev. Appl. Entomol. 57:1069, 1969 Bink-Moenen 1983:69)	Peru (Beingolea 1959, in Rev. Appl. Entomol. 49:489, 1961)
	Canary Islands, Madeira (Commonw. Inst. Entomol. 1974b Map No. 327)	Surinam (Van Dinther 1960:38)
	Congo (Brazzaville) (Cohic 1968:34)	Uruguay

Montevideo (Parker et al. 1953:24)
 Venezuela (Coop. Econ. Insect Rep. 20(16):257, 1970)

Natur. enem.: Parasites:
 Aphelinidae
Aleurodiphilus americanus DeBach and Rose (DeBach and Rose 1981:658-79)
Aleurodiphilus basicineta (Gahan) (Gahan 1927:21)
Cales noacki Howard (Hayward 1944b:157; Onillon 1973:20; Vulic and Beltran 1977:210-3; Garrido et al. 1982:73-96)
Encarsia bella (Gahan) (Gahan 1927:21)
Encarsia brasiliensis (Hempel) (Dozier 1932b:121-2; D'Araujo e Silva et al. 1968:114)
Encarsia cubensis Gahan (Gahan 1931:121-2)
Encarsia haitiensis Dozier (Dozier 1932b:118-9)
Encarsia portoricensis Howard (Ortega 1932, in Rev. Appl. Entomol. 23:6, 1935)
Encarsia sp. (DeBach and Rose 1976a:6)
Eretmocerus californicus Howard (Cook and Dozier 1925:14)
Eretmocerus haldemani Howard (Howard 1908:65; Dysart 1966:31)
Eretmocerus paulistus Hempel (Hayward 1944b:157; Dozier 1932a:117-8; D'Araujo e Silva et al. 1968:114; DeBach and Rose 1976a:4)
Eretmocerus portoricensis Dozier (Dozier 1932a:115-6)
Gonatocerus cubensis Dozier (Dozier 1932c:83)
Gonatocerus flaviventris Dozier (Dozier 1932c:82-3)
Signiphora sp. (DeBach and Rose 1976a:6)
 Encyrtidae
Amitus spiniferus (Brethes) (Costa Lima 1942: 187; D'Araujo e Silva et al. 1968:114; DeBach and Rose 1976a:4; Lai and Funasaki 1986:89)
 Eulophidae
Euderomphale aleurothrix Dozier (Dozier 1932b:121)
 Thysanidae
Hexacnemus sp. (Parker et al. 1953:24)
Pseudococcobius sp. (Parker et al. 1953:24)
Thysanus townsendi (Ashmead) (Costa Lima 1942:186; Parker et al. 1953:24; DeBach 1970:102)
Thysanus xanthographa (Blanchard) (Blanchard 1936:18-9)
 Predators:
 Chrysopidae
Chrysopa bicarnea Banks. (Muma et al. 1975:35)
 Coccinellidae
Conwentzia prociformis (Cuit.) (Ripolles and Melia 1982:61-6)
Delphastus pallidus (Leconte) (Muma et al. 1975:35)
Delphastus pusillus (Leconte) (Muma et al. 1975:35)
 Phlaeothripidae
Haplothrips merilli Watson (Fulmek 1943:8)
 Pathogens:
Aegerita webberi Fawcett (Watson 1915:95)
Aschersonia aleyrodis Webber (Morrill and Back 1912:25)
 Econ. imp.: It is a serious pest of citrus in California (DeBach and Rose 1976a:4) and France (Onillon 1973:17).

Species: *Aleurothrixus porteri* Quaintance and Baker
 Orig. desc.: *Aleurothrixus porteri* Quaintance and Baker 1916:466
 Syn.:
 Tax.: See Quaintance and Baker 1916:467-8
 Hosts: Anacardiaceae
Lithrea caustica (Baker and Moles 1921:634)
Lithrea molle (Baker and Moles 1921:634)
Schinus dependens (Quaintance and Baker 1916:468)
Schinus molle (Quaintance and Baker 1916:468)
 Lauraceae
Persea americana (Baker and Moles 1921:634)
 Myrtaceae
Myrciaria cauliflora (Quaintance and Baker 1916:468)
 Rutaceae
Citrus sinensis (Quaintance and Baker 1916:468)
 Verbenaceae
Lippia citriodora (Quaintance and Baker

1916:468)

Biol.:
 Geogr. dist.: Argentina (Mound and Halsey 1978:65)
 Brazil
 Guanabara, Rio Grande do Sul (D'Araujo e Silva et al. 1968:114)
 Rio de Janeiro (Quaintance and Baker 1916:468)
 Chile
 Arica (Baker and Moles 1921:634)
 Ransagua (Quaintance and Baker 1916:468)
 San Bernardo (Baker and Moles 1921:634)
 Santiago (Quaintance and Baker 1916:468; Baker and Moles 1921:634)
 Vina del Mar (Baker and Moles 1921:634)
 Natur. enem.: Parasites:
Cales noacki Howard 1902 (D'Araujo e Silva et al. 1968:114)
Encarsia citriella porteri (Mercet) (D'Araujo e Silva et al. 1968:114)
Eretmocerus sp. (D'Araujo e Silva et al. 1968:114)
 Econ. imp.: It was reported a pest of citrus in Brazil and Chile (Quaintance and Baker 1916:466)

Genus: *Aleurotrachelus*

Species: *Aleurotrachelus* spp. indet.
 Orig. desc.: Specimen in BMNH (Mound and Halsey 1978:66)
 Syn.:
 Tax.:
 Hosts: (all in Mound and Halsey 1978:66-7)
 Cunoniaceae
Ceratopetalum sp. (BMNH: Australia)
 Euphorbiaceae
Erythrococca bongensis (BMNH: Kenya)
Lepidotorus laxiflorus (BMNH: Nigeria)
 Fagaceae
Quercus sp. (BMNH: Malaya)
 Lauraceae
Nectandra antillana (BMNH: Jamaica)
 Leguminosae
Inga vera (BMNH: Jamaica)
 Myrtaceae
Eucalyptus sp. (BMNH: Australia)
Leptospermum laevigatum (BMNH: Australia)
 Palmae
Cocos nucifera (BMNH: Solomon Islands)
 Polygonaceae
Coccoloba uvifera (BMNH: Jamaica)
 Rubiaceae
Psychotria sp. (BMNH: Jamaica)
Vangueria linearisepala (BMNH: Kenya)
 Rutaceae
Citrus sp. (Young 1942:101; China)
 Sterculiaceae
Cola sp. (BMNH: Nigeria)
 Verbenaceae
Petrea arborea (BMNH: Trinidad)
Tectona grandis (BMNH: Jamaica)

Biol.:
 Geogr. dist.: China (Young 1942:101)
 Natur. enem.:
 Econ. imp.: It has not been reported as a serious pest of citrus.

Genus: *Aleurotuberculatus*

Species: *Aleurotuberculatus aucubae* (Kuwana)
 Orig. desc.: *Aleyrodes aucubae* Kuwana 1911:625
 Syn.: *Aleurotuberculatus aucubae* (Kuwana) (Takahashi 1932:20)
Tetraleurodes aucubae (Kuwana) 1911 (Kuwana 1928:57)
 Tax.: See Kuwana 1911:625; Quaintance and Baker 1914:108; Kuwana 1928:58-60
 Hosts: Aquifoliaceae
Ilex crenata (Kuwana 1928:58)
 Araliaceae
Hedera japonica (Takahashi 1952:19; Mound and

Halsey 1978:79)	Species:	<i>Aleurotuberculatus jasmini</i> Takahashi
Caprifoliaceae	Orig. desc.:	<i>Aleurotuberculatus jasmini</i> Takahashi 1932:26-7
<i>Lonicera gracillipes</i> (Takahashi 1952:19; Mound and Halsey 1978:79)	Syn.:	
Cornaceae	Tax.:	See Takahashi 1932:26-7; Corbett 1935b:829-31
<i>Aucuba japonica</i> (Kuwana 1911:625)	Hosts:	Combretaceae
Flacourtiaceae		<i>Quisqualis indica</i> (Corbett 1935b:831)
<i>Myroxylon japonicum</i> (Kuwana 1928:58)		Euphorbiaceae
Juglandaceae		<i>Bischofia javanica</i> (BMNH; Mound and Halsey 1978:83)
<i>Juglans sieboldiana</i> (Takahashi 1952:19; Mound and Halsey 1978:79)		Myrsinaceae
Lauraceae		<i>Ardisia sieboldi</i> (Tao 1979:315)
<i>Litsea glauca</i> (Takahashi 1952:19; Mound and Halsey 1978:79)		<i>Ardisia</i> sp. (Takahashi 1938:29; Mound and Halsey 1978:83)
Moraceae		<i>Maesa</i> sp. (Takahashi 1938:29; Mound and Halsey 1978:83)
<i>Ficus erecta</i> (Takahashi 1952:19; Mound and Halsey 1978:79)		Oleaceae
<i>Morus alba</i> (Kuwana 1928:58)		<i>Jasminum sambac</i> (BMNH; Mound and Halsey 1978:83)
Oleaceae		<i>Vangueria linearisepala</i> (BMNH: Kenya)
<i>Ligustrum japonicum</i> (Kuwana 1928:58)		Rutaceae
Pittosporaceae		<i>Citrus</i> sp. (Young 1942:101; China)
<i>Pittosporum tobira</i> (Kuwana 1928:58)		Sterculiaceae
Rosaceae		<i>Cola</i> sp. (BMNH: Nigeria)
<i>Kerria japonica</i> (Takahashi 1952:19; Mound and Halsey 1978:79)		Verbenaceae
<i>Neillia uekii</i> (Takahashi 1952:19; Mound and Halsey 1978:79)		<i>Petrea arborea</i> (BMNH: Trinidad)
<i>Prunus mume</i> (Kuwana 1928:58)		<i>Tectona grandis</i> (BMNH: Jamaica)
<i>Rhaphiolepis umbellata</i> (Takahashi 1952:19; Mound and Halsey 1978:79)	Biol.:	
Rubiaceae	Geogr. dist.:	China (Young 1942:101)
<i>Paedeira</i> sp. (Mound and Halsey 1978:79)	Natur. enem.:	
Rutaceae	Econ. imp.:	It has not been reported as a serious pest of citrus.
<i>Citrus</i> sp. (Kuwana 1928:58; Husain and Khan 1945:3)	Species:	<i>Aleurotuberculatus murrayae</i> (Singh)
<i>Phellodendron lavallei</i> (Takahashi 1952:19; Mound and Halsey 1978:79)	Orig. desc.:	<i>Aleurotrachelus murrayae</i> Singh 1931:62
<i>Zanthoxylum piperitum</i> (Takahashi 1952:19; Mound and Halsey 1978:79)	Syn.:	<i>Aleuromigda deghai</i> Dozier and Baker (Synonymized by Husain and Khan 1945:32)
Theaceae		<i>Aleurotuberculatus murrayae</i> Singh 1931 (Singh 1931:62)
<i>Eurya japonica</i> (Kuwana 1928:58)	Tax.:	See Singh 1931:62, pl. 14; Husain and Khan 1945:32-4
Ulmaceae	Hosts:	Lauraceae
<i>Aphananthe aspera</i> (Takahashi 1952:19; Mound and Halsey 1978:79)		<i>Cinnamomum</i> sp. (Takahashi 1942:331, in Mound and Halsey 1978:86; Tao 1979:315)
Biol.:		Proteaceae
Geogr. distr.:		<i>Helicia formosana</i> (Takahashi 1934:55, in Mound and Halsey 1978:86; Tao 1979:315)
3 generations a year in the field (Kuwana 1928:60)		Rutaceae
Japan		<i>Citrus</i> sp. (Husain and Khan 1945:3)
Asukayama, Tokyo (Kuwana 1911:625)		<i>Murraya exotica</i> (Singh 1931:62)
Honshu, Kiushiu, Shikoku (Kuwana 1928:57)	Biol.:	
<i>Aphinius</i> sp. (Kuwana 1928:61)	Geogr. distr.:	Cambodia (Takahashi 1942:331, in Mound and Halsey 1978:85)
<i>Encarsia</i> sp. (Kuwana 1928, 61)		India (Bihar) (Singh 1931:62)
Econ. imp.:		Pakistan (Punjab) (Husain and Khan 1945:3)
It was reported as a pest of citrus in Japan (Kuwana 1928:58; Husain and Khan 1945:3).		Taiwan (Takahashi 1934:55, in Mound and Halsey 1978:85; Tao 1979:315)
Species:	Natur. enem.:	
<i>Aleurotuberculatus citrifolii</i> (Corbett)	Econ. imp.:	It has not been reported as a pest on citrus in India.
Orig. desc.:		
<i>Aleurobus citrifolii</i> Corbett 1935a:9		
Syn.:		
<i>Aleurotuberculatus citrifolii</i> (Corbett) (Mound and Halsey 1978:81)		
Tax.:		
See Corbett 1935a:9; Pruthi and Mani 1945:18-21		
Hosts:		
Rutaceae		
<i>Citrus</i> (Corbett 1935a:9; Pruthi and Mani 1945:17; Husain and Khan 1945:18)	Species:	<i>Bemisia afer</i> (Priesner and Hosny)
<i>Murraya exotica</i> (L.) (Husain and Khan 1945:18)	Orig. desc.:	<i>Dialeurodoides afer</i> Priesner and Hosny 1934:6
Biol.	Syn.:	<i>Dialeurodoides afer</i> Priesner and Hosny (Habib and Farag 1970:8-10)
Egg hatch:		<i>Bemisia</i> (<i>Neobemisia</i>) <i>hancocki</i> Corbett (Visnya 1941:8; in Mound and Halsey 1978:114)
10-12 days in April		<i>Bemisia citricola</i> Gomez-Menor 1945 (Mound and Halsey 1978:114)
13-14 days in October		<i>Bemisia hancocki</i> Corbett 1936 (Bink-Moenen 1983:95)
Larval stage:		
33-64 days	Tax.:	See Corbett 1936:20-1; Priesner and Hosny 1934:6; Habib and Farag 1970:8-10; Bink-Moenen 1983:95-7
Pupal stage:	Hosts:	Anacardiaceae
39 days in September and October		<i>Annona senegalensis</i> (Bink-Moenen 1983:97)
104 days in winter (Husain and Khan 1945:21)		<i>Hexalobus monopetalus</i> (Bink-Moenen 1983:97)
Geogr. distr.:		<i>Lannea schimperii</i> (Bink-Moenen 1983:97)
Pakistan (Punjab) (Corbett 1935a:8; Husain and Khan 1945:18)		Asclepiadaceae
Pakistan and India (Gentry 1965:96; Talhouk 1975:22)		<i>Cynanchum acutum</i> (Gomez-Menor 1945:298)
Natur. enem.:		Bignoniaceae
Predators:		<i>Markhamia sessilis</i> (Cohic 1968:116; Mound and Halsey 1978:114)
<i>Brumus</i> sp. (Husain and Khan 1945:35)		
<i>Brumus suuralis</i> Fabricius (Husain and Khan 1945:35)		
<i>Scymnus</i> sp. (Husain and Khan 1945:35)		
Econ. imp.:		
It was reported as a serious pest of citrus in Punjab (Husain and Khan 1945:18).		

Stereospermum kunthianum (Bink-Moenen 1983:97)

Bombacaceae
Bombax costatum (Bink-Moenen 1983:97)

Burseraceae
Couriniphora pendunculata (Bink-Moenen 1983:97)

Capparaceae
Crateva adansonii (BMNH; Mound and Halsey 1978:114)

Celastraceae
Maytenus senegalensis (Bink-Moenen 1983:97)

Chenopodiaceae
Cochlospermum tinctorium (Bink-Moenen 1983:97)

Combretaceae
Anogeissus beiocarpus (Bink-Moenen 1983:97)
Combretum confertum (Bink-Moenen 1983:97)
Combretum glutinosum (Bink-Moenen 1983:97)
Combretum hypopilinum (Bink-Moenen 1983:97)
Combretum molle (Bink-Moenen 1983:97)
Combretum paniculatum (Cohic 1969:113; Mound and Halsey 1978:114)
Quisqualis sp. (BMNH; Mound and Halsey 1978:114)

Euphorbiaceae
Bridelia ferruginae (Bink-Moenen 1983:97)
Bridelia sp. (Mound 1965:141-2; Mound and Halsey 1978:114)
Manihot esculenta (Bink-Moenen 1983:97)
Ricinus communis (Bink-Moenen 1983:97)
Securinega virosa (Cohic 1969:112; Mound and Halsey 1978:114)

Flacourtiaceae
Rawsonia lucida (BMNH; Mound and Halsey 1978:114)

Hymenocardiaceae
Hymenocardia acida (Bink-Moenen 1983:97)

Lauraceae
Laurus nobilis (Gomez-Menor 1945:298)

Leguminosae
Acacia aegyptiaca (Cohic 1969:113; Mound and Halsey 1978:114)
Acacia nilotica (Bink-Moenen 1983:97)
Adenodolichos paniculatus (Bink-Moenen 1983:97)
Albizia sp. (Bink-Moenen 1983:97)
Burkea africana (Bink-Moenen 1983:97)
Cassia floribunda (Cohic 1969:112-3; BMNH; Mound and Halsey 1978:114)
Cassia javanica (Cohic 1968:116; Mound and Halsey 1978:114)
Cassia petersiana (Mound 1965:141)
Cassia siamea (Cohic 1969:112-3; BMNH; Mound and Halsey 1978:114)
Cassia sophora (BMNH; Mound and Halsey 1978:114)
Dalbergia saxatilis (Cohic 1969:112-3; BMNH; Mound and Halsey 1978:114)
Dalbergia sissoo (Cohic 1969:112-3; BMNH; Mound and Halsey 1978:114)
Detarium microcarpum (Bink-Moenen 1983:97)
Dichrostachys glomerata (Bink-Moenen 1983:97)
Entada africana (Bink-Moenen 1983:97)
Erythrina variegata (BMNH; Mound and Halsey 1978:114)
Isoberlinia doka (Bink-Moenen 1983:97)
Lonchocarpus sericeus (Mound 1965:142)
Mucuna sp. (BMNH; Mound and Halsey 1978:114)
Neorautanenia pseudopachyrhiza (Bink-Moenen 1983:97)
Parkinsonia aculeata (Cohic 1969:113; Mound and Halsey 1978:114)
Piliostigma thonningii (Cohic 1969:112; Mound and Halsey 1978:114)
Pongamia glabra (BMNH; Mound and Halsey 1978:114)
Pterocarpus lucens (Bink-Moenen 1983:97)
Tamarindus indicus (Cohic 1969:112; Mound and Halsey 1978:114)
Tephrosia purpurea (David and Subramaniam 1976:179; Mound and Halsey 1978:114)

Vigna catjang (Mound 1965:141)

Liliaceae
Asparagus suaveolens (Cohic 1969:113; Mound and Halsey 1978:114)

Lythraceae
Lawsonia alba (Priesner and Hosny 1934:6; Habib and Farag 1970:8)
Lawsonia inermis (Bink-Moenen 1983:97)

Malvaceae
Gossypium hirsutum (Bink-Moenen 1983:97)
Gossypium sp. (Corbett 1936:20)
Hibiscus asper (Bink-Moenen 1983:97)
Urena lobata (Mound 1965:142)

Moraceae
Ficus nitida (Bink-Moenen 1983:97)
Ficus syenmorus (Bink-Moenen 1983:97; Priesner and Hosny 1934:6; Hobib and Farag 1970:8)
Ficus sp. (Cohic 1969:113; Mound and Halsey 1978:115)
Morus alba (BMNH; Mound and Halsey 1978:115)
Morus sp. (Gomez-Menor 1945:298)

Myrtaceae
Psidium guajava (BMNH; Mound and Halsey 1978:115)

Naucleaceae
Nauclea latifolia (Bink-Moenen 1983:97)

Rhamnaceae
Zizyphus mauritiana (Cohic 1969:113; Mound and Halsey 1978:115)
Zizyphus spina-christi (Mound 1965:141; Mound and Halsey 1978:115; Bink-Moenen 1983:97)

Rubiaceae
Crossopteryx febrifuga (Bink-Moenen 1983:97)
Gardenia javis-tonantis (Cohic 1968:116; Mound and Halsey 1978:115)
Vangueria linearisepala (BMNH; Mound and Halsey 1978:115)

Rutaceae
Citrus aurantium (Gomez-Menor 1945:298)
Citrus limon (Gomez-Menor 1945:298; Habib and Farag 1970:10)
Citrus sp. (BMNH; Mound and Halsey 1978:115)
Clausena anisata (BMNH; Mound and Halsey 1978:115)

Salicaceae
Salix subserata (Bink-Moenen 1983:97)

Sapideae
Allophylus africanus (Bink-Moenen 1983:97)
Paullinia pinnata (Bink-Moenen 1983:97)

Smilacaceae
Smilax aspersa (BMNH; Mound and Halsey 1978:115)

Stilaginaceae
Antidesma venosum (Bink-Moenen 1983:97)

Strychnaceae
Strychnos spinosa (Bink-Moenen 1983:97)

Tiliaceae
Grewia similis (BMNH; Mound and Halsey 1978:115)

Ulmaceae
Chaetacme aristata (Mound 1965:142)

Verbenaceae
Vitex doniana (Cohic 1969:112; Mound and Halsey 1978:115)

Biol.:

Geogr. distr.: Africa:

Cameroun, Chad, Congo, Ivory Coast, Kenya, Malawi, Niger, Nigeria, Sierra Leone, Zaire (Cohic 1969:112-3; Mound and Halsey 1978:114)
Egypt (Habib and Farag 1970:8-10; Priesner and Hosny 1934:6)
Madagascar (Cohic, 1969:112; BMNH; Mound and Halsey 1978:114; Bink-Moenen 1983:95)
Malawi (Bink-Moenen 1983:95)
Rhodesia (BMNH; Mound and Halsey 1978:114; Bink-Moenen 1983:95)
South Africa (Cohic 1969:113; BMNH; Mound and Halsey 1978:114)
Sudan (Bink-Moenen 1983:95)
Uganda (Corbett 1936:20)
Zaire (Bink-Moenen 1983:95)

Asia:
 China (Talhouk 1975:22)
 India (BMNH; Mound and Halsey 1978:114)
 Israel (BMNH; Mound and Halsey 1978:114)
 Japan (Talhouk 1975:22)
 Pakistan (Talhouk 1975:22)
 Europe:
 Italy (Mineo and Viggiani 1975:47-51)
 Sicily (BMNH; Mound and Halsey 1978:114)
 Spain (Gomez-Menor 1945:298)
 Natur. enem.: *Eretmocerus* sp. (Priesner and Hosny 1934:6)
 Econ. imp.: It was reported as a pest of citrus in China (Talhouk 1975:22).

Species: *Bemisia giffardi* (Kotinsky)
 Orig. desc.: *Aleyrodes giffardi* Kotinsky 1907:94
 Syn.: *Asterobemisia helyi* Dumbleton 1956 (Synonymized by Mound and Halsey 1978:113)
Bemisia giffardi bispina Young 1942 (Synonymized by Mound and Halsey 1978:113)
Bemisia jasmimum David and Subramaniam 1976 (Synonymized by Mound and Halsey 1978:113)
 Tax.: See Kotinsky 1907:94-5; Quaintance and Baker 1914:100; Quaintance and Baker 1916:469; Kuwana 1928:61-3; Takahashi 1932:32; Dumbleton 1956b:172-3
 Hosts: Oleaceae
Jasminum sambac (Singh 1931:80)
 Rutaceae
Citrus spp. (Takahashi 1932:32; Zimmerman 1948:47; Silvestri 1927:15)
Citrus grandis (Zimmerman 1948:47)
Citrus sinensis (Dumbleton 1956:173; Young 1942:98)
Citrus tangerina (Young 1942:98)
Clausena lansium (Zimmerman 1948:47)
 Biol.:
 Geogr. distr.: Australia (Sydney) (Dumbleton 1956b:173)
 China (Macao, Szechwan) (Wu 1935:128; Silvestri 1927:15; Young 1942:98)
 Hawaii (Zimmerman 1948:47; Kotinsky 1907:95; Paulson and Kumashiro 1985:108)
 India (Lahore) (Quaintance and Baker 1916:469; Husain and Khan 1945:3)
 Japan
 Okaba, Shizuoka-Ken (Kuwana 1928:61)
 Shizuoka (Zimmerman 1948:47; Kuwana 1927:247)
 Java (Clausen 1934:256)
 Malaya (Clausen 1934:256; Corbett 1935b:785-6)
 Sumatra (Clausen 1934:256)
 Taiwan (Shiraki 1934, in Rev. Appl. Entomol. 22:711, 1934; Yen and Tsai 1968, in Rev. Appl. Entomol. 61:316, 1973; Tao 1979:317)
 Vietnam (Clausen 1933:17; Silvestri 1927:15)
 Natur. enem.: *Encarsia strenua* (Silvestri) (Silvestri 1927:16; Clausen 1934:256)
 Econ. imp.: It is a serious pest of citrus in Japan, but it is rarely found in Hawaii (Zimmerman 1948:47).

Species: *Bemisia ovata* (Goux)
 Orig. desc.: *Roucasia ovata* Goux 1940:45-7
 Syn.: *Bemisia ovata* (Goux) (Danzig 1964:326-7)
 Tax.: See Goux 1940:45-7; Danzig 1964:326-7
 Hosts: Araliaceae
Hedera helix (Goux 1940:47)
 Ericaceae
Rhododendron ponticum (Danzig 1964:327)
 Lauraceae
Laurus nobilis (Goux 1940:47)
 Moraceae
Morus sp. (Danzig 1964:327)
 Ranunculaceae
Clematis vitalba (Danzig 1964:327)
 Rutaceae
Citrus sp. (Danzig 1964:327)
 Smilacaceae
Smilax excelsa (Danzig 1964:327)
Smilax sp. (BMNH; Mound and Halsey 1978:116)
 Vitaceae
Vitis sp. (Danzig 1964:327)

Biol.:
 Geogr. distr.: France (Goux 1940:47)
 USSR (Danzig 1964:237)
 Natur. enem.: Parasites:
Eretmocerus mundus Mercet (Nikolskaja and Jasnosh 1968:35; in Mound and Halsey 1978:116)
 Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Bemisia tabaci* (Gennadius)
 Common name: sweetpotato whitefly, tobacco whitefly, cotton whitefly
 Orig. desc.: *Aleurodes tabaci* Gennadius 1889 (Greek Agriculture, Athens Vol. (1):3, not seen)
 Syn.: See Russell 1957:122-3. (In this article, Russell also listed *Bemisia inconspicua* (Quaintance) as a new synonym of *B. tabaci*)
Aleurodes inconspicua Quaintance (Quaintance 1900:28-9; Russell 1957:122-3)
 Tax.: See Quaintance 1900:28-9; Quaintance and Baker 1914:100; Avidov and Harpaz 1969:76-7; Habib and Farag 1970:3-8; Cock 1986:1-121; Martin 1987:298-322
 Hosts: It is a polyphagous insect and is recorded in Israel alone from over 50 plant species (wild or cultivated) belonging to 17 plant families including *Citrus aurantifolia* (Avidov and Harpaz 1969:79-80; Knorr 1961:97; Rodrigo 1947:19)
 Biol.: See Avidov and Harpaz 1969:77-82
 Geogr. distr.: Geographical distribution of *B. tabaci* has been presented in Distribution Maps of Pests, Commonw. Institute of Entomology, Map No. 284, 1971.
 USA
 California (Dickson et al. 1954:480)
 Florida (Quaintance 1900:29; Watson 1917:109)
 Texas (Quaintance 1900:29)
 Natur. enem.: Parasites:
Encarsia formosa Gahan (Gerling 1967:1306)
Encarsia meritoria Gahan (Gerling 1967:1306)
Encarsia smithi (Silvestri) (Pruthi and Samuel 1942, in Rev. Appl. Entomol. 32:390-1, 1944)
Eretmocerus haldemani Howard (Gerling 1967:1306)
Eretmocerus massii Silvestri (Pruthi and Samuel 1942, in Rev. Appl. Entomol. 32:390-1, 1944)
Eretmocerus mundus Mercet (Avidov and Harpaz 1969:82)
 Predators:
Amblyseius rubini Swirski and Amitai (Avidov and Harpaz 1969:82)
Amblyseius swirskii Athias (Avidov and Harpaz 1969:82)
Typhlodromus (Amblyseius) finlandicus (Oudemans) var. *rubini* Swirski and Amitai (Teich 1966:141-2)
 Pathogens:
Aschersonia sp. (Watson 1917:110)
 Econ. imp.: It was reported as a pest of sweetpotato and, occasionally, of citrus (Watson 1926:346; Knorr 1961:97).

Genus: *Ceraleurodicus*

Species: *Ceraleurodicus* spp. indet.
 Orig. desc.: Specimen in BMNH (Mound and Halsey 1978:238)
 Syn.:
 Tax.:
 Hosts: Rubiaceae
Citrus sp. (BMNH; Mound and Halsey 1978:238)
 Biol.:
 Geogr. distr.: Trinidad (BMNH; Mound and Halsey 1978:238)
 Natur. enem.:
 Econ. imp.: It has not been reported as a serious pest of citrus.

Genus: <i>Dialeurodes</i>	
Species:	<i>Dialeurodes</i> spp. indet.
Orig. desc.:	Specimen in BMNH (Mound and Halsey 1978:129)
Syn.:	
Tax.:	
Hosts:	(in Mound and Halsey 1978:129-30)
	Annonaceae
	<i>Annona reticulata</i> (BMNH: India)
	Bombacaceae
	<i>Durio</i> sp. (BMNH: Malaya)
	Boraginaceae
	<i>Cordia myxa</i> (BMNH: India)
	Cannaceae
	<i>Canna</i> sp. (BMNH: Jamaica)
	Celastraceae
	<i>Cassine</i> sp. (BMNH: Kenya)
	<i>Gymnosporia arbutifolia</i> (BMNH: Ethiopia)
	Euphorbiaceae
	<i>Bischofia javanica</i> (BMNH: Taiwan)
	<i>Phyllanthus emblica</i> (BMNH: India)
	Lauraceae
	<i>Cinnamomum</i> sp. (BMNH: Malaya)
	Leguminosae
	<i>Acacia</i> sp. (BMNH: Curacao)
	<i>Schotia</i> sp. (BMNH: Kenya)
	Loganiaceae
	<i>Strychnos pungens</i> (BMNH: South Africa)
	Meliaceae
	<i>Azadirachta indica</i> (BMNH: India)
	Moraceae
	<i>Ficus</i> sp. (BMNH: Malaya)
	Myrtaceae
	<i>Eugenia</i> sp. (BMNH: Jamaica)
	Oleaceae
	<i>Jasminum sambac</i> (BMNH: India)
	Rutaceae
	<i>Citrus maxima</i> (BMNH: Taiwan)
	<i>Citrus</i> sp. (BMNH: Jamaica)
	Sapotaceae
	<i>Bassia latifolia</i> (BMNH: India)
	<i>Bassia longifolia</i> (BMNH: India)
Biol.:	
Geogr. distr.:	
Natur. encm.:	
Econ. imp.	It has not been reported as a serious pest of citrus.
Species:	<i>Dialeurodes citri</i> (Ashmead)
Orig. desc.:	Common name: citrus whitefly <i>Aleyrodes citri</i> Ashmead 1883:704; Essig. 1932:1207-8 Redescribed: <i>Aleyrodes citri</i> (Riley and Howard 1893:219-25)
Syn.:	<i>Aleyrodes citri</i> Riley and Howard 1893 (Riley and Howard 1893:219-25) <i>Aleyrodes eugeniae</i> , var. <i>aurantii</i> Maskell 1895 (Maskell 1895:431-2) <i>Aleyrodes aurantii</i> Cockerell 1903 (Cockerell 1903b:665) <i>Aleyrodes kushinastii</i> Sasaki 1908 (Synonymized by Takahashi 1951:19, in Mound and Halsey 1978:133) <i>Dialeurodes tuberculatus</i> Takahashi 1932 (Synonymized by Takahashi 1958:66, in Mound and Halsey 1978:133; other synonyms were listed in Mound and Halsey 1978:133) <i>Dialeurodes citri</i> (Ashmead) var. <i>kinyana</i> Takahashi 1935b (Synonymized by Mound and Halsey 1978:133) <i>Dialeurodes citri</i> (Ashmead) var. <i>hederae</i> Takahashi 1936 (Synonymized by Mound and Halsey 1978:133)
Tax.:	See Ashmead 1883:704; Riley and Howard 1893:219-25; Quaintance and Baker 1916:469; Essig 1932:1207-8; Gossard 1903:604-7; Kuwana 1928:68-70; Berger 1907: 47-85, pls. 1 and 2; Martin 1987:298-322
Hosts:	1. Preferred hosts*
Scientific name	Common name

Caprifoliaceae	<i>Viburnum odoratissimum</i> (Nguyen and Sailer 1979:60)	Viburnum
Ebenaceae	<i>Diospyros kaki</i> (Gossard 1903:616; Crocker and Hamon 1983:208-10)	Japanese persimmon
	<i>Diospyros virginiana</i> (Morrill and Back 1911:29)	Common persimmon
Magnoliaceae	<i>Magnolia tripetala</i> (Watson 1926:339)	Umbrella magnolia
Meliaceae	<i>Melia azedarach</i> (Gossard 1903:616)	Chinaberry
	<i>Melia azedarach</i> 'Umbraculifera' (Morrill and Back 1911:29)	China umbrella tree
Oleaceae	<i>Ligustrum amurense</i> (Gossard 1903:616)	Amur privet
	<i>Ligustrum lucidum</i> (Nguyen and Sailer 1979:60)	
	<i>Ligustrum</i> sp. (Gossard 1903:616)	Glossy privet
Rubiaceae	** <i>Coffea arabica</i> (Morrill and Back 1911:29)	Coffee
	<i>Gardenia florida</i> (Gossard 1903:616)	Cape Jasmine
	*** <i>Gardenia jasminoides</i> (Quaintance and Baker 1916:469)	Gardenia
Rutaceae	All varieties and species of <i>Citrus</i> (Watson 1926:339)	
	<i>Citrus aurantiifolia</i> (Watson 1926:339)	Lime
	<i>Citrus limon</i> (Watson 1926:339)	Lemon
	<i>Citrus jambhiri</i> (Howard 1979a:380-3)	
	<i>Citrus x nobilis</i> var. <i>deliciosa</i> (Watson 1926:339)	Satsumas
	<i>Citrus x nobilis</i> var. <i>unshiu</i> (Watson 1926:339)	Satsumas
	<i>Citrus x paradisi</i> (Watson 1926:339)	Grapefruit
	<i>Citrus sinensis</i> (Watson 1926:339)	Sweet orange
	<i>Fortunella</i> sp. (Watson 1926:339)	Kumquats
	<i>Poncirus trifoliata</i> (Watson 1926:339)	Trifoliata
	<i>Xanthoxylum clava-herculis</i> (Morrill and Back 1911:29)	Prickly ash
Saxifragaceae	<i>Syringa</i> sp. (Morrill and Back 1911:29)	Lilac
	2. Less severely infested host	
Apocynaceae	<i>Allamanda nerifolia</i> (Morrill and Back 1911:29)	Bush allamanda
	<i>Nerium oleander</i> (Watson 1926:339)	Oleander
Araliaceae	<i>Hedera formosana</i> (Tao 1979:318)	
	<i>Hedera helix</i> (Watson 1926:339)	English Ivy
	<i>Schefflera arboricola</i> (Tao 1979:318)	
Bignoniaceae	<i>Bignonia radicans</i> (Watson 1926:339)	Trumpet flower
Bischofiaceae	<i>Bischofia javanica</i> (Tao 1979:318)	
	<i>Bischofia javanica</i> (Tao 1979:318)	
Caprifoliaceae	<i>Lonicera</i> sp. (Watson 1926:339)	Honeysuckle
	<i>Viburnum nudum</i> (Gossard 1903:601)	Smooth white rod
Compositae	<i>Turpinia formosana</i> (Tao 1979:318)	
Fagaceae	<i>Quercus aquatica</i> (Gossard 1903:601)	Water oak
Liliaceae	<i>Smilax</i> sp. (Morrill and Back 1911:29)	
Magnoliaceae	<i>Magnolia fuscata</i> (Morrill and Back 1911:29)	Banana shrub
	<i>Magnolia coco</i> (Tao 1979:318)	
Malpighiaceae	<i>Hiptage bengalensis</i> (Tao 1979:318)	

Meliosmaceae	<i>Hiptage madablota</i> (Tao 1979:318)		Adult life: 7-10 days (Watson 1926:338)
	<i>Meliosma rhoifolia</i> (Tao 1979:318)		Each female lays 100 eggs during the course of its life (Watson 1926:338). The entire life cycle from egg to adult requires from 41-333 days (Morrill and Back 1911:52).
Moraceae	<i>Meliosma rigida</i> (Tao 1979:318)		
	<i>Ficus altissima</i> (Gossard 1903:616)		
	*** <i>Ficus nitida</i> (Quaintance and Baker 1916:469)		
	<i>Ficus</i> sp. (Watson 1926:339)		
	<i>Maclura pomifera</i> C.R.Schneid (Watson 1926:339)	Osage orange	Life history: 3 generations a year in Florida (Gossard 1903:510-2)
Myrsinaceae	<i>Ardisia glabra</i> (Tao 1979:318)		2-3 generations a year in Italy (Viggiani and Mazzone 1978b:245-52)
	<i>Ardisia sieboldii</i> (Tao 1979:318)		2 generations in India (Gupta and Joshi 1973:81)
Myrtaceae	<i>Jambosa jambos</i> (Browne 1968:231-2)	Rose apple	Geogr. distr.: Geographical distribution of <i>Dialeurodes citri</i> (Ashmead) was present in Distribution Maps of Pest, Commonw. Institute of Entomology, Map No. 111, 1974a.
Oleaceae	<i>Fraxinus lanceolata</i> (Morrill and Back 1911:29)	Green ash	
	<i>Osmanthus americanus</i> (Morrill and Back 1911:29)	Devil wood	Africa: Algeria (Boukhalfa and Bonafonte 1979:43-52)
Palmae	<i>Sabal minor</i> (Watson 1926:339)	Scrub Palmetto	Asia: Until 1903 the original home of the citrus whitefly was not definitely known. Gossard (1903) stated that some entomologists believe that it is a native of Florida, but others think it is an importation. Woglum (1913) said that citrus whitefly is undoubtedly of Oriental origin. Silvestri (1927) agreed with this view. In Asia this insect has been reported in: Ceylon (Quaintance and Baker 1916:469)
Punicaceae	<i>Punica granatum</i> (Morrill and Back 1911:29)	Pomegranate	China: Canton, Foochow, Hangchow, Hankow, Soochow, Shanghai, Peiping (Wu 1935:127) Macao (Woglum 1913:25; Wu 1935:127) Szechwan (Young 1942, p 95)
Proteaceae	<i>Helicia</i> sp. (Tao 1979:318)		Afghanistan (Gentry 1965:97)
Rosaceae	<i>Prunus caroliniana</i> (Watson 1926:339)	Laurel cherry	India: Assam (Pruthi and Mani 1945:17)
	<i>Prunus laurocerasus</i> (Morrill and Back 1911:29)	Common laurel	Bihar : Bhagalpur, Pusa (Husain and Khan 1945:6)
	<i>Prunus</i> sp. (Watson 1926:339)	Portugual cherry	Calcutta (Woglum 1913:23)
	<i>Pyracantha koidzumi</i> (Tao 1979:318)		Delhi (Woglum 1913:23)
	<i>Pyrus pyrifolia</i> (Tao 1979:318)		Maharashtra: Bombay, Nagpur, Poona (Woglum 1913:23)
	<i>Pyrus</i> sp. (Morrill and Back 1911:29)	Cultivated pear	Meghalaya: Khasi Hills (Woglum 1913:23)
	<i>Rubus</i> sp. (Watson 1926:339)	Blackberry	Mysore (Fletcher 1920, in Rev. Appl. Entomol. 9:68, 1921)
Rubiaceae	<i>Cephalanthus occidentalis</i> (Watson 1926:339)	Button bush	Orissa (Sen-Gupta and Behura 1957:24)
Rutaceae	<i>Ailanthus altissima</i> (Watson 1926:339)	Tree of heaven	Punjab (Woglum 1913:23): Ambala, Amritsardistrict, Ferozpor, Gurgaon, Hoshiarpur, Jullundur, Kulu Valley (Husain and Khan 1945:6)
	<i>Choisya ternata</i> (Watson 1926:339)	Mexican orange	Tamil Nadu: Madras (Fletcher 1920, in Rev. Appl. Entomol. 9:68, 1921), Tuticorin (Woglum 1913:23)
	<i>Wendlandia glabrata</i> (Tao 1979:318)		Uttar Pradesh: Saharanpur (Woglum 1913:23; Gupta and Joshi 1973:77)
Theaceae	<i>Camellia japonica</i> (Watson 1926:339)	Camellia	Israel (Argov and Rossler 1982:1-3)
Vitaceae	<i>Parthenocissus tricuspidata</i> (Watson 1926:339)	Boston ivy	Japan: Kanagawa, Okayama, Tokyo, Yehime, Miye (Kuwana 1911:620) Nagasaki (1907, 1st report in Japan) (Clausen 1927:7; from Nagasaki to Tokyo)
			Pakistan: Bhakkar, Dera Ghazi Khan, Gujranwala, Gujrat, Jhelum, Lahore, Liah, Lyallpur, Montgomery, Muzaffargarh, Rawalpindi, Sargodha, Sheikhupura, Sialkot (Husain and Khan 1945:6)
			Northwest Frontier Province (Rahman 1939, in Rev. Appl. Entomol. 32:290, 1940)
			Taiwan (Tao 1979:318)
			Turkey (Soylu 1980:36-53)
			Vietnam (Silvestri 1927:15; Clausen 1933:17)
			Europe: England (1974 in greenhouse) (Bowman and Bartlett 1978:203)
			France: <i>D. citri</i> was first observed in Department of Alpes-Maritimes on citrus in 1945-46; and it spread along the coast from Cannes to Menton (Targe and Deportes 1953 in Rev.

*Classified by Morrill and Back 1911, and Watson 1926

**Watson classified as less severely infested hosts

***Have not been classified

Biol.: Lethal temperatures (Cherry 1979a:1150-2)

Life cycle:

Egg: 3-20 days (Gossard 1903:610-2)

Larva: 1st instar: 7-25 days (Gossard 1903:610-2)
2nd instar: 4-34 days (Morrill and Back 1911:62)
3rd instar: 7-30 days (Morrill and Back 1911:62)
Larval life: 23-30 days (Morrill and Back 1911:52)
Pupa: 12-304 days (Morrill and Back 1911:63)
Adult: Preoviposition: 18-30 hrs. (Gossard 1903:609-12)

- Appl. Entomol. 42:248, 1954;
Onillon 1969, 937), Cote d'Azur,
Calabre, Corse (Onillon et
al. 1975:167-9).
- Italy
Calabria (Viggiani 1981:186-7)
Campania (Priore 1969, in Rev. Appl. Entomol.
60:801; 1972; Viggiani 1975:57-8;
Viggiani 1981:186-7)
Sicily (Barbagallo et al. 1981:115-21; Viggiani
1981:188-7)
Toscany (Onillon et al. 1975:167-9)
- USSR
Caucasus (Danzig 1964:329)
Republic of Georgia (Agekyan 1965:46)
Central America and the West Indies:
Bermuda (Ogilvie 1926:3-4)
El Salvador
Santiago de Maria (Anonymous 1967:117;
McGuire and Crandall 1967:35)
Guatemala (Ebling 1950:540; McGuire and Crandall
1967:35)
North America:
Mexico
Veracruz: Coatepec (Insect Pest Surv. Bull.
U.S.11:639, 1931)
- USA
Alabama (Insect Pest Surv. Bull. U.S. 17:400,
1937; English and Turnipseed
1940:17-21; Hudson and Williams
1986:585-9)
Arkansas (Anonymous 1917 in Rev. Appl.
Entomol. 5:384)
California
Marysville (1907) (Woodworth
1907:1; Essig 1931:157);
eradicated completely in 1944
(Armitage 1944:233); but was
reported in Sacramento in
1959 (Coop. Econ. Insect
Rep. US 9:382, 1959), then
in several places in California
(DeBach 1975:117)
Florida (Ashmead 1883:704; Riley and Howard
1893:220; Gossard 1903:603;
Weems 1973:1; Simanton
1974:145)
Georgia (Gossard 1903:603; Coop. Pest Surv.
Bull. US 9:73, 1929; Tippins
1958:552)
Louisiana (Gossard 1903:603; Coop. Econ. Insect
Surv. Rep. US 6:223, 1956;
Livingstone and Swank 1941:75-6)
Mississippi (Jackson County) (Coop. Econ. Insect
Surv. Rep. US 8:632, 1958)
North Carolina (Coop. Econ. Insect Rep. US
4:387, 1954, and 5:11, 1955)
South Carolina (Insect Pest Surv. Bull. 9:73,
1929)
Texas (Gossard 1903:603; Meyerdirk et al.
1980:1253-8)
Virginia (Anderson and Walker, 1939:210-3)
Washington, D.C. (Gossard 1903:603)
South America:
Argentina (Sanzin 1915, in Rev. Appl. Entomol.
3:694, 1915)
Brazil (Quaintance and Baker 1916:469; Moreira
1921:2)
Chile (Quaintance and Baker 1916:469; Camacho
1923, in Rev. Appl. Entomol.
12:223, 1924; Ebeling 1950:542;)
- Natur. enem.: Parasites:
Aphelinus fuscipennis Howard (Misra 1924:130;
Fulmek 1943:30)
Encarsia citri (Ishii) (Ishii 1938:29-30)
Encarsia citrifolia (Silvestri) (Silvestri 1927:33-4)
Encarsia formosa Gahan (Ferriere 1965:138)
Encarsia tricolor Forster (Ferriere 1965:131)
Encarsia lahorensis (Howard) (Woglum 1913:27;
Viggiani and Mazzone 1978a:99-161; Pappas and
Vigiani 1979, pp. 38-41; Nguyen and Sailer
1979:59-65; Sailer et al. 1984:36-9; McCoy et al.
1980:47-9; Hudson and Williams 1986:585-9)
- Predators:
Coccinellidae
Brumus suturalis Fabricius (Clausen 1934:256)
Catana parcesetosa (Sicard) (Timofeyeva and Hoang
Duc Nhuan 1978:302-8)
Chilocorus bijungus Mulsant (Shenderovskaya 1976, in
Rev. Appl. Entomol. 65:2861, 1977)
Chilocorus bivulnerus Mulsant (Morrill and Back
1912:9)
Clitostethus arcuanus Rossi (Agekyan 1977:22; Liotta
1983: 173-85)
Condylostylus patibulatus (Say) (Chavez 1974:24)
Cryptognatha flavescens Motsch. (Woglum 1913:19)
Cryptognatha flaviceps (Crotch) (Silvestri 1927:17)
Cycloneda sanguinea L. (Morrill and Back 1912:9)
Delphastus catalinae Horn (Watson 1926:340)
Dephastus pallidus (Leconte) (Griffiths and Thompson
1957:36)
Delphastus pusillus (Leconte) (Watson 1926:340)
Diomus raseicollis (Mulsant) (Chavez 1974:24)
Naphaspis gorhami Casey (Griffiths and Thompson
1957: 36)
Scymnillodes subtropicus Casey (Griffiths and
Thompson 1957:36)
Scymnus punctata Mulsant (Morrill and Back 1912:9)
Serangium sp. (Clausen 1934:256)
Serangium flavescens (Motschoulsky) (Woglum
1913:19)
Verania cardoni Weise (Howard 1911:131)
Coniopterygidae
Conwentzia psociformis (Curtis) (Agekyan 1965:46)
Semidalis aleyrodiformis Stephens (Agekyan 1978:509-
12)
Thripidae
Aleurodothrips fasciapennis Franklin (Morrill and Back
1912a:9; Back 1912:73)
Pathogens:
Aegeria webberi Fawcett (Gossard 1903:621; Morrill
and Back 1912:28-32)
Aschersonia sp. (Aleshina 1978:457-60; Dzhivladze
1979:28)
Aschersonia aleyrodii Webber (Gossard 1903:622;
Morrill and Back 1912:20-6; Berger 1907:56-64)
Aschersonia flavo-citrina P. Hennings (Berger 1909:44;
Morrill and Back 1912:26-8)
Capnodium citri Berk (Gossard 1903:623)
Fusarium aleyrodii Petch (Griffiths and Thompson
1957:36)
Sphaerostilbe coccophila Tulasne (Gossard 1903:623;
Morrill and Back 1912:38)
Sporotrichum sp. (Berger 1909:44)
Verticillium heterocladium Penzig (Berger 1909:44;
Morrill and Back 1912:37-8)
- Econ. imp.: It was reported as a serious pest of citrus in Florida
(Morrill and Back 1911:9).
- Species: *Dialeurodes citricola* Young
Orig. desc.: *Dialeurodes citricola* Young 1942:96-7
Syn.:
Tax.: See Young 1942:96-7
Biol.: See Young 1942:97
Hosts: Rutaceae
Citrus sinensis (Young 1942:97)
Citrus tangerina (Young 1942:97)
Geogr. distr.: China
Kiangtsing (Young 1942:97)
Natur. enem.:
Econ. imp.: It was reported as a minor pest of citrus in Kiangtsing,
China (Young 1942:95).
- Species: *Dialeurodes citrifolii* (Morgan)
Common name: Cloudywinged whitefly
Orig. desc: *Aleyrodes citrifolii* Morgan (Morgan 1893, in The
orange and other citrus fruits. La. Agr. Exp. Sta.
Spe. Bull. 71-3, 1893, not seen)
Redescribed: *Aleyrodes nubifera* Berger 1909 (Berger
1909:67-70)
Syn: *Aleyrodes citrifolii* Morgan 1893, in The orange and
other citrus fruits. La. Agr. Exp. Sta. Spe. Bull.

	71-3, 1893, not seen		Benatar 1935:8)
	<i>Aleyrodes nubifera</i> Berger 1909 (Quaintance and Baker 1916:469)	Econ. imp.:	<i>Aschersonia</i> sp. (Benatar 1935:8)
Tax:	See Berger 1909:67-71; Morrill and Back 1911:86-103; Quaintance and Baker 1916:469; Silvestri 1927:18-19; Peracchi 1971:149-51; Martin 1987:298-322		It was reported as a pest of citrus in Florida (Morrill and Back 1911:89).
Hosts:	Moraceae <i>Ficus nitida</i> (Morrill and Back 1911:86-103)	Species:	<i>Dialeurodes kirkaldyi</i> (Kotinsky)
	Rutaceae <i>Citrus aurantiifolia</i> (Records in Florida State Collection of Arthropods, DPI) <i>Citrus grandis</i> (Silvestri 1927:19) <i>Citrus limon</i> (Records in Florida State Collection of Arthropods, DPI) <i>Citrus x paradisi</i> (Records in Florida State Collection of Arthropods, DPI) <i>Citrus sinensis</i> (Simanton 1974:145) <i>Citrus</i> sp. (Berger 1909:67)	Orig. desc.:	<i>Aleyrodes kirkaldyi</i> Kotinsky 1907:95-6
		Syn.:	<i>Dialeurodes kirkaldyi</i> (Kotinsky) 1907 (Quaintance and Baker 1914:98)
Biol.:	Life cycle Egg: 10 days Larva: 25.9-56.7 days Pupa: 17 days minimum Egg-Adult: 51-334 days (Morrill and Back 1911:94-100) Life history 3 generations a year (Morrill and Back 1911:102-3)	Tax.:	See Kotinsky 1907:95-6; Quaintance and Baker 1914:98; Quaintance and Baker 1917:416-7; Russell 1964:1-4; Corbett 1935b:744-5; Habit and Farag 1971:19-21; Bink-Moenen 1983:129; Martin 1987:298-322
Geogr. distr.:	Asia: Japan (Penny 1922:22) Malaysia (Clausen 1933:17) Vietnam (North) (Silvestri 1927:18-19; Clausen 1933:17) Europe: England (1974 in greenhouse)(Bowman and Bartlett 1978:203) Central America and West Indies: Barbados (Tucker 1952:337) Bermuda (Russell 1936, in Rev. Appl. Entomol. 24:565, 1936; Ogilvie 1928:23) Jamaica (Mound and Halsey 1978:135) Puerto Rico (Dozier 1926:121) Trinidad (Mound and Halsey 1978:135) North America: Mexico (Quaintance and Baker 1916:470) USA Arkansas (Anonymous 1917, in Rev. Appl. Entomol. 5:384, 1917) California, Florida, Louisiana, Mississippi, North Carolina (Morrill and Back 1911:89-90; Boyce 1950:747; Simanton 1974:145) Texas (Meyerdirk et al. 1980:1253-8) Pacific Islands: Hawaii (Paulson and Kumashiro 1985:111; Paulson and Beardsley 1985:506-8. South America: Brazil (Benatar 1935:8) Rio de Janeiro (Peracchi 1971:150) Venezuela (Mound and Halsey 1978:135)	Hosts:	Apocynaceae <i>Allamanda neriifolia</i> (Russell 1964:1) <i>Beaumontia grandiflora</i> (Kotinsky 1907:96) <i>Plumeria acuminata</i> (Russell 1964:3; Tao 1979:318) <i>Plumeria acutifolia</i> (Russell 1964:3) <i>Tabernaemontana</i> sp. (Russell 1964:1) <i>Trachelospermum jasminoides</i> (Russell 1964:3) Combretaceae <i>Terminalia</i> sp. (Russell 1964:3; Habib and Farag 1970:19) Euphorbiaceae <i>Croton</i> sp. (Specimen in Florida State Collection of Arthropods, DPI) Loganiaceae <i>Fagraea fragrans</i> (Russell 1964:1) Lythraceae <i>Lagerstroemia indica</i> (Russell 1964:3; Tao 1979:318) Malpighiaceae <i>Hiptage bengalensis</i> (Tao 1979:318) <i>Hiptage madagblota</i> (Tao 1979:318) Malvaceae <i>Malva sylvestris</i> (Russell 1964:3) Oleaceae <i>Jasminum arabicum</i> (Russell 1964:3) <i>Jasminum grandiflorum</i> (Habib and Farag 1970:19) <i>Jasminum nitidum</i> (Russell 1964:3) <i>Jasminum sambac</i> (Habib and Farag 1970:19; specimen in Florida State Collection of Arthropods, DPI) Rubiaceae <i>Gardenia</i> sp. (Russell 1964:1; Tao 1979:318) <i>Gardenia tahitiensis</i> (Russell 1964:1) <i>Morinda citrifolia</i> (Kotinsky 1907:96) Rutaceae <i>Citrus sinensis</i> (Russell 1964:1) <i>Citrus</i> sp. (Gentry 1965:192) Verbenaceae <i>Clerodendrum fragrans</i> (specimen in Florida State Collection of Arthropods, DPI) <i>Premna integrifolia</i> (Russell 1964:3)
Natur. enem.:	Parasites: <i>Encarsia perstrenua</i> (Silvestri) (Silvestri 1927:36-7) <i>Encarsia strenua</i> (Silvestri) (Fulmek 1943:30) <i>Encarsia protransvena</i> Viggiani (Nguyen 1988, unpublished data) Predators: <i>Aleurodothrips fasciapennis</i> (Franklin) (Back 1912a:73; Selhime et al. 1963:710) <i>Baccha fuscipennis</i> Say (Muma et al. 1975:36) <i>Chrysopa bimaculata</i> McClendon (Muma 1959:23) <i>Chrysopa cubana</i> Hagen (Muma et al. 1975:36) <i>Chrysopa lateralis</i> Guerin-Meneville (Muma 1957:7) <i>Delphastus catalinae</i> Horn (Thompson and Simmonds 1965:47) Pathogens: <i>Aegeria webberi</i> Fawcett (Fawcett 1910:167; Davidson and Peairs 1966:545) <i>Aschersonia aleyrodus</i> (Pratt 1958:34; Davidson and Peairs 1966:545) <i>Aschersonia flavo-citrina</i> (Morrill and Back 1912:26;	Biol.:	
		Geogr. distr.:	Africa: Cote d'Ivoire (Bink-Moenen 1983:129) Egypt (Bink-Moenen 1983:129) Ghana (Bink-Moenen 1983:129) Asia: India, Pakistan, Syria (Gentry 1965:192; Avidov and Harpaz 1969:83) Egypt (Habib and Farag 1970:21) Taiwan (Takahashi 1935:281; Tao 1979:318) Central America and West Indies: Cuba, Jamaica, Trinidad (Russell 1964:3) North America: USA Florida (St. Augustine, Samsula, Miami, Key West)(specimens in Florida State Collection of Arthropods, DPI) Texas (Brownsville) (Coop. Plant Pest Rep. 3(44-47):618, 1978) Pacific Islands: Hawaii (Kotinsky 1907:96; Paulson and Kumashiro 1985:111) South America: British Guiana (Baker and Moles 1921:641)

Natur. enem.: Parasites:
Encarsia protransvena Viggiani (Viggiani 1985:89-90)
 Econ. imp.: It was reported as a pest of citrus in Asia (Gentry 1965:192).

Species: *Dialeurodes struthanthi* (Hempel)
 Orig. desc.: *Aleurodes struthanthi* Hempel 1901:387
 Syn.: *Dialeurodes struthanthi* (Hempel) 1901 (Quaintance and Baker 1914:98)
 Tax.: See Hempel 1901:387
 Hosts: Loranthaceae
Loranthus flexicaulis (D'Araujo e Silva et al. 1968:119)
Struthanthus flexicaulis (Hempel 1901:387)
 Rutaceae
Citrus sinensis (Costa Lima 1936:158; Da Fonseca and Autuori 1932:215)

Geogr. distr.: Brazil
 Guanabara, Paraiba (D'Araujo e Silva et al. 1968:119)
 Parnahyba (Baker and Moles 1921:642)
 Sao Paulo (Hempel 1901:381; Da Fonseca and Autuori 1932:215)

Natur. enem.:
 Econ. imp.: It has not been reported as an economically important species.

Genus: *Dialeurolonga*

Species: *Dialeurolonga* spp. indet.
 Orig. desc.: Specimen in BMNH (in Mound and Halsey 1978:151)
 Syn.:
 Tax.:
 Hosts: (in Mound and Halsey 1978:151)
 Burseraceae
Commiphora zimmermanni (BMNH: Kenya)
 Celastraceae
Elaeodendron sp. (BMNH: Kenya)
 Euphorbiaceae
Alchornea cordifolia (BMNH: Nigeria)
 Flacourtiaceae
Rawsonia lucida (BMNH: Kenya)
 Hippocrateaceae
Hippocratea obtusifolia (BMNH: Kenya)
 Lythraceae
Lawsonia alba (BMNH: Sudan)
 Moraceae
Ficus sp. (BMNH: Nigeria)
 Rubiaceae
Coffea sp. (BMNH: Nigeria)
Vangueria linearisepala (BMNH: Kenya)
 Rutaceae
Citrus sp. (BMNH: Mauritius, South Africa, Sudan)
Clausena anisata (BMNH: Kenya)
 Sterculiaceae
Cola nitida (BMNH: Nigeria)
Cola sp. (BMNH: Cameroun)
Theobroma sp. (BMNH: Nigeria)
 Tiliaceae
Grewia similis (BMNH: Kenya)

Biol.:
 Geogr. distr.:
 Natur. enem.:
 Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Dialeurolonga communis* Bink-Moenen
 Orig. desc.: *Dialeurolonga communis* Bink-Moenen 1983:133-4
 Syn.:
 Tax.: Bink-Moenen 1983:132-4; Martin 1987:298-322
 Hosts: Rubiaceae
Coffea robusta (Bink-Moenen 1983:134)
Gardenia triacantha (Bink-Moenen 1983:134)
 Rutaceae
Citrus sp. (Bink-Moenen 1983:134)
 Sapindaceae
Allophylus africanus (Bink-Moenen 1983:134)

Strychnaceae
Strychnos spinosa (Bink-Moenen 1983:134)

Biol.:
 Geogr. distr.: Chad (Bink-Moenen 1983:134)
 Natur. enem.:
 Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Dialeurolonga elongata* (Dozier)
 Orig. desc.: *Dialeurodes (Dialeurolonga) elongata* Dozier 1928:1001-2
 Syn.: *Dialeurolonga elongata* (Dozier) (Takahashi 1951:354; in Mound and Halsey 1978:153)
 Tax.: See Dozier 1928:1001-2; Husain and Khan 1945:16-17; Singh 1931:36; Martin 1987:298-322

Hosts: Rubiaceae
Lora coccinea (Husain and Khan 1945:16)
Lora parviflora (Husain and Khan 1945:16)
Murraya exotica (David and Subramaniam 1976:194; Mound and Halsey 1978:153)

Rutaceae
Citrus spp. (Dozier 1928:1001)
 Sapindaceae
Litchi chinensis (Husain and Khan 1945:16)

Biol.: Life cycle:
 Egg: 6-9 days in April, 12-14 days in October and November
 Larval stage: 24-42 days
 Pupal stage: 102-120 days (Husain and Khan 1945:18)

Life history:
 2 generations a year in Pakistan (Husain and Khan 1945:18)

Geogr. distr.: India
 Bihar (Husain and Khan 1945:15; Martin 1985:459)
 Pakistan
 Gujranwala, Lyallpur, Lahore, Multan, Muzaffargarh, Sheikhpura (Husain and Khan 1945:15; Singh 1931:36; Martin 1985:459)

Natur. enem.:
 Econ. imp.: It was reported as a very serious pest of citrus in Pakistan and India (Dozier 1928:1001-2; Husain and Khan 1945:3).

Species: *Dialeurolonga simplex* Takahashi
 Orig. desc.: *Dialeurolonga simplex* Takahashi 1955:393-5
 Syn.:
 Tax.: See Takahashi 1955:393-5; Martin 1985:461-2
 Hosts: Commelinaceae
Aphloia theaeformis (Takahashi 1955:395; Martin 1985:462)
 Gittiferaceae
Calophyllum sp. (Russell and Etienne 1985:202-6)
 Rutaceae
Citrus sp. (Russell and Etienne 1985:202-6; Martin 1985:462)

Biol.:
 Geogr. Distr.: Island of Reunion (Russell and Etienne 1985:202-6)
 Madagascar (Takahashi 1955:395)
 Mauritius (Martin 1985:462)

Natur. Enem.:
 Econ. imp.: It has not been reported as an economically important species.

Genus: *Hexaleurodicus*

Species: *Hexaleurodicus* spp. ident.
 Orig. desc.: Specimen in BMNH (Mound and Halsey 1978:242)
 Syn.:
 Tax.:
 Hosts: Rutaceae
Citrus sp. (BMNH: Colombia; Mound and Halsey 1978:242)
 Verbenaceae
Citharexylum sp. (BMNH: Barbados; Mound and Halsey 1978:242)

Biol.:
 Geogr. distr.:

Natur. enem.:
Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Hexaleurodicus jaciae* Bondar
Orig. desc.: *Hexaleurodicus jaciae* Bondar 1923:84-5
Syn.:
Tax.: See Bondar 1923:84-5
Hosts: Melastomataceae
Miconia sp. (Bondar 1923:85)
Rubiaceae
Chomelia sp. (Bondar 1923:85)
Rutaceae
Citrus sinensis (Bondar 1923:85; Da Fonseca and Autuori 1932:215)
Biol.:
Geogr. distr.: Brazil
Bahia (Da Fonseca and Autuori 1932:215)
Natur. enem.:
Econ. imp.: It has not been reported as a serious pest of citrus.

Genus: *Metaleurodicus*

Species: *Metaleurodicus cardini* (Back)
Orig. desc.: *Aleurodicus cardini* Back 1912b:148-51
Syn.: *Aleurodicus* (*Metaleurodicus*) *cardini* Back (Quaintance and Baker 1913:75-7)
Metaleurodicus cardini (Back) (Bondar 1923:81; Mound and Halsey 1978:244)
Tax.: See Back 1912b:148-51; Quaintance and Baker 1913:75-7; Bondar 1923:81; Martin 1987:298-322
Hosts: Apocynaceae
Plumeria sp. (Records in Florida State Collection of Arthropods, DPI)
Bombacaceae
Melaleuca leucadendra (Records in Florida State Collection of Arthropods, DPI)
Malpighiaceae
Malpighia glabra (Records in Florida State Collection of Arthropods, DPI)
Myrtaceae
Eugenia sp. (Records in Florida State Collection of Arthropods, DPI)
Pimenta dioica (Records in Florida State Collection of Arthropods, DPI)
Pimenta officinalis (BMNH; Mound and Halsey 1978:244)
Psidium cattleianum (Records in Florida State Collection of Arthropods, DPI)
Psidium guajava (Back 1912b:150; BMNH; Mound and Halsey, 1978:244; Records in Florida State Collection of Arthropods, DPI)
Psidium littorale Records in Florida State Collection of Arthropods, DPI)
Rutaceae
Citrus sinensis (BMNH; Mound and Halsey 1978:244)
Citrus sp. (Sorauer 1956:337)
Sapotaceae
Dipholis salicifolia (Records in Florida State Collection of Arthropods, DPI)
Verbenaceae
Citharexylum fruticosum (Records in Florida State Collection of Arthropods, DPI)
Citharexylum spinosum (Sorauer 1956:337)
Duranta repens (Records in Florida State Collection of Arthropods, DPI)
Duranta sp. (Records in Florida State Collection of Arthropods, DPI)
Biol.:
Geogr. distr.: Cuba (Back 1912b:150)
Bermuda, Jamaica (BMNH; Mound and Halsey 1978:244)
USA (Florida) (Specimen in Florida State Collection of Arthropods, DPI)
Natur. enem.:
Parasites:
Encarsia sp. (Fulmek 1943:7; Mound and Halsey 1978:244)

Predators:
Baccha clavata Fabricius (Thompson and Simmonds 1964:53)
Baccha parvicornis Loew (Thompson and Simmonds 1964:53)
Chrysopa thoracica Walker (Thompson and Simmonds 1964:53)
Delphastus diversipes (Champion) (Thompson 1964:53)
Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Metaleurodicus manni* (Baker)
Orig. desc.: *Aleurodicus* (*Metaleurodicus*) *manni* Baker 1923:253-4
Syn.: *Metaleurodicus manni* (Baker) (Mound and Halsey 1978:245)
Tax.: See Baker 1923:253-4
Hosts: Rutaceae
Citrus sp. (Baker 1923:253-4)
Biol.:
Geogr. distr.: Honduras (Baker 1923:253-4)
Natur. enem.:
Econ. imp.: It was reported as a serious pest of citrus in Honduras (Baker 1923:253-4).

Genus: *Orchamoplatus*

Species: *Orchamoplatus caledonicus* (Dumbleton)
Orig. desc.: *Orchamoplatus caledonicus* Dumbleton 1956a:133-4
Syn.: *Orchamoplatus caledonicus* (Dumbleton) (Russell 1958:400-2; Mound and Halsey 1978:174)
Tax.: See Dumbleton 1956a:133-4
Hosts: Rutaceae
Citrus aurantium (Cohic 1959:242; in Mound and Halsey 1978:174)
Citrus medica (Cohic 1959:242; in Mound and Halsey 1978:174)
Citrus medica var. *limon* (Cohic 1959:242; in Mound and Halsey 1978:174)
Citrus reticulata (Cohic 1959:242; in Mound and Halsey 1978:174)
Citrus sp. (Dumbleton 1957:134)
Ulmaceae
Celtis sp. (Cohic 1959:242; in Mound and Halsey 1978:174)
Biol.:
Geogr. distr.: New Caledonia (Dumbleton 1956a:134)
Natur. enem.:
Econ. imp.: It has not been reported as a serious pest of citrus.
Species: *Orchamoplatus citri* (Takahashi)
Orig. desc.: *Aleuroplatus citri* Takahashi 1940:381-2
Syn.: *Orchamoplatus citri* (Takahashi) (Russell 1958:397-8; Mound and Halsey 1978:175)
Tax.: See Takahashi 1940:381-2; Jenkins and Shedley 1953:49; Dumbleton 1956b:175-7
Hosts: Rutaceae
Citrus limon (Jenkins and Shedley 1953:50)
Citrus spp. (Takahashi 1940:382)
Biol.:
Geogr. distr.: Australia:
Maddington (Jenkins and Shedley 1953:55)
New South Wales, Raymond Terrace, Sydney (Takahashi 1940:382; Dumbleton 1956b:177)
Natur. enem.:
Predators:
Clambus sp. (Jenkins and Shedley 1953:53)
Lacewing and lady beetle (Jenkins and Shedley 1953:53)
Econ. imp.: It was reported as a serious pest of lemon in Maddington-Gosnells (Australia) (Jenkins and Shedley 1953:55).
Species: *Orchamoplatus mammaeferus* (Quaintance and Baker)
Orig. desc.: *Aleuroplatus* (*Orchamoplatus*) *mammaeferus* Quaintance and Baker 1917:400-1
Syn.: *Aleuroplatus samoanus* Laing (Laing 1927:43-5; Russell 1958:393-7)

Orchamoplatus mammaeferus (Quaintance and Baker)
(Russell 1958:393-7; Mound and Halsey 1978:175)

Tax.: See Laing 1927:435; Dozier 1928:1002-5; Dumbleton 1953:21; Martin 1987:298-322

Hosts: Euphorbiaceae
Codiaeum variegatum (Quaintance and Baker 1917:400)
Croton sp. (Laing 1927:44)

Myrtaceae
Eugenia malaccensis (Paulson and Beardsley 1985:507)
Pimenta officinalis (BMNH, in Mound and Halsey 1978:176)

Rutaceae
Citrus aurantiifolia (BMNH; Mound and Halsey 1978:176)
Citrus medica (Dozier 1928:1003)
Citrus x paradisi (BMNH; Mound and Halsey 1978:176)
Citrus sinensis (BMNH; Mound and Halsey 1978:176; Dumbleton 1953:21)

Biol.:
Geogr. distr.: Asia:
Japan (Russell 1958:396)
Java (Quaintance and Baker 1917:401)
Malaya (Russell 1958:396)
Singapore (Russell 1958:396)
Australia (Russell 1958:396)
New Zealand (Russell 1958:396)
Pacific Islands:
Fiji, Cook Islands, Tahiti (Russell 1958:396)
Hawaii (Paulson and Beardsley 1985:506-8)
Marquesas Islands (Dozier 1928:1003)
Samoa (Laing 1927:43-5; Dozier 1928:1001)

Natur. enem.:
Econ. imp.: It was reported as a serious pest of citrus in Samoa (South Pacific) (Dozier 1928:1001).

Species: *Orchamoplatus noumeae* Russell
Orig. desc.: *Orchamoplatus noumeae* Russell 1958:405-6
Syn.:
Tax.: See Russell 1958:405-6
Hosts: *Citrus* sp. (Russell 1958:405-6)
Biol.:
Geogr. distr.: New Caledonia (Russell 1958:405-6)
Natur. enem.:
Econ. imp.: It has not been reported as a serious pest of citrus.

Genus: *Parabemisia*

Species: *Parabemisia myricae* (Kuwana)
Common name: bayberry whitefly

Orig. desc.: *Bemisia myricae* Kuwana 1927:249-51
Syn.: *Parabemisia myricae* (Kuwana) (Takahashi 1952:24; Mound and Halsey 1978:177)

Tax.: See Kuwana 1927:249-51; Kuwana 1928:64-6; Rose et al. 1981:22; Martin 1987:298-322

Hosts: Ebenaceae
Diospyros kaki (Kuwana 1928:64)

Elaeocarpaceae
Elaeocarpus serratus (Takahashi 1933:3; Mound and Halsey 1978:177)

Ericaceae
Rhododendron sp. (Takahashi 1952:4; Mound and Halsey 1978:178)

Fagaceae
Quercus serrata (Kuwana 1928:64)
Quercus sp. (Kuwana 1928:64)

Lauraceae
Machilus sp. (Takahashi 1932:33)

Oleaceae
Schoepfia schieberi (Specimen in Florida State Collection of Arthropods, DPI)

Moraceae
Ficus carica (Kuwana 1928:64)
Morus alba (Kuwana 1927:250)

Myricaceae
Myrica rubra (Kuwana 1927:250)

Myrsinaceae

Maesa japonica (Takahashi 1932:33)

Myrtaceae
Psidium guajava (Takahashi 1932:33)

Rosaceae
Prunus mune (Kuwana 1928:64)
Prunus persica (Kuwana 1928:64)
Prunus serrata (Kuwana 1928:64)
Prunus triflora (Kuwana 1928:64)

Rubiaceae
Chiococca alba (Specimen in Florida State Collection of Arthropods, DPI)
Gardenia florida (Corbett 1935b:786)

Rutaceae
Citrofortunella mitis (Specimen in Florida State Collection of Arthropods, DPI)
Citrus sp. (Kuwana 1927:250)
Murraya koenigii (Specimen in Florida State Collection of Arthropods, DPI)
Poncirus trifoliata (Specimen in Florida State Collection of Arthropods, DPI)

Salicaceae
Salix babylonica (Kuwana 1928:64)
Salix gracilistyla (Kuwana 1928:64)

Theaceae
Thea sinensis (Takahashi 1952:24; Mound and Halsey 1978:178)

Biol.: See Kuwana 1928:66
Geogr. distr.: Hong Kong (Specimen in Florida State Collection of Arthropods, DPI)
Japan
Aichi Ken, Kochi, Wakayama (Kuwana 1927:250)
Malaya (Takahashi 1952:24; Mound and Halsey 1978:177)
Taiwan (Takahashi 1952:24; Mound and Halsey 1978:177)
USA
California (Rose et al. 1981:22-4)
Florida (Specimen in Florida State Collection of Arthropods, DPI)

Natur. enem.: Parasites:
Encarsia bemisiae (Ishii) (Ishii 1938:30)
Encarsia spp., *Eretmocerus* sp. (Rose et al. 1981:22-3; Rose and DeBach 1982:272-6)

Econ. imp.: It was a serious pest of cultivated mulberry trees in Japan (Kuwana 1927:245).

Genus: *Paraleyrodes*

Species: *Paraleyrodes* spp. indet.
Orig. desc.: Specimen in BMNH (Mound and Halsey 1978:247)
Syn.:
Tax.:
Biol.:
Hosts:

Cannaceae
Canna sp. (BMNH: Jamaica; Mound and Halsey 1978:247)

Myrtaceae
Pimenta sp. (BMNH: Jamaica; Mound and Halsey 1978:247)

Palmae
Cocos nucifera (BMNH: Jamaica; Mound and Halsey 1978:247)

Polygonaceae
Coccoloba uvifera (BMNH: Jamaica; Mound and Halsey 1978:247)

Rutaceae
Citrus sp. (BMNH: Ecuador; Mound and Halsey 1978:247)

Zygophyllaceae
Guaiacum officinale (BMNH: Jamaica; Mound and Halsey 1978:247)

Geogr. distr.:
Natur. enem.:
Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Paraleyrodes bondari* Peracchi
Orig. desc.: *Paraleyrodes bondari* Peracchi 1971:146
Syn.:
Tax.: See Peracchi 1971:146-8

Species: *Paraleyrodes perseae* (Quaintance)
 Common name: bay whitefly
 Orig. desc.: *Aleurodes perseae* Quaintance 1900:32-3
 Syn.: *Paraleyrodes (Aleurodicus) perseae* (Quaintance)
 (Quaintance 1909:170)
Paraleyrodes perseae (Quaintance)(Quaintance and

Genus: *Tetraleurodes*

6(72):366, not seen; Morrill 1903:80-5;
Quaintance and Baker 1914:107-8; Quaintance
and Baker 1916:470

Hosts: Aquifoliaceae
Ilex opaca (Quaintance 1899a:4)

Betulaceae
Betula sp. (Morrill 1903:82; Mound and Halsey
1978:200)
Carpinus sp. (Britton 1923:338; Mound and
Halsey 1978:200)
Corylus sp. (Britton 1923:338; Mound and Halsey
1978:200)

Bignoniaceae
Catalpa sp. (Britton 1923:338; Mound and
Halsey 1978:200)

Cornaceae
Cornus florida (Morrill 1903:82; Mound and
Halsey 1978:200)
Cornus sanguinea (Morrill 1903:82; Mound and
Halsey 1978:200)
Cornus sp. (BMNH; Mound and Halsey
1978:200)

Ebenaceae
Diospyros sp. (Quaintance and Baker 1916:470;
Mound and Halsey 1978:200)

Ericaceae
Kalmia latifolia (Britton 1923:338; Mound and
Halsey 1978:200)

Hamamelidaceae
Liquidambar styraciflua (Quaintance 1899a:4)

Lauraceae
Persea carolinensis (Quaintance 1899a:4)

Magnoliaceae
Magnolia sp. (BMNH; Mound and Halsey
1978:200)

Moraceae
Morus rubra (Cockerell 1900:366, not seen, in
Mound and Halsey 1978:200)
Morus sp. (Quaintance 1899a:4)

Rutaceae
Citrus sinensis (BMNH; Mound and Halsey
1978:200)
Citrus sp. (Quaintance 1899a:4; Quaintance and
Baker 1916:471)

Tiliaceae
Tilia americana (Quaintance 1899a:4)
Tilia sp. (Britton 1923:338)

Ulmaceae
Celtis sp. (Quaintance and Baker 1916:470)

Verbenaceae
Callicarpa americana (Quaintance 1899a:4)

Other hosts:
mulberry, sycamore, maple, dogwood,
blackberry, persimmon, holly, mountain
laurel (Quaintance and Baker 1916:470)

Biol.:
Geogr. distr.: Jamaica (Quaintance 1899a:4)
Mexico (Quaintance and Baker 1916:471)
USA
Arizona (Cockerell 1900:366, in Mound and
Halsey 1978:200)
California (BMNH; Mound and Halsey 1978:200)
Florida (Quaintance 1899a:4)
Massachusetts (Morrill 1903:82)
Ohio (Cockerell 1900:366, in Mound and Halsey
1978:200)
Virginia (BMNH; Mound and Halsey 1978:200)
Washington, D.C. (BMNH; Mound and Halsey
1978:200)

Natur. enem.:
Econ. imp.: It has not given any trouble to citrus growers in
Florida (Watson 1926:347).

Species: *Tetraleurodes ursorum* (Cockerell)
Orig. desc.: *Aleyrodes ursorum* Cockerell 1910b:171-2
Syn.: *Tetraleurodes ursorum* (Cockerell) (Quaintance and
Baker 1914:108)
Tax.: See Cockerell 1910b:171-2; Quaintance and Baker
1914:108
Biol.:

Hosts: Berberidaceae
Berberis haematocarpa (Crocket et al. 1983:105-
6)
Berberis trifoliata (Crocket et al. 1983:105-6)
Berberis swaseyi (Crocket et al. 1983:105-6)

Ericaceae
Arctostaphylos uva-ursi (Cockerell 1910b:171)

Polygonaceae
Coccoloba sp. (Dozier 1936:146)

Rutaceae
Citrus spp. (Muma et al. 1975:36)

Geogr. distr.: Puerto Rico (Dozier 1936:146)
USA
Colorado (Cockerell 1910b:171)
Florida (Muma et al. 1975:36)
Texas (Crocket et al. 1983:105-6)

Natur. enem.: Parasites:
Encarsia basicincta Gahan (Muma et al. 1975:36)

Econ. imp.: It has not been reported as a serious pest in Florida.

Genus: *Trialeurodes*

Species: *Trialeurodes abutilonea* (Haldeman)
Common name: Banded winged whitefly

Orig. desc.: *Aleurodes abutilonea* Haldeman 1850:108-9

Syn.: *Asterochiton abutiloneus* (Haldeman) (Quaintance and
Baker 1914:105)
Trialeurodes abutiloneus (Haldeman) (Quaintance and
Baker 1915:11)
Aleurodes erigerontis Maskell, (Maskell 1895:429)
Aleyrodes (Trialeurodes) erigerontis
(Maskell)(Cockerell 1902:283)
Asterochiton erigerontis (Maskell) (Quaintance and
Baker 1914:105)
Trialeurodes erigerontis (Maskell) (Quaintance and
Baker 1915:11)
Aleurodes rolfsii Quaintance (Quaintance 1899b:90-2)
Asterochiton rolfsii (Quaintance) (Quaintance and Baker
1914:105)
Trialeurodes rolfsii (Quaintance) (Quaintance and
Baker 1915:11)
Aleyrodes fitchi Quaintance (Quaintance 1900:24-6)
Aleyrodes (Trialeurodes) fitchi (Quaintance)(Cockerell
1902:283)
Aleyrodes ambrosiae Cockerell (Cockerell 1910a:370-1)
Asterochiton ambrosiae (Cockerell)(Quaintance and
Baker 1914:105)
Trialeurodes ambrosiae (Cockerell) (Quaintance and
Baker 1915:11)

Tax.: See Haldeman 1850:108-9; Cockerell 1910a:270-
1; Quaintance 1900:24-5; Quaintance and Baker
1914:105; Russell 1948:71-4

Hosts: It has been recorded feeding on 58 genera belonging to
23 plant families, including Rutaceae (*Citrus*
spp.)(Russell 1948:74).

Geogr. distr.: North America:
Mexico
Chihuahua: Escalon (Russell 1948:75)
Durango: Conejos and Lerdo (Russell 1948:75)
Sinaloa: Bomoa (Russell 1948:75)
USA
Alabama, Arizona, Arkansas, California,
Colorado, Delaware, Washington, D.C.,
Florida, Georgia, Illinois, Indiana, Kansas,
Kentucky, Louisiana, Maryland, Michigan,
Mississippi, Missouri, Nebraska, New
Jersey, New Mexico, New York, Ohio,
Oklahoma, Pennsylvania, North Carolina,
South Carolina, Tennessee, Texas, Utah,
Virginia, Washington, Wisconsin (Russell
1948:74; Russell 1963:150)

West India:
Cuba (Russell 1948:75)
Puerto Rico (Russell 1963:150)
Trinidad (Russell 1963:150)

Natur. enem.: Parasites:
Amitus aleurodinis Haldeman (Dysart 1966:28, in
Mound and Halsey 1978:207)
Encarsia pergandiella Howard (Thompson 1950:110, in
Mound and Halsey 1978:207)

Encarsia quaintancei Howard (Dysart 1966:28, in Mound and Halsey 1978:207)
Eretmocerus haldemani Howard (Dysart 1966:28, in Mound and Halsey 1978:207)
Predators:
Sericothrips trifasciatus (Ashmead) (Kirkaldy 1907:54, in Mound and Halsey 1978:207)
Econ. imp.: It is not an economic pest of *Citrus* spp. in Florida.

Species: *Trialeurodes floridensis* (Quaintance)
Common name: guava whitefly, avocado whitefly
Orig. desc.: *Aleurodes floridensis* Quaintance 1900:26-7
Syn.: *Asterochiton floridensis* (Quaintance) (Quaintance and Baker 1914:105)
Trialeurodes floridensis (Quaintance) (Quaintance and Baker 1915:11)
Tax.: See Quaintance 1900:26-7; Quaintance and Baker 1916:470; Russell 1948:19-20; Martin 1987:298-322
Hosts: Annonaceae
Annona diversifolia (Russell 1948:20)
Annona squamosa (Quaintance and Baker 1916:470)
Anacardiaceae
Mangifera sp. (Russell 1948:20)
Bombacaceae
Bombax malabaricum (Russell 1948:20)
Convolvulaceae
Ipomoea sp. (Russell 1948:20)
Dilleniaceae
Tetracera volubilis (Russell 1948:20)
Lauraceae
Persea americana (Quaintance and Baker 1916:470; Wolfenbarger 1964:209)
Leguminosae
Acacia pallens (Russell 1948:20)
Albizia moluccana (Russell 1948:20)
Cassia nodosa (Russell 1948:20)
Lythraceae
Lagerstroemia speciosa (Russell 1948:20)
Malpighiaceae
Malpighia glabra (Russell 1948:20)
Meliaceae
Melia azedarach (Russell 1948:20)
Myrtaceae
Psidium guajava (Quaintance and Baker 1916:470)
Tristania conferta (Russell 1948:20)
Polygonaceae
Coccoloba uvifera (Russell 1948:20)
Rosaceae
Geobalanus sp. (Russell 1948:20)
Rubiaceae
Chomelia spinosa (Russell 1948:20)
Rutaceae
Citrus sp. (Quaintance and Baker 1916:470)
Clausena lansium (Russell 1948:20)
Sapindaceae
Dodonaea thunbergiana (Russell 1948:20)
Sapotaceae
Minusops emarginata (Russell 1948:20)
Verbenaceae
Petrea volubilis (Russell 1948:20)
Zygophyllaceae
Guaiacum guatemalense (Russell 1948:20)
Biol.:
Geogr. distr.: Central America:
Canal Zone (Russell 1948:20)
North America:
Mexico
Nuevo Leon (Russell 1963:151)
USA
Arizona (Russell 1963:151)
Florida (from Gainesville to Miami) (Quaintance 1900:27; Russell 1948:20)
West Indies:
Bahamas (Russell 1948:20)
Cuba (Russell 1948:20)
Puerto Rico (Russell 1948:20)
Natur. enem.: Parasites:

Encarsia meritoria Gahan (Gahan 1927:19-20)
Predators:
Delphastus pallidus (LeConte) (Thompson and Simmonds 1965:47)
Econ. imp.: It is quite abundant on guava and avocado, but it is rarely found on citrus in Florida (Watson 1926:346).

Species: *Trialeurodes mirissimus* Sampson and Drews
Orig. desc.: *Trialeurodes mirissimus* Sampson and Drews (Sampson and Drews 1941:179)
Syn.:
Tax.:
Hosts: Flacourtiaceae
Casearia hirsuta (BMNH; Mound and Halsey 1978:213)
Rutaceae
Casimiroa edulis (Sampson and Drews 1941:179; Mound and Halsey 1978:213)
Citrus sp. (BMNH; Mound and Halsey 1978:213)
Verbenaceae
Petrea arborea (BMNH; Mound and Halsey 1978:213)
Biol.:
Geogr. distr.: Jamaica, St. Kitts, Trinidad (BMNH; Mound and Halsey 1978:213)
Mexico (Sampson and Drews 1941:179; Mound and Halsey 1978:213)
Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Trialeurodes ricini* (Misra)
Orig. desc.: *Aleyrodes ricini* Misra 1924:131
Syn.: *Trialeurodes ricini* (Misra) 1924 (Gentry 1965:97)
Tax.: See Misra 1924:131-5; Martin 1987:298-322
Hosts: Annonaceae
Annona glabra (David and Subramaniam 1976:215, in Mound and Halsey 1978:217)
Convolvulaceae
Ipomoea batatas (Mound 1965:158)
Ericaceae
Arbutus sp. (Mound and Halsey 1978:217)
Euphorbiaceae
Breynia rhamnoides (Singh 1931:46)
Euphorbia sp. (Rao 1958:333, in Mound and Halsey 1978:218)
Phyllanthus sp. (Rao 1958:333, in Mound and Halsey 1978:218)
Ricinus communis (Misra 1924:131)
Malvaceae
Gossypium hirsutum (David and Subramaniam 1976:215, in Mound and Halsey 1978:218)
Rosaceae
Rosa sp. (Rao 1958:333, in Mound and Halsey 1978:218)
Rutaceae
Citrus sp. (Gentry 1965:97)
Murraya koenigii (Rao 1958:333, in Mound and Halsey 1978:218)
Sapotaceae
Achras sapota (Singh 1931:46)
Biol.:
Life cycle
From egg to adult:20-56 days (Misra 1924:135)
Geogr. distr.: India (Misra 1924:131)
Iran (Gentry 1965:97)
Nigeria (Mound 1965:158)
Natur. enem.: Parasites:
Aphelinus fuscipennis Howard (Misra 1924:135)
Aphytis proclia (Walker) (Fulmek 1943:6)
Encarsia lahorensis (Howard) (Fulmek 1943:6)
Predators:
Chrysopa sp. (Misra 1924:135)
Cryptognatha flavescens (Motschoulsky) (Misra 1924:135)
Serangium flavescens (Motachoulsky) (Misra 1924:135)
Tauravia soror Weise (Thompson and Simmonds

1964:53)
 Pathogens:
Cladosporium sp. (Misra 1924:135)
 Econ. imp.: It has not been reported as a serious pest of citrus.

Species: *Trialeurodes vaporariorum* (Westwood)
 Orig. desc.: *Aleyrodes vaporariorum* Westwood 1856:852; in Mound and Halsey 1978:219
 Syn.: See Russell 1948:43-4
 Tax.: See Russell 1948:44-8; Martin 1987:298-322
 Biol.:
 Hosts: It has been recorded feeding on 135 plant species belonging to 111 genera (65 families), including *Citrus* spp. (Rutaceae) (Russell 1948:48-9).
 Biol: Life cycle:
 Egg to adult: 3 to 4 weeks (Tauber and Helgesen 1974:13)
 Geogr. distr.: Africa:
 South Africa (Russell 1948:49)
 Australia:
 Australia, New Zealand (Russell 1948:49)
 Europe:
 Denmark, England, Germany (Russell 1948:49)
 Central America:
 Guatemala (Russell 1948:49)
 North America:
 Canada, USA (Russell 1948:49)
 South America
 Brazil (D'Araujo e Silva 1968:120)
 British Guiana, Chili, Columbia (Russell 1948:49)
 Natur. enem.: Parasites:
 The most important parasite of this species is *Encarsia formosa* (Tauber and Helgesen 1974:13).
 Predators:
Clitostethus arcuatus Rossi (Agekyan 1977:22)
 Econ. imp.: It is a very serious pest of greenhouse crops (Tauber and Helgesen 1974:13), but not important on citrus.

Species: *Trialeurodes variabilis* (Quaintance)
 Common name: papaya whitefly
 Orig. desc.: *Aleyrodes variabilis* Quaintance 1900:39-41
 Syn.: *Aleyrodes* (*Trialeurodes*) *variabilis* (Quaintance) (Cockerell 1902:283)
Asterochiton variabilis (Quaintance) (Quaintance and Baker 1914:105)
Trialeurodes variabilis (Quaintance) (Quaintance and Baker 1915:11)
Trialeurodes caricae Corbett (Corbett 1935c:245-6)
 Tax.: See Quaintance 1900:39-41; Cockerell 1902:283; Quaintance and Baker 1914:105; Quaintance and Baker 1915:xi; Russell 1948:29-30
 Hosts: Aceraceae
Acer mexicanum (Russell 1948:30)
 Caricaceae
Carica papaya (Quaintance 1900:41)
Carica sp. (Russell 1948:30)
 Euphorbiaceae
Manihot glaziovii (Russell 1948:30)
 Polygonaceae
Coccoloba floribunda (Russell 1948:30)
 Rubiaceae
Gardenia sp. (Russell 1948:30)
 Rutaceae
Citrus x paradisi (Russell 1948:30)
Citrus reticulata (Mandarin) (Russell 1948:30)
 Geogr. distr.: Central America:
 Costa Rica (Russell 1948:30)
 Guatemala (Russell 1948:30)
 North America:
 Mexico
 Colima: Manzanillo (Russell 1948:30)
 Sonora: Hermosillo and Nogales (Russell 1948:30)
 USA
 Florida
 Coconut Grove, Eau Gallie, Fort Lauderdale, Lake City, Orlando, Ovidio, St. Petersburg, Winter Haven (Russell 1948:30), Miami (Quaintance

1900:41)
 South America:
 Venezuela
 Aragua and El Limon (Marin Acosta 1969, in Rev. Appl. Entomol. 59:980, 1971)
 West Indies:
 Cuba
 Santiago de las Vegas, Vedado (Bruner 1931, in Rev. Appl. Entomol. 20:323-4, 1932; Russell 1948:30)
 Puerto Rico
 Bayamon and Tres Hermanos (Dozier 1926, in Rev. Appl. Entomol. 15:153, 1927; Russell 1948:30)
 Natur. enem.: Parasites:
Encarsia sp. (Dozier 1926, in Rev. Appl. Entomol. 15:153, 1927)
 Predators:
Leis conformis Boisd. (Chinese lady beetle) (Watson and Thompson 1933:29)
 Econ. imp.: It has not been reported as a serious pest of citrus, but it is abundant on papaya (Quaintance 1900:41; Wolfenbarger 1964:210).

Species: *Trialeurodes vitrinellus* (Cockerell)
 Orig. desc.: *Aleyrodes vitrinellus* Cockerell 1903a:241
 Syn.: *Aleyrodes vitrinellus* Cockerell (Cockerell 1909:215)
Asterochiton vitrinellus (Cockerell) (Quaintance and Baker 1914:105)
Trialeurodes vitrinellus (Cockerell) (Quaintance and Baker 1915:11)
 Tax.: See Cockerell 1903a:241; Cockerell 1909:215; Quaintance and Baker 1916; Russell 1948:2
 Biol.:
 Hosts: Rutaceae
Citrus sinensis (Cockerell 1903a:241; Quaintance and Baker 1916:470)
 Geogr. distr.: Mexico
 Puebla and Texcoco (Cockerell 1903a:241; Russell 1948:23)
 Natur. enem.:
 Econ. imp.: It was reported as a pest of citrus in Mexico (Cockerell 1903a:241).

II. Parasites associated with Aleyrodidae which are found on citrus

Hymenoptera : Aphelinidae

Genus: *Ablerus*

Species: *Ablerus connectens* Silvestri
 Orig. desc.: *Ablerus connectens* Silvestri 1927: 53-5
 Syn.:
 Tax.: See Silvestri 1927: 53-5
 Hosts: *Aleurocanthus woglumi* Ashby (Silvestri 1927: 54)
 Biol.:
 Geogr. distr.: Ceylon (Columbo) (Silvestri 1927: 54)

Species: *Ablerus macrochaeta* Silvestri
 Orig. desc.: *Ablerus macrochaeta* Silvestri 1927: 48-51
 Syn.:
 Tax.: See Silvestri 1927: 48-51
 Hosts: *Aleurocanthus incertus* Silvestri (Silvestri 1927:51)
Aleurocanthus spiniferus (Quaintance) (Fulmek 1943: 5)
 Biol.:
 Geogr. distr.: China (Canton) (Silvestri 1927: 51)
 Vietnam (Coxan, Hanoi) (Silvestri 1927: 51)

Species: *Ablerus macrochaeta* subsp. *inquirenda* Silvestri
 Orig. desc.: *Ablerus macrochaeta* subsp. *inquirenda* Silvestri: 52-3
 Syn.:
 Tax.: See Silvestri 1927: 52-3
 Hosts: *Aleurocanthus citripertus* Quaintance (Fulmek 1943: 4)
Aleurocanthus woglumi Ashby (Silvestri 1927: 53)
 Biol.:
 Geogr. distr.: Indonesia (Sumatra, Java) (Fulmek 1943: 4)

Singapore (Silvestri 1927: 53)		Orig. desc.: <i>Aleurodiphilus basicincta</i> Gahan 1927: 20-1	
Genus: <i>Aleurodiphilus</i>		Syn.: <i>Encarsia basicincta</i> Gahan 1927 (Gahan 1927: 20-1)	
Species:	<i>Aleurodiphilus americanus</i> DeBach and Rose	Tax.: See Gahan 1927: 20-1; DeBach and Rose 1981: 658-79	
Orig. desc.:	<i>Aleurodiphilus americanus</i> DeBach and Rose 1981: 658-79	Host: <i>Aleurothrixus floccosus</i> (Maskell) (Gahan 1927: 21; Muma et al. 1975: 23)	
Syn.:		<i>Tetraleurodes ursorum</i> Cockrell (Muma et al. 1975: 23)	
Tax.:	See DeBach and Rose 1981: 658-79	Biol.:	
Hosts:	<i>Aleurothrixus floccosus</i> (Maskell) (DeBach and Rose 1981: 664)	Geogr. distr.: Puerto Rico (Gahan 1927: 21)	
Biol.:		USA (Florida) (Muma et al. 1975: 23)	
Geogr. distr.:	Mexico (DeBach and Rose 1981: 664-5)		
Genus: <i>Aphelinus</i>		Species: <i>Encarsia bella</i> (Gahan)	
Species:	<i>Aphelinus fuscipennis</i> Howard	Orig. desc.: <i>Prospaltella bella</i> Gahan 1927: 21-2	
Orig. desc.:	<i>Aphelinus fuscipennis</i> Howard 1881: 356	Syn.: <i>Encarsia bella</i> (Gahan) 1927 (Viggiani and Mazzone 1979: 44; DeBach and LaSalle 1981: 648-51)	
Syn.:		Tax.: See Gahan 1927: 21-2; Viggiani and Mazzone 1979: 44-7	
Tax.:	See Howard 1881: 356	Hosts: <i>Aleurothrixus floccosus</i> (Maskell) (Fulmek 1943: 8)	
Hosts:	<i>Dialeurodes citri</i> (Ashmead) (Misra 1924: 129-30)	<i>Phenacaspis pinifoliae</i> (Fitch) (Gahan 1927: 22)	
	<i>Dialeurodes ricini</i> Misra (Misra 1924: 129-30)	Biol.:	
	<i>Mytilaspis</i> sp. (Howard 1881: 356)	Geogr. distr.: USA (Gahan 1927: 22)	
Biol.:			
Geogr. distr.:	India (Pusa) (Misra 1924: 129-30)	Species: <i>Encarsia bennetti</i> Hayat	
	USA (California, Florida, Washington, D.C.) (Howard 1881: 356)	Orig. desc.: <i>Encarsia bennetti</i> Hayat 1984: 399-401	
Genus: <i>Cales</i>		Syn.:	
Species:	<i>Cales noacki</i> Howard	Tax.: See Hayat 1984: 399-401	
Orig. desc.:	<i>Cales noacki</i> Howard 1907: 82	Hosts: <i>Aleurocanthus woglumi</i> Ashby (Hayat 1984: 399-401)	
Syn.:		Biol.:	
Tax.:	See Howard 1907: 82	Geogr. distr.: India (Maharashtra, Uttar Pradesh (Hayatt 1984: 401)	
Biol.:	See Onillon and Onillon 1974: 51-66; Garrido et al. 1977: 145-75; Vulic and Beltran 1977: 211-12; Carrero 1979a: 75-91; Carrero 1979d: 153-62; Garrido et al. 1981: 181-2; Santaballa et al. 1981: 123-6.	Species: <i>Encarsia bermisiae</i> (Ishii)	
Hosts:	<i>Aleurocanthus woglumi</i> Ashby (Dozier 1933: 98)	Orig. desc.: <i>Prospaltella bermisiae</i> Ishii 1938: 30	
	<i>Aleurothrixus floccosus</i> (Maskell) (Onillon 1975: 237; DeBach and Rose 1976a: 5; Garrido 1982: 123-6)	Syn.: <i>Encarsia bermisiae</i> Ishii (Viggiani and Mazzone 1979: 44; DeBach and LaSalle 1981: 648-51)	
	<i>Aleurothrixus porteri</i> Quaintance and Baker (Ferriere 1965: 187)	Tax.: See Ishii 1938: 30; Viggiani and Mazzone 1979: 44-7	
Geogr. distr.:	Argentina (Hayward 1944b: 157)	Hosts: <i>Parabemisia myricae</i> (Kuwana) (Ishii 1938: 30)	
	Brazil (Guanabara, Rio Grande do Sul)(Costa Lima 1942: 187; D'Araujo e Silva et al. 1968: 114)	Biol.:	
	Chile (Parker et al. 1953: 24; Onillon and Onillon 1972: 366; DeBach and Rose 1976a: 5)(native)	Geogr. distr.: Japan (Ishii 1938: 30)	
	Haiti (Dozier 1933: 98)		
	France 1971 (Alpes-Maritimes) (Onillon and Onillon 1972: 366-7; Onillon 1973: 20; Onillon 1975: 237-45)	Species: <i>Encarsia brasiliensis</i> (Hempel)	
	Morocco (Tanger, Ceuta, Kenitra, Rabat) (Abbassi 1975: 173)	Orig. desc.: <i>Prospalta brasiliensis</i> Hempel 1904: 20	
	Spain (Vulic and Beltran 1977: 212-3; Garrido et al. 1975: 111-4; Garrido et al. 1975: 89-121)	Syn.: <i>Prospaltella brasiliensis</i> (Hempel) 1904 (Ashmead 1904: 126)	
	USA (California) (DeBach and Rose 1976a: 5; DeBach and Rose 1976b: 166) (imported from Chile)	<i>Encarsia brasiliensis</i> (Hempel) 1940 (Viggiani and Mazzone 1979: 44; DeBach and LaSalle 1981: 648-51)	
Genus: <i>Encarsia</i>		Tax.: See Ashmead 1904: 126; Hempel 1904: 20; Dozier 1932b: 121-2; Grissel 1979: 3; Viggiani and Mazzone 1979: 44-7	
Species:	<i>Encarsia armata</i> (Silvestri)	Hosts: <i>Aleurothrixus floccosus</i> (Maskell) (Hempel 1904: 21; Dozier 1932b: 121; D'Araujo e Silva et al. 1968: 114; Muma et al. 1975: 35)	
Orig. desc.:	<i>Prospaltella armata</i> Silvestri 1927: 38-9	Biol.:	
Syn.:	<i>Encarsia armata</i> (Silvestri) (Viggiani and Mazzone 1979: 44-6; DeBach and LaSalle 1981: 648-51)	Geogr. distr.: Brazil (Campinas) (Hempel 1904: II)	
Tax.:	See Silvestri 1927: 38-9; Viggiani and Mazzone 1979: 44-6	Haiti (Dozier 1932b: 121)	
Hosts:	<i>Aleurolobus subrotundus</i> Silvestri (Silvestri 1927: 38-9)	USA (Florida) (Krombein 1958: 65)	
Biol.:		Species: <i>Encarsia ciliata</i> (Gahan)	
Geogr. distr.:	Vietnam (Lang-son) (Silvestri 1927: 39)	Orig. desc.: <i>Prospaltella ciliata</i> Gahan 1927: 22-3	
		Syn.: <i>Encarsia ciliata</i> (Gahan 1927) (Viggiani and Mazzone 1979: 42-50; DeBach and LaSalle 1981: 648-51)	
Species:	<i>Encarsia basicincta</i> (Gahan)	Tax.: See Gahan 1927: 22-3; Viggiani and Mazzone 1979: 42	
		Hosts: <i>Aleurodicus</i> spp. indet. (Fulmek 1943: 7; Thompson 1950: 5; Mound and Halsey 1978: 228)	
		Biol.:	
		Geogr. distr.: Puerto Rico (Fulmek 1943: 7; Thompson 1950: 5; Mound and Halsey 1978: 228)	
		Species: <i>Encarsia citri</i> (Ishii)	
		Orig. desc.: <i>Prospaltella citri</i> Ishii 1938: 29-30	
		Syn.: <i>Encarsia citri</i> (Ishii) 1938 (Viggiani and Mazzone 1979: 44; DeBach and LaSalle 1981: 648-51)	
		Tax.: See Ishii 1938: 29-30; Viggiani and Mazzone 1979: 44-7	
		Hosts: <i>Dialeurodes citri</i> Ashmead (Ishii 1938: 30;	

Yasumatsu and Watanabe 1965: 9)		adult is from the host pupa. It has only one generation produced from each host species (Clausen and Berry 1932: 31).	
Biol.:		Geogr. distr.:	Asia:
Geogr. distr.:	Japan (Nagasaki) (Ishii 1938: 30)		Ceylon (Fulmek 1943: 4)
Species:	<i>Encarsia citrifila</i> (Silvestri)		China (Fulmek 1943: 4)
Orig. desc.:	<i>Prospaltella citrifila</i> Silvestri 1927: 33-4		India (Assam) (Flanders 1969: 471)
Syn.:	<i>Encarsia citrifila</i> (Silvestri) 1927 (Viggiani and Mazzone 1979: 44; DeBach and LaSalle 1981: 648-51)		Indonesia (Fulmek 1943: 4)
Tax.:	See Silvestri 1927: 33-4; Viggiani and Mazzone 1979: 44-7		Malaysia, Java, Sumatra (Clausen and Berry 1932: 31)
Hosts:	<i>Dialeurodes citri</i> (Ashmead) (Silvestri 1927: 34)		Singapore (Silvestri 1926: 184)
Biol.:			North America:
Geogr. distr.	Vietnam (Coxan) (Silvestri 1927: 34)		Mexico (1949) (Flanders 1969: 471)
			West Indies:
			Cuba (Imported from Malaya in 1931)(Clausen and Berry 1932: 31)
Species:	<i>Encarsia clypealis</i> (Silvestri)	Species:	<i>Encarsia elegans</i> Masi
Orig. desc.:	<i>Prospaltella clypealis</i> Silvestri 1927: 28-30	Orig. desc.:	<i>Encarsia elegans</i> Masi 1911 (in Boll. Labor. Zool. Gen. e Agar. Portici 5:147-9, 1911)
Syn.:	<i>Encarsia clypealis</i> (Silvestri) 1927 (Viggiani and Mazzone 1979: 44-5; DeBach and LaSalle 1981: 648-51)	Syn.:	
Tax.:	See Silvestri 1927: 28-30; Viggiani and Mazzone 1981: 44-5; Shafee 1973: 251-8	Tax.:	See Masi 1911: 147-9; Ferriere 1965: 133-4
Hosts:	<i>Aleurocanthus incertus</i> Silvestri (Clausen 1934: 260)	Hosts:	<i>Aleurolobus niloticus</i> Priesner and Hosny (Priesner and Hosny 1934: 5)
	<i>Aleurocanthus spinosus</i> (Kuwana) (Clausen 1934: 255; Fulmek 1943:5)		<i>Aleurolobus olivinus</i> (Silvestri) (Masi 1911: 149; Gomez-Menor 1945: 292)
	<i>Aleurocanthus</i> spp. (Fulmek 1943:4)	Biol.:	
	<i>Aleurocanthus woglumi</i> Ashby (Smith et al. 1964:22)	Geogr. distr.:	Egypt (Priesner and Hosny 1934: 5)
Biol.:	See Smith 1958: 31-5; Jimenez 1961: 44; Shaw et al. 1970: 190; Clausen 1978: 33-4; Summy et al. 1983: 783		Italy and Spain (Masi 1911: 149; Gomez-Menor 1945: 292; Ferrier 1965: 133-4; Mound and Halsey 1978: 36)
Life Cycle:	The female lays eggs in the host's larval instars and in the pupa but prefers the 2nd larval instar. Life span of the female adult is 2 months at room temperature (Flanders 1969: 478).		
Life History:	Two generations for 1 host species (Flanders 1969: 477)		
Geogr. distr.:	Asia:	Species:	<i>Encarsia formosa</i> Gahan
	India (Poona, Madras, Bombay, Assam State) (Flanders 1969: 470)	Orig. desc.:	<i>Encarsia formosa</i> Gahan 1924: 14-6
	Pakistan (Clausen 1956: 41)	Syn.:	
	Vietnam (Coxan) (Silvestri 1927: 30)	Tax.:	See Gahan 1924: 145; Viggiani and Mazzone 1979: 436
	North America:	Hosts:	<i>Aleyrodes spiraeoides</i> Quaintance (Gerling 1967: 1306)
	Mexico (Imported from India in 1959) (Clausen 1958: 298; Smith 1958: 31; Smith et al. 1964: 22; Flanders 1969: 478; Jimenez 1971: 5)		<i>Bemisia tabaci</i> (Gennadius) (Gerling 1967: 1306)
	USA (Texas) (Summy et al. 1983: 783)		<i>Dialeurodes citri</i> (Ashmead) (Ferriere 1965: 138)
			<i>Trialeurodes abutilonea</i> (Haldeman) (Gerling 1967: 1306)
			<i>Trialeurodes vaporariorum</i> (Westwood)(Gahan 1924: 16; Burnett 1958: 225; Tauber and Helgesen 1974: 13)
Species:	<i>Encarsia cubensis</i> Gahan	Biol.:	See Speyer 1927: 302-5; Nell et al. 1976: 373-5; Van Lenteren et al. 1976: 378-80; Nechols and Tauber 1977: 144-8; Agekyan 1981: 90-4
Orig. Desc.:	<i>Encarsia cubensis</i> Gahan 1931: 121-2	Geogr. distr.:	<i>Encarsia formosa</i> Gahan was first described in Ohio (United States) and has been used in Canada, England, Holland, Belgium, Australia for controlling <i>T. vaporariorum</i> in greenhouse (Speyer 1927: 301; DeBach and Hagen 1970:447; Tauber and Helgesen 1974: 13)
Syn.:			
Tax.:	See Gahan 1931: 121-2	Species:	<i>Encarsia haitiensis</i> Dozier
Hosts:	<i>Aleurothrixus floccosus</i> (Maskell) (Gahan 1931: 122)	Orig. desc.:	<i>Encarsia haitiensis</i> Dozier 1932b: 118-9
Biol.:		Syn.:	
Geogr. distr.:	Cuba (Gahan 1931: 122)	Tax.:	See Dozier 1932b: 118-9
		Hosts:	<i>Aleurothrixus floccosus</i> (Maskell) (Dozier 1932b: 118-9)
Species:	<i>Encarsia divergens</i> (Silvestri)	Biol.:	
Orig. Desc.:	<i>Prospaltella divergens</i> Silvestri 1926: 182-4	Geogr. distr.:	Haiti (Dozier 1932b: 118-9)
Syn.:	<i>Encarsia divergens</i> (Silvestri) 1926 (Viggiani and Mazzone 1979: 44-5; DeBach and LaSalle 1981: 648-51)		
Tax.:	See Silvestri 1926: 182-4; Silvestri 1927: 24-5; Viggiani and Mazzone 1979: 44-5; Shafee 1973: 251-8	Species:	<i>Encarsia ishii</i> (Silvestri)
Hosts:	<i>Aleurocanthus citripedus</i> Quaintance and Baker (Clausen and Berry 1932: 32; Clausen 1934: 254)	Orig. Desc.:	<i>Prospaltella ishii</i> Silvestri 1926: 185-7
	<i>Aleurocanthus longispinus</i> Quaintance and Baker (Clausen 1934: 254)	Syn.:	<i>Encarsia ishii</i> (Silvestri) 1926 (Viggiani and Mazzone 1979: 44-5; DeBach and LaSalle 1981: 648-51)
	<i>Aleurocanthus spiniferus</i> (Quaintance) (Clausen 1934: 254)	Tax.:	See Silvestri 1926: 185-7; Silvestri 1927: 25-8; Viggiani and Mazzone 1979: 44-5
	<i>Aleurocanthus woglumi</i> Ashby (Silvestri 1926: 184; Silvestri 1927: 25)	Hosts:	<i>Aleurocanthus spiniferus</i> (Quaintance) (Silvestri 1926: 187)
	<i>Aleurocanthus</i> spp. (Fulmek 1943: 4)		<i>Aleurocanthus woglumi</i> Ashby (Fulmek 1943: 5)
Biol.:	Female lays eggs in all larval instars but it prefers the 1st larval instar, then emergence of the	Biol.:	
		Geogr. distr.:	China (Su-chou) (Silvestri 1926: 187)
		Species:	<i>Encarsia lahorensis</i> (Howard)

Orig. Desc.: <i>Prospaltella lahorensis</i> Howard 1911: 132	Orig. desc.: <i>Encarsia merceti</i> var. <i>modesta</i> Silvestri 1926: 189
Syn.: <i>Encarsia lahorensis</i> (Howard) 1911 (Viggiani and Mazzone 1979: 44-6; DeBach and LaSalle 1981: 648-51; Rose and DeBach 1981: 21-3)	Syn.: See Silvestri 1926: 189; Silvestri 1927: 42
Tax.: Howard 1911: 32; Misra 1924: 131; Agarwal 1964: 275; Grissel 1979: 2; Viggiani and Mazzone 1978a: 102-28; Viggiani and Mazzone 1979: 46; Nguyen 1986: 1-2	Hosts: <i>Aleurocanthus spiniferus</i> (Quaintance) (Silvestri 1926: 189)
Hosts: <i>Dialeurodes citri</i> (Howard 1911: 132; Woglum 1913: 21)	Biol.:
Biol.: <i>Trialeurodes ricini</i> (Misra) (Fulmek 1943: 6)	Geogr. distr.: Philippines (Silvestri 1926: 189) Singapore (Silvestri 1926: 189)
Viggiani and Mazzone 1977: 5-7; Viggiani and Mazzone 1978a: 99-161; Viggiani and Mazzone 1978b: 245-52; Nguyen and Sailer 1979: 59-65; Pappas and Viggiani 1979: 38-41; Rose and DeBach 1981: 21-3; McCoy et al. 1980: 47-9; Hudson and Williams 1986: 585-9)	Species: <i>Encarsia meritoria</i> Gahan
Geogr. distr.: India (Lahore) (Howard 1911: 132; Woglum 1913: 21)	Orig. desc.: <i>Encarsia meritoria</i> Gahan 1927: 19-20
Israel (Argov and Rossler 1982: 1-3)	Syn.:
Italy in 1974 but failed to become established (Viggiani 1975: 58); then successfully colonized in 1976 (Viggiani and Mazzone 1977: 5-7; Barbagallo et al. 1981: 115-21; Viggiani 1981: 186-7)	Tax.: See Gahan 1927: 19-20
USA	Hosts: <i>Aleyrodes spiraeoides</i> Quaintance (Gerling 1967: 1306) <i>Bemisia tabaci</i> (Gennadius) (Gerling 1967: 1306) <i>Trialeurodes abutilonea</i> (Haldeman) (Gerling 1967: 1306) <i>Trialeurodes floridensis</i> (Quaintance) (Gahan 1927: 20)
Alabama (Hudson and Williams 1980: 585-9)	Biol.:
California (Orange Co.) in 1968 (DeBach and Rose 1977, personal communication)	Geogr. distr.: USA
Florida (Orlando) introduced in 1910 but failed to become established (Woglum 1913: 38); to Florida in 1977 (Nguyen and Sailer 1979: 59-65; Sailer et al. 1984: 36-9)	California (Imperial Valley) (Gerling 1967: 1306)
Texas in 1980 (Nguyen 1980, unpublished data)	Florida (Miami) (Gahan 1927: 20)
Species: <i>Encarsia lutea</i> (Masi)	Species: <i>Encarsia nipponica</i> Silvestri
Orig. desc.: <i>Prospaltella lutea</i> Masi 1910: 25-6	Orig. desc.: <i>Encarsia nipponica</i> Silvestri 1927: 42-3
Syn.: <i>Encarsia lutea</i> (Masi) 1910 (Viggiani and Mazzone 1979: 44-6; DeBach and LaSalle 1981: 648-51)	Syn.:
Tax.: See Masi 1910: 25-6; Mercet 1931b: 559-61; Ferriere 1965: 132-3; Rosen 1966: 57-8; Viggiani and Mazzone 1979: 43-6; Viggiani 1980: 27-30; Viggiani and Mazzone 1980: 51-3	Tax.: See Silvestri 1927: 42-3
Hosts: <i>Acaudaleyrodes citri</i> (Priesner and Hosny) (Rosen 1966: 55; Rosen 1969: 47)	Hosts: <i>Aleurocanthus spiniferus</i> (Quaintance) (Silvestri 1927: 44)
<i>Aleurolobus niloticus</i> Priesner and Hosney (Gameel 1969: 68; Mound and Halsey 1978: 36)	Biol.:
<i>Cystus salviaefolia</i> (Masi 1910: 26)	Geogr. distr.: Japan (Nagasaki) (Silvestri 1927: 44)
<i>Heliothis zea</i> (Boddie) (Stoner and Butler 1965: 1148-50)	Species: <i>Encarsia opulenta</i> (Silvestri)
<i>Trichoplusia ni</i> (Hubner) (Stoner and Butler 1965: 1148-50)	Orig. desc.: <i>Prospaltella opulenta</i> Silvestri 1927: 30-2
Biol.:	Syn.: <i>Encarsia opulenta</i> (Silvestri) 1927 (Viggiani and Mazzone 1979: 44-5; DeBach and LaSalle 1981: 648-51)
Geogr. distr.: Southwestern Europe and Israel (Rosen 1966: 58)	Tax.: See Silvestri 1927: 30-2; Shafee 1973: 51-8; Grissel 1979: 2; Viggiani and Mazzone 1979: 43-5
Italy (Masi 1910: 25-6)	Hosts: <i>Aleurocanthus incertatus</i> Silvestri (Silvestri 1927: 32)
USA	<i>Aleurocanthus woglumi</i> Ashby (Clausen 1956: 41)
Arizona (Stoner and Butler 1965: 1148-50)	Biol.: See Smith 1958: 31-5; Jimenez 1961: 44; Shaw et al. 1970: 190; Dowell et al. 1979a: 595-6; Cherry and Pastor 1980a: 365-8; Dowell and Cherry 1981a: 356-61; Dowell et al. 1981: 233-9; Nguyen et al. 1983: 878-84; Summy et al. 1983: 782-6; Thompson 1985: 87-91; Summy et al. 1985: 107-12; Thompson et al. 1987: 140-4; Nguyen and Sailer 1987: 714-9
Species: <i>Encarsia merceti</i> Silvestri	Life cycle: The female lays eggs in larval and pupal stage but prefers the 2nd larval instar of the citrus blackfly. Life span of female adult is 4-10 weeks (Flanders 1969: 475)
Orig. desc.: <i>Encarsia merceti</i> Silvestri 1926: 187-9	Geogr. distr.: Africa:
Syn.:	Kenya (Kisumu) (introduced from Barbados) (Greathcad 1971: 11)
Tax.: See Silvestri 1926: 187-9, Silvestri 1927: 40-1	Asia:
Hosts: <i>Aleurocanthus citripedus</i> Quaintance (Clausen 1934: 261)	India (Saharanpur, the region between Delhi and Himalayan Mountains) (Flanders 1969: 470)
<i>Aleurocanthus spiniferus</i> Quaintance (Clausen 1934: 261)	Oman (Simmonds 1975: 740)
<i>Aleurocanthus woglumi</i> Ashby (Silvestri 1926: 189)	Vietnam (Van Phu) (Silvestri 1927: 32)
Biol.:	Central America and West Indies:
Geogr. distr.: Ceylon (Fulmek 1943: 4)	Barbados 1964 (imported from Mexico 1964)
China (Fulmek 1943: 4)	(Bennett and Van Wierwin 1965: 3; Bennett 1966: 7; Bennett and Van Wierwin 1966: 4)
India (Assam, region between Delhi to Himalaya Mountains) (Flanders 1969: 471)	El Salvador (Quezada 1974: 247)
Malaya (Clausen and Berry 1932: 21)	Jamaica, introduced in 1964 from Mexico (Van Wierwin 1968: 457)
Singapore (Silvestri 1926: 189)	North America:
Species: <i>Encarsia merceti</i> var. <i>modesta</i> Silvestri	Mexico (Introduced from India 1950) (Clausen 1958: 298; Jimenez 1968: 23; Flanders 1969: 475; Valenzuela 1971: 19-21)
	Baja California: La Paz (Jimenez 1971: 5)

- Colima: Colima (Jimenez 1971: 5)
 Michoacan: Apatzingan (Jimenez 1971: 5)
 Sonora: Ciudad Obregon, Guaymas (Jimenez 1971: 5)
 San Luis Potosi: Tamazunchale (Jimenez 1971: 5)
 Tamaulipas: Ciudad Victoria, Ciudad Mante (Jimenez 1971: 5)
 Veracruz: San Andres Tuxtla (Jimenez 1971: 5)
 Yucatan: Merida (Jimenez 1971: 5)
- USA
 Florida (released in Ft. Lauderdale 1976) (Anonymous 1976b: 29; Hart et al. 1978b: 362-6; Dowell et al. 1979a: 595-6; Selhime et al. 1982: 165-8) at present time it is found in Brevard, Broward, Dade, Highlands, Indian River, Lee, Okeechobee, and Palm Beach counties (Nguyen et al. 1983: 878-84; Thompson et al. 1987: 140-4); Hillsborough and Manatee counties (Nguyen 1988, unpublished data)
 Texas (Summy et al. 1983: 782-6)
- Species: *Encarsia persequens* Silvestri
 Orig. desc.: *Encarsia persequens* Silvestri 1927: 44-5
 Syn.:
 Tax.: See Silvestri 1927: 44-5
 Hosts: *Aleurocybotus setigerus* Quaintance and Baker (Silvestri 1927: 45)
 Biol.:
 Geogr. distr.: Philippines (Manila) (Silvestri 1927: 45)
- Species: *Encarsia perstrenua* (Silvestri)
 Orig. desc.: *Prospaltella perstrenua* Silvestri 1927: 36-7
 Syn.: *Encarsia perstrenua* (Silvestri) 1927 (Viggiani and Mazzone 1979: 44-5; DeBach and LaSalle 1981: 648-51)
 Tax.: See Silvestri 1927: 36-7
 Hosts: *Dialeurodes citrifolii* (Morgan) (Silvestri 1927: 37)
 Biol.:
 Geogr. distr.: Vietnam (Lang-Son) (Silvestri 1927: 37)
- Species: *Encarsia portoricensis* Howard
 Orig. desc.: *Encarsia portoricensis* Howard 1907: 77-8
 Syn.:
 Tax.: See Howard 1907: 77-8
 Hosts: *Aleurothrixus floccosus* (Maskell) (Ortega 1932, in Rev. Appl. Entomol. 23:6, 1935)
 Biol.:
 Geogr. distr.: Puerto Rico (Howard 1907: 78)
- Species: *Encarsia protransvena* Viggiani
 Orig. desc.: *Encarsia protransvena* Viggiani 1985: 89-90
 Syn.:
 Tax.: See Viggiani 1985: 89-90
 Hosts: *Dialeurodes kirkaldyi* (Kotinsky) (Viggiani 1985: 89-90)
Dialeurodes citrifolii (Morgan) (Nguyen 1988, unpublished data).
 Biol.:
 Geogr. distr.: USA
 Florida (Viggiani 1985:90; Nguyen 1988, unpublished data)
- Species: *Encarsia smithi* (Silvestri)
 Orig. desc.: *Prospaltella smithi* Silvestri 1926: 179-82
 Syn.: *Encarsia smithi* (Silvestri) 1926 (Viggiani and Mazzone 1979: 44-5; DeBach and LaSalle 1981: 648-51)
 Tax.: See Silvestri 1926: 179-82; Silvestri 1927: 20-3; Viggiani and Mazzone 1979: 44-5; Shafee 1973: 251-8
 Hosts: *Aleurocanthus citriperdus* Quaintance and Baker (Clausen and Berry 1932: 33; Clausen 1934: 264)
- Aleurocanthus spiniferus* (Quaintance) (Silvestri 1926: 182; Silvestri 1927: 23; Clausen and Berry 1932: 33; Clausen 1934: 260)
Aleurocanthus woglumi Ashby (Clausen and Berry 1932: 33; Clausen 1934: 260)
Bemisia tabaci (Gennadius) (Pruthi and Samuel 1942, in Rev. Appl. Entomol. 32:390-1, 1944)
 Biol.: See Smith 1958: 31-5; Jimenez 1961: 44; Nguyen et al. 1983: 878-84; Thompson 1985: 87-9; Thompson et al. 1987: 140-4; Nguyen and Sailer 1979: 714-9
 Life cycle:
 The mated female deposits diploid eggs inside the gastric caeca or nearby midgut. The life cycle of the female is 25 days and 15 days for males. *E. smithi* is a facultative hyperparasite of *E. opulenta* (Nguyen and Sailer 1987: 714-9)
 Life history:
 One or two generations to one of its host species (Flanders 1969: 473)
- Geogr. distr.: Asia:
 Ceylon (Columbo) (Silvestri 1926: 182)
 China (Canton, Macao, Foochow, Changsha) (Silvestri 1926: 182)
 India (Poona, Bombay) (Flanders 1969: 471)
 Indonesia (Fulmek 1943: 4)
 Japan (Introduced to Japan from China in 1925) (Clausen and Berry 1932: 33; Watanabe 1956: 515)
 Java and Sumatra (Clausen and Berry 1932: 33)
 Malaya (Clausen 1934: 260)
 Pacific Islands
 Guam (Peterson 1955: 682; Gardner 1958: 467)
 Hawaii (Nakao and Funasaki 1976: 329).
 Central America and West Indies:
 Cuba (Introduced to Cuba from Malaya) (Clausen and Berry 1932: 33)
 North America:
 Mexico (First released in Mexico in 1950) (Smith et al. 1964: 21)
 USA
 It was accidentally introduced into Fort Lauderdale (Florida) in 1979; at the present time it is found in Brevard, Broward, Lee, and Okeechobee counties (Nguyen et al. 1983: 878-84)
- Species: *Encarsia strenua* (Silvestri)
 Orig. desc.: *Prospaltella strenua* Silvestri 1927: 34-5
 Syn.: *Encarsia strenua* (Silvestri) 1927 (Viggiani and Mazzone 1979: 44-7; DeBach and LaSalle 1981: 648-51)
 Tax.: See Silvestri 1927: 34-5; Viggiani and Mazzone 1979: 43-6
 Hosts: *Bemisia giffardi* (Kotinsky) (Silvestri 1927: 35)
Dialeurodes citrifolii (Morgan) (Fulmek 1943: 30)
 Biol.:
 Geogr. distr.: China (Macao) (Silvestri 1927: 35)
- Species: *Encarsia variegata* Howard
 Orig. desc.: *Encarsia variegata* Howard 1908: 64
 Syn.:
 Tax.: See Howard 1908: 64
 Hosts: *Aleurocanthus spiniferus* (Quaintance) (Paulson and Kumashiro 1985: 106)
Aleurothrixus floccosus (Maskell) (Muma et al. 1975: 35)
Paraleyrodes naranjiae Dozier (Dozier 1927: 855)
Paraleyrodes persea (Quaintance) (Howard 1908: 64)
 Biol.:
 Geogr. distr.: USA
 Florida (Howard 1908: 64, Muma et al. 1975: 35)
- Genus: *Eretmocerus*

- Species: *Eretmoceris aleurolobi* Ishii
 Orig. desc.: *Eretmoceris aleurolobi* Ishii 1938: 32
 Syn.:
 Tax.: See Ishii 1938: 32
 Hosts: *Aleurolobus marlatti* Quaintance (Ishii 1938: 32)
 Biol.:
 Geogr. distr.: Japan (Nagasaki) (Ishii 1938: 32)
- Species: *Eretmoceris californicus* Howard
 Orig. desc.: *Eretmoceris californicus* Howard 1895: 16-7
 Syn.:
 Tax.: See Howard 1895: 16-7; Compere 1937: 316-9; Peck 1963: 239-40; Hayat 1972: 105
 Hosts: *Aleurothrixus floccosus* (Maskell) (Cook and Dozier 1925: 14)
 Biol.:
 Geogr. distr.: Puerto Rico (Cook and Dozier 1925: 14)
 USA
 California (Los Angeles) (Howard 1895: 16-7)
- Species: *Eretmoceris diversiciliatus* Silvestri
 Orig. desc.: *Eretmoceris diversiciliatus* Silvestri 1915: 366
 Syn.:
 Tax.: See Silvestri 1915: 366-7; Rosen 1966: 55-7; Hayat 1972: 105
 Hosts: *Acaudaleyrodes citri* (Priesner and Hosny) (Rosen 1966: 55; Avidov and Harpaz 1969: 83)
 Biol.:
 Geogr. distr.: Israel (Rosen 1966: 57)
 Nigeria (Lagos) (Silvestri 1915: 367)
- Species: *Eretmoceris haldemani* Howard
 Orig. desc.: *Eretmoceris haldemani* Howard 1908: 65
 Syn.:
 Tax.: See Howard 1908: 65; Mercet 1931a: 398; Compere 1937: 317; Hayat 1972: 100
 Hosts: *Aleurolobus niloticus* Priesner and Hosny (Hayat 1972: 100)
Aleuroplatus coronata (Quaintance) (Howard 1908: 65)
Aleurothrixus floccosus (Maskell) (Watson 1926: 344; Muma et al. 1975: 35)
Bemisia tabaci (Gennadius) (Gerling 1967: 1306)
Trialeurodes abutilonea (Haldeman) (Dysart 1966: 31)
Trialeurodes vaporariorum (Westwood) (Dysart 1966: 31)
 Biol.:
 Geogr. distr.: India (Uttar Pradesh, Aligarh) (Hayat 1972: 100)
 USA
 California, Mississippi (Compere 1937: 317)
 Florida (Orlando) (Howard 1908: 65)
- Species: *Eretmoceris mundus* Mercet
 Orig. desc.: *Eretmoceris mundus* Mercet 1931a: 397-8
 Syn.:
 Tax.: See Hayat 1972: 104-6; Mercet 1931a: 397-8
 Host: *Aleyrodes* sp. (Compere 1937: 319)
Bemisia ovata (Goux) (Nikolskaja and Jasnosh 1968: 35; Mound and Halsey 1978: 116)
Bemisia tabaci (Gennadius) (Viggiani and Battaglia 1983: 97-101)
 Biol.:
 Geogr. distr.: Chile (Mercet 1931a: 398)
 India (Uttar Pradesh, Aligarh) (Hayat 1972: 104)
 Italy (Compere 1937: 319)
 Spain (Compere 1937: 319)
 USSR (Nikolskaja and Jasnosh 1968: 35; Mound and Halsey 1978: 116)
- Species: *Eretmoceris nairobi* Gerling
 Orig. desc.: *Eretmoceris nairobi* Gerling 1970: 327-9
 Syn.:
 Tax.: See Gerling 1970: 327-9
 Hosts: *Aleurocanthus hansfordi* Corbett (Gerling 1970: 329)
 Biol.:
 Geogr. distr.: Kenya (Gerling 1970: 329)
- Species: *Eretmoceris paulistus* Hempel
 Orig. desc.: *Eretmoceris paulistus* Hempel 1904: 19-20
 Syn.:
 Tax.: See Hempel 1904: 19-20; Compere 1937: 321; Hayat 1972: 105
 Hosts: *Aleurothrixus floccosus* Maskell (Hempel 1904: 20; Hayward 1944: 157; DeBach and Rose 1976a: 4-6)
 Biol.:
 Geogr. distr.: Argentina (Hayward 1944b: 157)
 Brazil (Costa Lima 1942: 186; D'Araujo e Silvia 1968: 114; DeBach and Rose 1976a: 46) (native)
 Haiti (Compere 1927: 321)
 Mexico (DeBach and Rose 1976a: 46)
 USA
 California (Los Angeles) (DeBach and Rose 1976a: 46)
- Species: *Eretmoceris portoricensis* Dozier
 Orig. desc.: *Eretmoceris portoricensis* Dozier 1932a: 115-6
 Syn.:
 Tax.: See Compere 1937: 319; Dozier 1932a: 115-6
 Hosts: *Aleurothrixus floccosus* (Maskell) (Dozier 1932a: 116; Muma et al. 1975: 35)
 Biol.:
 Geogr. distr.: Puerto Rico (Dozier 1932a: 116)
 USA
 Florida (Muma et al. 1975: 35)
- Species: *Eretmoceris orientalis* Silvestri
 Orig. desc.: *Eretmoceris orientalis* Silvestri 1927: 47-8
 Syn.: *Eretmoceris serius* var. *orientalis* Silvestri 1927 (Silvestri 1927: 47; Gerling 1969: 84-5)
 Tax.: See Silvestri 1927: 47-8; Compere 1937: 319; Gerling 1969: 84-5
 Host: *Aleurocanthus inceratus* Silvestri (Gerling 1969: 85); but Silvestri, who collected and described *E. serius* var. *orientalis*, said that *A. spiniferus* was the host of *E. orientalis* (Silvestri 1927: 48)
 Biol.:
 Geogr. distr.: China (Kiangsi: Fuchou) (Silvestri 1927: 48)
 Vietnam (Van Phu) (Silvestri 1927: 48; Gerling 1969: 85)
- Species: *Eretmoceris serius* Silvestri
 Orig. desc.: *Eretmoceris serius* Silvestri 1927: 46-7
 Syn.:
 Tax.: See Silvestri 1927: 46-7; Compere 1937: 319; Gerling 1969: 80-3; Hayat 1972: 105
 Hosts: *Aleurocanthus citripedus* Quaintance and Baker (Clausen and Berry 1932: 21)
Aleurocanthus longispinus Quaintance and Baker (Clausen 1934: 261)
Aleurocanthus spiniferus (Quaintance) (Clausen and Berry 1932: 21)
Aleurocanthus woglumi (Ashby) (Silvestri 1927: 46-7)
Aleurocanthus spp. (Fulmck 1943: 4)
 Biol.: The female lays eggs in all larval instars or pupa, but prefers the second larval instar. The oviposition lasts over a period of 7-10 days and approximately 200 eggs are laid during that time. The complete life cycle covers from 30-40 days. The cycle of the male is two days shorter than the female. Two generations for each one of the host (Clausen and Berry 1932: 21-31; also see Clausen 1978: 33).
 Geogr. distr.: Africa:
 Kenya (Wheatley 1964: 236)
 Seychelles (Greathead 1971: 10)
 South Africa (Bedford and Thomas 1965: 124)

Asia:
 Ceylon (Fulmek 1943: 4)
 China (Fulmek 1943: 4)
 India (Fulmek 1943: 4)
 Malaya, India, Siam, Burma, Ceylon (Clausen and Berry 1932: 21) (native)
 Oman (Simmonds 1975: 74)
 Singapore (Silvestri 1927: 47)
 Central America and West Indies:
 Bahamas (Richardson 1948: 980)
 Barbados (Bennett and Van Whervin 1965: 3; Bennett 1966: 7; Bennett and Van Whervin 1966: 4)
 Cuba (introduced from Malaya in 1930) (Clausen and Berry 1932: 22; Berry and McGough 1932: 13; Bruner 1954: 57-8)
 Haiti (Bennett and Van Whervin 1966: 4; Dozier 1932d: 96)
 Jamaica (introduced from Cuba in 1933) (Edwards 1933: 17)
 Panama (Shaw 1950a: 380)
 North America:
 Mexico (introduced from Panama 1943) (Smith 1945: 67-103; Shaw 1950a: 380)
 Pacific Islands:
 Guam (Peterson 1955: 682; Gardner 1958: 467)
 Hawaii (Bennett et al. 1976: 370)

Species: *Eretmocerus silvestri* Gerling
 Orig. desc.: *Eretmocerus silvestri* Gerling 1969: 86-7
 Syn.:
 Tax.: See Gerling 1969: 86-7
 Hosts: *Aleurocanthus spiniferus* (Quaintance) (Gerling 1969: 86)
 Biol.:
 Geogr. distr.: China (Foochow: Lingiu) (Gerling 1969: 86)

Hymenoptera :Encyrtidae

Genus: *Pseudhomalopoda*

Species: *Pseudhomalopoda prima* Girault
 Orig. desc.: *Pseudhomalopoda prima* Girault 1915: 171-2
 Syn.:
 Tax.: See Girault 1915: 171-2
 Hosts: *Aleurocanthus woglumi* Ashby (Girault 1915: 172)
Chrysomphalus aonidum (L.) (Griffiths and Stearns 1947: 4)
 Biol.: See Griffiths and Stearns 1947: 47
 Geogr. distr.: Jamaica (Girault 1915: 172)
 USA
 Florida (Griffiths and Stearns 1947: 47)

Hymenoptera :Eulophidae

Genus: *Euderomphale*

Species: *Euderomphale aleurothrix* Dozier
 Orig. desc.: *Euderomphale aleurothrix* Dozier 1932a: 120-1
 Syn.:
 Tax.: See Dozier 1932a: 120-1
 Hosts: *Aleurothrixus floccosus* (Maskell) (Dozier 1932a: 121)
 Biol.:
 Geogr. distr.: Brazil (Costa Lima 1942: 186)
 Cuba, Haiti, Puerto Rico (Dozier 1932a: 121)
 Species: *Euderomphale vittata* Dozier
 Orig. desc.: *Euderomphale vittata* Dozier 1933: 86-7
 Syn.:
 Tax.: See Dozier 1933: 86-7
 Hosts: *Aleurodicus* sp. (Dozier 1933: 87; Mound and Halsey 1978: 228)
 Biol.:
 Geogr. distr.: Puerto Rico (Dozier 1933: 87)

Hymenoptera :Mymaridae

Genus: *Gonatocerus*

Species: *Gonatocerus cubensis* Dozier
 Orig. desc.: *Gonatocerus cubensis* Dozier 1932c: 83
 Syn.:
 Tax.: See Dozier 1932c: 83
 Hosts: *Aleurocanthus woglumi* Ashby (Dozier 1932c: 83)
 Biol.:
 Geogr. distr.: Haiti (Dozier 1932c: 83)

Species: *Gonatocerus flaviventris* Dozier
 Orig. desc.: *Gonatocerus flaviventris* Dozier 1932c: 82
 Syn.:
 Tax.: See Dozier 1932c: 82-3
 Hosts: *Aleurothrixus floccosus* (Maskell) (Dozier 1932c: 82)
 Biol.:
 Geogr. distr.: Haiti (Dozier 1932c: 83)

Hymenoptera :Platygasteridae

Genus: *Amitus*

Species: *Amitus hesperidum* Silvestri
 Orig. desc.: *Amitus hesperidum* Silvestri 1927: 55-8
 Syn.:
 Tax.: See Silvestri 1927: 55-7
 Hosts: *Aleurocanthus citriferus* Quaintance and Baker (Silvestri 1927: 57; Smith and Maltby 1964: 17)
Aleurocanthus spiniferus (Quaintance) (Smith and Maltby 1964: 17)
Aleurocanthus woglumi Ashby (Clausen 1956: 41)
 Biol.: The female lays eggs in all three larval stages of the host with an apparent preference for the 1st instar larva. The life span of female is 6 days and male 4-5 days (Smith and Maltby 1964: 17-19).
 See Smith 1958: 31-5; Jimenez 1961: 44; Shaw et al. 1970: 190; Cherry et al. 1978: 29; Cherry 1979b: 35-8; Dowell 1979a: 221-7; Dowell et al. 1979a: 595-6; Fitzpatrick et al. 1979a: 731-4; Cherry and Pastor 1980: 365-8; Dowell and Cherry 1981a: 356-61; Dowell et al. 1981: 233-9; Nguyen et al. 1983: 878-82; Summy et al. 1983: 782-6

Geogr. distr.: Asia:
 Ceylon (Fulmek 1943: 4)
 China
 Szechuen Province (Flanders 1969: 476)
 Hong Kong (Silvestri 1927: 57)
 India (Flanders 1969: 476)
 Java (Fulmek 1943: 4)
 Malaya (Fulmek 1943: 4)
 Pakistan (Clausen 1956: 41; Smith et al. 1964: 17-8)
 Pacific Islands:
 Guam (Peterson 1955: 682; Gardner 1958: 467)
 Hawaii (Nakao and Funasaki 1976: 329)
 North America:
 Mexico (Imported from Szechuen Province in 1948)(Clausen 1958: 298; Flanders 1969: 476; Jimenez 1968: 23; Valenzuela 1971: 9-21)
 Tamaulipas: Ciudad Victoria, Ciudad Mante (Jimenez 1971: 5)
 Colima: Colima (Jimenez 1971: 5) San Luis Potosi: Cuid Valle (Jimenez 1971: 5)
 USA
 Florida (released in Fort Lauderdale in 1976)(Anonymous 1976b: 29; Cherry et al. 1978: 28; Hart et al. 1978b: 362-6; Selhime et al. 1982: 165-8); At the present time it has been found in Brevard, Broward, Dade, Highlands, Indian River, Lee, Okeechobee and Palm Beach counties (Nguyen et al. 1983: 878-82) Texas (Summy et al. 1983: 782-6)

Species: *Amitus hesperidum* subsp. *variipes* Silvestri
 Orig. desc.: *Amitus hesperidum* subsp. *variipes* Silvestri 1927: 58-9
 Syn.:
 Tax.: See Silvestri 1927, pp. 58-9; MacGown and Nebeker 1978: 280
 Hosts: *Aleurocanthus citripedus* Quaintance and Baker (Fulmek 1943: 4)
Aleurocanthus spiniferus (Quaintance) (Silvestri 1927: 59)
 Biol.: See Clausen 1978: 34
 Geogr. distr.: Ceylon (Fulmek 1943: 4)
 China (Sanshaci, Chansha) (Silvestri 1927: 59)
 Java (Fulmek 1943: 4)
 Malaysia (Fulmek 1943: 4)

Species: *Amitus spiniferus* (Brethes)
 Orig. desc.: *Passalida spinifera* Brethes 1914 (in Nunguam Otiosum 1: 2-3, 1914; not seen)
 Syn.: *Amitus blanchardi* De Santis 1937: 5
 Tax.: See De Santis 1937: 115-8; MacGown and Nebeker 1978: 278; Viggiani and Mazzone 1982: 60
 Hosts: *Aleurothrixus floccosus* (Maskell) (De Santis 1937: 115)
Pseudaulacaspis pentagona (Targ. Tozz.) (D'Araujo e Silva et al. 1968: 179)
 Biol.: See De Santis 1937: 115-8
 Geogr. distr.: Central America:
 El Salvador (DeBach and Rose 1976a: 4)
 Europe:
 Italy (Viggiani and Mazzone 1982: 60)
 North America:
 Mexico (DeBach and Rose 1976a: 4; DeBach and Rose 1976b: 166)
 USA (imported from Argentina)
 California (DeBach and Rose 1976a: 4; DeBach and Rose 1976b: 166)
 South America:
 Argentina (De Santis 1937: 118) (native)
 Brazil (Costa Lima 1942: 187)

Hymenoptera: Signiphoridae

Genus: *Thysanus*

Species: *Thysanus xanthographa* Blanchard
 Orig. desc.: *Signiphora xanthographa* Blanchard 1936: 18-19
 Syn.:
 Tax.: See Blanchard 1936: 18-19
 Hosts: *Aleurothrixus floccosus* (Maskell) (Blanchard 1936: 19; Hayward 1944b: 157)
 Biol.:
 Geogr. distr.: Argentina (La Plata, Parana) (Blanchard 1936: 19; Hayward 1944b: 157)

Species: *Thysanus townsendi* (Ashmead)
 Orig. desc.: *Signiphora townsendi* Ashmead 1900: 412
 Syn.:
 Tax.: See Ashmead 1900: 412; Girault 1913: 212
 Hosts: *Aleyrodes* sp. (Ashmead 1900: 412)
Aspidiotus sp. (Girault 1913: 213)
Aspidiotus lataniae Signoret (Girault 1913: 213)
Aspidiotus perniciosus Comstock (Girault 1913: 213)
Aleurothrixus floccosus (Maskell) (Parker et al. 1953: 24)
 Biol.:
 Geogr. distr.: Brazil
 Campo Grande (Parker et al. 1953: 24)
 Mexico
 Tabasco, Cordoba, Cuautla, Amecameca (Girault 1913: 213)
 Peru
 Lima (Girault 1913: 213)
 USA
 Texas, Washington, D.C. (Girault 1913:

213)

III. Predators associated with Aleyrodidae on citrus.

Coleoptera: Coccinellidae

Genus: *Axinoscymnus*

Species: *Axinoscymnus beneficus* Kamiya
 Orig. desc.: *Axinoscymnus beneficus* Kamiya 1963:128
 Syn.:
 Tax.: See Kamiya 1963: 128; Sasaji 1971:113
 Hosts: *Aleurocanthus spiniferus* (Quaintance) (Kamiya 1963:130)
 Biol.:
 Geogr. distr.: Japan (Ryukyus) (Kamiya 1963:129)

Genus: *Botynella*

Species: *Botynella 5-punctata* Weise
 Orig. desc.: *Botynella 5-punctata* Weise 1891:287
 Syn.:
 Tax.: See Weise 1891:287
 Hosts: *Aleurocanthus woglumi* Ashby (Clausen and Berry 1932:46)
 Biol.:
 Geogr. distr.: Cuba (Weise 1891:46; Clausen and Berry 1932:46)

Genus: *Brumus*

Species: *Brumus suturalis* (Fabricius)
 Orig. desc.: *Coccinella suturalis* Fabricius 1798 (in Suppl. Entomol. Syst., p. 78; not seen)
 Syn.: *Brumus suturalis* (Fabricius) 1798 (Crotch 1874:195)
 Tax.: See Weise 1895:326; LeFroy 1909:308
 Hosts: *Aleurocanthus woglumi* Ashby (Husain and Khan 1945:35)
Aleurolobus marlati Quaintance (Husain and Khan 1945:35)
Dialeurodes citri (Ashmead) (Clausen 1934: 256)
 Biol.:
 Geogr. distr.: India (Gorham 1903:345; LeFroy 1909)

Genus: *Catana*

Species: *Catana* clauseni* Chapin
 Orig. desc.: *Catana clauseni* Chapin 1940:267-8
 Syn.:
 Tax.: See below.
 See Chapin 1940:266-8
 Hosts: *Aleurocanthus woglumi* Ashby (Clausen 1956:40; Clausen 1958:297)
 Biol.:
 Geogr. distr.: Asia:
 Indonesia (Sumatra: Medan) (Chapin 1940:268)
 Malaysia (Kuala Lumpur) (Chapin 1940:268; Clausen 1958:297)
 Central America and West Indies:
 Cuba (introduced from Malaysia in 1930) (Clausen 1956:40)
 Bahamas (Richardson 1948:90)

* *Cryptognatha* sp. = *Catana clauseni* (Clausen and Berry 1932:36-40)
Catana n.g. 1940, Chapin 1940:266

Species: *Catana parcesetososa* (Sicard)
 Orig. desc.: *Serangium parcesetosum* Sicard 1929:184
 Syn.: *Catana parcesetososa* (Sicard) 1929, (Chapin 1940:268)
 Tax.: See Sicard 1929:184; Chapin 1940:268; Timofeyeva and Hoang Duc Nhuan 1978:302-8
 Hosts: *Aleurocanthus woglumi* Ashby (Smith et al. 1964:20)
Dialeurodes citri (Ashmead) (Timofeyeva and Hoang Duc Nhuan 1978:302-8)
 Biol.: See Timofeyeva and Hoang Duc Nhuan 1978:302-8.
 Geogr. distr.: Mexico (Introduced from India and Pakistan 1949) (Smith et al 1964:19)
 Pakistan (Punjab) (Chapin 1940:268)
 USSR (Georgian) (Timofeyeva and Hoang Duc Nhuan 1978:302-8)

Genus: *Clitosthetus*

Species: *Clitosthetus arcuatus* Rossi
 Orig. desc.: *Clitosthetus arcuatus* Rossi 1794 (in Mant. Ins. II, p. 88; not seen)
 Syn.:
 Tax.: See Savoiskaya and Klausnitzer 1973:42; Klausnitzer and Kovar 1973:53; Agekyan 1977:22-3
 Hosts: *Aleurothrixus floccosus* (Maskell) (Onillon and Abbassi 1973:109)
Dialeurodes citri (Ashmead) (Agekyan 1977:22; Loi 1979:123-45; Liotta 1983:173-85)
Trialeurodes vaporariorum (Westwood) (Agekyan 1977:22)
 Biol.: See Liotta 1983:173-85
 Geogr. distr.: France (Alpes Maritimes) (Onillon and Abbassi 1973:109)
 Italy (Loi 1979:123-45; Liotta 1983:173-85)
 North Africa and Asia Minor (Agekyan 1977:22)
 USSR (Adzharia) (Agekyan 1977:22-3)

Genus: *Chilocorus*

Species: *Chilocorus bijugus* Mulsant
 Orig. desc.: *Chilocorus bijugus* Mulsant 1858 (in Ann. Soc. Linn. Lyon, Vol. I, p. 189; not seen)
 Syn.:
 Tax.: See Crotch 1874:183
 Hosts: *Dialeurodes citri* (Ashmead) (Shenderovskaya 1976, in Rev. Appl. Entomol. 65:2861, 1977)
 Biol.:
 Geogr. distr.: South China (Korschefsky 1931:242)
 USSR (Republic of Georgia) (Shenderovskaya 1976, in Rev. Appl. Entomol. 65:2861, 1977)

Species: *Chilocorus bivalvatus* Mulsant
 Orig. desc.: *Chilocorus bivalvatus* Mulsant 1850 (in Species des Coleopteres trimeres securipales, p. 460; not seen)
 Syn.:
 Tax.: See Crotch 1872-3:376; Wickham 1894:304; Casey 1899:105; Britton 1914:10.
 Hosts: *Dialeurodes citri* (Ashmead) (Woglum 1913:9)
 Biol.:
 Geogr. distr.: Canada (Wickham 1894:304)
 Entire U.S. except southern California (Leng 1908:37)

Species: *Chilocorus cacti* (Linnaeus)
 Orig. desc.: *Coccinella cacti* Linnaeus 1767 (Linne 1767, in Syst. Natur. 12th edit. p. 584; not seen)
 Syn.: *Chilocorus cacti* (Linnaeus) 1767 (Crotch 1872-3:376)
 Tax.: See Crotch 1872-3:376; Crotch 1874:184-5; Casey 1908:408; Leng 1908:38
 Hosts: *Aleurocanthus woglumi* Ashby (Hutson 1918:186)
 Biol.:
 Geogr. distr.: Central America and West Indies:
 Cuba (Hutson 1918:186)
 Guatemala (Gorham 1892:175)
 Honduras (Gorham 1892:175)
 Nicaragua (Gorham 1892:175)
 North America:
 Mexico (Gorham 1892:175)
 USA
 California (Gorham 1892:175)
 Texas (Gorham 1892:175)
 Florida (Leng 1908:38; Korschefsky 1931:245)
 South America (Gorham 1892:175)

Species: *Chilocorus kuwanae* Silvestri
 Orig. desc.: *Chilocorus kuwanae* Silvestri 1909 (In Rev. Col. Itali 7:126; not seen)
 Syn.: See Sasaji 1971:226
 Tax.: See Sasaji 1971:226
 Hosts: *Aleurocanthus spiniferus* (Quaintance) (Yasumatsu and Watanabe 1965:9)
 Biol.:
 Geogr. distr.: China (Sasaji 1971:226)
 Japan

Amakusu (Sasaji 1971:226)
 Hokkaido (Sasaji 1971:226)
 Honshu (Sasaji 1971:226)
 Shikoku (Sasaji 1971:226)
 Kyushu (Sasaji 1971:226)
 Tsushima (Sasaji 1971:226)

Genus: *Cryptognatha*

Species: *Cryptognatha flavescens* (Motschoulsky)
 Orig. desc.: *Oeneis flavescens* Motschoulsky 1865 (Motschoulsky 1865, Bull. Soc. Nat. Moscow 34:423; not seen, in Zool. Record 3:409, 1866)
 Syn.: *Oeneis flavescens* Motschoulsky 1865 (Sicard 1929:184)
 Tax.: Sicard 1929:184
 Hosts: *Dialeurodes citri* (Ashmead) (Silvestri 1927:17)
 Biol.:
 Geogr. distr.: Ceylon (Motschoulsky 1866:423; not seen)
 India (Silvestri 1927:17)

Species: *Cryptognatha flaviceps* Crotch
 Orig. desc.: *Cryptognatha flaviceps* Crotch 1874:207
 Syn.:
 Tax.: See Gorham 1894:182; Crotch 1874:207
 Hosts: *Aleurocanthus woglumi* Ashby (Dietz and Zetek 1920:45)
 Biol.:
 Geogr. distr.: Brazil (Amazonas State, Sao Paulo, Santarem) (Gorham 1894:182, Sao Paulo (Deyrolle)), Santarem (Crotch 1874:207)
 Honduras (Gorham 1894:182)
 Mexico (Yucatan) (Gorham 1894:182)
 Panama (Gorham 1894:182; Dietz and Zetek 1920:45)

Genus: *Cycloneda*

Species: *Cycloneda sanguinea* Linnaeus
 Comm. name: Blood red lady beetle
 Orig. desc.: *Cycloneda sanguinea* Linnaeus 1783 (in Centuria Ins., pp. 10-1; not seen)
 Syn.:
 Tax.: See Crotch 1872-3:372; Leng 1903:202; Palmer 1914:232-4; Muma 1953a:32.
 Hosts: *Aleurocanthus woglumi* Ashby (Dowell et al. 1981:30-1)
Dialeurodes citri (Ashmead) (Morrill and Back 1912:9)
 Biol.: Life Cycle:
 Egg Stage: 3-5 days.
 Larval Stage: 9-16 days.
 Pupal Stage: 3-5 days.
 Egg-Adult: 15-20 days.
 (Palmer 1914:233)
 Geogr. distr.: North America:
 Canada
 USA
 Colorado (Palmer 1914:232)
 Florida (Muma 1953a:32)
 South America:
 Argentina (Hayward 1941a:93)
 Brazil (Thompson and Simmonds 1965:46)
 British Guiana (Thompson and Simmonds 1965:46)
 Dutch Guiana (Thompson and Simmonds 1965:46)
 Paraguay (Thompson and Simmonds 1965:46)
 Uruguay (Thompson and Simmonds 1965:46)
 West Indies:
 Antigua (Thompson and Simmonds 1965:46)
 Cuba (Thompson and Simmonds 1965:46)
 Dominican Republic (Thompson and Simmonds 1965:46)
 Jamaica (Thompson and Simmonds 1965:46)
 Puerto Rico (Thompson and Simmonds 1965:46)
 St. Vincent (Thompson and Simmonds 1965:46)
 Virgin Islands (Thompson and Simmonds 1965:46)

Genus: <i>Decadiomus</i>		<i>Paraleyrodes citri</i> Bondar (Meyerdirk et al. 1980:1256)	
Species:	<i>Decadiomus bahamicus</i> (Casey)	Biol.:	Life Cycle:
Orig. desc.:	<i>Scymnus bahamicus</i> Casey 1899:158-9		Egg Stage: 3.6 days
Syn.:	<i>Decadiomus bahamicus</i> (Casey) 1899 (Muma 1955a:119)		1st Instar Larva: 2.3 days
Tax.:	See Casey 1899:158-9; Muma 1955a:119.		2nd Instar Larva: 2.0 days
Hosts:	<i>Aleurocanthus woglumi</i> Ashby (Clausen and Berry 1932:46)		3rd Instar Larva: 1.9 days
			4th Instar Larva: 5.5 days
Biol.:			Pupa: 4.4 days
Geogr. distr.:	Bahamas (Casey 1899:159) Cuba (Clausen and Berry 1932:46)		Total: Egg-Adult: 19.7 days
			Adult longevity: 26.7 days (Muma 1956:118)
Genus: <i>Delphastus</i>		Geogr. distr.:	Cuba (Clausen and Berry 1932:46) Mexico (Smith et al. 1964:23-24) USA
Species:	<i>Delphastus catalinae</i> (Horn)		Arizona (Horn 1895:83)
Orig. desc.:	<i>Cryptognatha catalinae</i> Horn 1895:83		Florida (Muma 1955a:119); Broward
Syn.:	<i>Delphastus catalinae</i> (Horn) 1895 (Smith and Branigan 1916:450)		Co. (Fitzpatrick et al. 1978:553-5; 1979:733)
Tax.:	See Horn 1895:83; Smith and Branigan 1916:448-50; Casey 1899:112.		Michigan to Georgia (Horn 1895:83) (west of
Hosts:	<i>Dialeurodes citri</i> (Ashmead) (Watson 1926:340) <i>Dialeurodes citrifolii</i> (Morgan) (Thompson and Simmonds 1965:47)		Nebraska (Horn 1895:83)
			Texas (Meyerdirk et al. 1980:1256)
Biol.:		Genus: <i>Diomus</i>	
Geogr. distr.:	USA	Species:	<i>Diomus roseicollis</i> (Mulsant)
	California (Sacramento) (Smith and Branigan 1916:448)	Orig. desc.:	<i>Scymnus</i> (<i>Diomus</i>) <i>roseicollis</i> Mulsant 1853 (in Ann. Soc. Linn. Lyon I, p. 142; not seen)
	Florida (Watson 1926:340-1)	Syn.:	<i>Scymnus roseicollis</i> (Mulsant) 1853 (Crotch 1874:270)
Species:	<i>Delphastus diversipes</i> (Champion)		<i>Diomus roseicollis</i> (Mulsant) 1853 (Gordon 1976:348)
Orig. desc.:	<i>Lioscymnus diversipes</i> Champion 1913:125-7	Tax.:	See Crotch 1874:270; Gordon 1976:348.
Syn.:	<i>Delphastus diversipes</i> (Champion) 1913 (Blackwelder 1945:450)	Hosts:	<i>Dialeurodes citri</i> (Ashmead) (Chavez 1974:24)
Tax.:	See Champion 1913:125-7; Blackwelder 1945:450	Biol.:	
Hosts:	<i>Aleurodicus pimientae</i> L. (Thompson and Simmonds 1965:47) <i>Aleurocanthus woglumi</i> Ashby (Thompson and Simmonds 1965:47) <i>Metaleurodicus cardini</i> (Back) (Mound and Halsey 1978:244)	Geogr. distr.:	North America: USA (Florida) (Chavez 1974:24; Gordon 1976:348) West Indies: Cuba (Korschefsky 1931:165) Granada (Korschefsky 1931:165) Guadeloupe (Korschefsky 1931:165) St. Vincent (Korschefsky 1931:165)
Biol.:		Genus: <i>Hyperaspis</i>	
Geogr. distr.:	Central America and West Indies Guatemala (Zapote, Aceituno) (Champion 1913:127) Honduras (Rio Hondo) (Champion 1913:127) Jamaica (Ritchie 1917:30) North America Mexico (Cuernavaca, Motzorongo) (Champion 1913:126) USA (Thompson and Simmonds 1965:47)	Species:	<i>Hyperaspis albicollis</i> Gorham
Species:	<i>Delphastus pallidus</i> (LeConte)	Orig. desc.:	<i>Hyperaspis albicollis</i> Gorham 1894:201
Orig. desc.:	<i>Oeneis pallida</i> LeConte 1878:400	Syn.:	
Syn.:	<i>Cryptognatha pallida</i> (LeConte) 1878 (Horn 1895:83) <i>Delphastus pallidus</i> (LeConte) 1878 (Muma 1955a:119)	Tax.:	See Gorham 1894:201
Tax.:	See LeConte 1878:400; Horn 1895:83; Muma 1955a:119; Casey 1899:112.	Hosts:	<i>Aleurocanthus woglumi</i> Ashby (Dietz and Zetek 1920:45)
Hosts:	<i>Trialeurodes floridensis</i> (Quaintance) (Thompson and Simmonds 1965:47) <i>Aleurocanthus woglumi</i> Ashby (Clausen and Berry 1932:46) <i>Aleurothrixus floccosus</i> (Maskell) (Mumma et al. 1975:35)	Biol.:	
Geogr. Distr.:	USA (Florida) (Muma 1955a:119)	Geogr. distr.:	Panama (Gorham 1894:201; Dietz and Zetek 1920:45)
Species:	<i>Delphastus pusillus</i> (LeConte)	Species:	<i>Hyperaspis calderana</i> Gorham
Orig. desc.:	<i>Oeneis pusilla</i> LeConte 1852:135	Orig. desc.:	<i>Hyperaspis calderana</i> Gorham 1894:199-200
Syn.:	<i>Cryptognatha pusilla</i> (LeConte) 1852 (Horn 1895:83) <i>Delphastus pusillus</i> (LeConte) 1852 (Muma 1955a:119)	Syn.:	
Tax.:	See LeConte 1852:135; Horn 1895:83; Casey 1899:112; Muma 1955a:119	Tax.:	See Gorham 1894:199-200
Hosts:	<i>Aleurothrixus floccosus</i> (Maskell) (Muma et al. 1975:35) <i>Aleurocanthus woglumi</i> Ashby (Smith et al. 1964:23; Fitzpatrick et al. 1978:553; Dowell et al. 1981c:30-1) <i>Dialeurodes citrifolii</i> (Morgan) (Muma 1956:118)	Hosts:	<i>Aleurocanthus woglumi</i> Ashby (Clausen and Berry 1932:46)
		Biol.:	
		Geogr. distr.:	Panama (Chiriqui) (Gorham 1894:199; Clausen and Berry 1932:46)
		Genus: <i>Leis</i>	
Species:	<i>Leis dimitata</i> 15- <i>spilota</i> Hope	Species:	<i>Leis dimitata</i> 15- <i>spilota</i> Hope
Orig. desc.:	<i>Leis dimitata</i> 15- <i>spilota</i> Hope 1831 (in Zool. Misc., p. 30; not seen)	Orig. desc.:	<i>Leis dimitata</i> 15- <i>spilota</i> Hope 1831 (in Zool. Misc., p. 30; not seen)
Syn.:	<i>Leis dimitata</i> 15- <i>spilota</i> Hope (Watson and Thompson 1933, discussed the biology as <i>Leis conformis</i> Boisd.)	Syn.:	<i>Leis dimitata</i> 15- <i>spilota</i> Hope (Watson and Thompson 1933, discussed the biology as <i>Leis conformis</i> Boisd.)
Tax.:	See Sicard 1912:499-500; Muma 1953a:33	Tax.:	See Sicard 1912:499-500; Muma 1953a:33
Hosts:	<i>Trialeurodes variabilis</i> (Quaintance) (Watson and Thompson 1933:29)	Hosts:	<i>Trialeurodes variabilis</i> (Quaintance) (Watson and Thompson 1933:29)
Biol.:		Biol.:	
Geogr. distr.:	India (Sicard 1912:500)	Geogr. distr.:	India (Sicard 1912:500)
	USA		USA
	California (Watson and Thompson 1933:27; Muma 1953a:33)		California (Watson and Thompson 1933:27; Muma 1953a:33)
	Florida (Watson and Thompson 1933:27; Muma 1953a:33)		Florida (Watson and Thompson 1933:27; Muma 1953a:33)

Genus: <i>Microserangium</i>			
Species:	<i>Microserangium shikokense</i> Miyatake		
Orig. desc.:	<i>Microserangium shikokense</i> Miyatake 1961 (in Mem. Ehime. Univ. 6(6):130-1; not seen)		
Syn.:			
Tax.:	See Sasaji 1971:62-3		
Hosts:	<i>Aleurocanthus spiniferus</i> Quaintance (Yasumatsu and Watanabe 1965:9)		
Biol.:			
Geogr. distr.:	Japan (Shikoku) (Sasaji 1971:62)		
Genus: <i>Nephaspis</i>			
Species:	<i>Nephaspis amnicola</i> Wingo		
Orig. desc.:	<i>Nephaspis amnicola</i> Wingo 1952:44		
Syn.:			
Tax.:	See Wingo 1952:44; Yoshida and Mau 1985:155-60		
Hosts:	<i>Aleurodicus dispersus</i> Russell (Kumashiro et al. 1983:261-9) <i>Paraleyrodes citri</i> Bondar (Meyerderk et al. 1980:1256)		
Biol.:	See Yoshida and Mau 1985:155-60		
Geogr. distr.:	USA Hawaii (Yoshida and Mau 1985:155-60) Iowa (Wingo 1952:44) Texas (Meyerderk et al. 1980:1256)		
Species:	<i>Nephaspis gorhami</i> Casey		
Orig. desc.:	<i>Nephaspis gorhami</i> Casey 1924:168		
Syn.:			
Tax.:	Casey 1924:168; Muma 1953b:12		
Hosts:	<i>Dialeurodes citri</i> (Ashmead) (Griffiths and Thompson 1957:36; Muma et al. 1975:16) <i>Aleurothrixus floccosus</i> (Maskell) (Muma et al. 1975:16)		
Biol.:			
Geogr. distr.:	Panama (Casey 1924:168) USA Florida (Muma 1953b:12; Muma et al. 1975:16)		
Genus: <i>Scymnillodes</i>			
Species:	<i>Scymnillodes aeneus</i> Sicard		
Orig. desc.:	<i>Scymnillodes aeneus</i> Sicard 1922:358		
Syn.:			
Tax.:	Sicard 1922:358		
Hosts:	<i>Aleurocanthus woglumi</i> Ashby (Gowdey 1923c:23)		
Biol.:			
Geogr. distr.:	Jamaica (Sicard 1922:358; Gowdey 1923c:23)		
Species:	<i>Scymnillodes cyaneus</i> Sicard		
Orig. desc.:	<i>Scymnillodes cyaneus</i> Sicard 1922:357-8		
Syn.:			
Tax.:	Sicard 1922:357-8		
Hosts:	<i>Aleurocanthus woglumi</i> Ashby (Gowdey 1923c:23)		
Biol.:			
Geogr. distr.:	Jamaica (Sicard 1922:357; Gowdey 1923c:23)		
Species:	<i>Scymnillodes subtropicus</i> (Casey)		
Orig. desc.:	<i>Delphastus subtropicus</i> Casey 1924:170		
Syn.:	<i>Delphastus subtropicus</i> Casey (Casey 1924:170) <i>Scymnillodes subtropicus</i> (Casey) 1924 (Chapin 1930:493)		
Tax.:	Sicard 1922:355; Casey 1924:170; Chapin 1930:493		
Hosts:	<i>Dialeurodes citri</i> Ashmead (Griffiths and Thompson 1957:36)		
Biol.:			
Geogr. distr.:	USA Florida (Key West, Biscayne) (Casey 1924:170; Chapin 1930:493)		
Genus: <i>Scymnus</i>			
Species:	<i>Scymnus coloratus</i> Gorham		
Orig. desc.:	<i>Scymnus coloratus</i> Gorham 1897:231		
Syn.:			
Tax.:	Gorham 1897:231.		
Hosts:	<i>Aleurocanthus woglumi</i> Ashby (Clausen and Berry 1932:46; Thompson and Simmonds 1965:62)		
Biol.:			
Geogr. distr.:	Guatemala (Capetillo) (Gorham 1897:231) Mexico (Tabasco) (Gorham 1897:231) Panama (Volcan de Chiriqui, Pena Blanca) (Gorham 1897:231; Clausen and Berry 1932:46)		
Species:	<i>Scymnus (Pullus) hilaris</i> Motschulsky		
Orig. desc.:	<i>Scymnus hilaris</i> Motschulsky 1858 (Etud. Entomol. 7:119; not seen)		
Syn.:	Synonyms of <i>Scymnus (Pullus) hilaris</i> were listed in Sasaji 1971:175, including: <i>Scymnus (Nephus) hilaris</i> Motschulsky (Kurisaki 1923, Insect World, Gifu 27:16) <i>Scymnus (Pullus) hilaris</i> Motschulsky (Winkler 1927, Catal. Col. Palaearct. p. 736) <i>Pullus hilaris</i> Motschulsky (Ohta 1929, Inst. Mats. 4:8) <i>Pullus hilaris</i> ab. <i>awvanus</i> (Ohta 1929, Inst. Mats. 4:8) <i>Scymnus (Scymnus) ishidae</i> M. Araki. (Araki 1963, Sci. Rep. Kyoto Pref. Univ. Series A:252-3. Syn. Nov.)		
Tax.:	Sasaji 1971:175-7		
Hosts:	<i>Aleurocanthus spiniferus</i> Quaintance (Yasumatsu and Wantanabe 1965:9)		
Biol.:			
Geogr. distr.:	Burma (Sicard 1896:503) Ceylon (Sasaji 1971:176) Formosa (Sasaji 1971:176) India (East) (Sasaji 1971:176) Japan (Lewis 1896:38; Sasaji 1971:176)		
Species:	<i>Scymnus (Pullus) horni</i> Gorham		
Orig. desc.:	<i>Scymnus horni</i> Gorham 1897:229		
Syn.:			
Tax.:	Gorham 1897:229; Casey 1899:144; Gordon 1976:172-4		
Hosts:	<i>Aleurocanthus woglumi</i> Ashby (Clausen and Berry 1932:46)		
Biol.:			
Geogr. distr.:	Guatemala Quezaltenango (Gorham 1897:229) Duenas (Gorham 1897:229) San Geronimo (Gorham 1897:229) Mexico Northern Sonora (Gorham 1897:229) Jalapa (Gorham 1897:229) Ventanas (Gorham 1897:229) Panama Pana Blanca (Gorham 1897:229; Clausen and Berry 1932:46) Volcan de Chiriqui (Gorham 1897:229; Clausen and Berry 1932:46) USA Arizona (Gordon 1976:174) California (Gordon 1976:174) Colorado (Gordon 1976:174) Nevada (Gordon 1976:174) New Mexico (Gordon 1976:174) Texas (Gordon 1976:174) Utah (Gordon 1976:174)		
Species:	<i>Scymnus pallidicollis</i> Mulsant		
Orig. desc.:	<i>Scymnus pallidicollis</i> Mulsant 1853 (in Ann. Soc. Linn. Lyon 1, p. 280, 1853; not seen) (Korschefsky 1931:144)		
Syn.:			
Tax.:	See Crotch 1874:152; Weise 1901:94; Sicard 1912:504		
Hosts:	<i>Aleurocanthus</i> spp. indet. (Thompson and Simmonds 1964:52; Mound and Halsey 1978:12)		
Biol.:			
Geogr. dist.:	Borneo (Korschefsky 1931:144) Burma (Korschefsky 1931:144) Ceylon (Korschefsky 1931:144) Malacca (Korschefsky 1931:144)		
Species:	<i>Scymnus punctatus</i> Melsheimer		
Orig. desc.:	<i>Scymnus punctatus</i> Melsheimer 1847:180-1		
Syn.:			
Tax.:	Melsheimer 1847:180-1; Horn 1895:107-8; Casey 1899:152-3		
Hosts:	<i>Dialeurodes citri</i> (Ashmead) (Morrill and Back		

1912:9)
 Biol.:
 Geogr. distr.: Canada (Horn 1895:108)
 USA
 Florida (Morrill and Back 1912:9)
 Pennsylvania (Melsheimer 1847:180)
 Texas (Horn 1895:108)
 Species: *Scymnus thoracicus* (Fabricius)
 Orig. desc.: *Coccinella thoracica* Fabricius 1801 (Syst. Eleuth. I, p. 378; not seen)
 Syn.: *Scymnus thoracicus* (Fabricius) 1801 (Mulsant 1850:951)
 Tax.: Gorham 1897:226; Mulsant 1850:951.
 Hosts: *Aleurocanthus woglumi* Ashby (Dietz and Zetek 1920:45)
 Biol.:
 Geogr. distr.: Mexico (Guerrero) (Gorham 1897:226; Korschefsky 1931:167)
 Panama (Dietz and Zetek 1920:45)

Genus: *Serangium*

Species: *Serangium flavescens* (Motschoulsky)
 Orig. desc.: *Oeneis flavescens* Motschoulsky 1865:423
 Syn.: *Cryptognatha flavescens* (Motschoulsky) 1865 (Crotch 1874:208)
 Serangium par flavescens (Motschoulsky) 1865 (Sicard 1929:184)
 Tax.: See Motschoulsky 1865:423; Crotch 1874:208; Sicard 1929:184
 Hosts: *Dialeurodes citri* (Ashmead) (Woglum 1913:19)
 Trialeurodes ricini (Misra) (Misra 1924:135)
 Biol.:
 Geogr. distr.: Ceylon (Motschoulsky 1865:423; Sicard 1929:184)

Genus: *Tauravia*

Species: *Tauravia soror* (Weise)
 Orig. desc.: *Clanis soror* Weise 1892:25
 Syn.: *Tauravia soror* (Weise) (Weise 1900:433)
 Tax.: See Weise 1892:25; Weise 1900:433
 Hosts: *Trialeurodes ricini* (Misra) (Thompson and Simmonds 1964:53)
 Biol.:
 Geogr. distr.: Ceylon (Weise 1900:433)
 India (Weise 1892:16)

Genus: *Verania*

Species: *Verania cardoni* Weise
 Orig. desc.: *Verania cardoni* Weise 1892:19
 Syn.:
 Tax.: Weise 1892:19
 Hosts: *Dialeurodes citri* (Ashmead) (Howard 1911:131)
 Biol.:
 Geogr. distr.: India
 Chota Nagpur (Weise 1892:19)
 Saharanpur (Howard 1911:131)

Neuroptera: Chrysopidae

Genus: *Chrysopa*

Species: *Chrysopa bimaculata* McClendon
 Orig. desc.: *Chrysopa bimaculata* McClendon 1901:215-6
 Syn.:
 Tax.: See McClendon 1901:215-6; Muma 1959:23.
 Hosts: *Dialeurodes citrifolii* (Morgan) (Muma 1959:23)
 Biol.: See Muma 1959:23
 Geogr. distr.: USA
 Florida (Muma 1959:23)
 Texas (McClendon 1901:215-6)

Species: *Chrysopa cubana* Hagen
 Orig. desc.: *Chrysopa cubana* Hagen 1861:215
 Syn.:
 Tax.: See Hagen 1861:215; Banks 1938:121; Muma 1959:25
 Hosts: *Dialeurodes citrifolii* (Morgan) (Muma et al. 1975:36)

Biol.: See Muma 1959:25
 Geogr. distr.: Cuba (Hagen 1861:215)
 USA
 Florida (Muma 1959:25; Muma et al. 1975:36)
 North Carolina (Banks 1938:121)
 Virginia (Hagen 1861:215)
 Species: *Chrysopa lateralis* Guerin-Meneville
 Orig. desc.: *Chrysopa lateralis* Guerin-Meneville 1844 (in Iconog. Regn. Anim., Ins. p. 388; not seen)
 Syn.:
 Tax.: See Hagen 1861:216; Banks 1903:150
 Hosts: *Dialeurodes citrifolii* (Morgan) (Muma 1957:7)
 Biol.: See Muma 1957:6-8
 Geogr. distr.: Mexico
 Vera Cruz (Hagen 1861:216)
 USA
 Florida (Muma 1957:5)

Species: *Chrysopa thoracica* Walker
 Orig. desc.: *Chrysopa thoracica* Walker 1852 (in Cat. Neuroptera Coll. British Mus. 2:243, 1853; Bickley and MacLeod 1956:195)
 Syn.:
 Tax.: See Banks 1938:121
 Hosts: *Metaleurodicus cardini* (Back) (Thompson and Simmond 1965:177)
 Biol.:
 Geogr. dist.: Cuba (Banks 1938:121)
 Puerto Rico (Banks 1938:121)
 USA
 Florida (Bickley and MacLeod 1956:195)

Neuroptera: Coniopterygidae

Genus: *Conwentzia*

Species: *Conwentzia psociformis* (Curtis)
 Orig. desc.: *Coniopteryx psociformis* Halid 1834 (Curtis 1834, in British Entomol., Vol. II, t. 528, pp. 1-8; not seen)
 Syn.: Synonyms of *C. psociformis* were listed by Wytzman 1908:8; Meinander 1972:304-5
 Tax.: See MacLachlan 1868:192; Agekyan 1965:45-6; Meinander 1972:304-6
 Hosts: *Aleurothrixus floccosus* Maskell (Ripolles and Melia 1982:61-6)
 Dialeurodes citri (Ashmead) (Agekyan 1965:46)
 Metatetranychus citri (McG.) (Agekyan 1965:46)
 Biol.: See Arrow 1917:254-7; Agekyan 1965:45-6
 Geogr. dist.: England (Putney, Barnes, Streatham, Ashmead) (Arrow 1917:254) Middle East and Europe (see Meinander 1972:306)
 Spain (Ripolles and Melia 1982:61-6)
 USSR (Republic of Georgia) (Agekyan 1965:45)

Genus: *Semidalis*

Species: *Semidalis aleyrodiformis* (Stephens)
 Orig. desc.: *Coniopteryx aleyrodiformis* Stephens 1936 (Stephens 1936, in Illustrations of British Entomology. Mandibulata VI. p. 116; not seen)
 Syn.: Synonyms of *S. aleyrodiformis* were listed in Meinander 1972:316-8
 Tax.: See Meinander 1972:318-20; Agekyan 1978:348-50
 Hosts: *Dialeurodes citri* (Ashmead) (Agekyan 1978:348)
 Biol.: See Agekyan 1978:348-50
 Geogr. dist.: Europe (Meinander 1972:318)
 India (Meinander 1972:318)
 Thailand (Meinander 1972:318)
 USSR
 Adzharia (Agekyan 1978:348)

Thysanoptera: Thripidae

Genus: *Aleurodothrips*

Species: *Aleurodothrips fasciapennis* (Franklin)
 Orig. desc.: *Cryptothrips fasciapennis* Franklin 1908:727-9

Syn.: *Cryptothrips fasciapennis* Franklin (Franklin 1908:727-9)
 Tax.: See Franklin 1908:727-9; Selhime et al. 1963:709
 Hosts: *Dialeurodes citri* (Ashmead) (Morrill and Back 1912:9; Back 1912:73)
Dialeurodes citrifolii (Morgan) (Back 1912:73; Selhime et al. 1963:710)
 Biol.: Life Cycle:
 Egg stage: 11 days
 Larval stage: 7 days
 Pupal stage: 7 days
 (Selhime et al. 1963:710)
 Geogr. distr.: Ceylon (Taylor 1935:53)
 Java (Taylor 1935:53)
 USA
 Florida (Back 1912:73; Selhime et al. 1963:709)
 Massachusetts (Franklin 1908:729)

Biol.:
 Geogr. distr.: USA
 California to Nebraska (Stone et al. 1965:572)
 New Jersey to Florida (Stone et al. 1965:572)
 Wisconsin (Stone et al. 1965:572)
 West Indies (Stone et al. 1965:572)
 Species: *Baccha parvicornis* Loew
 Orig. desc.: *Baccha parvicornis* Loew 1861 (in Wien. Entomol. Monatsschr. 5:33-43, 1891; not seen)
 Syn.:
 Tax.:
 Hosts: *Metaleurodicus cardini* (Back) (Thompson and Simmonds 1964:53)
 Biol.:
 Geogr. distr.: Cuba (Thompson and Simmonds 1964:53)
 Puerto Rico (Loew 1861) (in Wien. Entomol. Monatsschr. 5:33-43, 1891; not seen)
 USA
 Florida (Loew 1861) (in Wien. Entomol. Monatsschr. 5:33-43, 1891; not seen)

Diptera: Dolichopodidae

Genus: *Condylostylus*

Species: *Condylostylus patibulatus* (Say)
 Orig. desc.: *Dolichopus patibulatus* Say 1823:87
 Syn.: See Stone et al. 1965:485
Psilopus amatus Walker 1849 (in List of specimens of dipterous insects in the collection of the British Museum Vol. 3, p. 648)
Psilopodinus carolinensis Bigot 1888 (Bigot 1888, p. xxix)
 Tax.: See Say 1823:87; Bigot 1888, p. xxix
 Hosts: *Dialeurodes citri* (Ashmead) (Chavez 1974:24)
 Biol.:
 Geogr. distr.: USA
 Carolina (Bigot 1888:xxix)
 Florida (Say 1823:87; Chavez 1974:24)

Hymenoptera: Formicidae

Genus: *Cremastogaster*

Species: *Cremastogaster brevispinosa* Mayr subsp. *tumulifera*
 Forel var. *tumulicula* Forel
 Orig. desc.: *Cremastogaster brevispinosa* Mayr. subsp. *tumulifera*
 Forel var. *tumulicula* Forel 1909:258
 Syn.:
 Tax.: See Forel 1909:258-9
 Hosts: *Aleurocanthus woglumi* Ashby (Ritchie 1917:29)
 Biol.:
 Geogr. distr.: Jamaica (Ritchie 1917:34)
 Paraguay (Forel 1909:252)

Diptera: Drosophilidae

Genus: *Acletoxenus*

Species: *Acletoxenus indica* Malloch
 Orig. desc.: *Acletoxenus indica* Malloch 1929:545
 Syn.:
 Tax.: Malloch 1929:545-6
 Hosts: *Aleurocanthus citripertus* Quaintance and Baker (Clausen 1934:254)
 Biol.:
 Geogr. distr.: South India (Malloch 1929:546)

Diptera: Syrphidae

Genus: *Baccha*

Species: *Baccha fuscipennis* Say
 Orig. desc.: *Baccha fuscipennis* Say 1823:100-1
 Syn.: Synonyms of *Baccha fuscipennis* Say were listed by
 Weems (1953), p. 167, including:
Ocyptamus fuscipennis Macquart 1934 (Hist. Nat. Insect (Diptera) 1:554)
Syrphus amissas Walker, List 3:589 (1849)
Syrphus radica Walker, List 3:589 (1849)
Syrphus peas Walker, List 3:590 (1849)
Baccha longiventris Loew, Cent. 7:66 (1866)
Baccha (Ocyptamus) fuscipennis Say (Hull 1947:98)
 Tax.: Say 1823:100-1; Weems 1953:167-8
 Hosts: *Dialeurodes citrifolii* (Morgan) (Muma et al. 1975:36)
 Biol.:
 Geogr. distr.: Jamaica (Gowdey 1926:79)
 USA (Weems 1953:168)
 West Indies (Weems 1953:168)
 Species: *Baccha clavata* (Fabricius)
 Orig. desc.:
 Syn.:
 Tax.:
 Host: *Metaleurodicus cardini* (Back) (Thompson and Simmonds 1964:53)

Lepidoptera: Pyralidae

Genus: *Cryptoblabes*

Species: *Cryptoblabes gnidiella* (Milliere)
 Orig. desc.: *Ephestia gnidiella* Milliere 1864:308
 Syn.:
 Tax.: See Milliere 1864:308; Balachowsky 1972:1211-2
 Hosts: *Cryptoblabes gnidiella* is a plant feeder (*Daphne mezereum*, *Daucus carota*, *Lythrum salicaria*) (Balachowsky 1972:1211), *Citrus*, *Mespilus*, Cotton (Gough 1931:19-20), but Clausen (1934) reported that it is a predator of *Aleurocanthus citripertus*, and *Aleurocanthus woglumi* in Asia (Clausen 1934:254-5)
 Biol.:
 Geogr. distr.: Africa:
 Egypt
 Belcas (Gough 1913:19)
 Dessouk (Gough 1913:19)
 Asia:
 China (Clausen 1934:254-5)
 India (Clausen 1934:254-5)
 Malaya (Clausen 1934:254-5)
 Europe:
 France (Balachowsky 1972:1211-2)
 New Zealand (Balachowsky 1972:1211-2)

Acarina: Acaridae

Genus: *Typhlodromus*

Species: *Typhlodromus (Amblyseius) finlandicus* (Oudemans) var. *rubini* Swirski and Amitai
 Orig. desc.: *Typhlodromus (Amblyseius) finlandicus* (Oudemans) var. *rubini* Swirski and Amitai 1961 (Swirski and Amitai 1961:196-8)
 Syn.:
 Tax.: See Swirski and Amitai 1961:196-8.
 Hosts: *Bemisia tabaci* (Gennadius) (Teich 1966:141-2)
 Biol.:

Geogr. distr.: Israel

Tel Aviv (Swirski and Amitai 1961:198)
Beit Dagan (Swirski and Amitai 1961:198)

Genus: *Amblyseius*

Species: *Amblyseius swirskii* Athias-Henriot
Orig. desc.: *Amblyseius swirskii* Athias-Henriot 1962:5-7
Syn.:
Tax.: Athias-Henriot 1962:5-7
Hosts: *Bemisia tabaci* (Genn.) (Teich 1966:141)
Biol.:
Geogr. distr.: Israel (Athias-Henriot 1962:6)

IV. Fungi associated with Aleyrodidae on citrus.

Species: *Aegerita webberi* Fawcett
(Common name: Brown Fungus)
Orig. desc.: *Aegerita webberi* Fawcett 1910:167
Syn.:
Tax.: Fawcett 1910:167; Morrill and Back 1912:29
Hosts: *Aleurothrixus floccosus* (Maskell) (Johnston 1917-18, in Rev. Appl. Entomol. 7:349, 1919)
Dialeurodes citri (Ashmead) (Fawcett 1910:167)
Dialeurodes citrifolii (Morgan) (Fawcett 1910:167; Davidson and Peairs 1966:545)
Biol.: Fawcett 1910:165-6; Morrill and Back 1912:30
Geogr. distr.: Brazil (Lima 1942:187)
Cuba (Johnston 1917-18, in Rev. Appl. Entomol. 7:349, 1919)
USA
Florida (Fawcett 1910:167; Morrill and Back 1912:31)
Louisiana (Morrill and Back 1912:31-2)
Texas (Morrill and Back 1912:31-2)

Species: *Aschersonia aleyrodii* Webber
(Common name: Red aschersonia)
Orig. desc.: *Aschersonia aleyrodii* Webber 1897:21
Syn: *Aschersonia tahitensis* Mont. (Net) (Webber 1894:363-4)
Tax.: See Fawcett 1908:10; Morrill and Back 1912:21
Hosts: *Aleurocanthus woglumi* Ashby (Boscan de Martinex et al. 1982:456)
Aleurothrixus floccosus (Maskell) (Fawcett 1908:17)
Aleyrodes horridus Hempel (Fawcett 1908:17)
Aleyrodes longicornis Zehntner (Fawcett 1908:17)
Bemisia inconspicua (Quaintance) (Morrill and Back 1912:25)
Dialeurodes citri (Ashmead) (Webber 1897, in Fawcett 1908:10)
Dialeurodes citrifolii (Morgan) (Pratt 1958:34; Davidson and Peairs 1966:545)
Trialeurodes abutilonea (Haldeman) (Morrill and Back 1912:25; Mound and Halsey 1978:205)
Biol.: See Webber 1897:23-6; Fawcett 1908:12-6; Morrill and Back 1912:21-4
Geogr. distr.: Asia:
Ceylon (Morrill and Back 1912:25)
Japan (Morrill and Back 1912:25)
Central America and West Indies
Cuba (Morrill and Back 1912:25)
North America:
USA
Florida (Berger 1907:64-5; Fawcett 1908:17)
Louisiana (Morrill and Back 1912:25)
Texas (Meyerdirk et al. 1980:1254)
Mexico (Morrill and Back 1912:25)
South America:
Brazil (Fawcett 1908:17; Benatar 1935:8; Lima 1942:187)

Species: *Aschersonia flavo-citrina* P. Hennings
(Common name: Yellow fungus)
Orig. desc.: *Aschersonia flavo-citrina* P. Hennings 1902:307
Syn.: *Aschersonia goldiana* Sacc. et Ellis (Watson and

Berger 1937:58)
Tax.: Fawcett 1908:17; Morrill and Back 1912:27
Hosts: *Aleurocanthus woglumi* Ashby (Gowdey 1923c:23)
Dialeurodes citri (Ashmead) (Fawcett 1908:17; Morrill and Back 1912:26)
Dialeurodes citrifolii (Morgan) (Morrill and Back 1912:26; Benatar 1953:47)
Trialeurodes vaporariorum (Westwood) (Fawcett 1908:17)
Biol.: Fawcett 1908:18-20
Geogr. distr.: Central America and West Indies:
Cuba (Johnston 1917-18, in Rev. Appl. Entomol. 7:349, 1919)
Jamaica (Gowdey 1923c:23)
North America:
USA
Florida (Berger 1907:64; Morrill and Back 1912:27)
South America:
Brazil (Fawcett 1908:17; Morrill and Back 1912:27; Benatar 1935:8)

Species: *Capnodium citri** Berkeley and Desmazieres
(Common name: Sooty mold)
Orig. desc.: *Capnodium citri* Berkeley and Desmazieres 1849(Berkeley and Desmazieres 1849, in J. Hort. Soc. London, 1849, Vol. IV:243-60; not seen)
Syn.:
Tax.: Webber 1897:5-8; Fawcett 1936:270-1
Hosts: Sooty mold is not a parasitic fungus. It is a saprophyte drawing its nourishment entirely from honey dew. It was reported to kill citrus whitefly in Florida by Gossard (Gossard 1903:629-3).
Biol.: Sooty mold is abundant throughout the citrus growing section of the world wherever honeydew excreting insects are found on the trees and is mainly quite destructive in Florida, Louisiana, and California (Webber 1897:8).

* Probably more than one genus was called sooty mold.

Species: *Sphaerostilbe coccophila* Tulasne
Orig. desc.: *Sphaerostilbe coccophila* Tulasne 1865 (Tulasne 1865; in Fawcett 1908, Fungi Parasitic upon *Aleyrodes citri*:25-6)
Syn.:
Tax.: See Fawcett 1908:25-6
Hosts: This fungus has been reported as a parasite of no less than fifteen different species of scale insects (Fawcett 1908:25) and has occurred in Orlando (Florida), growing upon *Dialeurodes citri* (Ashmead) (Gossard 1903:623)
Biol.: See Rolfs and Fawcett 1908:8-11
Geogr. distr.: This fungus has been found in nearly every country in the world including the United States (Florida)(Fawcett 1908:26-7).

Species: *Verticillium heterocladium* Penzig
(Common name: Cinnamon Fungus)
Orig. desc.: *Verticillium heterocladium* Penzig 1882 (Penzig 1882, in Fawcett 1908:22-3, Fungi Parasitic Upon *Aleyrodes citri*)
Syn.: *Verticillium cinnamomeum* Petch (Watson and Berger 1937:60)
Tax.: See Fawcett 1908:22-3
Hosts: *Coccus hesperidum* Linnaeus (Fawcett 1908:25; Morrill and Back 1912:38)
Dialeurodes citri Ashmead (Fawcett 1908:22)
Diaspis (Fawcett 1908:22)
Lepidosaphes beekii Newman (Morrill and Back 1912:38)
Lepidosaphes gloveri Packard (Morrill and Back 1912:38)
Biol.: *Mytilaspis citricola* (Fawcett 1908:22)
See Fawcett 1908:23-4
Geogr. distr.: Africa (Fawcett 1908:25; Morrill and Back 1912:38)
Antilles (Fawcett 1908:25; Morrill and Back 1912:38)
Italy (Fawcett 1908:25; Morrill and Back

1912:38)

USA

Florida (Fawcett 1908:21-22; Morrill and Back
1912:38)

Species: *Fusarium aleyrodis* Petch
Orig. desc.: *Fusarium aleyrodis* Petch 1921:164
Syn.: *Microcera* sp. Fawcett (Petch 1921:164)
Tax.: See Fawcett 1908: 29; Petch 1921:164
Hosts: *Dialeurodes citri* (Ashmead) (Fawcett 1908:29;
Griffiths and Thompson 1957:36)
Biol.: See Fawcett 1908:30-4
Geogr. distr.: Florida (Fawcett 1908:34; Petch 1921:164; Watson
and Berger 1937:60; Pratt 1958:34)

V. References.

- Abbasi, H. M., M. S. Khan, and H. Haque. 1955. Black fly of citrus *Aleurocanthus woglumi* Ashby) in Sind and its control. Agr. Pakistan 6:5-23. Abstract in Rev. Appl. Entomol. 46:72-3, 1958.
- Abbassi, M. 1975. Presence au Maroc d'une nouvelle espece d'aleurode *Aleurothrix floccosus* (Maskell) (Homoptera, Aleurodidae). Fruits 30(3):173-5.
- Agarwal, M. M. 1964. Studies of forms of Aphelinidae (Hymenoptera-Chalcidoidea) collected at Aligarh (India) I. Proc. Indian Acad. Sci. 59:263-86.
- Agekyan, N. G. 1965. *Conwentzia psociformis* Curt. (Neuroptera, Coniopterygidae). A little known entomophage in the Georgian Republic. Entomol. Rev. 44(1):84-8. (English translation pp. 45-7)
- Agekyan, N. G. 1977. *Clitostethus arcuatus* Rossi (Coleoptera, Coccinellidae), a predator of the citrus whitefly in Adzharia. Entomol. Rev. 56(1): 31-3. (English translation pp. 22-3)
- Agekyan, N. G. 1978. A little known entomophagous insect *Semidalis aleyrodiformis* Stephens (Neuroptera, Coniopterygidae) in Adzharia. Entomol. Rev. 57:509-12. (English translation pp. 348-50)
- Agekyan, N. G. 1981. Biological features of *Encarsia formosa* Gahan (Hymenoptera, Aphelinidae). Entomol. Rev. 60:90-4.
- Alam, M. Z., A. Ahmed, S. Alam, and M. A. Islam. 1965. A review of research. Division of Entomology (1947-64). Agr. Inf. Serv. and E. Pakist. Agr. Res. Inst. Dacca. 272 pp. Abstract in Rev. Appl. Entomol. 55:1556, 1967.
- Aleshina, O. A. 1978. Composition and prospects for study of the entomopathogenic fungi of the USSR. Mikol. Fitopatol. 12:457-60. (not seen, in Rev. Appl. Entomol. 68:626, 1980)
- Anderson, L. D., and H. G. Walker. 1939. Control of whiteflies on Gardenias. J. Econ. Entomol. 32:210-3.
- Angeles, N. De J., R. G. Oakley, and J. A. Osorio. 1968. Presencia en Venezuela de *Aleurocanthus woglumi* Ashby (Aleyrodidae-Homoptera) mosca prieta de los citricos. Agron. Trop. 18:487-8.
- Angeles, N. De J., J. R. Dedordy, P. P. Paredes, and J. R. Requena. 1971. Mosca prieta (*Aleurocanthus woglumi* Ashby) de los citricos en Venezuela. Agro. Trop. 21:71-5.
- Angeles, N. De J., J. R. Dedordy, N. B. De Martinez, P. P. Paredes, and J. R. Requena. 1972. Aportes en el estudio de hospederas de la "mosca prieta de los citricos," *Aleurocanthus woglumi* Ashby, en Venezuela. Agro. Trop. 22:549-53.
- Anonymous. 1917. Arkansas Plant Act of 1917 and rules and regulations pursuant thereto. State Plant Board Arkansas, Little Rock, Circ. No. 1. Abstract in Rev. Appl. Entomol. 5:384, 1917.
- Anonymous. 1959. Pests and diseases number. Plant Prot. Bull. New Delhi 11:1-70. Abstract in Rev. Appl. Entomol. 53:306, 1965.
- Anonymous. 1967. Occurrence of *Dialeurodes citri* on gardenia. F.A.O. Plant Prot. Bull. 15:117.
- Anonymous. 1968. Plant quarantine announcements. F.A.O. Plant Prot. Bull. 16:116-7.
- Anonymous. 1969. Woolly whitefly (*Aleurothrix floccosus*). Coop. Entomol. Insect Rep. 19(10):150.
- Anonymous. 1970. The major pests and diseases of economic crops in the Caribbean region. Port of Spain, Caribbean Plant Prot. Comm. 25 pp. Abstract in Rev. Appl. Entomol. 58:1388, 1970.
- Anonymous. 1976a. Citrus blackfly returns. Plant Ind. News 17(3):3-5, 13.
- Anonymous. 1976b. Citrus blackfly moves into Palm Beach County. Plant Ind. News 17(4):25, 29.
- APHIS. 1975. Orange spiny whitefly, *Aleurocanthus spiniferus* (Quaintance). F.A.O. Plant Prot. Bull. 23:27.
- Argov, Y., and Y. Rossler. 1982. Biological control of the citrus whitefly. The establishment of *P. lahorensis* in Israel. Alon. Hanotea. 5:1-3.
- Armitage, H. M. 1944. Twenty-fifth annual report. Calif. Agr., Bur. Entomol. Plant Quar., Sacramento 23(4):228-33.
- Arrow, G. J. 1917. The life history of *Conwentzia psociformis* Curt. Entomol. Mon. Mag. 53:254-7.
- Ashby, S. F. 1915. Notes on diseases of cultivated crops observed in 1913-4. Dep. Agr. Jamaica Bull. 2(8):320-2.
- Ashmead, W. H. 1883. The orange *Aleurodes*. (*Aleurodes citri*, n. sp.). Fla. Dispatch 2(42):704.
- Ashmead, W. H. 1900. On the genera of the chalcid-flies belonging to the subfamily Encyrtinae. Proc. U.S. Nat. Mus. 22(1202):412.
- Ashmead, W. H. 1904. New generic names in the Chalcidoidea. Proc. Entomol. Soc. Wash. 6:126.
- Athias-Henriot, C. 1962. *Amblyseius swirskii*, un nouveau Phytoseiide voisin d' *A. andersoni* (Acariens anactinotriches). Ann. Ecole Nat. Agr. Alger. 3(5):1-7.
- Avidov, Z., and I. Harpaz. 1969. Plant pests of Israel. Israel Univ. Press, Jerusalem. pp. 76-83.
- Ba-Angood, S. A. S. 1977. Field trials for the control of *Aleurocanthus woglumi* in the Yemen. PANS 23:149-52.
- Back, E. A. 1909. A new enemy of the Florida Orange. J. Econ. Entomol. 2:448-9.
- Back, E. A. 1910. The woolly whitefly: A new enemy of the Florida orange. U.S.D.A., Bur. Entomol. Bull. No. 64. VIII:65-71.
- Back, E. A. 1912a. Notes on Florida Thysanoptera, with description of a new genus. Entomol. News 23:73-7.
- Back, E. A. 1912b. Notes on Cuban whiteflies with description of two new species. Can. Entomol. 44:145-53.
- Baker, A. C. 1923. An undescribed orange pest from Honduras. J. Agr. Res. 25:253-4.
- Baker, A. C., and A. Dampf. 1937. Notes on some Mexican Aleyrodidae. (Sobreiro) [Mex.] Univ. Nac., Inst. Biol. An. 8(4):611.
- Baker, A. C., and M. L. Moles. 1921. The Aleyrodidae of South America with description of four new Chilean species. Rev. Chilena Hist. 25:609-48.
- Baltazar, C. R. 1968. Supplementary host list and checklist of Philippine plant pests. Philipp. J. Sci. 97:117-227.
- Balachowsky, A. S. 1972. Entomologie appliquee a l'agriculture. Masson et Cie. ed., Tom. 2(2):1059-634.
- Banatar, R. 1935. Fungos entomogenos dos citrui. Rodriguesia 1(2):7-10.
- Banks, N. 1903. A revision of the Nearctic Chrysopidae. Trans. Am. Entomol. Soc. 29:137-62.
- Banks, N. 1938. New Chrysopidae and species new to the United States. Can. Entomol. 70:118-22.
- Barbagallo, S., S. Tongo, and I. Patti. 1981. Primi risultati di lotta biologica integrata in Sicilia orientale contro il cotonello cil *Dialeurodes delgi* Agrumi. Fruits 36: 115-121.

- Bedford, E. C. G., and E. D. Thomas. 1965. Biological control of the citrus blackfly, *Aleurocanthus woglumi* (Ashby) (Homoptera: Aleyrodidae) in South Africa. *J. Entomol. Soc. S. Afr.* 28:117-32.
- Beingolea, G. O. D. 1959. El problema de la "mosca blanca lanuda" de los citricos, en el Peru *Aleurothrix floccosus* (Homoptera: Aleyrodidae). *Rev. Peruana Entomol. Agr.* Vol. 2(1):65-8. *Abstract in Rev. Appl. Entomol.* 49:489, 1961.
- Bemis, F. E. 1904. The aleyrodids, or mealy-winged flies, of California, with references to other American species. *Proc. U.S. Nat. Mus.* 27: 471-537.
- Bennett, F. D. 1966. Current status of citrus blackfly and introduced parasites in Barbados. *J. Agr. Soc. Trinida & Tobago* 66:7-8.
- Bennett, F. D., D. Rosen, F. Cochereau, and B. J. Wood. 1976. Biological control of pests of tropical fruits and nuts, pp. 359-95. *In* C. B. Huffaker and P. S. Messenger (eds.), *Theory and practice of biological control*. Academic Press, New York.
- Bennett, F. D., and L. W. van Whervin. 1965. The occurrence of *Aleurocanthus woglumi* Ashby in Barbados and the establishment of its natural enemies. *F.A.O. Plant Proc. Bull.* 13(4):2-4.
- Bennett, F. D., and L. W. van Whervin. 1966. Occurrence of the citrus blackfly in Barbados. *J. Agr. Soc. Trinida & Tobago* 66:3-6.
- Berger, E. W. 1907. Whitefly conditions in 1906-The use of the fungi. *Fla. Agr. Exp. Sta. Bull.* 88:47-85.
- Berger, E. W. 1909. Whitefly studies in 1908. *Fla. Agr. Exp. Sta. Bull.* 97:43-71.
- Berry, P. A., and J. M. McGough. 1932. La mosca prieta de los citrus y su desarrollo en Cuba. *Secr. Agr., Comer. Trabajo.* pp. 3-17.
- Bickley, W. E., and E. G. MacLeod. 1956. A synopsis of the Nearctic Chrysopidae with a key to the genera. *Entomol. Soc. Wash.* 58:177-202.
- Bigot, J. M. F. 1888. Diagnoses d'espèces nouvelles de Dolichopodi. *Ann. Bull. Soc. Entomol. France Ser. 6.* 8(1):29.
- Bink-Moenen, R. M. 1983. Revision of the African whiteflies (Aleyrodidae), mainly based on a collection from Chad. *Monogr. Ned. Entomol. Ver.* 10:1-210.
- Blackwelder, R. E. 1945. Checklist of the Coleopterous insects of Mexico, Central America, the West Indies, and South America. Part 3. U.S. Govt. Print. Off. 1944-57. *Smithson. Inst. U.S. Nat. Mus. Bull.* 185:343-550.
- Blanchard, E. E. 1936. Apuntes sobre calcidoideos Argentinos, nuevos y conocidos. *Rev. Soc. Entomol. Argentina* 8:7-32.
- Bodenheimer, F. S. 1951. Citrus entomology in the Middle East. *Dr. W. Junk Den Hagg, Jerusalem.* pp. 173-5.
- Bondar, G. 1923. Aleyrodídeos do Brasil. *Secr. Agr. Ind. Obras Publ., Estado Bahia. Seccao Pathol. Veg.* 183 pp.
- Bondar, G. 1931. *Paraleyrodos citri*. Uma nova praga das laranjeiras. *Campo. Rio de Janeiro Ann.* 2(5):24.
- Borle, M. N., and S. B. Kharat. 1972. Evaluation of some important insecticides for the control of whitefly, *Aleurocanthus woglumi* Ashby in pupal stage on citrus. *Ind. J. Entomol.* 33(3):370-1.
- Boscan de Martinez, N. 1983. Biología de la mosca prieta de los citricos *Aleurocanthus woglumi* Ashby (Homoptera: Aleyrodidae). *Agr. Trop.* 31:211-8.
- Boscan de Martinez, N., B. Torge Terna, and F. Geraud. 1982. Enemigos naturales de la mosca prieta de los citricos *Aleurocanthus woglumi* Ashby (Homoptera: Aleyrodidae) en Venezuela. *Agr. Trop.* 29:453-458.
- Bosman, T. 1959. Blackfly can destroy entire crop. *Farm. S. Africa* 35(6):6,7,9,10,27.
- Boukhalfa, H., and P. Bonafonte. 1979. Observations des populations de l'aleurode des citrus, *Dialeurodes citri* Ashmead (Hom., Aleyrodidae), dans la plaine de la Mitidja (Algerie), pendant la periode hivernale et part-hivernale. *Fruits* 34:43-52.
- Bowman, C. E., and P. W. Bartlett. 1978. *Dialeurodes citri* (Ashmead) and *D. citrifolii* (Morgan) (Hemiptera: Aleyrodidae) infesting imported Citrus under glass in Britain. *Plant Path.* 27:203.
- Boyce, A. M. 1950. Entomology of citrus and its contribution to entomological principles and practices. *J. Econ. Entomol.* 43:741-66.
- Britton, W. E. 1914. Some common lady beetles of Connecticut. *Conn. Agr. Exp. Sta. Bull.* 181:1-22.
- Britton, W. E. 1923. Family Aleyrodidae. *Bull. Conn. Sta. Geol. Nat. Hist. Surv.* 34:335-45.
- Brogdon, J. E. 1977. Citrus blackfly program, March 1977. *Entomol. and Nematol. News, IFAS* 2(4):21.
- Brown, A. C. 1937. Report of the grove inspection Department. *In* Report for the period July 1, 1934-June 30, 1936. *State Plant Board Fla.* pp. 21-6.
- Brown, A. C. 1939. Report of the grove inspection Department. *In* Report for the period July 1, 1936-June 30, 1938. *State Plant Board Fla.* pp. 15-7.
- Browne, F. G. 1968. Pests and diseases of forest plantation trees. Clarendon Press, Oxford. 1330 pp.
- Bruner, S. C. 1931. Algunos insectos daninos a nuestros frutales. *Circ. Estac. Exp. Agron. Santiago Las Vegas* 75:1-12. *Abstract in Rev. Appl. Entomol.* 20:323-4, 1932.
- Bruner, S. C. 1954. Sobre la mosca prieta de las plantas citricas en Cuba, y su control. *Rev. Agr. (Cuba)* 37(2):31-9.
- Burnett, T. 1958. Effect of area of search on reproduction of *Encarsia formosa* Gahan (Hymenoptera: Chalcididae). *Can. Entomol.* 60:225-9.
- Bustillo, P. A. E. 1970. La mosca negra de los citricos, *Aleurocanthus woglumi* (Ashby) un problema severo en el Tolima. *Agr. Trop.* 26: 721-2. *Abstract in Rev. Appl. Entomol.* 61:2379, 1973.
- Camacho, C. 1923. La agricultura de Tacna, Peru. 27 pp. *Abstract in Rev. Appl. Entomol.* 12:223, 1924.
- Capco, S. R. 1959. A list of plant pests of the Philippines with special reference to field crops, fruit trees and vegetables. *Philipp. J. Agri.* 22:1-80. (not seen, *in* Mound and Halsey. 1978.)
- Carrero, J. M. 1978. Primera contribucion al estudio de la 'mosca blanca' de los agrios *Aleurothrix floccosus* Mask. en la region Valenciana. Agosto 1972-enero 1974. *Ana. Inst. Nac. Invest. Agr. Prot. Veg.* 5:145-235. (not seen, *in* Rev. Appl. Entomol. 66:2072, 1978)
- Carrero, J. M. 1979a. Toxicidad, en campo, frente a *Cales noacki* How., parasito de la 'mosca blanca' de los agrios, *Aleurothrix floccosus* Mask., de diversos insecticidas. *Ana. Inst. Nac. Invest. Agr., Prot. Veg.* 9:75-91. (not seen, *in* Rev. Appl. Entomol. 68:3493, 1980)
- Carrero, J. M. 1979b. Contribucion al estudio de la biología de la 'mosca blanca' de los agrios, *Aleurothrix floccosus* Mask., en la region Valenciana. III. 1. Detos biológicos. (Corbera y Jandia) 1975. *Ana. Inst. Nac. Invest. Agr., Prot. Veg.* 9:107-13. (not seen, *in* Rev. Appl. Entomol. 68:3495, 1980)
- Carrero, J. M. 1979c. Contribucion al estudio de la biología de la 'mosca blanca' de los agrios, *Aleurothrix floccosus* Mask., en la region Valenciana. III. 2. Biología de Campo, Manises, 1975. *Ana. Inst. Nac. Invest. Agr., Prot. Veg.* 9:115-52. (not seen, *in* Rev. Appl. Entomol. 68:3496, 1980)

- Carrero, J. M. 1979d. Contribucion al estudio de la biologia de la 'mosca blanca' de los agrios, *Aleurothrixus floccosus* Mask., en la region Valenciana. IV. Parsitismo por *Cales noacki* How. Ana. Inst. Nac. Invest. Agra., Prot. Veg. 9:153-62. (not seen, in Rev. Appl. Entomol. 68:3497, 1980)
- Carrero, J. M. 1979e. Contribucion al estudio de la biologia de la 'mosca blanca' de los agrios, *Aleurothrixus floccosus* Mask., en la region Valenciana. V. Estudios previos al establecimiento de la dinamica poblacional. 1. Muestreo. Ana. Inst. Nac. Invest. Agra., Prot. Veg. 9:163-76. (not seen, in Rev. Appl. Entomol. 68:3498, 1980)
- Carrero, J. M. 1979f. Contribucion al estudio de la biologia de la 'mosca blanca' de los agrios, *Aleurothrixus floccosus* Mask., en la region Valenciana. V. Estudios previos al establecimiento de la dinamica poblacional. 2. Distribucion de brotaciones. Ana. Inst. Nac. Invest. Agra., Prot. Veg. 9:177-81. (not seen, in Rev. Appl. Entomol. 68:3499, 1980)
- Carrero, J. M., and J. Tarancon. 1979. Contribucion al estudio de la biologia de la 'mosca blanca' de los agrios, *Aleurothrixus floccosus* Mask., en la region Valenciana. II. Datos biologicos de campo, 1974. Ana. Inst. Nac. Invest. Agra., Prot. Veg. 9:93-106.
- Carrillo, T. R., J. M. Ramirez, and R. C. Zappe. 1966. Erradicacion de la mosca prieta de los citricos en la zona de control quimico en el noreste de Mexico. Fitofilo 14(52):33-41.
- Casey, T. L. 1899. A revision of the American Coccinellidae. J. N.Y. Entomol. Soc. 7:71-169.
- Casey, T. L. 1908. Notes on the coccinellidae. Can. Entomol. 40:393-421.
- Casey, T. L. 1924. Memoirs on the Coleoptera, Vol. 2. Lancaster Press, Inc., Pa. pp. 168-70.
- Champion, G. C. 1913. Notes on various central American Coleoptera, with descriptions of new genera and species. Trans. Entomol. Soc. Lond. pp. 125-7.
- Chapin, E. A. 1930. New Coccinellidae from the West Indies. J. Wash. Acad. Sci. 20:488-95.
- Chapin, E. A. 1940. New genera and species of lady beetles related to *Serangium* Blackburn (Coleoptera:Coccinellidae). J. Wash. Acad. Sci. 30:263-72.
- Chavez, H. A., 1974. Early season population of whiteflies on citrus and ornamentals in north Central Florida. M.S. Thesis, Univ. of Florida, Gainesville. 39 pp.
- Cherry, R. H. 1979a. Temperature tolerance of three whitefly species found in Florida. Environ. Entomol. 8:1150-2.
- Cherry, R. H. 1979b. Lethal temperatures of citrus blackfly, *Aleurocanthus woglumi* (Hom.: Aleyrodidae) and its parasite, *Amitus hesperidum* (Hym.: Platygasteridae). Entomophaga 24(1):35-9.
- Cherry, R. H. 1980. Host plant preference of the whitefly, *Aleurodicus dispersus* Russell. Fla. Entomol. 63:222-5.
- Cherry, R., R. V. Dowell, and G. Fitzpatrick. 1978. Survival of immature citrus blackfly, *Aleurocanthus woglumi*, and its parasite, *Amitus hesperidum*, on excised leaves. Environ. Entomol. 7:28-30.
- Cherry, R., and S. Pastor. 1980. Variations in population levels of citrus blackfly, *Aleurocanthus woglumi* (Hom.: Aleyrodidae) and parasites during an eradication program in Florida. Entomophaga 25(4):365-8.
- Clausen, C. P. 1927. The citrus insects of Japan. U.S.D.A. Tech. Bull. 15:1-15.
- Clausen, C. P. 1933. The citrus insects of tropical Asia. U.S.D.A. Circ. 266:1-35.
- Clausen, C. P. 1934. The natural enemies of Aleyrodidae in tropical Asia. Philipp. J. Sci. 53:253-65.
- Clausen, C. P. 1936. Insect parasitism and biological control. Ann. Entomol. Soc. Am. 29:201-23.
- Clausen, C. P. 1956. Biological control of insect pests in the continental U.S. USDA Tech. Bull. 1139:40-1.
- Clausen, C. P. 1958. Biological control of insect pests. Ann. Rev. Entomol. 3:291-310.
- Clausen, C. P. 1978. Introduced parasites and predators of arthropod pests and weeds: a world review. USDA-ARS Agr. Handb. 480:27-35.
- Clausen, C. P., and P. A. Berry. 1932. The citrus blackfly in Asia, and the importation of its natural enemies into tropical America. USDA Tech. Bull. 320:1-58.
- Cock, M. M. W., ed. 1986. *Bemisia tabaci* - a literature survey on the cotton whitefly with an annotated bibliography. FAO-CAB Intern. Inst. Biol. Contr. pp. 1-121.
- Cockerell, T. D. A. 1902. The classification of the Aleyrodidae. Proc. Acad. Nat. Sci. Phila. 54:279-83.
- Cockerell, T. D. A. 1903a. Notes and news. Entomol. News 14:241.
- Cockerell, T. D. A. 1903b. The white fly and its allies. Fla. Agr. Exp. Sta. 67:662-6.
- Cockerell, T. D. A. 1909. Description of a Mexican *Aleyrodes*. Entomol. News 20:215.
- Cockerell, T. D. A. 1910a. A new *Aleyrodes* on Ambrosia. Can. Entomol. 42:370-1.
- Cockerell, T. D. A. 1910b. A new *Aleyrodes* on bearberry. Can. Entomol. 42:171-2.
- Cohic, F. 1959. Aleyrodidae actuellement connus de Nouvelle-Caledonie et dependances. Agron. Trop., Nogent. 14:242-3. (not seen, in Mound and Halsey 1978: 316)
- Cohic, F. 1966. Contribution a l'etude des aleurodes africains (1e note). Cah. Offi. Rech. Sci. Tech. Outre-Mer. Ser. Biol. 1:3-59.
- Cohic, F. 1968. Contribution a l'etude des aleurodes africains (4e note). Cah. Offi. Rech. Sci. Tech. Outre-Mer. Ser. Biol. 6:33-4.
- Cohic, F. 1969. Contribution a l'etude des aleurodes africains (5e note). Ann. Univ. Abidjan (E) 2:1-156. (not seen, in Mound and Halsey 1978: 317.)
- Commonwealth Institute Entomology. 1971. Distribution maps of pests. Map No. 284.
- Commonwealth Institute Entomology. 1974a. Distribution maps of pests. Map No. 111.
- Commonwealth Institute Entomology. 1974b. Distribution maps of pests. Map. No. 327.
- Commonwealth Institute Entomology. 1990a. Distribution maps of pests. Map No. 91.
- Commonwealth Institute Entomology. 1990b. Distribution maps of pests. Map No. 112.
- Compere, H. 1937. Notes on the classification of the Aphelinidae with descriptions of the new species. Univ. Calif. Entomol. 6:277-321.
- Cook, M. T., and H. L. Dozier. 1925. Spraying citrus fruits in Puerto Rico. Puerto Rico Insular Exp. Sta. Circ. 88:1-23.
- Cooper, J. F., C. C. Plummer, and J. G. Shaw. 1950. The citrus blackfly situation in Mexico. J. Econ. Entomol. 43:767-73.
- Corbett, G. H. 1926. Contribution towards our knowledge of the Aleyrodidae of Ceylon. Bull. Entomol. Res. 16:267-84.
- Corbett, G. H. 1935a. Three new aleyrodids (Hem.). Stylops 4:8-10.

- Corbett, G. H. 1935b. Malayan Aleurodidae. J. Fed. Malay State Mus. 17:722-852.
- Corbett, G. H. 1935c. On new Aleurodidae (Hem.). Ann. Mag. Nat. Hist. Ser. 10, 16:240-6.
- Corbett, G. H. 1936. New Aleurodidae (Hem.). Proc. R. Entomol. Soc. Lond. (B) 5:18-22.
- Corbett, G. H. 1939. A new species of Aleurodidae from India. Indian J. Sci. 1:69-70.
- Costa Lima, A. Da. 1928. Contribuicao ao estudo dos aleyrodídeos da subfamilia Aleurodicinae. Inst. Oswaldo Cruz 4:128-40.
- Costa Lima, A. Da. 1936. Terceiro catalogo dos insectos que vivem nas plantas do Brasil. Minist. Agr. Dep. Nac. Produc. Veg. Escola. Naci. Agro. pp. 144-59.
- Costa Lima, A. Da. 1942. Insetos do Brasil. Escol. Nac. Agron. Oswaldo Cruz. 3:176-91.
- Crocker, R. L., and A.B. Hamon. 1983. Factors affecting the orientation of *Dialeurodes citri* (Homoptera: Aleyrodidae) on persimmon leaves. Fla. Entomol. 66:208-10.
- Crocker, R. L., B. J. Simpson, and A. B. Hamon. 1981. Three native, potential ornamentals (agarito, red barberry, and Texas barberry) are attacked by a whitefly, *Tetraleurodes ursorum* (Homoptera: Aleyrodidae). Proc. S.N.A. Res. Conf. 26th Ann. Rep. 1981. pp. 105-6.
- Crotch, G. R. 1872-3. Revision of the Coccinellidae of the U.S. Trans. Am. Entomol. Soc. 4:363-82.
- Crotch, G. R. 1874. A revision of the Coleopterous Family Coccinellidae. E. W. Janson, London. 311 pp.
- Da Fonseca, J. P. and M. Autuori. 1932. Lista dos principais insectos que atacam plantas citricas no Brasil. Rev. Entomol. 2(2):202-16.
- Danzig, E. M. 1964. The whiteflies (Homoptera, Aleyrodidae) of the Caucasus. [In Russian]. Entomol. Obozr. 43:633-646. (English translation in Entomol. Rev., Wash. 43(3):325-330).
- D'Araujo e Silva, A. G., C. R. Goncalves, D. M. Galvao, A. J. L. Goncalves, J. Gomes, M. D. N. Silva, and L. De Simoni. 1968. Quarto catalogo dos insectos que vivem nas plantas do Brasil, seus parasitos e predadores. Rio de Janeiro, Minist. Agr., Lab. Cent. Path. Veg. Parte II, 1:1-622.
- David, B. V., and T. R. Subramaniam. 1976. Studies on some Indian Aleyrodidae. Rec. Zool. Surv. India 70:133-233. (not seen, in Mound and Halsey 1978: 317).
- Davidson, R. H., and L. M. Peairs. 1966. Insect pests of farm, garden, and orchard. John Wiley and Sons, Inc., New York. 661 pp.
- De Azevedo, A. 1926. O *Aleurothrix floccosus* Maskell nos laranjeiras bahianos. Correio-agric Bahia. 4(2):83. Abstract in Rev. Appl. Entomol. 14:302, 1926.
- DeBach, P. 1970. La Mouche blanche, *Aleurothrix floccosus* et ses parasites dans l'hémisphère occidentale. Al. Awamia. 37:101-4.
- DeBach, P. 1975. Biological control by natural enemies. Cambridge Univ. Press, Cambridge. 323 pp.
- DeBach, P., and K. S. Hagen. 1970. Manipulation of entomophagous species, pp. 429-58. In P. DeBach (ed.), Biological control of insect pests and weeds, 2nd printing. Chapman and Hall Ltd., London.
- DeBach, P., and J. LaSalle. 1981. Taxonomic status of *Encarsia*, *Prospaltella*, and *Trichaporus* and a description of *Prima-prospaltella*, new genus (Hymenoptera: Chalcidoidea: Aphelinidae). Proc. Entomol. Soc. Wash. 83(4):642-57.
- DeBach, P., and M. Rose. 1976a. Biological control of woolly whitefly. Calif. Agr. 30(5):4-8.
- DeBach, P., and M. Rose. 1976b. Biological control of woolly whitefly. Citograph 61(5):162-3, 166-7, 182-4.
- DeBach, P., and M. Rose. 1981. A new genus and species of Aphelinidae with some synonymies, a rediagnosis of *Aspidiotiphagus* and a key to pentamerous and heteromorous Prospaltellinae (Hymenoptera: Chalcidoidea: Aphelinidae). Proc. Entomol. Soc. Wash. 83(4):658-79.
- Delgado de Garay, A. 1943. Control biológico de la mosca prieta de los cítricos en la república. Fitofilo 2(5):3-17.
- De Santis, L. 1937. Una nueva especie de Himenoptero del genero *Amitus* de la Republica Argentina. Rev. Arg. Agron. 4(2):115-8.
- De Santis, L. 1941. Lista de Himenopteros parasitos y predadores de los insectos de la Republica Argentina. Bol. Soc. Bras. Agron. 4(1):5.
- Dickson, R. C., M. McD. Johnson, and E. F. Laird. 1954. Leaf crumple, a virus disease of cotton. Phytopathology 44:479-80.
- Dietz, H. F., and J. Zetek. 1920. The black fly of citrus and other subtropical plants. U.S.D.A. Bull. 885:1-55.
- Dowell, R. V. 1979a. Synchrony and impact of *Amitus hesperidum* (Hym.: Platygasteridae) on its host, *Aleurocanthus woglumi* (Hom.: Aleyrodidae) in southern Florida. Entomophaga 24(3):221-7.
- Dowell, R. V. 1979b. Host selection by the citrus blackfly *Aleurocanthus woglumi* (Homoptera: Aleyrodidae). Entomol. Exp. Appl. 25:289-96.
- Dowell, R. V. 1983. Nitrogen levels in citrus leaves infested with immature citrus blackfly. Entomol. Exp. Appl. 34:201-3.
- Dowell, R. V., and R. H. Cherry. 1981a. Survey traps for parasitoids, and coccinellid predators of the citrus blackfly, *Aleurocanthus woglumi*. Entomol. Exp. Appl. 29:356-62.
- Dowell, R. V., and R. H. Cherry. 1981b. Detection of, and sampling procedures for, the citrus blackfly in urban southern Florida. Res. Popul. Ecol. 23:19-26.
- Dowell, R. V., R. H. Cherry, G. E. Fitzpatrick, J. A. Reinert, and J. L. Knapp. 1981c. Biology, plant-insect relations, and control of the citrus blackfly. Agr. Res. Sta. IFAS, Univ. Fla. Tech. Bull. 818:1-49.
- Dowell, R. V., and G. E. Fitzpatrick. 1978. Effects of temperature on the growth and survivorship of the citrus blackfly (Homoptera: Aleyrodidae). Can. Entomol. 110:1347-50.
- Dowell, R. V., G. E. Fitzpatrick, and F. W. Howard. 1978. Activity and dispersal of first instar larvae of the citrus blackfly. J. N.Y. Entomol. Soc. 86(2):121-2.
- Dowell, R. V., G. E. Fitzpatrick, and J. A. Reinert. 1979a. Biological control of citrus blackfly in southern Florida. Environ. Entomol. 8(4):595-7.
- Dowell, R. V., F. W. Howard, R. H. Cherry, and G. E. Fitzpatrick. 1979b. Field studies of the host range of the citrus blackfly, *Aleurocanthus woglumi* (Homoptera: Aleyrodidae). Can. Entomol. 111:1-6.
- Dowell, R. V., D. Puckett, and M. Johnson. 1981. Searching and ovipositional behaviors of *Amitus hesperidum* (Hym.: Platygasteridae) and *Encarsia opulenta* (Hym.: Aphelinidae) parasitoids of the citrus blackfly (Hom.: Aleyrodidae). Entomophaga 26:233-9.
- Dowell, R. V., J. A. Reinert, and G. E. Fitzpatrick. 1978. Development and survivorship of the citrus blackfly, *Aleurocanthus woglumi* on six citrus hosts. Environ. Entomol. 7:524-5.
- Dowell, R. V., and B. Steinberg. 1979. Development and survival of immature citrus blackfly (Homoptera: Aleyrodidae) on twenty-three plant species. Ann. Entomol. Soc. Am. 72:721-4.

- Dowell, R. V., G. Fitzpatrick, R. Zumstein, M. Johnson, and J. Fiore. 1986. Integrating biological control of citrus blackfly and current Florida citrus spray programs. *Trop. Agr.* 63:301-4.
- Dozier, H. L. 1926. Annual Report of the Division of Entomology. *Ann. Rep. Insular Exp. Sta., Rio Piedras, Puerto Rico, 1924-25*, pp. 115-24. *Abstract in Rev. Appl. Entomol.* 15:152-3, 1927.
- Dozier, H. L. 1927. An undescribed white fly attacking citrus in Puerto Rico. *J. Agr. Res.* 34:853-5.
- Dozier, H. L. 1928. Two new Aleyrodid (citrus) pests from India and the south Pacific. *J. Agr. Res.* 36(12):1001-5.
- Dozier, H. L. 1932a. The identity of certain whitefly parasites of the genus *Eremocerus* Hald. with descriptions of new species (Hymenoptera: Aphelinidae). *Proc. Entomol. Soc. Wash.* 34(7):112-8.
- Dozier, H. L. 1932b. Two undescribed chalcid parasites of the woolly whitefly, *Aleurothrix floccosus* (Maskell), from Haiti. *Proc. Entomol. Soc. Wash.* 34(7):118-22.
- Dozier, H. L. 1932c. Descriptions of new Mymarid egg parasites from Haiti and Puerto Rico. *J. Dep. Agr. Puerto Rico* 16:81-91.
- Dozier, H. L. 1932d. Notes on the genus *Aneristus* Howard with descriptions of new species. *J. Dep. Agr. Puerto Rico* 16:93-102.
- Dozier, H. L. 1933. Miscellaneous notes and descriptions of Chalcidoid parasites (Hymenoptera). *Proc. Entomol. Soc. Wash.* 35(6): 85-100.
- Dozier, H. L. 1936. Aleyrodidae, pp. 143-6. In G. N. Wolcott (ed.), *Insectae Borinquenses. A revised annotated checklist of the insects of Puerto Rico*. *J. Agr. Univ. Puerto Rico* 20:1-160.
- Dumbleton, J. J. 1953. A note on *Aleuroplatus (Orchamus) samoanus* Laing (Hemiptera-Homoptera: Aleyrodidae). *Proc. Hawaii. Entomol. Soc.* 15:21-2.
- Dumbleton, L. J. 1956a. New Aleyrodidae (Hemiptera: Homoptera) from New Caledonia. *Proc. R. Entomol. Soc. Lond. (B)* 25:129-41.
- Dumbleton, L. J. 1956b. The Australian Aleyrodidae (Hemiptera: Homoptera). *Proc. Linn. Soc. New S. Wales* 81:159-83.
- Dysart, R. J. 1966. Natural enemies of the banded-wing whitefly, *Trialeurodes abutilonea* (Hemiptera: Aleyrodidae). *Ann. Entomol. Soc. Am.* 59:28-33.
- Dzhivladze, K. N. 1979. Use of biological methods in Georgia. *Zashchita Rastenii*. 5:28. (not seen, in *Rev. Appl. Entomol.* 67: 3994, 1979)
- Ebling, W. 1950. Subtropical entomology. Lithotype Process Co., San Francisco, Calif. pp. 505-8, 540.
- Ebling, W. 1959. Subtropical fruit pests. Univ. Calif. 436 pp.
- Edwards, W. H. 1933. The introduction of a parasite of the citrus blackfly, *Aleurocanthus woglumi*. *Jamaica Ann. Rep. Dep. Agr.* 1932, pp. 17-8.
- English, I. L., and G. F. Turnipseed. 1940. Control of the major pests of the satsuma orange in South Alabama. *Ala. Agr. Exp. Sta. Bull.* 248:1-48.
- Enkerlin, D. S. 1976. Some aspects of the citrus blackfly (*Aleurocanthus woglumi* Ashby) in Mexico. *Proc. Tall Timbers Conf.* 6:65-76.
- Essig, E. O. 1931. A history of entomology. MacMillan Co., New York. 1029 pp.
- Essig, E. O. 1932. The original description of *Dialeurodes citri* (Ashmead). *J. Econ. Entomol.* 25:1207-8.
- Fawcett, H. S. 1908. Fungi parasitic upon *Aleyrodes citri*. Univ. Fla. Thesis. Spec. Stud. No. 1:1-41.
- Fawcett, H. S. 1910. An important entomogenous fungus. *Mycologia* 2:164-8.
- Fawcett, H. S. 1936. Citrus diseases and their control. McGraw Hill Book Co., New York. pp. 269-71.
- Ferriere, C. 1965. Hymenoptera Aphelinidae, d'Europe et du bassin Mediterran. Masson, Paris. 206 pp.
- Fitzpatrick, G. E., R. H. Cherry, and R. V. Dowell. 1978. Short-term effects of three insecticides on predators and parasites of the citrus blackfly. *Environ. Entomol.* 7:553-5.
- Fitzpatrick, G. E., R. H. Cherry, and R. V. Dowell. 1979a. Effects of Florida citrus pest control practices on the citrus blackfly (Homoptera: Aleyrodidae) and its associated natural enemies. *Can. Entomol.* 111:731-4.
- Fitzpatrick, G. E., J. A. Reinert, and R. V. Dowell. 1979b. Soil injection of insecticides for control of citrus blackfly in dooryard citrus. *Fla. Entomol.* 62:390-6.
- Flanders, S. E. 1969. Herbert D. Smith's observation on citrus blackfly parasites in India and Mexico and the correlated circumstances. *Can. Entomol.* 101:467-80.
- Fletcher, T. B. 1919. Aleyrodidae on citrus plants. Second hundred notes on Indian insects. *Agr. Res. Inst. Pusa. Bull.* 89:90.
- Fletcher, T. B. 1920. Annotated list of Indian crop pests. *Rep. Proc. 3rd Entomol. Meet., Pusa, 1919. Calcutta.* pp. 33-314. *Abstract in Rev. Appl. Entomol.* 9:68, 1921.
- Forel, A. 1909. Ameisen aus Guatemala usw., Paraguay und Argentinien (Hym.). *Dtsch. Entomol. Z.* pp. 239-69.
- Franklin, H. J. 1908. On a collection of thysanopterous insects from Barbados and St. Vincent Islands. *Proc. U.S. Nat. Mus.* 33(1590): 727-9.
- Fulmek, L. 1943. Wirtsindex der Aleyrodiden- und Cocciden-Parasiten. *Entomol. Beih. Berl. Dahlem.* 10:1-100.
- Gahan, A. B. 1924. Some new parasitic Hymenoptera with notes on several described forms. *Proc. U.S. Nat. Mus.* 65(2517):1-23.
- Gahan, A. B. 1927. Miscellaneous descriptions of new parasitic Hymenoptera with some synonymical notes. *Proc. U.S. Nat. Mus.* 71(2678):1-39.
- Gahan, A. B. 1931. A new species of *Encarsia* from Cuba (Hymenoptera: Aphelinidae). *Proc. Entomol. Soc. Wash.* 33:121-22.
- Gameel, O. I. 1969. Studies on whitefly parasites *Encarsia lutea* Masi and *Eremocerus mundus* Mercet. Hymenoptera, Aphelinidae. *Rev. Zool. Bot. Afr.* 79:65-77. (not seen)
- Gardner, T. R. 1958. Biological control of insect and plant pests in the Trust Territory and Guam. *Proc. 10th Inter. Congr. Entomol.* 4:465-9.
- Garrido, A., T. Del Busto, and J. Tarancon. 1981. Incidence de quelques pesticides sur les stades immatures d'*Aleurothrix floccosus* Mask. *Fruits* 36:181.
- Garrido, A., A. Hermoso de Mendoza, J. Tarancon, and T. Del Busto. 1975. Evaluacion de poblaciones de adultos de 'mosca blanca' de los citricos (*Aleurothrix floccosus* Mask.) y de su parasito el alelinino *Cales noaki* Howard. *Ana. Inst. Nac. Invest. Agra. Prot. Veg.* 5: 111-44. (not seen, in *Rev. Appl. Entomol.* 66:2071, 1978)
- Garrido, A., J. Tarancon, and T. Del Busto. 1981. Incidence de quelques pesticides sur les stades nymphaux de *Cales noaki* How., parasite d'*Aleurothrix floccosus* Mask. *Fruits* 36:182-183.
- Garrido, A., J. Tarancon, and T. Del Busto. 1982. Incidencia de algunos plaguicidas sobre estados ninfales de *Cales noaki* How. parasito de *Aleurothrix floccosus* Mask. *Ana. Inst. Nac. Invest. Agra. Agri.* 18:73-96.

- Garrido, A., J. Tarancon, T. Del Busto, and M. Del C. Martinez Lluch. 1977. Expansion de *Cales noaki* How. a partir de una suelta puntual y estudios larvarios de *Aleurothrixus floccosus* Mask. preferidos por el parasito. Ana. Inst. Nac. Invest. Agr., Prot. Veg. 7:145-75. (not seen, in Rev. Appl. Entomol. 67:1483, 1979)
- Garrido, A., J. Tarancon Fandos, T. Del Busto, M. Del C. Martinez Lluch. 1978. Reparticion y estudio poblacional de *Aleurothrixus floccosus* Mask. a nivel de arbol y equilibrio con su parasito el *Cales noaki* How. Ana. Inst. Nac. Invest. Agr., Prot. Veg. 6:89-121. (not seen, in Rev. Appl. Entomol. 67:1946, 1979)
- Gater, B. A. R. 1924. Insect pests of Lubuan and adjacent islands. Malayan Agr. 12(11):374-6.
- Genduso, P., and G. Liotta. 1980. Presenza di *Aleurothrixus floccosus* (Mask.) (Hom.: Aleyrodidae) sugli agrumi in Sicilia. Boll. Istit. Entomol. Agr. Osser. Fitop. Palermo 10:205-11. (not seen, in Rev. Appl. Entomol. 69:5992, 1981)
- Gentry, J. W. 1965. Crop insects of Northeast Africa-Southeast Asia. USDA-ARS Agr. Handb. 273:1-210.
- Gerling, D. 1967. Bionomics of the whitefly parasite complex associated with cotton in south California (Hymenoptera:Aphelinidae). Ann. Entomol. Soc. Am. 60:1306-21.
- Gerling, D. 1969. Comments on *Eretmocerus serius* Silvestri (Hymenoptera: Aphelinidae) with a description of two new species. Boll. Lab. Entomol. Agrar. Silvestri Portici 27:79-88.
- Gerling, D. 1970. Two African species of *Eretmocerus* Haldeman (Hymenoptera:Aphelinidae). J. Entomol. Soc. South Africa 33:325-9.
- Gilstrap, F.E., J.R. Summy, F.S. Guillet, D.P. Harlan, W.G. Hart, and M.S. Corcoran. 1980. Within tree distribution of resident populations of citrus blackfly in Texas. J. Econ. Entomol. 73:474-6.
- Girault, A. A. 1913. A systematic monograph of the Chalcidoid Hymenoptera of the subfamily Signiphinae. Proc. U.S. Nat. Mus. 45(1977):212-3.
- Girault, A. A. 1915. New genera of Chalcidoid Hymenoptera. J. N.Y. Entomol. Soc. 28:165-73.
- Gomez-Menor, J. 1945. Contribucion al conocimiento de los aleyrodidos de Espana (Mem.: Homoptera). Variabilidad en las especies espanolas y descripcion de dos nuevas. 2a nota. Eos. Madr. 20:277-308.
- Gordon, R. D. 1976. The Scymnini (Coleoptera: Coccinellidae) of the United States and Canada: Key to genera and revision of *Scymnus*, *Nephus*, and *Diomus*. Bull. Buffalo Soc. Nat. Sci. 28:1-362.
- Gorham, H. S. 1887-99. Insecta: Coleoptera Biologia Centrali-Americana (Coleoptera: Coccinellidae). 7:150-265.
- Gorham, H. S. 1903. On Coleoptera collected in India. Ann. Soc. Entomol. Belgique 47:323-47.
- Gossard, H. A. 1903. Whitefly. Fla. Agr. Exp. Sta. 67:599-661.
- Gough, L. 1913. A new cotton insect. Bull. Entomol. Soc. Egypt. Fasc. 1:19-20.
- Goux, L. 1940. Contribution a l'etude des aleurodes (Hem., Aleyrodidae) de la France. II. Description de deux especes nouvelles de Marseille. Bull. Soc. Entomol. France. 45:45-8.
- Gowdey, C. C. 1923a. The principal agricultural pests of Jamaica. Jamaica Dep. Agr. Entomol. Bull. 2:1-80, VI.
- Gowdey, C. C. 1923b. The white flies (Aleyrodidae) of Jamaica. Jamaica Dep. Agr. Entomol. Bull. 3:1-6.
- Gowdey, C. C. 1923c. Report of government entomologist. Jamaica Ann. Rep. Dep. Agr. p. 23-4.
- Gowdey, C. C. 1926. Catalogus insectorum Jamaicaensis. Jamaica Dep. Agr. Entomol. Bull. 4(1):1-114.
- Greathead, D. J. 1971. A review of biological control in the Ethiopian region. Comm. Agr. Bur. Tech. Commu. 5:1-147.
- Griffiths, J. T., and C. R. Stearns. 1947. A further account of the effects of DDT when used on citrus trees in Florida. Fla. Entomol. 30:1-8.
- Griffiths, J. T. and W. L. Thompson. 1957. Insects and mites found on Florida citrus. Fla. Agr. Exp. Sta. Bull. 591:33-9.
- Grissell, E. E. 1979. The *Prospaltella* of Florida (Hymenoptera:Aphelinidae). Fla. Dept. Agri. & Consum. Serv., Div. Plant Ind. Entomol. Circ. 203. 4 pp.
- Gupta, B.P., and N.K. Joshi. 1973. Bionomics of citrus white fly, *Dialeurodes citri* Ashmead at Chaubattia in U.P. Hills. Prog. Hort. 5:77-83.
- Habib, A., and F. A. Farag. 1970. Studies on nine common Aleurodids of Egypt. Bull. Soc. Entomol. Egypt 54:1-41.
- Hagen, H. 1861. Synopsis of the Neuroptera of North America. Smith. Misc. Coll. 4:215-6.
- Haldeman, S. S. 1850. On four new species of Hemiptera of the genera *Ploiaria*, *Chermes*, and *Aleurodes*, and two new Hymenoptera, parasitic in the last named genus. Am. J. Sci. Arts, Ser. 2, 25:108-11.
- Hamon, A.B. 1981. Woolly whitefly *Aleurothrix floccosus* (Maskell) (Homoptera: Aleyrodidae: Aleyrodinae). Fla. Dep. Agri. & Consum. Serv. Div. Plant Ind. Entomol. Circ. 232. 2 pp.
- Harlan, D. L., W. G. Hart, C. A. Garcia, and J. Caballero. 1979. A yellow coffee lid trap for the citrus blackfly, *Aleurocanthus woglumi* Ashby. Southwest. Entomol. 4(1):25-6.
- Hart, W. G., H. W. Gausman, and R. R. Rodriguez. 1976. Citrus blackfly (Hemiptera: Aleyrodidae), feeding injury and its influence on the spectral properties of citrus foliage. Rio Grande Valley Hort. Soc. J. 30:37-43.
- Hart, W. G., S. J. Ingle, M. R. Davis, and C. Mangum. 1973. Aerial photography with infrared color film as a method of survey for citrus blackfly. J. Econ. Entomol. 66:190-4.
- Hart, W., D. Meyerdirck, M. Sanchez, W. Stone, and R. Rhode. 1978a. Development of a trap for the citrus blackfly, *Aleurocanthus woglumi* Ashby. Southwest. Entomol. 3(3):219-25.
- Hart, W. G., A. Selhime, D. P. Harlan, S. J. Ingle, M. Sanchez-R., R. H. Rhode, C. A. Garcia, J. Caballero, and R. L. Garcia. 1978b. The introduction and establishment of parasites of citrus blackfly, *Aleurocanthus woglumi* in Florida [Hem.:Aleyrodidae]. Entomophaga 23(4):361-6.
- Hayat, M. 1972. The species of *Eretmocerus* Haldeman, 1850 (Hymenoptera: Aphelinidae) from India. Entomophaga 17(1):99-106.
- Hayat, M. 1984. *Encarsia bennetti* sp. n. (Hymenoptera: Aphelinidae) from India, associated with the citrus blackfly, *Aleurocanthus woglumi* Ashby (Homoptera: Aleyrodidae). Bull. Entomol. Res. 74: 399-401.
- Hayward, K. J. 1941a. Insectos de importancia economica en la region de Concordia (Entre Rios). Rev. Soc. Entomol. Argentina 11(2):68-109.
- Hayward, K. J. 1941b. Departamento de Entomologia. (Department of Entomology, report for 1940 of the Tucuman Experiment Station). Rev. Ind. Agr. Tucuman 31(1-3):50-8.
- Hayward, K. J. 1944a. Las moscas blancas (Aleyrodidae) y su control. Circ. Estac. Exp. Agr. Tucuman 128:1-8. Abstract in Rev. Appl. Entomol. 34:171, 1946.
- Hayward, K. J. 1944b. Departamento de entomologia. Rev. Ind. Agr. Tucuman 34(7-12):151-65.

- Hempel, A. 1899. Descriptions of three new species of Aleurodidae from Brazil. *Psyche* 8:394-5.
- Hempel, A. 1901. A preliminary report on some new Brazilian Hemiptera. *Ann. Mag. Nat. Hist., Ser. 7* 43:383-91.
- Hempel, A. 1904. Notas sobre dois inimigos da laranjeira, familia Aleurodidae. *Bol. Agr. S. Paulo* 5(1):10-21.
- Hempel, A. 1922. Descriptions of new or little known Hemiptera of the familia Aleurodidae. *Rev. Mus. Paul. S. Paulo* 13:1158-91.
- Hennings, Von P. 1902. Fungi S. Paulenses II. *Hedwigia* 41:295-311.
- Herting, B., and F. J. Simmonds. 1972. A catalogue of parasites and predators of terrestrial arthropods. *Comm. Agr. Bur. C.I.B.C.* 2:103-7.
- Horn, G. H. 1895. Studies in Coccinellidae. *Trans. Am. Entomol. Soc.* 22:81-114.
- Howard, F. W. 1979a. Studies of the host plant suitability of *Ardisia solanacea* and *Citrus jambhiri* for citrus blackfly and citrus whitefly. *Fla. Entomol.* 62:380-3.
- Howard, F. W. 1979b. Comparacion de seis especies de citrus como plantas hospederas de *Aleurocanthus woglumi* Ashby. *Folia Entomol. Mex.* 41:33-40.
- Howard, F. W., and P. L. Neel. 1977. Host plant preferences of citrus blackfly, *Aleurocanthus woglumi* Ashby (Homoptera:Aleyrodidae), in Florida. *Proc. Intern. Soc. Citricult.* 2:489-92.
- Howard, L. O. 1881. Report on the parasites of the Coccidae in the collection of this department. *Comstock's Rep. Comm. Agr.* 1881, pp. 350-71.
- Howard, L. O. 1895. Revision of the Aphelininae of North America. *U.S.D.A. Div. Entomol. Tech. Bull.* 1:1-44.
- Howard, L. O. 1907. New genera and species of Aphelininae with a revised table of genera. *U.S.D.A. Bur. Entomol. Tech. Ser.* 12(4):69-88.
- Howard, L. O. 1908. On two new species of parasites of Aleyrodidae. *Proc. Entomol. Soc. Wash.* 10:63-5.
- Howard, L. O. 1911. A note on the Indian enemies of *Aleyrodes citri* R. & H., with description of a new species of *Prospaltella*. *J. Econ. Entomol.* 4:130-2.
- Hudson, W. G., and M. L. Williams. 1986. Release of the parasitic wasp, *Encarsia lahorensis* (Hymenoptera: Aphelinidae), for control of citrus whitefly (Homoptera: Aleyrodidae) on gardenia in Alabama. *Environ. Entomol.* 15:585-9.
- Hull, F. M. 1947. The genus *Baccha* from the New World. *Entomol. Am.* 27(3):89-176.
- Hutson, J. C. 1917. The spiny citrus whitefly. A potential pest of citrus trees. *Agr. News West Indies* 16(384):10-1.
- Hutson, J. C. 1918. Some insect pests in Cuba. *Agr. News West Indies* 17:186-7.
- Husain, M. A., and A. W. Khan. 1945. The citrus Aleyrodidae (Homoptera) in the Punjab and their control. *Mem. Entomol. Soc. India* 1:1-41.
- Ibanez, P. T., J. A. Maurici, E. C. Forms, M. C. Murcia, and P. V. Gomis. 1973. Study of the effectiveness of various insecticidal products against the citrus whitefly. *Bol. Inform. Plagas.* 108:73-94. *Abstract in Rev. Appl. Entomol.* 63:2098, 1975.
- Ishii, T. 1938. Descriptions of six new species belonging to the Aphelininae from Japan. *Kontyu* 12:27-32.
- Ishii, T. 1939. The problems of biological control in Japan. *Pacif. Sci. Congr. Proc.* 4:365-7.
- Islas, F. S. 1950. Observaciones biologicas sobre la mosca prieta (*Aleurocanthus woglumi* Ashby) Homoptera - Aleyrodiidae. *Univ. Nac. Mexico.* 34 pp.
- Jenkins, C. F. H., and D. G. Shedley. 1953. The citrus white fly (*Aleuroplatus citri* Tak.). *J. Dep. Agr. W. Aust.* 3(2):49-55.
- Jimenez, E. J. 1960. Estado actual de la mosca prieta de los citricos (*Aleurocanthus woglumi* Ashby) y adelantos en los trabajos de campo y laboratorio para un mejor control. *Fitofilo. Ano.* 13(28):41-8.
- Jimenez, E. J. 1961. Situacion actual de la mosca prieta (*Aleurocanthus woglumi* Ash.), de los citricos en Mexico. *Fitofilo. Ano.* 14(32):39-45.
- Jimenez, E. J. 1968. La campana contra la mosca prieta de los citricos. *Fitofilo. Ano.* 21(60):23-8.
- Jimenez, E. J. 1971. Comportamiento de los enemigos naturales de la mosca prieta de los citricos en la Republica Mexicana. *Fitofilo. Ano.* 24:2-6.
- Johnston, J. R. 1917-18. Algunos hongos entomogenos de Cuba. *Mem. Soc. Cubana Hist. Nat. "Felipe Poey" Havana* 2-3:61-82. *Abstract in Rev. Appl. Entomol.* 7:349, 1919.
- Kamiya, H. 1963. On a new genus and species of Coccinellidae (Coleoptera) feeding on whiteflies. *Mushi* 37:127-30.
- Kato, T. 1970. Life cycles and overwintering stages of the spinyblackfly, *Aleurocanthus spiniferus* Quaintance. [In Japanese]. *Japan J. Appl. Entomol.* 14:12-8.
- Kiriukhin, G. 1947. Quelques Aleurododea de l'Iran. *Entomol. Phytopath. Appl.* 5:8-10 [In Persian, 5:22-28, French summary]. (not seen, in Mound, and Halsey. 1978.)
- Klausnitzer, B., and I. Kovar. 1973. A simple key for field use, pp. 53-5. In I. Hodeck (ed.), *Biology of Coccinellidae*. Czechoslovak Acad. Sci.
- Knorr, L. C., E. C. Paterson, and J. H. Proctor. 1961. World citrus problems. *F.A.O. Plant Proc. Bull.* 9(6):97.
- Kotinsky, J. 1907. Aleyrodidae of Hawaii and Fiji with descriptions of new species. *Board Comm. Agr. Forest. Hawaii Bull.* 2:93-102.
- Korschefsky, R. 1931. *Coleopterorum Catalogus. Pars 118. Coccinellidae.* W. Junk, Berlin. 659 pp.
- Krombein, K. V. 1958. Hymenoptera of America north of Mexico, synoptic catalog. *U.S.D.A. Agr. Mon. No. 2.* 1:65.
- Kumashiro, B. R., P. Y. Lai, G. Y. Funasaki, and K. K. Teramoto. 1983. Efficacy of *Nephaspis amicola* and *Encarsia* ? haitiensis in controlling *Aleurodicus dispersus* in Hawaii. *Proc. Hawaii. Entomol. Soc.* 23:261-9.
- Kuwana, I. 1911. The whiteflies of Japan. *Pomona J. Entomol.* 3:620-7.
- Kuwana, I. 1927. On the genus *Bemisia* (Family:Aleyrodidae) found in Japan, with description of a new species. *Annotes Zool. Japan* 9:245-53.
- Kuwana, I. 1928. Aleurodidae or whiteflies attacking citrus plants in Japan. *Sci. Bull. Min. Agr. For. Dep.* 1:41-78.
- Kuwana, I., and T. Ishii. 1929. Studies of white flies injurious to citrus in Japan. Part I. *J. Plant Prot. [In Japanese]* 16:186-94.
- Lai, P. Y., and G. Y. Funasaki. 1986. Introductions for biological control in Hawaii: 1983 and 1984. *Proc. Hawaii. Entomol. Soc.* 26:89-91.
- Laing, F. 1927. Coccidae, Aphididae, and Aleyrodidae. In *Insects of Samoa*. *Brit. Mus.* 2(1):43-5.
- Lavabre, E. M. 1970. Insectes nuisibles des cultures tropicales. *Maisonneuve & Larose, Paris.* 276 pp.

- LeConte, J. L. 1852. Remarks upon the Coccinellidae of the United States. *Proc. Acad. Nat. Sci. Phila.* 6:135.
- LeConte, J. L. 1878. Additional descriptions of new species. *Proc. Am. Phil. Soc.* 17:400.
- Lee, L. H. Y., and R. Winney. 1981. Check list of agricultural insects of Hong Kong 1981. *Agr. Fish. Dep. Bull. No. 2.* 164 pp.
- LeFroy, H. M. 1909. Indian insect life. *Agr. Res. Inst., Pusa.* 786 pp.
- Leng, C. W. 1903. Notes on Coccinellidae II. *J. N.Y. Entomol. Soc.* 11:20.
- Leng, C. W. 1908. Notes on Coccinellidae III. *J. N.Y. Entomol. Soc.* 16:33-44.
- LePelly, R. H. 1959. Agricultural insects of East Africa. Nairobi. *E. Afr. High Comm. Abstract in Rev. Appl. Entomol.* 48:94, 1960.
- LePelly, R. H. 1968. Pests of coffee. Longmans, London. pp. 312-5.
- Lewis, G. 1896. On the Coccinellidae of Japan. *Ann. Mag. Nat. Hist.* 17(6):38.
- Lin, H. C., H. L. Wei, and C. C. Tao. 1975. Integrated control of citrus spiny whitefly, *Aleurocanthus spiniferus* Quaintance and Baker (Homoptera:Aleyrodidae). *J. Agr. Res. China* 24:55-61.
- Liotta, G. 1983. Osservazioni bio-etologiche su *Clitostethus arcuatus* (Rossi) (Col. Coccinellidae) in Sicilia. *Redia* 64:173-185.
- Livingstone, E. M., and G. R. Swank. 1941. Methyl bromide as a fumigant for pests of ornamental plants. *J. Econ. Entomol.* 34:75-6.
- Loi, G. 1979. Osservazioni eco-etologiche sul coleottero Coccinellide scimmino *Clitostethus arcuatus* (Rossi), predatore di *Dialeurodes citri* (Ash.) in Toscana. *Frustula Entomologica* 1:123-145. (not seen, in *Rev. Appl. Entomol.* 69:775, 1981)
- MacGown, M. W., and T. E. Nebeker. 1978. Taxonomic review of *Amitus* (Hymenoptera: Proctotrupoidea, Platygasteridae) of the western hemisphere. *Can. Entomol.* 110:275-83.
- MacLachlan, R. 1868. A monograph of the British Neuroptera-Planipennia. *Trans. Entomol. Soc. Lond.* pp. 145-224.
- Magalhaes, G. S. 1981. Note on the introduction of *Aleurothrixus floccosus* (Mask.) (Homoptera, Aleyrodidae) in South Portugal and its control by *Cales noacki* How. (Hymenoptera, Aphelinidae). *Estacao Agronomica Nacional, Oerias, Portugal.* pp. 572-3. (not seen, in *Rev. Appl. Entomol.* 69(5):2726, 1981)
- Malloch, J. R. 1929. Exotic Muscaridae (Diptera). *Ann. Mag. Nat. Hist., Ser. 10* 3:545-6.
- Mansour, M. M., M. A. El-Tantani, M. W. Guirguis, and K. A. Gouhar. 1976. Preliminary studies on the abundance of the citrus fly *Aleurothachelus citri* on eight species of citrus trees. *Agr. Res. Rev.* 54(1):161-5. (not seen, in *Rev. Appl. Entomol.* 66:766, 1978)
- Margabandhu, V. 1933. Insect pests of oranges in the Northern Circars. *Madras Agri. J.* 21(2):60-8. *Abstract in Rev. Appl. Entomol.* 21:502, 1933.
- Marin Acosta, J. C. 1969. Consideraciones sobre insectos vectores Aphididae y la deformacion foliar (distortion ringspot virus) de *Carica papaya* en El Limon, Estado Aragua, Venezuela. *Rev. Fac. Agron. Univ. Cent. Venez.* 5(3):77-108. *Abstract in Rev. Appl. Entomol.* 59:980, 1971.
- Martell, C. G. 1970. Plagas de arboles frutales en huertos familiares en Santa Rosa, Ver. pp. 46-7. *Abstract in Rev. Appl. Entomol.* 58:3484, 1970.
- Martin, J. H. 1985. The whitefly genus *Dialeurolonga* (Homiptera: Aleyrodidae) on citrus, with the redescription of a Malagasian species. *Bull. Entomol. Res.* 75:459-62.
- Martin, J. H. 1987. An identification guide to common whitefly pests of the world (Homoptera: Aleyrodidae). *Trop. Pest. Manage.* 33(4):298-322.
- Martins, E. B. 1965. Uma praga dos citrinos de Angola. A mosquinha branca -- *Aleurothrixus floccosus* Mask. *Agron. Angol.* 22:251-8. *Abstract in Rev. Appl. Entomol.* 57:1069, 1969.
- Masi, L. 1910. Contribuzioni alla conoscenza dei Calcididi Italiani. *Boll. Lab. Zool. Portici* 4:3-37.
- Masi, L. 1911. Contribuzioni alla conoscenza dei Calcididi Italiani. *Boll. Lab. Zool. Portici* 5:140-71.
- Maskell, W. M. 1895. Contributions towards a monograph of the Aleyrodidae, a family of Hemiptera-Homoptera. *Trans. Proc. New Zealand Inst.* 28:411-49.
- Mateos, D. L. A. 1963. Control biologico de la mosca prieta en Mexico. *Fitofilo* 16(37):5-41.
- McClendon, J. F. 1901. A new species of *Chrysopa* from Texas. *Psyche* 9:215-6.
- McCluskie, J. D. 1982. Citrus blackfly. In 34th Biennial Report. July 1, 1980-June 30, 1982. *Fla. Dep. Agr. Consum. Serv. Div. Plant Ind.* pp. 192-6.
- McCoy, C. W., R. I. Sailer, and J. L. Knapp. 1980. History and establishment of the parasite, *Prospaltella lahorensis*, for the biological control of citrus whitefly in central Florida. *Proc. Fla. State Hort. Soc.* 93:47-49.
- McGuire, J. V., and B. S. Crandall. 1967. Survey of insect pests and plant diseases of selected food crops of Mexico, Central America, and Panama. *U.S.D.A./A.I.D.* pp. 1-157.
- McClendon, J. F. 1901. A new species of *Chrysopa* from Texas. *Psyche* 9:215-6.
- McGuire, J. V., and B. S. Crandall. 1967. Survey of insect pests and plant diseases of selected food crops of Mexico, Central America, and Panama. *U.S.D.A./A.I.D.* pp. 1-157.
- Meinander, M. 1972. A revision of the family Coniopterygidae (Planipennia). *Acta Zool. Fennica, Helsinki-Helsinki.* 357 pp.
- Melsheimer, F. E. 1847. Descriptions of new species of Coleoptera of the United States. *Proc. Acad. Nat. Sci. Phila.* 3:180-1.
- Mercet, R. G. 1931a. Notas sobre Afelinidos. *E.O.S.* 7:396-410.
- Mercet, R. G. 1931b. Afelinidos palearticos (Hym. Chalc.). *Bol. Soc. Esp. Nat. Hist.* 31:559-66.
- Meyerdirk, D. E., W. G. Hart, and J. A. Burnside. 1979a. Evaluation of a trap for the citrus blackfly, *Aleurocanthus woglumi* (Homoptera:Aleyrodidae). *Can. Entomol.* 111:1127-9.
- Meyerdirk, D. E., W. G. Hart, and J. A. Burnside. 1979b. Flight behavior of the citrus blackfly. *J. Econ. Entomol.* 72(3):395-8.
- Meyerdirk, D. E., W. G. Hart, and J. A. Burnside. 1979c. Marking and dispersal study of adults of the citrus blackfly, *Aleurocanthus woglumi*. *Southwest. Entomol.* 4(4):325-9.
- Meyerdirk, D. E., J. B. Kreasky, and W. G. Hart. 1980. Whiteflies (Aleyrodidae) attacking citrus in southern Texas with notes on natural enemies. *Can. Entomol.* 112:1253-8.
- Milliere, P. 1864. Iconographie et description de chenilles et Lepidopteres inedits. *F. Dumoulin. Lyon* 2:308.
- Mineo, G., and G. Viggiani. 1975. Sulla presenza di *Bemisia citricola* Gomez-Menor (Homoptera: Aleyrodidae) in Italia. *Boll. Lab. Entomol. Agrar. Silvestri* 32:47-51.
- Misra, C. S. 1920. Some Indian economic Aleyrodidae. *Rep. Proc. 3rd Entomol. Meet. Pusa, Feb. 1919. Calcutta.* pp. 418-33. *Abstract in Rev. Appl. Entomol.* 9:70-1, 1921.

- Misra, C. S. 1924. The citrus whitefly, *Dialeurodes citri*, in India and its parasites, together with the life history of *Aleyrodes ricini*, n. sp. Proc. 5th Entomol. Meet., Pusa. pp. 129-35.
- Moncira, C. 1921. Entomologia agricola Brasileira. Min. Agr. Ind. Com., Rio de Janeiro. Bol. 1:1-182.
- Morrill, A. W. 1903. Notes on some Aleyrodes from Massachusetts, with descriptions of new species. Psyche 10:80-5.
- Morrill, A. W., and E. A. Back. 1911. White flies injurious to citrus in Florida. USDA Bur. Entomol. Bull. 92:1-109.
- Morrill, A. W., and E. A. Back. 1912. Natural control of white flies in Florida. USDA Bur. Entomol. Bull. 102:1-78.
- Motschoulsky, V. De. 1866. D'un catalogue des insectes de l'île de Ceylon. Bull. Soc. Nat. Moscow 39(1):393-446.
- Mound, L. A. 1965. An introduction to the Aleyrodidae of western Africa (Homoptera). Bull. Brit. Mus. Entomol. 17(3):113-60.
- Mound, L. A., and S. H. Halsey. 1978. Whitefly of the world. A systematic catalogue of the Aleyrodidae (Homoptera) with host plant and natural enemy data. British Mus. Nat. Hist., Chichester. 328 pp.
- Moutia, L. A. 1955. The commoner insect pests of orchards, food crops, vegetables, flower gardens and household in Mauritius. Bull. Dep. Agr. Mauritius 91:1-79. Abstract in Rev. Appl. Entomol. 45:252, 1957.
- Muesebeck, C. F. W., K. V. Krombein, and H. K. Townes. 1951. Hymenoptera of America north of Mexico. U.S.D.A. Agr. Monogr. No. 2. 1420 pp.
- Mulsant, E. 1850. Species des coleopteres trimeres securipalper. Ann. Sci. Phys. Nat. Lyon. Serie 2. 2:951.
- Mulsant, E. 1858. In Ann. Soc. Linn. Lyon, Vol I, p. 189 (not seen).
- Muma, M. H. 1953a. Lady beetle predators of citrus aphids. Citrus Mag. 15(8):32-3.
- Muma, M. H. 1953b. Lady beetle predators of citrus whiteflies. Citrus Mag. 16(3):12-3, 37.
- Muma, M. H. 1955a. Lady beetles (Coccinellidae: Coleoptera) found on citrus in Florida. Fla. Entomol. 38:117-24.
- Muma, M. H. 1955b. Factors contributing to the natural control of citrus insects and mites in Florida. J. Econ. Entomol. 48:432-8.
- Muma, M. H. 1956. Life cycles of four species of lady beetles. Fla. Entomol. 39:115-8.
- Muma, M. H. 1957. Effects of larval nutrition on the life cycle, size, coloration, and longevity of *Chrysopa lateralis* Guer. Fla. Entomol. 40:5-9.
- Muma, M. H. 1959. Chrysopidae associated with citrus in Florida. Fla. Entomol. 42:21-9.
- Muma, M. H., A. G. Selhime, and H. A. Denmark. 1975. An annotated list of predators and parasites associated with insects and mites on Florida citrus, 3rd ed. Fla. Agr. Exp. Sta. Bull. 634B:1-46.
- Nakao, H. K., and G. Y. Funasaki. 1976. Introductions for biological control in Hawaii, 1974. Proc. Hawaii. Entomol. Soc. 1976/22:329-31.
- Nichols, J. R., and M. J. Tauber. 1977. Age-specific interaction between the greenhouse whitefly and *Encarsia formosa*: Influence of host on the parasite's oviposition and development. Environ. Entomol. 6:143-9.
- Nell, H. W., L. A. Sevenster-Van Der Lelie, J. Woets, and J. C. van Lenteren. 1976. The parasite-host relationship between *Encarsia formosa* (Hymenoptera: Aphelinidae) and *Trialeurodes vaporariorum* (Homoptera: Aleyrodidae) II. Selection of host stages for oviposition and feeding by the parasite. Z. Ang. Entomol. 81:372-6.
- Newell, W. 1918. The "blackfly," a serious menace to citrus. Calif. Citrogr. 3(9):209, 216-7.
- Newell, W., and A. C. Brown. 1939. Eradication of the citrus blackfly in Key West, Fla. J. Econ. Entomol. 32:680-2.
- Newstead, R. 1911. On a collection of Coccidae and Aleurodidae, chiefly African, in the collection of the Berlin Zoological Museum. In Mitt. Zool. Mus. Berlin Bd. 5, Heft 2. pp. 155-74.
- Nguyen, Ru. 1986. *Encarsia lahorensis* (Howard) a parasite of *Dialeurodes citri* (Ashmead) (Hymenoptera: Aphelinidae). Fla. Dep. Agr. Consum. Serv. Entomol. Cir. 290. 2 pp.
- Nguyen, Ru, J. R. Brazzel, and C. Poucher. 1983a. Population density of the citrus blackfly, *Aleurocanthus woglumi* Ashby (Homoptera: Aleyrodidae), and its parasites in urban Florida in 1979-1981. Environ. Entomol. 12:878-884.
- Nguyen, Ru, W. Giordano, and C. Poucher. 1983b. Suitability of *Citrus* spp. and *Ardisia solanacea* for laboratory rearing of the citrus blackfly, *Aleurocanthus woglumi*. Fla. Entomol. 66:393-9.
- Nguyen, Ru, and R. I. Sailer. 1979. Colonization of a citrus whitefly parasite, *Prospaltella lahorensis*, in Gainesville, Florida. Fla. Entomol. 62:59-65.
- Nguyen, Ru, and R. I. Sailer. 1987. Facultative hyperparasitism and sex determination of *Encarsia smithi* (Silvestri) (Hymenoptera: Aphelinidae). Ann. Entomol. Soc. Am. 80:715-9.
- Ogilvie, L. 1926. Seasonable notes on plant diseases and pests. Bermuda Dep. Agr. Bull. 5(5):3-4.
- Ogilvie, L. 1928. The insects of Bermuda. Dep. Agr. Bermuda. 23 pp.
- Onillon, J. C. 1969. A propos de la presence en France d'une nouvelle espece d'Aleurode nuisible aux citrus, *Aleurothrixus floccosus* Maskell (Homoptera: Aleurodidae). Comp. Rend. Seanc. Acad. Agr. France 55(13):937-40.
- Onillon, J. C. 1973. Possibilites de regulation des populations d'*Aleurothrixus floccosus* Mask. (Homopt. Aleurodidae) sur agrumes par *Cales noacki* How. (Hymenopt., Aphelinidae). OEPP/EPPO Bull. 3(1):17-26.
- Onillon, J. C. 1975. Contribution a l'etude de la dynamique des populations d'homopteres infeodes aux agrumes. V. 3. Evolution des populations d'*A. floccosus* Mask. (Homopt. Aleurodidae) pendant les trois annees suivant l'introduction de *Cales noacki* How. (Hymenopt. Aphelinidae). Fruits 30(3):237-45.
- Onillon, J. C., and M. Abbassi. 1973. Notes bio-ecologiques sur l'aleurode floconneux des agrumes *Aleurothrixus floccosus* Mask (Homopt., Aleurodidae) et moyens de lutte. Al. Awamia. 49:99-117.
- Onillon, J. C., and J. Onillon. 1972. Contribution a l'etude de la dynamique des populations d'homopteres infeodes aux agrumes. III. Introduction, dans les Alpes - Maritimes de *Cales noacki* How. (Hymenopt., Aphelinidae), parasite d'*Aleurothrixus floccosus* Mask. (Homopt., Aleurodidae). Comp. Rend. Seanc. Acad. Agr. France 58(6):365-70.
- Onillon, J. C., and J. Onillon. 1974. Contribution a l'etude de la dynamique des populations d'Homopteres infeodes aux agrumes. III. 2. Modalites de la dispersion de *Cales noacki* How. (Hymenopt. Aphelinidae), parasite d'*Aleurothrixus floccosus* Mask. (Homopt. Aleurodidae). Bull. SROP 1974/3:51-66.
- Onillon, J. C., J. Onillon, and P. Brun. 1975. Contribution a l'etude de la dynamique des populations d'homopteres infeodes aux agrumes. II. 3. Premieres observations sur l'evolution comparee des population de *Dialeurodes citri* Ashmead (Homopt. Aleurodidae) en Corse et dans le sud-est de la France. Fruits 30(3):167-72.
- Onillon, J. C., J. Onillon, and R. Tomassone. 1971. Contribution a l'etude de la dynamique des populations d'homopteres infeodes aux agrumes. Ann. Zool. Ecol. Anim. 3:183-93.

- Ortega, M. J. G. 1932. Informe del entomologo-patologo. Mem. Sec. Agr. Com. Repub. Dominican. 1932. pp. 117-33. *Abstract in Rev. Appl. Entomol.* 23:6, 1935.
- Otanes, F. Q., and F. L. Butac. 1939. Cotton pests in the Philippines. *Philip. J. Agr.* 10(4):341-71.
- Palmer, M. A. 1914. Some notes on life history of ladybeetles. *Ann. Entomol. Soc. Am.* 7:232-4.
- Pappas, S., and G. Viggiani. 1979. Introdotta a Carfu la *Prospaltella lahorensis* How. (Hym., Aphelinidae) parassita del *Dialeurodes citri* (Ashm.) (Hom., Aleyrodidae). *Boll. Lab. Entomol. Agrar. F. Silvestri* 36:38-41.
- Parker, H. L., P. A. Berry, and A. S. Guido. 1953. Host-parasite and parasite host lists of insects reared in the South American parasite laboratory during the period 1940-1946. *Rev. Asoc. Ing. Agr.* 92:1-101.
- Paulson, G. S., and J. W. Beardsley. 1985. Whitefly (Hemiptera: Aleyrodidae) eggs pedicel insertion into host plant stomata. *Ann. Entomol. Soc. Am.* 78:506-9.
- Paulson, G. S., and J. W. Beardsley. 1986. Development, oviposition and longevity of *Aleurothrixus floccosus* (Maskell) (Homoptera: Aleyrodidae). *Proc. Hawaii. Entomol. Soc.* 25:97-9.
- Paulson, G. G., and B. R. Kumashiro. 1985. Hawaiian Aleyrodidae. *Proc. Hawaii. Entomol. Soc.* 25:103-24.
- Peck, O. 1963. A catalogue of the Nearctic Chalcidoidea. (Insecta: Hymenoptera). *Can. Entomol. Suppl.* 30:239-318.
- Penny, D. D. 1922. A catalog of the California Aleyrodidae and descriptions of four new species. *J. Entomol. Zool. Pomona* 14:21-35.
- Peracchi, A. L. 1971. Dois Aleirodideos pragas de *Citrus* no Brasil (Homoptera: Aleyrodidae). Rio de Janeiro Mus. Nat. Archivos 54:145-51.
- Petch, T. 1921. Studies in entomogenous fungi. The Nectriae parasitic on scale insects. *Trans. Brit. Myco. Soc.* 7:89-167.
- Peterson, G. D. 1955. Biological control of the orange spiny whitefly in Guam. *J. Econ. Entomol.* 48:681-3.
- Posada, L. O., I. Z. De Polania, I. S. De Arevalo, V. A. Saldarriaga, R. F. Garcia, and Y. R. M. Cardenas. 1970. Lista de Insectos danios y otras plagas en Columbia. *Inst. Columbia Agr. Minits. Agr. Publ. Misc.* 17:58.
- Pratt, R. M. 1958. Florida guide to citrus insects, diseases and nutritional disorders in color. *Fla. Agr. Exp. Sta.* pp. 1-191.
- Priesner, H., and M. Hosny. 1934. Contributions to a knowledge of the whiteflies (Aleyrodidae) of Egypt. (III). *Bull. Minist. Agr. Egypt Tech. Sci. Serv.* 145:1-11.
- Priore, R. 1969. *Dialeurodes citri* (Ashmead) (Homoptera: Aleyrodidae) in Campania. Notes on morphology and biology. *Boll. Lab. Entomol. Agraria. "Filippo Silvestri" portici.* 27:287-316. *Abstract in Rev. Appl. Entomol.* 60:3765, 1972.
- Pruthi, H. S., and M. S. Mani. 1945. Our knowledge of the insect and mite pests of citrus in India and their control. *Sci. Monog. Coun. Agr. Res. India* 16:15-20.
- Pruthi, H. S., and C. K. Samuel. 1942. Entomological investigations on the leafcurl disease of tobacco in northern India. V. Biology and population of the whitefly vector (*Bemisia tabaci* Gen.) in relation to the incidence of the disease. *India J. Agr. Sci.* 12:35-57. *Abstract in Rev. Appl. Entomol.* 32:390-1, 1944.
- Quaintance, A. L. 1899a. New, or little known, Aleurodidae. *Can. Entomol.* 31:1-4.
- Quaintance, A. L. 1899b. New, or little known, Aleurodidae II. *Can. Entomol.* 31:89-93.
- Quaintance, A. L. 1900. Contributions toward a monograph of the American Aleurodidae. *U.S.D.A. Div. Entomol. Tech. Ser.* 8:1-48.
- Quaintance, A. L. 1903. New oriental Aleurodidae. *Can. Entomol.* 35:61-4.
- Quaintance, A. L. 1907. The more important Aleyrodidae infesting economics plants, with description of a new species infesting the orange. *U.S.D.A. Bur. Entomol. Tech. Ser.* 12:89-94.
- Quaintance, A. L. 1909. A new genus of Aleyrodidae, with remarks on *Aleyrodes nubifera* Berger, and *Aleyrodes citri* Riley and Howard. *U.S.D.A. Bur. Entomol. Tech. Ser.* 12:169-74.
- Quaintance, A. L., and A. C. Baker. 1913. Classification of the Aleyrodidae. Part I. *U.S.D.A. Bur. Entomol. Tech. Ser.* 27:1-93.
- Quaintance, A. L., and A. C. Baker. 1914. Classification of the Aleyrodidae. Part II. *U.S.D.A. Bur. Entomol. Tech. Ser.* 27:95-109.
- Quaintance, A. L., and A. C. Baker. 1915. Classification of the Aleyrodidae. *U.S.D.A. Bur. Entomol. Tech. Ser.* 27:xi, 1-114.
- Quaintance, A. L., and A. C. Baker. 1916. Aleyrodidae, or white flies attacking the orange, with description of three new species of economic importance. *J. Agr. Res.* 6:459-72.
- Quaintance, A. L., and A. C. Baker. 1917. A contribution to our knowledge of the white flies of the subfamily Aleyrodinae (Aleyrodidae). *Proc. U.S. Nat. Mus.* 51:335-445.
- Quayle, H. J. 1938. Insects of citrus and other subtropical fruits. Comstock Publ. Co., Inc., New York. 583 pp.
- Quezada, J. R. 1974. Biological control of *Aleurocanthus woglumi* (Homoptera: Aleyrodidae) in El Salvador. *Entomophaga* 19(3):243-54.
- Rahman, K. A. 1939. Annual report on the combined entomological scheme, Punjab and N.W.F. Province for the year 1938-9. 17 pp. 1940. Final report on the combined entomological scheme, Punjab and N.W.F. Province. 50 pp. *Abstract in Rev. Appl. Entomol.* 32:290, 1944.
- Rhode, R. H., and M. Sanchez Riviello. 1977. Toxicity of several chemical formulations to laboratory populations of the citrus blackfly. *South-west. Entomol.* 2:46-8.
- Richardson, H. H. 1948. Present status of the citrus blackfly and its parasite *Eretmocerus serius* at Nassau, Bahamas. *J. Econ. Entomol.* 41:980.
- Riley, C. V., and L. O. Howard. 1893. The orange Aleyrodes. *Insect Life* 5(4):219-25.
- Ripolles, J. L., and A. Melia. 1982. Primeras observaciones sobre la proliferacion de *Conwentzia psociformis* (Curt.) (Neuroptera: Coniopterygidae), en los citricos de Castellon de la Plana. *Bol. Serv. Defen. Contr. Plagas. Inspec. Fitopatol.* 6:61-66. *Abstract in Rev. Appl. Entomol.* 70:5361.
- Ritchie, A. H. 1917. Annual report of the entomologist. Jamaica Ann. Rep. Dep. Agr. 1917/28-34.
- Rodrigo, P. A. 1947. Soybean culture in Philippines. *Philip. J. Agr.* 13(1):1-22.
- Rolfs, P. H., and H. S. Fawcett. 1908. Fungus diseases of scale insects and whiteflies. *Fla. Agr. Exp. Sta. Bull.* 94:5-17.
- Rose, M., and P. DeBach. 1981. Citrus whitefly parasites established in California. *Calif. Agr.* 35:21-3.
- Rose, M., and P. DeBach. 1982. A native parasite of the bayberry whitefly. *Citrograph* 67(12):272-6.
- Rose, M., P. DeBach, and J. Woolley. 1981. Potential new citrus pest; Japanese bayberry whitefly. *Calif. Agr.* 35(3-4):22-4.

- Rosen, D. 1966. Notes on the parasites of *Acaudaleyrodes citri* (Priesner and Hosny) (Hemiptera: Aleyrodidae) in Israel. Entomol. Ber., Amst. 26:55-9.
- Rosen, D. 1969. The parasites of Coccids, Aphids and Aleyrodids on citrus in Israel: Some zoogeographical considerations. Israel J. Entomol. 4:45-53.
- Russell, L. M. 1948. The North American species of whiteflies of the genus *Trialeurodes*. U.S.D.A. Misc. Pub. 635:1-85.
- Russell, L. M. 1957. Synonyms of *Bemisia tabaci* (Gennadius) (Homoptera: Aleyrodidae). Bull. Brooklyn Entomol. Soc. 52:122-3.
- Russell, L. M. 1958. *Orchamoplatus*. An Australasian genus (Homoptera: Aleyrodidae). Proc. Hawaii. Entomol. Soc. 16:389-410.
- Russell, L. M. 1962a. The citrus blackfly. F.A.O. Plant Prot. Bull. 10(2):36-8.
- Russell, L. M. 1962b. New name combinations and notes on some African and Asian species of Aleyrodidae (Homoptera). Bull. Brooklyn Entomol. Soc. 57:63-5.
- Russell, L. M. 1963. Hosts and distribution of five species of *Trialeurodes* (Homoptera: Aleyrodidae). Ann. Entomol. Soc. Am. 56:149-53.
- Russell, L. M. 1964. *Dialeurodes kirkaldyi* (Kotinsky), a whitefly new to the United States (Homoptera: Aleyrodidae). Fla. Entomol. 47:1-4.
- Russell, L. M. 1965. A new species of *Aleurodicus* Douglas and two close relatives (Homoptera: Aleyrodidae). Fla. Entomol. 48:47-55.
- Russell, L. M., and J. Etienne. 1985. A list of the Aleyrodidae of the Island of Reunion. Proc. Entomol. Soc. Wash. 87:202-6.
- Russell, T. A. 1936. Plant pathological report 1935. Rep. Dep. Agr. Bermuda 1935. pp. 18-23. Abstract in Rev. Appl. Entomol. 24:565, 1936.
- Sailer, R. I., R. E. Brown, B. Munir, and J. C. E. Nickerson. 1984. Dissemination of the citrus whitefly (Homoptera: Aleyrodidae) parasite *Encarsia lahorensis* (Howard) (Hymenoptera: Aphelinidae) and its effectiveness as a control agent in Florida. Bull. Entomol. Soc. Am. 30:36-9.
- Sampson, W. W., and E. A. Drews. 1941. Fauna Mexicana IV. A review of the Aleyrodidae of Mexico (Insecta, Homoptera). An. Esc. Nac. Cienc. Biol. Mex. 2:143-89. (not seen, in Mound and Halsey 1978: 324.)
- Sanchez Riviello, M., R. H. Rhode, W. G. Hart, and P. D. Lara. 1977. Citrus blackflies: Greenhouse culture on hydroponic citrus plants. J. Econ. Entomol. 70(6):808-10.
- Santaballa, E., C. Borrás, and P. Colomer. 1981. Toxicidad de varios productos sobre estados inmaduros indiferenciados de *Cales noacki* How. Fruits 32: 123-6.
- Sanzin, R. 1915. Citrus whitefly (*Aleurodes citri*) on lemons and oranges in the province of Mendoza, Argentina. La Enologia Argentina, Mendoza 42-3. Abstract in Rev. Appl. Entomol. 3:694, 1915.
- Sasaji, H. 1971. Faun Japonica, Coccinellidae (Insecta: Coleoptera). Acad. Press, Japan. 340 pp.
- Savitskaya, G. I., and B. Klausnitzer. 1973. Morphology and taxonomy of the larvae with keys for their identification, pp. 36-53. In I. Hodeček (ed.), Biology of Coccinellidae. Czechoslovak Acad. Sci., Prague. 266 pp.
- Say, T. 1823. Descriptions of Dipterous insects of the United States. J. Acad. Nat. Sci. Phila. 3(1):100-1.
- Selhime, A. G. 1979. Biological control of citrus blackfly in south Florida. Proc. Fla. State Hort. Soc. 92:32-3.
- Selhime, A. G., W. G. Hart, and D. P. Harlan. 1982. Dispersal of *Amitus hesperidum* and *Encarsia opulenta* released for the biological control of citrus blackfly in South Florida. Fla. Entomol. 65:165-8.
- Selhime, A. G., M. H. Muma, and D. W. Clancy. 1963. Biological, chemical and ecological studies on the predatory thrips *Aleurothrips fasciapennis* in Florida citrus groves. Ann. Entomol. Soc. Am. 56:709-12.
- Sen-Gupta, G. C., and B. K. Behura. 1957. Annotated list of crop pests in the state of Orissa. Mem. Entomol. Soc. India 5:1-44.
- Shafec, S. A. 1973. Indian species of the genus *Prospaltella* Ashmed (Hym.: Aphelinidae). Entomophaga 18:251-8.
- Shaw, J. G. 1950a. *Eretmocerus serius* as a parasite of the citrus blackfly in Mexico. J. Econ. Entomol. 43:380-2.
- Shaw, J. G. 1950b. Hosts of the citrus blackfly in Mexico. U.S.D.A. Bur. Entomol. Plant Quar. E. 798:1-16.
- Shaw, J. G., F. Lopez-D., and D. L. Chambers. 1970. A review of research done with the Mexican fruit fly and the citrus blackfly in Mexico by the Entomology Research Division. Bull. Entomol. Soc. Am. 16:186-93.
- Shenderovskaya, L. P. 1976. Introduced insect enemies and microorganisms. Zashch. Rast. 3:52-3. Abstract in Rev. Appl. Entomol. 65:2861, 1977.
- Shiraki, T. 1934. Insect pests of citrus trees in Formosa. I and II. J. Soc. Trop. Agr. Taiwan 6(1-2):29-36, 187-94. Abstract in Rev. Appl. Entomol. 22:711, 1934.
- Sicard, A. 1896. Notes sur quelques coccinellides de l'Inde et de Birmanie. Ann. Mag. Nat. Hist. 6(12):503.
- Sicard, A. 1912. Notes sur quelques coccinellides de l'Inde et de Birmanie. Ann. Soc. Entomol. France 81:495-506.
- Sicard, A. 1922. Descriptions de varietes, especes et genres nouveaux appartenant a la famille de Coccinellides. Ann. Mag. Nat. Hist. 9(11):349-60.
- Sicard, A. 1929. Descriptions de quelques especes nouvelles de Coccinellides de la faune Indo-Malaise. Ann. Mag. Nat. Hist. 3(10):179-84.
- Silveira Neto, S., L. C. Forti, and M. Fazolin. 1977. Flutuacao populacional dos aleirodideos de citrus em Piracicaba-SP. Ana. Soc. Entomol. Brasil 6:32-39.
- Silvestri, F. 1915. Descrizione di nuovi imenotteri *Calcidi africani*. Boll. Lab. Zool. Gen. Agr. R. Scuola Agr. Portici 9:337-77.
- Silvestri, F. 1926. Descrizione di tre specie di *Prospaltella* e di una di *Encarsia* (Hymenoptera: Chalcididae) parassite di *Aleurocanthus* (Aleyrodidae). Eos. Madr. 2:179-89.
- Silvestri, F. 1927. Contribuzione alla conoscenza degli Aleyrodidae (Insecta: Hemiptera) viventi su *Citrus* in Estremo Oriente e dei loro parassiti. Boll. Lab. Zool. Gen. Agr. R. Scuola Agr. Portici 21:1-60.
- Simanton, W. A. 1974. Occurrence of insect and mite pests of citrus, their predators and parasitism in relation to spraying operations. Proc. Tall Timbers Conf. 6:135-63.
- Simmonds, F. J. 1975. Report of work carried out during 1975. Comm. Inst. Biol. Control p. 74.
- Singh, K. 1931. A contribution towards our knowledge of the Aleyrodidae (white flies) of India. Mem. Dep. Agr. India 12(1):1-98.
- Smith, H. D. 1945. La mosca prieta de los citricos en la costa occidental de Mexico y la importacion y colonizacion de *Eretmocerus serius* Silv. para su control. Fitofilo. Ano. 4(2):67-103.
- Smith, H. D. 1958. Las interrelaciones de los enemigos naturales de la mosca prieta de los citricos en Mexico. Fitofilo Ano. 11(21):31-6.

- Smith, H. D., H. L. Maltby, and E. J. Jimenez. 1964. Biological control of the citrus blackfly in Mexico. U.S.D.A. Tech. Bull. 1311:1-30.
- Smith, H. S., and E. J. Branigan. 1916. On *Delphastus catalinae*, a valuable ladybird enemy of the whiteflies. Mon. Bull. Quar. Div. Calif. 5(12):448-50.
- Smith H. S., and S. E. Flanders. 1949. Recent introductions of entomophagous insects into California. J. Econ. Entomol. 42:995-6.
- Sorauer, P. 1956. Handbuch der Pflanzenkrankheiten. Berlin and Hamburg. 5(2):399 pp. (not seen, in Mound and Halsey. 1978, p. 325.)
- Soylu, O. Z. 1980. Investigations on the biology and control of citrus whitefly (*Dialeurodes citri* Ashmead) injurious in citrus orchards in the Mediterranean region of Turkey. Bitki Koruma Bul. 20:36-53. (not seen, in Rev. Appl. Entomol. 70:2764)
- Speyer, E. R. 1927. An important parasite of the greenhouse whitefly (*Trialeurodes vaporariorum*, Westwood). Bull. Entomol. Res. 17:301-8.
- Steinberg, B., and R. V. Dowell. 1980. Suitability of native or naturalized plants as long-term hosts of the citrus blackfly. Ann. Entomol. Soc. Am. 73:662-4.
- Steinberg, B., R. V. Dowell, G. E. Fitzpatrick, and F. W. Howard. 1978. Suitability among native or naturalized plant species of southern Florida for citrus blackfly development. Fla. Sci. 41(1):61-63.
- Stone, A., C. W. Sabrosky, W. W. Wirth, R. H. Foote, and J. R. Coulson. 1965. A Catalog of the Diptera of America North of Mexico. ARS-USDA Agr. Handb. No. 276. U.S. Gov. Print. Off., Wash., D.C. 1696 pp.
- Stoner, A., and G. D. Butler. 1965. *Encarsia lutea* as an egg parasite of bollworm and cabbage looper in Arizona cotton. J. Econ. Entomol. 58: 1148-50.
- Summy, K. R., F. E. Gilstrap, and W. G. Hart. 1985. *Aleurocanthus woglumi* (Hom.: Aleyrodidae) and *Encarsia opulenta* (Hym.: Aphelinidae): Density-dependent relationship between adult parasite aggregation and mortality of the host. Entomophaga 30:107-12.
- Summy, K. R., F. E. Gilstrap, and W. G. Hart. 1986. Correlation between flight trap response and foliar densities of citrus blackfly, *Aleurocanthus woglumi* (Homoptera: Aleyrodidae). Can. Entomol. 118:81-3.
- Summy, K. R., F. E. Gilstrap, W. G. Hart, J. M. Caballero, and I. Saenz. 1983. Biological control of citrus blackfly (Homoptera: Aleyrodidae) in Texas. Environ. Entomol. 12:782-6.
- Swirski, E., and S. Amitai. 1961. Some phytoseiid mites (Acarina: Phytoseiidae) of Israel, with a description of two new species. Israel J. Agr. Res. 11:193-202.
- Takahashi, R. 1931. Some whiteflies of Formosa (Part I). Trans Nat. Hist. Soc. Formosa 21:203-9.
- Takahashi, R. 1932. Aleyrodidae of Formosa, Part I. Rep. Dep. Agr. Gov. Res. Inst. Formosa 59:1-57.
- Takahashi, R. 1933. Aleyrodidae of Formosa, Part II. Rep. Dep. Agr. Gov. Res. Inst. Formosa 60:1-24.
- Takahashi, R. 1934. Aleyrodidae of Formosa, Part III. Rep. Dep. Agr. Gov. Res. Inst. Formosa 63:39-71. (not seen, in Mound and Halsey 1978: 325.)
- Takahashi, R. 1935. Notes on the Aleyrodidae of Japan (Homoptera) III. Kontyu 9:279-83.
- Takahashi, R. 1938. A few Aleyrodidae from Mauritius and China (Hemiptera). Trans. Nat. Hist. Soc. Formosa 28:27-9. (not seen, in Mound and Halsey 1978: 325).
- Takahashi, R. 1940. Some foreign Aleyrodidae (Hemiptera) II. A new species attacking citrus in Australia. Trans. Nat. Hist. Soc. Formosa. 30:381-2.
- Takahashi, R. 1941. Some foreign Aleyrodidae (Hemiptera). III. Species from Hongkong and Mauritius. Trans. Nat. Hist. Soc. Formosa 31:351-7. (not seen, in Mound and Halsey 1978:22.)
- Takahashi, R. 1942a. *Aleurocanthus* of Thailand and French Indo-China (Homoptera: Aleyrodidae). Kontyu 16:57-61.
- Takahashi, R. 1942b. Some foreign aleyrodidae (Homoptera). V. Species from Thailand and Indochina. Trans. Nat. Hist. Soc. Formosa 32:204-16. (not seen, in Mound and Halsey 1978: 33.)
- Takahashi, R. 1952. *Aleurotuberculatus* and *Parabemisia* of Japan (Aleyrodidae: Homoptera). Misc. Rep. Res. Inst. Nat. Resour. Tokyo 25:17-24. (not seen, in Mound and Halsey 1978: 326.)
- Takahashi, R. 1954. *Aleurolobus* of Japan (Aleyrodidae) Homoptera). Kontyu 20(3-4):49-54.
- Takahashi, R. 1955. Some species of Aleyrodidae from Madagascar. III (Homoptera). Mem. Inst. Sci. Madagascar Serie E 6:375-441.
- Takahashi, R. 1956. Insects of Micronesia: Homoptera: Aleyrodidae. Insects Micronesia 6(1):1-13.
- Takahashi, R., and R. Mamet. 1955. Descriptions of some new and little known species of Aleyrodidae from China and Malaya (Homoptera). Acta Entomol. Sin. 5:221-235. (not seen, in Mound and Halsey 1978: 326.)
- Talhok, A. S. 1975. Citrus pests throughout the world. Citrus. Ciba-Geigy Agrochem. Tech. Monogr. 4:21-3.
- Tao, C. C. C. 1979. A check list and host plant index of whiteflies from Taiwan. J. Agr. Res. China 28:311-34.
- Tao, C. C. C., and K. C. Wu. 1969. Studies on bait treatment against Citrus insects. Plant Prot. Bull. Taiwan 11(4):143-9. Abstract in Rev. Appl. Entomol. 61:2838, 1973.
- Tapia, E. A. 1968. Ostra mosca blanca (Aleyrodidae) para los citricos Argentinos. Hoja Inf. Inst. Pat. Veg. 22:1. Abstract in Rev. Appl. Entomol. 57:1204, 1969.
- Targe, A., and L. Deportes. 1953. L'aleurode des agrumes, *Dialeurodes citri* Ash. dans les Alpes-Maritimes. Premiers resultats d'experimentations de traitements. Phytoma 6(44):9-15. Abstract in Rev. Appl. Entomol. 42:248, 1954.
- Tauber, M. J., and R. G. Helgesen. 1974. Biological control of whiteflies in greenhouse crops. New York Food Life Sci. 7(4):13-6.
- Taylor, T. H. C. 1935. The campaign against *Aspidiotus destructor* Sign., in Fiji. Bull. Entomol. Res. 26:1-102.
- Teich, Y. 1966. Mites of the family Phytoseiidae as predators of the tobacco whitefly, *Bemisia tabaci* Gennadius. Israel J. Agr. Res. 16:141-2.
- Thompson, C. R. 1985. Temperatures lethal for citrus blackfly parasites, *Encarsia opulenta* and *E. smithi* (Hym.: Aphelinidae). Entomophaga 30:89-91.
- Thompson, C. R., J. A. Cornell, and R. I. Sailer. 1987. Interactions of parasites and hyperparasite in biological control of citrus blackfly, *Aleurocanthus woglumi* (Homoptera: Aleyrodidae), in Florida. Environ. Entomol. 16:140-4.
- Thompson, C. R., and J. A. Reinert. 1983. Annotated bibliography of the citrus blackfly, *Aleurocanthus woglumi* Ashby (Homoptera: Aleyrodidae). Bibliog. Entomol. Soc. Am. 1:11-41.
- Thompson, W. R. 1950. A catalogue of the parasites and predators of insect pests. Comm. Agr. Bur. Sect. 1:1-107.

- Thompson, W. R., and F. J. Simmonds. 1964. A catalogue of the parasites and predators of insect pests. Comm. Agr. Bur. Sect. 3:1-204.
- Thompson, W. R., and F. J. Simmonds. 1965. A catalogue of the parasites and predators of insect pests. Comm. Agr. Bur. Sect. 4:1-198.
- Timofeyeva, T. V., and Hoang Duc Nhuan. 1978. Morphology and biology of the Indian ladybird *Serangium parcesetosum* Sicard (Coleoptera, Coccinellidae) predacious on citrus whitefly in Adzharia. Entomol. Obozr. 57(2):302-8.
- Tippins, H. H. 1958. Control of citrus whitefly on gardenia. J. Econ. Entomol. 51:552.
- Tucker, R. W. E. 1952. The insects of Barbados. J. Agr. U. Puerto Rico 24:330-67.
- Valenzuela, G. V. 1971. Reestructuración de la campana contra la mosca prieta de los cítricos en el noreste de México. Fitofilo Ano. 24: 19-21.
- Van Dinther, J. B. M. 1960. Insect pests of cultivated plants in Surinam. Agr. Exp. Sta. Surinam Bull. 76:38.
- Van Lenteren, J. C., H. W. Nell, L. A. Sevenster-vad der Lelie, and J. Woets. 1976. Z. Angew. Entomol. 81:377-80.
- Van Whervin, L. W. 1968. The introduction of *Prospaltella opulenta* Silvestri into Jamaica and its competitive displacement of *Eretmocerus serius* Silvestri. PANS 14(4):456-64.
- Vazquez, R. M., J. A. Z. Manas, A. F. Cortina, I. C. Martinez, and E. R. Sanchez. 1973. Experiencias contra *Aleurothrixus floccosus* año 1972. Bol. Inform. Plagas 102:61-89. Abstract in Rev. Appl. Entomol. 62:3748, 1974.
- Viggiani, G. 1975. Possibilità di lotta biologica contro alcuni insetti degli Agrumi *Planococcus citri* Risso e *Dialeurodes citri* Ashm.). Boll. Lab. Entomol. Agr. Silvestri 32:52-9.
- Viggiani, G. 1980. Nuovi complessi sensoriali sulle antenne di *Encarsia* Foerst. (Hym., Aphelinidae). Boll. Lab. Entomol. Agr. Silvestri 37:27-30.
- Viggiani, G. 1981. New records on releases and recoveries of *Encarsia lahorensis* (How.). Fruits 36:186-7.
- Viggiani, G. 1985. Notes on a few Aphelinidae, with description of five new species of *Encarsia* Foerster (Hymenoptera: Chalcidoidea). Boll. Lab. Entomol. Agr. Silvestri 42: 81-94.
- Viggiani, G., and D. Battaglia. 1983. Le specie italiane del genere *Eretmocerus* Hald. (Hymenoptera: Aphelinidae). Boll. Lab. Entomol. Agr. Silvestri 40:97-101.
- Viggiani, G., and P. Mazzone. 1977. Introdotta in Italia la *Prospaltella lahorensis* How. per il controllo biologico di *Dialeurodes citri* (Ashm.). Inf. Fitopatol. Univ. Napoli. 27:5-7.
- Viggiani, G., and P. Mazzone. 1978a. Morfologia, biologia e utilizzazione di *Prospaltella lahorensis* How. (Hym. Aphelinidae), parassita esotico introdotto in Italia per la lotta biologica al *Dialeurodes citri* (Ashm.). Boll. Lab. Entomol. Agrar. Silvestri 35:99-161.
- Viggiani, G., and P. Mazzone. 1978b. Il controllo di *Dialeurodes citri* (Ashm.) nella lotta integrata dell'agrumeto. Atti Giornat Fitopat Univ. Napoli. 1:245-52.
- Viggiani, G., and P. Mazzone. 1979. Contributi alla conoscenza morfologica delle specie del complesso *Encarsia* Foerster-*Prospaltella* Ashmead (Hym. Aphelinidae). Boll. Lab. Entomol. Agrar. Silvestri 36:42-50.
- Viggiani, G., and P. Mazzone. 1980. Le specie paleartiche di *Encarsia* del gruppo *lulea* Masi (Hym.: Aphelinidae), con descrizione di due nuove specie. Boll. Lab. Entomol. Agr. Silvestri 37:51-7.
- Viggiani, G., and P. Mazzone. 1982. The *Amitus* Hald. (Hym. Platygasteridae) of Italy, with descriptions of three new species. Boll. Lab. Entomol. Agrar. Silvestri 39:59-65.
- Visnya, A. 1941. A gigantic species of Aleyrodidae (Homoptera) from greenhouse-Orchideas. Folia Entomol. Hung. 6:4-15. (not seen in Mound and Halsey 1978: 327.)
- Vulic, M., and J. L. Beltran. 1977. Die Weisses Fliege *Aleurothrixus floccosus*, ein gefährlicher Schädling der Citrus-Kulturen. Z. Pflanzenkrank. Pflanz 84(4):202-14.
- Watanabe, C. 1956. Review of biological control of insect pests in Japan. Proc. 10th Int. Congr. Entomol. 4:515-7.
- Watson, J. R. 1915. The woolly whitefly, (*Aleurothrixus howardi* Quaintance). Univ. Fla. Agr. Exp. Sta. Bull. 126:79-102.
- Watson, J. R. 1917. Florida truck and garden insects. Univ. Fla. Exp. Sta. Bull. 134:33-127.
- Watson, J. R. 1926. Citrus insects and their control. Fla. Agr. Exp. Sta. Bull. 183:293-423.
- Watson, J. R., and E. W. Berger. 1937. Citrus insects and their control. Fla. Agr. Ext. Ser. Bull. 88:1-135.
- Watson, J. R., and W. L. Thompson. 1933. Food habits of *Leis conformis* Boisd. (Chinese ladybeetle). Fla. Entomol. 17:27-9.
- Watts, W. S., and M. Alam. 1973. Spray trials against the citrus blackfly (*Aleurocanthus woglumi*) on limes in the Oman. Misc. Rep. Overseas Dev. Adm. For./Comm. Off. 8:7. Abstract in Rev. Appl. 62:989, 1974.
- Webber, H. J. 1894. Preliminary notice of a fungous parasite on *Aleyrodes citri* R. and H. J. Mycol. 7:363-4.
- Webber, H. J. 1897. Sooty mold of the orange and its treatment. U.S.D.A. Div. Veg. Phys. Path. Bull. 13:1-34.
- Weed, J. 1868. Insect foes of the bark louse. Am. Entomol. 1:39.
- Weems, H. V. 1953. The syrphid flies of Southeastern United States (Diptera:Syrphidae). Ph.D. Dissertation Ohio State Univ., Columbus. pp. 167-8.
- Weems, H. V. 1962. Citrus blackfly, *Aleurocanthus woglumi* Ashby (Homoptera:Aleyrodidae). Fla. Dep. Agr. Div. Plant Ind. Circ. 9:1-2.
- Weise, J. 1891. Neue Coccinelliden. Dtsch. Entomol. Z. Mitt. 5:282-8.
- Weise, J. 1892. Les coccinellides du Chota-Nagpore. Ann. Soc. Entomol. Belg. 36:16-30.
- Weise, J. 1895. Coccinellen aus Madagascar. Dtsch. Entomol. Z. Heft 2:321-6.
- Weise, J. 1900. Coccinelliden aus Ceylon. Dtsch. Entomol. Z. Heft 2:417-45.
- Weise, J. 1901. Contribution a l'étude de la faune entomologique de Sumatra. Ann. Soc. Entomol. Belg. 45:91-6.
- Wheatley, P. E. 1964. The successful establishment of *Eretmocerus serius* Silv. (Hymenoptera:Eulophidae) in Kenya. E. Afr. Agr. For. J. 29:236.
- Whellan, J. A. 1964. Outbreaks and new records. F.A.O. Plant Prot. Bull. 12(1):22.
- Wickham, H. F. 1894. The Coleoptera of Canada. Can. Entomol. 26:297-306.
- Wingo, C. W. 1952. The Coccinellidae (Coleoptera) of the upper Mississippi basin. Iowa State J. Sci. 27:15-53.
- Woglum, R. S. 1913. Report of a trip to India and the Orient in search of the natural enemies of the citrus white fly. U.S.D.A. Bur. Entomol. Bull. 120:1-58.

- Wolfenbarger, D. O. 1964. Avocado whitefly control. Fla. Entomol. 47:209-12.
- Woodworth, C. W. 1907. Whitefly in California. Calif. Agr. Exp. Sta. Circ. 30:1-16.
- Wyniger, R. 1962. Pests of crops and warm climates and their control. Verlag Recht. Ges. Agr. Basel. p. 274.
- Wytzman, P. 1908. Genera Insectorum, (Neuroptera:Coniopterygidae). Fascicule 67:8.
- Wu, F. C. 1935. Catalogus insectorum Sinensium. Fan Mem. Inst. Biol. Peiping, China. 2:127-30.
- Yasumatsu, K., and C. Watanabe. 1965. A tentative catalogue of insect natural enemies of injurious insects in Japan. Part 2. Host-parasite-predator catalogue. Kyushu Univ., Fukuoka, Japan. 116 pp.
- Yen, D. F., and Y. T. Tsai. 1969. Entomogenous fungi of citrus Homoptera in Taiwan. Plant Proct. Bull. Taiwan 11(1):1-10. Abstract in Rev. Appl. Entomol. 61:1173, 1973.
- Yoshida, H. A., and R. F. L. Mau. 1985. Life history and feeding behavior of *Nephaspis amnicola* wingo. Proc. Hawaii Entomol. Soc. 25:155-60.
- Yothers, W. W. 1919. The woolly white fly in Florida citrus groves. U.S.D.A. Farmers Bull. 1011:1-14.
- Young, B. 1942. Whiteflies attacking citrus in Szechwan. Sinensia, Shanghai 13:95-101.
- Zetek, J. 1919. Notes on some insect pests of Costa Rica. J. Econ. Entomol. 12:269.
- Zimmerman, E. C. 1948. Insects of Hawaii. Uni. Hawaii Press, Honolulu. 5:47.

ACKNOWLEDGEMENTS

This catalogue was initiated in 1976 after the discovery of *Aleurocanthus woglumi* (citrus blackfly) in Florida. It has survived through several revisions because of the perseverance of Mrs. Barbara G. Hollien. Our special thanks and respect are extended to her. Considerable editorial work was accomplished by Wanda Giordano and we thank her. We thank Ms. Ann Owens and Ms. Alice Sanders, of the Division of Plant Industry Library, who located and acquired much of the obscure literature utilized in this project. Botanical assistance was given by Dr. Ken Langdon, Botanist, and Mr. Carlos Artaud checked all the plant names, and we extend our thanks to them. We thank Dr. G. B. Edwards and Nabih El-Gholl for their critical reviews and helpful suggestions to improve the manuscript. Considerable valuable computer assistance was rendered by Dr. Michael Thomas and we are grateful to him. We also thank John Corkery for his assistance with the format, and cover design. Last, but not least, we thank Pam Meister for many helpful hours doing last minute corrections, and typing the table of contents. She made us smile for many hours.

