

LEPIDOPTERA, DIPTERA, AND HYMENOPTERA
ASSOCIATED WITH *AMBROSIA ARTEMISIIFOLIA*
(COMPOSITAE) IN FLORIDA¹

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ABSTRACT

An annotated list of the species of Lepidoptera, Diptera, and Hymenoptera associated with the common ragweed, *Ambrosia artemisiifolia* L., in Florida over a 10 year period is presented. The list contains 10 families of Lepidoptera including 16 genera and 19 species; 4 families of Diptera including 7 genera and 12 species; and 7 families of Hymenoptera including 16 genera and 18 species. The ecological relationships between the insects and the ragweed are discussed.

The insect fauna attacking the ragweed, *Ambrosia artemisiifolia* L., is of current interest in biological control. North American insects recently have been released against this weed in the Soviet Union (Kovalev and Runeva 1970). Harris and Piper (1970) have suggested that prospects exist for using biological control methods against it in North America.

This paper is an annotated list of Lepidoptera, Diptera, and Hymenoptera from Florida assembled over a period of 10 years of study of *A. artemisiifolia*. All collections and rearings cited in this paper, except where noted, are those of the author. It is a part of a study concerned with the ecological relationship between the insects and the plant rather than its biological control. The ragweed roots, stems, flowers, leaves, and seeds provide food for many insects, which in turn are attacked by insect parasites or predators. Still other insects are linked to the ragweed by the microclimate or habitat it provides.

Lakela and Craighead (1965) have reported *A. hispida* Pursh. and *A. elatior* L. in the south Florida counties of Dade, Collier, and Monroe. Small (1933) listed the following ragweeds for Florida: *A. artemisiifolia* (synonym of *A. elatior*), *A. monophylla* (Walt.) Rydb., *A. glandulosa* Scheele, *A. rugelli* Rydb., and *A. trifida* L.

A. artemisiifolia is the only ragweed commonly found in south Florida. The size and form of the common ragweed vary with edaphic and climatic conditions. Also, certain insects may have a profound effect on the characteristic growth of the plant.

Heavy infestations of *Melanagromyza splendida* Frick (Diptera: Agromyzidae) are often characteristic of succulent ragweed stems growing at the edge of well fertilized farm crops. Under these conditions the ragweed stems may reach an inch in diameter, and the center may be completely destroyed with heavy infestations of the larvae of the fly. *Asphondylia* sp. (Diptera: Cecidomyiidae) produces occasional galls on ragweed

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plants found in open fields; however, in dense patches the plant may have as many as 14 galls per plant, even though adjacent plants are unattacked. The leaf miner, *Calycomyza ambrosiae* Frick (Diptera: Agromyzidae), was prevalent during July 1968 on leaves of ragweed seedlings shaded by larger plants or other vegetation.

Epiblema strenuana (Walker) (Lepidoptera: Olethreutidae) is a common miner of the lateral branches of mature ragweeds and characteristically produces fusiform galls in the larval stage. Another *Epiblema* sp. involved in the same complex bores into the main stem and sometimes may be found in the lateral stems without producing fusiform galls. It is commonly found in the fall season.

The section of this paper reporting collections of swept Diptera and Hymenoptera is not a true account of the existing populations found at the time of collections but is rather, a generalized sample of the insect visitors. The major portion of the insects reported in this paper is a comprehensive study of reared insect data accumulated over 10 years.

LEPIDOPTERA

AEGERIIDAE

Carmenta texana (Hy. Edw.). Det. H. W. Capps and C. P. Kimball.

Records: Five larvae and 1 reared adult, Hialeah, Fla. Two larvae and 1 pupa, Miami, Fla.

Dates collected: 1, 22, VIII 60, 26 VII 62, and 3 VIII 69.

Feeding habit: Root borer.

Hosts: Reared from *A. artemisiifolia*. Kimball (1965) reported that the larvae of this species are known from *Grindella* sp., *Eupatorium serotinum* Michx., fennel, and *Melanthera deltoidea* Michx.

Distribution: Florida coastal regions of Gulf of Mexico to Texas. MacKay 1968.

Comments: Symptoms of infestation in ragweed include frass exuding from the stem immediately above the ground surface.

ARCTIIDAE

Estigmene acrea (Drü.). Det. G. W. Dekle and C. E. Stegmaier, Jr.

Records: J. L. Weaver, Flamingo, Fla. Three larvae, Hialeah, Fla.

Dates collected: 27 II 60 and 12 V 69.

Feeding habit: A general feeder on native plants. Kimball (1965) reported the species to feed on watermelon, weeds, and corn in Florida. Hack (1935) stated that *E. acrea* feeds on *A. trifida* in Illinois.

Hosts: Native plants.

Distribution: United States and Canada.

Comments: The author has observed 3 larvae feeding on 1 plant in Hialeah, Fla.

GELECHIIDAE

Trichotaphe serrativitella (Zell.). Det. J. F. Gates Clarke.

Records: One reared adult, S. Nakahara, Medley, Fla.
Dates collected: 2 VII 61.
Feeding habit: Defoliator.
Hosts: *Ambrosia* sp.
Distribution: Gainesville, Fla., southward to Paradise Key (Kimball 1965).

GEOMETRIDAE

Synchlora frondaria denticularia (Wlk.). Det. D. C. Ferguson.
Records: One reared adult, Miami, Fla.
Dates collected: 2 VII 69.
Feeding habit: Defoliator.
Hosts: This species has been reported by Kimball (1965) on *Chrysanthemum* and blackberry. Ferguson (1969) reported the species from *Bidens* sp., *Stillingia* sp., and from *Pluchea odorata* Cass.
Distribution: Ferguson (1969) reports the species in Texas to North Carolina and south including Cuba, Bahamas, and Bermuda.

LYONETIDAE

Bucculatrix sp. Det. D. M. Weisman.
Records: One larva, Hialeah, Fla.
Dates collected: 12 V 69.
Feeding habit: Unknown.
Hosts: *Ambrosia* sp.
Distribution: Kimball (1965) reported the species from Quincy, Fla., southward.
Comments: *Bucculatrix ambrosiaella* Cham., and *B. agnella* Clem., are reported from ragweed by Forbes (1923) and Harris and Piper (1970).

NOCTUIDAE

Dipterygia patina (Harv.). Det. E. L. Todd.
Records: One reared adult, Hialeah, Fla.
Dates collected: 16 VI 69.
Feeding habit: Defoliator.
Hosts: Forbes (1954) cited a collection of Needham; he observed the species feeding on *Polygala cumilicola* Small.
Distribution: South Florida.
Comments: Kimball (1965) stated that this species may be confused with *Dipterygia* n. sp.

Ogdoconta cinereola (Gn.). Det. E. L. Todd and D. M. Weisman.
Records: Two larvae and 3 reared adults, Hialeah, Fla.
Dates collected: 15 IV, 10 V, and 6 VI 69.
Feeding habit: Defoliator.
Hosts: Artichoke, ragweed, sunflower and beans (Kimball 1965).
Distribution: Florida, Harris and Piper (1970) reported the species in

Ohio and Ontario. Forbes (1954) cites west to Minnesota, Nebraska and Texas.

Plagiomimicus pityochromus Grt.

Records: Unknown.

Dates collected: 3 IX 49.

Feeding habit: Defoliator.

Hosts: *A. trifida* (Kimball 1965).

Distribution: Forbes (1954) reports the species from New York to Colorado and Texas and south.

Platysenta apameoides (Gn.). Det. C. P. Kimball.

Records: Florida Department of Agriculture.

Dates collected: 8 IX 61.

Feeding habit: Defoliator.

Hosts: *Ambrosia* sp.

Distribution: Forbes (1954) reports the species from New Jersey south.

Platysenta concisa (Wlk.). Det. E. L. Todd.

Records: One reared adult, Hialeah, Fla.

Dates collected: 16 VI 69.

Feeding habit: Defoliator.

Hosts: *Bidens pilosa* L. (Kimball 1965).

Distribution: Very common south of Vero Beach, Fla.

Prodenia eridania (Cram.). Det. D. M. Weisman.

Records: One larva hand collected from *Ambrosia* sp., by M. J. Kuck, Sweetwater, Fla.

Dates collected: 18 IV 69.

Feeding habit: Defoliator and general feeder.

Hosts: Celery, sweet potatoes, tomatoes, grass, corn and castor beans (Kimball 1965).

Distribution: Forbes (1954) reports the species from Washington, D. C. southward.

Schinia marginata (Haw.). Det. C. P. Kimball.

Records: Unknown.

Dates collected: Unknown.

Feeding habit: Defoliator.

Hosts: *Ambrosia elatior* and *A. trifida* (Forbes 1954).

Distribution: Forbes (1954) reports the species from Quebec to Fla. and west to Colorado.

Tarachidia sp. Det. D. M. Weisman.

Records: One larva hand collected from ragweed, M. J. Kuck, Sweetwater, Fla. Nine larvae, swept, Hialeah, Fla.

Dates collected: 15 and 12 V 69.

Feeding habit: Defoliator.

Hosts: *Ambrosia* sp.

Distribution: South Florida.

Comments: *T. candefacta* (Hbn.) and *T. erastriodes* (Gn.) are listed by

Kimball (1965) in Florida. Harris and Piper (1970) reported rearings of *T. candefacta* from Ohio and Canada. The life history and morphology of *T. candefacta*, which has been introduced into the Soviet Union for biological control of *A. artemisiifolia*, has been described in detail by Kovalev and Runeva (1970). Forbes (1954) reports *T. erastriodes*, on *Ambrosia*, from Canada to Florida, west to Wisconsin and Texas. Forbes (1954) reports *T. candefacta* on *A. elatior*, from Quebec to Florida and west to California.

OLETHREUTIDAE

Epiblema strenuana (Wlk.). Det. C. P. Kimball, J. F. Gates Clarke, and H. W. Capps.

Records: One larva, R. T. McMillan, Winter Haven, Fla.; 1 larva, R. H. Miller, Monticello, Fla.; 1 larva, M. J. Kuck, Sweetwater, Fla.; 20 larvae, 3 pupae, and 4 reared adults, Miami, Fla.

Dates collected: 4 VIII 60, 16 VIII 61, 14 VII 65, and 15 IV 69.

Feeding habit: Stem borer. The species produces a fusiform swelling at the stem terminal and are on almost every stem terminal.

Hosts: *Ambrosia* sp.

Distribution: Florida, Kansas, Illinois, Ohio, and Canada.

Epiblema sp. not *strenuana*. Det. D. M. Weisman and H. W. Capps.

Records: Twenty larvae, 3 pupae, Miami, Fla.

Dates collected: 4 VIII 60 and 25 XI 69.

Feeding habit: Stem borer.

Hosts: *Ambrosia* sp.

Distribution: South Florida.

Comments: This species forms part of a complex of *E. strenuana*, for which the specific limits are not known (personal communication, J. F. Gates Clarke, 1960). The 2 species can be separated by their biology although the morphological differences are not yet clear. This species bores in the main stem and sometimes into the lateral branches of the ragweed but does not infest the stem terminals to produce the fusiform swellings characteristic of *E. strenuana*. Ragweed stems are more commonly infested in the fall season by this species.

PHYCITIDAE

Ephesiodes infimella Rag.

Records: Unknown. Kimball (1965) reports the data below.

Dates collected: Unknown.

Feeding habit: Seed-feeder.

Hosts: Wild cherry and seeds of *Ambrosia* sp.

Distribution: North Carolina, Arkansas, Texas, and Florida (Kimball 1965). Heinrich (1956) reports the distribution from Mass., south to Texas and Florida.

PTEROPHORIDAE

Adaina ambrosiae (Murt.).

Records: Unknown, reared by S. Nakahara, Medley, Fla.

Dates collected: VII 61.

Feeding habit: Unknown.

Hosts: *Ambrosia* sp.

Distribution: Quincy, Fla., southward to Siesta Key (Kimball 1965).
Forbes (1923) reports the species from Missouri and Illinois.

Oidaematophorus inquinatus Zell.

Records: Unknown, reported by Kimball (1965).

Dates collected: Unknown.

Feeding habit: Unknown.

Hosts: *A. artemisiifolia*.

Distribution: Ft. Meyers, Fla., southward to Everglades, Fla. (Kimball 1965). Forbes (1923) reports the distribution for the species from New York to Illinois, Iowa, California and south.

TISCHERIIDAE

Tischeria ambrosiaeella Cham. Det. C. P. Kimball.

Records: One reared adult, Hialeah, Fla.

Dates collected: 14 VIII 62.

Feeding habit: Leaf miner.

Hosts: *Ambrosia* spp. Hack (1935) reported the species from the giant ragweed, *A. trifida*.

Distribution: Florida and Illinois.

Comments: Kimball (1965), p. 296, item 9503, reported a rearing from stems and roots of *Ambrosia*, 14 VIII 62, by Stegmaier. The stems contained a few leaves one of which had been mined by a larva of *T. ambrosiaeella*. Hack (1935) reported that the species make blotch mines in the leaves of *A. trifida*, and pupation takes place in a circular, white cocoon between the leaf epidermis. Forbes (1923) reported the distribution of the species from Kentucky, Ohio and Missouri.

DIPTERA

AGROMYZIDAE

Calycomyza ambrosiae Frick. Det. K. A. Spencer.

Records: Several reared adults, Hialeah, Fla.; 500 pupae collected for shipment to USSR for biological control of the ragweed at Lenin-grad, collected in Miami, Fla.

Dates collected: 7 III 63 and VII 70.

Feeding habit: Leaf miner.

Hosts: *A. artemisiifolia* and *A. trifida*.

Distribution: Frick (1959) reported the species in Fla., Ind., and Tenn.

Calycomyza jucunda (van der Wulp). Det. K. A. Spencer.

Records: Several adults were reared by George Desin, Sanford, Fla., and by Dale H. Habeck, Quincy, Fla.
Dates collected: 21 I and 13 V 64.
Feeding habit: Leaf miner.
Hosts: Numerous plants in the family Compositae.
Distribution: Frick (1959) reported the species in Canada and throughout the United States.

Melanagromyza splendida Frick. Det. K. A. Spencer.
Records: Four females and 3 females, Hialeah, Fla.
Dates collected: 21 V 64 and 21 II 66. Very common in ragweed stems in spring.
Feeding habit: Stem borer.
Hosts: Spencer and Stegmaier (in press) report the following hosts: *Ambrosia*, *Bidens*, *Erechtites*, *Flaveria*, *Gnaphalium* and *Tagetes*.
Distribution: Florida, California, and Hawaii.

CECIDOMYIIDAE

Arthrocnodax sp. near *apiphilus* Felt. Det. R. J. Gagné.
Records: Thirty-one reared adults, Miami, Fla.
Dates collected: X 1970.
Feeding habit: Unknown. Dr. Gagné (pers. comm., Oct. 1970) reports that members of the genus *Arthrocnodax* are known to be predacious upon mites. In all cases, these reared cecidomyiids issued from ragweed seedheads confined to glass rearing containers. The biology of this species remains unknown.
Distribution: South Florida.

Asphondylia sp. Det. R. J. Gagné.
Records: 278 galls, Hialeah, Fla.
Dates collected: 11, 29 XI and 5, 19 XII 70.
Feeding habit: Forms bud-galls.
Hosts: *A. artemisiifolia*. Dr. Gagné (personal communication, Jan. 1971) reported that Professor S. W. Frost found the ragweed, *A. monophylla* (Walt.) Rydb., to have bud-galls similar to those found by the author. Prof. Frost discovered his *Asphondylia* infestation at Lake Placid, Fla.
Distribution: South Florida.
Comments: A single plant may have as many as 14 terminal bud galls. Infestations are somewhat limited to dense weedy areas. A high percentage of parasitism exists from hymenopterous wasps during November and December 1970. Four adults were reared from a total of 278 galls; 6 larvae may be found in one gall. If all the larvae grew to the adult form without being parasitized, the total amount of reared adults should number 1,668 instead of 4.

Rhopalomyia sp. Det. R. J. Gagné.
Records: Twelve reared adults, Hialeah, Fla.
Dates collected: 7 VI 66.

Feeding habit: Forms bud-galls.

Hosts: *Ambrosia* sp.

Distribution: South Florida.

TACHINIDAE

Hemisturmia tortricis (Coq.). Det. C. W. Sabrosky.

Records: One reared adult, Hialeah, Fla.

Dates collected: 6 VI 69.

Feeding habit: Parasite.

Hosts: *Ogdoconta cinereola*.

Distribution: Stone, Sabrosky, Wirth, Foote and Coulson (1965) report the species as follows: Mo.; B.C. to Vt., s. to Calif., Mexico, Miss., and N. J.

Lixophaga parva Tns. Det. C. W. Sabrosky.

Records: Four reared adults, Hialeah, Fla.

Dates collected: 6 and 22 VI 69.

Feeding habit: Parasite.

Hosts: *E. strenuana* and *O. cinereola*.

Distribution: Texas and Florida.

Lixophaga sp. Det. C. W. Sabrosky.

Records: One reared adult, Hialeah, Fla.

Dates collected: 6 VI 69.

Feeding habit: Parasite.

Hosts: *O. cinereola*.

Distribution: South Florida.

Winthemia sp. Det. C. W. Sabrosky.

Records: One reared adult, Hialeah, Fla.

Dates collected: 6 VI 69.

Hosts: *O. cinereola*.

Distribution: South Florida.

TEPHRITIDAE

Euaresta bella (Lw.). Det. C. E. Stegmaier, Jr.

Records: Three reared adults, Hialeah, Fla.

Dates collected: August 1969.

Feeding habit: Seed feeder.

Hosts: *A. artemisiifolia*, Foote (1965) and Novak, et. al. (1967).

Distribution: Throughout the United States.

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CHLOROPIDAE

Conioscinella flavescens (Tuck). Det. C. W. Sabrosky, Hialeah, Fla., 15 IV 69, 1 adult.

Ectecephala unicolor (Lw.). Det. C. W. Sabrosky, Hialeah, Fla., 15 IV 69, 1 adult.

Hippelates dissidens (Tuck). Det. C. W. Sabrosky, Hialeah, Fla., 15 IV 69, 1 adult.

Oscinella ovalis (Ad.). Det. C. W. Sabrosky, Hialeah, Fla., 12 V 69, 1 adult.

Parectecephala sp. Det. C. W. Sabrosky, Hialeah, Fla., 26 V 69, 4 adults.

Thaumatomyia pulla var. *punctum* (Beck). Det. C. W. Sabrosky, Hialeah, Fla., 15 IV and 12 V 69, two adults.

MILICHIIDAE

Desmometopa sp. Det. C. W. Sabrosky, Sweetwater, Fla., M. J. Kuck, 15 IV 69, 1 adult.

OTITIDAE

Chaetopsis debilis Lw. Det. G. W. Steyskal, Miami, Fla., 26 V 69, 2 adults.

Herina narytia (Walk.). Det. G. W. Steyskal, Hialeah, Fla., 15 IV 69, 1 adult.

Zacompsia fulva Coq. Det. G. W. Steyskal, Hialeah, Fla., 15 IV 69, 1 adult.

STRATIOMYIDAE

Odontomyia sp. Det. W. W. Wirth, Hialeah, Fla., 26 IV 69, 1 adult.

SCIOMYZIDAE

Dictya floridensis Stey. Det. L. V. Knutson, Hialeah, Fla., 16 IV 69, 1 adult.

TABANIDAE

Tabanus nigrovittatus Macq. Det. A. Stone, 15 IV 69, 3 adults.

TEPHRITIDAE

Tephritis subpura (Johns.). Det. G. W. Steyskal, Hialeah, Fla., 15 IV 69, 1 adult.

HYMENOPTERA

BRACONIDAE

Apanteles sp. Det. P. M. Marsh.

Records: One reared adult, Hialeah, Fla.

Dates collected: 12 V 69.

Feeding habit: Parasite.

Hosts: Pupa of *E. strenuana*.

Distribution: Florida.

Catolaccus aeneoviridis (Gir.). Det. P. M. Marsh.

Records: One reared adult, Hialeah, Fla.

Dates collected: 12 V 69.

Feeding habit: Parasite.

Hosts: Possibly *Apanteles* sp.

Distribution: Mass. to Fla., Texas, Utah, and Calif., north to Wisc.,
Muesebeck, Krombein, and Townes (1951).

Macrocentrus sp. Det. P. M. Marsh.

Records: Seven reared adults, Hialeah, Fla.

Dates collected: 12 VI 69.

Feeding habit: Parasite.

Hosts: Reared from *E. strenuana*.

Distribution: Florida.

CHALCIDAE

Spilochalcis flavopicta (Cress.). Det. B. D. Burks.

Records: One reared adult, Miami Springs, Fla.

Dates collected: 3 VII 69.

Feeding habit: Parasite.

Hosts: Reared from *E. strenuana*.

Distribution: N.Y. to Fla., Texas, Kansas, and Illinois, Colorado, New
Mexico, Arizona, California, and Oregon. Muesebeck, Krombein,
and Townes (1951).

EULOPHIDAE

Pediobius sexdentatus (Gir.). Det. B. D. Burks.

Records: Twenty-four reared adults, Miami, Fla., and 50 reared adults,
Hialeah, Fla.

Dates collected: 28 VII 60 and 22 VI 69.

Feeding habit: Parasite.

Hosts: Pupae of *E. strenuana*.

Distribution: Florida.

EUPELMIDAE

Eupelmus sp. Det. B. D. Burks.

Records: Two reared adults.

Dates collected: 26 VII 61 and 16 IV 69.

Feeding habit: Parasite.

Hosts: *E. strenuana*.

Distribution: Florida.

FORMICIDAE

Brachymyrmex sp. Det. D. R. Smith.

Records: Nine females, Miami, Fla., and 1 female, Hialeah, Fla.

Dates collected: 3, 5, and 12 VII 69.

Feeding habit: Unknown.

Hosts: Found associated with mealybug infestations on root of rag-
weed. One female was found in an old insect burrow of *E. stren-*
uana.

Distribution: Florida.

Brachymyrmex depilis Emery. Det. D. R. Smith.

Records: Several adults observed, Hialeah, Fla.

Dates collected: 9 VI 69.

Feeding habit: Unknown.

Hosts: These ants were collected from an association of aphids, *Macrosiphon ambrosiae* (Thomas) Det. H. A. Denmark.

Distribution: Krombein (1958) reported the species from California, Idaho, North Dakota and New Mexico. Muesebeck, Krombein, and Townes (1951) reported the species from Nova Scotia to Florida and west to South Dakota, British Colombia, and Washington.

Cardiocondyla wroughtoni var. *bimaculata* Wheeler. Det. D. R. Smith.

Records: Fifteen adults, Hialeah, Fla.

Dates collected: 10 VI and 30 IV 69.

Feeding habit: Unknown.

Hosts: Nests of the species were found in old infestations of *E. strenuana* in stems of ragweed.

Distribution: Muesebeck, Krombein, and Townes (1951) reported Florida and Formosa. Krombein (1958) reported Georgia.

Crematogaster atkinsoni Wheeler. Det. H. A. Denmark.

Records: Florida Department of Agriculture records, R. J. Nielson, Gainesville, Fla.

Dates collected: 21 IX 68.

Feeding habit: Tending aphids on ragweed rachis.

Hosts: Unknown.

Distribution: Muesebeck, Krombein, and Townes (1951) reported Virginia, North Carolina, Alabama, Mississippi, and Florida for the species.

Dorymyrmex pyramicus (Roger). Det. D. R. Smith.

Records: Numerous, Hialeah, Fla.

Dates collected: 9 VI 69.

Feeding habit: Found tending aphids, *M. ambrosiae*. Det. H. A. Denmark.

Hosts: Unknown.

Distribution: Muesebeck, Krombein, and Townes (1951) reported the species from New York to Idaho, south to South America; also from the West Indies and the Galapagos Islands.

Monomorium viridum peninsulatum Gregg. Det. D. R. Smith.

Records: Numerous, Hialeah, Fla.

Dates collected: 9 VI 69.

Feeding habit: Unknown. Found associated with the aphid *M. ambrosiae*. Det. H. A. Denmark.

Hosts: Unknown.

Distribution: Krombein and Burks (1967) report the species throughout the Gulf States to Arizona, including southern Colorado.

Paratrechina longicornis (Latr.). Det. D. R. Smith.

Records: Numerous, Hialeah, Fla.

Dates collected: 9 VI 69.

Feeding habit: Associated with the aphid, *M. ambrosiae*. Det. H. A. Denmark.

Hosts: Unknown.

Distribution: Muesebeck, Krombein, and Townes (1951) report the species from the Gulf and the Atlantic States. It is thought to be a native of India.

Pseudomyrmex pallidus (F. Smith). Det. D. R. Smith.

Records: Four colonies, Miami, Fla.

Dates collected: XI 1970.

Feeding habit; Unknown.

Hosts: Four complete colonies of *P. pallidus* were found in old sites of *E. strenuana* in stems of four plants.

Distribution: Unknown, except for south Florida.

Pseudomyrmex sp. Det. D. R. Smith.

Records: Two males, Hialeah, Fla.

Dates collected: 15 and 16 IV 69.

Feeding habit: Unknown, found in old infestations of *E. strenuana*.

Hosts: Unknown.

Distribution: Florida.

Solenopsis geminata (F.). Det. H. A. Denmark.

Records: Numerous, Hialeah, Fla.

Dates collected: Summer 1960 and summer 1961.

Feeding habit: Unknown.

Hosts: Found associated with the mealybug, *Phenacoccus solani* Ferris. Det. G. W. Dekle, on the roots of ragweed.

Distribution: Muesebeck, Krombein, and Townes (1951) report the species from Florida to Texas, West Indies, Mexico, Central and South America, Pacific Coastal Plain through Colombia, Ecuador and Peru.

ICHNEUMONIDAE

Phaeogenes walshiae australis (Cush.). Det. L. M. Walkley and R. W. Carlson. Records: Eight reared adults, Miami, Fla. One reared adult, Hialeah, Fla.

Dates collected: July 1965, 15 and 16 VI and 2 VII 69.

Feeding habit: Parasite.

Hosts: *E. strenuana*. L. M. Walkley (personal communication. Sept. 1966) stated that *P. w. australis* was reared from *Laspeyresia caryana* (Fitch), Albany, Georgia, and that Florida is a new locality record.

Distribution: Georgia and Florida.

PTEROMALIDAE

Lampoterma sp. Det. B. D. Burks.

Records: Two reared adults, Miami, Fla.

Dates collected: 29 VI and % VII 69.

Feeding habit: Parasite.

Hosts: *E. strenuana*.

Distribution: Florida.

HYMENOPTERA. SWEEP FROM *Ambrosia*

BETHYIDAE

- Anisepyrus aurichalens* (Westw.). Det. A. S. Menke, Miami, Fla., 5 VII 69,
2 females.
Goniozus sp. Det. A. S. Menke, Hialeah, Fla., 23 VI 68, 1 adult.

BRACONIDAE

- Cantharoctonus* sp. Det. P. M. Marsh, Hialeah, Fla., 12 V 69, 1 adult.
Bucculatriplex bucculatricis (Ashm.). Det. C. F. W. Muesebeck, Hialeah,
Fla., 1 III 66, 1 adult.
Orgilus sp. Det. P. M. Marsh, Hialeah, Fla., 15 IV 69, 1 adult.
Rogas sp. Det. P. M. Marsh, Miami, Fla., 26 V 69, 1 adult.
Zele sp. Det. P. M. Marsh, Miami, Fla., 10 V 69, 1 adult.

CHALCIDAE

- Ceratosmicra debilis* (Say). Det. B. D. Burks, Hialeah, Fla., 15 IV 69, 1
adult.
Spilochalis femorata (Fabr.). Det. B. D. Burks, Hialeah, Fla., 23 VI 69, 1
adult.

EULOPHIDAE

- Horismenus* sp. Det. B. D. Burks. Hialeah, Fla. 15 IV 69, 1 female.

ICHNEUMONIDAE

- Anomalon ejuncidum* Say. Det. R. W. Carlson, Miami, Fla., 10 V 69, 1
female.
Calliephialtes notandus (Cr.). Det. R. W. Carlson, Hialeah, Fla., 15 V 69,
1 female.
Diadegma pattoni (Ashm.). Det. R. W. Carlson, Miami, Fla., 10 V 69, 3
females.
Exetastes sp. Det. R. W. Carlson, Hialeah, Fla., 10 V 69, 1 female.
P. w. australis. Det. R. W. Carlson, 26 IV, 12 V, and 9 VI 69, 3 adults.
Temelucha sp. Det. R. W. Carlson, Hialeah, Fla., 9 VI and 10 V 69, 2
adults.

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