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An Annotated Host Catalog of the Fruit Flies of America North of Mexico (Diptera: Tephritidae)

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AN ANNOTATED HOST CATALOG OF THE FRUIT FLIES OF AMERICA NORTH OF MEXICO (DIPTERA: TEPHRITIDAE)

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INTRODUCTION

The Tephritidae is a rather large, diverse family of acalyptrate Diptera, characterized (with some exceptions) by the ornate wing patterns of the adults and by the uniformly phytophagous habit of the larvae which feed in developing or mature fruit, on developing seeds, as miners of the leaves and stems, or as gall makers in roots, stems, or flower buds.

Some of the species cause tremendous losses each year to agriculture through their attacks on various fruit, nut, and vegetable crops, but, despite the economic importance of the fruit flies, references to hosts and types of injury are scattered through the literature and not easily available.

The purpose of the present work is to bring together as much as possible of the scattered information on North American fruit fly hosts in a convenient catalog form. There has been no previous work of this sort for the Nearctic fauna so this must be considered a preliminary effort. Omissions can be expected, although an exhaustive effort has been made to include all significant host information both from the literature and from various unpublished sources.

ARRANGEMENT. The catalog is arranged in four sections. Section I treats fruit flies by host. Hosts are listed alphabetically. Following the first citation of the generic name of a host plant, a number is provided in parentheses which refers the reader to the family name of the host as listed in Section III. Fruit flies associated with a particular host are listed alphabetically, indented under the host name, and are followed by the author's name, the name of the authority for the record, date and page of the reference, an abbreviated statement on the site and nature of injury to the plant, the

state (in caps), and the specific locality, when available. In the case of previously unpublished records, the date and collector are also given when available. Unpublished records are referred by superscript numbers to appropriate sources given in Section IV.

The plant names applied are those in current general usage. When older names or synonyms appear in any of the references, they are cited as they appear and are cross indexed. In many instances, vernacular names appear in the literature. This is especially true in the case of various fruits. Insofar as possible, these have been correlated with a scientific name. Those for which no scientific name could be found have been placed at the end of the section.

Section II treats hosts by species of fruit fly. The classification used here follows closely that of R. H. Foote (1965) except that the genera are alphabetically arranged. This tends to obscure any relationships in host preference that might be apparent if more closely related genera were grouped together, but the affinities of the Nearctic genera and higher categories are not well understood (Foote, Op. cit., p. 658). Since a catalog serves its purpose best by providing rapid and simple retrieval of specific items of information, the utility of the present work is best served by a strictly alphabetical arrangement.

The host for a particular fruit fly is indented under the specific name of the fly and is followed by the authority for the record, with the date and page of the reference from which the record was taken. As in the case of plant names in the preceeding section, the orthography of the fruit fly name is given alphabetically as it was used. If it differs from current usage, it is cross indexed.

Section III is a numbered alphabetical listing of plant families and genera. The genera are arranged alphabetically under the family name and are followed by the genera of fruit flies known to attack them.

Section IV is a list of the sources of unpublished data.

SCOPE. The fruit flies and their hosts native to America north of Mexico are treated in this work. Species which periodically invade the United States from the south are also included as are those introduced into North America for the control of various weed pests. Two species, very important from an economic standpoint, *Ceratitis capitata* (Wiedemann), the Mediterranean Fruit Fly and *Dacus dorsalis* Hendel, the Oriental Fruit Fly, are not included. Both these species have been introduced into the United States a number of times but eradication attempts have been successful and they have not become established.

CONTENT. As Peck (1963: 9) has pointed out, catalogs cannot be authoritative compendia of facts, but, realistically, are

the result of an integration of fact, opinion, and error. For example, there is a wide range in the credibility of fruit fly host records taken from the literature. One author may give the name of the host plant, locality, date, part of the plant affected, and stage and number of specimens collected. Another may simply say "Host Plant" and give a name or listing of names. In this latter case, the cataloger may try to determine, from the context of the statement, which stage of the insect is affecting the plant, and what that effect is. Attempted interpretations of this nature are potential sources of error. Thus, when no indication is given by an author that a plant is being attacked by the immature stages of a fruit fly, the inclination has been to disregard the record.

Similarly, adult visitation records have not been included. There is no doubt that adult visitation records can indicate larval association with a host. Bush (1966) has shown that some species of *Rhagoletis* are intimately associated with their host plants as adults as well as immatures. Such intimate association is also indicated in the genera *Aciurina*, *Eurosta*, and very possibly others. Prokopy et al. (1971: 1405) have discussed briefly the significance of site of assembly for mating in several fruit flies. Many adult visitation records, however, will undoubtedly prove to be accidental on non-host plants. Thus, inclusion of such records would expand the volume of the present work greatly without a proportionate increase in meaningful information.

In some cases, observations of oviposition have been included. Records of this sort have more meaning than mere adult capture records. However, it must be pointed out that in most cases it is not stated whether the observation was made in the field or on caged material in the laboratory. This is an important distinction, as under laboratory conditions, fruit flies may oviposit in plant material that would not be accepted in the field.

ACKNOWLEDGEMENTS. A number of individuals have aided materially in making this catalog more complete and comprehensive than it could have been otherwise. Dr. R. H. Foote, Entomology Research Division, ARS, U.S. Department of Agriculture, Beltsville, Maryland, very kindly provided an extensive host list and has given much advice and encouragement during the preparatory stages of the work. Mr. G. C. Steyskal, U.S. National Museum, Washington, D.C., sent an extensive list of host data recorded from material he examined in several Oregon collections. Drs. G. Bush and M. Huettel, both University of Texas, Austin, read an early draft of the manuscript and made a number of valuable suggestions. Dr. Huettel was especially helpful in providing records and additional information on the genus *Procecidochares*. Mr. C. E. Stegmaier, Florida State Collection of Arthropods, Gainesville, critically read the manuscript and, in addition to his valuable comments and criticisms, provided a large number of previously unpublished

Florida records. Drs. K. and M. Tauber, Cornell University, Ithaca, New York, provided some literature citations previously overlooked and some unpublished California records. Mr. F. L. Blanc, California Department of Agriculture, provided literature references and some unpublished records from his extensive file of correspondence on fruit flies. Drs. T. C. Fuller, D. Barbe, and K. Wagnon, Botanists and Plant Pathologist, respectively, California Department of Agriculture, cheerfully undertook the task of checking the orthography, current usage, and spelling of the plant names as well as providing binomens for a number of vernacular plant names that I was unable to trace. Fruit fly determinations for many previously unpublished records were made by R. H. Foote and G. C. Steyskal. Host plant determinations for these records were made by T. C. Fuller and by systematic botanists of the Plant Science Research Division, ARS, U.S. Department of Agriculture, Beltsville, Maryland. Drs. F. G. Andrews and M. R. Gardner, Systematic Entomologists, California Department of Agriculture, undertook to read the penultimate draft of the manuscript and made a number of valuable suggestions which have been incorporated. Mr. G. T. Okumura, Chief, and Mr. G. M. Buxton, Program Supervisor, Laboratory Services, California Department of Agriculture, provided facilities, time and encouragement without which the project could not have been initiated. Finally, my special thanks to Miss Pamela J. Ringhoff upon whose shoulders fell the burden of much of the literature search and organization of data, as well as all the filing and typing. To each of those mentioned above, I owe a heavy debt of gratitude.

SECTION I. FRUIT FLY SPECIES BY HOST

Acacia sp. (23)

Anastrepha mombinpraeoptans Sein; Quayle, 1938: 243; Infestation (as *Anastrepha acidusa*).

Achillea millefolium var. *pacifica* (11)

Trupanea wheeleri Curran; C.D.A.[1]; Larvae in flower heads; CALIFORNIA: Laguna Mts., San Diego Co., VII-30-1963, E. D. Algert.

Achillea ptarmica

Tephritis angustipennis (Loew); Quisenberry, 1951: 67; "Host plant."

Achras zapota (37)

Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation. Wasbauer, 1964: 7; Food plant.

Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 6; Fruit heavily attacked under laboratory conditions; MEXICO. Hoidale, 1953: 560; Infestation. Christenson and Foote, 1960: 180; Reared.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Larval host (as *Anastrepha acidusa*). Stone, 1942a: 69; Reared experimentally. Aczel, 1949: 219; Infestations.

Anastrepha nigrifascia Stone; Stone, 1942a: 92; Larval food plant; FLORIDA.

Anastrepha ocresia (Walker); Foote, R. H., 1964a: 322; Reared; DOMINICAN REPUBLIC. Weems, 1968: 1; Reared; FLORIDA.

Anastrepha serpentina (Wiedemann); Strong, 1933: 8; Reared; BRAZIL: Rio de Janero; TRINIDAD. Costa Lima, 1934: 494; Infestation. Greene, 1934: 143; Reared. Aczel, 1949: 228; Infestation. Wasbauer, 1964: 7; Infestations; MEXICO.

Anastrepha striata Schiner; Aczel, 1949: 229; Infestation.

Anastrepha suspensa (Loew); Greene, 1934: 148; Reared. Anon., 1966: 556; Larval infestation; FLORIDA: Greater Miami. Anon., 1966: 683; Larval infestation; FLORIDA: Fort Lauderdale; Miami. Anon., 1967a: 1; Reared; FLORIDA: Miami.

Actinomeris sp. (11)

Neotephritis finalis (Loew); Phillips, 1946: 79; Reared from seed; TEXAS.

Actinospermum angustifolium (11)

Dioxyna picciola (Bigot); Benjamin, 1934: 42; Larvae feed in flowers [as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289 Infesting flower heads.

Trupanea actinobola (Loew); Benjamin, 1934: 57; Reared.

Actinospermum sp.
Trupanea actinobola (Loew); Malloch, 1942: 16; Larval food plant [as *Trypanea actinobola* (Loew)]. Foote, R. H. and Blanc, 1963: 93; Reared.

Ageratum houstonianum (11)
Xanthaciura tetraspina (Phillips); Benjamin, 1934: 46; Larval food plant; FLORIDA: Orlando. Aczel, 1952a: 277; Infestation; FLORIDA: Orlando.
Ageratum littorale
Trupanea ageratae Benjamin; Benjamin, 1934: 56; Larval food plant; FLORIDA: No Name Key.
Xanthaciura connexionis Benjamin; Benjamin, 1934: 45; Larvae feed in flowers; FLORIDA. Aczel, 1949: 254; Infestation.
Ageratum sp.
Xanthaciura connexionis Benjamin; Aczel, 1952a: 260; Infesting flowers; JAMAICA.
Xanthaciura insecta (Loew); Stegmaier, unpublished record;[2] Reared; FLORIDA: Hialeah, VI-11-1965, C. E. Stegmaier.

Agoseris grandiflora (11)
Paroxyna variabilis (Doane); Foote, R. H. and Blanc, 1963: 50; Reared; CALIFORNIA: San Andreas, Calaveras Co.

Ambrosia acanthicarpa (11)
Euaresta stigmatica Coquillett; Quisenberry, 1950: 34; Food plant (host as *Franseria acanthicarpa*). Foote, B. A., 1965: 106; Larval host.
Ambrosia artemisiaefolia
Callachna gibba (Loew); Webster, 1894: 38; Galls formed (as *Trypeta gibba* Loew). Howard, 1903: 139; Galls formed (as *Trypeta gibba*). Viereck, 1917: 453; Galls formed; CONNECTICUT (as *Trypeta gibbosa*). Aldrich, 1929: 13; Reared from galls; INDIANA: Lafayette.
Euaresta bella (Loew); Foote, B. A., 1965: 106; Oviposition in involucres resulting in destruction of flower. Larval development and pupation in seed; NORTHEASTERN OHIO.
Ambrosia chamissonis
Euaresta jonesi Curran; Foote, B. A., 1965: 106; Larval host. O.S.U.;[3] Reared (host as *Franseria chamissonis*).
Euarestoides acutangulus (Thomson); Piper, G. L., 1971; Larval feeding. O.S.U.;[3] Reared (host as *Franseria chamissonis*).
Tephritis candidipennis Foote; O.S.U.;[3] Reared (host as *Franseria chamissonis*).
Ambrosia chamissonis ssp. *bipinnatisecta*
Euarestoides acutangulus (Thomson); Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: Pismo Beach, San Luis Obispo Co. (host as *Franseria chamissonis* ssp. *bipinnatisecta*).
Ambrosia chenopodiifolia
Euaresta bellula Snow; Foote, R. H. and Blanc, 1963: 20;

Reared; CALIFORNIA: San Ysidro, San Diego Co. (host as *Franseria chenopodiifolia*). Foote, B. A., 1965: 106; Larval host.

Euarestoides acutangulus (Thomson); Foote, R. H. and Blanc, 1963: 25; Reared; CALIFORNIA: San Ysidro, San Diego Co. (host as *Franseria chenopodiifolia*).

Ambrosia dumosa

Procecidochares stonei Blanc and Foote; C.D.A.;[1] Reared from stem galls; CALIFORNIA: 5 mi. E. Jacumba, San Diego Co., II-23-1966, E. D. Algert.

Ambrosia festiva (!) - see *Ambrosia trifida*.

Ambrosia psilostachya

Callachna gibba (Loew); Foote, R. H., host list;[5] Reared.

Eutreta pacifica Curran; C.D.A.;[1] Larvae and pupae in crown; CALIFORNIA: Ojai, Ventura Co., I-22-1964, Parequin.

Ambrosia trifida

Callachna gibba (Loew); Cook, M. T., 1907: 11; Gall, oblong swelling of stem, probably terminal; INDIANA (as *Oedaspis gibba*).

Euaresta festiva (Loew); Foote, B. A., 1965: 106; Oviposition within ovary near developing seed. Larval development and pupation within one seed; NORTHEASTERN OHIO [host as *Ambrosia festiva* (!)].

Strauzia longipennis var. *perfecta* (Loew); Novak et al., 1967: 148; Reared from larvae in stems; OHIO.

Ambrosia sp.

Callachna gibba (Loew); Osten Sacken, 1880: 53; Reared from galls, oblong swellings of stem, probably terminal (as *Trypeta gibba* Loew). Riley and Howard, 1890: 349; Gall formed; INDIANA: Lafayette (as *Trypeta gibba* Loew). Cook, M. T., 1907: 11; Gall, an oblong swelling of stem, probably terminal; TEXAS: Dallas (as *Oedaspis gibba*). Aldrich, 1929: 13; Reared from aggregated gall; MISSOURI: Kirkwood.

Euaresta jonesi Curran; Quisenberry, 1950: 28; Food plant (host as *Franseria* sp.).

Eutreta pacifica Curran; Foote, R. H. and Blanc, 1963: 31; Reared; CALIFORNIA: San Francisco, San Francisco Co.; San Ysidro, San Diego Co.

Procecidochares minuta (Snow); Foote, R. H. and Blanc, 1963: 53; Reared; CALIFORNIA: Palm Springs, Riverside Co. (host as *Franseria* sp.).

Amelanchier bartramiana (33)

Rhagoletis pomonella (Walsh); Lathrop and McAlister, 1931: 3; Oviposition in ripe fruit. Larvae feed in pulp. When mature, larvae drop to ground and overwinter in soil as puparia; MAINE. Lathrop and Nickels, 1931: 269; Larval infestation; MAINE. Lathrop and Nickels, 1932: 6; Larvae only; MAINE: Cherryfield.

Amelanchier spicata

Rhagoletis pomonella (Walsh); Phipps, 1931: 132; "host".

Amelanchier sp.
Aciurina maculata (Cole); Cole and Lovett, 1919: 252; Reared from larvae in fruit; OREGON: Medford (as *Aciura maculata* Cole). This record is highly questionable as all other records indicate the species is an oligophagous gall maker on the stems of *Chrysothamnus* spp. Bates, 1935: 109, states: "the record 'from fruits of *Amelanchier*' is surely an error, as the fruit feeding habit is quite unknown in the section of Trypetidae to which these species belong."
Rhagoletis pomonella (Walsh); Lathrop, 1952: 9; Infested; MAINE.

Amygdalus persica - see *Prunus persica*.

Anacardium occidentale (1)
Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Larval food plant. Aczel, 1949: 219; Infestation.

Anaphalis margaritacea (11)
Trupanea californica Malloch; O.S.U.;[3] Reared.
Anaphalis sp.
Trupanea californica Malloch; Foote, R. H. and Blanc, 1963: 78; Reared; CALIFORNIA: San Francisco, San Francisco Co.
Trupanea signata Foote; Foote, R. H., 1960d: 23; Reared; CALIFORNIA: San Francisco, San Francisco Co.

Angelica atropurpurea (41)
Euleia fratria (Loew); Foote, R. H., host list;[5] Reared.

Annona cherimola (2)
Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Larval food plant. Costa Lima, 1934: 548; Infestation. Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infested.
Anastrepha ludens (Loew); Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infested.
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infestations.
Anastrepha suspensa (Loew); McAlister, 1936: 442; Attacking fruits.
Annona glabra
Anastrepha distincta Greene; Stone, 1942a: 107; Reared experimentally.
Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Reared experimentally. Aczel, 1949: 211; Infestation.
Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Reared experimentally. Aczel, 1949: 219; Infestation.
Anastrepha serpentina (Wiedemann); Stone, 1942a: 28; Reared experimentally. Shaw, 1947: 34; Reared experimentally. Aczel, 1949: 228; Infestation.
Annona hayesii
Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Reared experimentally. Aczel, 1949: 219; Infestation.

Annona humboldtiana

Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Larval food plant. Greene, 1929: 496; "Host"; PANAMA: Panama City. Costa Lima, 1934: 548; Infested.

Annona muricata

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Annona reticulata

Anastrepha ludens (Loew); Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infestation.

Anastrepha suspensa (Loew); Stone, 1942a: 74; Larval food plant. Aczel, 1949: 230; Infestation. Anon., 1967a: 1; Infested in laboratory; FLORIDA.

Annona squamosa

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Anastrepha suspensa (Loew); Anon., 1967a: 1; Reared; FLORIDA: Miami.

Annona spp.

Anastrepha ludens (Loew); Christenson and Foote, 1960: 180; Reared.

Aplopappus pinifolius - see *Haplopappus pinifolius*.

Aplopappus venatus - see *Haplopappus venetus*.

Arnica alpina (11)

Trypeta angustigena Foote; Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.

Arnica chamissonis

Trypeta angustigena Foote; Frick, 1971b: 6; Leaf miners in laboratory garden. Oviposition in basal, mature leaves, even those starting to yellow; CALIFORNIA: Albany, Alameda Co.

Arnica chamissonis ssp. *foliosa*

Euarestoides acutangulus (Thomson); Foote, R. H. and Blanc, 1963: 25; Reared; CALIFORNIA: Toad Lake, 7 mi. N. Bartle, Siskiyou Co.

Tephritis araneosa (Coquillett); Quisenberry, 1951: 66; Reared.

Tephritis candidipennis Foote; Quisenberry, 1951: 66; Reared [as *Tephritis araneosa* (Coquillett)].

Tephritis stigmatica (Coquillett); O.S.U.;[3] Reared.

Trupanea jonesi Curran; O.S.U.;[3] Reared.

Arnica chamissonis ssp. *jepsoniana*

Trypeta angustigena Foote; Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.

Arnica diversifolia

Trupanea jonesi Curran; Novak et al., 1967: 148; Reared from flower heads; IDAHO; MONTANA.

Arnica latifolia

Trupanea bisetosa (Coquillett); Novak et al., 1967: 147; Reared from flower heads; MONTANA.

Arnica montana

Trypeta angustigena Foote; Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.

Aronia arbutifolia (33)

Rhagoletis pomonella (Walsh); Benjamin, 1934: 15; Larval food plant; NORTHERN FLORIDA.

Aronia melanocarpa

Rhagoletis pomonella (Walsh); Lathrop and McAlister, 1931: 3; Oviposition in ripe fruit. Larvae feed in pulp. When mature, larvae drop to ground and overwinter in soil as puparia; MAINE. Lathrop and Nickels, 1931: 269; Larval infestation; MAINE. Phipps, 1931: 132; Infestation (host as *Pyrus melanocarpa*). Lathrop and Nickels, 1932: 6; Larvae only; MAINE: Cherryfield. Lathrop, 1952: 9; Infested; MAINE (host as *Pyrus melanocarpa*).

Artemisia arbuscula (11)

Eutreta diana (Osten Sacken); Fronk et al., 1964: 577; Galls formed; WYOMING.

Artemisia arbuscula ssp. *nova*

Metatephritis fenestrata Foote; Fronk et al., 1964: 575; Galls on vegetative tip of new growth. One-celled, very hard when mature, 10mm X 5mm; WYOMING (host as *Artemisia nova*).

Artemisia cana

Eutreta diana (Osten Sacken); Fronk et al., 1964: 575; Galls similar to others on *Artemisia*, but with much thinner walls; WYOMING.

Artemisia douglasiana

Trypeta angustigena Foote; Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.

Artemisia dracunculus

Tephritis araneosa (Coquillett); Quisenberry, 1951: 66; Reared (host as *Artemisia dracunculoides*).

Artemisia nova - see *Artemisia arbuscula* ssp. *nova*.

Artemisia tridentata

Aciurina trixa Curran; U.C.R.;[6] Reared from gall; CALIFORNIA: Wyman Canyon, Inyo Co., IV-9-1970, S. Frommer.

Eutreta diana (Osten Sacken); Osten Sacken, 1877: 347; Reared from gall [as *Trypeta (Eutreta) diana*]. Townsend, 1893a:

13; Larvae in gall; MISSOURI. Doane, 1899: 184; Reared from galls; WASHINGTON. Fronk et al., 1964: 577; Galls similar to those of *Metatephritis fenestrata*, 17mm X 9mm; WYOMING. C.D.A.;[1] Reared from stem galls; CALIFORNIA: Denio, Humboldt Co., V-29-1960, T. R. Haig; Hallelujah Jct., Lassen Co., V-28-1963, F. L. Blanc; WASHINGTON: Omak, V-22-1965, M. Wasbauer. O.S.U.;[3] Reared.

Eutreta oregona Curran; Foote, R. H. and Blanc, 1963: 30; Reared; CALIFORNIA: Hallelujah Jct., Lassen Co.

Metatephritis fenestrata Foote; Foote, R. H., 1960c: 111; In gall; WYOMING: Boudrant.

Orellia undosa (Coquillett); Cole, 1969: 355; Reared; CALIFORNIA: Yreka.

Oxyna palpalis (Coquillett); Novak et al., 1967: 147; Larvae form small, succulent, polythalamous galls, usually five to seven mature larvae in each gall. Reared; IDAHO.

Artemisia tripartita

Eutreta diana (Osten Sacken); Fronk et al., 1964: 577; Galls formed; WYOMING.

Artemisia viscidula

Eutreta diana (Osten Sacken); Fronk et al., 1964: 577; Galls formed; WYOMING.

Artemisia sp.

Aciurina semilucida (Bates); O.D.A.;[7] "Sage galls."

Aciurina trixa Curran; Foote, R. H. and Blanc, 1963: 11; Reared; CALIFORNIA: Barstow, San Bernardino Co.

Eutreta diana (Osten Sacken); Snow, 1894: 168; Reared; NEVADA: Reno.

Eutreta diana var. *tricolor* Snow; Foote, R. H., 1962: 178; Gall 3/4 in. X 1/2 in. on same pin with wings of male type specimen.

Eutreta jonesi Curran; Foote, R. H., host list;[5] Reared.

Orellia undosa (Coquillett); O.S.U.;[3] "Sage galls."

Aster acutisquamosus (11)

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA (host as *Sericocarpus acutisquamosus*).

Neaspilota punctistigma Benjamin; Benjamin, 1934: 39; Larvae feed singly in flowers; FLORIDA (host as *Sericocarpus acutisquamosus*).

Aster adnatus

Trupanea actinobola (Loew); Benjamin, 1934: 57; Reared. Foote, R. H., 1960d: 25; Larvae in flowers; FLORIDA.

Aster bifoliatus

Neaspilota punctistigma Benjamin; Benjamin, 1934: 39; Larvae feed singly in flowers; FLORIDA (host as *Sericocarpus bifoliatus*).

Aster canescens

Tephritis stigmatica (Coquillett); Novak et al., 1967: 148; Reared from flower heads; IDAHO; MONTANA.

Aster carolinianus

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA.

Trupanea actinobola (Loew); Benjamin, 1934: 57; Reared.

Aster concolor

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA.

Aster Douglassi - see *Aster subspicatus*.

Aster foliaceus var. *parryi*

Trupanea jonesi Curran; Novak et al., 1967: 148; Reared from flower heads; IDAHO; MONTANA.

Aster laevis

Eutreta sparsa (Wiedemann); Novak et al., 1967: 147; Stem-dwelling larvae usually form small galls. Reared; OHIO.

Paroxyna albiceps (Loew); Novak et al., 1967: 147; Reared from flower heads; OHIO. Novak and Foote, 1968: 108; Eggs deposited among disk florets of flower heads. Larvae feed on maturing achenes and pupate in soil; NORTHEASTERN OHIO.

Aster novae-angliae

Paroxyna albiceps (Loew); Novak et al., 1967: 147; Reared from flower heads; OHIO. Novak and Foote, 1968: 108; Eggs deposited among disk florets of flower heads. Larvae feed on maturing achenes and pupate in soil; NORTHEASTERN OHIO.

Aster occidentalis var. *intermedius*

Tephritis angustipennis (Loew); Foote, R. H., host list;[5] Reared.

Aster pilosus

Paroxyna albiceps (Loew); Novak et al., 1967: 147; Reared from flower heads; OHIO. Novak and Foote, 1968: 108; Eggs deposited among disk florets of flower heads. Larvae feed on maturing achenes and pupate in soil; NORTHEASTERN OHIO.

Aster praeltus

Paroxyna albiceps (Loew); Novak et al., 1967: 147; Reared from flower heads; OHIO. Novak and Foote, 1968: 108; Eggs deposited among disk florets of flower heads. Larvae feed on maturing achenes and pupate in soil; NORTHEASTERN OHIO.

Aster puniceus

Paroxyna albiceps (Loew); Novak et al., 1967: 147; Reared from flower heads; OHIO. Novak and Foote, 1968: 108; Eggs deposited among disk florets of flower heads. Larvae feed on maturing achenes and pupate in soil; NORTHEASTERN OHIO.

Aster simmondsii

Dioxyna picciola (Bigot); Foote, R. H., host list;[5] Reared.

Trupanea actinobola (Loew); Stegmaier, 1968b: 49; Reared; FLORIDA: Hialeah.

Aster simplex

Eutreta frontalis Curran; Novak et al., 1967: 147; Reared from young shoots; OHIO.

Aster spinosus

Neaspilota brunneostigmata Doane; Foote, R. H. and Blanc, 1963: 34; Reared; CALIFORNIA: San Ysidro, San Diego Co.

Neotephritis finalis (Loew); Foote, R. H. and Blanc, 1963: 94; Reared.

Trupanea femoralis (Thomson); Foote, R. H., 1960d: 8; Larvae from flowers; CALIFORNIA.

Trupanea wheeleri Curran; Foote, R. H., 1960d: 15; Larvae from flowers; CALIFORNIA.

Aster subspicatus

Trupanea jonesi Curran; Curran, 1932a: 7; Reared; OREGON: Corvallis (as *Trypanea jonesi* Curran) (host as *Aster Douglassi*). O.S.U.;[3] Reared (host as *Aster douglassi*).

Aster sp.

Eurosta solidaginis (Fitch); Harris, 1841: 417; Swellings or galls as large as walnuts. Eggs laid singly followed by spongy swelling wherein maggot lives. Adult emerges through small hole made in gall by maggot (as *Tephritis asteris*). Although originally reported as forming galls on "native asters or starworts", this species is not known to attack hosts other than *Solidago*.

Procecidochares atra (Loew); Aldrich, 1929: 8; Galls which deform stem and dwarf plant; VIRGINIA. This is a questionable host for *Procecidochares atra* which is believed to be restricted to *Solidago* spp.; teste G. L. Bush, correspondence with author, June 25, 1971.

Procecidochares minuta (Snow); Foote, R. H. and Blanc, 1963: 94; Reared.

Tomoplagia obliqua (Say); Beach, 1895: 94; Gall; IOWA (as *Trypeta obliqua* Say).

Trupanea actinobola (Loew); Malloch, 1942: 16; Food plant.

Trupanea jonesi Curran; O.S.U.;[3] Reared.

Averrhoa carambola (30)

Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Larval food plant. Aczel, 1949: 219; Infestation.

Anastrepha suspensa (Loew); Anon., 1967a: 1; Reared; FLORIDA: Miami.

Baccharis emoryi (11)

Aciurina thoracica Curran; C.D.A.;[1] Reared from galls; CALIFORNIA: Otay, San Diego Co., II-8-1962, E. D. Algert.

Tephritis californica Doane; C.D.A.;[1] Reared; CALIFORNIA: Fallbrook, San Diego Co., X-17-1962, E. D. Algert, XI-22-1962, E. D. Algert; Reared, twig tip mines; CALIFORNIA: Fallbrook, San Diego Co., V-15-1964, E. D. Algert.

Baccharis glomeruliflora

Tephritis subpura (Johnson); Benjamin, 1934: 59; Larvae feed in tender growing stems, tunneling out as much as 1 in. of stem and usually forming slight swellings; FLORIDA [as *Trupanea (Tephritoides) subpura* (Johnson)].

Baccharis glutinosa

Eutreta baccharis (Coquillett); Foote, R. H. and Blanc, 1963: 28; Reared; CALIFORNIA: Big Tujunga, Los Angeles Co.

Trupanea nigricornis (Coquillett); Foote, R. H. and Blanc, 1963: 94; Reared.

Baccharis halimifolia

Tephritis subpura (Johnson); Foote, R. H., host list;[5] Reared.

Baccharis pilularis

Aciurina thoracica Curran; Tilden, 1951: 170; In galls.

Tephritis spp.; Tilden, 1951: 170; In galls.

Baccharis pilularis ssp. *consanguinea*

Tephritis arizonaensis Quisenberry; Foote, R. H., host list;[5] Reared.

Tephritis californica Doane; Foote, R. H. and Blanc, 1963: 67; Reared; CALIFORNIA: 2 mi. S.E. Crockett, Contra Costa Co.

Baccharis sarothroides

Aciurina thoracica Curran; Foote, R. H. and Blanc, 1963: 10; Reared; CALIFORNIA: Otay, San Diego Co.

Tephritis arizonaensis Quisenberry; Foote, R. H., 1960a: 76; Terminal gall; ARIZONA: Tucson. C.D.A.;[1] Stem tip galls; CALIFORNIA: Otay, San Diego Co., VII-11-1960, E. D. Algert.

Baccharis viminea

Euarestoides flavus (Adams); C.D.A.;[1] Reared; CALIFORNIA: Fallbrook, San Diego Co., VI-21-1962, E. D. Algert, IV-27-1963, E. D. Algert.

Eutreta baccharis (Coquillett); Coquillett, 1894: 73; Irregular oval galls 12mm X 4mm on tender twigs; SOUTHERN CALIFORNIA [as *Trypeta (Tephritis) baccharis* Coquillett]. Aldrich, 1907: 6; Gall (as *Tephritis baccharis* Coquillett). C.D.A.;[1] Reared from galls; CALIFORNIA: San Ysidro, San Diego Co., XI-23-1962, E. D. Algert.

Baccharis sp.

Aciurina thoracica Curran; Foote, R. H. and Blanc, 1963: 9; Stem gall; CALIFORNIA: Alameda, Alameda Co.

Eutreta baccharis (Coquillett); Essig, 1958: 604; Larvae in irregular oval galls 12mm long on tender stems; SOUTHERN CALIFORNIA (as *Trypeta baccharis* Coquillett).

Balsamorhiza sagittata (11)

Neotephritis finalis (Loew); Hyslop, 1912: 101; Reared from larvae and pupae in flower heads. One larva per seed capsule averaging six per floral head; WASHINGTON: Pullman (as *Tephritis finalis*). Novak et al., 1967: 148; Reared from flower heads; MONTANA. O.S.U.;[3] Reared.

Trupanea radifera (Coquillett); Novak et al., 1967: 148; Reared from flower heads; MONTANA.

Balsamorhiza sp.

Neotephritis finalis (Loew); Foote, R. H. and Blanc, 1963: 36; Reared; CALIFORNIA: Lakeside, San Diego Co.; Livermore, Alameda Co. Cole, 1969: 355; Larvae in roots, WASHINGTON.

Batodendron arboreum - see *Vaccinium arboreum*.

Bebbia juncea (11)

Trupanea imperfecta (Coquillett); Foote, R. H. and Blanc, 1963: 81; Reared; CALIFORNIA: Otay, San Diego Co.
Trupanea pseudovicina Hering; C.D.A.;[1] Reared from larvae in flower heads; CALIFORNIA: Dulzura, San Diego Co., V-30-1962, E. D. Algert.

Berberis nervosa (5)
Rhagoletis berberis Curran; Curran, 1932b: 9; Reared; OREGON: Hood River. Jones, 1942: 44; Reared; OREGON: Hood River. Phillips, 1946: 61; Reared from berries; OREGON: Hood River. O.S.U.;[3] Reared.

Bidens aristosa (11)
Dioxyna picciola (Bigot); Novak et al., 1967: 147; Reared from flower heads; OHIO.
Icterica seriata (Loew); Foote, B. A., 1967: 1298; Reared from flower heads; OHIO: Portage Co.
Bidens bipinnata
Dioxyna picciola (Bigot); Benjamin, 1934: 42; Larvae feed in flowers [as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289; Infesting flower heads (as *Paroxyna picciola*).
Dioxyna thomae (Curran); Benjamin, 1934: 41; Reared from flowers; FLORIDA: Orlando; Oviedo; Crystal River [as *Paroxyna thomae* (Curran)].
Bidens cernua
Dioxyna picciola (Bigot); Novak et al., 1967: 147; Reared from flower heads; OHIO.
Icterica cirsinata (Loew); Foote, B. A., 1967: 1296; Reared from flower heads; OHIO.
Bidens coronata
Icterica seriata (Loew); Foote, B. A., 1967: 1298; Reared from flower heads; OHIO.
Xanthaciura insecta (Loew); Aczel, 1952a: 266; Infestation; FLORIDA: Orlando.
Bidens frondosa
Icterica seriata (Loew); Foote, B. A., 1967: 1298; Reared from flower heads; OHIO.
Bidens laevis
Dioxyna picciola (Bigot); Benjamin, 1934: 42; Larvae feed in flowers [as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289; Infesting flower heads. Stegmaier, unpublished record;[8] Reared; FLORIDA: Gainesville, XII-29-1964, D. H. Habeck.
Xanthaciura insecta (Loew); Aczel, 1952a: 266; Infestation; FLORIDA: Boggy Creek. Stegmaier, unpublished record;[8] Reared; FLORIDA: Gainesville, XII-29-1964, D. H. Habeck.
Bidens leucantha
Dioxyna picciola (Bigot); Benjamin, 1934: 42; Larvae feed in flowers [as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289; Infesting flower heads (as *Paroxyna picciola*).
Xanthaciura connexionis Benjamin; Foote, R. H., host list;[5]

Reared.

Xanthaciura insecta (Loew); Benjamin, 1934: 45; Larvae feed in flowers; FLORIDA. Aczel, 1949: 255; Infestation. Aczel, 1952a: 266; Infested; FLORIDA: Apopka; East Lake; Orlando.

Bidens mitis

Dioxyna picciola (Bigot); Stegmaier, unpublished record;[8] Reared; FLORIDA: Gainesville, XII-22-1964, D. H. Habeck.

Xanthaciura insecta (Loew); Stegmaier, unpublished record;[8] Reared; FLORIDA: Gainesville, XII-22-1964, D. H. Habeck.

Bidens nashii

Xanthaciura insecta (Loew); Aczel, 1952a: 266; Infestation; FLORIDA: Ocala.

Bidens pilosa

Dioxyna picciola (Bigot); Needham, 1946: 344; Eggs laid far down between corolla bases of young florets. Larvae infest flower heads feeding on seeds (as *Paroxyna picciola*). Needham, 1948: 444; Larva does not feed on corolla but bores directly down into seed and eats it hollow, damaging adjacent seeds. One to four per head. Pupation in head (as *Paroxyna picciola*). Stegmaier, unpublished record;[2] Reared from seed head; FLORIDA: Hialeah, X-1959, C. E. Stegmaier; Miami Beach, X-15-1959, C. E. Stegmaier.

Paroxyna sp.; C.D.A.;[1] Reared from larvae in flower heads; CALIFORNIA: San Ysidro, San Diego Co., VIII-1-1960, E. D. Algert.

Xanthaciura insecta (Loew); Needham, 1946: 343; Larva enters corolla, bores downward into and through seed, and laterally into adjacent seeds. Fastens a number of withered corollas at top and flower scales at sides. Needham, 1948: 444; Larva tunnels down into seed and consumes it, then moves laterally to attack other seeds. Generally one larva per head. Forms pupal chamber at center of head capped with withered corollas. Stegmaier, unpublished record;[2] Reared from seed head; FLORIDA: Miami Beach, X-15-1959, C. E. Stegmaier.

Bidens pilosa var. *radiata*

Dioxyna picciola (Bigot); Steyskal, 1972: 87; Reared from flower heads; FLORIDA: Dunedin.

Xanthaciura insecta (Loew); Steyskal, 1972: 87; Reared from flower heads; FLORIDA: Dunedin.

Bidens tripartita

Dioxyna picciola (Bigot); Novak et al., 1967: 147; Reared from flower heads; OHIO.

Icterica seriata (Loew); Foote, B. A., 1967: 1298; Reared from flower heads; OHIO.

Bidens sp.

Dioxyna picciola (Bigot); Bates, 1933: 167; Larvae in flower heads; CUBA (as *Ensina picciola*).

Xanthaciura insecta (Loew); Foote, R. H., host list;[5] Reared.

Bigelovia chrysothamnus - see *Chrysothamnus* sp.

Bigelovia graveolens - see *Chrysothamnus nauseosus* ssp. *albicaulis*.
Bigelovia sp. - see *Chrysothamnus* sp.

Borrichia frutescens (11)
Cecidocharella borrichia Bush and Huettel; Bush and Huettel, 1970: 91; Infest flower heads. Larvae feed on seed. Pupae overwinter in dried flower heads; TEXAS: Port Isabel, Cameron Co.
Paracantha cultaris (Coquillett); Aczel, 1952b: 230; Reared; FLORIDA: Boca Ciega.
Paracantha forficula Benjamin; Benjamin, 1934: 31; Larvae feed in soft fleshy bases of flower; FLORIDA: Boca Ciega; Cocoa Beach; Jasmine Pt.; Key Largo; Merritt Island; Miami Beach; Naples. Aczel, 1952b: 230; Infestation; FLORIDA: Boca Ciega; Cocoa Beach. Stegmaier, 1967b: 157; Larvae usually feed singly in central portion of flower head. Pupation occurs within seed head. Infestation characterized by dark reddish-brown coloration approximately 1/4 in. diameter, usually on immature seed head; FLORIDA: Dodge Island, Miami; Virginia Key, Miami. Bush and Huettel, 1970: 91; Reared from flower heads; TEXAS: Port Isabel, Cameron Co.
Urophora sp.; Bush and Huettel, 1970: 91; Reared from flower heads. Larvae and pupae formed within single seeds; TEXAS: Port Isabel, Cameron Co.

Brikellia arguta (11)
Procecidochares minuta (Snow); C.D.A.;[1] Larvae in flower heads; CALIFORNIA: 5 mi. E. Jacumba, San Diego Co., V-7-1964, E. D. Algert.
Trupanea nigricornis (Coquillett); C.D.A.;[1] Larvae in flower heads; CALIFORNIA: 5 mi. E. Jacumba, San Diego Co., V-7-1964, E. D. Algert.
Brikellia sp.
Procecidochares flavipes Aldrich; Huettel, unpublished record;[9] Reared; MEXICO: Cuernavaca, Morelos, IV-1945, N. Krauss.

Britoa acida (27)
Anastrepha suspensa (Loew); Anon., 1967a: 1; Reared.

Bumelia angustifolia (37)
Pseudodacus pallens (Coquillett); Greene, 1934: 154; Reared from berries.
Bumelia laetevirens
Anastrepha serpentina (Wiedemann); Shaw, 1947: 34; Infested. Weems, 1969b: 1; Larval host.
Bumelia lanuginosa
Pseudodacus pallens (Coquillett); Foote, R. H., host list;[5] Reared.
Bumelia spiniflora
Pseudodacus pallens (Coquillett); McPhail and Berry, 1936: 406; Reared from larvae in seed; TEXAS: Lower Rio Grande

Valley. Stone, 1939a: 284; Infested. Aczel, 1949: 238; Infested.

Cacalia suaveolens (11)
Trypeta angustigena Foote; Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.

Callistephus chinensis (11)
Eutreta pacifica Curran; Foote, R. H. and Blanc, 1963: 31; Reared from galls; CALIFORNIA: Riverside, Riverside Co.

Calocarpum mammosum (37)
Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Larval food plant. Aczel, 1949: 219; Infestation.
Anastrepha serpentina (Wiedemann); Emmart, 1933: 184; Preferred host; MEXICO: Morelos. Stone, 1942a: 28; Larval Food plant. Shaw, 1947: 34; Infestations; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Aczel, 1949: 228; Infestation. Bush, 1962: 95; Reared; MEXICO: Monte Blanco, Veracruz.
Calocarpum sapota
Anastrepha ludens (Loew); Emmart, 1935: 120; Infested. Quayle, 1938: 240; Infested. Mena, 1965: 13; Infested; EL SALVADOR.
Anastrepha serpentina (Wiedemann); Weems, 1969b: 1; Larval host.
Calocarpum viride
Anastrepha serpentina (Wiedemann); Weems, 1969b: 1; Larval host.

Calyptranthes tondusii (27)
Anastrepha striata Schiner; Greene, 1934: 146; Reared. Stone, 1942a: 30; Larval food plant. Aczel, 1949: 229; Infested.

Capsicum annuum (39)
Anastrepha serpentina (Wiedemann); Shaw, 1947: 34; Infestations; NORTHEAST MEXICO to BRAZIL: Sao Paulo.
Zonosemata electa (Say); Peterson, 1923: 7; Fruits 0.5 to 1.5 in. diameter most subject to attack. Usually one but as many as ten eggs per fruit. As pepper increases in size ovipositor puncture becomes depressed and forms shallow dimple on outer surface. Eggs hatch when fruit is two-thirds to fully developed. Young larvae feed on spongy tissue of placenta. When larvae are mature, placenta is partially or completely destroyed. In many cases, infested fruits may turn red prematurely and often drop from plant. Full grown larva cuts exit hole in fruit and pupates in ground; NEW JERSEY (as *Spilographa electa* Say). Burdette, 1930: 260; Infestation (as *Spilographa electa* Say). Burdette, 1935: 4; Infested. Peterson, 1953: 330; Larval infestation.
Capsicum frutescens

Anastrepha suspensa (Loew); Anon., 1966: 888; Larval infestation; FLORIDA: Miami, Dade Co.

Zonosemata electa (Say); Beirne, 1971: 68; Larvae feed in fruit. Pupation and overwintering in soil; CANADA: Ontario.

Capsicum frutescens var. *grossum*

Anastrepha distincta Greene; Stone, 1942a: 107; Reared experimentally.

Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 18; Infested in laboratory, not in field because this host grows in open, hot, sunlit stretches without shade which *Anastrepha ludens* avoids.

Capsicum sp.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Zonosemata electa (Say); Phillips, 1946: 96; Eggs usually laid singly, but may be as many as ten eggs in single puncture. Larvae feed on spongy placenta causing premature dropping. Pupation occurs in ground. Foott, 1963: 75; Infested; CANADA: Southwestern Ontario. Foott, 1967b: 19; Reared. Foott and Timmins, 1969: 105; Eggs deposited in walls of fruit. Most larvae bore through wall to inner surface, feeding on spongy placental tissue. Occasionally, feeding is confined entirely to wall or both wall and placenta. Larvae make exit hole in wall, drop to ground, and overwinter in pupal stage usually 2 in. below soil surface; CANADA: Southwestern Ontario. Beirne, 1971: 68; Larvae feed in fruit. Pupation and overwintering in soil; CANADA: Ontario.

Carduus spinosissimus - see *Cirsium horridulum*.

Carica papaya (9)

Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 18; Infested in laboratory; MEXICO. Mena, 1965: 13; Infested; EL SALVADOR.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infestation (as *Anastrepha acidusa*).

Anastrepha suspensa (Loew); McAlister, 1936: 442; Attacking fruits. Anon., 1967a: 1; Caged host; FLORIDA.

Toxotrypana curvicauda Gerstacker; Knab and Yothers, 1914: 447; Two to twenty larvae per fruit; FLORIDA: Palm Beach; Key Largo; PUERTO RICO. Mason, 1922: 1; Infested; FLORIDA. Greene, 1929: 491; Reared; CANAL ZONE: Ancon. Strong, 1933: 1; Infested; BRITISH BAHAMAS: New Providence Is.; HAITI. Benjamin, 1934: 12; Larvae feed within seed cavity in fruits; FLORIDA. Merrill, 1946: 39; Infested. Phillips, 1946: 81; Eggs laid in clusters of six to twenty, several clusters per fruit. Maggots feed on seed coat, later moving to flesh and at maturity live close to skin. Pupation usually occurs in ground, occasionally in fruit. Aczel, 1949: 181; Infestation. Weems, 1969a: 1; Infested; FLORIDA.

Carissa grandiflora (3)
Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 18; Infested in laboratory; MEXICO.
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).
Anastrepha suspensa (Loew); McAlister, 1936: 442; Attacking fruits. Anon., 1968: 54; Larval infestation; FLORIDA: Plantation, Broward Co.
Carissa sp.
Anastrepha suspensa (Loew); Foote, R. H., host list;[5] Oviposition, larvae.

Carthamus tinctorius (11)
Trupanea nigricornis (Coquillett); C.D.A.;[1] Larvae and adults; CALIFORNIA: Seeley, Imperial Co., IV-9-1963, C. R. Waegner.

Carya sp. (21)
Rhagoletis suavis (Loew); C.D.A.;[1] Larval infestation; OHIO: Warren, XII-10-1957, DeBoer (Host determination unconfirmed).

Casimiroa edulis (35)
Anastrepha ludens (Loew); Stone, 1942a: 97; Reared; COSTA RICA: San Jose. Aczel, 1949: 217; Infestation. Hoidale, 1953: 560; Infested. Anon., 1955: 2; Infested; MEXICO. Christenson and Foote, 1960: 180; Infested.
Casimiroa tetrameria
Anastrepha ludens (Loew); Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infestation.

Celtis sp. (40)
Rhagoletotrypeta annulata Aczel; Foote, R. H., 1966: 806; Reared; MEXICO: Tamazunchale.
Rhagoletotrypeta rohweri Foote; Foote, R. H., 1966: 805; Larval infestation, no rearing records; NEW JERSEY: Camden.

Centaurea diffusa (11)
Urophora affinis Frauenfeld;* Zwolfer, 1970: 3; Eggs deposited singly or in small groups in closed buds often on small, undeveloped tubular flowers. After three to four days, first instar larva penetrates ovariole of undeveloped tubular flower which develops into fusiform gall, deeply rooted in receptacle and open at apical end. Usually one

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*A European species introduced for control of knapweed (*Centaurea* spp.). It was released in British Columbia and Ontario in 1970. It is now established in both areas on *Centaurea maculosa* and also on *C. diffusa* in British Columbia. The United States Department of Agriculture plans releases in the northwestern U.S. against *C. diffusa* in 1973; teste Dr. Lloyd A. Andres, personal communication.

to three galls per flower head. Pupation within gall.

Centaurea maculosa

Urophora affinis Frauenfeld;* Zwolfer, 1970: 3; Eggs deposited singly or in small groups in closed buds often on small, undeveloped tubular flowers. After three to four days, first instar larva penetrates ovariole of undeveloped tubular flower which develops into fusiform gall, deeply rooted in receptacle and open at apical end. Usually one to three galls per flower head. Pupation within gall.

Centaurea nigra

Urophora jaceana (Hering); Varley, 1937: 109; Several eggs laid at one time in space between developing florets and overlapping bracts. Second instar burrows down axis of floret and attacks tissues of and around ovule. Tissues swell up and form fleshy gall which becomes a flask-shaped woody cell. Third instar feeds head downward, reversing its position before forming puparium. Overwintering and pupation in gall. Shewell, 1961: 1045; Larvae live in flower heads; CANADA.

Centaurea solstitialis

Urophora sirvna-seva (Hering);** Zwolfer, 1969: 109; Oviposition in closed flower buds, as many as twenty-one eggs per bud in laboratory. Small larva eats through one floret in head to receptacle where gall formation begins. A portion of receptacle is transformed into protruding cell with small opening at distal end. Mature larva remains in gall, anterior end down. Pupal period two to three weeks. Emerging adults push their way through small opening of gall. Seasonally dimorphic galls, those of summer generation thin-walled, those of hibernating generation thick-walled. Total effect on host plant is reduction of viable achenes produced by attacked flower heads.

Chaenomeles sp. (33)

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** A European species, introduced into California for control of yellow star thistle (*Centaurea solstitialis*). Releases have been made in Alameda, Butte, Contra Costa, Mendocino, and Sacramento Counties in 1969, 1970, and 1971. No recovery has been made, so it is not known if the species has become established; teste Mr. Junji Hamai, correspondence with author, Aug. 9, 1972.

Anastrepha serpentina (Wiedemann); Baker, A. C., et al., 1944: 127; Reared.

Chionanthus virginica (29)
Rhagoletis chionanthi Bush; Benjamin, 1934: 14; Larvae in fruits; FLORIDA [as *Rhagoletis cingulata* (Loew)]. Phillips, 1946: 65; Reared from fruits [as *Rhagoletis cingulata* (Loew)].

Chrysanthemum morifolium (11)
Trypeta angustigena Foote; Frick and Hawkes, 1970: 1089; Leaf miner. Reared; CALIFORNIA: El Cerrito, Contra Costa Co. Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.
Chrysanthemum paniculatum
Euarestoides acutangulus (Thomson); Foote, R. H., host list;[5] Larvae, adults.
Chrysanthemum sp.
Eutreta pacifica Curran; Foote, R. H. and Blanc, 1963: 31; Reared; CALIFORNIA: Inverness, Marin Co.; Larkspur, Marin Co.
Eutreta sparsa (Wiedemann); Blanton, 1952: 75; Reared from galls in greenhouses; NEW YORK: Long Island.

Chrysobalanus icaco (33)
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infestation (as *Anastrepha acidusa*). Stone, 1942a: 69; Reared experimentally. Aczel, 1949: 219; Infestation.
Anastrepha suspensa (Loew); Costa Lima, 1934: 507; Preferred host; PUERTO RICO. Greene, 1934: 148; Reared. Aczel, 1949: 230; Infestation.
Chrysobalanus pellocarpus
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infestation.

Chrysophyllum cainito (37)
Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant. Aczel, 1949: 208; Infestation.
Anastrepha serpentina (Wiedemann); Greene, 1929: 498; Larval and pupal infestation. Costa Lima, 1934: 494; Infested. Stone, 1942a: 28; Larval food plant. Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Aczel, 1949: 228; Infestation.
Anastrepha suspensa (Loew); Stone, 1942a: 74; Larval food plant. Aczel, 1949: 230; Infestation.
Chrysophyllum macrophyllum
Anastrepha serpentina (Wiedemann); Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo (host as *Chrysophyllum panamense* var. *macrophyllum*).
Chrysophyllum oliviforme

Anastrepha suspensa (Loew); Anon., 1968: 153; Reared; FLORIDA: Dade Co.

Chrysophyllum panamense

Anastrepha serpentina (Wiedemann); Greene, 1934: 143; Reared. Shaw, 1947: 34; Infestation; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Aczel, 1949: 228; Infestation.

Chrysopsis breweri - see *Heterotheca breweri.*
Chrysopsis graminifolia - see *Heterotheca graminifolia.*
Chrysopsis hyssopifolia - see *Heterotheca hyssopifolia.*
Chrysopsis latifolia - see *Heterotheca latifolia.*
Chrysopsis mariana - see *Heterotheca mariana.*
Chrysopsis microcephala - see *Heterotheca microcephala.*
Chrysopsis oligantha - see *Heterotheca oligantha.*
Chrysopsis traceyi - see *Heterotheca traceyi.*
Chrysopsis trichophylla - see *Heterotheca trichophylla.*
Chrysopsis villosa - see *Heterotheca villosa.*
Chrysopsis villosa var. *sessiflora* - see *Heterotheca villosa* var. *sessiflora.*
Chryospsis sp. - see *Heterotheca* sp.

Chrysothamnus bigelovii (11)

Aciurina notata (Coquillett); Foote, R. H., host list;[5] Reared.

Chrysothamnus graveolens

Procecidochares minuta (Snow); Aldrich, 1929: 10; Ovate, wooly, lateral gall; UTAH: Manti.

Chrysothamnus nauseosus

Aciurina bigeloviae (Cockerell); Foote, R. H., host list;[5] Reared.

Aciurina maculata (Cole); Novak et al., 1967: 148; Reared from larvae forming small galls along stem; IDAHO.

Aciurina semilucida (Bates); Novak et al., 1967: 148; Larvae form small bud galls along branches; IDAHO.

Aciurina trixa Curran; Foote, R. H. and Blanc, 1963: 11; Reared; CALIFORNIA: Llano, Los Angeles Co.; Valyermo, Los Angeles Co.; Ventucopa, Santa Barbara Co.

Procecidochares minuta (Snow); Foote, R. H. and Blanc, 1963: 53; Reared; CALIFORNIA: Inyokern, Kern Co.

Valentibulla californica (Coquillett); Foote, R. H. and Blanc, 1963: 95; Reared. Novak et al., 1967: 148; Reared from flower heads; IDAHO.

Valentibulla munda (Coquillett); Novak et al., 1967: 148; Larvae form large, polythalamous galls on stems; IDAHO.

Chrysothamnus nauseosus ssp. *albicaulis*

Aciurina bigeloviae (Cockerell); Cockerell, 1890a: 324; Reared from wooly galls; COLORADO: West Cliff, Dora, Custer Co.; Hillside, Fremont Co. (as *Trypeta bigeloviae*) (host as *Bigelovia graveolens*). Townsend, 1893b: 48; Galls subglobular, 1/4 to 1/2 in. diameter and borne singly on side of stems. Very light and covered with short white wooly

hair; COLORADO: Dolores; NEW MEXICO: Apache Springs; Luera Springs; Gallo Springs (host as *Bigelovia* sp. prob. *graveolens*). Felt, 1940: 323; Ovate, wooly, lateral bud gall, length 1/2 in. (as *Eurosta bigeloviae* Cockerell) (host as *Bigelovia graveolens*).

Aciurina maculata (Cole); C.D.A.;[1] Cottony galls; CALIFORNIA: Beckwourth Summit, Plumas Co., IX-16-1963, T. R. Haig; Woody stem galls; CALIFORNIA: 4 mi. S.W. Forest, Sierra Co., X-9-1963, T. R. Haig.

Aciurina notata (Coquillett); Cockerell, 1900: 198; Spherical gall, 9mm diameter, lateral pointed protuberance. Surface thinly covered with appressed wool-like hairs; NEW MEXICO: Santa Fe (as *Trypeta notata*) [host as *Bigelovia (Chrysothamnus) graveolens*].

Procecidochares minuta (Snow); Phillips, 1946: 58; Lateral bud galls (as *Procecidochares atra*) (host as *Bigelovia graveolens*).

Tephritis araneosa (Coquillett); C.D.A.;[1] Larvae and pupae in flower heads; CALIFORNIA: 13 mi. N. (Hwy. 89) Truckee, Nevada Co., IX-7-1963, M. Wasbauer.

Chrysothamnus nauseosus ssp. *glabratus*

Trupanea nigricornis (Coquillett); Foote, R. H., host list;[5] Reared.

Chrysothamnus viscidiflorus

Aciurina ferruginea (Doane); Tauber and Tauber, 1967b: 907; Reared from smooth green gall formed on side of stem. Oviposition in exudate which covers axillary buds; CALIFORNIA: E. side of Sierra Nevada Mts. at Lower Rock Creek, approximately 1 mi. S.W. of Tom's Place, Mono Co. O.S.U.;[3] Reared.

Aciurina trixa Curran; Foote, R. H., host list;[5] Reared.

Neaspilota brunneostigmata Doane; Tauber and Tauber, 1967b: 909; Reared; CALIFORNIA: E. side of Sierra Nevada Mts. at Lower Rock Creek, approximately 1 mi. S.W. of Tom's Place, Mono Co.

Paroxyna sp.; Tauber and Tauber, 1967b: 909; Reared; CALIFORNIA: E. side of Sierra Nevada Mts. at Lower Rock Creek, approximately 1 mi. S.W. of Tom's Place, Mono Co.

Procecidochares minuta (Snow); Novak et al., 1967: 147; Reared from larvae forming small, monothalamous bud galls at apices of small twigs; IDAHO. Tauber and Tauber, 1967b: 909; Reared; CALIFORNIA: E. side of Sierra Nevada Mts. at Lower Rock Creek, approximately 1 mi. S.W. of Tom's Place, Mono Co.

Procecidochares stonei Blanc and Foote; Tauber and Tauber, 1967a: 553; Gall consisting of a twig which bore tightly interlocked leaves; CALIFORNIA: E. side of Sierra Nevada Mts. at Lower Rock Creek, 1 mi. S.W. of Tom's Place, Mono Co., 7,000 ft.

Trupanea bisetosa (Coquillett); Tauber and Tuaber, unpublished record;[4] Reared; CALIFORNIA: 1 mi. S.W. of Tom's Place,

Mono Co.

Trupanea jonesi Curran; Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: 1 mi. S.W. of Tom's Place, Mono Co.

Trupanea nigricornis (Coquillett); Tauber and Tauber, 1967b: 909; Reared; CALIFORNIA: E. side of Sierra Nevada Mts. at Lower Rock Creek, approximately 1 mi. S.W. of Tom's Place, Mono Co.

Urophora formosa (Coquillett); O.S.U.;[3] Reared from galls.

Chrysothamnus sp.

Aciurina bigeloviae (Cockerell); Cockerell, 1890b: 75; White wooly conspicuous galls; COLORADO: West Cliff (as *Trypeta bigeloviae*) (host as *Bigelovia* sp.). Cockerell, 1893a: 112; Galls (as *Trypeta bigeloviae*) (host as *Bigelovia* sp.). Baker, C. F., 1895: 174; "Host"; COLORADO (as *Trypeta bigelovii*) (host as *Bigelovia* sp.). Ballou, 1926: 28; Hard, conical gall 12mm X 8mm; CALIFORNIA: Victorville (as *Tephritis bigeloviae*). Bates, 1935: 110; Large, white, wooly galls (host as *Bigelovia* sp.).

Aciurina maculata (Cole); Foote, R. H. and Blanc, 1963: 9; Reared; CALIFORNIA: Heenan Lake, Markleeville, 7,000 ft., Alpine Co.; Macdoel, Siskiyou Co. C.D.A.;[1] Cottony one celled galls on stem; CALIFORNIA: Hallelujah Jct., Lassen Co., IX-6-1963, M. Wasbauer.

Aciurina notata (Coquillett); Bates, 1935: 113; Gall 18mm to 20mm diameter, somewhat pubescent; NEW MEXICO: Santa Fe (host as *Bigelovia chrysothamnus*). Essig, 1958: 604; Produces slightly wooly spherical galls 9mm diameter; SOUTHERN CALIFORNIA (as *Trypeta notata* Coquillett) (host as *Bigelovia* sp.).

Aciurina semilucida (Bates); Bates, 1935: 112; Gall 4mm diameter, round and smooth; WASHINGTON: Riparia (host as *Bigelovia* sp.).

Aciurina trixa Curran; Bates, 1935: 111; Galls 4mm to 8mm diameter, smooth often waxy appearance, on side of small twigs; CALIFORNIA: Independence, Inyo Co.; IDAHO: Weiser; NEVADA: Reno; NEW MEXICO: Santa Fe; UTAH: American Fork, Pangultch; Logan; Salt Lake City [host as *Bigelovia (Chrysothamnus?)*]. Foote, R. H. and Blanc, 1963: 11; Reared; CALIFORNIA: Janesville, Lassen Co.; Little Lake, Alpine Co.; Maricopa Grade, San Luis Obispo Co.

Procecidochares minuta (Snow); Phillips, 1946: 58; Reared; UTAH (as *Procecidochares atra*). Foote, R. H. and Blanc, 1963: 53; Reared; CALIFORNIA: Deep Creek, San Bernardino Co.; Los Angeles Co.

Procecidochares stonei Blanc and Foote; Tauber and Tauber, 1967a: 553; Reared.

Valentibulla californica (Coquillett); Foote, R. H. and Blanc, 1959: 151; Gall former; CALIFORNIA: Mammoth, Mono Co.

Valentibulla munda (Coquillett); Foote, R. H. and Blanc, 1959: 153; Gall former; IDAHO: Oreana, Owyhee Co.

Cirsium arvense (11)

Orellia ruficauda (Fabricius); Harrington, 1893: 85; Fifty percent of seeds destroyed. Pappus has irregular appearance. When plucked it comes away without seed and is matted together at base. Contains one or more larvae (as *Trypeta florescentiae*). Marcovitch, 1916: 150; Full grown maggots found within head and destroying seeds (as *Trypeta ruficauda*). Johnson, C. W., 1925: 262; Larvae in flower buds; MAINE; MASSACHUSETTS; VERMONT [as *Terellia florescentiae* (Linn)]. Detmers, 1927: 28; Young larvae develop among achenes. After completely consuming seed they crawl out and finally weave cocoon of pappus hairs glued together by a substance secreted by the larva. The cocoon is imbedded in a shapeless tangle of pappus hairs loosely woven together. Hibernate as larvae in heads (as *Trypeta florescentiae*). Forsell, 1947: 167; Infesting seed heads; WASHINGTON: Puget Sound. Tonks, 1953: 28; Larva in heads; CANADA: Lower Fraser Valley, British Columbia (as *Terellia florescentiae*). Krombein et al., 1958: 67; Larval infestation (as *Orellia florescentiae*). McFadden and Foote, 1960: 256; Reared from flower heads; NORTHERN and CENTRAL UNITED STATES. Kandybina, 1970: 430; Single larva develops in a composite head, feeding on pith of receptacle, sometimes tunneling in stem beneath flowers. Larva pupates in flower head, making tomentose cocoon from flower hairs. Frick, unpublished record;[10] Reared from heads; CALIFORNIA: Quartz Valley, Siskiyou Co., VIII-15-1961. O.S.U.;[3] Reared.

Paracantha culta (Wiedemann); Ryckman, 1951: 127; Reared. Larvae and pupae in terminal buds; WISCONSIN: 7 mi. S.E. Shullsburg.

Cirsium canescens

Orellia occidentalis (Snow); Horning and Barr, 1970: 66; Reared from flower heads.

Cirsium centaureae

Paracantha gentilis Hering; C.D.A.;[1] Reared; COLORADO: 15 mi. S. Gould, Larimer Co., VIII-10-1968.

Cirsium edule

Orellia occidentalis (Snow); Frick, unpublished record;[10] Reared from heads; CALIFORNIA: Fort Dick, Del Norte Co., VIII-16-1961. C.D.A.;[1] Reared from heads; CALIFORNIA: Crescent City, Del Norte Co., VIII-16-1961, K. E. Frick. O.S.U.;[3] Reared.

Paracantha culta (Wiedemann); Lange, 1941: 56; Preferred host.

Paracantha gentilis Hering; Frick, unpublished record;[10] Reared; CALIFORNIA: Fort Dick, Crescent City, Del Norte Co., VIII-16-1961. O.S.U.;[3] Reared.

Cirsium horridulum

Orellia palposa (Loew); Rosewall, 1922: 179; Reared from pupae from interior of mature flower buds; LOUISIANA: Baton Rouge (as *Trypeta palposa*) (host as *Carduus spinosissimus*).

Paracantha culta (Wiedemann); Rosewall, 1922: 179; Reared from pupae in interior base of dried flowers (as *Carphotricha culta*) (host as *Carduus spinosissimus*). Phillips, 1946: 55; Larvae feed in bases of flowers, one to twelve per single head. Occasionally larvae may feed in tender growing stems; FLORIDA: Orlando (host as *Cirsium spinosissimus*). Aczel, 1952b: 221; Infested; FLORIDA: Bithlo (host as *Carduus spinosissimum*).

Cirsium hydrophilum

Orellia occidentalis (Snow); C.D.A.;[1] Larva in flower head. Reared; CALIFORNIA: 1/2 mi. S. Suisun, Solano Co., VII-19-1963, M. Wasbauer.

Cirsium lanceolatum

Paracantha culta (Wiedemann); Anon., 1968: 926; Larvae infest seed heads; COLORADO: Weld Co.

Cirsium occidentale

Orellia occidentalis (Snow); Foote, R. H. and Blanc, 1963: 39; Reared; CALIFORNIA: N. Claremont, Los Angeles Co.

Paracantha cultaris (Coquillett); Foote, R. H. and Blanc, 1963: 42; Reared; CALIFORNIA: N. Claremont, Los Angeles Co.

Cirsium pastoris

Orellia occidentalis (Snow); C.D.A.;[1] Reared from larvae in flower heads; CALIFORNIA: 3 mi. N. Portola, Plumas Co., IX-7-1963, M. Wasbauer.

Cirsium pumilum

Orellia palposa (Loew); Johnson, C. W., 1925: 262; Larva in flower buds [as *Terellia palposa* (Loew)]. Johnson, C. W., 1930: 151; Larvae in flower buds (as *Terellia palposa* Loew). McFadden and R. H. Foote, 1960: 261; Larvae feed in flower buds.

Cirsium quercetorum

Orellia occidentalis (Snow); Foote, R. H. and Blanc, 1963: 95; Reared.

Cirsium sierrae bernardino

Paracantha gentilis Hering; Foote, R. H. and Blanc, 1963: 43; Reared; CALIFORNIA: N. Claremont, Los Angeles Co.

Cirsium spinosissimus - see *Cirsium horridulum*.

Cirsium vulgare

Paracantha gentilis Hering; Frick, unpublished record;[10] Reared; CALIFORNIA: Fort Bragg, Mendocino Co., VII-26-1961.

Cirsium sp.

Paracantha culta (Wiedemann); Cockerell, 1893b: 369; Oviposition in buds; COLORADO: Custer Co. (as *Scriptotricha culta* Wiedemann). Benjamin, 1934: 31; Larvae feed in bases of flowers, one to twelve found within a single flower, occasionally within tender growing stems. Malloch, 1941: 36; Larvae feed in bases of flower heads. Essig, 1958: 605; Infestation.

Citrus aurantifolia (35)

Anastrepha ludens (Loew); Isaac, 1905: 9; Infested; MEXICO

(as *Trypeta ludens*). Crawford, 1913: 2; Infested (as *Trypeta ludens*). Emmart, 1935: 120; Infested. Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infested.

Anastrepha suspensa (Loew); Anon., 1966: 683; Larval infestation; FLORIDA: Fort Lauderdale; Miami. Anon., 1967a: 1; Reared; FLORIDA: Miami.

Citrus aurantifolia var. *limetta*

Anastrepha ludens (Loew); Moznette, 1922: 22; Eggs deposited under skin of ripening fruit. Larvae feed in fruit; MEXICO. Greene, 1929: 495; Infested; MEXICO.

Citrus aurantium

Anastrepha fraterculus (Wiedemann); Costa Lima, 1934: 548; Infested.

Anastrepha ludens (Loew); Isaac, 1905: 35; Larvae infest fruit. Pupation usually in soil; MEXICO (as *Trypeta ludens*). Crawford, 1913: 2; Infested (as *Trypeta ludens*). Crawford, 1927: 423; Larval infestation; MEXICO (host also as *Citrus bigaradia* and as *Citrus vulgaris*). Emmart, 1935: 121; Infested. Baker, A. C., et al., 1944: 7; Larval infestation; TEXAS: Rio Grande Valley.

Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Food plant only rarely; PUERTO RICO. Aczel, 1949: 219; Infestation.

Anastrepha suspensa (Loew); Costa Lima, 1934: 507; Not a preferred host; PUERTO RICO. Greene, 1934: 148; Reared. Aczel, 1949: 230; Infestation. Anon., 1966: 525; Larval infestation; FLORIDA: Greater Miami. Anon., 1966: 683; Larval infestation; FLORIDA: Fort Lauderdale; Miami. Anon., 1966: 1118; Larval infestation; FLORIDA: Fort Lauderdale, Broward Co. Anon., 1967a: 1; Reared; FLORIDA: Miami.

Citrus bigaradia - see *Citrus aurantium*.

Citrus decumana - see *Citrus grandis*.

Citrus grandis

Anastrepha fraterculus (Wiedemann); Rust, 1918: 462; Larvae in fruit; NORTHERN ARGENTINA (host as *Citrus decumana*). Costa Lima, 1934: 548; Infested (host as *Citrus decumana*). Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation.

Anastrepha ludens (Loew); Crawford, 1927: 423; Larval infestation; MEXICO: Tampico (host as *Citrus decumana*). Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infested.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*). Stone, 1942a: 69; Food plant only rarely. Aczel, 1949: 219; Infestation. Wasbauer, 1964: 7; Infestations.

Anastrepha suspensa (Loew); Greene, 1934: 148; Reared (host as *Citrus maxima*). Stone, 1942a: 74; Larval food plant. Aczel, 1949: 230; Infestation.

Citrus japonica - see *Fortunella japonica*.

Citrus limon

Anastrepha ludens (Loew); Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217 (host as *Citrus limonia*).

Citrus maxima - see *Citrus grandis*.

Citrus medica

Anastrepha ludens (Loew); Crawford, 1913: 2; Infestation (as *Trypeta ludens*).

Citrus mitis - see *Citrus reticulata* var. *austera?* X *Fortunella* sp.

Citrus nobilis - see *Citrus reticulata*.

Citrus paradisi

Anastrepha fraterculus (Wiedemann); Strong, 1933: 10; Infestation; BRAZIL: Minas Geraes State.

Anastrepha ludens (Loew); Crawford, 1913: 2; Infested (as *Trypeta ludens*). Greene, 1929: 495; Infested; MEXICO. Emmart, 1935: 120; Infested. Quayle, 1938: 240; Infestation. Baker, A. C., et al., 1944: 144; Infested. Hoidale, 1953: 559; Infested. Anon., 1955: 2; Larval infestation; MEXICO. Anon., 1971: 164; Larval infestation; TEXAS.

Anastrepha serpentina (Wiedemann); Baker, A. C., et al., 1944: 127; Reared; MEXICO.

Anastrepha suspensa (Loew); Costa Lima, 1934: 507; Not a preferred host; PUERTO RICO. Anon., 1965a: 114; Larval infestation. Weems, 1965: 3; Infested; GREATER ANTILLES. Anon., 1966: 225; Larval infestation; FLORIDA. Anon., 1966: 498; Larval infestation; FLORIDA: Miami. Anon., 1966: 652; Larval infestation; FLORIDA: Fort Pierce, St. Lucie Co. Anon., 1966: 683; Larval infestation; FLORIDA: Fort Lauderdale; Miami. Anon., 1967a: 1; Reared; FLORIDA: Miami. Anon., 1967b: 689; Larval infestation; FLORIDA: Fort Lauderdale.

Citrus paradisi X *Citrus reticulata*

Anastrepha suspensa (Loew); Anon., 1967a: 1; Reared; FLORIDA: Miami. Anon., 1967b: 118; Larval infestation; FLORIDA: Pompano Beach, Broward Co. Anon., 1967b: 156; Larval infestation; FLORIDA: Broward Co.

Citrus reticulata

Anastrepha fraterculus (Wiedemann); Rust, 1918: 462; Larvae in fruit; NORTHERN ARGENTINA (host as *Citrus nobilis*). Greene, 1929: 496; Host; PANAMA: Panama City. Costa Lima, 1934: 548; Infested (host as *Citrus nobilis*).

Anastrepha ludens (Loew); Crawford, 1913: 2; Infested (as *Trypeta ludens*). Baker, A. C., et al., 1944: 8; Attacked to some extent.

Anastrepha suspensa (Loew); Anon., 1967a: 1; Reared; FLORIDA: Miami. Anon., 1967b: 156; Larval infestation; FLORIDA: Broward Co.

Citrus reticulata var. *austera?* X *Fortunella* sp.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*) (host as *Citrus mitis*).

Anastrepha serpentina (Wiedemann); Weems, 1969b: 1; Larval host (host as *Citrus mitis*).

Anastrepha suspensa (Loew); McAlister, 1936: 442; Attacking fruits (host as *Citrus mitis*). Anon., 1965b: 1336; Larval infestation; FLORIDA: Belle Glade, Pahokee, Palm Beach Co. Anon., 1965b: 1343; Larval infestation; FLORIDA. Weems, 1965: 3; Larval host; FLORIDA: Miami (host as *Citrus mitis*). Anon., 1966: 32; Larval infestation; FLORIDA. Anon., 1966: 83; Larval infestation; FLORIDA. Anon., 1966: 818; Larval infestation; FLORIDA: Sebring, Highlands Co. Anon., 1966: 980; Larval infestation; FLORIDA: St. Petersburg, Pinellas Co. Weems, 1966: 403; Infested (host as *Citrus mitis*). Anon., 1967a: 1; Reared; FLORIDA: Miami (host as *Citrus mitis*). Anon., 1967b: 156; larval infestation; FLORIDA.

Citrus sinensis

Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation.

Anastrepha ludens (Loew); Johnson, W. G., 1896: 54; Reared from larvae in fruit; MEXICO: Mexico City; Morelos (as *Trypeta ludens* Loew). Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infestation.

Anastrepha mombinpraeoptans Sein; Wasbauer, 1964: 7; Infestations.

Anastrepha serpentina (Wiedemann); Stone, 1942a: 28; Larval food plant. Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Aczel, 1949: 228; Infested.

Anastrepha suspensa (Loew); Costa Lima, 1934: 507; Not a preferred host; PUERTO RICO. Greene, 1934: 148; Reared. Aczel, 1949: 230; Infestation. Anon., 1966: 525; Larval infestation; FLORIDA: Greater Miami. Anon., 1967a: 1; Reared; FLORIDA: Miami.

Citrus sinensis var. *temple*

Anastrepha suspensa (Loew); Anon., 1966: 83; Larval infestation; FLORIDA: Palm Beach Co. Anon., 1966: 683; Larval infestation; FLORIDA: Fort Lauderdale; Miami.

Citrus vulgaris - see *Citrus aurantium*.

Citrus spp.

Anastrepha fraterculus (Wiedemann); Rust, 1918: 462; Larvae infest but rarely reach maturity because of thick skin or oil from orange. Greene, 1929: 496; Host; PANAMA: Panama City. Baker, A. C., et al., 1944: 138; Attacks fruit. Essig, 1958: 600; Infested. Ebeling, 1959: 267; Infested; SOUTH AMERICA; TROPICAL NORTH AMERICA. Christenson and Foote, 1960: 180; Reared. Wasbauer, 1964: 7; Food plant.

Anastrepha ludens (Loew); Howard, 1888: 45; Infested; MEXICO: Morelos (as *Trypeta ludens*). Riley, 1889: 45; Reared. Townsend, 1893a: 13; Larvae in fruit. Isaac, 1905: 9; Infested; MEXICO (as *Trypeta ludens*). Herrera, 1908: 171; Larvae in fruit. Crawford, 1910: 321; Infested; MEXICO: Chiapas; Cordova; Oaxaca; Jalapa; Colima. Crawford, 1913: 2; Infested (as *Trypeta ludens*). Moznette, 1922: 22; Eggs deposited under skin of ripening fruit. Larvae feed in

fruit; MEXICO. Greene, 1929: 495; Infested; MEXICO. Costa Lima, 1934: 539; Infested. Emmart, 1935: 120; Infested. Quayle, 1938: 240; Infested. Hoidale, 1953: 559; Infested. Anon., 1955: 2; Infested; MEXICO. Essig, 1958: 600; Infested. Flitters and Messenger, 1958: 12; Reared. Ebeling, 1959: 267; Infested; TROPICAL NORTH AMERICA; UNITED STATES. Christenson and Foote, 1960: 180; Reared. Wasbauer, 1964: 7; Infestations. Mena, 1965: 13; Infestations; EL SALVADOR.

Anastrepha mombinpraeoptans Sein; Ebeling, 1959: 267; Infested; CUBA; PUERTO RICO.

Anastrepha serpentina (Wiedemann); Ebeling, 1959: 267; Infested; TROPICAL NORTH AMERICA.

Anastrepha suspensa (Loew); Ebeling, 1959: 267; Infested; CUBA; PUERTO RICO.

Clausena lansium (35)

Anastrepha suspensa (Loew); Anon., 1966: 589; Larval infestation; FLORIDA: Homestead, Dade Co. Anon., 1967a: 1; Reared; FLORIDA: Miami.

Cnicus parryi (11)

Orellia occidentalis (Snow); Foote, R. H. and Blanc, 1963: 95; Reared.

Coffea arabica (34)

Anastrepha fraterculus (Wiedemann); Costa Lima, 1934: 548; Infested. Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infested.

Coffea sp.

Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Eggs and larvae in fruit. Moznette, 1922: 22; Infested; MEXICO; CENTRAL AMERICA; SOUTH AMERICA; WEST INDIES. Greene, 1929: 496; Infested; PANAMA: Panama City. Christenson and Foote, 1960: 180; Infested. Wasbauer, 1964: 7; Food plant.

Conium maculatum (41)

Euleia fratria (Loew); Foote, R. H. and Blanc, 1963: 27; Reared; CALIFORNIA: Chiles Valley, 10 mi. S. Pope Valley, Napa Co.

Conyza canadensis (11)

Procecidochares australis Aldrich; Benjamin, 1934: 23; Galls on young shoots of plants that had not bloomed, occasionally in older more woody stems and sometimes in flowers. Gall size varies, containing from one to eight larvae. All galls were difficult to see being more or less hidden by clusters of young leaves which formed part of the gall. As many as six or seven galls per plant; FLORIDA (host as *Erigeron pusillus*).

Cordia sp. (6)
Anastrepha mombinpraeoptans Sein; Quayle, 1938: 243; Infested.

Coreopsis leavenworthii (11)
Dioxyna picciola (Bigot); Benjamin, 1934: 42; Larvae feed in flowers [as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289; Infesting flower heads (as *Paroxyna picciola*).
Coreopsis nudata
Dioxyna picciola (Bigot); Benjamin, 1934: 42; Larvae feed in flowers [as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289; Infesting flower heads (as *Paroxyna picciola*).
Coreopsis tinctoria
Dioxyna picciola (Bigot); Stegmaier, unpublished record;[2] Reared; FLORIDA: Hialeah, VI-9-1966, C. E. Stegmaier.
Coreopsis tripteris
Dioxyna picciola (Bigot); Benjamin, 1934: 42; Larvae feed in flowers [as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289; infesting flower heads (as *Paroxyna picciola*).
Coreopsis sp.
Dioxyna picciola (Bigot); Foote, R. H. and Blanc, 1963: 16; Reared from seed heads; CALIFORNIA: Whittier, Los Angeles Co.
Trupanea actinobola (Loew); Benjamin, 1934: 57; Reared. Malloch, 1942: 16; Larval food plant [as *Trypanea actinobola* (Loew)].
Trupanea jonesi Curran; Foote, R. H. and Blanc, 1963: 82; Reared; CALIFORNIA: Coronado, San Diego Co.

Corethrogyne filaginifolia (11)
Procecidochares stonei Blanc and Foote; C.D.A.;[1] Galls on stem at ground level; CALIFORNIA: Bonita, San Diego Co., IV-9-1970, E. D. Algert.
Corethrogyne filaginifolia var. *incana*
Neaspilota brunneostigmata Doane; C.D.A.;[1] Reared from larvae in flower heads; CALIFORNIA: Laguna Mts., San Diego Co., VII-30-1963, E. D. Algert.
Tephritis ovatipennis Foote; C.D.A.;[1] Reared from flower heads; CALIFORNIA: Laguna Mts., San Diego Co., VII-30-1963, E. D. Algert.
Trupanea wheeleri Curran; C.D.A.;[1] Reared from flower heads; CALIFORNIA: Laguna Mts., San Diego Co., VII-30-1963, E. D. Algert.
Corethrogyne filaginifolia var. *linifolia*
Trupanea femoralis (Thomson); C.D.A.;[1] Larvae in flowers; CALIFORNIA: Del Mar, San Diego Co., VII-11-1962, E. D. Algert.
Trupanea wheeleri Curran; C.D.A.;[1] Reared; CALIFORNIA: La Jolla, San Diego Co., VIII-26-1962, E. D. Algert.
Corethrogyne filaginifolia var. *virgata*
Neaspilota brunneostigmata Doane; C.D.A.;[1] Reared; CALIFORNIA: Bonsall, San Diego Co., X-17-1962, E. D. Algert.
Procecidochares minuta (Snow); C.D.A.;[1] Larval infestation;

CALIFORNIA: Otay, San Diego Co., IX-12-1960, E. D. Algert.

Trupanea wheeleri Curran; C.D.A.;[1] Reared; CALIFORNIA: Bonsall, San Diego Co., X-17-1962, E. D. Algert.

Corethrogyne linifolia - see *Corethrogyne filaginifolia linifolia.*

Cornus amomum (12)

Rhagoletis cornivora Bush; Hall, 1938: 55; Larval infestation (as *Rhagoletis pomonella*). Hall, 1943: 202; Reared (as *Rhagoletis pomonella*). Bush, 1966: 472; Reared; CANADA: Ontario.

Rhagoletis tabellaria (Fitch); Bush, 1966: 498; Reared; MASSACHUSETTS: Boston.

Cornus canadensis

Rhagoletis cornivora Bush; Lathrop and McAlister, 1931: 3; Oviposition in ripe berry. Maggot feeds on pulp of berry. When mature, maggot leaves berry, drops to ground and overwinters in soil as puparium; MAINE (as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269; Reared; MAINE (as *Rhagoletis pomonella*). Lathrop, 1952: 9; Infested; MAINE (as *Rhagoletis pomonella*). Bush, 1966: 472; Reared; MAINE.

Cornus florida

Rhagoletis cornivora Bush; Benjamin, 1934: 15; Larvae from fruits; FLORIDA [as *Rhagoletis pomonella* (Walsh)].

Cornus stolonifera

Rhagoletis cornivora Bush; Bush, 1966: 472; Reared; MASSACHUSETTS.

Rhagoletis tabellaria (Fitch); Glasgow, 1933: 437; NEW YORK.

Cornus spp.

Rhagoletis tabellaria (Fitch); Glasgow, 1933: 437; Larval infestation.

Cosmos bipinnatus (11)

Dioxyna picciola (Bigot); Foote, R. H., host list;[5] Reared.

Cosmos sp.

Dioxyna picciola (Bigot); Benjamin, 1934: 42; Larvae feed in flowers [as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289; Infesting flower heads (as *Paroxyna picciola*).

Cotoneaster sp. or *Pyracantha* sp. (33)

Rhagoletis pomonella (Walsh); Bush, 1966: 467; Reared; TEXAS [host as *Cotoneaster (Pyracantha)* sp.].

Crataegus albicans (33)

Rhagoletis pomonella (Walsh); Wellhouse, 1922: 1085; Twenty to twenty-five percent of sample infested.

Crataegus arnoldiana

Rhagoletis pomonella (Walsh); Simon, 1969: 173; Infested.

Crataegus Brainerdi - see *Crataegus scabrida.*

Crataegus macracantha

Rhagoletis pomonella (Walsh); Simon, 1969: 173; Infested.

Crataegus macrosperma

Rhagoletis pomonella (Walsh); Wellhouse, 1922: 1085; Infested. Bush, 1966: 467; Reared; NEW YORK.

Crataegus malloides

Rhagoletis pomonella (Walsh); Foote, R. H., host list;[5] Reared.

Crataegus mollis

Rhagoletis pomonella (Walsh); Foote, R. H., host list;[5] Reared.

Crataegus pedicellata

Rhagoletis pomonella (Walsh); Bush, 1966: 467; Reared; NEW YORK.

Crataegus pentagyna

Rhagoletis pomonella (Walsh); Foote, R. H., host list;[5] Reared.

Crataegus pruinosa

Rhagoletis pomonella (Walsh); Wellhouse, 1922: 1085; Twenty to twenty-five percent of sample infested. Bush, 1966: 467; Reared; NEW YORK.

Crataegus punctata

Rhagoletis pomonella (Walsh); Wellhouse, 1922: 1085; Twenty to twenty-five percent of sample infested. Bush, 1966: 467; Reared; NEW YORK.

Crataegus scabrida

Rhagoletis pomonella (Walsh); Wellhouse, 1922: 1085; Infested (host as *Crataegus Brainerdi*). Bush, 1966: 467; Reared; NEW YORK (host as *Crataegus Brainerdi*).

Crataegus sp.

Rhagoletis pomonella (Walsh); Walsh, 1867: 338; Larvae feed in fruit, burrowing exclusively in external flesh, forming brown, discolored, irregular excavations, never attacking core. Pupae overwinter in soil; CONNECTICUT; MASSACHUSETTS; NEW YORK (as *Trypeta pomonella* Walsh). Walsh, 1868: 36; Infested; ILLINOIS (as *Trypeta pomonella*). Comstock, 1882: 195; Larvae eating into pulp causing decay. Pupation in ground; WASHINGTON, D.C. (as *Trypeta pomonella*). Quaintance, 1908: 4; Larvae from fruit; SOUTHEASTERN CANADA; EASTERN UNITED STATES. Ross, 1913: 70; Larval infestation; CANADA: Ontario. Good, 1915: 54; Infested; NOVA SCOTIA. Brittain and Good, 1917: 9; Infestation; NOVA SCOTIA. Caesar, 1917: 10; Larvae attack fruit. Overwinter in pupal stage short distance below surface of soil. Wellhouse, 1920: 388; Infested. Brues, 1924: 130; Infestation. Guyton and Knull, 1925: 4; Infested. Caesar, 1929: 93; Infested. Greene, 1929: 494; Larval and pupal infestation; NEW YORK: Ithaca. Pettit, 1929: 1; Infestation. McLaine, 1931: 68; Larval infestation; CANADA. Farleman, 1933: 828; Reared; MICHIGAN. Benjamin, 1934: 15; Reared; NORTHERN FLORIDA. Pickett, 1937: 70; Infested. Hall, 1938: 55; Larval infestation. Hall, 1943: 202; Infested. Essig, 1958: 604; Infestation; EASTERN UNITED STATES. Christenson and Foote, 1960: 180; Infested. Bush, 1966: 467; Reared; CENTRAL MEXICO.

Cryptotaenia canadensis (41)
Euleia fratria (Loew); Frost, 1924: 134; Larvae produce irregular blotch mines, several larvae in a single mine. Epidermal layers distinctly separated containing moisture and blackish frass. Appears dilapidated and messy. Pupation occurs within mine, though pupae may attach to leaf surface, or hide in a curled portion of leaf (as *Acidia heraclei* Linn. which Frost considered synonymous with *Trypeta fratria* Loew).

Cucurbita sp. (13)
Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 18; Infested in laboratory.

Cydonia oblonga (33)
Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infested.
Anastrepha ludens (Loew); Quayle, 1938: 240; Infested. Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infested. Hoidale, 1953: 560; Infested. Anon., 1955: 2; Infested; MEXICO.
Anastrepha serpentina (Wiedemann); Stone, 1942a: 28; Larval food plant; MEXICO: Ramos Arispe; Coahuila. Aczel, 1949: 228; Infested.

Cynara scolymus (11)
Paracantha culta (Wiedemann); Lange, 1941: 56; Larval infestation.
Trypeta angustigena Foote; Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.

Cyphomandra betacea (39)
Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 18; Infested in laboratory; MEXICO.

Dahlia sp. (11)
Neotephritis finalis (Loew); Bissell, 1936: 233; Eggs laid between the sepals and petals on newly opening flowers. Larvae work down through petals and congregate on disc, causing rapid destruction of ovaries and other flower parts; GEORGIA: Experiment, Spalding Co.

Diospyros kaki (15)
Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Larval infestation. Moznette, 1922: 22; Infested; MEXICO; CENTRAL AMERICA; SOUTH AMERICA; WEST INDIES. Greene, 1929: 496; Infested; PANAMA: Panama City. Costa Lima, 1934: 548; Infested.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Dovyalis caffra (18)
Anastrepha suspensa (Loew); Anon., 1967a: 1; Larval infestation.
Dovyalis hebecarpa
Anastrepha distincta Greene; Stone, 1942a: 107; Reared experimentally.
Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation.
Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Larval food plant. Aczel, 1949: 219; Infestation.
Anastrepha serpentina (Wiedemann); Stone, 1942a: 28; Larval food plant. Shaw, 1947: 34; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Aczel, 1949: 228; Infestation.
Anastrepha suspensa (Loew); Anon., 1967a: 1; Reared; FLORIDA: Miami.

Eclipta alba (11)
Trupanea eclipta Benjamin; Benjamin, 1934: 57; Larvae feed in flowers; FLORIDA: Orlando.

Encelia californica (11)
Neotephritis finalis (Loew); Phillips, 1946: 79; Larvae in flower heads; CALIFORNIA. Foote, R. H. and Blanc, 1963: 37; Reared; CALIFORNIA: Coronado, San Diego Co.; Coyote creek, Borrego, San Diego Co. Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: San Marcos Pass, Santa Inez Mts., Santa Barbara Co. C.D.A.;[1] Reared; CALIFORNIA: Chula Vista, San Diego Co., IV-8-1962, E. D. Algert.
Trupanea jonesi Curran; C.D.A.;[1] Reared; CALIFORNIA: Chula Vista, San Diego Co., IV-8-1962, E. D. Algert.
Trupanea nigricornis (Coquillett); Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: San Marcos Pass, Santa Inez Mts., Santa Barbara Co.
Trupanea wheeleri Curran; Foote, R. H. and Blanc, 1963: 88; Reared; CALIFORNIA: Coronado, San Diego Co. Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: San Marcos Pass, Santa Inez Mts., Santa Barbara Co.
Encelia farinosa
Neotephritis finalis (Loew); Foote, R. H. and Blanc, 1963: 96; Reared. Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: 6 mi. S.E. Corona, Riverside Co.
Trupanea bisetosa (Coquillett); Foote, R. H. and Blanc, 1963: 77; Reared; CALIFORNIA: Coyote Creek, Borrego, San Diego Co. Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: 3 mi. N.E. Moreno, Riverside Co.
Trupanea jonesi Curran; Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: 6 mi. S.E. Corona, Riverside Co.
Trupanea nigricornis (Coquillett); Foote, R. H. and Blanc,

1963: 84; Reared; CALIFORNIA: Riverside, Riverside Co. Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: Whitewater Cyn., Riverside Co.; 6 mi. S.E. Corona, Riverside Co.

Encelia sp.

Trupanea wheeleri Curran; Foote, R. H. and Blanc, 1963: 96; Reared.

Ericameria pinifolia - see *Haplopappus pinifolius*.

Erigeron foliosus var. *stenophyllus* (11)

Tephritis ovatipennis Foote; C.D.A.;[1] Reared from flower heads; CALIFORNIA: Laguna Mts., San Diego Co., VII-30-1963, E. D. Algert.

Trupanea wheeleri Curran; C.D.A.;[1] Reared from flower heads; CALIFORNIA: Laguna Mts., San Diego Co., VII-30-1963, E. D. Algert.

Erigeron pumilus

Tephritis araneosa (Coquillett); Lavigne, 1965: 100; Larvae feed at base of disc flowers, which soon rot leaving a streak across blossom. Usually one larva per blossom, though up to four were found; WYOMING: near Dwyer.

Erigeron quercifolius

Trupanea actinobola (Loew); Benjamin, 1934: 57; Larvae feed in flowers, usually singly. None found feeding in buds or tender tips of nonflowering plants; FLORIDA.

Erigeron ramosus - see *Erigeron strigosus*.

Erigeron sondbergiana

Trupanea actinobola (Loew); Phillips, 1946: 85; Usually single larva per flower head. Puparia evidently formed in heads; NEW YORK: Babylon.

Erigeron strigosus

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA (host as *Erigeron ramosus*).

Neaspilota dolosa Benjamin; Stegmaier, 1968b: 47; Reared (host as *Erigeron ramosus*).

Trupanea actinobola (Loew); Foote, R. H., host list;[5] Reared (host as *Erigeron ramosus*).

Erigeron strigosus var. *beyrichii*

Neaspilota dolosa Benjamin; Stegmaier, 1968b: 47; Reared.

Neaspilota spp.; Stegmaier, 1968b: 46; Reared; FLORIDA: Hialeah.

Trupanea actinobola (Loew); Stegmaier, 1968b: 49; Reared; FLORIDA: Hialeah. Stegmaier, 1968c: 96; Eggs usually deposited in unopened flower buds, near center of capitulum. Larvae bore laterally through achenes. Adults emerge through dry, dead flowers. When pupation occurs in unopened buds, pupae lie exposed among immature disk flowers; when in fully opened flowers, two to twelve pupae lie adjacent to each other, usually in a vertical position in a

pupal chamber consisting of a base of devoured achenes and an outer margin of floral tubes. First and second instar infestations show as greenish discoloration of disk florets. Mature larval infestations on fully open flower heads show as dead patches of disk florets. Infested unopened buds are distorted and somewhat swollen; FLORIDA: Dodge Island, Dade Co.; Miami.

Erigeron vernus

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA.

Neaspilota dolosa Benjamin; Stegmaier, 1968b: 47; Reared.

Trupanea actinobola (Loew); Benjamin, 1934: 57; Larvae feed in flowers, usually singly. None found feeding in buds or tender tips of nonflowering plants; FLORIDA; TEXAS: Brownsville.

Erigeron sp.

Neaspilota brunneostigmata Doane; Foote, R. H. and Blanc, 1963: 33; Reared; CALIFORNIA: Johnsville, Plumas Co.

Neaspilota dolosa Benjamin; Stegmaier, unpublished record;[12] Reared.

Procecidochares anthracina (Doane); Huettel, unpublished record;[11] Galls formed in clusters at stem base and roots. Seven to eleven galls per plant; four to twenty larvae per gall; MONTANA: National Bison Range, approximately 38 mi. N.W. of Missoula.

Trupanea actinobola (Loew); Malloch, 1942: 16; Larval food plant [as *Trypanea actinobola* (Loew)].

Trupanea jonesi Curran; Foote, R. H. and Blanc, 1963: 82; Reared; CALIFORNIA: 10 mi. W. Johnsville, Plumas Co.

Eriobotrya japonica (33)

Anastrepha fraterculus (Wiedemann); Costa Lima, 1934: 548; Infested. Aczel, 1949: 211; Infestation. Stone, 1942a: 79; Larval food plant.

Anastrepha mombinpraeoptans Sein; Weems, 1970: 1; Larval host.

Anastrepha suspensa (Loew); Anon., 1966: 83; Larval infestation; FLORIDA. Anon., 1967a: 1; Reared; FLORIDA: Miami. Anon., 1967b: 156; Larval infestation; FLORIDA.

Eriophyllum lanatum (11)

Neotephritis finalis (Loew); Cole and Lovett, 1921: 326; Larvae and pupae in seed pods and ovaries; OREGON: Corvallis. Essig, 1958: 605; Infested (as *Tephritis finalis*).

Eriophyllum staechadifolium

Paroxyna genalis (Thomson); Frick, 1964: 709; Larvae bore down through flower, nearer center of capitulum than the periphery, then bore laterally through several seeds. Pupation in seed layer; CALIFORNIA: Fort Bragg.

Eugenia brasiliensis (27)

Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Larval

food plant. Aczel, 1949: 211; Infestation.

Anastrepha suspensa (Loew); Anon., 1967b: 449; Larval infestation; FLORIDA: Loxahatchee, Broward Co.

Eugenia coloradoensis

Anastrepha fraterculus (Wiedemann); Stone, 1942b: 304; Reared; BARRO COLORADO ISLAND. Aczel, 1949: 211; Infestation.

Eugenia jambos

Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Larval food plant. Baker, A. C., et al., 1944: 139; Reared (as Mexican *Anastrepha fraterculus*). Aczel, 1949: 211; Infestation. Christenson and Foote, 1960: 185; Infestation (as Mexican *Anastrepha fraterculus*). Bush, 1962: 93; Infested; MEXICO: Monte Blanco, Vera Cruz.

Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 9; Larval infestation; MEXICO: Cuernavaca. Christenson and Foote, 1960: 180; Reared.

Anastrepha mombinpraeoptans Sein; Sein, 1933: 190; Larval infestation; PUERTO RICO (host as *Jambos jambos*). Strong, 1933: 3; Reared; DOMINICAN REPUBLIC (as *Anastrepha acidusa*). Costa Lima, 1934: 552; Infested (as *Anastrepha fraterculus* var. *mombinpraeoptans*) (host as *Jambos jambos*). Greene, 1934: 163; Reared. McAlister, 1936: 442; Infested (as *Anastrepha acidusa*). Quayle, 1938: 243; Infested (as *Anastrepha acidusa*). Aczel, 1949: 219; Infestation. Wasbauer, 1964: 7; Infestations. Mena, 1965: 13; Infested; EL SALVADOR.

Anastrepha suspensa (Loew); Strong, 1933: 3; Reared; DOMINICAN REPUBLIC. Costa Lima, 1934: 507; Preferred host; PUERTO RICO (host as *Jambos jambos*). Greene, 1934: 148; Reared. McAlister, 1936: 442; Attacking fruit. Aczel, 1949: 230; Infestation. Weems, 1965: 3; Larval host; FLORIDA: Miami; GREATER ANTILLES. Anon., 1966: 589; Larval infestation; FLORIDA: Canal Point, Palm Beach Co. Weems, 1966: 403; Infested. Anon., 1967a: 1; Reared; FLORIDA: Miami.

Eugenia lushnathiana

Anastrepha suspensa (Loew); Anon., 1966: 469; Larval infestation; FLORIDA: Fort Lauderdale, Broward Co. Anon., 1967a: 1; Reared; FLORIDA: Miami.

Eugenia malaccensis

Anastrepha fraterculus (Wiedemann); Greene, 1929: 496; Infestation; PANAMA: Panama City. Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation.

Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Larval food plant. Aczel, 1949: 219; Infestation.

Anastrepha serpentina (Wiedemann); Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo.

Anastrepha suspensa (Loew); Stone, 1942a: 74; Larval food plant. Aczel, 1949: 230; Infestation.

Eugenia nesiotica

Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant. Aczel, 1949: 208; Infestation.

Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Larval food plant. Aczel, 1949: 219; Infestation.

Eugenia tomentosa

Anastrepha fraterculus (Wiedemann); Costa Lima, 1934: 548; Infestation.

Eugenia uniflora

Anastrepha fraterculus (Wiedemann); Costa Lima, 1934: 548; Infestation. Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation. Wasbauer, 1964: 7; Food plants.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*). Stone, 1942a: 69; Reared experimentally. Aczel, 1949: 219; Infestation.

Anastrepha serpentina (Wiedemann); Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo.

Anastrepha striata Schiner; Aczel, 1949: 229; Infestation.

Anastrepha suspensa (Loew); McAlister, 1936: 442; Attacking fruit. Anon., 1965: 642; Larval infestation; FLORIDA. Weems, 1965: 3; Larval host; FLORIDA: Miami Springs. Anon., 1966: 32; Larval infestation; FLORIDA. Anon., 1966: 525; Larval infestation; FLORIDA: Greater Miami. Weems, 1966: 403; Infested. Anon., 1967a: 1; Reared; FLORIDA: Miami. Kamasaki et al., 1970: 640; Infested; FLORIDA.

Eugenia sp.

Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Eggs and larvae in fruit (host also as *Phyllocalyx* sp.). Greene, 1929: 496; Infested; PANAMA: Panama City (host as *Phylocalyx* sp.). Costa Lima, 1934: 548; Infested (host as *Phylocalyx* sp.). Baker, A. C., et al., 1944: 138; Attacks fruit. Christenson and Foote, 1960: 180; Reared.

Eupatorium coelestinum (11)

Xanthaciura connexionis Benjamin; Benjamin, 1934: 45; Larvae feed in flowers; FLORIDA: 3 mi. S. Florida City. Aczel, 1949: 254; Infestation. Aczel, 1952a: 260; Reared; FLORIDA: Florida City; Paradise Key (host as *Conoclinium coelestinum*). Stegmaier, unpublished record;[2] Reared; FLORIDA: Hialeah, VI-21-1965, C. E. Stegmaier.

Xanthaciura tetraspina (Phillips); Benjamin, 1934: 46; Larvae feed in flowers.

Eupatorium macrophyllum

Xanthaciura connexionis Benjamin; Aczel, 1952a: 260; Infestation; MEXICO: Cuernavaca, Morelos (host as *Eupatorium adenophorum*).

Eupatorium maculatum

Xanthaciura tetraspina (Phillips); Novak et al., 1967: 148; Reared from flower heads; OHIO.

Eupatorium purpusii

Xanthaciura tetraspina (Phillips); Aczel, 1952a: 277; Infestation; MEXICO: Cuernavaca, Morelos (host as *Eupatorium petiolare*).

Eupatorium sp.

Xanthaciura connexionis Benjamin; Foote, R. H., host list;[5] Reared.

Ficus carica (25)

Anastrepha fraterculus (Wiedemann); Rust, 1918: 462; Larvae in fruit; NORTHERN ARGENTINA. Costa Lima, 1934: 548; Infestation.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*). Baker, A. C., et al., 1944: 137; Infested (as Mexican *Anastrepha mombinpraeoptans*).

Ficus sp.

Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 17; larval infestation in laboratory.

Anastrepha mombinpraeoptans Sein; Baker, A. C., et al., 1944: 137; Laboratory infestations (as Mexican *Anastrepha mombinpraeoptans*).

Anastrepha serpentina (Wiedemann); Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Weems, 1969b: 1; Larval host.

Flacourtia indica (18)

Anastrepha suspensa (Loew); Anon., 1966: 818; Larval infestation; FLORIDA: Miami, Dade Co. Anon., 1967a: 1; Reared; FLORIDA: Miami. Anon., 1967b: 156; Reared; FLORIDA.

Fortunella japonica (35)

Anastrepha fraterculus (Wiedemann); Rust, 1918: 462; Larvae in fruit; NORTHERN ARGENTINA (host as *Citrus japonica*). Costa Lima, 1934: 548; Infested.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*) (host as *Citrus japonica*).

Anastrepha suspensa (Loew); McAlister, 1936: 442; Attacking fruits (host as *Citrus japonica*).

Fortunella margarita

Anastrepha suspensa (Loew); Greene, 1934: 148; Reared. Aczel, 1949: 230; Infestation. Anon., 1966: 32; Larval infestation; FLORIDA. Anon., 1966: 83; Larval infestation; FLORIDA. Anon., 1966: 469; Larval infestation; FLORIDA: Hialeah, Dade Co. Anon., 1966: 1158; Larval infestation; FLORIDA: Sebring, Highlands Co. Anon., 1967a: 1; Reared; FLORIDA: Miami. Anon., 1967b: 156; Larval infestation; FLORIDA.

Fortunella sp.

Anastrepha suspensa (Loew); Costa Lima, 1934: 507; Not a preferred host; PUERTO RICO. Weems, 1965: 3; Larval host; FLORIDA: Miami. Weems, 1966: 403; Infestation.

Fragaria vesca (33)

Anastrepha fraterculus (Wiedemann); Costa Lima, 1934: 548; Infested.

Franseria acanthicarpa - see *Ambrosia acanthicarpa*.
Franseria chamissonis - see *Ambrosia chamissonis*.
Franseria chamissonis ssp. *bipinnatisecta* - see *Ambrosia chamissonis* ssp. *bipinnatisecta*.
Franseria chenopodiifolia - see *Ambrosia chenopodiifolia*.
Franseria dumosa - see *Ambrosia dumosa*.
Franseria sp. - see *Ambrosia* sp.

Gaillardia aristata (11)
Euarestoides acutangulus (Thomson); Foote, R. H., 1958: 291; Reared.
Neotephritis finalis (Loew); Novak et al., 1967: 148; Reared from flower heads; MONTANA.

Garcinia livingstonii (20)
Anastrepha suspensa (Loew); Anon., 1967b: 522; Larval infestation; FLORIDA: Coral Gables, Dade Co.
Garcinia sp.
Anastrepha suspensa (Loew); Weems, 1965: 3; Larval infestation; GREATER ANTILLES.

Gaultheria procumbens (16)
Rhagoletis mendax Curran; Lathrop and McAlister, 1931: 3; Oviposition in ripe berry. Maggot feeds on pulp of berry, when mature leaves berry and drops to ground. Overwinters in soil as puparium; MAINE (as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269; Larval infestation; MAINE (as *Rhagoletis pomonella*). Lathrop and Nickels, 1932: 6; Larvae only; MAINE: Cherryfield. Lathrop, 1952: 9; Infestation (as *Rhagoletis pomonella*).

Gaylussacia decamerium baccata (16)
Rhagoletis mendax Curran; Britton, 1906: 260; Reared; CONNECTICUT [as *Rhagoletis pomonella* (Walsh), later recognized as *Rhagoletis mendax* by Bush, 1966]. Woods, 1916: 260; Infestation; MAINE [as *Rhagoletis pomonella* (Walsh), later recognized as *Rhagoletis mendax* by Bush, 1966]. Patch and Woods, 1922: 85; Larvae in berries; MAINE: Washington Co. [as *Rhagoletis pomonella* (Walsh), later recognized as *Rhagoletis mendax* by Bush, 1966]. Lathrop and McAlister, 1931: 3; Oviposition in ripe berry. Maggot feeds on pulp of berry, when mature leaves berry and drops to ground. Overwinters in soil as puparium; MAINE [as *Rhagoletis pomonella* (Walsh), later recognized as *Rhagoletis mendax* by Bush, 1966]. Lathrop and Nickels, 1931: 269; Reared; MAINE [as *Rhagoletis pomonella* (Walsh), later recognized as *Rhagoletis mendax* by Bush, 1966]. Lathrop, 1952: 9; Infestation; MAINE [as *Rhagoletis pomonella* (Walsh), later recognized as *Rhagoletis mendax* by Bush, 1966]. Bush, 1966: 468; Reared; CONNECTICUT; MAINE; NEW HAMPSHIRE. Simon, 1969: 173; Infestation.

Gaylussacia decamerium dumosa
Rhagoletis mendax Curran; Bush, 1966: 468; Reared; NEW JERSEY.
Gaylussacia decamerium frondosa
Rhagoletis mendax Curran; Bush, 1966: 468; Reared; NEW JERSEY. Simon, 1969: 173; Infested.
Gaylussacia sp.
Rhagoletis mendax Curran; Johnson, C. W., 1910: 802; Reared; NEW JERSEY (as *Rhagoletis pomonella*, later recognized as *Rhagoletis mendax* by Bush, 1966). O'Kane, 1914: 17; Infested (as *Rhagoletis pomonella*, later recognized as *Rhagoletis mendax* by Bush, 1966). Brues, 1924: 131; Infested (as *Rhagoletis pomonella*, later recognized as *Rhagoletis mendax* by Bush, 1966). Guyton and Knull, 1925: 4; Infested (as *Rhagoletis pomonella*, later recognized as *Rhagoletis mendax* by Bush, 1966). Greene, 1929: 494; Larval and pupal infestation; NEW YORK: Ithaca (as *Rhagoletis pomonella*, later recognized as *Rhagoletis mendax* by Bush, 1966). McLaine, 1931: 68; Larval infestation; CANADA (as *Rhagoletis pomonella*, later recognized as *Rhagoletis mendax* by Bush, 1966). Lathrop and Newton, 1933: 143; Infested; MAINE (as *Rhagoletis pomonella*, later recognized as *Rhagoletis mendax* by Bush, 1966). Christenson and Foote, 1960: 180; Infested (as *Rhagoletis pomonella*, later recognized as *Rhagoletis mendax* by Bush, 1966).

Gnaphalium chilense (11)
Trupanea californica Malloch; C.D.A.;[1] Reared from larvae and pupae in seed of flower head; CALIFORNIA: Sonoma Beach State Park, Sonoma Co., IX-14-1963, M. Wasbauer.
Trupanea signata Foote; Foote, R. H., 1960d: 23; Reared; CALIFORNIA: Covina, Los Angeles Co.
Gnaphalium obtusifolium
Trupanea actinobola (Loew); Foote, R. H., host list;[5] Reared.
Trupanea dacetoptera Phillips; Malloch, 1942: 15; Reared from mining larvae; FLORIDA: Orlando (as *Trypanea dacetoptera* Phillips).
Gnaphalium sp.
Trupanea californica Malloch; Foote, R. H., 1960d: 21; Larvae in flowers; CALIFORNIA.
Trupanea jonesi Curran; Foote, R. H. and Blanc, 1963: 96; Reared.
Trupanea maculigera Foote; Foote, R. H., 1960d: 14; Galls; CALIFORNIA.

Grindelia camporum (11)
Urophora formosa (Coquillett); C.D.A.;[1] Reared; CALIFORNIA: Sacramento, Sacramento Co., VI-14-1962, I. Savage.
Grindelia cuneifolia - see *Grindelia humilis*.
Grindelia humilis
Procecidochares grindeliae Aldrich; Foote, R. H. and Blanc, 1963: 52; Reared; CALIFORNIA: Millbrae, San Mateo Co.

Foote, R. H., host list;[5] Reared (host as *Grindelia cuneifolia*).

Grindelia nana

Urophora formosa (Coquillett); Curran, 1932a: 13; Reared; OREGON (as *Aleomyia caurina* Doane). O.S.U.;[3] Reared.

Grindelia robusta

Procecidochares grindeliae Aldrich; Aldrich, 1929: 6; Gall; CALIFORNIA: Alameda, Alameda Co.

Grindelia squarrosa var. *nuda*

Urophora grindeliae (Coquillett); Coquillett, 1908: 147; Reared from flower heads; TEXAS: Clarenden (as *Rhagoletis grindeliae*).

Grindelia sp.

Procecidochares grindeliae Aldrich; C.D.A.;[1] Leafy rosette gall; CALIFORNIA: Grass Valley, Nevada Co., X-15-1963; T. R. Haig.

Tephritis araneosa (Coquillett); Foote, R. H. and Blanc, 1963: 96; Reared.

Urophora formosa (Coquillett); Foote, R. H. and Blanc, 1963: 96; Reared.

Grossularia oxycanthoides - see *Ribes oxycanthoides*.

Gutierrezia californica (11)

Procecidochares sp.; C.D.A.;[1] Rosette galls; CALIFORNIA: Coalinga, Fresno Co., III-3-1960, H. L. Wilson.

Gutierrezia lucida - see *Gutierrezia microcephala*.

Gutierrezia microcephala

Urophora timberlakei Blanc and Foote; Foote, R. H., host list;[5] Larvae (host as *Gutierrezia lucida*).

Gutierrezia sarothrae

Aciurina aplopappi (Coquillett); Foote, R. H. and Blanc, 1963: 96; Reared; CALIFORNIA.

Haplopappus bloomeri (11)

Aciurina ferruginea Doane; Foote, R. H. and Blanc, 1963: 97; Reared. O.S.U.;[3] Reared (host as *Chrysothamnus bloomeri*).

Paroxyna murina (Doane); Foote, R. H. and Blanc, 1963: 49; Reared; CALIFORNIA: Maiden's Grave, Hwy. 88, Amador Co.

Trupanea jonesi Curran; Foote, R. H. and Blanc, 1963: 81; Reared; CALIFORNIA: Maiden's Grave, Hwy. 88, Amador Co.

Haplopappus linearifolius

Trupanea jonesi Curran; Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: Whitewater Cyn., Riverside Co.; 5 mi. S. Sage, Riverside Co.

Haplopappus megacephalus

Neaspilota dolosa Benjamin; Stegmaier, 1968b: 47; Reared (host as *Sideranthus megacephalus*).

Haplopappus pinifolius

Aciurina aplopappi (Coquillett); Coquillett, 1894: 72; Irregular galls 8mm. X 4mm. on smaller branches; SOUTHERN

CALIFORNIA [as *Trypeta (Aciura) aplopappi* (Coquillett)] (host as *Aplopappus pinifolius*). Bates, 1935: 108; Reared from elongate galls on stem; CALIFORNIA: Los Angeles Co. (host as *Aplopappus pinifolius*). Foote, R. H. and Blanc, 1963: 8; Reared; CALIFORNIA: Claremont, Los Angeles Co. Foote, R. H., host list;[5] Larvae (host as *Ericameria pinifolia*).

Haplopappus spinulosus turbinellus

Neaspilota brunneostigmata Doane; C.D.A.;[1] Reared; ARIZONA: Tucson, Pima Co.

Haplopappus squarrosus ssp. *grindelioides*

Trupanea jonesi Curran; C.D.A.;[1] Reared; CALIFORNIA: La Jolla, San Diego Co., VIII-12-1962, E. D. Algert.

Trupanea wheeleri Curran; C.D.A.;[1] Reared from flowers; CALIFORNIA: La Jolla, San Diego Co., VIII-13-1962, E. D. Algert, IX-6-1962, E. D. Algert; Potrero, San Diego Co., IX-19-1962, E. D. Algert.

Urophora formosa (Coquillett); C.D.A.;[1] Reared from flowers; CALIFORNIA: La Jolla, San Diego Co., VIII-12-1962, E. D. Algert, IX-6-1962, E. D. Algert; Potrero, San Diego Co., IX-19-1962, E. D. Algert.

Haplopappus venetus

Trupanea femoralis (Thomson); Foote, R. H., 1960d: 8; Reared (host as *Aplopappus venatus*).

Trupanea wheeleri Curran; Foote, R. H., 1960d: 15; Reared; CALIFORNIA (host as *Aplopappus venatus*).

Urophora formosa (Coquillett); Foote, R. H. and Blanc, 1963: 90; Reared; CALIFORNIA: Borrego Valley, San Diego Co.; Chula Vista, San Diego Co.

Haplopappus venetus ssp. *vernonioides*

Neaspilota signifera Coquillett; Foote, R. H. and Blanc, 1963: 34; Reared; CALIFORNIA: San Ysidro, San Diego Co.

Haplopappus spp.

Aciurina aplopappi (Coquillett); Foote, R. H., host list;[5] Reared.

Aciurina bigeloviae (Cockerell); Foote, R. H. and Blanc, 1963: 97; Reared.

Helenium autumnale (11)

Euarestoides acutangulus (Thomson); O.S.U.;[3] Reared.

Helenium hoopesii

Trupanea jonesi Curran; Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: Sonora Pass, Tuolumne Co.

Helenium nudiflorum

Dioxyna picciola (Bigot); Stegmaier, unpublished record;[2] Reared; FLORIDA: Geneva, III-23-1965, G. Desin.

Helianthella uniflora (11)

Neotephritis finalis (Loew); Foote, R. H., 1960b: 149; From seeds; UTAH.

Helianthella sp.

Trupanea bisetosa (Coquillett); Foote, R. H., host list;[5] Reared.

Trupanea nigricornis (Coquillett); Foote, R. H., host list;[5] Reared.

Helianthus annuus (11)

Eutreta sparsa (Wiedemann); Novak et al., 1967: 147; Larvae in stem usually form small galls. Reared; OHIO.

Gymnocarena diffusa (Snow); Anon., 1971: 619; Larvae in receptacle of heads; NORTH DAKOTA: Grand Forks Co.

Neotephritis finalis (Loew); Cockerell, 1914: 195; Breeds in numbers in heads; COLORADO: Boulder (as *Tephritis finalis*) (host as *Helianthus lenticularis* X *Helianthus annuus*). Breland, 1939: 719; Larvae burrow among seeds and into tissue of receptacle. Pupation occurs within, or among seeds, sometimes partially buried within tissue of receptacle; MISSOURI: Columbus; TEXAS: Austin. Novak et al., 1967: 148; Reared from flower heads; MONTANA.

Paracantha cultaris (Coquillett); Foote, R. H. and Blanc, 1963: 42; Reared; CALIFORNIA: near Van Nuys, Los Angeles Co.

Strauzia longipennis (Wiedemann); Gibson, 1906: 120; Larva tunnels pith of stem. Does not injure flower to any extent; CANADA: Ottawa. Westdahl and Barrett, 1960: 486; Larvae; CANADA: Southern Manitoba; Ontario; MINNESOTA; MONTANA.

Strauzia longipennis var. *typica* (Loew); Novak et al., 1967: 148; Reared from larvae in stems.

Helianthus biennis

Paracantha culta (Wiedemann); Aldrich, 1905: 609; Oviposition in flower buds (as *Carphotricha culta* Wiedemann) (host name uncertain).

Helianthus decapetalus

Strauzia longipennis var. *longitudinalis* (Loew); Novak et al., 1967: 148; Reared from larvae in stems; OHIO.

Helianthus giganteus

Eutreta sparsa (Wiedemann); Novak et al., 1967: 147; Reared from larvae in stem, usually form small galls; OHIO.

Strauzia longipennis var. *intermedia* (Loew); Novak et al., 1967: 148; Reared from larvae in stems; OHIO.

Helianthus hirsutus

Strauzia longipennis (Wiedemann); Marcovitch, 1916: 147; Oviposition in stem, 1 or 2 in. from top of plant. Larvae travel down pith of stem to base of stem or in roots. Plant may begin to topple. Overwinter in pupal stage within stems; MINNESOTA. Phillips, 1946: 122; Larval host.

Helianthus lenticularis - see *Helianthus annuus*.

Helianthus maximilianii

Strauzia longipennis (Wiedemann); Westdahl and Barrett, 1960: 486; Larval infestation; CANADA: Manitoba.

Helianthus nuttallii

Neotephritis finalis (Loew); Foote, R. H. and Blanc, 1963: 97; Reared.

Helianthus tuberosus

Strauzia longipennis (Wiedemann); Severin, 1918b: 464; Larvae found in long tunnels in stalk; MAINE. Brink, 1923: 73; Oviposition in stalk. Larvae tunnel in pith causing weakening of stalks and failure of a percentage of seed development. Pupation and overwintering in soil. Phillips, 1923: 125; Reared from canes; NEW YORK.

Strauzia longipennis var. *confluens* (Loew); Johnson, C. W., 1925: 260; Infests stalks; CONNECTICUT.

Strauzia longipennis var. *vittigera* (Loew); Novak et al., 1967: 148; Reared from larvae in stem; OHIO.

Helianthus tuberosus var. *subcanescens*

Strauzia longipennis (Wiedemann); Westdahl and Barrett, 1960: 486; Larval infestation; CANADA: Manitoba.

Helianthus sp.

Gymnocarena diffusa (Snow); Beirne, 1971: 60; Infestation; CANADA: Manitoba (as *Oedicarena diffusa*). Anon., 1972: 124; Infesting heads; NORTH DAKOTA: Grand Forks Co. O.S. U.;[3] "Ex. heads."

Neotephritis finalis (Loew); Cockerell, 1917: 17; Breeding in heads; COLORADO: Boulder (as *Spathulina finalis* Loew). Walker, 1936: 21; Larvae eat single seed, pupating in its shell; KANSAS. Breland, 1938: 204; Infested; ALABAMA; MISSISSIPPI (as *Tephritis finalis*). Foote, R. H., 1960b: 149; Larvae from heads of various species; UNITED STATES. Foote, R. H. and Blanc, 1963: 36; Reared; CALIFORNIA: N. Claremont, Los Angeles Co. Beirne, 1971: 68; Infestation; CANADA: Manitoba; Alberta [as *Euarestoides finalis* (Loew)].

Paracantha cultaris (Coquillett); Foote, R. H. and Blanc, 1963: 42; Reared; CALIFORNIA: Sacramento, Sacramento Co.

Procecidochares pleuralis Aldrich; Aldrich, 1929: 9; Reared from gall on stem; ARIZONA: Fort Huachuca.

Strauzia longipennis (Wiedemann); Townsend, 1893a: 14; Adult oviposits in stalk, near tip. Brink, 1923: 73; Oviposition in stalk. Larvae tunnel in pith causing weakening of stalks and failure of a percentage of seed development. Pupation and overwintering in soil. Phillips, 1923: 125; Reared from larvae infesting canes; NEW YORK. Walker, 1936: 21; Larvae collected from roots; KANSAS. Strickland, 1938: 204; Infested; CANADA: Alberta. Phillips, 1946: 77; Larvae from pith of stem. Beirne, 1971: 66; Eggs laid just below epidermis of stalk. Larvae tunnel pith. Pupation in soil. Infestations have no detrimental effect on head size, seed set, or seed yield, even when seventy-five to one hundred percent of pith destroyed. There is yet no evidence that maggot injury has any adverse economic effect on plant; CANADA: Alberta; Manitoba; New Brunswick; Ontario; Prince Edward Island; Quebec. Anon., 1972: 124;

Infesting stems; NORTH DAKOTA: Grand Forks Co.; Pembina Co.; Ransom Co.; Steele Co.; Traill Co.; Walsh Co.

Strauzia longipennis var. *confluens* (Loew); Johnson, C. W., 1925: 260; Infests stalks; CONNECTICUT.

Strauzia longipennis var. *vittigera* (Loew); Steyskal, 1945: 156; Infestation.

Trupanea bisetosa (Coquillett); Foote, R. H. and Blanc, 1963: 76; Reared; CALIFORNIA: San Fernando Valley, Los Angeles Co.

Heliopsis helianthoides (11)

Strauzia longipennis (Wiedemann); Foote, R. H., host list;[5] Reared.

Hemizonia pungens (11)

Trupanea bisetosa (Coquillett); Foote, R. H. and Blanc, 1963: 76; Reared; CALIFORNIA: Van Nuys, Los Angeles Co.

Trupanea femoralis (Thomson); Foote, R. H. and Blanc, 1963: 79; Reared; CALIFORNIA: Van Nuys, Los Angeles Co.

Heracleum lanatum (41)

Euleia fratria (Loew); Frost, 1924: 33; Reared (as *Acidia heraclei* Linn.). Foote, R. H. and Blanc, 1963: 27; Reared; CALIFORNIA: Laurel, Santa Cruz Co. Tauber and Toschi, 1965a: 370; Larvae mine leaf forming a "blister". Egg inserted within parenchyma through oblong excavation in ventral surface of leaf; CALIFORNIA: Strawberry Cyn., Berkeley, Alameda Co.

Heracleum sp.

Euleia fratria (Loew); Doane, 1899: 178; Reared; WASHINGTON: Almota. Foote, R. H. and Blanc, 1963: 27; Reared; CALIFORNIA: Alameda Co.

Neaspilota achilleae Johnson; Phillips, 1946: 52; Larva feeds singly in flower head. Maggot fits snugly into base and feeds on developing seeds, not living inside single seed, but eating through whole closely set group; NEW YORK: Islip.

Heterotheca breweri (11)

Tephritis stigmatica (Coquillett); C.D.A.;[1] Larvae in flower heads; CALIFORNIA: Cascade Lakes, Placer Co., VIII-2-1964, R. F. Wilkey.

Heterotheca graminifolia

Trupanea mevarna (Walker); Benjamin, 1934: 55; Reared; NORTHERN FLORIDA (host as *Chrysopsis graminifolia*). Foote, R. H., 1960d: 16; Reared; ALABAMA (host as *Chrysopsis graminifolia*).

Heterotheca grandiflora

Trupanea femoralis (Thomson); Foote, R. H., 1960d: 8; Larvae in flowers; CALIFORNIA.

Heterotheca hyssopifolia

Neaspilota punctistigma Benjamin; Benjamin, 1934: 39; Larvae feed singly in flowers; FLORIDA (host as *Chrysopsis hyssopifolia*).

Heterotheca latifolia

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA (host as *Chrysopsis latifolia*).

Procecidochares australis Aldrich; Aldrich, 1929: 9; Larvae in head; TEXAS: Waco (as *Procecidochares atra* var. *australis* Aldrich) (host as *Heterotheca subaxillaris*).

Trupanea mevarna (Walker); Benjamin, 1934: 55; Reared; NORTHERN FLORIDA (host as *Chrysopsis latifolia*). Foote, R. H., 1960d: 16; Reared; ALABAMA (host as *Chrysopsis graminifolia* var. *latifolia*).

Heterotheca mariana

Neaspilota punctistigma Benjamin; Benjamin, 1934: 39; Larvae feed singly in flowers; FLORIDA (host as *Chrysopsis mariana*).

Heterotheca microcephala

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA (host as *Chrysopsis microcephala*).

Neaspilota punctistigma Benjamin; Benjamin, 1934: 39; Larvae feed singly in flowers; FLORIDA (host as *Chrysopsis microcephala*).

Trupanea dacetoptera Phillips; Benjamin, 1934: 54; Reared from larvae and puparia in tender tips of nonflowering plants; FLORIDA: Orlando (host as *Chrysopsis microcephala*).

Trupanea mevarna (Walker); Benjamin, 1934: 55; Reared; NORTHERN FLORIDA (host as *Chrysopsis microcephala*, identification subject to question). Foote, R. H., 1960d: 16; Reared; ALABAMA (host as *Chrysopsis microcephala*).

Heterotheca oligantha

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA (host as *Chrysopsis oligantha*).

Trupanea mevarna (Walker); Benjamin, 1934: 55; Reared; NORTHERN FLORIDA (host as *Chrysopsis oligantha*). Foote, R. H., 1960d: 16; Reared; ALABAMA (host as *Chrysopsis oligantha*).

Heterotheca oregana

Procecidochares blantoni Hering; O.S.U.;[3] Reared; OREGON (as *Procecidochares minuta*)* (host as *Chrysopsis oregana*).

Trupanea femoralis (Thomson); O.S.U.;[3] Reared (host as

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* The rearing reported here from *Chrysopsis* is probably referable to *Procecidochares blantoni*. The status of *P. blantoni* and *P. minuta* will probably be confused until some careful work is done on those populations; teste M. D. Huettel, correspondence with author, Nov. 22, 1971.

Chrysopsis oregana).

Heterotheca subaxillaris

Neaspilota dolosa Benjamin; Benjamin, 1934: 40; Larvae feed singly in flowers; FLORIDA: Belleview; Clermont; Cocoa; Fairvilla; Forest City; Leesburg; Lockhart; Mount Dora; New Port Richey; Orlando; Rocky Point; Wiersdale.

Procecidochares australis Aldrich; Benjamin, 1934: 23; Galls on young shoots of plants that had not bloomed, occasionally in older more woody stems and sometimes in flowers. Gall size varied, containing from one to eight larvae. All galls were difficult to see being more or less hidden by clusters of young leaves which formed a part of the gall. As many as six or seven galls per plant; FLORIDA: Orange Co. Stegmaier, 1968b: 48; Reared; FLORIDA: Hialeah. Huettel and Bush, 1971: 1; Oviposition on young overwintering rosette plants, galls produced from leaf or stem buds and throughout year from lateral bud tissue at leaf axils. No galls found in main stem. Flower heads occasionally galled; TEXAS: Galveston Island, Galveston Co.; Nueces Co. Park No. 1, Padre Island, Nueces Co.; South Padre Island, Cameron Co.

Heterotheca traceyi

Neaspilota punctistigma Benjamin; Benjamin, 1934: 39; Larvae feed singly in flowers; FLORIDA (host as *Chrysopsis traceyi*).

Heterotheca trichophylla

Neaspilota punctistigma Benjamin; Benjamin, 1934: 39; Larvae feed singly in flowers; FLORIDA (host as *Chrysopsis trichophylla*).

Peronyma sarcinata (Loew); Benjamin, 1934: 25; Irregular shaped, compound galls, one to eight separate cells with single larva in each, usually on stems, sometimes at bases of flowers, or tender growth from root crowns; FLORIDA: Lake Co.; Orange Co. (host as *Chrysopsis trichophylla*).

Heterotheca villosa

Neaspilota brunneostigmata Doane; Foote, R. H. and Blanc, 1963: 33; Reared; CALIFORNIA: 5 mi. W. Markleeville, Alpine Co. (host as *Chrysopsis villosa*).

Procecidochares blantoni Hering; Foote, R. H. and Blanc, 1963: 53; Reared; CALIFORNIA: Coronado, San Diego Co. [as *Procecidochares minuta* (Snow)]* (host as *Chrysopsis villosa*).

Procecidochares stonei Blanc and Foote; C.D.A.;[1] Larval infestation; CALIFORNIA: Coronado, San Diego Co., II-18-

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* The rearing reported here from *Chrysopsis* is probably referable to *Procecidochares blantoni*. The status of *P. blantoni* and *P. minuta* will probably be confused until some careful work is done on those populations; teste M. D. Huettel, correspondence with author, Nov. 22, 1971.

1960, E. D. Algert.

Trupanea femoralis (Thomson); Foote, R. H. and Blanc, 1963: 80; Reared; CALIFORNIA: Coronado, San Diego Co. (host as *Chrysopsis villosa*).

Trupanea radifera (Coquillett); Novak et al., 1967: 148; Reared from flower heads; MONTANA (host as *Chrysopsis villosa*).

Heterotheca villosa var. *sessiflora*

Procecidochares blantoni Hering; C.D.A.;[1] Reared; CALIFORNIA: Coronado, San Diego Co., IV-2-1960, E. D. Algert; San Ysidro, San Diego Co., XI-23-1962, E. D. Algert.

Heterotheca sp.

Neaspilota punctistigma Benjamin; Benjamin, 1934: 39; Larvae feed singly in flowers; FLORIDA (host as *Chrysopsis* sp.).

Trupanea mevarna (Walker); Benjamin, 1934: 55; Reared from larvae feeding in flowers and tender tips of plants; FLORIDA [as *Trypanea mevarna* (Walker)] (host as *Chrysopsis* sp.).

Hieracium argyraeum (11)

Acidogona melanura (Loew); Benjamin, 1934: 32; Reared.

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA.

Hieracium cynoglossoides

Xenochaeta dichromata Snow; Novak et al., 1967: 147; Reared from flower heads; MONTANA.

Hieracium gronovii

Acidogona melanura (Loew); Benjamin, 1934: 32; Reared.

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA.

Hieracium paniculatum

Trupanea actinobola (Loew); Foote, R. H., host list;[5] Reared.

Hieracium scabrum

Acidogona melanura (Loew); Benjamin, 1934: 32; Reared.

Neaspilota achilleae Johnson; Benjamin, 1934: 37; Larvae feed singly in flowers; NORTHERN FLORIDA.

Hieracium sp.

Acidogona melanura (Loew); Benjamin, 1934: 32; Larvae feed singly in individual flower which remains tightly sealed until the adults emerge.

Trupanea actinobola (Loew); Benjamin, 1934: 57; Reared. Malloch, 1942: 16; Larval food plant [as *Trypanea actinobola* (Loew)]. Foote, R. H., 1960d: 25; Larvae in flowers.

Hylocereus sp. (7)

Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 17; Infestation in laboratory.

Ilex caroliniana (4)

Myoleja limata (Coquillett); Benjamin, 1934: 22; Larvae feed

singly in berries. Puparium formed in ground; NORTHERN FLORIDA.

Ilex cassine

Myoleja limata (Coquillett); Benjamin, 1934: 22; Larvae feed singly in berries. Puparium formed in ground; NORTHERN FLORIDA.

Ilex decidua

Myoleja limata (Coquillett); Phillips, 1946: 50; Larva lives in berries. Puparium formed in ground; ALABAMA: Altmore.

Ilex glabra

Myoleja limata (Coquillett); Benjamin, 1934: 22; Larvae feed singly in berries. Puparium formed in ground; NORTHERN FLORIDA.

Ilex lucida

Myoleja limata (Coquillett); Benjamin, 1934: 22; Larvae feed singly in berries. Puparium formed in ground; NORTHERN FLORIDA.

Ilex opaca

Myoleja limata (Coquillett); Benjamin, 1934: 22; Larvae feed singly in berries. Puparium formed in ground; NORTHERN FLORIDA.

Ilex vomitoria

Myoleja limata (Coquillett); Benjamin, 1934: 22; Larvae feed singly in berries. Puparium formed in ground; NORTHERN FLORIDA. Phillips, 1946: 50; Reared; ALABAMA: Altmore.

Inga edulis (23)

Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant. Aczel, 1949: 208; Infestation.*

Inga feuillei

Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant. Aczel, 1949: 208; Infestation.*

Inga golmanii

Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant. Aczel, 1949: 208; Infestation.*

Inga hayesii

Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant.*

Inga inicuil

Anastrepha distincta Greene; Bush, 1962: 94; Reared.*

Anastrepha ludens (Loew); Stone, 1942a: 97; Larval food plant.

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* Although there are as yet no definite rearing records in America North of Mexico for *Anastrepha distincta* Greene, Stone (1942) states that "sufficient *Inga* fruit is brought into the Rio Grande Valley region to account for the presence of the species there." *Anastrepha distincta* has been reared from *Inga* spp. in Panama, Mexico, Trinidad, Colombia, Peru, and from Bahia to Sao Paulo, Brazil (Stone, 1942); also from *Inga inicuil* in Cocoyoc, Morelos, Mexico (Bush, 1962).

Aczel, 1949: 217; Infestation.

Inga laurina

Anastrepha mombinpraeoptans Sein; Quayle, 1938: 243; Infestation (as *Anastrepha acidusa*).

Inga lushnathiana

Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant. Aczel, 1949: 208; Infestation.*

Inga panamensis

Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant. Aczel, 1949: 208; Infestation.*

Inga punctata

Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant. Aczel, 1949: 208; Infestation.*

Inga setifera

Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant. Aczel, 1949: 208; Infestation.*

Inga spuria

Anastrepha distincta Greene; Stone, 1942a: 106; Larval food plant. Aczel, 1949: 208; Infestation.*

Inga sp.

Anastrepha fraterculus (Wiedemann); Greene, 1934: 164; Reared.

Iva hayesiana (11)

Euarestoides acutangulus (Thomson); C.D.A.;[1] Reared; CALIFORNIA: Otay, San Diego Co., VII-27-1962, E. D. Algert.

Jambos jambos - see *Eugenia jambos*.

jobo amarillo - see *Spondias* sp.
jobo de la India - see *Spondias cytherea*.

Juglans ailanthifolia (21)

Rhagoletis suavis (Loew); Gambrell, 1931: 230; Larvae feed within exocarp or hull of nut. Injury first detected by presence of egg puncture as small, black, circular spot from which sap exudes. In feeding, larvae tunnel through exocarp and work toward outer surface of husk. As larvae near maturity, husks show brown to black water soaked spots or large discolored areas. Larvae emerge from husks and pupate in soil, 1 to 1 1/2 in. deep.

Juglans californica

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* Although there are as yet no definite rearing records in America North of Mexico for *Anastrepha distincta* Greene, Stone (1942) states that "sufficient *Inga* fruit is brought into the Rio Grande Valley region to account for the presence of the species there." *Anastrepha distincta* has been reared from *Inga* spp. in Panama, Mexico, Trinidad, Colombia, Peru, and from Bahia to Sao Paulo, Brazil (Stone, 1942); also from *Inga inicuil* in Cocoyoc, Morelos, Mexico (Bush, 1962).

Rhagoletis completa Cresson; Boyce, 1930: 250; Larvae attack husks.

Juglans cinerea

Rhagoletis completa Cresson; Foote, R. H. and Blanc, 1963: 59; Reared; CALIFORNIA: Pomona, Los Angeles Co.

Rhagoletis suavis (Loew); Banks, 1912: 32; Larvae from shuck; MARYLAND: Plummers Island. Gambrell, 1931: 230; Larvae feed within exocarp or hull of nut. Injury first detected by presence of egg puncture as small, black, circular spot from which sap exudes. In feeding, larvae tunnel through exocarp and work toward outer surface of husk. As larvae near maturity, husks show brown to black water soaked spots or large discolored areas. Larvae emerge from husks and pupate in soil 1 to 1 1/2 in. deep. Barrett, 1932: 296; Larvae feed on green husks. Beck, 1932: 497; Infested; IOWA. Boyce, 1934: 375; Larvae and adults. Ries, 1935: 717; Reared; MICHIGAN. Phillips, 1946: 75; Eggs laid in husks in clusters under the surface. Maggots feed on softer parts of husk, usually near the nut proper. Hulls are blackened and slimy within causing discoloration of nuts. Pupation occurs in ground; NEW YORK: Ithaca.

Juglans hindsii

Rhagoletis completa Cresson; Boyce, 1929a: 862; Infested; CALIFORNIA: Chino (as *Rhagoletis juglandis*). Boyce, 1930: 250; Larvae attack husks.

Juglans hindsii X *Juglans nigra*

Rhagoletis completa Cresson; Boyce, 1930: 250; Larvae attack husks.

Juglans hindsii X *Juglans regia*

Rhagoletis completa Cresson; Boyce, 1934: 379; Larval infestation.

Juglans major

Rhagoletis boycei Cresson; Bush, 1966: 493; Reared.

Juglans nigra

Rhagoletis boycei Cresson; Wasbauer, 1964: 5; Larvae infest green husks; ARIZONA.

Rhagoletis completa Cresson; Boyce, 1934: 379; Larval infestation. Foote, R. H. and Blanc, 1963: 59; Reared; CALIFORNIA: Riverside, Riverside Co. Wasbauer, 1964: 5; Larval infestation.

Rhagoletis suavis (Loew); Babb, 1902: 242; Reared; MASSACHUSETTS. Johnson, C. W., 1925: 262; Larvae in husks; CONNECTICUT; MASSACHUSETTS. Gambrell, 1931: 230; Larvae feed within exocarp or hull of nut. Injury first detected by presence of egg puncture as small, black, circular spot from which sap exudes. In feeding, larvae tunnel through exocarp and work toward outer surface of husk. As larvae near maturity, husks show brown to black water soaked spots or large discolored areas. Larvae emerge from husks and pupate in soil 1 to 1 1/2 in. deep. Barrett, 1932: 296; Larvae feed on green husks. Beck, 1932: 497; Infestation;

IOWA. Boyce, 1934: 375; Larvae and adults. Ries, 1935: 717; Eggs laid in closely compressed masses, from ten to one hundred fifty eggs per single puncture, usually in green portion of husk, 2 to 3mm. beneath outer skin. Larvae feed in husk discoloring and breaking down tissue. Larvae emerge through single hole in side of husk or near blossom end and enter soil 4 to 7 in. beneath surface to pupate. Occasionally larvae pupate in husk; MICHIGAN: near Pinckney, Livingston Co. Stirret, 1936: 69; Larval infestation. Ripe nuts may contain as many as thirty maggots; CANADA: near Chatham, Ontario.

Juglans regia

Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 17; Infestation in laboratory.

Rhagoletis boycei Cresson; Cresson, 1929: 413; Larvae infesting exocarp; ARIZONA: Carr Cyn., Huachuca Mts., Cochise Co. Barrett, 1932: 296; Larvae feed on green husks.

Rhagoletis completa Cresson; Boyce, 1929a: 862; Infestation; CALIFORNIA: Chino (as *Rhagoletis juglandis*). Boyce, 1929b: 269; Infested; CALIFORNIA: Chino (as *Rhagoletis juglandis*). Cresson, 1929: 412; Larvae infesting exocarp; CALIFORNIA: Chino, San Bernardino Co. (as *Rhagoletis suavis* ssp. *completa*). Boyce, 1930: 250; Larvae attack husks. Boyce, 1931: 1021; Infestation; CALIFORNIA. Boyce, 1933: 813; Infested. Phillips, 1946: 64; About fourteen eggs laid in cluster just beneath skin. A brown spot shows externally over the broken tissue around eggs. Also "tear stain" evidence on outside of husk. Larvae make individual tunnels. Pupation in ground; SOUTHERN CALIFORNIA. Essig, 1958: 604; Infested. Wasbauer, 1964: 5; Larvae infest exocarp; CALIFORNIA: Chino, San Bernardino Co.

Rhagoletis juglandis Cresson; Cresson, 1920: 65; Eggs deposited in green hull. Larvae mine exocarp, coloring nut black. Larvae remain in hull until nut falls and pupate there; ARIZONA: Carr Cyn., Huachuca Mts. Cresson, 1929: 413; Larvae mine exocarp; ARIZONA: Carr Cyn., Huachuca Mts. Barrett, 1932: 296; Larvae feed on green husks; ARIZONA; TEXAS. Boyce, 1934: 376; Larvae in green husks; ARIZONA: Carr Cyn., Huachuca Mts. Phillips, 1946: 67; Eggs laid in groups of about fifteen. Larvae feed on green husks. External stains are caused by tunneling which turns black. Pupation occurs in ground. Essig, 1958: 604; ARIZONA.

Rhagoletis suavis (Loew); Brooks, 1921: 3; Reared. Gambrell, 1931: 230; Larvae feed within exocarp or hull of nut. Injury first detected by presence of egg puncture as small, black, circular spot from which sap exudes. In feeding, larvae tunnel through exocarp and work toward outer surface of husk. As larvae near maturity, husks show brown to black water soaked spots or large discolored areas. Larvae emerge from husks and pupate in soil 1 to 1 1/2 in.

deep. Ries, 1935: 717; Reared.

Juglans rupestris

Rhagoletis completa Cresson; Foote, R. H., host list;[5] Larvae.

Rhagoletis juglandis Cresson; Barrett, 1932: 296; Larvae feed on green husks and kernels; ARIZONA; TEXAS. Boyce, 1934: 376; Infested; ARIZONA: Carr Cyn., Huachuca Mts.

Juglans sieboldiana

Rhagoletis suavis (Loew); Brooks, 1921: 3; Reared. Ries, 1935: 717; Reared.

Juglans sp.

Rhagoletis completa Cresson; Keifer, 1930: 579; Larva works in husk of sound walnut. Boyce, 1933: 813; Infested. Michelbacher and Sisson, 1956: 13; Eggs laid in husks in batches. Outer epidermis not attacked. Portion of husk fed upon turns black and shows as such through epidermis. Infested nuts take on a mottled appearance. When mature, maggots crawl out of infested nuts and pupate in soil. Christenson and Foote, 1960: 180; Reared. Foote, R. H. and Blanc, 1963: 59; Reared; CALIFORNIA: Brea, Orange Co.; Riverside, Riverside Co.

Rhagoletis juglandis Cresson; Phillips, 1946: 67; Eggs laid in groups of about fifteen. Larvae feed on green husks. External stains are caused by tunneling which turns black. Pupation occurs in ground.

Rhagoletis suavis (Loew); Hall, 1938: 55; Reared. Phillips, 1946: 75; Eggs laid in husks in clusters under surface. Maggots feed on softer parts of husk, usually near the nut proper. Hulls blackened and slimy within causing discoloration of nuts. Pupation occurs in ground; WEST VIRGINIA: French Creek. Wasbauer, 1964: 5; Infesting husks.

Juniperus monosperma (14)

Rhagoletis juniperina Marcovitch; Bush, 1966: 501; Reared; ARIZONA: Oak Creek Cyn.

Juniperus occidentalis

Paraterellia varipennis (Coquillett); Foote, R. H., 1960e: 122; Presumably reared; CALIFORNIA: Hilts, Siskiyou Co. Foote, R. H. and Blanc, 1963: 45; Reared; CALIFORNIA: Dunsmuir, Siskiyou Co.

Juniperus virginiana

Rhagoletis juniperina Marcovitch; Marcovitch, 1915: 173; Reared from berries; NEW YORK: Six Mile Creek, Ithaca (as *Rhagoletis juniperinus* Marcovitch). Phillips, 1946: 69; Eggs laid in fruit. Infested fruit has undamaged exterior, but is powdery and dry within. After berries fall to ground, larvae enter soil and pupate there; NEW YORK: Twin Gorges, Ithaca (as *Rhagoletis juniperinus* Marcovitch).

Juniperus sp.

Paraterellia varipennis (Coquillett); Goeden, unpublished record;[13] Reared; OREGON. O.D.A.;[7] Reared.

Rhagoletis juniperina Marcovitch; Johannsen, 1926: 852;

Reared from larvae in berries; NEW YORK: Ithaca.

Labatia standleyana (37)
Anastrepha serpentina (Wiedemann); Stone, 1942b: 304; Reared; PANAMA: El Cermeno. Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Aczel, 1949: 228; Infested.

Lactuca canadensis (11)
Jamesomyia geminata (Loew); Novak et al., 1967: 147; Larvae reared from flower heads; OHIO.
Lactuca sp.
Jamesomyia geminata (Loew); Foote, R. H., host list;[5] Reared.

Lemaireocereus sp. (7)
Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 17; Infested in laboratory, probably not in field because host occurs in hot open stretches with brilliant sun which this fly avoids.

Lepachys sp. - see *Ratibida* sp.

Lepidospartum squamatum (11)
Trupanea wheeleri Curran; Foote, R. H. and Blanc, 1963: 88; Reared; CALIFORNIA: Santa Maria, Santa Barbara Co.

Litchi chinensis (36)
Anastrepha suspensa (Loew); Anon., 1967b: 549; Larval infestation; FLORIDA: West Miami, Dade Co.

Lucuma nervosa (37)
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).
Lucuma obovata
Anastrepha serpentina (Wiedemann); Stone, 1942b: 304; Preferred host; PERU. Aczel, 1949: 228; Infestation.
Lucuma salicifolia
Anastrepha serpentina (Wiedemann); Baker, A. C., et al., 1944: 119; Larvae feed in pulp; MEXICO.
Lucumaphila sagittata Stone; Baker, A. C., et al., 1944: 118; Larvae feed in seeds; MEXICO.
Lucuma standleyana
Anastrepha serpentina (Wiedemann); Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo.
Lucuma sp.
Anastrepha serpentina (Wiedemann); Strong, 1933: 14; Reared; PERU. Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo.
Lucumaphila sagittata Stone; Stone, 1939b: 347; Reared from seeds; MEXICO.

Lycopersicon esculentum (39)

Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 18; Infested in laboratory; MEXICO.
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).
Anastrepha serpentina (Wiedemann); Stone, 1942a: 28; Reared experimentally. Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Aczel, 1949: 228; Infested.
Anastrepha suspensa (Loew); Anon., 1966: 712; Larval infestation; FLORIDA: Fort Lauderdale, Broward Co.
Zonosemata electa (Say); Benjamin, 1934: 20; Reared; GEORGIA.

Machaeranthera canescens (11)
Neaspilota brunneostigmata Doane; Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: 1 mi. S.W. Tom's Place, Mono Co.
Tephritis signatipennis Foote; Tauber and Tauber, unpublished record;[4] Reared; CALIFORNIA: 1 mi. S.W. Tom's Place, Mono Co.
Machaeranthera phyllocephala
Procecidochares n.sp.; Huettel and Bush, 1971: 1; Oviposition on young overwintering rosette plants, galls produced from leaf or stem buds and throughout year from lateral bud tissue at leaf axils. No galls found in main stem, flower heads commonly galled. Host plants more common in moist clay soils of coastal areas; TEXAS: Flour Bluff, Nueces Co.

Madia elegans (11)
Trupanea jonesi Curran; O.S.U.;[3] Reared.

Mahonia aquifolium (5)
Rhagoletis berberis Curran; Forsell, 1947: 167; Infesting berries; WASHINGTON: Puget Sound. Bush, 1966: 510; Reared.
Mahonia nervosa
Rhagoletis berberis Curran; Bush, 1966: 510; Reared.

Malpighia glabra (24)
Anastrepha mombinpraeoptans Sein; Newell, 1935: 22; Infested.
Anastrepha suspensa (Loew); Weems, 1965: 3; Larval host; FLORIDA: Miami; GREATER ANTILLES. Anon., 1966: 683; Larval infestation; FLORIDA: Fort Lauderdale; Miami. Weems, 1966: 403; Infestation. Anon., 1967a: 1; Reared; FLORIDA: Miami. Anon., 1967b: 156; Reared; FLORIDA.
Malpighia sp.
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Malus baccata (33)
Rhagoletis pomonella (Walsh); Bush, 1966: 467; Reared; CANADA: Ontario (host as *Pyrus baccata*).
Malus pumila
Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Reared

experimentally. Aczel, 1949: 211; Infestation.

Rhagoletis pomonella (Walsh); C.D.A.;[1] Larvae in fruit; ILLINOIS: Mt. Prospect, IX-24-1963, V. Daniels and D. Estes.

Malus sylvestris

Anastrepha fraterculus (Wiedemann); Costa Lima, 1934: 548; Infestation.

Anastrepha ludens (Loew); Quayle, 1938: 240; Infested. Hoidale, 1953: 560; Infested. Anon., 1955: 2; Infested; MEXICO. Weems, 1963: 1; Infested.

Anastrepha mombinpraeoptans Sein; Foote, R. H., host list;[5] Oviposition.

Anastrepha serpentina (Wiedemann); Baker, A. C., et al., 1944: 127; Reared; TEXAS: Rio Grande Valley.

Rhagoletis pomonella (Walsh); Walsh, 1867: 338; Larvae feed in fruit, burrowing exclusively in external flesh, forming brown, discolored, irregular excavations, never attacking core. Pupae overwinter in soil; CONNECTICUT; MASSACHUSETTS; NEW YORK (as *Trypeta pomonella* Walsh). Walsh, 1868: 36; Infested; ILLINOIS (as *Trypeta pomonella*). Comstock, 1882: 195; Larvae eating into pulp, causing decay. Pupation in ground; WASHINGTON, D.C. (as *Trypeta pomonella*). Cook, A. J., 1889: 152; Infested (as *Trypeta pomonella*). Harvey, N.D. (1890?): 2; Eggs inserted by means of sharp ovipositor through skin of fruit 1/2 to 2/3 grown. Maggots hatch and tunnel or "railroad" the pulp of the apple, rendering it worthless. Mature larvae leave fruit through characteristic irregular openings in skin. Pupation and overwintering in ground 1 in. or less from surface; MAINE (as *Trypeta pomonella*). Harvey, 1890: 220; Larvae tunnel in fruit causing large cavities as larvae mature. When fruit drops, larvae enter ground and pupate (as *Trypeta pomonella*). Townsend, 1893a: 13; Larval infestation. Fletcher, 1899: 223; Larval infestation (as *Trypeta pomonella* Walsh). Patch and Munson, 1904: 171; Infested. Washburn, 1905: 117; Infested; MINNESOTA. Quaintance, 1908: 4; Infested. Illingworth, 1912a: 140; Oviposition in fruit, one egg per puncture, eleven to forty-four punctures per fruit. Larvae feed in fruit. Pupation in soil. Ross, 1913: 70; Larval infestation; CANADA: Ontario. O'Kane, 1914: 12; Infestation. Slingerland and Crosby, 1914: 32; Larval infestation. Pupation in ground. Good, 1915: 54; Infested; NOVA SCOTIA. Brittain and Good, 1917: 9; Infested; NOVA SCOTIA. Caesar, 1917: 10; Larvae attack fruit. Overwinter in pupal stage short distance below surface of soil. Herrick, 1920: 92; Maggots tunnel in tissue just beneath skin. In light-colored apples this tunnelling shows through skin as a dark winding line. Badly infested apples develop brown spots due to decay. Champlain and Knull, 1923: 215; Caged rearing; PENNSYLVANIA: near New Bloomfield, Perry Co. Brues, 1924: 130; Infested. Snodgrass, 1924: 1; Infested. Guyton and Knull, 1925: 1;

Infested. Johnson, C. W., 1925: 261; Larval infestation; CONNECTICUT; MAINE; MASSACHUSETTS; NEW HAMPSHIRE; VERMONT. Johannsen, 1926: 852; Infestations; NEW YORK. Pettit, 1926a: 3; Infested. Pettit, 1926b: 1; Infested. Ries, 1927: 144; Eggs laid just beneath skin surface, punctures darkening, may cause dimpling. Larvae tunnel in fruit causing fruit to ripen prematurely and drop to ground. Pupation in soil; MICHIGAN. Porter, 1928: 5; Larval infestation causing sunken, dimple-like spot in surface. Pupation usually in ground. Caesar, 1929: 93; Infested. Greene, 1929: 494; Larval and pupal infestation; NEW YORK: Ithaca. Pettit, 1929: 1; Infested. McLaine, 1931: 68; Larval infestation; CANADA. Pettit and Hutson, 1931: 34; Infested. Allen and Riker, 1932: 557; Infestation. Phipps and Dirks, 1933: 352; Larval infestation. Allen et al., 1934: 228; Infestation. Chapman and Hammer, 1934: 3; Infested. Garman, 1934: 59; Infested. Pickett, 1937: 70; Infested. Hall, 1943: 202; Infested. Garman and Townsend, 1952: 3; Larva tunnels in fruit near skin. Pupation in soil; CONNECTICUT. Essig, 1958: 604; Infested; EASTERN UNITED STATES. Christenson and Foote, 1960: 180; Infestation. Glass, 1960: 3; Reared; NEW YORK. Leroux and Mukerji, 1964: 61; Infested. Wasbauer, 1964: 5; Infestations; EASTERN UNITED STATES; CANADA; west to NEBRASKA; SOUTH DAKOTA. Bush, 1966: 467; Infested; EASTERN UNITED STATES; SOUTHEASTERN CANADA; CENTRAL MEXICO. Simon, 1969: 173; Infested. Roth and Richardson, 1970: 496; Larval infestation. Prokopy et al., 1971: 1405; Infestations. Parrott and Chapman, N.D.: 1; Infested; NEW YORK.

Malus sp.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Rhagoletis pomonella (Walsh); Walsh, 1867: 338; Larvae feed in fruit, burrowing exclusively in external flesh, forming brown, discolored, irregular excavations, never attacking core. Pupae overwinter in soil; CONNECTICUT; MASSACHUSETTS; NEW YORK (as *Trypeta pomonella* Walsh). Comstock, 1882: 195; Larvae eating into pulp causing decay. Pupation in ground; WASHINGTON, D.C. (as *Trypeta pomonella*). Ross, 1913: 70; Larval infestation; CANADA: Ontario. O'Kane, 1914: 12; Infested. Good, 1915: 54; Infested; NOVA SCOTIA. Brittain and Good, 1917: 9; Infested; NOVA SCOTIA. Caesar, 1917: 10; Larvae attack fruit. Overwinter in pupal stage short distance below surface of soil. Guyton and Knull, 1925: 4; Infested. Pettit, 1929: 1; Infested. McLaine, 1931: 68; Larval infestation; CANADA. Pettit and Hutson, 1931: 34; Infested. Lathrop and Newton, 1933: 143; Infested; MAINE: Cherryfield. Essig, 1958: 604; Infested; EASTERN UNITED STATES. Christenson and Foote, 1960: 180; Infestation.

Mammea americana (20)

Anastrepha ludens (Loew); Emmart, 1935: 120; Infested. Quayle, 1938: 240; Infested. Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infestation. Mena, 1965: 13; Infested; EL SALVADOR.

Anastrepha mombinpraeoptans Sein; Quayle, 1938: 243; Infested (as *Anastrepha acidusa*).

Anastrepha serpentina (Wiedemann); Costa Lima, 1934: 494; Infested. Greene, 1934: 143; Reared. Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Aczel, 1949: 228; Infestation.

Mangifera indica (1)

Anastrepha distincta Greene; Stone, 1942a: 106; Reared experimentally. Larval food plant. Aczel, 1949: 208; Infested.

Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Larval food plant. Moznette, 1922: 22; Infested; MEXICO; CENTRAL AMERICA; SOUTH AMERICA; WEST INDIES. Crawford, 1927: 445; Infested; MEXICO. Greene, 1929: 496; Host; PANAMA: Panama City. Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation. Wasbauer, 1964: 7; Food plant.

Anastrepha ludens (Loew); Isaac, 1905: 35; Larvae infest fruit. Pupation usually in soil; MEXICO (as *Trypeta ludens*). Herrera, 1908: 171; Infested; MEXICO: Cuernavaca. Crawford, 1910: 321; Infested; MEXICO: Chiapas; Cordova; Oaxaca; Jalapa; Colima. Moznette, 1922: 22; Eggs deposited under skin of ripening fruit. Larvae feed in fruit; MEXICO. Crawford, 1927: 423; Infested; MEXICO. Greene, 1929: 495; Infested; MEXICO. Emmart, 1933: 184; Preferred host; MEXICO: Morelos. Costa Lima, 1934: 539; Infested. Emmart, 1935: 120; Infested. Plummer and Stone, 1935: 10; Infestation. Quayle, 1938: 240; Infested. Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infestation. Hoidale, 1953: 560; Infested. Anon., 1955: 2; Infested; MEXICO. Berry, 1955: 416; Infested; MEXICO. Christenson and Foote, 1960: 180; Reared. Wasbauer, 1964: 7; Infestation. Mena, 1965: 13; Infested; EL SALVADOR. Rubio and McFadden, 1966: 1015; Infested; MEXICO: Mexico City.

Anastrepha mombinpraeoptans Sein; Bates, 1933: 161; Reared; CUBA (as *Anastrepha acidusa*). Sein, 1933: 190; Infested; PUERTO RICO. Strong, 1933: 3; Reared; HAITI (as *Anastrepha acidusa*). Costa Lima, 1934: 552; Infested (as *Anastrepha fraterculus* var. *mombinpraeoptans*). Greene, 1934: 163; Reared. McAlister, 1936: 442; Infested (as *Anastrepha acidusa*). Quayle, 1938: 243; Infested (as *Anastrepha acidusa*). Waterston, 1941: 38; Food plant; WEST INDIES. Baker, A. C., et al., 1944: 135; Infestations; PUERTO RICO. Aczel, 1949: 219; Infestation. Wasbauer, 1964: 7; Infestations. Mena, 1965: 13; Infested; EL SALVADOR. Angeles, 1966: 299; Infestation.

Anastrepha nigrifascia Stone; Foote, R. H., host list;[5] Larvae.

Anastrepha serpentina (Wiedemann); Stone, 1942a: 28; Reared experimentally. Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Aczel, 1949: 228; Infestation.

Anastrepha striata Schiner; Emmart, 1933: 184; Occasional infestation; MEXICO: Morelos. Stone, 1942a: 30; Larval food plant. Aczel, 1949: 229; Infested. Wasbauer, 1964: 7; Infestation.

Anastrepha suspensa (Loew); Weems, 1965: 3; Larval food plant; FLORIDA: Miami. Anon., 1966: 498; Larval infestation; FLORIDA: Miami. Anon., 1966: 683; Larval infestation; FLORIDA: Fort Lauderdale; Miami. Anon., 1966: 888; Reared; FLORIDA: Miami, Dade Co. Anon., 1967a: 1; Reared; FLORIDA: Miami.

Anastrepha zuelaniae Stone; Stone, 1942a: 83; Reared experimentally.

Toxotrypana curvicauda Gerstacker; McAlister, 1936: 442; Larval infestation. Merrill, 1946: 39; Infested. Butcher, 1952: 196; Not preferred host. Weems, 1969a: 1; Infested; FLORIDA.

Mangifera sp.

Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Larval infestation.

Manihot esculenta (17)

Anastrepha striata Schiner; Stone, 1942a: 30; In seed pods. Aczel, 1949: 229; Infestation.

Manilkara zapotilla (37)

Anastrepha serpentina (Wiedemann); Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Weems, 1969b: 1; Larval host.

Melanthera detoidea (11)

Dyseuaresta mexicana (Wiedemann); Stegmaier, 1968a: 20; Some larvae and many pupae found infesting single seed heads; FLORIDA: Dodge Island, Miami.

Melanthera hastata

Dyseuaresta mexicana (Wiedemann); Stegmaier, 1968a: 20; Reared from seed heads; FLORIDA: Howard.

Melanthera parviflora

Dyseuaresta mexicana (Wiedemann); Stegmaier, unpublished record;[12] Reared; FLORIDA: Homestead, IX-X, 1970.

Melanthera sp.

Dyseuaresta mexicana (Wiedemann); Benjamin, 1934: 52; Larvae reared from flower heads; FLORIDA: Brevard Co.; Lower Matecumba Key; Williston.

Microseris laciniata (11)

Paroxyna variabilis (Doane); C.D.A.;[1] Reared; OREGON: Corvallis, VI-22-1934, S. C. Jones.

Mikania sp. (11)
Xanthaciura sp.; Stegmaier, unpublished record;[12] Reared from flower heads; FLORIDA: Homestead.

Mimusops coriacea (37)
Anastrepha serpentina (Wiedemann); Costa Lima, 1934: 494; Infested. Stone, 1942a: 28; Larval food plant. Aczel, 1949: 228; Infestation.
Mimusops emarginata
Anastrepha nigrifascia Stone; Stone, 1942a: 92; Larval food plant; FLORIDA.

Momordica balsamina (13)
Anastrepha suspensa (Loew); Weems, 1965: 3; Larval food plant; FLORIDA: Miami.

Murraya paniculata (35)
Anastrepha suspensa (Loew); Anon., 1968: 260; Larval and pupal infestation; FLORIDA: Miami, Dade Co.

Musa sp. (26)
Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 17; Infested artificially, but do not seem to be attractive hosts.

Myrciaria cauliflora (27)
Anastrepha suspensa (Loew); Anon., 1967b: 689; Larval infestation; FLORIDA: West Palm Beach, Palm Beach Co.
Myrciaria glomerata
Anastrepha suspensa (Loew); Anon., 1967a: 1; Larval infestation.
Myrciaria sp.
Anastrepha fraterculus (Wiedemann); Costa Lima, 1934: 548; Infested.

Oenanthe sarmentosa (41)
Euleia fratria (Loew); Foote, R. H. and Blanc, 1963: 27; Reared; CALIFORNIA: Berkeley, Alameda Co.

Opuntia spp. (7)
Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 16; Infested in laboratory. Probably not in field because host occurs in hot open stretches with brilliant sun which this fly avoids; MEXICO.

Osmanthus americanus (29)
Rhagoletis osmanthi Bush; Benjamin, 1934: 14; Larvae in fruits; FLORIDA [as *Rhagoletis cingulata* (Loew)].

Passiflora quadrangularis (31)
Anastrepha limae Stone; Stone, 1942a: 68; Larval food plant; PANAMA: Capira; Juan Diaz; Panama City; CANAL ZONE: Balboa.

Aczel, 1949: 216; Infestation.
Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Reared experimentally. Aczel, 1949: 219; Infestation.

Passiflora sp.
Anastrepha chiclayae Greene; Baker, A. C., et al., 1944: 141; Reared; MEXICO.

Pastinaca sativa (41)
Euleia fratria (Loew); Coquillett, 1895: 381; Reared from leaf mines; MISSOURI: Cadet (as *Trypeta fratria* Loew). Chittenden, 1909: 11; Larvae produce irregular blotch mines, several larvae in single mine. Epidermal layers distinctly separated containing moisture and blackish frass. Pupation occurs within mine, though pupae may attach to leaf surface or hide in a curled portion of the leaf; WASHINGTON, D.C. Banks, 1912: 31; Larvae mine leaves (as *Acidia fratria* Loew). Frost, 1924: 134; Leaf miners; NEW YORK: Florida; Ithaca; Tarrytown (as *Acidia heraclei* Linn. which Frost considered synonymous with *Trypeta fratria* Loew). Johnson, C. W., 1925: 261; Larvae mine leaves; CONNECTICUT; MASSACHUSETTS; NEW HAMPSHIRE; VERMONT (as *Acidia fratria*). Essig, 1958: 603; Irregular mines on older leaves (as *Acidia fratria*).

Perezia microcephala (11)
Tomoplagia cressoni Aczel; Foote, R. H. and Blanc, 1963: 98; Reared.
Trupanea nigricornis (Coquillett); C.D.A.;[1] Larvae in flowers; CALIFORNIA: Campo, San Diego Co., VII-18-1962, E. D. Algert.
Trupanea wheeleri Curran; C.D.A.;[1] Larvae in flowers; CALIFORNIA: Campo, San Diego Co., VII-18-1962, E. D. Algert.

Persea americana (22)
Anastrepha fraterculus (Wiedemann); Rust, 1918: 462; Larvae in fruit; NORTHERN ARGENTINA. Costa Lima, 1934: 548; Infested. Ebeling, 1959: 320; Infestation; ARGENTINA.
Anastrepha ludens (Loew); Stone, 1942a: 98; Larvae in fruit. Emmart, 1935: 120; Infested. Ebeling, 1959: 320; Infestation; MEXICO. Wasbauer, 1964: 7; Infestation.
Anastrepha serpentina (Loew); Ebeling, 1959: 320; Larvae; CENTRAL AMERICA; WEST INDIES.
Anastrepha suspensa (Loew); Anon., 1966: 738; Larval infestation; FLORIDA: Fort Lauderdale, Broward Co. Anon., 1966: 888; Larval infestation; FLORIDA.

Petasites palmatus (11)
Trypeta angustigena Foote; Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.

Phaseolus sp.
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Phyllanthus acidus (17)
Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Reared experimentally. Aczel, 1949: 211; Infestation.

Phyllocalyx sp. - see *Eugenia* sp.

Physalis subglabrata (39)
Zonosemata electa (Say); Anon., 1959: 721; Larval infestation.
Physalis spp.
Rhagoletis striatella Wulp; Bush, 1966: 516; Larvae in fruit; MEXICO.

Pluchea foetida (11)
Acinia picturata (Snow); Benjamin, 1934: 49; Larvae feed in flower [as *Acinia fucata* (Fabricius)]. Aczel, 1949: 272; Infestation [as *Acinia fucata* (Fabricius)].
Dyseuaresta mexicana (Wiedemann); Foote, R. H., host list;[5] Reared. Not a preferred host, R. H. Foote record may be a chance rearing; teste C. E. Stegmaier.[14]
Neaspilota punctistigma Benjamin; Benjamin, 1934: 39; Larvae feed singly in flowers; FLORIDA: Bithlo; Branchboro; Brevard co.; Caryville; Cleveland; Conway; Forest City; Fort Christmas; 4 mi. E. Fort Christmas; Longwood; Orlando; Oviedo; Wiersdale.
Pluchea imbricata
Acinia picturata (Snow); Benjamin, 1934: 49; Larvae feed in flowers [as *Acinia fucata* (Fabricius)]. Aczel, 1949: 272; Infestation [as *Acinia fucata* (Fabricius)].
Neaspilota punctistigma Benjamin; Benjamin, 1934: 39; Larvae feed singly in flowers; FLORIDA.
Pluchea odorata
Acinia picturata (Snow); Stegmaier, 1967a: 53; Single larva constructs cell of dead seeds, usually within immature flowers or buds. Pupae in mature seed heads; FLORIDA: Dodge Island, Miami.
Pluchea purpurascens
Acinia picturata (Snow); Benjamin, 1934: 49; Larvae feed in flowers [as *Acinia fucata* (Fabricius)]. Aczel, 1949: 272; Infestation [as *Acinia fucata* (Fabricius)]. C.D.A.;[1] Reared from flower heads; CALIFORNIA: Otay, San Diego Co., IX-12-1960, E. D. Algert.
Pluchea rosea
Acinia picturata (Snow); Stegmaier, unpublished record;[2] Reared from flower head, not a preferred host as only one adult reared from many seed heads; FLORIDA: Hialeah, III-29-1967, C. E. Stegmaier, V-18-1967, C. E. Stegmaier.
Neaspilota spp.; Stegmaier, 1968b: 46; Reared; FLORIDA: Hialeah.

Pluchea sericea
Acinia picturata (Snow); Foote, R. H., 1964: 84; Reared from inflorescences. C.D.A.;[1] Reared from flower buds; CALIFORNIA: San Ysidro, San Diego Co., VIII-15-1960, E. D. Algert.
Pluchea sp.
Acinia picturata (Snow); Benjamin, 1934: 49; Larvae in flowers [as *Acinia fucata* (Fabricius)].

Poa sp. (19)
Tephritis araneosa (Coquillett); Foote, R. H., 1960a: 84; Larvae in seeds.

Porophyllum gracile (11)
Trupanea pseudovicina Hering; C.D.A.;[1] Larvae in flower heads; CALIFORNIA: Dulzura, San Diego Co., V-30-1962, E. D. Algert.

Pouteria caimito (37)
Anastrepha serpentina (Wiedemann); Costa Lima, 1934: 494; Infested.
Pouteria campechiana
Anastrepha suspensa (Loew); Anon., 1967a: 1; Reared; FLORIDA: Miami.
Pouteria mammosa
Anastrepha mombinpraeoptans Sein; Weems, 1970: 1; Larval host.

Prenanthes canadense (11)
Euleia fratria (Loew); Frost, 1924: 134; Larvae produce irregular blotch mines, several larvae in single mine. Epidermal layers distinctly separated containing moisture and blackish frass. Pupation occurs within mine, though pupae may attach to leaf surface or hide in a curled portion of the leaf (as *Acidia heraclei* Linn. which Frost considered synonymous with *Trypeta fratria* Loew).
Prenanthes trifoliata
Neaspilota achilleae Johnson; Foote, R. H., host list;[5] Reared.

Prunus americana (33)
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).
Anastrepha suspensa (Loew); McAlister, 1936: 442; Attacking fruit. Anon., 1967a: 1; Caged host; FLORIDA.
Prunus amygdalus
Anastrepha mombinpraeoptans Sein; Quayle, 1938: 243; Infestation (as *Anastrepha acidusa*). Stone, 1942a: 69; Larval food plant. Aczel, 1949: 219; Infestation.
Prunus angustifolia
Rhagoletis pomonella (Walsh); Benjamin, 1934: 15; Larvae from fruits; NORTHERN FLORIDA.
Prunus armeniaca
Anastrepha fraterculus (Wiedemann); Rust, 1918: 462; Larval

infestation; NORTHERN ARGENTINA. Costa Lima, 1934: 548; infested.

Anastrepha ludens (Loew); Quayle, 1938: 240; Infested.

Rhagoletis pomonella (Walsh); Lienk, 1970: 1684; Infested.

Prunus arnoldiana

Anastrepha mombinpraeoptans Sein; Wasbauer, 1964: 7; Infested.

Prunus avium

Rhagoletis cingulata (Loew); Caesar, 1915: 108; Infestation. Greene, 1929: 494; Larval and pupal infestation; NEW YORK: Ithaca. Glasgow, 1933: 436; Reared from larvae; NEW YORK. Phillips, 1946: 65; Eggs under surface of skin. Puparia overwinter in ground. Larvae live near center of fruit until mature. Infested cherries have appearance of sound fruit at picking time. Cox, 1952: 1; Food plant; PENNSYLVANIA: Erie Co.

Rhagoletis fausta (Osten Sacken); Caesar, 1915: 108; Infested. Glasgow, 1933: 436; Reared; NEW YORK. Phillips, 1946: 66; Maggot appears to be associated with the Brown Rot of cherries; NEW YORK: Ithaca. Cox, 1952: 1; Food plant; PENNSYLVANIA: Erie Co. Proverbs, 1953: 18; Larval infestation; CANADA: Okanagan Valley, British Columbia.

Rhagoletis indifferens Curran; Bush, 1966: 478; Larval infestation; OREGON.

Prunus cerasus

Rhagoletis cingulata (Loew); Lowe, 1899: 693; Infestations; NEW YORK. Caesar, 1915: 108; Infested. Glasgow and Gambrell, 1925: 1; Infested. Greene, 1929: 494; Larval and pupal infestation; NEW YORK: Ithaca. Glasgow, 1933: 436; Reared; NEW YORK. Cox, 1952: 1; Food plant; PENNSYLVANIA: Erie Co.

Rhagoletis fausta (Osten Sacken); Illingworth, 1912: 195; Larvae feed in fruit. Pupation in soil, seldom deeper than 1 in. Caesar, 1915: 108; Infested. Glasgow and Gambrell, 1925: 1; Infested. Eide et al., 1949: 2; Infestation; WASHINGTON. Cox, 1952: 1; Food plant; PENNSYLVANIA: Erie Co. Proverbs, 1953: 18; Larval infestation; CANADA: Okanagan Valley, British Columbia. Essig, 1958: 604; Infested. Bush, 1966: 519; Larvae in fruit; NEW YORK.

Rhagoletis indifferens Curran; Foote, R. H. and Blanc, 1963: 58; Reared.

Prunus cerasus 'Montmorency'

Rhagoletis fausta (Osten Sacken); Shervis et al., 1970: 295; Reared from larvae in fruit; WISCONSIN: Egg Harbor, Door Co.

Rhagoletis pomonella (Walsh); Shervis et al., 1970: 295; Reared from larvae in fruit.

Prunus domestica

Rhagoletis pomonella (Walsh); Foote, R. H., host list;[5] Reared.

Prunus emarginata

Rhagoletis cingulata (Loew); Simkover, 1953: 896; Infested; EASTERN WASHINGTON. Raine and Andison, 1958: 593; Infested;

CANADA: Vancouver Island, British Columbia.

Rhagoletis fausta (Osten Sacken); Eide et al., 1949: 2; Infestation; WASHINGTON. Blanc and Keifer, 1955: 77; Infestation; OREGON. Raine and Andison, 1958: 593; Infestation; CANADA: Vancouver Island, British Columbia. Foote, R. H. and Blanc, 1963: 60; Reared; CALIFORNIA: Dunsmuir, Siskiyou Co.; Emigrant Gap, Nevada Co. Bush, 1966: 519; Larvae in fruit. Newcomer, 1966: 39; Oviposition in flesh of fruit. Larvae feed about pit. When mature, larvae drop to ground, overwintering as pupae a few inches below soil surface; MONTANA. O.S.U.;[3] Reared.

Rhagoletis indifferens Curran; Keifer, 1938: 662; Infested; CALIFORNIA. Mackie, 1940: 157; Infested; CALIFORNIA. Jones, 1942: 44; Reared; OREGON: Hood River. Phillips, 1946: 66; Larval infestation; OREGON. Simkover, 1953: 896; Infested; EASTERN WASHINGTON. Blanc and Keifer, 1955: 77; Infestations; OREGON (as *Rhagoletis cingulata indifferens*). Frick, 1957: 584; Infestation; WASHINGTON: Yakima Valley (as *Rhagoletis cingulata indifferens*). Newcomer, 1966: 39; Oviposition in flesh of fruit. Larvae feed about pit. When mature, larvae drop to ground, overwintering as pupae a few inches below soil surface; IDAHO; OREGON; WASHINGTON (as *Rhagoletis cingulata*). Banham, 1971: 29; Primary host; CANADA: Okanagan Valley, British Columbia. O.S.U.;[3] Reared.

Prunus emarginata var. *erecta*

Rhagoletis indifferens Curran; Forsell, 1947: 167; Infestation; WASHINGTON: Puget Sound (as *Rhagoletis cingulata*).

Prunus mahaleb

Rhagoletis cingulata (Loew); Glasgow, 1933: 436; Reared; NEW YORK. Cox, 1952: 1; Food plant; PENNSYLVANIA: Erie Co.

Rhagoletis fausta (Osten Sacken); Farleman, 1933: 828; Infested; MICHIGAN. Glasgow, 1933: 436; Larval infestation; NEW YORK. Cox, 1952: 1; Food plant; PENNSYLVANIA: Erie Co.

Prunus pennsylvanica

Rhagoletis cingulata (Loew); Bird, 1927: 128; Reared; CANADA: Manitoba. Farleman, 1933: 828; Reared; MICHIGAN. Cox, 1952: 1; Food plant; PENNSYLVANIA: Erie Co.

Rhagoletis fausta (Osten Sacken); Severin, 1918c: 325; Larvae in fruit; MAINE: Orono, near Penobscot River. Bird, 1927: 128; Reared; CANADA: Manitoba. Farleman, 1933: 828; Infested; MICHIGAN. Glasgow, 1933: 436; Infested; NEW YORK. Cox, 1952: 1; Food plant; PENNSYLVANIA: Erie Co.

Prunus persica

Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Larval host. Rust, 1918: 462; Larvae in fruit, may cause "mummifying" if oviposition occurs early in season. Later oviposition causes fruit to ripen prematurely and fall to ground because of larval feeding on pulp, when fruits of equal age have scarcely started to ripen. Three to forty larvae per fruit. Moznette, 1922: 22; Infested; MEXICO;

CENTRAL AMERICA; SOUTH AMERICA; WEST INDIES. Greene, 1929: 496; Host; PANAMA: Panama City. Costa Lima, 1934: 548; Infested. Stone, 1942a: 81; Larval food plant; MEXICO: Linares; Ramos Arispe; Monterrey. Baker, A. C., et al., 1944: 138; Attacks fruit (also as Mexican *Anastrepha fraterculus*). Aczel, 1949: 211; Infestation. Christenson and Foote, 1960: 185; Infested (as Mexican *Anastrepha fraterculus*). Wasbauer, 1964: 7; Food plant.

Anastrepha ludens (Loew); Greene, 1929: 495; Infested; MEXICO. Emmart, 1935: 120; Infested. Quayle, 1938: 240; Infested. Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infestation. Hoidale, 1953: 560; Infested. Anon., 1955: 2; Infested; MEXICO. Christenson and Foote, 1960: 180; Reared. Wasbauer, 1964: 7; Infestations.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Anastrepha serpentina (Wiedemann); Baker, A. C., et al., 1944: 127; Reared; TEXAS: Rio Grande Valley. Spishakoff, 1966: 1010; Laboratory rearing; NORTHEAST MEXICO.

Anastrepha suspensa (Loew); Weems, 1965: 3; Larval host; FLORIDA: Miami. Anon., 1966: 525; Larval infestation; FLORIDA: Greater Miami. Anon., 1966: 589; Larval infestation; FLORIDA: Canal Point, Palm Beach Co. Anon., 1966: 652; Larval infestation; FLORIDA. Weems, 1966: 403; Infested. Anon., 1967a: 1; Reared; FLORIDA: Miami. Anon., 1972: 153; Larval infestation; FLORIDA: Homestead.

Rhagoletis completa Cresson; Boyce, 1934: 388; Reared (host as *Amygdalus persica*). Essig, 1958: 604; Infests ripening fruit under certain conditions. Christenson and Foote, 1960: 180; Infested (host as *Amygdalus persica*). Foote, R. H. and Blanc, 1963: 60; Reared; CALIFORNIA: Meiners Oaks, Ventura Co.; Yucaipa, San Bernardino Co. Wasbauer, 1964: 5; Infestations, not a preferred host.

Rhagoletis pomonella (Walsh); Bush, 1966: 462; Infestations rare, and occur only when host is growing near infested apples.

Rhagoletis suavis (Loew); Dean, 1969: 940; Oviposition in green fruit. Reared to pupal stage; NEW YORK: Bell's Pond, Viewmonte, Columbia Co.

Tomoplagia cressoni Aczel; Aczel, 1955: 322; Reared; CALIFORNIA (host record doubtful).

Prunus persica var. *nectarina*

Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Reared experimentally.

Anastrepha suspensa (Loew); Anon., 1968: 452; Larval infestation; FLORIDA: Tampa, Hillsborough Co.

Prunus salicina

Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Eggs and larvae in fruit. Moznette, 1922: 22; Infested; MEXICO; CENTRAL AMERICA; SOUTH AMERICA; WEST INDIES. Greene, 1929: 496; Host; PANAMA: Panama City.

Rhagoletis indifferens Curran; Ellertson, 1961: 116; Reared; OREGON: Hood River (as *Rhagoletis cingulata indifferens* Curran).

Prunus serotina

Rhagoletis cingulata (Loew); Glasgow, 1933: 436; Reared; NEW YORK. Benjamin, 1934: 14; Larval food plant; FLORIDA. Cox, 1952: 1; Food plant; PENNSYLVANIA: Erie Co.

Rhagoletis fausta (Osten Sacken); Farleman, 1933: 828; Infestation; MICHIGAN. Cox, 1952: 1; Food plant; PENNSYLVANIA: Erie Co. Foote, R. H. and Blanc, 1963: 98; Reared. Bush, 1966: 519; Reared.

Prunus subcordata

Rhagoletis indifferens Curran; Ellertson, 1961: 116; Reared; OREGON: near The Dalles (as *Rhagoletis cingulata indifferens* Curran).

Prunus umbellata

Rhagoletis pomonella (Walsh); Benjamin, 1934: 15; Larvae in fruit; NORTHERN FLORIDA.

Prunus virginiana

Rhagoletis cingulata (Loew); Glasgow, 1933: 433; No adults reared, though two typical puparia found. Not a preferred host; NEW YORK.

Rhagoletis fausta (Osten Sacken); Farleman, 1933: 828; Infested; MICHIGAN. Glasgow, 1933: 436; Reared; MICHIGAN.

Rhagoletis indifferens Curran; Banham, 1971: 29; Occasional host; CANADA: Okanagan Valley, British Columbia.

Prunus virginiana var. *demissa*

Rhagoletis fausta (Osten Sacken); Raine and Andison, 1958: 593; Infestation; CANADA: Vancouver Island, British Columbia.

Rhagoletis indifferens Curran; Simkover, 1953: 896; Infested only rarely (also as *Rhagoletis cingulata*). Frick et al., 1954: 2; Reared (as *Rhagoletis cingulata*). Frick, 1957: 584; Infestation; WASHINGTON: Yakima Valley (as *Rhagoletis cingulata indifferens*). Raine and Andison, 1958: 593; Infestation; CANADA: Vancouver Island, British Columbia (as *Rhagoletis cingulata*).

Prunus sp.

Anastrepha fraterculus (Wiedemann); Christenson and Foote, 1960: 180; Reared.

Anastrepha ludens (Loew); Greene, 1929: 495; Infested; MEXICO. Emmart, 1935: 120; Infested. Quayle, 1938: 240; Infested. Baker, A. C., et al., 1944: 18; Infestation in laboratory; MEXICO.

Anastrepha mombinpraeoptans Sein; Baker, A. C., et al., 1944: 137; Laboratory infestation (as Mexican *Anastrepha mombinpraeoptans*).

Anastrepha suspensa (Loew); Anon., 1966: 556; Larval infestation; FLORIDA: Greater Miami.

Rhagoletis cingulata (Loew); Davis, G. C., 1889: 291; Larvae and pupae only; MICHIGAN (as *Trypeta pomonella*).

Slingerland, 1899: 23; Infested. Simkover, 1902: 28; Reared. Banks, 1912: 33; Infested. Herrick, 1913: 79; Infested. Slingerland and Crosby, 1914: 304; Larval infestation. Cole and Lovett, 1921: 325; Larval host; OREGON: Corvallis; Cove; Portland; Salem; Sheridan. Frank, 1924: 42; Maggot eats pulp; CANADA; MICHIGAN; NEW YORK. Guyton and Knull, 1925: 4; Infested (as *Rhagoletis pomonella*). Pettit, 1925: 1; Infested. Johannsen, 1926: 851; Infestations; NEW YORK. Pettit, 1926c: 1; Infested. Pettit, 1929: 1; Infested (as *Rhagoletis pomonella*). McLaine, 1931: 68; Larval infestation; CANADA (as *Rhagoletis pomonella*). Hall, 1938: 55; Reared. Essig, 1958: 604; Infested.

Rhagoletis fausta (Osten Sacken); Gibson, 1909: 73; Infested; CANADA: British Columbia (as *Rhagoletis intrudens*). Herrick, 1913: 79; Infested. Slingerland and Crosby, 1914: 304; Larval infestation. Johnson, C. W., 1925: 262; Larval infestation; MAINE; MASSACHUSETTS. Pettit, 1925: 1; Infested. Johannsen, 1926: 851; Infestations; NEW YORK. Pettit, 1926c: 1; Infested. Johnson, C. W., 1927: 217; Infested. Cresson, 1929: 405; Infesting fruit. Eichmann, 1936: 8; Infestation; MONTANA: Flathead Valley. Forsell, 1947: 167; Infestation; WASHINGTON: Puget Sound. Newcomer, 1966: 39; Oviposition in flesh of fruit. Larvae feed about pit. When mature, larvae drop to ground, overwintering as pupae a few inches below soil surface; MONTANA.

Rhagoletis indifferens Curran; Wilson and Lovett, 1913: 160; Oviposition in fruit. Larvae feed around pit causing rotting and softening on one side of fruit. Larvae leave fruit and overwinter as pupae in ground; OREGON (as *Rhagoletis cingulata*). Lovett, 1923: 1; Oviposition in fruit. Larvae tunnel through pulp of fruit. Mature larvae tunnel out of fruit and drop to ground. Pupation and overwintering in soil; OREGON. Frank, 1924: 42; Maggot eats pulp; CANADA; WASHINGTON. Newcomer, 1933: 46; Infestation (as *Rhagoletis cingulata*). Eide, 1946: 55; Eggs laid beneath skin. Larvae feed about pit, then burrow through skin and drop to ground where most pupate in first inch of soil. Eide, 1947: 119; Infestation; WASHINGTON (as *Rhagoletis cingulata*). Eide et al., 1949: 1; Eggs laid beneath skin of fruit by means of sharp ovipositor. Resulting scar can sometimes be seen, but usually heals over. Larvae feed around pit until mature, then burrow out and drop to ground. Seventy-five percent of pupae found in first inch of soil, twenty-four percent in second inch, and one percent in third inch. Puparia remain in soil until following spring; WASHINGTON (as *Rhagoletis cingulata*). Foote, R. H. and Blanc, 1963: 98; Reared. Newcomer, 1966: 39; Oviposition in flesh of fruit. Larvae feed about pit. When mature, larvae drop to ground, overwintering as pupae a few inches below soil surface; IDAHO;

OREGON; WASHINGTON (as *Rhagoletis cingulata*).

Rhagoletis pomonella (Walsh); Cook, A. J., 1889: 152 (as *Trypeta pomonella*)(host as cherry, record uncertain). Glasgow, 1933: 433; Seen ovipositing repeatedly (host as cherry). Davis, G. C., 1889: 291; Larvae and pupae only; MICHIGAN (as *Trypeta pomonella*) (host as plum). Guyton and Knull, 1925: 4; Infested (host as plum). Greene, 1929: 494; Larval and pupal infestation; NEW YORK: Ithaca (host as plum). Pettit, 1929: 1; Infested (host as plum). McLaine, 1931: 68; Larval infestation; CANADA (host as plum). Pickett and Neary, 1940: 552; Reared in laboratory, not a preferred host (host as plum). Christenson and Foote, 1960: 180; Infested (host as plum). Bush, 1966: 462; Single exception to host specificity of *Rhagoletis pomonella* for Pomoidea; a "host-race" (host as wild and cultivated plums).

Pseudanamomis umbellulifera (27)

Anastrepha suspensa (Loew); Anon., 1967a: 1; Reared; FLORIDA: Miami.

Psidium cattleianum (27)

Anastrepha fraterculus (Wiedemann); Rust, 1918: 462; Larvae in fruit; NORTHERN ARGENTINA. Costa Lima, 1934: 548; Infested.

Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 18; Infested in laboratory; MEXICO.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Anastrepha suspensa (Loew); Stone, 1942a: 74; Larval food plant. Aczel, 1949: 230; Infested. Weems, 1965: 3; Larval host; FLORIDA: Miami; GREATER ANTILLES. Anon., 1966: 818; Larval infestation; FLORIDA: Fort Myers, Lee Co.; Sebring, Highlands Co. Anon., 1966: 888; Larval infestation; FLORIDA: Sebring, Highlands Co.; Vero Beach, Indian River Co. Weems, 1966: 403; Infested. Anon., 1967a: 1; Reared; FLORIDA: Miami. Kamasaki et al., 1970: 640; Infested; FLORIDA.

Psidium friedrichsthalianum

Anastrepha suspensa (Loew); Anon., 1967b: 743; Larval infestation; FLORIDA: West Palm Beach, Palm Beach Co.

Psidium guajava

Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Eggs deposited in and larvae more or less completely destroy fruit. Moznette, 1922: 22; Infested; MEXICO; CENTRAL AMERICA; SOUTH AMERICA; WEST INDIES. Crawford, 1927: 445; Larval infestation; MEXICO. Greene, 1929: 496; Host; PANAMA: Panama City. Costa Lima, 1934: 548; Infested. Stone, 1942a: 79; Larval food plant; MEXICO: Linares; Ramos Arispe; Monterrey; PANAMA. Baker, A. C., et al., 1944: 138; Attacks fruit (also as Mexican *Anastrepha*

fraterculus). Aczel, 1949: 211; Infested. Christenson and Foote, 1960: 180; Reared (also as Mexican *Anastrepha fraterculus*). Wasbauer, 1964: 7; Food plant.

Anastrepha lathana Stone; Stone, 1942a: 106; Reared; MEXICO: Mexico City.

Anastrepha ludens (Loew); Herrera, 1908: 171; Infested; MEXICO: Cuernavaca. Crawford, 1910: 321; Infested; MEXICO: Chiapas; Colima; Cordova; Jalapa; Oaxaca. Moznette, 1922: 22; Eggs deposited under skin of ripening fruit. Larvae feed in fruit; MEXICO. Crawford, 1927: 423; Larval infestation; MEXICO. Greene, 1929: 495; Infested; MEXICO. Emmart, 1935: 120; Infested. Quayle, 1938: 240; Infested. Baker, A. C., et al., 1944: 12; Very rarely reared; MEXICO: Cuernavaca; Morelos.

Anastrepha mombinpraeoptans Sein; Isaac, 1905: 35; Reared; MEXICO (as *Trypeta acidusa*). Sein, 1933: 190; Infested; PUERTO RICO. Costa Lima, 1934: 552; Infested (as *Anastrepha fraterculus* var. *mombinpraeoptans*). Greene, 1934: 163; Reared. Newell, 1935: 22; Infested. McAlister, 1936: 442; Infested (as *Anastrepha acidusa*). Quayle, 1938: 243; Infested (as *Anastrepha acidusa*). Aczel, 1949: 219; Infestation.

Anastrepha ocresia (Walker); Weems, 1968: 1; Reared; FLORIDA.

Anastrepha serpentina (Wiedemann); Greene, 1929: 498; Larval and pupal infestation. Greene, 1934: 143; Reared. Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo.

Anastrepha striata Schiner; Greene, 1929: 496; Reared; PANAMA: Sabanas; CANAL ZONE: Frijoles. Emmart, 1933: 184; Preferred host; MEXICO: Morelos. Strong, 1933: 8; Reared; TRINIDAD. Darby and Kapp, 1934: 1; Larval infestation; MEXICO. Greene, 1934: 146; Reared. Stone, 1942a: 30; Larval food plant. Aczel, 1949: 229; Infested. Bush, 1962: 94; Reared; MEXICO: Tequila; Jalisco. Wasbauer, 1964: 7; Infestation.

Anastrepha suspensa (Loew); Costa Lima, 1934: 507; Preferred host; PUERTO RICO. Greene, 1934: 148; Reared. Newell, 1935: 24; Infested. McAlister, 1936: 442; Attacking fruits. Stone, 1942a: 74; Larval food plant. Aczel, 1949: 230; Infested. Weems, 1965: 3; Larval host; FLORIDA: Miami; GREATER ANTILLES. Anon., 1966: 32; Larval infestation; FLORIDA. Anon., 1966: 83; Larval infestation; FLORIDA. Anon., 1966: 589; Larval infestation; FLORIDA. Anon., 1966: 965; Larval infestation; FLORIDA: Avon Park, Highlands Co.; St. Petersburg, Pinellas Co. Anon., 1966: 980; Larval infestation; FLORIDA: Avon Park, Highlands Co.; Frostproof, Polk Co. Anon., 1966: 1034; Larval infestation; FLORIDA: Bradenton; Miami, Dade Co.; St. Petersburg. Anon., 1966: 1158; Larval infestation; FLORIDA: Key West, Monroe Co. Weems, 1966: 403; Infested. Anon., 1967a: 1; Reared; FLORIDA: Miami. Anon., 1967b: 33; Larval infestation; FLORIDA: Sarasota, Sarasota Co. Anon., 1967b: 156; Larval

infestation; FLORIDA. Anon., 1968: 950; Larval infestation; FLORIDA: Brooksville, Hernando Co. Baranowski and Swanson, 1970: 161; Larval infestation; FLORIDA: Homestead. Kamasaki et al., 1970: 640; Infested; FLORIDA.

Psidium guajava var. *pomiferum*

Anastrepha ludens (Loew); Isaac, 1905: 35; Larvae infest fruit. Pupation usually in soil; MEXICO.

Psidium guineense

Anastrepha fraterculus (Wiedemann); Costa Lima, 1934: 548; Infested.

Psidium lucidum

Anastrepha fraterculus (Wiedemann); Rust, 1918: 462; Larvae in fruit; NORTHERN ARGENTINA. Costa Lima, 1934: 548; Infestation.

Psidium spp.

Anastrepha suspensa (Loew); Weems, 1965: 3; Caged host; FLORIDA.

Punica granatum (32)

Anastrepha ludens (Loew); Emmart, 1935: 120; Infested. Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infested. Hoidale, 1953: 560; Infested. Anon., 1955: 2; Infested; MEXICO.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Anastrepha suspensa (Loew); Anon., 1967b: 840; Larval infestation; FLORIDA: St. Petersburg, Pinellas Co.

Pyracantha sp. or *Cotoneaster* sp. (33)

Rhagoletis pomonella (Walsh); Bush, 1966: 467; Reared; TEXAS [host as *Cotoneaster (Pyracantha)* sp.].

Pyrus baccata - see *Malus baccata*.

Pyrus communis (33)

Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Eggs and larvae in fruit. Moznette, 1922: 22; Infested; MEXICO; CENTRAL AMERICA; SOUTH AMERICA; WEST INDIES. Greene, 1929: 496; Host; PANAMA: Panama City. Costa Lima, 1934: 548; Infested. Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation. Wasbauer, 1964: 7; Food plant.

Anastrepha ludens (Loew); Quayle, 1938: 240; Infestation. Baker, A. C., et al., 1944: 13; In laboratory only; MEXICO: Ramos Arispe, Coahuila. Hoidale, 1953: 560; Infested. Anon., 1955: 2; Infested; MEXICO.

Anastrepha serpentina (Wiedemann); Baker, A. C., et al., 1944: 127; Reared; TEXAS: Rio Grande Valley.

Anastrepha suspensa (Loew); Anon., 1967b: 716; Larval infestation; FLORIDA: Lakeland, Polk Co.

Rhagoletis pomonella (Walsh); Harvey, 1893: 99; Infested; VERMONT. Herrick, 1920: 91; Larval infestation; VERMONT. Guyton and Knull, 1925: 4; Infested. McLaine, 1931: 68;

Larval infestation; CANADA. Lathrop and Nickels, 1932: 6; Larval infestation. Pickett and Neary, 1940: 552; Reared in laboratory, not preferred host. Christenson and Foote, 1960: 180; Infested.

Pyrus pyrifolia X *Pyrus communis*

Anastrepha suspensa (Loew); Esser, 1967: 5; Larval infestation; FLORIDA: Safety Harbor, Pinellas Co.

Pyrus sp.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Raillardella sp. (11)

Trupanea jonesi Curran; O.S.U.;[3] Reared (host as *Raillardia* sp.).

Ratibida columnaries (11)

Eutreta sparsa (Wiedemann); Painter, 1935: 83; Irregular oval gall on stem, 10mm. X 17mm., usually at axis of branch. Probably overwinters in gall at crown. Larva cuts thin place in wall before pupation; TEXAS: Austin.

Ratibida sp.

Eutreta sparsa (Wiedemann); Felt, 1940: 330; Infestation causing irregular stem swelling (host as *Lepachys* sp.).

Ribes alpinum (38)

Epochra canadensis (Loew); Severin, 1918a: 202; Larvae in fruit; MAINE: Orono.

Ribes aureum

Epochra canadensis (Loew); Mitchener, 1927: 38; Eggs laid near surface of 3/4 grown currant. Young larva works to center of fruit and attacks seed. Full grown larva cuts exit hole in fruit and enters ground where it overwinters in pupal stage at depths of 1/2 in. to 3-4 in.; CANADA: Manitoba.

Rhagoletis ribicola Doane; Phillips, 1946: 73; Maggots in fruit; OREGON: Burns. O.S.U.;[3] Reared.

Ribes grossularia

Rhagoletis ribicola Doane; Bush, 1966: 507; Reared.

Ribes nigrum

Epochra canadensis (Loew); Fletcher, 1899: 223; Larval infestation; CANADA: Vancouver Island. Mitchener, 1927: 38; Eggs laid near surface of 3/4 grown currant. Young larva works to center of fruit and attacks seed. Full grown larva cuts exit hole in fruit and enters ground where it overwinters in pupal stage at depths of 1/2 in. to 3-4 in.; CANADA: Manitoba.

Ribes oxycanthoides

Epochra canadensis (Loew); Severin, 1917: 182; Reared from larvae in fruit; MAINE: Orono (host as *Grossularia oxycanthoides*).

Ribes rubrum

Epochra canadensis (Loew); Mitchener, 1927: 38; Eggs laid near surface of 3/4 grown currant. Young larvae work to center of fruit and attack seeds. Full grown larva cuts exit hole in fruit and enters ground where it overwinters in pupal stage at depths of 1/2 in. to 3-4 in.; CANADA: Manitoba.

Ribes sativum

Rhagoletis ribicola Doane; Bush, 1966: 507; Reared (host as *Ribes vulgare*).

Ribes triste

Epochra canadensis (Loew); Severin, 1917: 182; Larval infestation; MAINE: Orono.

Ribes vulgare - see *Ribes sativum*.

Ribes sp.

Epochra canadensis (Loew); Gillette, 1892: 18; Larvae in fruit; COLORADO (as *Trypeta canadensis* Loew). Baker, C. F., 1895: 174; Infested; COLORADO (as *Trypeta canadensis*). Harvey, 1895: 111; Reared. Harvey, 1897: 27; Larvae feed in seeds causing discoloration and premature ripening. Pupation in soil; MAINE. Piper, C. V. and Doane, 1898: 7; Larvae feed on berries. Pupation in soil. Doane, 1899: 178; Larval host; NEW YORK. Aldrich, 1909: 72; Infested. Paine, 1912: 140; Oviposition in fruit, one larva per berry. Larva tunnels into seed, and as it enlarges, leaves seed to feed on pulp causing berries to ripen and drop prematurely. Berries turn red with unsightly black blotches. Overwintering in pupal stage 1 to 2 in. beneath surface of ground. Lovett, 1913: 135; Usually one egg per fruit. Young larva feeds just beneath skin for a time and then works way in and enters seed. May feed on more than one seed. When mature, larva crawls out of fruit and enters soil to a depth of 1 1/2 in. where it forms earthen cell and transforms to pupa. Slingerland and Crosby, 1914: 355; Larval infestation causing discoloration and premature ripening. Whitney, 1916: 152; As maggot develops, dark sunken area formed around oviposition puncture. Pupation in soil; CALIFORNIA. Cole and Lovett, 1921: 325; Larval host; WESTERN OREGON. Johnson, C. W., 1925: 261; Larval infestation; MAINE; MASSACHUSETTS. Bird, 1927: 128; Reared; CANADA: Manitoba. Keifer, 1930: 579; Larvae common in fruit; CALIFORNIA. Jones, 1937: 1; Infested. Knowlton and Harmston, 1937: 145; Infestation; UTAH. Strickland, 1938: 204; Infested; CANADA: Alberta. Phillips, 1946: 41; Larvae in fruit, sometimes two or three per single currant, leaving a light colored trail immediately beneath skin of fruit. Maggot feeds on seed, then lives in pulp between seeds. Frass, seed coats, etc., become cemented together in a black mass clearly visible through skin. When full grown, maggot cuts circular exit hole and pupates in ground; MAINE. Essig, 1958: 603; Infested. Christenson and Foote, 1960: 180; Reared.

Wasbauer, 1964: 8; Infested. C.D.A.;[1] Larval host; CALIFORNIA: Beverly Hills, Los Angeles Co., IV-30-1956, G. Beevor.

Rhagoletis ribicola Doane; Doane, 1898: 72; Eggs deposited in berries in which larvae feed until full grown, destroying berries and usually causing them to drop to ground. Overwinter as puparia in ground or underneath rubbish under plants. Piper and Doane, 1898: 5; Larvae feed in berries, causing premature ripening. Pupation in ground; WASHINGTON: Pullman. Aldrich, 1909: 72; Infested; IDAHO: Pollock; WASHINGTON. Slingerland and Crosby, 1914: 356; Larval infestation. Pupation in ground. Eide et al., 1949: 2; Infestation; WASHINGTON. Essig, 1958: 605; Infested. Foote, R. H. and Blanc, 1963: 98; Reared.

Rosa acicularis (33)

Rhagoletis basiola (Osten Sacken); Balduf, 1958: 9; Pupal infestation; ILLINOIS; MINNESOTA; OHIO; WISCONSIN. Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; NORTHWESTERN CANADA; ALASKA; NORTHEASTERN MINNESOTA.

Rosa acicularis var. *bourgeauiana*

Rhagoletis basiola (Osten Sacken); Foote, R. H., host list;[5] Reared.

Rosa alcea - see *Rosa arkansana*.

Rosa arkansana

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; CANADA: British Columbia; Manitoba; Saskatchewan; WISCONSIN (host for Canada localities as *Rosa alcea*).

Rosa blanda

Rhagoletis basiola (Osten Sacken); Balduf, 1957: 163; Larvae from hips; WASHINGTON: near Chetek. Balduf, 1958: 9; Pupal infestation; ILLINOIS; MINNESOTA; OHIO; WISCONSIN. Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; CANADA: Ontario; NORTHEASTERN MINNESOTA; WISCONSIN.

Rosa canina

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; ILLINOIS; INDIANA; OHIO.

Rosa carolina

Rhagoletis basiola (Osten Sacken); Balduf, 1957: 163; Larvae from hips; WASHINGTON: near Chetek. Balduf, 1958: 9; Pupal infestation; ILLINOIS; MINNESOTA; OHIO; WISCONSIN. Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; ILLINOIS; INDIANA; OHIO; WISCONSIN.

Rosa carolina var. *villosa*

Rhagoletis basiola (Osten Sacken); Foote, R. H., host list;[5] Reared.

Rosa eglanteria

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; NORTH CAROLINA.

Rosa gallica

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; ILLINOIS; INDIANA; OHIO.

Rosa jundzilli - see *Rosa marginata*.

Rosa macounii

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; CANADA: British Columbia; Manitoba; Saskatchewan; NORTHEASTERN MINNESOTA; NEBRASKA.

Rosa marginata

Rhagoletis basiola (Osten Sacken); Foote, R. H., host list;[5] Reared (host as *Rosa jundzilli*).

Rosa nitida

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; MAINE.

Rosa nutkana

Rhagoletis basiola (Osten Sacken); Phillips, 1946: 98; Maggot in hips; OREGON: Amity (host as *Rosa mulkana*). Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; CANADA: British Columbia; Manitoba; Saskatchewan; NORTHWESTERN UNITED STATES. O.S.U.;[3] Reared.

Rosa palustris

Rhagoletis basiola (Osten Sacken); Balduf, 1958: 9; Pupal infestation; ILLINOIS; MINNESOTA; OHIO; WISCONSIN. Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; ILLINOIS; INDIANA; OHIO.

Rosa pyrifera - see *Rosa woodsii*.

Rosa rugosa

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; NEW YORK; RHODE ISLAND.

Rosa setigera

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; ILLINOIS; INDIANA; OHIO.

Rosa spaldingii

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition

and larval development in hypanthium, usually in basal half of hip. Pupation in soil; NORTHWESTERN UNITED STATES.

Rosa ultramontana - see *Rosa woodsii* var. *ultramontana*.

Rosa virginiana

Rhagoletis basiola (Osten Sacken); Burks, 1955: 82; Larvae in hips [as *Rhagoletis alternata* (Fallen)]. Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; MAINE.

Rosa woodsii

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; CANADA: British Columbia; Manitoba; Saskatchewan; UTAH (host also as *Rosa pyrifera*).

Rosa woodsii var. *ultramontana*

Rhagoletis basiola (Osten Sacken); Balduf, 1959: 12; Oviposition and larval development in hypanthium, usually in basal half of hip. Pupation in soil; NORTHWESTERN UNITED STATES (host as *Rosa ultramontana*).

Rosa sp.

Rhagoletis basiola (Osten Sacken); Robertson, 1924: 15; In hip, larva confined more to juicy outer wall than to seeds. Overwinters as pupa in ground; CANADA: Manitoba (as *Spilographa setosa*). Muesebeck, 1950: 254; Infesting hips; ILLINOIS; MINNESOTA; WISCONSIN (as *Rhagoletis alternata*). Stone, 1951: 48; Infested. Krombein et al., 1958: 75; Infesting hips.

Zonosemata electa (Say); Hall, 1938: 55; Reared from hips (as *Zenosema electa* Say).

Sargentia greggii (35)

Anastrepha ludens (Loew); Plummer and McPhail, 1941: 2; Larval infestation; NORTHEASTERN MEXICO. Stone, 1942a: 97; Larval food plant. Aczel, 1949: 217; Infested. Hoidale, 1953: 560; Infested. Christenson and Foote, 1960: 180; Reared.

Schoepfia chrysophylloides (28)

Anastrepha interrupta Stone; McClanahan, 1951: 44; Larval infestation; FLORIDA. Weems, 1967a: 1; Reared; FLORIDA.

Scorzenella laciniata - see *Microseris laciniata*.

Senecio aureus (11)

Stenopa vulnerata (Loew); Novak et al., 1967: 148; Larvae form small galls near apices of young lateral shoots arising from crown; OHIO.

Senecio californicus

Paroxyna genalis (Thomson); Foote, R. H. and Blanc, 1963: 48; Reared; CALIFORNIA: Coronado, San Diego Co.

Paroxyna sp.; C.D.A.;[1] Reared; CALIFORNIA: Coronado, San Diego

Co., IV-2-1960, E. D. Algert.

Senecio crassulas

Tephritis stigmatica (Coquillett); Novak et al., 1967: 148; Reared from flower heads; IDAHO; MONTANA.

Senecio douglassii

Aciurina maculata (Cole); Ballou, 1925: 1; Gall on twigs. Gall solitary and contains large smooth cavity filled with frass. It has hard, fibrous wall frequently tinted with purple. Adult escapes through small aperture covered during pupal stage by thin epidermis (as *Urellia Pacifica*).

Tephritis stigmatica (Coquillett); Foote, R. H. and Blanc, 1963: 72; Reared; CALIFORNIA: Cuyama, Santa Barbara Co.

Senecio hydrophiloides

Trupanea radifera (Coquillett); Novak et al., 1967: 148; Reared from flower heads; MONTANA.

Senecio integerrimus

Tephritis stigmatica (Coquillett); Foote, R. H., 1960a: 77; Reared; SOUTHERN CALIFORNIA. Tauber and Toschi, 1965b: 73; Reared from larvae found in flower heads; CALIFORNIA: Sagehen Creek Wild Life and Fisheries Station, 12 mi. N. Truckee, Nevada Co., 7,000 ft.

Senecio jacobaea

Eutreta pacifica Curran; Frick, 1972: 630; Reared from galls, 5-9mm. diameter, on upper portion of root crowns; CALIFORNIA: near Fort Bragg.

Paroxyna genalis (Thomson); Frick, 1964: 709; Larva bores down through flower, nearer center of capitulum than periphery, then bores laterally through several seeds. Pupation occurs in the seed layers; CALIFORNIA: Fort Bragg.

Trypeta angustigena Foote; Frick and Hawkes, 1970: 1089; Reared; CALIFORNIA: Albany, Alameda Co. Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.

Senecio mikanioides

Trypeta angustigena Foote; Frick, 1971b: 6; Leaf miners on host in laboratory garden. Oviposition in basal, mature leaves, even those starting to yellow; CALIFORNIA: Albany, Alameda Co.

Senecio paludosus

Trypeta angustigena Foote; Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.

Senecio serra

Trypeta angustigena Foote; Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany,

Alameda Co.

Senecio sylvaticus

Eutreta pacifica Curran; Frick, 1972: 630; Reared from gall on woody stem; CALIFORNIA: near Fort Bragg.

Senecio triangularis

Tephritis stigmatica (Coquillett); Novak et al., 1967: 148; Reared from flower heads; IDAHO; MONTANA.

Trypeta angustigena Foote; Frick, 1971a: 21; Oviposition under epidermis, generally on lower surface of basal, mature leaves. Larvae mine leaves, resulting in "herringbone" pattern of damage. Pupation in soil; CALIFORNIA: Albany, Alameda Co.

Senecio sp.

Tephritis californica Doane; C.D.A.;[1] Reared; CALIFORNIA: Tehachapi, Kern Co., IX-30-1929.

Tephritis stigmatica (Coquillett); Foote, R. H., 1960a: 77; Reared; SOUTHERN CALIFORNIA.

Sericocarpus acutisquamosus - see *Aster acutisquamosus*.

Sericocarpus bifoliatus - see *Aster bifoliatus*.

Severinia buxifolia (35)

Anastrepha suspensa (Loew); Anon., 1966: 1118; Larval infestation; FLORIDA: Fort Lauderdale, Broward Co.

Sideranthes megacephalus - see *Haplopappus megacephalus*.

Sideroxylon sapota (37)

Anastrepha ludens (Loew); Greene, 1929: 495; Infested; MEXICO.

Sideroxylon tempisque

Anastrepha serpentina (Wiedemann); Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Weems, 1969b: 1; Larval host.

Sitilias caroliniana (11)

Trupanea actinobola (Loew); Foote, R. H., host list;[5] Reared.

Solanum aculeatissimum (39)

Zonosemata electa (Say); Benjamin, 1934: 19; Larvae feed singly in fruit; FLORIDA.

Solanum carolinense

Zonosemata electa (Say); Williston, 1886: 307; Reared from berries; MISSOURI (as *Spilographa electa*). Snow, 1894: 161; Reared (as *Spilographa electa* Say). Malloch, 1923: 217; Larvae in berries; ALASKA: Pribilof Islands (as *Spilographa electa* Say). Peterson, 1923: 7; Larvae in fruit (as *Spilographa electa* Say). Phillips, 1923: 128; Larvae in berries (as *Zonosema electa* Say). Burdette, 1935: 4; Infested. Anon., 1942: 83; Reared from larvae in fruit. Pupation in soil; GEORGIA: Experiment, Spalding Co. Peterson, 1953: 330; Larval infestation. Foott, 1963: 15;

Infested; CANADA: Southwestern Ontario. Foott, 1967a: 17; Reared. One egg per fruit; CANADA: Southwestern Ontario. Foott and Timmins, 1969: 105; Eggs deposited in walls of fruit. Most larvae bore through wall to inner surface, feeding on spongy placental tissue. Occasionally, feeding is confined entirely to wall or both wall and placenta. Larvae make exit hole in wall, drop to ground, and overwinter in pupal stage usually 2 in. below soil surface; CANADA: Southwestern Ontario. Beirne, 1971: 68; Larvae feed in fruit. Pupation and overwintering in soil; CANADA: Ontario.

Solanum donnell-smithii

Anastrepha distincta Greene; Stone, 1942a: 107; Reared experimentally.

Solanum elaeagnifolium

Zonosemata electa (Say); Anon., 1959: 721; Larval food plant.

Zonosemata vittigera (Coquillett); Foote, R. H., 1960c: 115; Larval host. Cazier, 1962: 181; Eggs laid in green or maturing fruit. Larvae feed on seeds and pulpy central area between the seeds.

Solanum melongena

Zonosemata electa (Say); Peterson, 1923: 7; Larval development in fruit; NEW JERSEY (as *Spilographa electa* Say). Burdette, 1935: 4; Infested. Peterson, 1953: 330; Larval infestation.

Solanum melongena var. *esculentum*

Zonosemata electa (Say); Phillips, 1946: 96; Larval host plant. Foott, 1963: 75; Infested; CANADA: Southwestern Ontario. Foott and Timmins, 1969: 105; Eggs deposited in walls of fruit. Most larvae bore through wall to inner surface, feeding on spongy placental tissue. Occasionally, feeding is confined entirely to wall or both wall and placenta. Larvae make exit hole in wall, drop to ground, and overwinter in pupal stage usually 2 in. below soil surface; CANADA: Southwestern Ontario.

Solanum sp.

Zonosemata electa (Say); Foote, R. H., host list;[5] Larvae.

Zonosemata vittigera (Coquillett); Foote, R. H., host list;[5] Larvae.

Solidago altissima (11)

Eurosta solidaginis (Fitch); Miller, 1959: 247; Oviposition in terminal buds. Larvae feed in meristem forming galls 1 in. diameter; MARYLAND; OHIO. Winterringer, 1961: 39; Globular stem gall, about 1 in. diameter with hard, pithy interior in which larval chamber occurs. In summer, galls light brown and resemble goldenrod stem; ILLINOIS.

Eutreta sparsa (Wiedemann); Novak et al., 1967: 147; Reared from rhizomes; OHIO.

Procecidochares atra (Loew); Phillips, 1946: 58; Reared from small apical rosette galls.

Procecidochares polita (Loew); Osten Sacken, 1868: 299; Gall; "accumulation of leaves in consequence of the arrest of growth of stem or branch"; CONNECTICUT: New London; LONG ISLAND: Brooklyn. Aldrich (1929: 3) accords these records to *Procecidochares atra*. Beutenmuller, 1892: 274; Gall, a little over 1/2 in. long, caused by arrest of side branches. Consists of small bunch of accumulated aborted leaves. Larva lives in hollow space inside at base of gall. Sometimes as many as twenty-five galls occupying end of stalk; NEW YORK (as *Trypeta polita* Loew). Phillips, 1923: 137; Leafy rosette gall. Johnson, C. W., 1925: 262; Larvae form leafy rosette galls; CONNECTICUT; MASSACHUSETTS; RHODE ISLAND.

Solidago caesia

Trupanea actinobola (Loew); Stegmaier, 1968b: 49; Reared; FLORIDA: Hialeah.

Solidago californica

Procecidochares minuta (Snow); C.D.A.;[1] In stem gall; CALIFORNIA: Palomar Mt., San Diego Co., IX-19-1964, E. D. Algert.

Trupanea wheeleri Curran; C.D.A.;[1] Reared from flower heads; CALIFORNIA: Palomar Mt., San Diego Co., IX-19-1964, E. D. Algert.

Solidago canadensis

Eurosta solidaginis (Fitch); Baker, C. F., 1895: 174; Infestation; COLORADO: Fort Collins (as *Trypeta solidaginis*). Cook, M. T., 1905: 806; Produces hard, spherical gall; INDIANA (as *Trypeta solidaginis*). Cosens, 1912: 325; Monothalamous gall produced by the swelling of stem. Very rarely found on branch of flowering panicle. Separate galls almost perfectly spherical in form. Occasionally two are produced together forming a common gall, prolate-spheroidal in shape. Average diameter of fifteen galls was 23mm. Ping, 1915: 162; Eggs laid on young shoot. Gall formed which is round and hard and shows little differentiation from other parts of stem except for fissures caused by cracking of epidermis. Resin is often found on the surface of gall; NEW YORK: Cascadilla Gorge; Cornell Heights; Fall Creek; Forest Home; Ithaca; Percy Field; Six-Mile Creek; South Hill. Curran, 1925: 128; Reared. Gronemann, 1930: 27; Pithy, globular stem gall with oval larval cell in center. Usually one gall per stem, occasionally two or more. Color: green; ILLINOIS: Chicago. Hughes, 1934: 119; Measurements of one hundred galls taken. Length 20 to 40mm., width 20 to 30mm.; average length 28mm., average width 25mm. Larvae attain full size during growing season. Make burrow from central cavity to outside, leaving epidermal layer intact. Pupation within gall. Milne, 1940: 101; Spheroidal swelling of main stem, usually near top. One larva per gall in spherical chamber at center. Pupation within gall. Adult emerges by pushing through

thin place in epidermis at end of radial tunnel excavated during last larval instar. Phillips, 1946: 47; Eggs laid in stem. Gall almost spherical and of smooth texture. Internally, a spherical cavity inside gall where maggot lives, one maggot per gall, but two galls often lie close together in stem. Full-grown larva eats tunnel to external edge of gall, leaving only a thin partition for the adult to emerge through; NEW YORK: Ithaca. Weigel and Dilks, 1950: 135; Eggs laid on surface of young stems. Larvae burrow into stems to central pith cavity. Smooth green spherical galls formed averaging over 1 in. diameter. Prior to pupation, mature larvae tunnel through fleshy tissues of gall to epidermal layer which is left intact until adult emerges. Uhler, 1951: 20; Egg laid in unfolded leaves of terminal bud. Larvae bore through unfolded leaves to the base of bud and into meristematic tissue; NEW YORK: Ithaca. Cole, 1969: 354; Galls formed.

Solidago canadensis var. *hargeri*

Eurosta solidaginis (Fitch); Uhler, 1951: 20; Egg laid in unfolded leaves of terminal bud. Larvae bore through unfolded leaves to the base of bud and into meristematic tissue; NEW YORK: Ithaca.

Solidago chapmanii

Trupanea actinobola (Loew); Foote, R. H., 1960d: 25; Larvae in flowers; FLORIDA.

Solidago fistulosa

Eurosta comma (Wiedemann); Benjamin, 1934: 28; Larvae feed in galls on roots, sometimes on stems.

Solidago gigantea

Eurosta solidaginis (Fitch); Miller, 1959: 247; Oviposition in terminal buds. Larvae feed in meristem forming galls 1 in. diameter; ILLINOIS; MICHIGAN; MINNESOTA; WISCONSIN.

Solidago graminifolia

Eutreta sparsa (Wiedemann); Felt, 1940: 322; Fusiform, subterranean bud gall, 1 to 1 1/2 in. long.

Eurosta solidaginis (Fitch); Uhler, 1951: 20; Oviposition occasionally in laboratory; NEW YORK.

Solidago juncea

Eurosta comma (Wiedemann); Daecke, 1910: 342; Reared from galls; LONG ISLAND: Richmond Hill. Phillips, 1923: 144; Form root galls. Johnson, C. W., 1925: 263; Larvae form root galls; CONNECTICUT; MAINE; MASSACHUSETTS; NEW HAMPSHIRE. Felt, 1940: 322; Ovate, potato-like root gall, 3/4 to 1 in. long, 1/2 in. diameter. Phillips, 1946: 45; Eggs laid singly in roots near surface. Larva excavates almost spherical cavity in root. Full grown maggot eats a tunnel to outer surface of gall, leaving only very thin shell of epidermis. Gall is same dark brown color of root, rounded and rather smooth externally. Internally resembles a potato tuber in quality and texture; NEW YORK: Michigan Hollow, near Ithaca.

Eurosta elsa Daecke; Felt, 1940: 322; Ovate, potato-like root gall, length 3/4 to 1 in., diameter 1/2 in. Novak et al., 1967: 147; Larvae form large, rather soft galls on rhizomes just below crown; OHIO.

Eurosta reticulata Snow; Novak et al., 1967: 147; Larvae form large, terminal bud galls in crown of young shoots; OHIO.

Eutreta sparsa (Wiedemann); Phillips, 1946: 115; Larval host.

Solidago nemoralis

Procecidochares atra (Loew); Aldrich, 1929: 8; Leafy rosette galls; MISSOURI: Kirkwood.

Solidago odora

Procecidochares atra (Loew); Foote, R. H., host list;[5] Reared.

Solidago rugosa

Eurosta comma (Wiedemann); Felt, 1940: 322; Ovate, potato-like root gall, length 3/4 to 1 in., diameter 1/2 in.

Eurosta elsa Daecke; Daecke, 1910: 342; Reared from galls; NEW JERSEY: Lucaston. Phillips, 1923: 144; Larvae in root galls. Johnson, C. W., 1925: 264; Larvae form root galls; CONNECTICUT; MAINE; MASSACHUSETTS; NEW HAMPSHIRE; VERMONT. Felt, 1940: 322; Ovate, potato-like root gall, length 3/4 to 1 in., diameter 1/2 in.

Eurosta solidaginis (Fitch); Harrington, 1895: 197; Conspicuous spherical galls on stem; CANADA: Ottawa. Uhler, 1951: 20; Oviposition in laboratory. Gall produced occasionally. NEW YORK.

Eutreta sparsa (Wiedemann); Novak et al., 1967: 147; Larvae in stems usually form small galls. Reared.

Procecidochares polita (Loew); Foote, R. H., host list;[5] Larvae.

Solidago sempervirens

Eurosta reticulata Snow; Benjamin, 1934: 29; Larvae feed in root galls, one to four galls per plant. Length up to 45mm., diameter up to 25mm. Occasionally galls are compound, containing two larvae separated by a thin partition; FLORIDA: 4 mi. W. Indian River City, Brevard Co.

Solidago serotina

Eurosta solidaginis (Fitch); Harrington, 1895: 197; Infested; CANADA: Casselman, about 30 mi. S. Ottawa.

Trupanea actinobola (Loew); Foote, R. H., 1960d: 25; Larvae in flowers; FLORIDA.

Solidago serotina var. *salebrosa*

Eurosta solidaginis fascipennis (Curran); O.S.U.;[3] Reared.

Solidago stricta

Procecidochares polita (Loew); Stegmaier, unpublished record;[2] Reared from stem gall; FLORIDA: Hialeah, XI-12-1970, C. E. Stegmaier.

Trupanea actinobola (Loew); Stegmaier, unpublished record;[2] Reared from seed head; FLORIDA: Homestead, X-5-1970, C. E. Stegmaier.

Solidago ulmifolia

Eurosta solidaginis (Fitch); Miller, 1959: 247; Oviposition

in terminal buds. Larvae feed in meristem forming galls 1 in. diameter; MARYLAND; PENNSYLVANIA.

Solidago sp.

Aciurina bigeloviae (Cockerell); Essig, 1958: 605; Galls; COLORADO; OREGON (as *Eurosta bigeloviae*).

Aciurina ferruginea Doane; Foote, R. H. and Blanc, 1963: 8; Reared; CALIFORNIA: Bishop, Inyo Co.

Eurosta comma (Wiedemann); Stebbins, 1910: 50; Rather irregular, more or less spherical galls at base of stems, 15 X 10mm. When fresh, somewhat green and plump, later dry and somewhat wrinkled brown; MASSACHUSETTS. Benjamin, 1934: 28; Larvae in galls on roots, sometimes on stems.

Eurosta donysa (Walker); Benjamin, 1934: 27; Larvae feed in small round galls on stems; FLORIDA: 5 1/2 mi. S.W. Indian River, Brevard Co.; Malabar; Titusville (as *Eurosta nicholsoni* Benjamin).

Eurosta reticulata Snow; Thompson, 1907: 71; Gall, a hollow cylinder 2cm. X 0.5cm., formed from aborted growing shoot. Tip of gall projects above surface of ground. Traces of leaves appear in form of imbricated scales. Large cavity inside, opening above between closely appressed, scale-like leaves at summit of gall. Walls of gall moderately thick, fleshy, and firm. Pupation within gall; MASSACHUSETTS: Worcester. Felt, 1940: 322; Cylindric, hollow, bud-like gall near surface, length 1 in.

Eurosta solidaginis (Fitch); Walsh, 1866: 114; Infested (as *Trypeta asteris*). Osten Sacken, 1868: 299; Gall, smooth swelling of stem or branch. Brodie, 1892: 138; Reared from hard, smooth, spherical galls, 15-30mm. diameter, on stems and panicle branchlets, one to ten galls per plant; CANADA: Carberry, Manitoba; Crowfoot Crossing, Northwest Territory. Townsend, 1893a: 13; Larvae in galls on stem. Fyles, 1894: 120; Larvae from galls; CANADA: Como, Quebec (as *Trypeta solidaginis* Fitch). Patton, 1897: 247; Reared from galls; CONNECTICUT. Snyder, 1898: 99; Reared from gall (as *Trypeta solidaginis*). Cook, M. T., 1903: 422; Solid globular gall on stem. Walls of outer parenchymatous cells much thickened, numerous large intercellular spaces not characteristic of unaffected stem. Fibro-vascular bundles spread out and flattened; sclerenchyma tissue and tracheary tissue reduced, fibrous tissue increased in amount. Parenchyma tissue of stelar part increased in amount and size of cells reduced. Throughout tissue are tubes lined with cells smaller than parenchyma cells, brown in color, and not affected by haematoxylin stain. These tubes are usually associated with small bundles of fibrous tissue and are probably important factors in nutrition of larvae. They were not found in sections of normal stem of corresponding age (as *Trypeta solidaginis*). Washburn, 1905: 117; Round gall; MINNESOTA. Jarvis, 1907: 68; Gall, globular ball-like enlargement of stem about

2 1/2cm. diameter. Pithy, hypertrophy monothalamous, central cell irregular in shape and containing large, fat larva. Gall green in summer, woody in winter (as *Trypeta solidaginis*). Cook, M. T., 1910: 32; Large spherical gall frequently 1 in. or more in diameter, occurring on stem. Hard on outside but somewhat pithy on inside and contains single larva (as *Trypeta solidaginis*). Stebbins, 1910: 50; Reared from solid, globular, monothalamous gall on stem, about 2cm. diameter. Round larval cell; MASSACHUSETTS. Girault, 1915: 132; Reared from gall measuring over 1 in.; MARYLAND: Annapolis (as *Trypeta solidaginis* Fitch). Cole and Lovett, 1921: 326; Reared from galls; OREGON: Hood River. Phillips, 1923: 144; Larvae in round galls. Johnson, C. W., 1925: 263; Larvae form round galls on stalk; CONNECTICUT; MAINE; MASSACHUSETTS; NEW HAMPSHIRE. Johnson, C. W., 1930: 151; Larvae form round galls on stalks (as *Eurosta asteris* Harris). Davis, W. T., 1931: 120; Round gall. Houard, 1935: 172; Globular swelling about 23mm. diameter. Similar to those found on *Solidago canadensis*; VIRGINIA: East Falls Church. Krogstad, 1951: 23; Oviposition in growing tip of terminal shoot. Larva bores into center of growing tip where it feeds, forming gall. Muesebeck et al., 1951: 943; Gall formed. Judd, 1953: 294; Reared from galls; CANADA: Southern Ontario. Essig, 1958: 605; Galls; COLORADO; OREGON. C.D.A.;[1] Stem galls; OREGON: Hood River, IX-28-1931, S. C. Jones.

Eurosta solidaginis fascipennis Curran; Curran, 1923: 302; Reared from galls. Curran, 1925: 128; Reared; CANADA: Saskatoon, Saskatchewan.

Eurosta solidaginis subfasciata Curran; Curran, 1923: 302; Reared from galls. Strickland, 1938: 204; Stem galls; CANADA: Alberta.

Eutreta sparsa (Wiedemann); Thompson, 1907: 72; Galls completely under ground. Typically, growing shoot swells and becomes hollow, long-oval gall. All forward growth of shoot stops but lateral reserve buds may grow and develop leaf rosettes. Rarely only, proximal end of shoot affected, forming short-oval or globular galls and terminal bud develops normally. Large-oval galls are 2 or 3cm. Pupation within gall. Stebbins, 1910: 50; Reared from gall on growing shoot; MASSACHUSETTS. Phillips, 1923: 141; Larvae in root galls. Johnson, C. W., 1925: 263; Larvae form root galls.

Procecidochares atra (Loew); Patton, 1897: 247; Reared from galls; CONNECTICUT (as *Oedaspis-solidago atra*). Aldrich, 1929: 8; Galls; VIRGINIA: Great Falls. Phillips, 1946: 58; Forms galls.

Procecidochares polita (Loew); Johnson, C. W., 1910: 801; Gall formed; NEW JERSEY (as *Oedaspis polita*). Girault, 1913: 340; Reared from small, roundish galls; VIRGINIA (as *Trypeta polita*).

Tephritis webbi Doane; Quisenberry, 1951: 69; Gall in flower head; OREGON: Sycan Marsh. O.S.U.;[3] Reared.
Trupanea actinobola (Loew); Benjamin, 1934: 57; Larvae feed in flowers usually singly. None found feeding in buds or tender tips of non-flowering plants; FLORIDA. Malloch, 1942: 16; Larval food plant [as *Trypanea actinobola* (Loew)].

Sorbus americana (33)
Rhagoletis pomonella (Walsh); Pickett and Neary, 1940: 552; Infested in cages, not a preferred host.

Spondias cirouella (1)
Anastrepha mombinpraeoptans Sein; Sein, 1933: 190; Larval infestation; PUERTO RICO. Costa Lima, 1934: 552; Infested (as *Anastrepha fraterculus* var. *mombinpraeoptans*).
Spondias cytherea
Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Infestation (host as jobo de la India). Greene, 1929: 496; Host; PANAMA: Panama City (host as jobo de la India). Costa Lima, 1934: 548; Infested (host as *Spondias dulcis*).
Anastrepha mombinpraeoptans Sein; Sein, 1933: 190; Larval infestation; PUERTO RICO (host as *Spondias dulcis*). Costa Lima, 1934: 552; Infested (as *Anastrepha fraterculus* var. *mombinpraeoptans*) (host as jobo da India). McAlister, 1936: 442; Infested (as *Anastrepha acidusa*). Stone, 1942a: 69; Larval food plant (host as *Spondias dulcis*). Aczel, 1949: 219; Infested (host as *Spondias dulcis*).
Spondias dulcis - see *Spondias cytherea*.
Spondias lutea - see *Spondias mombin*.
Spondias mombin
Anastrepha fraterculus (Wiedemann); Greene, 1929: 496; Host; PANAMA: Panama City (host also as *Spondias lutea*). Costa Lima, 1934: 548; Infested. Stone, 1942a: 79; Larval host. Aczel, 1949: 211; Infestation.
Anastrepha mombinpraeoptans Sein; Newell, 1933: 17; Infested. Sein, 1933: 188; Larval infestation; PUERTO RICO: Rio Piedras. Strong, 1933: 3; Reared; HAITI (as *Anastrepha acidusa*). Costa Lima, 1934: 552; Infested (as *Anastrepha fraterculus* var. *mombinpraeoptans*). Greene, 1934: 163; Reared. McAlister, 1936: 442; Infested (as *Anastrepha acidusa*). Quayle, 1938: 243; Infested (as *Anastrepha acidusa*). Aczel, 1949: 219; Infestation. Bush, 1962: 93; Reared; MEXICO: Cocoyoc, Morelos. Wasbauer, 1964: 7; Infestations. Weems, 1965: 1; Reared; FLORIDA: Key West.
Anastrepha serpentina (Wiedemann); Stone, 1942a: 28; Reared experimentally. Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo (host as *Spondias lutea*). Aczel, 1949: 228; Infestation.
Anastrepha striata Schiner; Wasbauer, 1964: 7; Infestation.
Anastrepha suspensa (Loew); Greene, 1934: 148; Reared (host as *Spondias lutea*). Newell, 1935: 25; Infested. Stone,

1942a: 74; Larval food plant. Aczel, 1949: 230; Infested. Anon., 1965a: 114; Infestation.

Spondias sp. nr. *mombin*

Anastrepha striata Schiner; Stone, 1942a: 30; Larval food plant (host as *Spondias* sp. nr. *lutea*).

Spondias nigrescens

Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation.

Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Larval food plant. Aczel, 1949: 219; Infestation.

Spondias purpurea

Anastrepha fraterculus (Wiedemann); Greene, 1929: 496; Larval and pupal infestation; PANAMA: Panama City. Costa Lima, 1934: 548; Infested. Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation.

Anastrepha ludens (Loew); Crawford, 1927: 423; Larval infestation; MEXICO. Baker, A. C., et al., 1944: 18; Infested in laboratory; MEXICO.

Anastrepha mombinpraeoptans Sein; Sein, 1933: 190; Infested; PUERTO RICO. Costa Lima, 1934: 552; Infested (as *Anastrepha fraterculus* var. *mombinpraeoptans*). McAlister, 1936: 442; Infested (as *Anastrepha acidusa*). Stone, 1942a: 69; Larval food plant. Aczel, 1949: 219; Infestation.

Anastrepha suspensa (Loew); McAlister, 1936: 442; Attacking fruit. Anon., 1967a: 1; Caged host; FLORIDA.

Spondias sp.

Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Infestation (host as jobo amarillo). Greene, 1929: 496; Host; PANAMA: Panama City (also as jobo amarillo). Baker, A. C., et al., 1944: 138; Attacks fruit. Christenson and Foote, 1960: 180; Reared.

Anastrepha ludens (Loew); Baker, A. C., et al., 1944: 18; Oviposition in laboratory; MEXICO.

Anastrepha mombinpraeoptans Sein; Bates, 1933: 161; Reared; CUBA (as *Anastrepha acidusa*). Newell, 1933: 17; Infestation. Baker, A. C., et al., 1944: 137; Laboratory infestation (as Mexican *Anastrepha mombinpraeoptans*). Mena, 1965: 13; EL SALVADOR.

Anastrepha striata Schiner; Aczel, 1949: 229; Infestation.

Symphoricarpos albus (8)

Rhagoletis zephyria Snow; Forsell, 1947: 167; Infestation; WASHINGTON: Puget Sound (as *Rhagoletis pomonella*, later recognized as *Rhagoletis zephyria* by Bush, 1966). Foote, R. H. and Blanc, 1963: 99; Reared. Wasbauer, 1964: 1; Infestations. O.S.U.;[3] Reared.

Symphoricarpos racemosus

Rhagoletis pomonella (Walsh); Pickett and Neary, 1940: 552; Reared in laboratory, not a preferred host.

Rhagoletis zephyria Snow; Downes, 1919: 2; Reared from berry; CANADA: Victoria, British Columbia (as *Rhagoletis pomonella*,

later recognized as *Rhagoletis zephyria* by Bush, 1966). Cole and Lovett, 1921: 325; Reared; CANADA: Vernon, British Columbia [as *Rhagoletis pomonella* (Walsh), later recognized as *Rhagoletis zephyria* by Bush, 1966]. Curran, 1924a: 63; Infested; CANADA: British Columbia (as *Rhagoletis symphoricarpi*).

Symphoricarpos sp.

Rhagoletis zephyria Snow; Cresson, 1929: 410; Reared; OREGON: Corvallis [as *Rhagoletis pomonella* (Walsh), later recognized as *Rhagoletis zephyria* by Bush, 1966]. Greene, 1929: 494; Larval and pupal infestation; NEW YORK: Ithaca (as *Rhagoletis pomonella*, later recognized as *Rhagoletis zephyria* by Bush, 1966). Benjamin, 1934: 16; Reared; CANADA: British Columbia; OREGON. Strickland, 1938: 204; Infested; CANADA: Alberta (as *Rhagoletis pomonella*, later recognized as *Rhagoletis zephyria* by Bush, 1966). Eide et al., 1949: 2; Infestation; WASHINGTON: Yakima Co. (as *Rhagoletis pomonella*, later recognized as *Rhagoletis zephyria* by Bush, 1966). Essig, 1958: 604; Infested; WESTERN UNITED STATES (as *Rhagoletis pomonella*, later recognized as *Rhagoletis zephyria* by Bush, 1966).

Synsepalum dulcificum (37)

Anastrepha suspensa (Loew); Seymour, 1967: 6; Larval infestation; FLORIDA: St. Petersburg, Pinellas Co.

Syzygium samarangense (26)

Anastrepha suspensa (Loew); Anon., 1966: 818; Larval infestation; FLORIDA: Homestead, Dade Co. Anon., 1967a: 2; Reared; FLORIDA: Miami.

Tabernaemontana sp. (3)

Toxotrypana curvicauda Gerstacker; Bates, 1933: 160; Breeding in seed pods; CUBA: near Soledad.

Tagetes erecta (11)

Dioxyna picciola (Bigot); Benjamin, 1934: 42; Larvae feed in flowers [as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289; Infesting flower heads (as *Paroxyna picciola*).

Tagetes sp.

Trupanea vicina (Wulp); Foote, R. H., 1960d: 26; Reared from larvae in flowers.

Tanacetum camphoratum (11)

Tephritis candidipennis Foote; Foote, R. H. and Blanc, 1963: 68; Reared; CALIFORNIA: San Francisco, San Francisco Co.

Tanacetum huronense

Tephritis araneosa (Coquillett); Quisenberry, 1951: 66; Reared.

Tephritis candidipennis Foote; Quisenberry, 1951: 66; Reared; OREGON [as *Tephritis araneosa* (Coquillett)]. O.S.U.;[3] Reared.

Terminalia catappa (10)
Anastrepha fraterculus (Wiedemann); Baker, A. C., et al., 1944: 139; Reared (as Mexican *Anastrepha fraterculus*). Christenson and Foote, 1960: 185; Infested (as Mexican *Anastrepha fraterculus*).
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).
Anastrepha serpentina (Wiedemann); Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo.
Anastrepha suspensa (Loew); Costa Lima, 1934: 507; Preferred host; PUERTO RICO. Greene, 1934: 148; Reared; PUERTO RICO. Aczel, 1949: 230; Infestation. Weems, 1965: 3; Larval host; GREATER ANTILLES. Anon., 1967a: 2; Reared; FLORIDA: Miami. Baranowski and Swanson, 1970: 162; Pupal infestation; FLORIDA: Homestead. Kamasaki et al., 1970: 640; Infestation; FLORIDA.
Terminalia muelleri
Anastrepha suspensa (Loew); Anon., 1968: 365; Larval infestation; FLORIDA: Lake Park, Palm Beach Co.

Tessaria absinthoides (11)
Acinia picturata (Snow); Foote, R. H., 1964: 84; Larvae in stems [as *Acinia fucata* (Fabricius)].
Tessaria integrifolia
Acinia picturata (Snow); Foote, R. H., 1964: 84; Larvae in stems [as *Acinia fucata* (Fabricius)].

Thevetia peruviana (3)
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Trilisa paniculata (11)
Euarestoides abstersa (Loew); Benjamin, 1934: 58; Larvae feed in flower heads; FLORIDA: Orange Co. [as *Trupanea (Euarestoides) abstersa* (Loew)]. Aczel, 1949: 292; Infestation.

Triphasia trifolia (35)
Anastrepha suspensa (Loew); Anon., 1966: 738; Larval and pupal infestation; FLORIDA: West Hollywood, Broward Co.

Turpinia paniculata (36)
Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation.

Vaccinium angustifolium (16)
Rhagoletis mendax Currân; Lathrop and McAlister, 1931: 3; Oviposition in ripe berry. Maggot feeds on pulp. When mature, leaves berry and drops to ground. Overwinters in soil as puparium; MAINE (as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269; Reared; MAINE (as *Rhagoletis pomonella*).

Chandler, 1943: 115; Infested (as *Rhagoletis pomonella*). Bush, 1966: 468; Reared; MAINE; NEW JERSEY. Simon, 1969: 173; Infestation.

Vaccinium angustifolium var. *laevifolium*

Rhagoletis mendax Curran; O'Kane, 1914: 17; Infested (as *Rhagoletis pomonella*) (host as *Vaccinium pennsylvanicum*). Woods, 1914: 398; Infested (as *Rhagoletis pomonella*) (host as *Vaccinium pennsylvanicum*). Woods, 1916: 260; Infested; MAINE (as *Rhagoletis pomonella*) (host as *Vaccinium pennsylvanicum*). Phipps, 1931: 132; Infested (as *Rhagoletis pomonella*) (host as *Vaccinium pennsylvanicum*).

Vaccinium arboreum

Rhagoletis mendax Curran; Benjamin, 1934: 16; Reared; FLORIDA (as *Rhagoletis zephyria* Snow, later recognized as *Rhagoletis mendax* by Bush, 1966) (host as *Batodendron arboreum*).

Rhagoletis zephyria Snow; Foote, R. H., host list;[5] Reared [Bush, 1966, states that *Rhagoletis zephyria* reared only from *Symphoricarpos* spp.; Lathrop and Nickels' (1931, 1932) record not considered confirmed].

Vaccinium canadense

Rhagoletis mendax Curran; O'Kane, 1914: 17; Infested (as *Rhagoletis pomonella*). Woods, 1914: 398; Larval infestation (as *Rhagoletis pomonella*). Woods, 1916: 260; Infes= tation (as *Rhagoletis pomonella*). Lathrop and McAlister, 1931: 3; Oviposition in ripe berry. Maggot feeds on pulp. When mature, leaves berry and drops to ground. Overwinters in soil as puparium; MAINE (as *Rhagoletis pomonella*). Lathrop and McAlister, 1931: 3; Infested; EASTERN MAINE (as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269; Reared; MAINE (as *Rhagoletis pomonella*). Phipps, 1931: 132 (as *Rhagoletis pomonella*). Bush, 1966: 468; Reared; MAINE.

Vaccinium corymbosum

Rhagoletis mendax Curran; O'Kane, 1914: 17; Infested (as *Rhagoletis pomonella*). Lathrop and McAlister, 1931: 3; Oviposition in ripe berry. Maggot feeds on pulp. When mature, leaves berry and drops to ground. Overwinters in soil as puparium; MAINE (as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269; Reared; MAINE (as *Rhagoletis pomonella*). Bush, 1966: 468; Reared; MAINE; NEW HAMPSHIRE; NEW JERSEY.

Vaccinium formosum

Rhagoletis mendax Curran; Bush, 1966: 468; Larvae only; FLORIDA.

Vaccinium macrocarpon

Rhagoletis mendax Curran; Johnson, C. W., 1925: 261; Larval infestation; CONNECTICUT; MAINE; MASSACHUSETTS; NEW HAMPSHIRE; VERMONT (as *Rhagoletis pomonella*). Greene, 1929: 494; Larval and pupal infestation; NEW YORK: Ithaca (as *Rhagoletis pomonella*). McLaine, 1931: 68; Larval infestation; CANADA (as *Rhagoletis pomonella*). Bush, 1966: 468

states "...cranberries do not appear to be suitable hosts for this species."

Rhagoletis tabellaria (Fitch); Forsell, 1947: 167; Infestation; WASHINGTON: Puget Sound.

Vaccinium myrtilloides

Rhagoletis mendax Curran; Foote, R. H., host list;[5] Reared.

Vaccinium ovatum

Rhagoletis mendax Curran; Anon., 1972: 155; Larval infestation; NORTH CAROLINA.

Vaccinium pallidum

Rhagoletis mendax Curran; O'Kane, 1914: 17; Infested (as *Rhagoletis pomonella*). Woods, 1914: 398; Larval infestation (as *Rhagoletis pomonella*). Woods, 1916: 260; Infestation; MAINE (as *Rhagoletis pomonella*). Patch and Woods, 1922: 84; Reared; MAINE: Washington Co. (as *Rhagoletis pomonella*) (host as *Vaccinium vacillans*). Phipps, 1931: 132; Infested (as *Rhagoletis pomonella*) (host as *Vaccinium vacillans*). Bush, 1966: 468; Reared; NEW JERSEY. Simon, 1969: 173; Infested (host as *Vaccinium vacillans*).

Vaccinium pennsylvanicum - see *Vaccinium angustifolium* var. *laevifolium*.

Vaccinium vacillans - see *Vaccinium pallidum*.

Vaccinium vitis-idaea var. *minus*

Rhagoletis mendax Curran; Lathrop and McAlister, 1931: 3; Oviposition in ripe berry. Maggot feeds on pulp. When mature, leaves berry and drops to ground. Overwinters in soil as puparium; MAINE (as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269; Larval infestation; MAINE (as *Rhagoletis pomonella*). Lathrop, 1952: 9; Infested; MAINE (as *Rhagoletis pomonella*). Lathrop and Nickels, 1932: 6; Larvae only; MAINE: Cherryfield.

Vaccinium sp.

Rhagoletis mendax Curran; Good, 1915: 54; Infested; MAINE (as *Rhagoletis pomonella*). Woods, 1915: 293; Larval infestation (as *Rhagoletis pomonella*). Caesar, 1917: 10; Larvae attack fruit. Overwinter in pupal stage short distance below surface of soil (as *Rhagoletis pomonella*). Brues, 1924: 130; Infested (as *Rhagoletis pomonella*). Guyton and Knull, 1925: 4; Infested (as *Rhagoletis pomonella*). Johnson, C. W., 1925: 261; Larval infestation; CONNECTICUT; MAINE; MASSACHUSETTS; NEW HAMPSHIRE; VERMONT (as *Rhagoletis pomonella*). Greene, 1929: 494; Larval and pupal infestation; NEW YORK: Ithaca (as *Rhagoletis pomonella*). Pettit, 1929: 1; Infested (as *Rhagoletis pomonella*). McLaine, 1931: 68; Larval infestation; CANADA (as *Rhagoletis pomonella*). Pettit and Hutson, 1931: 34; Infestations; NEW ENGLAND (as *Rhagoletis pomonella*). Curran, 1932b: 7; Infested. McAlister, 1932: 412; Larval infestation (as *Rhagoletis pomonella*). Lathrop and Newton, 1933: 143; Infested; MAINE: Cherryfield (as *Rhagoletis pomonella*). Pickett, 1937: 70; Infested (as *Rhagoletis*

pomonella). Beckwith, 1945: 43; Larvae infest fruit. Pupation and overwintering in soil; NEW JERSEY (as *Rhagoletis pomonella*). Christenson and Foote, 1960: 180; Infested (as *Rhagoletis pomonella*). Maxwell and Wood, 1961: 26; Development of larva, a small white maggot, within berry causes premature ripening and breakdown. Roth and Richardson, 1970: 496; Larval infestation.

Rhagoletis tabellaria (Fitch); Plank, 1923: 99; Larvae in fruit; WASHINGTON: Markham. Foote, R. H. and Blanc, 1963: 99; Reared.

Vernonia altissima (11)

Eutreta sparsa (Wiedemann); Novak et al., 1967: 147; Reared from larvae in stem, usually form small galls; OHIO.

Tomoplagia obliqua (Say); Novak et al., 1967: 148; Reared from flower heads; OHIO.

Vernonia baldwinii

Neaspilota alba (Loew); Brandhorst, 1943: 168; Reared from pupae attached to outside of involucre. Seeds bearing evidence of infestation; KANSAS: Ellis Co.

Tomoplagia obliqua (Say); Foote, R. H., host list;[5] Reared.

Vernonia blodgetti

Neaspilota alba (Loew); Benjamin, 1934: 38; Larvae feed in flowers; FLORIDA.

Tomoplagia obliqua (Say); Benjamin, 1934: 33; Reared from larvae and puparia in flowers. Aczel, 1949: 244; Infested.

Vernonia gigantea

Neaspilota alba (Loew); Benjamin, 1934: 38; Larvae feed in flowers; FLORIDA.

Tomoplagia obliqua (Say); Benjamin, 1934: 33; Reared from larvae and puparia in flowers. Aczel, 1949: 244; Infested.

Vernonia interior

Eutreta sparsa (Wiedemann); Painter, 1935: 83; Gall on stem; oval swelling 6 X 10mm., often tinted with purple; TEXAS: Austin.

Neaspilota alba (Loew); Schwitzgebel and Wilbur, 1943: 5; Reared from seed. Larvae feed on ovules causing dry brown flowers which cling to wings of partially devoured seed; KANSAS: Doniphan Co.; Manhattan, Riley Co.

Neaspilota albidipennis (Loew); Schwitzgebel and Wilbur, 1943: 4; Reared; KANSAS: Doniphan Co.

Neaspilota vernoniae (Loew); Schwitzgebel and Wilbur, 1943: 5; Reared from flower; KANSAS: Doniphan Co.

Tomoplagia obliqua (Say); Schwitzgebel and Wilbur, 1943: 5; Reared from seed. Larvae feed on ovules, causing dry brown flowers which cling to wings of partially devoured seed; KANSAS: Doniphan Co.; Manhattan, Riley Co.

Trupanea sp.; Schwitzgebel and Wilbur, 1943: 4; Reared; KANSAS: Doniphan Co.

Vernonia noveboracensis

Neaspilota albidipennis (Loew); Phillips, 1946: 53; Larvae

feed singly, occupying base of heads and eating developing seeds; NEW YORK: Babylon.

Vernonia scaberrima

Neaspilota alba (Loew); Benjamin, 1934: 38; Larvae feed in flowers; FLORIDA.

Tomoplagia obliqua (Say); Benjamin, 1934: 33; Reared from larvae and puparia in flowers. Aczel, 1949: 244; Infested.

Vernonia sp.

Eutreta sparsa (Wiedemann); Felt, 1940: 314; Ovate stem or bud swelling.

Neaspilota alba (Loew); Loew, 1861: 345; In heads (as *Trypeta alba*). Phillips, 1923: 140; Reared from seeds. Johnson, C. W., 1925: 262; Larvae in flower buds; MASSACHUSETTS; RHODE ISLAND.

Neaspilota albidipennis (Loew); Johnson, C. W., 1925: 263; Larvae in flower buds; CONNECTICUT; MASSACHUSETTS.

Neaspilota spp.; Stegmaier, 1968b: 46; Reared; KANSAS: Kansas City.

Tomoplagia obliqua (Say); Aczel, 1949: 244; Infestation.

Viguiera laciniata (11)

Procecidochares minuta (Snow); Foote, R. H. and Blanc, 1963: 53; Reared; CALIFORNIA: San Ysidro, San Diego Co.

Procecidochares stonei Blanc and Foote; Blanc and Foote, 1961: 78; Stem galls; CALIFORNIA: San Ysidro, San Diego Co. Tauber and Tauber, 1967a: 553; Reared.

Vitis vinifera (42)

Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infested.

Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*). Weems, 1970: 1; Reared experimentally.

Vitis sp.

Anastrepha fraterculus (Wiedemann); Greene, 1929: 496; Host; PANAMA: Panama City. Christenson and Foote, 1960: 180; Reared. Wasbauer, 1964: 7; Food plants.

Anastrepha mombinpraeoptans Sein; Stone, 1942a: 69; Reared experimentally.

Wyethia helenioides (11)

Neotephritis finalis (Loew); Foote, R. H. and Blanc, 1963: 36; Reared; CALIFORNIA: Livermore, Alameda Co.

Wyethia mollis

Neotephritis finalis (Loew); Foote, R. H. and Blanc, 1963: 36; Reared; CALIFORNIA: Bucks Lake, Plumas Co.; 10 mi. W. Johnsville, Plumas Co.

Wyethia sp.

Neotephritis finalis (Loew); Foote, R. H. and Blanc, 1963: 36; Reared; CALIFORNIA: Fallen Leaf Lake, El Dorado Co.; Likely, Modoc Co.; Marysville Buttes, Sutter Co.

Trupanea jonesi Curran; Foote, R. H. and Blanc, 1963: 82; Reared; CALIFORNIA: Gorman, Los Angeles Co.

Xanthium canadense - see *Xanthium strumarium* var. *canadense*.
Xanthium chinense - see *Xanthium strumarium* var. *glabrata*.
Xanthium enceliodes (11)
Neotephritis finalis (Loew); Foote, R. H., host list;[5] Reared.
Xanthium pungens
Euaresta aequalis (Loew); Currie, 1932: 191; Infested; AUSTRALIA.
Euaresta bullans (Wiedemann); Aczel, 1952c: 149; Larval infestation.
Xanthium spinosum
Euaresta bullans (Wiedemann); Aczel, 1952c: 148; Larvae infesting inflorescences. Foote, R. H. and Blanc, 1963: 21; Reared; CALIFORNIA: Lodi, San Joaquin Co. Foote, B. A., 1965: 106; Larval host.
Xanthium strumarium
Euaresta aequalis (Loew); Foote, B. A., 1965: 106; Larval host.
Xanthium strumarium var. *canadense*
Euaresta aequalis (Loew); Marlatt, 1891: 41; Reared from seed. Only one larva per bur, feeds on only one of the two seeds; WASHINGTON (host as *Xanthium* sp. prob. *canadense*). C.D.A.;[1] Larval infestation; CALIFORNIA: American River, Sacramento Co., XI-10-1956, F. L. Blanc.
Xanthium strumarium var. *glabratum*
Euaresta aequalis (Loew); Foote, R. H., host list;[5] Reared (host as *Xanthium chinense*).
Xanthium sp.
Euaresta aequalis (Loew); Cole and Lovett, 1921: 326; In seed pods; OREGON: Hood River; Pendleton. Phillips, 1923: 147; Reared from seed. Knowlton and Harmston, 1937: 145; Infesting seed pods; UTAH. Phillips, 1946: 44; Larvae feed on seed; GEORGIA: Nacoochee. Essig, 1958: 605; In seed; UNITED STATES.
Euarestoides acutangulus (Thomson); Foote, R. H. and Blanc, 1963: 25; Reared; CALIFORNIA: San Ysidro, San Diego Co.

Ximenia americana (28)
Anastrepha fraterculus (Wiedemann); Stone, 1942a: 79; Larval food plant. Aczel, 1949: 211; Infestation.
Anastrepha mombinpraeoptans Sein; McAlister, 1936: 442; Infested (as *Anastrepha acidusa*).

Zschokkea panamensis (3)
Anastrepha serpentina (Wiedemann); Stone, 1942a: 28; Larval food plant. Shaw, 1947: 34; Infested; NORTHEAST MEXICO to BRAZIL: Sao Paulo. Aczel, 1949: 228; Infestation.

Zuelania guidonia (18)
Anastrepha zuelaniae Stone; Stone, 1942a: 83; Larval food

plant; CANAL ZONE: Barro Colorado Island; Balboa; PANAMA: Capira; La Campana. Aczel, 1949: 233; Infestation. Bush, 1962: 93; Larvae in fruit; MEXICO: Tamazunchale; San Luis Potosi.

HOST PLANTS FOR WHICH SCIENTIFIC NAME IS NOT KNOWN

amoras
Anastrepha ludens (Loew); Costa Lima, 1934: 539; Infested.

'Brazo' blackberry
Anastrepha suspensa (Loew); Anon., 1969: 607; Reared; FLORIDA: Belle Glade, Palm Beach Co.

Ceylon peach
Anastrepha suspensa (Loew); Anon., 1966: 525; Larval infestation; FLORIDA: Greater Miami.

Cuban plum sapodilla
Anastrepha fraterculus (Wiedemann); Greene, 1929: 496; Host; PANAMA: Panama City.

goibas
Anastrepha ludens (Loew); Costa Lima, 1934: 539; Infested.

nispero
Anastrepha serpentina (Wiedemann); Greene, 1949: 498; Larval and pupal infestation.

Para plum
Anastrepha fraterculus (Wiedemann); Pierce, 1917: 113; Eggs and larvae in fruit. Moznette, 1922: 22; Infested; MEXICO; CENTRAL AMERICA; SOUTH AMERICA; WEST INDIES.

pecigos
Anastrepha ludens (Loew); Costa Lima, 1934: 539; Infested.

SECTION II. HOSTS BY FRUIT FLY SPECIES

Acidia fratria Loew - see *Euleia fratria* (Loew).
Acidia heraclei Linn. - see *Euleia fratria* (Loew).

Acidogona melanura (Loew)
Hieracium argyraeum; Benjamin, 1934: 32.
Hieracium gronovii; Benjamin, 1934: 32.
Hieracium scabrum; Benjamin, 1934: 32.
Hieracium sp.; Benjamin, 1934: 32.

Acinia fucata (Fabricius) - see *Acinia picturata* (Snow).
Acinia picturata (Snow)
Pluchea foetida; Benjamin, 1934: 49 [insect as *Acinia fucata* (Fabricius)]. Aczel, 1949: 272 (insect as *Acinia fucata*).
Pluchea imbricata; Benjamin, 1934: 49 [insect as *Acinia fucata* (Fabricius)]. Aczel, 1949: 272 (insect as *Acinia fucata*).
Pluchea odorata; Stegmaier, 1967a: 53.
Pluchea purpurascens; Benjamin, 1934: 49 [insect as *Acinia fucata* (Fabricius)]. Aczel, 1949: 272 (insect as *Acinia fucata*). C.D.A.[1]
Pluchea rosea; Stegmaier, unpublished record.[2]
Pluchea sericea; Foote, R. H., 1964: 84. C.D.A.[1]
Pluchea spp.; Benjamin, 1934: 49 [insect as *Acinia fucata* (Fabricius)].
Tessaria absinthoides; Foote, R. H., 1964: 84 [insect as *Acinia fucata* (Fabricius)].
Tessaria integrifolia; Foote, R. H., 1964: 84 [insect as *Acinia fucata* (Fabricius)].

Aciurina aplopappi (Coquillett)
Gutierrezia sarothrae; Foote, R. H. and Blanc, 1963: 96.
Haplopappus pinifolius; Coquillett, 1894: 72 (as *Aplopappus pinifolius*) [insect as *Trypeta (Aciura) aplopappi* (Coquillett)]. Bates, 1935: 108 (as *Aplopappus pinifolius*). Foote, R. H. and Blanc, 1963: 8. Foote, R. H., host list[5] (as *Ericameria pinifolia*).
Haplopappus spp.; Foote, R. H., host list.[5]
Aciurina bigeloviae (Cockerell)
Chrysothamnus nauseosus; Foote, R. H., host list.[5]
Chrysothamnus nauseosus ssp. *albicaulis*; Cockerell, 1890a: 324 (as *Bigelovia graveolens*) (insect as *Trypeta bigeloviae*). Townsend, 1893b: 48 (as *Bigelovia* sp. prob. *graveolens*). Felt, 1940: 323 (as *Bigelovia graveolens*) (insect as *Eurosta bigeloviae* Cockerell).
Chrysothamnus sp.; Cockerell, 1890b: 75 (insect as *Trypeta bigeloviae*). Cockerell, 1893a: 112 (as *Bigelovia* sp.) (insect as *Trypeta bigeloviae*). Baker, C. F., 1895: 174

(as *Bigelovia* sp.) (insect as *Trypeta bigelovii*). Ballou, 1926: 28 (insect as *Tephritis bigeloviae*). Bates, 1935: 110 (as *Bigelovia* sp.). Essig, 1958: 605 (insect as *Eurosta bigeloviae*).

Haplopappus spp.; Foote, R. H. and Blanc, 1963: 97.

Aciurina ferruginea (Doane)

Chrysothamnus viscidiflorus; Tauber and Tauber, 1967b: 907. O.S.U.[3]

Haplopappus bloomeri; Foote, R. H. and Blanc, 1963: 97. O.S.U.[3] (as *Chrysothamnus bloomeri*).

Solidago sp.; Foote, R. H. and Blanc, 1963: 8.

Aciurina lutea (Coquillett)

No host information.

Aciurina maculata (Cole)

Amelanchier sp.; Cole and Lovett, 1919: 252 (insect as *Aciura maculata* Cole). Record subject to question. Bates, 1935: 109.

Chrysothamnus nauseosus; Novak et al., 1967: 148.

Chrysothamnus nauseosus ssp. *albicaulis*; C.D.A.[1]

Chrysothamnus sp.; Foote, R. H. and Blanc, 1963: 9. C.D.A.[1]

Senecio douglassii; Ballou, 1925: 1 (insect as *Urellia Pacifica*).

Aciurina notata (Coquillett)

Chrysothamnus bigelovii; Foote, R. H., host list.[5]

Chrysothamnus nauseosus ssp. *albicaulis*; Cockerell, 1900: 198 [as *Bigelovia (Chrysothamnus) graveolens*] (insect as *Trypeta notata*).

Chrysothamnus sp.; Bates, 1935: 113 (as *Bigelovia chrysothamnus*). Essig, 1958: 604 (as *Bigelovia* sp.) (insect as *Trypeta notata*).

Aciurina opaca (Coquillett)

No host information.

Aciurina semilucida (Bates)

Artemisia sp.; O.D.A.[7]

Chrysothamnus nauseosus; Novak et al., 1967: 148.

Chrysothamnus sp.; Bates, 1935: 112 (as *Bigelovia* sp.).

Aciurina thoracica Curran

Baccharis emoryi; C.D.A.[1]

Baccharis pilularis; Tilden, 1951: 170.

Baccharis sarothroides; Foote, R. H. and Blanc, 1963: 10.

Baccharis sp.; Foote, R. H. and Blanc, 1963: 9.

Aciurina trilitura Blanc and Foote

No host information.

Aciurina trixa Curran

Artemisia tridentata; U.C.R.[6]

Artemisia sp.; Foote, R. H. and Blanc, 1963: 11.

Chrysothamnus nauseosus; Foote, R. H. and Blanc, 1963: 11.

Chrysothamnus viscidiflorus; Foote, R. H., host list.[5]

Chrysothamnus sp.; Bates, 1935: 111 [as *Bigelovia (Chrysothamnus?)*]. Foote, R. H. and Blanc, 1963: 11.

Acrotaenia testudinea (Loew)

No host information.

Aleomyia caurina Doane - see *Urophora formosa* (Coquillett).

Anastrepha acidusa - see *Anastrepha mombinpraeoptans* Sein.
Anastrepha chiclayae Greene
Passiflora sp.; Baker, A. C., et al., 1944: 141.
Anastrepha distincta Greene*
Annona glabra; Stone, 1942a: 107.
Capsicum frutescens var. *grossum*; Stone, 1942a: 107.
Chrysophyllum cainito; Stone, 1942a: 106. Aczel, 1949: 208.
Dovyalis hebecarpa; Stone, 1942a: 107.
Eugenia nesiotica; Stone, 1942a: 106. Aczel, 1949: 208.
Inga edulis; Stone, 1942a: 106. Aczel, 1949: 208.
Inga feuillei; Stone, 1942a: 106. Aczel, 1949: 208.
Inga golmanii; Stone, 1942a: 106. Aczel, 1949: 208.
Inga hayesii; Stone, 1942a: 106.
Inga inicuil; Bush, 1962: 94.
Inga lushnathiana; Stone, 1942a: 106. Aczel, 1949: 208.
Inga panamensis; Stone, 1942a: 106. Aczel, 1949: 208.
Inga punctata; Stone, 1942a: 106. Aczel, 1949: 208.
Inga setifera; Stone, 1942a: 106. Aczel, 1949: 208.
Inga spuria; Stone, 1942a: 106. Aczel, 1949: 208.
Mangifera indica; Stone, 1942a: 106. Aczel, 1949: 208.
Solanum donnell-smithii; Stone, 1942a: 107.
Anastrepha edentata Stone
No host information.
Anastrepha fraterculus (Wiedemann)
Achras zapota; Stone, 1942a: 79. Aczel, 1949: 211. Wasbauer, 1964: 7.
Annona cherimola; Pierce, 1917: 113. Costa Lima, 1934: 548. Stone, 1942a: 79. Aczel, 1949: 211.
Annona glabra; Stone, 1942a: 79. Aczel, 1949: 211.
Annona humboldtiana; Pierce, 1917: 113. Greene, 1929: 496. Costa Lima, 1934: 548.
Citrus aurantium; Costa Lima, 1934: 548.
Citrus grandis; Rust, 1918: 462 (as *Citrus decumana*). Costa Lima, 1934: 548 (as *Citrus decumana*). Stone, 1942a: 79. Aczel, 1949: 211.
Citrus paradisi; Strong, 1933: 10.
Citrus reticulata; Rust, 1918: 462 (as *Citrus nobilis*).

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* Although there are as yet no definite rearing records in America north of Mexico for *Anastrepha distincta* Greene, Stone (1942) states that "sufficient *Inga* fruit is brought into the Rio Grande Valley region to account for the presence of the species there." *Anastrepha distincta* has been reared from *Inga* spp. in Panama, Mexico, Trinidad, Colombia, Peru, and from Bahia to Sao Paulo, Brazil (Stone, 1942); also from *Inga inicuil* in Cocoyoc, Morelos, Mexico (Bush, 1962).

Greene, 1929: 496. Costa Lima, 1934: 548 (as *Citrus nobilis*).

Citrus sinensis; Stone, 1942a: 79. Aczel, 1949: 211.

Citrus spp.; Rust, 1918: 462. Greene, 1929: 496. Baker, A. C., et al., 1944: 138. Essig, 1958: 600. Ebeling, 1959: 267. Christenson and Foote, 1960: 180. Wasbauer, 1964: 7.

Coffea arabica; Costa Lima, 1934: 548. Stone, 1942a: 79. Aczel, 1949: 211.

Coffea sp.; Pierce, 1917: 113. Moznette, 1922: 22. Greene, 1929: 496. Christenson and Foote, 1960: 180. Wasbauer, 1964: 7.

Cydonia oblonga; Stone, 1942a: 79. Aczel, 1949: 211.

Diospyros kaki; Pierce, 1917: 113. Moznette, 1922: 22. Greene, 1929: 496. Costa Lima, 1934: 548.

Dovyalis hebecarpa; Stone, 1942a: 79. Aczel, 1949: 211.

Eriobotrya japonica; Costa Lima, 1934: 548. Stone, 1942a: 79. Aczel, 1949: 211.

Eugenia brasiliensis; Stone, 1942a: 79. Aczel, 1949: 211.

Eugenia coloradoensis; Stone, 1942b: 304. Aczel, 1949: 211.

Eugenia jambos; Stone, 1942a: 79. Baker, A. C., et al., 1944: 139 (insect as Mexican *Anastrepha fraterculus*). Aczel, 1949: 211. Christenson and Foote, 1960: 185 (insect as Mexican *Anastrepha fraterculus*). Bush, 1962: 93.

Eugenia malaccensis; Greene, 1929: 496. Stone, 1942a: 79. Aczel, 1949: 211.

Eugenia tomentosa; Costa Lima, 1934: 548.

Eugenia uniflora; Costa Lima, 1934: 548. Stone, 1942a: 79. Aczel, 1949: 211. Wasbauer, 1964: 7.

Eugenia sp.; Pierce, 1917: 113 (also as *Phyllocalyx* sp.). Greene, 1929: 496 (as *Phylocalyx* sp.). Costa Lima, 1934: 548 (as *Phylocalyx* sp.). Baker, A. C., et al., 1944: 138. Christenson and Foote, 1960: 180.

Ficus carica; Rust, 1918: 462. Costa Lima, 1934: 548.

Fortunella japonica; Rust, 1918: 462 (as *Citrus japonica*). Costa Lima, 1934: 548 (as *Citrus japonica*).

Fragaria vesca; Costa Lima, 1934: 548.

Inga sp.; Greene, 1934: 164.

Malus pumila; Stone, 1942a: 79. Aczel, 1949: 211.

Malus sylvestris; Costa Lima, 1934: 548.

Mangifera indica; Pierce, 1917: 113. Moznette, 1922: 22. Crawford, 1927: 445. Greene, 1929: 496. Stone, 1942a: 79. Aczel, 1949: 211. Wasbauer, 1964: 7.

Mangifera sp.; Pierce, 1917: 113.

Myrciaria sp.; Costa Lima, 1934: 548.

Persea americana; Rust, 1918: 462. Costa Lima, 1934: 548. Ebeling, 1959: 320.

Phyllanthus acidus; Stone, 1942a: 79. Aczel, 1949: 211.

Prunus armeniaca; Rust, 1918: 462. Costa Lima, 1934: 548.

Prunus persica; Pierce, 1917: 113. Rust, 1918: 462. Moznette, 1922: 22. Greene, 1929: 496. Costa Lima, 1934: 548. Stone, 1942a: 81. Baker, A. C., et al., 1944: 138

(insect also as Mexican *Anastrepha fraterculus*). Aczel, 1949: 211. Christenson and Foote, 1960: 185 (insect as Mexican *Anastrepha fraterculus*). Wasbauer, 1964: 7.

Prunus salicina; Pierce, 1917: 113. Moznette, 1922: 22. Greene, 1929: 496.

Prunus spp.; Christenson and Foote, 1960: 180.

Psidium cattleianum; Rust, 1918: 462. Costa Lima, 1934: 548.

Psidium guajava; Pierce, 1917: 113. Moznette, 1922: 22. Crawford, 1927: 445. Greene, 1929: 496. Costa Lima, 1934: 548. Stone, 1942a: 81. Baker, A. C., et al., 1944: 138 (insect also as Mexican *Anastrepha fraterculus*). Aczel, 1949: 211. Christenson and Foote, 1960: 180 (insect also as Mexican *Anastrepha fraterculus*). Wasbauer, 1964: 7.

Psidium guajava var. *pomeriferum*; Isaac, 1905: 35 (insect as *Trypeta ludens*).

Psidium guineense; Costa Lima, 1934: 548.

Psidium lucidium; Rust, 1918: 462. Costa Lima, 1934: 548.

Pyrus communis; Pierce, 1917: 113. Moznette, 1922: 22. Greene, 1929: 496. Costa Lima, 1934: 548. Stone, 1942a: 79. Aczel, 1949: 211. Wasbauer, 1964: 7.

Spondias cytherea; Pierce, 1917: 113 (as jobo de la India). Greene, 1929: 496 (as jobo de la India). Costa Lima, 1934: 548 (as *Spondias dulcis*).

Spondias mombin; Greene, 1929: 496 (also as *Spondias lutea*). Costa Lima, 1934: 548. Stone, 1942a: 79. Aczel, 1949: 211.

Spondias nigrescens; Stone, 1942a: 79. Aczel, 1949: 211.

Spondias purpurea; Greene, 1929: 496. Costa Lima, 1934: 548. Stone, 1942a: 79. Aczel, 1949: 211.

Spondias sp.; Pierce, 1917: 113 (as jobo amarillo). Greene, 1929: 496 (also as jobo amarillo). Baker, A. C., et al., 1944: 138. Christenson and Foote, 1960: 180.

Terminalia catappa; Baker, A. C. et al., 1944: 139 (insect as Mexican *Anastrepha fraterculus*). Christenson and Foote, 1960: 185 (insect as Mexican *Anastrepha fraterculus*).

Turpinia paniculata; Stone, 1942a: 79. Aczel, 1949: 211.

Vitis vinifera; Stone, 1942a: 79. Aczel, 1949: 211.

Vitis sp.; Greene, 1929: 496. Christenson and Foote, 1960: 180. Wasbauer, 1964: 7.

Ximenia americana; Stone, 1942a: 79. Aczel, 1949: 211.

Cuban plum sapodilla; Greene, 1929: 496.

Para plum; Pierce, 1917: 113. Moznette, 1922: 22.

Anastrepha interrupta Stone

Schoepfia chrysophylloides; McClanahan, 1951: 44. Weems, 1967a: 1.

Anastrepha lathana Stone

Psidium guajava; Stone, 1942a: 106.

Anastrepha limae Stone

Passiflora quadrangularis; Stone, 1942a: 68. Aczel, 1949: 216.

Anastrepha ludens (Loew)

Achras zapota; Baker, A. C., et al., 1944: 6. Hoidale, 1953: 560. Christenson and Foote, 1960: 180.

Annona cherimola; Stone, 1942a: 97. Aczel, 1949: 217.
Annona reticulata; Stone, 1942a: 97. Aczel, 1949: 217.
Annona spp.; Christenson and Foote, 1960: 180.
Calocarpum sapota; Emmart, 1935: 120. Quayle, 1938: 240. Mena, 1965: 13.
Capsicum frutescens var. *grossum*; Baker, A. C., et al., 1944: 18.
Carica papaya; Baker, A. C., et al., 1944: 18. Mena, 1965: 13.
Carissa grandiflora; Baker, A. C., et al., 1944: 18.
Casimiroa edulis; Stone, 1942a: 97. Aczel, 1949: 217. Hoidale, 1953: 560. Anon., 1955: 2. Christenson and Foote, 1960: 180.
Casimiroa tetrameria; Stone, 1942a: 97. Aczel, 1949: 217.
Citrus aurantifolia; Isaac, 1905: 9 (insect as *Trypeta ludens*). Crawford, 1913: 2 (insect as *Trypeta ludens*). Emmart, 1935: 120. Stone, 1942a: 97. Aczel, 1949: 217.
Citrus aurantifolia var. *limetta*; Moznette, 1922: 22. Greene, 1929: 495.
Citrus aurantium; Isaac, 1905: 35 (insect as *Trypeta ludens*). Crawford, 1913: 2 (insect as *Trypeta ludens*). Crawford, 1927: 423 (also as *Citrus bigaradia* and as *Citrus vulgaris*). Emmart, 1935: 121. Baker, A. C., et al., 1944: 7.
Citrus grandis; Crawford, 1927: 423 (as *Citrus decumana*). Stone, 1942a: 97. Aczel, 1949: 217.
Citrus limon; Stone, 1942a: 97. Aczel, 1949: 217.
Citrus medica; Crawford, 1913: 2 (insect as *Trypeta ludens*).
Citrus paradisi; Crawford, 1913: 2 (insect as *Trypeta ludens*). Greene, 1929: 495. Emmart, 1935: 120. Quayle, 1938: 240. Baker, A. C., et al., 1944: 144. Hoidale, 1953: 559. Anon., 1955: 2.
Citrus reticulata; Crawford, 1913: 2 (insect as *Trypeta ludens*). Baker, A. C., et al., 1944: 8.
Citrus sinensis; Johnson, W. G., 1896: 54 (insect as *Trypeta ludens* Loew). Stone, 1942a: 97. Aczel, 1949: 217.
Citrus spp.; Howard, 1888: 45 (insect as *Trypeta ludens*). Riley, 1889: 45. Townsend, 1893a: 13. Isaac, 1905: 9 (insect as *Trypeta ludens*). Herrera, 1908: 171. Crawford, 1910: 321. Crawford, 1913: 2 (insect as *Trypeta ludens*). Moznette, 1922: 22. Greene, 1929: 495. Costa Lima, 1934: 539. Emmart, 1935: 120. Quayle, 1938: 240. Hoidale, 1953: 559. Anon., 1955: 2. Essig, 1958: 600. Flitters and Messenger, 1958: 12. Ebeling, 1959: 267. Christenson and Foote, 1960: 180. Wasbauer, 1964: 7. Mena, 1965: 13.
Cucurbita sp.; Baker, A. C., et al., 1944: 18.
Cydonia oblonga; Quayle, 1938: 240. Stone, 1942a: 97. Aczel, 1949: 217. Hoidale, 1953: 560. Anon., 1955: 2.
Cyphomandra betacea; Baker, A. C., et al., 1944: 18.
Eugenia jambos; Baker, A. C., et al., 1944: 9. Christenson and Foote, 1960: 180.
Ficus sp.; Baker, A. C., et al., 1944: 17.
Hylocereus sp.; Baker, A. C., et al., 1944: 17.

Inga inicuil; Stone, 1942a: 97. Aczel, 1949: 217.
Juglans regia; Baker, A. C., et al., 1944: 17.
Lemaireocereus sp.; Baker, A. C., et al., 1944: 17.
Lycopersicon esculentum; Baker, A. C., et al., 1944: 18.
Malus sylvestris; Quayle, 1938: 240. Hoidale, 1953: 560. Anon., 1955: 2. Weems, 1963: 1.
Mammea americana; Emmart, 1935: 120. Quayle, 1938: 240. Stone, 1942a: 97. Aczel, 1949: 217. Mena, 1965: 13.
Mangifera indica; Isaac, 1905: 35 (insect as *Trypeta ludens*). Herrera, 1908: 171. Crawford, 1910: 321. Moznette, 1922: 22. Crawford, 1927: 423. Greene, 1929: 495. Emmart, 1933: 184. Costa Lima, 1934: 539. Emmart, 1935: 120. Plummer and Stone, 1935: 10. Quayle, 1938: 240. Stone, 1942a: 97. Aczel, 1949: 217. Hoidale, 1953: 560. Anon., 1955: 2. Berry, 1955: 416. Christenson and Foote, 1960: 180. Wasbauer, 1964: 7. Mena, 1965: 13. Rubio and McFadden, 1966: 1015.
Musa sp.; Baker, A. C., et al., 1944: 17.
Opuntia sp.; Baker, A. C., et al., 1944: 16.
Persea americana; Emmart, 1935: 120. Stone, 1942a: 98. Ebeling, 1959: 320. Wasbauer, 1964: 7.
Prunus armeniaca; Quayle, 1938: 240.
Prunus persica; Greene, 1929: 495. Emmart, 1935: 120. Quayle, 1938: 240. Stone, 1942a: 97. Aczel, 1949: 217. Hoidale, 1953: 560. Anon., 1955: 2. Christenson and Foote, 1960: 180. Wasbauer, 1964: 7.
Prunus sp.; Greene, 1929: 495. Emmart, 1935: 120. Quayle, 1938: 240. Baker, A. C., et al., 1944: 18.
Psidium cattleianum; Baker, A. C., et al., 1944: 18.
Psidium guajava; Herrera, 1908: 171. Crawford, 1910: 321. Moznette, 1922: 22. Crawford, 1927: 423. Greene, 1929: 495. Emmart, 1935: 120. Quayle, 1938: 240. Baker, A. C., et al., 1944: 12.
Punica granatum; Emmart, 1935: 120. Stone, 1942a: 97. Aczel, 1949: 217. Hoidale, 1953: 560. Anon., 1955: 2.
Pyrus communis; Quayle, 1938: 240. Baker, A. C., et al., 1944: 13. Hoidale, 1953: 560. Anon., 1955: 2.
Sargentia greggi; Plummer and McPhail, 1941: 2. Stone, 1942a: 97. Aczel, 1949: 217. Hoidale, 1953: 560. Christenson and Foote, 1960: 180.
Sideroxylon sapota; Greene, 1929: 495.
Spondias purpurea; Crawford, 1927: 423. Baker, A. C., et al., 1944: 18.
Spondias sp.; Baker, A. C., et al., 1944: 18.
amoras; Costa Lima, 1934: 539.
goiabas; Costa Lima, 1934: 539.
pecegos; Costa Lima, 1934: 539.

Anastrepha mombinpraeoptans Sein
Acacia sp.; Quayle, 1938: 243.
Achras sapota; McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Stone, 1942a: 69. Aczel, 1949: 219.

Anacardium occidentale; Stone, 1942a: 69. Aczel, 1949: 219.
Annona cherimola; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Annona glabra; Stone, 1942a: 69. Aczel, 1949: 219.
Annona hayesii; Stone, 1942a: 69. Aczel, 1949: 219.
Annona muricata; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Annona squamosa; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Averrhoa carambola; Stone, 1942a: 69. Aczel, 1949: 219.
Calocarpum mammosum; Stone, 1942a: 69. Aczel, 1949: 219.
Capsicum sp.; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Carica papaya; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Carissa grandiflora; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Chrysobalanus icaco; McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Stone, 1942a: 69. Aczel, 1949: 219.
Chrysobalanus pellocarpus; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Citrus aurantium; Stone, 1942a: 69. Aczel, 1949: 219.
Citrus grandis; McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Stone, 1942a: 69. Aczel, 1949: 219. Wasbauer, 1964: 7.
Citrus reticulata var. *austera?* X *Fortunella* sp.; McAlister, 1936: 442 (as *Citrus mitis*) (insect as *Anastrepha acidusa*).
Citrus sinensis; Wasbauer, 1964: 7.
Citrus spp.; Ebeling, 1959: 267.
Cordia sp.; Quayle, 1938: 243.
Diospyros kaki; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Dovyalis hebecarpa; Stone, 1942a: 69. Aczel, 1949: 219.
Eriobotrya japonica; Weems, 1970: 1.
Eugenia jambos; Sein, 1933: 190 (as *Jambos jambos*). Strong, 1933: 3 (insect as *Anastrepha acidusa*). Costa Lima, 1934: 552 (as *Jambos jambos*) (insect as *Anastrepha fraterculus* var. *mombinpraeoptans*). Greene, 1934: 163. McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Quayle, 1938: 243 (insect as *Anastrepha acidusa*). Aczel, 1949: 219. Wasbauer, 1964: 7. Mena, 1965: 13.
Eugenia malaccensis; Stone, 1942a: 69. Aczel, 1949: 219.
Eugenia nesiotica; Stone, 1942a: 69. Aczel, 1949: 219.
Eugenia uniflora; McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Stone, 1942a: 69. Aczel, 1949: 219.
Ficus carica; McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Baker, A. C., et al., 1944: 137 (insect as Mexican *Anastrepha mombinpraeoptans*).
Ficus sp.; Baker, A. C., et al., 1944: 137 (insect as Mexican *Anastrepha mombinpraeoptans*).
Fortunella japonica; McAlister, 1936: 442 (as *Citrus japonica*)

(insect as *Anastrepha acidusa*).
Inga laurina; Quayle, 1938: 243.
Lucuma nervosa; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Lycopersicon esculentum; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Malpighia glabra; Newell, 1935: 22.
Malpighia sp.; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Malus sylvestris; Foote, R. H., host list.[5]
Malus sp.; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Mammea americana; Quayle, 1938: 243 (insect as *Anastrepha acidusa*).
Mangifera indica; Bates, 1933: 161 (insect as *Anastrepha acidusa*). Sein, 1933: 190. Strong, 1933: 3 (insect as *Anastrepha acidusa*). Costa Lima, 1934: 552 (insect as *Anastrepha fraterculus* var. *mombinpraeoptans*). Greene, 1934: 163. McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Quayle, 1938: 243 (insect as *Anastrepha acidusa*). Waterston, 1941: 38. Baker, A. C., et al., 1944: 135. Aczel, 1949: 219. Wasbauer, 1964: 7. Mena, 1965: 13. Angeles, 1966: 299.
Passiflora quadrangularis; Stone, 1942a: 69. Aczel, 1949: 219.
Phaseolus sp.; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Pouteria mammosa; Weems, 1970: 1.
Prunus americana; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Prunus amygdalus; Quayle, 1938: 243 (insect as *Anastrepha acidusa*). Stone, 1942a: 69. Aczel, 1949: 219.
Prunus arnoldiana; Wasbauer, 1964: 7.
Prunus persica; McAlister, 1936: 442 (as *Amygdalus persica*) (insect as *Anastrepha acidusa*).
Prunus persica var. *nectarina*; Stone, 1942a: 69.
Prunus sp.; Baker, A. C., et al., 1944: 137 (insect as Mexican *Anastrepha mombinpraeoptans*).
Psidium cattleianum; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Psidium guajava; Isaac, 1905: 35 (insect as *Trypeta acidusa*). Sein, 1933: 190. Costa Lima, 1934: 552. Greene, 1934: 163. Newell, 1935: 22. McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Quayle, 1938: 243 (insect as *Anastrepha acidusa*). Aczel, 1949: 219.
Punica granatum; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Pyrus sp.; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).
Spondias cirouella; Sein, 1933: 190. Costa Lima, 1934: 552 (insect as *Anastrepha fraterculus* var. *mombinpraeoptans*).
Spondias cytherea; Sein, 1933: 190 (as *Spondias dulcis*). Costa Lima, 1934: 552 (as jobo da India) (insect as *Anastrepha fraterculus* var. *mombinpraeoptans*). McAlister, 1936: 442

(insect as *Anastrepha acidusa*). Stone, 1942a: 69 (as *Spondias dulcis*). Aczel, 1949: 219 (as *Spondias dulcis*).

Spondias mombin; Sein, 1933: 188. Newell, 1933: 17. Strong, 1933: 3 (insect as *Anastrepha acidusa*). Costa Lima, 1934: 552 (insect as *Anastrepha fraterculus* var. *mombinpraeoptans*). Greene, 1934: 163. McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Quayle, 1938: 243 (insect as *Anastrepha acidusa*). Aczel, 1949: 219. Bush, 1962: 93. Wasbauer, 1964: 7. Weems, 1965: 1.

Spondias nigrescens; Stone, 1942a: 69. Aczel, 1949: 219.

Spondias purpurea; Sein, 1933: 190. Costa Lima, 1934: 552 (insect as *Anastrepha fraterculus* var. *mombinpraeoptans*). McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Stone, 1942a: 69. Aczel, 1949: 219.

Spondias sp.; Bates, 1933: 161 (insect as *Anastrepha acidusa*). Newell, 1933: 17. Baker, A. C., et al., 1944: 137 (insect as Mexican *Anastrepha mombinpraeoptans*). Mena, 1965: 13.

Terminalia catappa; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).

Thevetia peruviana; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).

Vitis vinifera; McAlister, 1936: 442 (insect as *Anastrepha acidusa*). Weems, 1970: 1.

Vitis sp.; Stone, 1942a: 69.

Ximenia americana; McAlister, 1936: 442 (insect as *Anastrepha acidusa*).

Anastrepha nigrifascia Stone

Achras zapota; Stone, 1942a: 92.

Mangifera indica; Foote, R. H., host list.[5]

Mimusops emarginata; Stone, 1942a: 92.

Anastrepha ocresia (Walker)

Achras zapota; Foote, R. H., 1964a: 322. Weems, 1968: 1.

Psidium guajava; Weems, 1968: 1.

Anastrepha serpentina (Wiedemann)

Achras zapota; Strong, 1933: 8. Costa Lima, 1934: 494. Greene, 1934: 143. Aczel, 1949: 228. Wasbauer, 1964: 7.

Annona glabra; Stone, 1942a: 28. Shaw, 1947: 34. Aczel, 1949: 228.

Bumelia laetevirens; Shaw, 1947: 34. Weems, 1969b: 1.

Calocarpum mammosum; Emmart, 1933: 184. Stone, 1942a: 28. Shaw, 1947: 34. Aczel, 1949: 228. Bush, 1962: 95.

Calocarpum sapota; Weems, 1969b: 1.

Calocarpum viride; Weems, 1969b: 1.

Capsicum annuum; Shaw, 1947: 34.

Chaenomeles sp.; Baker, A. C., et al., 1944: 127.

Chrysophyllum cainito; Greene, 1929: 498. Costa Lima, 1934: 494. Stone, 1942a: 28. Shaw, 1947: 34. Aczel, 1949: 228.

Chrysophyllum macrophyllum; Shaw, 1947: 34 (as *Chrysophyllum panamense* var. *macrophyllum*).

Chrysophyllum panamense; Greene, 1934: 143. Shaw, 1947: 34. Aczel, 1949: 228.

Citrus paradisi; Baker, A. C., et al., 1944: 127.
Citrus reticulata var. *austera?* X *Fortunella* sp.; Weems, 1969b: 1 (as *Citrus mitis*).
Citrus sinensis; Stone, 1942a: 28. Shaw, 1947: 34. Aczel, 1949: 228.
Citrus spp.; Ebeling, 1959: 267.
Cydonia oblonga; Stone, 1942a: 28. Aczel, 1949: 228.
Dovyalis hebecarpa; Stone, 1942a: 28. Shaw, 1947: 34. Aczel, 1949: 228.
Eugenia malaccensis; Shaw, 1947: 34.
Eugenia uniflora; Shaw, 1947: 34.
Ficus sp.; Shaw, 1947: 34. Weems, 1969b: 1.
Labatia standleyana; Stone, 1942b: 304. Shaw, 1947: 34. Aczel, 1949: 228.
Lucuma obovata; Stone, 1942b: 304. Aczel, 1949: 228.
Lucuma salicifolia; Baker, A. C., et al., 1944: 119.
Lucuma standleyana; Shaw, 1947: 34.
Lucuma sp.; Strong, 1933: 14. Shaw, 1947: 34.
Lycopersicon esculentum; Stone, 1942a: 28. Shaw, 1947: 34. Aczel, 1949: 228.
Malus sylvestris; Baker, A. C., et al., 1944: 127.
Mammea americana; Costa Lima, 1934: 494. Greene, 1934: 143. Shaw, 1947: 34. Aczel, 1949: 228.
Mangifera indica; Stone, 1942a: 28. Shaw, 1947: 34. Aczel, 1949: 228.
Manilkara zapotilla; Shaw, 1947: 34. Weems, 1969b: 1.
Mimusops coriacea; Costa Lima, 1934: 494. Stone, 1942a: 28. Aczel, 1949: 228.
Persea americana; Ebeling, 1959: 320.
Pouteria caimito; Costa Lima, 1934: 494.
Prunus persica; Baker, A. C., et al., 1944: 127. Spishakoff, 1966: 1010.
Psidium guajava; Greene, 1929: 498. Greene, 1934: 143. Shaw, 1947: 34.
Pyrus communis; Baker, A. C., et al., 1944: 127.
Sideroxylon tempisque; Shaw, 1947: 34. Weems, 1969b: 1.
Spondias mombin; Stone, 1942a: 28. Shaw, 1947: 34 (as *Spondias lutea*). Aczel, 1949: 228.
Terminalia catappa; Shaw, 1947: 34.
Zschokkea panamensis; Stone, 1942a: 28. Shaw, 1947: 34. Aczel, 1949: 228.
nispero; Greene, 1949: 498.

Anastrepha spatulata Stone
No host information.

Anastrepha striata Schiner
Achras zapota; Aczel, 1949: 229.
Calyptranthes tondusii; Greene, 1934: 146. Stone, 1942a: 30. Aczel, 1949: 229.
Eugenia uniflora; Aczel, 1949: 229.
Mangifera indica; Emmart, 1933: 184. Stone, 1942a: 30. Aczel, 1949: 229. Wasbauer, 1964: 7.

Manihot esculenta; Stone, 1942a: 30. Aczel, 1949: 229.
Psidium guajava; Greene, 1929: 496. Emmart, 1933: 184. Strong, 1933: 8. Darby and Kapp, 1934: 1. Greene, 1934: 146. Stone, 1942a: 30. Aczel, 1949: 229. Bush, 1962: 94. Wasbauer, 1964: 7.
Spondias mombin; Stone, 1942a: 30 (as *Spondias* sp. nr. *lutea*). Wasbauer, 1964: 7.
Spondias sp.; Aczel, 1949: 229.

Anastrepha suspensa (Loew)
Achras zapota; Greene, 1934: 148. Anon., 1966: 556, 683. Anon., 1967a: 1.
Annona cherimola; McAlister, 1936: 442.
Annona reticulata; Stone, 1942a: 74. Aczel, 1949: 230. Anon., 1967a: 1.
Annona squamosa; Anon., 1967a: 1.
Averrhoa carambola; Anon., 1967a: 1.
Britoa acida; Anon., 1967a: 1.
Capsicum frutescens; Anon., 1966: 888.
Carica papaya; McAlister, 1936: 442. Anon., 1967a: 1.
Carissa grandiflora; McAlister, 1936: 442. Anon., 1968: 54.
Carissa sp.; Foote, R. H., host list.[5]
Chrysobalanus icaco; Costa Lima, 1934: 507. Greene, 1934: 148. Aczel, 1949: 230.
Chrysophyllum cainito; Stone, 1942a: 74. Aczel, 1949: 230.
Chrysophyllum oliviforme; Anon., 1968: 153.
Citrus aurantifolia; Anon., 1966: 683. Anon., 1967a: 1.
Citrus aurantium; Costa Lima, 1934: 507. Greene, 1934: 148. Aczel, 1949: 230. Anon., 1966: 525, 683, 1118. Anon., 1967a: 1.
Citrus grandis; Greene, 1934: 148 (as *Citrus maxima*). Stone, 1942a: 74. Aczel, 1949: 230.
Citrus paradisi; Costa Lima, 1934: 507. Anon., 1965a: 114. Weems, 1965: 3. Anon., 1966: 225, 498, 652, 683. Anon., 1967a: 1. Anon., 1967b: 689.
Citrus paradisi X *Citrus reticulata*; Anon., 1967a: 1. Anon., 1967b: 118, 156.
Citrus reticulata; Anon., 1967a: 1. Anon., 1967b: 156.
Citrus reticulata var. *austera?* X *Fortunella* sp.; McAlister, 1936: 442 (as *Citrus mitis*). Anon., 1965b: 1336, 1343. Weems, 1965: 3 (as *Citrus mitis*). Anon., 1966: 32, 83, 818, 980. Weems, 1966: 403 (as *Citrus mitis*). Anon., 1967a: 1 (as *Citrus mitis*). Anon., 1967b: 156.
Citrus sinensis; Costa Lima, 1934: 507. Greene, 1934: 148. Aczel, 1949: 230. Anon., 1966: 525. Anon., 1967a: 1.
Citrus sinensis var. *temple*; Anon., 1966: 83, 683.
Citrus spp.; Ebeling, 1959: 267.
Clausena lansium; Anon., 1966: 589. Anon., 1967a: 1.
Dovyalis caffra; Anon., 1967a: 1.
Dovyalis hebecarpa; Anon., 1967a: 1.
Eriobotrya japonica; Anon., 1966: 83. Anon., 1967a: 1. Anon., 1967b: 156.

Eugenia brasiliensis; Anon., 1967b: 449.
Eugenia jambos; Strong, 1933: 3. Costa Lima, 1934: 507 (as *Jambos jambos*). Greene, 1934: 148. McAlister, 1936: 442. Aczel, 1949: 230. Weems, 1965: 3. Anon., 1966: 589. Weems, 1966: 403. Anon., 1967a: 1.
Eugenia lushnathiana; Anon., 1966: 469. Anon., 1967a: 1.
Eugenia malaccensis; Stone, 1942a: 74. Aczel, 1949: 230.
Eugenia uniflora; McAlister, 1936: 442. Anon., 1965b: 642. Weems, 1965: 3. Anon., 1966: 32, 525. Weems, 1966: 403. Anon., 1967a: 1. Kamasaki et al., 1970: 640.
Flacourtia indica; Anon., 1966: 818. Anon., 1967a: 1. Anon., 1967b: 156.
Fortunella japonica; McAlister, 1936: 442 (as *Citrus japonica*).
Fortunella margarita; Greene, 1934: 148. Aczel, 1949: 230. Anon., 1966: 32, 83, 469, 1158. Anon., 1967a: 1. Anon., 1967b: 156.
Fortunella sp.; Costa Lima, 1934: 507. Weems, 1965: 3. Weems, 1966: 403.
Garcinia livingstonii; Anon., 1967b: 522.
Garcinia sp.; Weems, 1965: 3.
Litchi chinensis; Anon., 1967b: 549.
Lycopersicon esculentum; Anon., 1966: 712.
Malpighia glabra; Weems, 1965: 3. Anon., 1966: 683. Weems, 1966: 403. Anon., 1967a: 1. Anon., 1967b: 156.
Mangifera indica; Weems, 1965: 3. Anon., 1966: 498, 683, 888. Anon., 1967a: 1.
Momordica balsamina; Weems, 1965: 3.
Murraya paniculata; Anon., 1968: 260.
Myrciaria cauliflora; Anon., 1967b: 689.
Myrciaria glomerata; Anon., 1967a: 1.
Persea americana; Anon., 1966: 738, 888.
Pouteria campechiana; Anon., 1967a: 1.
Prunus americana; McAlister, 1936: 442. Anon., 1967a: 1.
Prunus persica; Weems, 1965: 3. Anon., 1966: 525, 589, 652. Weems, 1966: 403. Anon., 1967a: 1. Anon., 1972: 153.
Prunus persica var. *nectarina*; Anon., 1968: 452.
Prunus sp.; Anon., 1966: 556.
Pseudanamomis umbellulifera; Anon., 1967a: 1.
Psidium cattleianum; Stone, 1942a: 74. Aczel, 1949: 230. Weems, 1965: 3. Anon., 1966: 818, 888. Weems, 1966: 403. Anon., 1967a: 1. Kamasaki et al., 1970: 640.
Psidium friedrichsthalianum; Anon., 1967b: 743.
Psidium guajava; Costa Lima, 1934: 507. Greene, 1934: 148. Newell, 1935: 24. McAlister, 1936: 442. Stone, 1942a: 74. Aczel, 1949: 230. Weems, 1965: 3. Anon., 1966: 32, 83, 589, 965, 980, 1034, 1158. Weems, 1966: 403. Anon., 1967a: 1. Anon., 1967b: 33, 156. Anon., 1968: 950. Baranowski and Swanson, 1970: 161. Kamasaki et al., 1970: 640.
Psidium spp.; Weems, 1965: 3.
Punica granatum; Anon., 1967b: 840.
Pyrus communis; Anon., 1967b: 716.

Pyrus pyrifolia X *Pyrus communis*; Esser, 1967: 5.
Severinia buxifolia; Anon., 1966: 1118.
Spondias mombin; Greene, 1934: 148 (as *Spondias lutea*). Newell, 1935: 25. Stone, 1942a: 74. Aczel, 1949: 230. Anon., 1965a: 114.
Spondias purpurea; McAlister, 1936: 442. Anon., 1967a: 1.
Synsepalum dulcificum; Seymour, 1967: 6.
Syzygium samarangense; Anon., 1966: 818. Anon., 1967a: 2.
Terminalia catappa; Costa Lima, 1934: 507. Greene, 1934: 148. Aczel, 1949: 230. Weems, 1965: 3. Anon., 1967a: 2. Baranowski and Swanson, 1970: 162. Kamasaki et al., 1970: 640.
Terminalia muelleri; Anon., 1968: 365.
Triphasia trifolia; Anon., 1966: 738.
'Brazo' blackberry; Anon., 1969: 607.
Ceylon peach; Anon., 1966: 525.

Anastrepha zuelaniae Stone
Mangifera indica; Stone, 1942a: 83.
Zuelania guidonia; Stone, 1942a: 83. Aczel, 1949: 233. Bush, 1962: 93.

Callachna gibba (Loew)
Ambrosia artemisiaefolia; Webster, 1894: 38 (insect as *Trypeta gibba* Loew). Howard, 1903: 139 (insect as *Trypeta gibba*). Viereck, 1917: 453 (insect as *Trypeta gibbosa*). Aldrich, 1929: 13.
Ambrosia psilostachya; Foote, R. H., host list.[5]
Ambrosia trifida; Cook, M. T., 1907: 11 (insect as *Oedaspis gibba*).
Ambrosia sp.; Osten Sacken, 1880: 53 (insect as *Trypeta gibba* Loew). Riley and Howard, 1890: 349 (insect as *Trypeta gibba* Loew). Cook, M. T., 1907: 11 (insect as *Oedaspis gibba*). Aldrich, 1929: 13.

Carphotricha culta - see *Paracantha culta* (Wiedemann).

Cecidocharella borrichia Bush and Huettel
Borrichia frutescens; Bush and Huettel, 1970: 91.

Chetostoma californicum Blanc
No host information.
Chetostoma rubidum (Coquillett)
No host information.

Cryptotreta pallida (Cole)
No host information.

Dioxyna picciola (Bigot)
Actinospermum angustifolium; Benjamin, 1934: 42 [insect as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289 (insect as *Paroxyna picciola*).

Aster simmondsii; Foote, R. H., host list.[5]
Bidens aristosa; Novak et al., 1967: 147.
Bidens bipinnata; Benjamin, 1934: 42 [insect as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289 (insect as *Paroxyna picciola*).
Bidens cernua; Novak et al., 1967: 147.
Bidens laevis; Benjamin, 1934: 42 [insect as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289 (insect as *Paroxyna picciola*). Stegmaier, unpublished record.[8]
Bidens leucantha; Benjamin, 1934: 42 [insect as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289 (insect as *Paroxyna picciola*).
Bidens mitis; Stegmaier, unpublished record.[8]
Bidens pilosa; Needham, 1946: 344 (insect as *Paroxyna picciola*). Needham, 1948: 435 (insect as *Paroxyna picciola*). Stegmaier, unpublished record.[2]
Bidens pilosa var. *radiata*; Steyskal, 1972: 87.
Bidens tripartita; Novak et al., 1967: 147.
Bidens sp.; Bates, 1933: 167 (insect as *Ensina picciola*).
Coreopsis leavenworthii; Benjamin, 1934: 42 [insect as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289 (insect as *Paroxyna picciola*).
Coreopsis nudata; Benjamin, 1934: 42 [insect as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289 (insect as *Paroxyna picciola*).
Coreopsis tinctoria; Stegmaier, unpublished record.[2]
Coreopsis tripteris; Benjamin, 1934: 42 [insect as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289 (insect as *Paroxyna picciola*).
Coreopsis sp.; Foote, R. H. and Blanc, 1963: 16.
Cosmos bipinnatus; Foote, R. H., host list.[5]
Cosmos sp.; Benjamin, 1934: 42 [insect as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289 (insect as *Paroxyna picciola*).
Helenium nudiflorum; Stegmaier, unpublished record.[2]
Tagetes erecta; Benjamin, 1934: 42 [insect as *Paroxyna picciola* (Bigot)]. Aczel, 1949: 289 (insect as *Paroxyna picciola*).

Dioxyna thomae (Curran)
Bidens bipinnata; Benjamin, 1934: 41 [insect as *Paroxyna thomae* (Curran)].

Dyseuaresta mexicana (Wiedemann)
Melanthera detoidea; Stegmaier, 1968a: 20.
Melanthera hastata; Stegmaier, 1968a: 20.
Melanthera parviflora; Stegmaier, unpublished record.[12]
Melanthera sp.; Benjamin, 1934: 52.
Pluchea foetida; Foote, R. H., host list.[5]

Epochra canadensis (Loew)
Ribes alpinum; Severin, 1918a: 202.
Ribes aureum; Mitchener, 1927: 38.

Ribes nigrum; Fletcher, 1899: 223. Mitchener, 1927: 38.
Ribes oxycanthoides; Severin, 1917: 182 (as *Grossularia oxycanthoides*).
Ribes rubrum; Mitchener, 1927: 38.
Ribes triste; Severin, 1917: 182.
Ribes sp.; Gillette, 1892: 18 (insect as *Trypeta canadensis* Loew). Baker, C. F., 1895: 174 (insect as *Trypeta canadensis*). Harvey, 1895: 111. Harvey, 1897: 27. Piper, C. V., and Doane, 1898: 7. Doane, 1899: 178. Aldrich, 1909: 72. Paine, 1912: 140. Lovett, 1913: 135. Slingerland and Crosby, 1914: 355. Whitney, 1916: 152. Cole and Lovett, 1921: 325. Johnson, C. W., 1925: 261. Bird, 1927: 128. Keifer, 1930: 579. Jones, 1937: 1. Knowlton, 1937: 145. Strickland, 1938: 204. Phillips, 1946: 41. Essig, 1958: 603. Christenson and Foote, 1960: 180. Wasbauer, 1964: 8. C.D.A.[1]

Euaresta aequalis (Loew)
Xanthium pungens; Currie, 1932: 191.
Xanthium strumarium; Foote, B. A., 1965: 106.
Xanthium strumarium var. *canadense*; Marlatt, 1891: 41. C.D.A.[1] (as *Xanthium canadense*).
Xanthium strumarium var. *glabratum*; Foote, R. H., host list[5] (as *Xanthium chinense*).
Xanthium sp.; Cole and Lovett, 1921: 326. Phillips, 1923: 147. Knowlton and Harmston, 1937: 145. Phillips, 1946: 44. Essig, 1958: 605.
Euaresta bella (Loew)
Ambrosia artemisiaefolia; Foote, B. A., 1965: 106.
Euaresta bellula Snow
Ambrosia chenopodiifolia; Foote, R. H. and Blanc, 1963: 20 (as *Franseria chenopodiifolia*). Foote, B. A., 1965: 106.
Euaresta bullans (Wiedemann)
Xanthium pungens; Aczel, 1952c: 149.
Xanthium spinosum; Aczel, 1952c: 148. Foote, R. H. and Blanc, 1963: 21. Foote, B. A., 1965: 106.
Euaresta festiva (Loew)
Ambrosia trifida; Foote, B. A., 1965: 106 [as *Ambrosia festiva* (!)].
Euaresta jonesi Curran
Ambrosia chamissonis; Foote, B. A., 1965: 106. O.S.U.[3] (as *Franseria chamissonis*).
Ambrosia sp.; Quisenberry, 1950: 28 (as *Franseria* sp.).
Euaresta stigmatica Coquillett
Ambrosia acanthicarpa; Quisenberry, 1950: 34 (as *Franseria acanthicarpa*). Foote, B. A., 1965: 106.
Euaresta tapetis (Coquillett)
No host information.

Euarestoides abstersus (Loew)
Trilisa paniculata; Benjamin, 1934: 58 [insect as *Trupanea*

(Euarestoides) abstersa (Loew)]. Aczel, 1949: 292.
Euarestoides acutangulus (Thomson)
Ambrosia chamissonis; Piper, G. L., 1971. O.S.U.[3] (as *Franseria chamissonis*).
Ambrosia chamissonis ssp. *bipinnatisecta*; Tauber and Tauber, unpublished record[4] (as *Franseria chamissonis* ssp. *bipinnatisecta*).
Ambrosia chenopodiifolia; Foote, R. H. and Blanc, 1963: 25 (as *Franseria chenopodiifolia*).
Anaphalis margaritacea; O.S.U.[3]
Arnica chamissonis ssp. *foliosa*; Foote, R. H. and Blanc, 1963: 25.
Chrysanthemum paniculatum; Foote, R. H., host list.[5]
Gaillardia aristata; Foote, R. H., 1958: 291.
Helenium autumnale; O.S.U.[3]
Iva hayesiana; C.D.A.[1]
Xanthium sp.; Foote, R. H. and Blanc, 1963: 25.
Euarestoides arnaudi Foote
No host information.
Euarestoides finalis (Loew) - see *Neotephritis finalis* (Loew).
Euarestoides flavus (Adams)
Baccharis viminea; C.D.A.[1]

Euleia fratria (Loew)
Angelica atropurpurea; Foote, R. H., host list.[5]
Conium maculatum; Foote, R. H. and Blanc, 1963: 27.
Cryptotaenia canadensis; Frost, 1924: 134 (insect as *Acidia heraclei* Linn.).
Heracleum lanatum; Frost, 1924: 33 (insect as *Acidia heraclei* Linn.). Foote, R. H. and Blanc, 1963: 27. Tauber and Toschi, 1965a: 370.
Heracleum sp.; Doane, 1899: 178. Foote, R. H. and Blanc, 1963: 27.
Oenanthe sarmentosa; Foote, R. H. and Blanc, 1963: 27.
Pastinaca sativa; Coquillett, 1895: 38 (insect as *Trypeta fratria* Loew). Chittenden, 1909: 11. Banks, 1912: 31 (insect as *Acidia fratria* Loew). Frost, 1924: 133 (insect as *Acidia heraclei* Linn.). Johnson, C. W., 1925: 261 (insect as *Acidia fratria*). Essig, 1958: 603 (insect as *Acidia fratria*).
Prenanthes canadense; Frost, 1924: 33 (insect as *Acidia heraclei* Linn.).
Euleia uncinata (Coquillett)
No host information.

Euribia jaceana Hering - see *Urophora jaceana* (Hering).

Eurosta asteris (Harris) - see *Eurosta solidaginis* (Fitch).
Eurosta bigeloviae Cockerell - see *Aciurina bigeloviae* (Cockerell).
Eurosta comma (Wiedemann)

Solidago fistulosa; Benjamin, 1934: 28.
Solidago juncea; Daecke, 1910: 342. Phillips, 1923: 144. Johnson, C. W., 1925: 263. Felt, 1940: 322. Phillips, 1946: 45.
Solidago rugosa; Felt, 1940: 322.
Solidago sp.; Stebbins, 1910: 50. Benjamin, 1934: 28.

Eurosta conspurcata Doane
No host information.

Eurosta donysa (Walker)
Solidago sp.; Benjamin, 1934: 27 (insect as *Eurosta nicholsoni* Benjamin).

Eurosta elsa Daecke
Solidago juncea; Felt, 1940: 322. Novak et al., 1967: 147.
Solidago rugosa; Daecke, 1910: 342. Phillips, 1923: 144. Johnson, C. W., 1925: 264. Felt, 1940: 322.

Eurosta fenestrata Snow
No host information.

Eurosta latifrons (Loew)
No host information.

Eurosta nicholsoni Benjamin - see *Eurosta donysa* (Walker).

Eurosta reticulata Snow
Solidago juncea; Novak et al., 1967: 147.
Solidago sempervirens; Benjamin, 1934: 29.
Solidago spp.; Thompson, 1907: 71. Felt, 1940: 322.

Eurosta solidaginis (Fitch)
Aster sp.; Harris, 1841: 417 (insect as *Tephritis asteris*).
Solidago altissima; Miller, 1959: 247. Winterringer, 1961: 39.
Solidago canadensis; Baker, C. F., 1895: 174 (insect as *Trypeta solidaginis*). Cook, M. T., 1905: 806 (insect as *Trypeta solidaginis*). Cosens, 1912: 325. Ping, 1915: 162. Curran, 1925: 128. Gronemann, 1930: 27. Hughes, 1934: 119. Milne, 1940: 101. Phillips, 1946: 47. Weigel and Dilks, 1950: 135. Uhler, 1951: 20. Cole, 1969: 354.
Solidago canadensis var. *hargeri*; Uhler, 1951: 20.
Solidago gigantea; Miller, 1959: 247.
Solidago graminifolia; Uhler, 1951: 20.
Solidago rugosa; Harrington, 1895: 197. Uhler, 1951: 20.
Solidago serotina; Harrington, 1895: 197.
Solidago ulmifolia; Miller, 1959: 247.
Solidago sp.; Walsh, 1866: 114 (insect as *Trypeta asteris*). Osten Sacken, 1868: 299. Brodie, 1892: 138. Townsend, 1893a: 13. Fyles, 1894: 120 (insect as *Trypeta solidaginis* Fitch). Patton, 1897: 247. Snyder, 1898: 99 (insect as *Trypeta solidaginis*). Cook, M. T., 1903: 422 (insect as *Trypeta solidaginis*). Washburn, 1905: 117. Jarvis, 1907: 68 (insect as *Trypeta solidaginis*). Cook, M. T., 1910: 32 (insect as *Trypeta solidaginis*). Stebbins, 1910: 50. Girault, 1915: 132 (insect as *Trypeta solidagin solidaginis*). Cole and Lovett, 1921: 326. Phillips, 1923: 144. Johnson, C. W., 1925: 263. Johnson, C. W.,

1930: 151 (insect as *Eurosta asteri* Harr.). Davis, W. T., 1931: 120. Houard, 1935: 172. Krogstad, 1951: 23. Muesebeck et al., 1951: 943. Judd, 1953: 294. Essig, 1958: 605. C.D.A.[1]

Eurosta solidaginis fascipennis Curran
Solidago serotina var. *salebrosa*; O.S.U.[3]
Solidago sp.; Curran, 1923: 302. Curran, 1925: 128.

Eurosta solidaginis subfasciata Curran
Solidago sp.; Curran, 1923: 302. Strickland, 1938: 204.

Eutreta angusta Banks
No host information.

Eutreta baccharis (Coquillett)
Baccharis glutinosa; Foote, R. H. and Blanc, 1963: 28.
Baccharis viminea; Coquillett, 1894: 73 [insect as *Trypeta (Tephritis) baccharis* Coquillett]. Aldrich, 1907: 6 (insect as *Tephritis baccharis* Coquillett). C.D.A.[1]
Baccharis sp.; Essig, 1958: 604 (insect as *Trypeta baccharis* Coquillett).

Eutreta diana (Osten Sacken)
Artemisia arbuscula; Fronk et al., 1964: 577.
Artemisia cana; Fronk et al., 1964: 575.
Artemisia tridentata; Osten Sacken, 1877: 347 [insect as *Trypeta (Eutreta) diana*]. Townsend, 1893a: 13. Doane, 1899: 184. Fronk et al., 1964: 577. C.D.A.[1] O.S.U.[3]
Artemisia tripartita; Fronk et al., 1964: 577.
Artemisia viscidula; Fronk et al., 1964: 577.
Artemisia sp.; Snow, 1894: 168.

Eutreta diana tricolor Snow
Artemisia sp.; Foote, R. H., 1962: 178.

Eutreta facialis Curran
No host information.

Eutreta frontalis Curran
Aster simplex; Novak et al., 1967: 147.

Eutreta hespera Banks
No host information.

Eutreta jonesi Curran
Artemisia sp.; Foote, R. H., host list.[5]

Eutreta longicornis Snow
No host information.

Eutreta oregona Curran
Artemisia tridentata; Foote, R. H. and Blanc, 1963: 30.

Eutreta pacifica Curran
Ambrosia psilostachya; C.D.A.[1]
Ambrosia sp.; Foote, R. H. and Blanc, 1963: 31.
Callistephus chinensis; Foote, R. H. and Blanc, 1963: 31.
Chrysanthemum sp.; Foote, R. H. and Blanc, 1963: 31.
Senecio jacobaea; Frick, 1972: 630.
Senecio sylvaticus; Frick, 1972: 630.

Eutreta pollinosa Curran
No host information.

Eutreta rotundipennis (Loew)
No host information.
Eutreta simplex Thomas
No host information.
Eutreta sparsa (Wiedemann)
Aster laevis; Novak et al., 1967: 147.
Chrysanthemum sp.; Blanton, 1952: 75.
Helianthus annuus; Novak et al., 1967: 147.
Helianthus giganteus; Novak et al., 1967: 147.
Ratibida columnaries; Painter, 1935: 83.
Ratibida sp.; Felt, 1940: 330 (as *Lepachys* sp.).
Solidago altissima; Novak et al., 1967: 147.
Solidago graminifolia; Felt, 1940: 322.
Solidago juncea; Phillips, 1946: 115.
Solidago rugosa; Novak et al., 1967: 147.
Solidago sp.; Thompson, 1907: 72. Stebbins, 1910: 50. Phillips, 1923: 141. Johnson, C. W., 1925: 263.
Vernonia altissima; Novak et al., 1967: 147.
Vernonia interior; Painter, 1935: 83.
Vernonia sp.; Felt, 1940: 314.

Gymnocarena bicolor Foote
No host information.
Gymnocarena diffusa (Snow)
Helianthus annuus; Anon., 1971: 619.
Helianthus sp.; Beirne, 1971: 60 (insect as *Oedicarena diffusa*). Anon., 1972: 124. O.S.U.[3]
Gymnocarena tricolor (Doane)
No host information.

Hexachaeta fallax Lima*
No host information.
Hexachaeta obscura Hendel*
No host information.
Hexachaeta seabrai Lima*
No host information.

Icterica circinata (Loew)
Bidens cernua; Foote, B. A., 1967: 1296.
Icterica seriata (Loew)
Bidens aristosa; Foote, B. A., 1967: 1298.
Bidens coronata; Foote, B. A., 1967: 1298.
Bidens frondosa; Foote, B. A., 1967: 1298.
Bidens tripartita; Foote, B. A., 1967: 1298.

Jamesomyia geminata (Loew)
Lactuca canadensis; Novak et al., 1967: 147.

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* The genus *Hexachaeta* was not included in R. H. Foote's treatment of the Tephritidae (1965). See Sabrosky, 1967: 121.

Lactuca sp.; Foote, R. H., host list.[5]

Lucumaphila dentata Stone
No host information.
Lucumaphila sagittata Stone
Lucuma salicifolia; Baker, A. C., et al., 1944: 118.
Lucuma sp.; Stone, 1939b: 347.

Metatephritis fenestrata Foote
Artemisia arbuscula ssp. *nova*; Fronk et al., 1964: 575 (as *Artemisia nova*).
Artemisia tridentata; Foote, R. H., 1960c: 111.

Mexican *Anastrepha fraterculus* - see *Anastrepha fraterculus* (Wiedemann).
Mexican *Anastrepha mombinpraeoptans* - see *Anastrepha mombinpraeoptans* Sein.

Mylogymnocarena apicata (Thomas)
No host information.

Myoleja limata (Coquillett)
Ilex caroliniana; Benjamin, 1934: 22.
Ilex cassine; Benjamin, 1934: 22.
Ilex decidua; Phillips, 1946: 50.
Ilex glabra; Benjamin, 1934: 22.
Ilex lucida; Benjamin, 1934: 22.
Ilex opaca; Benjamin, 1934: 22.
Ilex vomitoria; Benjamin, 1934: 22. Phillips, 1946: 50.
Myoleja nigricornis (Doane)
No host information.
Myoleja unifasciata Blanc and Foote
No host information

Neaspilota achilleae Johnson
Aster acutisquamosus; Benjamin, 1934: 37 (as *Sericocarpus acutisquamosus*).
Aster carolinianus; Benjamin, 1934: 37.
Aster concolor; Benjamin, 1934: 37.
Erigeron strigosus; Benjamin, 1934: 37 (as *Erigeron ramosus*).
Erigeron vernus; Benjamin, 1934: 37.
Heracleum sp.; Phillips, 1946: 52.
Heterotheca latifolia; Benjamin, 1934: 37 (as *Chrysopsis latifolia*).
Heterotheca microcephala; Benjamin, 1934: 37 (as *Chrysopsis microcephala*).
Heterotheca oligantha; Benjamin, 1934: 37 (as *Chrysopsis oligantha*).
Hieracium argyraeum; Benjamin, 1934: 37.
Hieracium gronovii; Benjamin, 1934: 37.
Hieracium scabrum; Benjamin, 1934: 37.

Prenanthes trifoliata; Foote, R. H., host list.[5]

Neaspilota alba (Loew)

Vernonia baldwinii; Brandhorst, 1943: 168.
Vernonia blodgetti; Benjamin, 1934: 38.
Vernonia gigantea; Benjamin, 1934: 38.
Vernonia interior; Schwitzgebel and Wilbur, 1934: 4.
Vernonia scaberrima; Benjamin, 1934: 38.
Vernonia sp.; Loew, 1861: 345 (insect as *Trypeta alba*). Phillips, 1923: 140. Johnson, C. W., 1925: 262.

Neaspilota albidipennis (Loew)

Vernonia interior; Schwitzgebel and Wilbur, 1943: 4.
Vernonia noveboracensis; Phillips, 1946: 53.
Vernonia sp.; Johnson, C. W., 1925: 263.

Neaspilota brunneostigmata Doane

Aster spinosus; Foote, R. H. and Blanc, 1963: 34.
Chrysothamnus viscidiflorus; Tauber and Tauber, 1967b: 909.
Corethrogyne filaginifolia var. *incana*; C.D.A.[1]
Corethrogyne filaginifolia var. *virgata*; C.D.A.[1]
Erigeron sp.; Foote, R. H. and Blanc, 1963: 33.
Haplopappus spinulosus turbinellus; C.D.A.[1]
Heterotheca villosa; Foote, R. H. and Blanc, 1963: 33 (as *Chrysopsis villosa*).
Machaeranthera canescens; Tauber and Tauber, unpublished record.[4]

Neaspilota dolosa Benjamin

Erigeron strigosus; Stegmaier, 1968b: 47 (as *Erigeron ramosus*).
Erigeron strigosus var. *beyrichii*; Stegmaier, 1968b: 47.
Erigeron vernus; Stegmaier, 1968b: 47.
Erigeron sp.; Stegmaier, unpublished record.[12]
Haplopappus megacephalus; Stegmaier, 1968b: 47 (as *Sideranthus megacephalus*).
Heterotheca subaxillaris; Benjamin, 1934: 40.

Neaspilota punctistigma Benjamin

Aster acutisquamosus; Benjamin, 1934: 39 (as *Sericocarpus acutisquamosus*).
Aster bifoliatus; Benjamin, 1934: 39 (as *Sericocarpus bifoliatus*).
Heterotheca hyssopifolia; Benjamin, 1934: 39 (as *Chrysopsis hyssopifolia*).
Heterotheca mariana; Benjamin, 1934: 39 (as *Chrysopsis mariana*).
Heterotheca microcephala; Benjamin, 1934: 39 (as *Chrysopsis microcephala*).
Heterotheca traceyi; Benjamin, 1934: 39 (as *Chrysopsis traceyi*).
Heterotheca trichophylla; Benjamin, 1934: 39 (as *Chrysopsis trichophylla*).
Heterotheca sp.; Benjamin, 1934: 39 (as *Chrysopsis* sp.).
Pluchea foetida; Benjamin, 1934: 39.
Pluchea imbricata; Benjamin, 1934: 39.

Neaspilota signifera Coquillett
Haplopappus venetus ssp. *vernonioides*; Foote, R. H. and Blanc, 1963: 34.
Neaspilota vernoniae (Loew)
Vernonia interior; Schwitzgebel and Wilbur, 1934: 5.
Neaspilota viridescens Quisenberry
No host information.
Neaspilota wilsoni Blanc and Foote
No host information.
Neaspilota spp.
Erigeron strigosus var. *beyrichii*; Stegmaier, 1968b: 46.
Pluchea rosea; Stegmaier, 1968b: 46.
Vernonia sp.; Stegmaier, 1968b: 46.

Neotephritis finalis (Loew)
Actinomeris sp.; Phillips, 1946: 79.
Aster spinosus; Foote, R. H. and Blanc, 1963: 94.
Balsamorhiza sagittata; Hyslop, 1912: 101 (insect as *Tephritis finalis*). Novak et al., 1967: 148. O.S.U.[3]
Balsamorhiza sp.; Foote, R. H. and Blanc, 1963: 36. Cole, 1969: 355.
Dahlia sp.; Bissel, 1936: 233.
Encelia californica; Phillips, 1946: 79. Foote, R. H. and Blanc, 1963: 37. Tauber and Tauber, unpublished record.[4] C.D.A.[1]
Encelia farinosa; Foote, R. H. and Blanc, 1963: 96. Tauber and Tauber, unpublished record.[4]
Eriophyllum lanatum; Cole and Lovett, 1921: 326. Essig, 1958: 605 (insect as *Tephritis finalis*).
Gaillardia aristata; Novak et al., 1967: 148.
Helianthella uniflora; Foote, R. H., 1960b: 149.
Helianthella sp.; Foote, R. H., host list.[5]
Helianthus annuus; Cockerell, 1914: 195 (as *Helianthus lenticularis* X *Helianthus annuus*) (insect as *Tephritis finalis*). Breland, 1939: 719. Novak et al., 1967: 148.
Helianthus nuttallii; Foote, R. H. and Blanc, 1963: 97.
Helianthus sp.; Cockerell, 1917: 17 (insect as *Spathulina finalis* Loew). Walker, 1936: 21. Breland, 1938: 204 (insect as *Tephritis finalis*). Foote, R. H., 1960b: 149. Foote, R. H. and Blanc, 1963: 36. Beirne, 1971: 68 (insect as *Euarestoides finalis*).
Wyethia helenioides; Foote, R. H. and Blanc, 1963: 36.
Wyethia mollis; Foote, R. H. and Blanc, 1963: 36.
Wyethia sp.; Foote, R. H. and Blanc, 1963: 36.
Xanthium enceliodes; Foote, R. H., host list.[5]
Neotephritis inornata (Coquillett)
No host information.
Neotephritis rava Foote
No host information.

Oedaspis-solidago atra - see *Procecidochares atra* (Loew).

Oedicarena diffusa (Snow) - see *Gymnocarena diffusa* (Snow).
Oedicarena persuasa (Osten Sacken)
No host information.

Orellia florescentiae - see *Orellia ruficauda* (Fabricius).
Orellia occidentalis (Snow)
Cirsium canescens; Horning and Barr, 1970: 66.
Cirsium edule; Frick, unpublished record.[10] C.D.A.[1] O.S.U.[3]
Cirsium hydrophilum; C.D.A.[1]
Cirsium occidentale; Foote, R. H. and Blanc, 1963: 39.
Cirsium pastoris; C.D.A.[1]
Cirsium quercetorum; Foote, R. H. and Blanc, 1963: 95.
Cnicus parryi; Foote, R. H. and Blanc, 1963: 95.
Orellia palposa (Loew)
Cirsium horridulum; Rosewall, 1922: 179 (as *Carduus spinosissimus*) (insect as *Trypeta palposa*).
Cirsium pumilum; Johnson, C. W., 1925: 262 (insect as *Terellia palposa*). Johnson, C. W., 1930: 151 (insect as *Terellia palposa*). McFadden and Foote, 1960: 261.
Orellia ruficauda (Fabricius)
Cirsium arvense; Harrington, 1893: 85 (insect as *Trypeta florescentiae*). Marcovitch, 1916: 150 (insect as *Trypeta ruficauda*). Johnson, C. W., 1925: 262 (insect as *Terellia florescentiae*). Detmers, 1927: 28 (insect as *Trypeta florescentiae*). Forsell, 1947: 167. Tonks, 1953: 28 (insect as *Terellia florescentiae*). Krombein et al., 1958: 67 (insect as *Orellia florescentiae*). McFadden and Foote, 1960: 256. Kandybina, 1970: 430. Frick, unpublished record.[10] O.S.U.[3]
Orellia undosa (Coquillett)
Artemisia tridentata; Cole, 1969: 355.
Artemisia sp.; O.S.U.[3]

Oxyna aterrima (Doane)
No host information.
Oxyna palpalis (Coquillett)
Artemisia tridentata; Novak et al., 1967: 147.
Oxyna utahensis Quisenberry
No host information.

Paracantha culta (Wiedemann)
Cirsium arvense; Ryckman, 1951: 127.
Cirsium edule; Lange, 1941: 56.
Cirsium horridulum; Rosewall, 1922: 179 (as *Carduus spinosissimus*) (insect as *Carphotricha culta*). Phillips, 1946: 55 (as *Cirsium spinosissimus*). Aczel, 1952b: 221 (as *Carduus spinosissimus*).
Cirsium lanceolatum; Anon., 1968: 926.
Cirsium sp.; Cockerell, 1893b: 369 (insect as *Scriptotricha culta*). Benjamin, 1934: 31. Malloch, 1941: 36. Essig, 1958: 605.

Cynara scolymus; Lange, 1941: 56.
Helianthus biennis; Aldrich, 1905: 609 (insect as *Carphotrica culta*) (host name uncertain).
Paracantha cultaris (Coquillett)
Borrichia frutescens; Aczel, 1952b: 230.
Cirsium occidentale; Foote, R. H. and Blanc, 1963: 42.
Helianthus annuus; Foote, R. H. and Blanc, 1963: 42.
Helianthus spp.; Foote, R. H. and Blanc, 1963: 42.
Paracantha forficula Benjamin
Borrichia frutescens; Benjamin, 1934: 31. Aczel, 1952b: 230. Stegmaier, 1967b: 157. Bush and Huettel, 1970: 91.
Paracantha genalis Malloch
No host information.
Paracantha gentilis Hering
Cirsium centaureae; C.D.A.[1]
Cirsium edule; Frick, unpublished record.[10] O.S.U.[3]
Cirsium sierrae bernardino; Foote, R. H. and Blanc, 1963: 43.
Cirsium vulgare; Frick, unpublished record.[10]
Paracantha marginepunctata (Macquart)
No host information.

Paraterellia superba Foote
No host information.
Paraterellia varipennis (Coquillett)
Juniperus occidentalis; Foote, R. H., 1960e: 122. Foote, R. H. and Blanc, 1963: 45.
Juniperus sp.; Goeden, unpublished record.[13] O.D.A.[7]
Paraterellia ypsilon Foote
No host information.

Paroxyna albiceps (Loew)
Aster laevis; Novak et al., 1967: 147. Novak and Foote, 1968. 108.
Aster novae-angliae; Novak et al., 1967: 147. Novak and Foote, 1968: 108.
Aster pilosus; Novak et al., 1967: 147. Novak and Foote, 1968: 108.
Aster praealtus; Novak et al., 1967: 147. Novak and Foote, 1968: 108.
Aster puniceus; Novak et al., 1967: 147. Novak and Foote, 1968: 108.
Paroxyna americana Hering
No host information.
Paroxyna clathrata (Loew)
No host information.
Paroxyna coloradensis Quisenberry
No host information.
Paroxyna corpulenta (Cresson)
No host information.
Paroxyna distincta Quisenberry
No host information.

Paroxyna dupla (Cresson)
No host information.
Paroxyna fibulata (Wulp)
No host information.
Paroxyna genalis (Thomson)
Eriophyllum staechadifolium; Frick, 1964: 709.
Senecio californicus; Foote, R. H. and Blanc, 1963: 48.
Senecio jacobaea; Frick, 1964: 709.
Paroxyna maculifemorata Hering
No host information.
Paroxyna murina (Doane)
Haplopappus bloomeri; Foote, R. H. and Blanc, 1963: 49.
Paroxyna pallidipennis (Cresson)
No host information.
Paroxyna picciola (Bigot) - see *Dioxyna picciola* (Bigot).
Paroxyna snowi Hering
No host information.
Paroxyna tenebrosa (Coquillett)
No host information.
Paroxyna thomae (Curran) - see *Dioxyna thomae* (Curran).
Paroxyna variabilis (Doane)
Agoseris grandiflora; Foote, R. H. and Blanc, 1963: 50.
Microseris laciniata; C.D.A.[1] (as *Scorzenella laciniata*).
Paroxyna sp.
Bidens pilosa; C.D.A.[1]
Chrysothamnus viscidiflorus; Tauber and Tauber, 1967b: 909.
Senecio californicus; C.D.A.[1]

Peronyma sarcinata (Loew)
Heterotheca trichophylla; Benjamin, 1934: 25 (as *Chrysopsis trichophylla*).

Procecidochares anthracina (Doane)
Erigeron sp.; Huettel, unpublished record.[9]
Procecidochares atra (Loew) - see also *Procecidochares minuta*
Aster sp.; Aldrich, 1929: 8 (record subject to question).
Solidago altissima; Phillips, 1946: 58.
Solidago nemoralis; Aldrich, 1929: 8.
Solidago odora; Foote, R. H., host list.[5]
Solidago sp.; Patton, 1897: 247 (insect as *Oedaspis-solidago atra*). Aldrich, 1929: 8. Phillips, 1946: 58.
Procecidochares atra var. *australis* Aldrich - see *Procecidochares australis*).
Procecidochares australis Aldrich
Conyza canadensis; Benjamin, 1934: 23 (as *Erigeron pusillus*).
Heterotheca latifolia; Aldrich, 1929: 9 (insect as *Procecidochares atra* var. *australis* Aldrich).
Heterotheca subaxillaris; Benjamin, 1934: 23. Stegmaier, 1968b: 48. Huettel and Bush, 1971: 1.
Procecidochares blantoni Hering
Heterotheca oregana; O.S.U.[3] (as *Chrysopsis oregana*) (insect

as *Procecidochares minuta*).*

Heterotheca villosa; Foote, R. H. and Blanc, 1963: 53 (as *Chrysopsis villosa*) (insect as *Procecidochares minuta*).*

Heterotheca villosa var. *sessiflora*; C.D.A.[1] (as *Chrysopsis villosa* var. *sessiflora*).

Procecidochares flavipes Aldrich

Brikellia sp.; Huettel, unpublished record.[9]

Procecidochares grindeliae Aldrich

Grindelia humilis; Foote, R. H. and Blanc, 1963: 52. Foote, R. H., host list[5] (as *Grindelia cuneifolia*).

Grindelia robusta; Aldrich, 1929: 6.

Grindelia sp.; C.D.A.[1]

Procecidochares minuta (Snow) - see also *Procecidochares blantoni*

Ambrosia sp.; Foote, R. H. and Blanc, 1963: 53 (as *Franseria* sp.).

Aster sp.; Foote, R. H. and Blanc, 1963: 94.

Brikellia arguta; C.D.A.[1]

Chrysothamnus graveolens; Aldrich, 1929: 10.

Chrysothamnus nauseosus; Foote, R. H. and Blanc, 1963: 53.

Chrysothamnus nauseosus ssp. *albicaulis*; Phillips, 1946: 58 (as *Bigeloviae graveolens*) (insect as *Procecidochares atra*).

Chrysothamnus viscidiflorus; Novak et al., 1967: 147. Tauber and Tauber, 1967b: 909.

Chrysothamnus sp.; Phillips, 1946: 58 (insect as *Procecidochares atra*). Foote, R. H. and Blanc, 1963: 53.

Corethrogyne filaginifolia var. *virgata*; C.D.A.[1]

Solidago californica; C.D.A.[1]

Viguiera laciniata; Foote, R. H. and Blanc, 1963: 53.

Procecidochares montana (Snow)

No host information.

Procecidochares pleuralis Aldrich

Helianthus sp.; Aldrich, 1929: 9.

Procecidochares polita (Loew)

Solidago altissima; Osten Sacken, 1868: 299 (record subject to question). Beutenmuler, 1892: 274 (insect as *Trypeta polita* Loew). Phillips, 1923: 137. Johnson, C. W., 1925: 262.

Solidago rugosa; Foote, R. H., host list.[5]

Solidago stricta; Stegmaier, unpublished record.[2]

Solidago sp.; Johnson, C. W., 1910: 801 (insect as *Oedaspis polita*). Girault, 1913: 340 (insect as *Trypeta polita*).

Procecidochares stonei Blanc and Foote

Ambrosia dumosa; C.D.A.[1]

Chrysothamnus viscidiflorus; Tauber and Tauber, 1967a: 553.

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* The rearings reported here from *Chrysopsis* are probably referable to *Procecidochares blantoni*. The status of *P. blantoni* and *P. minuta* will probably be confused until some careful work is done on those populations; teste M. D. Huettel, correspondence with author, Nov. 22, 1971.

Chrysothamnus sp.; Tauber and Tauber, 1967a: 553.
Corethrogyne filaginifolia; C.D.A.[1]
Heterotheca villosa; C.D.A.[1] (as *Chrysopsis villosa*).
Viguiera laciniata; Blanc and Foote, 1961: 78. Tauber and Tauber, 1967a: 553.

Procecidochares sp.
Gutierrezia californica; C.D.A.[1]

Procecidochares n. sp.
Machaeranthera phyllocephala; Huettel and Bush, 1971: 1.

Procecidocharoides caliginosus Foote
No host information.

Procecidocharoides flavissimus Foote
No host information.

Procecidocharoides penelope (Osten Sacken)
No host information.

Procecidocharoides pullatus Foote
No host information.

Pseudodacus bicolor Stone
No host information.

Pseudodacus pallens (Coquillett)
Bumelia angustifolia; Greene, 1934: 154.
Bumelia lanuginosa; Foote, R. H., host list.[5]
Bumelia spiniflora; McPhail and Berry, 1936: 406. Stone, 1939a: 284. Aczel, 1949: 238.

Rhagoletis alternata (Fallen) - see *Rhagoletis basiola*.

Rhagoletis basiola (Osten Sacken)
Rosa acicularis; Balduf, 1958: 9. Balduf, 1959: 12.
Rosa acicularis var. *bourgeauiana*; Foote, R. H., host list.[5]
Rosa arkansana; Balduf, 1959: 12 (also as *Rosa alcea*).
Rosa blanda; Balduf, 1957: 163. Balduf, 1958: 9. Balduf, 1959: 12.
Rosa canina; Balduf, 1959: 12.
Rosa carolina; Balduf, 1957: 163. Balduf, 1958: 9. Balduf, 1959: 12.
Rosa carolina var. *villosa*; Foote, R. H., host list.[5]
Rosa eglanteria; Balduf, 1959: 12.
Rosa gallica; Balduf, 1959: 12.
Rosa macounii; Balduf, 1959: 12.
Rosa marginata; Foote, R. H., host list[5] (as *Rosa jundzilli*).
Rosa nitida; Balduf, 1959: 12.
Rosa nutkana; Phillips, 1946: 98 (as *Rosa mulkana*). Balduf, 1959: 12. O.D.A. [7]
Rosa palustris; Balduf, 1958: 9. Balduf, 1959: 12.
Rosa rugosa; Balduf, 1959: 12.
Rosa setigera; Balduf, 1959: 12.
Rosa spaldingii; Balduf, 1959: 12.
Rosa virginiana; Burks, 1955: 82 [insect as *Rhagoletis alternata* (Fallen)]. Balduf, 1959: 12.

Rosa woodsii; Balduf, 1959: 12 (also as *Rosa pyrifera*).
Rosa woodsii var. *ultramontana*; Balduf, 1959: 12 (as *Rosa ultramontana*).
Rosa sp.; Robertson, 1924: 15 (insect as *Spilographa setosa*). Muesebeck, 1950: 254 (insect as *Rhagoletis alternata*). Stone, 1951: 48. Krombein et al., 1958: 75.

Rhagoletis berberis Curran
Berberis nervosa; Curran, 1932b: 9. Jones, 1942: 44. Phillips, 1946: 61. O.S.U.[3]
Mahonia aquifolium; Forsell, 1947: 167. Bush, 1966: 510.
Mahonia nervosa; Bush, 1966: 510.

Rhagoletis boycei Cresson
Juglans major; Bush, 1966: 493.
Juglans nigra; Wasbauer, 1964: 5.
Juglans regia; Cresson, 1929: 413. Barrett, 1932: 296.

Rhagoletis chionanthi Bush
Chionanthus virginica; Benjamin, 1934: 14 [insect as *Rhagoletis cingulata* (Loew)]. Phillips, 1946: 65 [insect as *Rhagoletis cingulata* (Loew)].

Rhagoletis cingulata (Loew) - see also *Rhagoletis chionanthi* Bush; *Rhagoletis osmanthi* Bush
Prunus avium; Caesar, 1915: 108. Greene, 1929: 494. Glasgow, 1933: 436. Phillips, 1946: 66. Cox, 1952: 1.
Prunus cerasus; Lowe, 1899: 693. Caesar, 1915: 108. Glasgow and Gambrell, 1925: 1. Greene, 1929: 494. Glasgow, 1933: 436. Cox, 1952: 1.
Prunus emarginata; Simkover, 1953: 896. Raine and Andison, 1958: 593.
Prunus mahaleb; Glasgow, 1933: 436. Cox, 1952: 1.
Prunus pennsylvanica; Bird, 1927: 128. Farleman, 1933: 828. Cox, 1952: 1.
Prunus serotina; Glasgow, 1933: 436. Benjamin, 1934: 14. Cox, 1952: 1.
Prunus virginiana; Glasgow, 1933: 433.
Prunus sp.; Davis, G. C., 1889: 291 (insect as *Trypeta pomonella*). Slingerland, 1899: 23. Slingerland, 1902: 28. Banks, 1912: 33. Herrick, 1913: 79. Slingerland and Crosby, 1914: 304. Cole and Lovett, 1921: 325. Frank, 1924: 42. Guyton and Knull, 1925: 4 (insect as *Rhagoletis pomonella*). Pettit, 1925: 1. Johannsen, 1926: 851. Pettit, 1926c: 1. Pettit, 1929: 1 (insect as *Rhagoletis pomonella*). McLaine, 1931: 68 (insect as *Rhagoletis pomonella*). Hall, 1938: 55. Essig, 1958: 604.

Rhagoletis cingulata indifferens Curran - see *Rhagoletis indifferens* Curran.

Rhagoletis completa Cresson
Juglans californica; Boyce, 1930: 250.
Juglans cinerea; Foote, R. H. and Blanc, 1963: 59.
Juglans hindsii; Boyce, 1929a: 862 (insect as *Rhagoletis juglandis*). Boyce, 1930: 250.
Juglans hindsii X *Juglans nigra*; Boyce, 1930: 250.

Juglans hindsii X *Juglans regia*; Boyce, 1934: 379.
Juglans nigra; Boyce, 1934: 379. Foote, R. H. and Blanc, 1963: 59. Wasbauer, 1964: 5.
Juglans regia; Boyce, 1929a: 862 (insect as *Rhagoletis juglandis*). Boyce, 1929b: 269 (insect as *Rhagoletis juglandis*). Cresson, 1929: 412 (insect as *Rhagoletis suavis* ssp. *completa*). Boyce, 1930: 250. Boyce, 1931: 1021. Boyce, 1933: 813. Phillips, 1946: 64. Essig, 1958: 604. Wasbauer, 1964: 5.
Juglans rupestris; Foote, R. H., host list.[5]
Juglans sp.; Keifer, 1930: 579. Boyce, 1933: 813. Michelbacher and Sisson, 1956: 13. Christenson and Foote, 1960: 180. Foote, R. H. and Blanc, 1963: 59.
Prunus persica; Boyce, 1934: 388 (as *Amygdalus persica*). Essig, 1958: 604. Christenson and Foote, 1960: 180 (as *Amygdalus persica*). Foote, R. H. and Blanc, 1963: 60. Wasbauer, 1964: 5.

Rhagoletis cornivora Bush
Cornus amomum; Hall, 1938: 55 (insect as *Rhagoletis pomonella*). Hall, 1943: 202. Bush, 1966: 472.
Cornus canadensis; Lathrop and McAlister, 1931: 3 (insect as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269 (insect as *Rhagoletis pomonella*). Lathrop, 1952: 9 (insect as *Rhagoletis pomonella*). Bush, 1966: 472.
Cornus florida; Benjamin, 1934: 15 [insect as *Rhagoletis pomonella* (Walsh)].
Cornus stolonifera; Bush, 1966: 472.

Rhagoletis fausta (Osten Sacken)
Prunus avium; Caesar, 1915: 108. Glasgow, 1933: 436. Phillips, 1946: 66. Cox, 1952: 1. Proverbs, 1953: 18.
Prunus cerasus; Illingworth, 1912b: 195. Caesar, 1915: 108. Glasgow and Gambrell, 1925: 1. Eide et al., 1949: 2. Cox, 1952: 1. Proverbs, 1953: 18. Essig, 1958: 604. Bush, 1966: 519.
Prunus cerasus 'Montmorency'; Shervis et al., 1970: 295.
Prunus emarginata; Eide et al., 1949: 2. Blanc and Keifer, 1955: 77. Raine and Andison, 1958: 593. Foote, R. H. and Blanc, 1963: 60. Bush, 1966: 519. Newcomer, 1966: 39. O.S.U.[3]
Prunus mahaleb; Farleman, 1933: 828. Glasgow, 1933: 436. Cox, 1952: 1.
Prunus pennsylvanica; Severin, 1918c: 325. Bird, 1927: 128. Farleman, 1933: 828. Glasgow, 1933: 436. Cox, 1952: 1.
Prunus serotina; Farleman, 1933: 828. Cox, 1952: 1. Foote, R. H. and Blanc, 1963: 98. Bush, 1966: 519.
Prunus virginiana; Farleman, 1933: 828. Glasgow, 1933: 436.
Prunus virginiana var. *demissa*; Raine and Andison, 1958: 593.
Prunus sp.; Gibson, 1909: 73 (insect as *Rhagoletis intrudens*). Herrick, 1913: 79. Slingerland and Crosby, 1914: 304. Johnson, C. W., 1925: 262. Pettit, 1925: 1. Johannsen, 1926: 851. Pettit, 1926c: 1. Johnson, C. W., 1927: 217.

Cresson, 1929: 405. Eichmann, 1936: 8. Forsell, 1947: 167. Newcomer, 1966: 39.

Rhagoletis grindeliae - see *Urophora grindeliae* (Coquillett).

Rhagoletis indifferens Curran

Prunus avium; Bush, 1966: 478.

Prunus cerasus; Foote, R. H. and Blanc, 1963: 58.

Prunus emarginata; Keifer, 1938: 662. Mackie, 1940: 157. Jones, 1942: 44. Phillips, 1946: 66. Simkover, 1953: 897. Blanc and Keifer, 1955: 77 (insect as *Rhagoletis cingulata indifferens*). Frick, 1957: 584 (insect as *Rhagoletis cingulata indifferens*). Newcomer, 1966: 39 (insect as *Rhagoletis cingulata*). Banham, 1971: 29. O.S.U.[3]

Prunus emarginata var. *erecta*; Forsell, 1947: 167 (insect as *Rhagoletis cingulata*).

Prunus salicina; Ellertson, 1961: 116 (insect as *Rhagoletis cingulata indifferens* Curran).

Prunus subcordata; Ellertson, 1961: 116 (insect as *Rhagoletis cingulata indifferens* Curran). O.S.U.[3]

Prunus virginiana; Banham, 1971: 29.

Prunus virginiana var. *demissa*; Simkover, 1953: 896 (insect also as *Rhagoletis cingulata*). Frick et al., 1954: 2 [insect as *Rhagoletis cingulata* (Loew)]. Frick, 1957: 584 (insect as *Rhagoletis cingulata indifferens*). Raine and Andison, 1958: 593 (insect as *Rhagoletis cingulata*).

Prunus sp.; Wilson and Lovett, 1913: 160 (insect as *Rhagoletis cingulata*). Lovett, 1923: 1. Frank, 1924: 42. Newcomer, 1933: 46 (insect as *Rhagoletis cingulata*). Eide, 1946: 55. Eide, 1947: 119 (insect as *Rhagoletis cingulata*). Eide et al., 1949: 1 (insect as *Rhagoletis cingulata*). Newcomer, 1966: 39 (insect as *Rhagoletis cingulata*). Foote, R. H. and Blanc, 1963: 98.

Rhagoletis intrudens - see *Rhagoletis fausta* (Osten Sacken).

Rhagoletis juglandis Cresson

Juglans regia; Cresson, 1920: 65. Cresson, 1929: 413. Barrett, 1932: 296. Boyce, 1934: 376. Phillips, 1946: 67. Essig, 1958: 604.

Juglans rupestris; Barrett, 1932: 296. Boyce, 1934: 376.

Juglans spp.; Phillips, 1946: 67.

Rhagoletis juniperina Marcovitch

Juniperus monosperma; Bush, 1966: 501.

Juniperus virginiana; Marcovitch, 1915: 173 (insect as *Rhagoletis juniperinus* Marcovitch). Phillips, 1946: 69 (insect as *Rhagoletis juniperinus* Marcovitch).

Juniperus sp.; Johannsen, 1926: 852.

Rhagoletis juniperinus Marcovitch - see *Rhagoletis juniperina* Marcovitch.

Rhagoletis mendax Curran

Gaultheria procumbens; Lathrop and McAlister, 1931: 3 (insect as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269 (insect as *Rhagoletis pomonella*). Lathrop and Nickels,

1932: 6. Lathrop, 1952: 9 (insect as *Rhagoletis pomonella*).

Gaylussacia decamerium baccata; Britton, 1906: 260 [insect as *Rhagoletis pomonella* (Walsh)]. Woods, 1916: 260 (insect as *Rhagoletis pomonella*). Patch and Woods, 1922: 85 [insect as *Rhagoletis pomonella* (Walsh)]. Lathrop and McAlister, 1931: 3 (insect as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269 (insect as *Rhagoletis pomonella*). Lathrop, 1952: 9 (insect as *Rhagoletis pomonella*). Bush, 1966: 468. Simon, 1969: 173.

Gaylussacia decamerium dumosa; Bush, 1966: 468.

Gaylussacia decamerium frondosa; Bush, 1966: 468. Simon, 1969: 173.

Gaylussacia sp.; Johnson, C. W., 1910: 802 (insect as *Rhagoletis pomonella*). O'Kane, 1914: 17 (insect as *Rhagoletis pomonella*). Brues, 1924: 131 (insect as *Rhagoletis pomonella*). Guyton and Knull, 1925: 4 (insect as *Rhagoletis pomonella*). Greene, 1929: 494 (insect as *Rhagoletis pomonella*). McLaine, 1931: 68 (insect as *Rhagoletis pomonella*). Lathrop and Newton, 1933: 143 (insect as *Rhagoletis pomonella*). Christenson and Foote, 1960: 180 (insect as *Rhagoletis pomonella*).

Vaccinium angustifolium; Lathrop and McAlister, 1931: 3 (insect as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269 (insect as *Rhagoletis pomonella*). Chandler, 1943: 115 (insect as *Rhagoletis pomonella*). Bush, 1966: 468. Simon, 1969: 173.

Vaccinium angustifolium var. *laevifolium*; O'Kane, 1914: 17 (as *Vaccinium pennsylvanicum*) (insect as *Rhagoletis pomonella*). Woods, 1914: 398 (as *Vaccinium pennsylvanicum*) (insect as *Rhagoletis pomonella*). Woods, 1916: 260 (as *Vaccinium pennsylvanicum*) (insect as *Rhagoletis pomonella*). Phipps, 1931: 132 (as *Vaccinium pennsylvanicum*) (insect as *Rhagoletis pomonella*).

Vaccinium arboreum; Benjamin, 1934: 16 (as *Batodendron arboreum*) (insect as *Rhagoletis zephyria* Snow).

Vaccinium canadense; O'Kane, 1914: 17 (insect as *Rhagoletis pomonella*). Woods, 1914: 398 (insect as *Rhagoletis pomonella*). Woods, 1916: 260 (insect as *Rhagoletis pomonella*). Lathrop and McAlister, 1931: 3 (insect as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269 (insect as *Rhagoletis pomonella*). Phipps, 1931: 132 (insect as *Rhagoletis pomonella*). Bush, 1966: 468.

Vaccinium corymbosum; O'Kane, 1914: 17 (insect as *Rhagoletis pomonella*). Lathrop and McAlister, 1931: 3 (insect as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269 (insect as *Rhagoletis pomonella*). Bush, 1966: 468.

Vaccinium formosum; Bush, 1966: 468.

Vaccinium macrocarpon; Johnson, C. W., 1925: 261 (insect as *Rhagoletis pomonella*). Greene, 1929: 494 (insect as *Rhagoletis pomonella*). McLaine, 1931: 68 (insect as

Rhagoletis pomonella).

Vaccinium myrtilloides; Foote, R. H., host list.[5]

Vaccinium ovatum; Anon., 1972: 155.

Vaccinium pallidum; O'Kane, 1914: 17 (as *Vaccinium vacillans*) (insect as *Rhagoletis pomonella*). Woods, 1914: 398 (as *Vaccinium vacillans*) (insect as *Rhagoletis pomonella*). Woods, 1916: 260 (as *Vaccinium vacillans*) (insect as *Rhagoletis pomonella*). Patch and Woods, 1922: 84 (as *Vaccinium vacillans*) (insect as *Rhagoletis pomonella*). Phipps, 1931: 132 (as *Vaccinium vacillans*) (insect as *Rhagoletis pomonella*). Bush, 1966: 468. Simon, 1969: 173 (as *Vaccinium vacillans*).

Vaccinium vitis-idaea var. *minus*; Lathrop and McAlister, 1931: 3 (insect as *Rhagoletis pomonella*). Lathrop and Nickels, 1931: 269 (insect as *Rhagoletis pomonella*). Lathrop and Nickels, 1932: 6. Lathrop, 1952: 9 (insect as *Rhagoletis pomonella*).

Vaccinium spp.; Good, 1915: 54 (insect as *Rhagoletis pomonella*). Woods, 1915: 293 (insect as *Rhagoletis pomonella*). Caesar, 1917: 10 (insect as *Rhagoletis pomonella*). Brues, 1924: 130 (insect as *Rhagoletis pomonella*). Guyton and Knull, 1925: 4 (insect as *Rhagoletis pomonella*). Johnson, C. W., 1925: 261 (insect as *Rhagoletis pomonella*). Greene, 1929: 494 (insect as *Rhagoletis pomonella*). Pettit, 1929: 1 (insect as *Rhagoletis pomonella*). McLaine, 1931: 68 (insect as *Rhagoletis pomonella*). Pettit and Hutson, 1931: 34 (insect as *Rhagoletis pomonella*). Curran, 1932b: 7. McAlister, 1932: 412 (insect as *Rhagoletis pomonella*). Lathrop and Newton, 1933: 143 (insect as *Rhagoletis pomonella*). Pickett, 1937: 70 (insect as *Rhagoletis pomonella*). Beckwith, 1945: 43 (insect as *Rhagoletis pomonella*). Christenson and Foote, 1960: 180 (insect as *Rhagoletis pomonella*). Maxwell and Wood, 1961: 26. Bush, 1966: 468. Roth and Richardson, 1970: 496.

Rhagoletis osmanthi Bush

Osmanthus americanus; Benjamin, 1934: 14 [insect as *Rhagoletis cingulata* (Loew)].

Rhagoletis pomonella (Walsh) - see also *Rhagoletis cornivora* Bush; *Rhagoletis mendax* Curran; *Rhagoletis zephyria* Snow

Amelanchier bartramiana; Lathrop and McAlister, 1931: 3. Lathrop and Nickels, 1931: 269. Lathrop and Nickels, 1932: 6.

Amelanchier spicata; Phipps, 1931: 132.

Amelanchier spp.; Lathrop, 1952: 9.

Aronia arbutifolia; Benjamin, 1934: 15.

Aronia melanocarpa; Lathrop and McAlister, 1931: 3. Lathrop and Nickels, 1931: 269. Phipps, 1931: 132 (as *Pyrus melanocarpa*). Lathrop and Nickels, 1932: 6. Lathrop, 1952: 9 (as *Pyrus melanocarpa*).

Cotoneaster sp. or *Pyracantha* sp.; Bush, 1966: 467 [as

Cotoneaster (Pyracantha) sp.].
Crataegus albicans; Wellhouse, 1922: 1085.
Crataegus arnoldiana; Simon, 1969: 173.
Crataegus macracantha; Simon, 1969: 173.
Crataegus macrosperma; Wellhouse, 1922: 1085. Bush, 1966: 467.
Crataegus malloides; Foote, R. H., host list.[5]
Crataegus mollis; Foote, R. H., host list.[5]
Crataegus pedicellata; Bush, 1966: 467.
Crataegus pentagyna; Foote, R. H., host list.[5]
Crataegus pruinosa; Wellhouse, 1922: 1085. Bush, 1966: 467.
Crataegus punctata; Wellhouse, 1922: 1085. Bush, 1966: 467.
Crataegus scabrida; Wellhouse, 1922: 1085 (as *Crataegus brainerdi*). Bush, 1966: 467 (as *Crataegus Brainerdi*).
Crataegus sp.; Walsh, 1867: 338 (insect as *Trypeta pomonella* Walsh). Walsh, 1868: 36 (insect as *Trypeta pomonella*). Comstock, 1882: 195 (insect as *Trypeta pomonella*). Quaintance, 1908: 4. Ross, 1913: 70. Good, 1915: 54. Brittain and Good, 1917: 9. Caesar, 1917: 10. Wellhouse, 1920: 388. Brues, 1924: 130. Guyton and Knull, 1925: 4. Caesar, 1929: 93. Greene, 1929: 494. Pettit, 1929: 1. McLaine, 1931: 68. Farleman, 1933: 828. Benjamin, 1934: 15. Pickett, 1937: 70. Hall, 1938: 55. Hall, 1943: 202. Essig, 1958: 604. Christenson and Foote, 1960: 180. Bush, 1966: 467.
Malus baccata; Bush, 1966: 467 (as *Pyrus baccata*).
Malus pumila; C.D.A.[1]
Malus sylvestris; Walsh, 1867: 338 (insect as *Trypeta pomonella* Walsh). Walsh, 1868: 36 (insect as *Trypeta pomonella*). Comstock, 1882: 195 (insect as *Trypeta pomonella*). Cook, A. J., 1889: 152 (insect as *Trypeta pomonella*). Harvey, N.D. (1890?): 2 (insect as *Trypeta pomonella*). Harvey, 1890: 220 (insect as *Trypeta pomonella*). Townsend, 1893a: 13. Fletcher, 1899: 223 (insect as *Trypeta pomonella* Walsh). Patch and Munson, 1904: 171. Washburn, 1905: 117. Quaintance, 1908: 4. Illingworth, 1912a: 140. Ross, 1913: 70. O'Kane, 1914: 12. Slingerland and Crosby, 1914: 32. Good, 1915: 54. Brittain and Good, 1917: 9. Caesar, 1917: 10. Herrick, 1920: 92. Champlain and Knull, 1923: 215. Brues, 1924: 130. Snodgrass, 1924: 1. Guyton and Knull, 1925: 1. Johnson, C. W., 1925: 261. Johannsen, 1926: 852. Pettit, 1926a: 3. Pettit, 1926b: 1. Ries, 1927: 144. Porter, 1928: 5. Caesar, 1929: 93. Greene, 1929: 494. Pettit, 1929: 1. McLaine, 1931: 68. Pettit and Hutson, 1931: 34. Allen and Riker, 1932: 557. Phipps and Dirks, 1933: 352. Allen et al., 1934: 228. Chapman and Hammer, 1934: 3. Garman, 1934: 59. Pickett, 1937: 70. Hall, 1943: 202. Garman and Townsend, 1952: 3. Essig, 1958: 604. Christenson and Foote, 1960: 180. Glass, 1960: 3. Leroux and Mukerji, 1964: 61. Wasbauer, 1964: 5. Bush, 1966: 467.

Simon, 1969: 173. Roth and Richardson, 1970: 496. Prokopy et al., 1971: 1405. Parrot and Chapman, (N.D.): 1.

Malus sp.; Walsh, 1867: 338 (insect as *Trypeta pomonella* Walsh). Comstock, 1882: 195 (insect as *Trypeta pomonella*). Ross, 1913: 70. O'Kane, 1914: 12. Good, 1915: 54. Brittain and Good, 1917: 9. Caesar, 1917: 10. Guyton and Knull, 1925: 4. Pettit, 1929: 1. McLaine, 1931: 68. Pettit and Hutson, 1931: 34. Lathrop and Newton, 1933: 143. Essig, 1958: 604. Christenson and Foote, 1960: 180.

Prunus angustifolia; Benjamin, 1934: 15.

Prunus armeniaca; Lienk, 1970: 1684.

Prunus cerasus 'Montmorency'; Shervis et al., 1970: 295.

Prunus domestica; Foote, R. H., host list.[5]

Prunus persica; Bush, 1966: 462.

Prunus umbellata; Benjamin, 1934: 15.

Prunus spp.; Cook, A. J., 1889: 152 (as cherry) (insect as *Trypeta pomonella*, record uncertain). Glasgow, 1933: 433 (as cherry). Davis, G. C., 1889: 291 (as plum) (insect as *Trypeta pomonella*). Guyton and Knull, 1925: 4 (as plum). Greene, 1929: 494 (as plum). Pettit, 1929: 1 (as plum). McLaine, 1931: 68 (as plum). Pickett and Neary, 1940: 552 (as plum). Christenson and Foote, 1960: 180 (as plum). Bush, 1966: 462.

Pyracantha sp. or *Cotoneaster* sp.; Bush, 1966: 467 [as *Cotoneaster (Pyracantha)* sp.].

Pyrus communis; Harvey, 1893: 99. Herrick, 1920: 91. Guyton and Knull, 1925: 4. McLaine, 1931: 68. Lathrop and Nickels, 1932: 6. Pickett and Neary, 1940: 552. Christenson and Foote, 1960: 180.

Sorbus americana; Pickett and Neary, 1940: 552.

Symphoricarpos racemosus; Pickett and Neary, 1940: 552.

Rhagoletis ribicola Doane

Ribes aureum; Phillips, 1946: 73. O.S.U.[3]

Ribes grossularia; Bush, 1966: 507.

Ribes sativum; Bush, 1966: 507 (as *Ribes vulgare*).

Ribes sp.; Doane, 1898: 72. Piper and Doane, 1898: 5. Aldrich, 1909: 72. Slingerland and Crosby, 1914: 356. Eide et al., 1949: 2. Essig, 1958: 605. Foote, R. H. and Blanc, 1963: 98.

Rhagoletis striatella Wulp

Physalis spp.; Bush, 1966: 516.

Rhagoletis suavis (Loew)

Carya sp.; C.D.A.[1] (host determination unconfirmed).

Juglans ailanthifolia; Gambrell, 1931: 230.

Juglans cinerea; Banks, 1912: 32. Gambrell, 1931: 230. Barrett, 1932: 296. Beck, 1932: 497. Boyce, 1934: 375. Ries, 1935: 717. Phillips, 1946: 75.

Juglans nigra; Babb, 1902: 242. Johnson, C. W., 1925: 262. Gambrell, 1931: 230. Barrett, 1932: 296. Beck, 1932: 497. Boyce, 1934: 375. Ries, 1935: 717. Stirret, 1936: 69.

Juglans regia; Brooks, 1921: 3. Gambrell, 1931: 230. Ries,

1935: 717.
Juglans sieboldiana; Brooks, 1921: 3. Ries, 1935: 717.
Juglans sp.; Hall, 1938: 55. Phillips, 1946: 75. Wasbauer, 1964: 5.
Prunus persica; Dean, 1969: 940.
Rhagoletis symphoricarpi - see *Rhagoletis zephyria* Snow.
Rhagoletis tabellaria (Fitch)
Cornus amomum; Bush, 1966: 498.
Cornus stolonifera; Glasgow, 1933: 437.
Cornus spp.; Glasgow, 1933: 437.
Vaccinium macrocarpon; Forsell, 1947: 167.
Vaccinium sp.; Plank, 1923: 99. Foote, R. H. and Blanc, 1963: 99.
Rhagoletis zephyria Snow - see also *Rhagoletis mendax* Curran
Symphoricarpos albus; Forsell, 1947: 167 (insect as *Rhagoletis pomonella*). Foote, R. H. and Blanc, 1963: 99. Wasbauer, 1963: 1.
Symphoricarpos racemosus; Downes, 1919: 2 (insect as *Rhagoletis pomonella*). Cole and Lovett, 1921: 325 [insect as *Rhagoletis pomonella* (Walsh)]. Curran, 1924a: 63 (insect as *Rhagoletis symphoricarpi*).
Symphoricarpos sp.; Cresson, 1929: 410 [insect as *Rhagoletis pomonella* (Walsh)]. Greene, 1929: 494 (insect as *Rhagoletis pomonella*). Benjamin, 1934: 16. Strickland, 1938: 204 (insect as *Rhagoletis pomonella*). Eide et al., 1949: 2 (insect as *Rhagoletis pomonella*). Essig, 1958: 604 (insect as *Rhagoletis pomonella*). O.S.U.[3]
Vaccinium arboreum; Foote, R. H., host list[5] (record doubtful).

Rhagoletoides latifrons (Wulp)
No host information.

Rhagoletotrypeta annulata Aczel
Celtis sp.; Foote, R. H., 1966: 806.
Rhagoletotrypeta rohweri Foote
Celtis sp.; Foote, R. H., 1966: 805.

Rhynencina longirostris Johnson
No host information.

Spathulina finalis Loew - see *Neotephritis finalis* (Loew).

Spilographa electa Say - see *Zonosemata electa* (Say).
Spilographa setosa - see *Rhagoletis basiola* (Osten Sacken).

Stenopa affinis Quisenberry
No host information.
Stenopa vulnerata (Loew)
Senecio aureus; Novak et al., 1967: 148.

Strauzia longipennis (Wiedemann)
Helianthus annuus; Gibson, 1906: 120. Westdahl and Barrett,

1960: 486.
Helianthus hirsutus; Marcovitch, 1916: 147. Phillips, 1946: 122.
Helianthus maximilianii; Westdahl and Barrett, 1960: 486.
Helianthus tuberosus; Severin, 1918b: 464. Brink, 1923: 73. Phillips, 1923: 125.
Helianthus tuberosus var. *subcanescens*; Westdahl and Barrett, 1960: 486.
Helianthus sp.; Townsend, 1893a: 14. Brink, 1923: 73. Phillips, 1923: 125. Walker, 1936: 21. Strickland, 1938: 204. Phillips, 1946: 77. Beirne, 1971: 66. Anon., 1972: 124.
Heliopsis helianthoides; Foote, R. H., host list.[5]
Strauzia longipennis var. *arculata* (Loew)
No host information.
Strauzia longipennis var. *confluens* (Loew)
Helianthus tuberosus; Johnson, C. W., 1925: 260.
Helianthus sp.; Johnson, C. W., 1925: 260.
Strauzia longipennis var. *intermedia* (Loew)
Helianthus giganteus; Novak et al., 1967: 148.
Strauzia longipennis var. *longitudinalis* (Loew)
Helianthus decapetalus; Novak et al., 1967: 148.
Strauzia longipennis var. *perfecta* (Loew)
Ambrosia trifida; Novak et al., 1967: 148.
Strauzia longipennis var. *typica* (Loew)
Helianthus annuus; Novak et al., 1967: 148.
Strauzia longipennis var. *vittigera* (Loew)
Helianthus tuberosus; Novak et al., 1967: 148.
Helianthus sp.; Steyskal, 1945: 156.

Tephritis angustipennis (Loew)
Achillea ptarmica; Quisenberry, 1951: 67.
Aster occidentalis var. *intermedius*; Foote, R. H., host list.[5]
Tephritis araneosa (Coquillett) - see also *Tephritis candidipennis* Foote
Arnica chamissonis ssp. *foliosa*; Quisenberry, 1951: 66.
Artemisia dracunculus; Quisenberry, 1951: 66 (as *Artemisia dracunculoides*).
Chrysothamnus nauseosus ssp. *albicaulis*; C.D.A.[1]
Erigeron pumilus; Lavigne, 1965: 100.
Grindelia sp.; Foote, R. H. and Blanc, 1963: 96.
Poa sp.; Foote, R. H., 1960a: 84.
Tanacetum huronense; Quisenberry, 1951: 66.
Tephritis arizonaensis Quisenberry
Baccharis pilularis ssp. *consanguinea*; Foote, R. H., host list.[5]
Baccharis sarothroides; Foote, R. H., 1960a: 76. C.D.A.[1]
Tephritis asteris (Harris) - see *Eurosta solidaginis* (Fitch).
Tephritis baccharis Coquillett - see *Eutreta baccharis* (Coquillett).
Tephritis californica Doane

Baccharis emoryi; C.D.A.[1]
Baccharis pilularis ssp. *consanguinea*; Foote, R. H. and Blanc, 1963: 67.
Senecio sp.; C.D.A.[1]
Tephritis candidipennis Foote
Ambrosia chamissonis; O.S.U.[3] (as *Franseria chamissonis*).
Arnica chamissonis ssp. *foliosa*; Quisenberry, 1951: 66 [insect as *Tephritis araneosa* (Coquillett)].
Tanacetum camphoratum; Foote, R. H. and Blanc, 1963: 68.
Tanacetum huronense; Quisenberry, 1951: 66 [insect as *Tephritis araneosa* (Coquillett)]. O.S.U.[3]
Tephritis labecula Foote
No host information.
Tephritis michiganensis Quisenberry
No host information.
Tephritis opacipennis Foote
No host information.
Tephritis ovatipennis Foote
Corethrogyne filaginifolia var. *incana*; C.D.A.[1]
Erigeron foliosus var. *stenophyllus*; C.D.A.[1]
Tephritis pura (Loew)
No host information.
Tephritis rufipennis Doane
No host information.
Tephritis signatipennis Foote
Machaeranthera canescens; Tauber and Tauber, unpublished record.[4]
Tephritis stigmatica (Coquillett)
Arnica chamissonis ssp. *foliosa*; O.S.U.[3]
Aster canescens; Novak et al., 1967: 148.
Heterotheca breweri; C.D.A.[1] (as *Chrysopsis breweri*).
Senecio crassulas; Novak et al., 1967: 148.
Senecio douglassii; Foote, R. H. and Blanc, 1963: 72.
Senecio integerrimus; Foote, R. H., 1960a: 77. Tauber and Toschi, 1965b: 73.
Senecio triangularis; Novak et al., 1967: 148.
Senecio sp.; Foote, R. H., 1960a: 77.
Tephritis subpura (Johnson)
Baccharis glomeruliflora; Benjamin, 1934: 59 [insect as *Trupanea (Tephritoides) subpura* (Johnson)].
Baccharis halimifolia; Foote, R. H., host list.[5]
Tephritis webbi Doane
Solidago sp.; Quisenberry, 1951: 69. O.S.U.[3]
Tephritis spp.
Baccharis pilularis; Tilden, 1951: 170.

Terellia palposa Loew - see *Orellia palposa* (Loew).

Tomoplagia cressoni Aczel
Perezia microcephala; Foote, R. H. and Blanc, 1963: 98.
Prunus persica; Aczel, 1955: 322 (host record doubtful).

Tomoplagia obliqua (Say)
Aster sp.; Beach, 1895: 94 (insect as *Trypeta obliqua* Say).
Vernonia altissima; Novak et al., 1967: 148.
Vernonia baldwinii; Foote, R. H., host list.[5]
Vernonia blodgetti; Benjamin, 1934: 33. Aczel, 1949: 244.
Vernonia gigantea; Benjamin, 1934: 33. Aczel, 1949: 244.
Vernonia interior; Schwitzgebel and Wilbur, 1943: 5.
Vernonia scaberrima; Benjamin, 1934: 33. Aczel, 1949: 244.
Vernonia sp.; Aczel, 1949: 244.

Toxotrypana curvicauda Gerstacker
Carica papaya; Knab and Yothers, 1914: 447. Mason, 1922: 1. Greene, 1929: 491. Strong, 1933: 1. Benjamin, 1934: 12. Merrill, 1946: 39. Phillips, 1946: 81. Aczel, 1949: 181. Weems, 1969a: 1.
Mangifera indica; McClanahan, 1946: 29. Merrill, 1946: 39. Butcher, 1952: 196. Weems, 1969a: 1.
Tabernaemontana sp.; Bates, 1933: 160.

Trupanea actinobola (Loew)
Actinospermum angustifolium; Benjamin, 1934: 57.
Actinospermum sp.; Malloch, 1942: 16 [insect as *Trypanea actinobola* (Loew)]. Foote, R. H. and Blanc, 1963: 93.
Aster adnatus; Benjamin, 1934: 57. Foote, R. H., 1960d: 25.
Aster carolinianus; Benjamin, 1934: 57.
Aster simmondsii; Stegmaier, 1968b: 49.
Aster sp.; Malloch, 1942: 16 [insect as *Trypanea actinobola* (Loew)].
Coreopsis sp.; Benjamin, 1934: 57. Malloch, 1942: 16 [insect as *Trypanea actinobola* (Loew)].
Erigeron quercifolius; Benjamin, 1934: 57.
Erigeron sondbergiana; Phillips, 1946: 85.
Erigeron strigosus; Foote, R. H., host list[5] (as *Erigeron ramosus*).
Erigeron strigosus var. *beyrichii*; Stegmaier, 1968b: 49. Stegmaier, 1968c: 96.
Erigeron vernus; Benjamin, 1934: 57.
Erigeron sp.; Malloch, 1942: 16 [insect as *Trypanea actinobola* (Loew)].
Gnaphalium obtusifolium; Foote, R. H., host list.[5]
Hieracium paniculatum; Foote, R. H., host list.[5]
Hieracium sp.; Benjamin, 1934: 57. Malloch, 1942: 16 [insect as *Trypanea actinobola* (Loew)]. Foote, R. H., 1960d: 25.
Sitilias caroliniana; Foote, R. H., host list.[5]
Solidago caesia; Stegmaier, 1968b: 49.
Solidago chapmanii; Foote, R. H., 1960d: 25.
Solidago serotina; Foote, R. H., 1960d: 25.
Solidago stricta; Stegmaier, unpublished record.[2]
Solidago spp.; Benjamin, 1934: 57. Malloch, 1942: 16 [insect as *Trypanea actinobola* (Loew)].
Trupanea ageratae Benjamin

Ageratum littorale; Benjamin, 1934: 56.

Trupanea arizonensis Malloch

No host information.

Trupanea bisetosa (Coquillett)

Arnica latifolia; Novak et al., 1967: 147.

Chrysothamnus viscidiflorus; Tauber and Tauber, unpublished record.[4]

Encelia farinosa; Foote, R. H. and Blanc, 1963: 77. Tauber and Tauber, unpublished record.[4]

Helianthella sp.; Foote, R. H., host list.[5]

Helianthus sp.; Foote, R. H. and Blanc, 1963: 76.

Hemizonia pungens; Foote, R. H. and Blanc, 1963: 76.

Trupanea californica Malloch

Anaphalis margaritacea; O.S.U.[3]

Anaphalis sp.; Foote, R. H. and Blanc, 1963: 78.

Gnaphalium chilense; C.D.A.[1]

Gnaphalium sp.; Foote, R. H., 1960d: 21.

Trupanea conjuncta (Adams)

No host information.

Trupanea dacetoptera Phillips

Gnaphalium obtusifolium; Malloch, 1942: 15 (insect as *Trypanea dacetoptera* Phillips).

Heterotheca microcephala; Benjamin, 1934: 54 (as *Chrysopsis microcephala*).

Trupanea eclipta Benjamin

Eclipta alba; Benjamin, 1934: 57.

Trupanea (Euarestoides) abstersa (Loew) - see *Euarestoides abstersus* (Loew).

Trupanea femoralis (Thomson)

Aster spinosus; Foote, R. H., 1960d: 8.

Corethrogyne filaginifolia var. *linifolia*; C.D.A.[1]

Haplopappus venetus; Foote, R. H., 1960d: 8 (as *Aplopappus venetus*).

Hemizonia pungens; Foote, R. H. and Blanc, 1963: 79.

Heterotheca grandiflora; Foote, R. H., 1960d: 8.

Heterotheca oregana; O.S.U.[3] (as *Chrysopsis oregana*).

Heterotheca villosa; Foote, R. H. and Blanc, 1963: 80 (as *Chrysopsis villosa*).

Trupanea imperfecta (Coquillett)

Bebbia juncea; Foote, R. H. and Blanc, 1963: 81.

Trupanea jonesi Curran

Arnica diversifolia; Novak et al., 1967: 148.

Arnica chamissonis ssp. *foliosa*; O.D.A.[7]

Aster foliaceus var. *parryi*; Novak et al., 1967: 148.

Aster subspicatus; Curran, 1932a: 7 (as *Aster Douglasii*) (insect as *Trypanea jonesi* Curran). O.S.U.[3]

Aster sp.; O.S.U.[3]

Chrysothamnus viscidiflorus; Tauber and Tauber, unpublished record.[4]

Coreopsis sp.; Foote, R. H. and Blanc, 1963: 82.

Encelia californica; C.D.A.[1]

Encelia farinosa; Tauber and Tauber, unpublished record.[4]
Erigeron sp.; Foote, R. H. and Blanc, 1963: 82.
Gnaphalium sp.; Foote, R. H. and Blanc, 1963: 96.
Haplopappus bloomeri; Foote, R. H. and Blanc, 1963: 81.
Haplopappus linearfolius; Tauber and Tauber, unpublished record.[4]
Haplopappus squarrosus ssp. *grindelioides*; C.D.A.[1]
Helenium hoopesii; Tauber and Tauber, unpublished record.[4]
Madia elegans; O.S.U.[3]
Raillardella sp.; O.S.U.[3] (as *Raillardia* sp.).
Wyethia sp.; Foote, R. H. and Blanc, 1963: 82.

Trupanea maculigera Foote
Gnaphalium sp.; Foote, R. H., 1960d: 14.

Trupanea mevarna (Walker)
Heterotheca graminifolia; Benjamin, 1934: 55 (as *Chrysopsis graminifolia*). Foote, R. H., 1960d: 16 (as *Chrysopsis graminifolia*).
Heterotheca latifolia; Benjamin, 1934: 55 (as *Chrysopsis latifolia*). Foote, R. H., 1960d: 16 (as *Chrysopsis latifolia*).
Heterotheca microcephala; Benjamin, 1934: 55 (as *Chrysopsis microcephala*, determination subject to question). Foote, R. H., 1960d: 16 (as *Chrysopsis microcephala*).
Heterotheca oligantha; Benjamin, 1934: 55 (as *Chrysopsis oligantha*). Foote, R. H., 1960d: 16 (as *Chrysopsis oligantha*).
Heterotheca sp.; Benjamin, 1934: 55 (as *Chrysopsis* sp.) [insect as *Trypanea mevarna* (Walker)].

Trupanea nigricornis (Coquillett)
Baccharis glutinosa; Foote, R. H. and Blanc, 1963: 94.
Brikellia arguta; C.D.A.[1]
Carthamus tinctorius; C.D.A.[1]
Chrysothamnus nauseosus ssp. *glabratus*; Foote, R. H., host list.[5]
Chrysothamnus viscidiflorus; Tauber and Tauber, 1967b: 909.
Encelia californica; Tauber and Tauber, unpublished record.[4]
Encelia farinosa; Foote, R. H. and Blanc, 1963: 84. Tauber and Tauber, unpublished record.[4]
Helianthella sp.; Foote, R. H., host list.[5]
Perezia microcephala; C.D.A.[1]

Trupanea pseudovicina Hering
Bebbia juncea; C.D.A.[1]
Porophyllum gracile; C.D.A.[1]

Trupanea radifera (Coquillett)
Balsamorhiza sagittata; Novak et al., 1967: 148.
Heterotheca villosa; Novak et al., 1967: 148 (as *Chrysopsis villosa*).
Senecio hydrophiloides; Novak et al., 1967: 148.

Trupanea signata Foote
Anaphalis sp.; Foote, R. H., 1960d: 23.
Gnaphalium chilense; Foote, R. H., 1960d: 23.

Trupanea (Tephritoides) subpura (Johnson) - see *Tephritis subpura*

(Johnson).

Trupanea texana Malloch

No host information.

Trupanea vicina (Wulp)

Tagetes sp.; Foote, R. H., 1960d: 26.

Trupanea wheeleri Curran

Achillea millefolium var. *pacifica*; C.D.A.[1]

Aster spinosus; Foote, R. H., 1960d: 15.

Corethrogyne filaginifolia var. *incana*; C.D.A.[1]

Corethrogyne filaginifolia var. *linifolia*; C.D.A.[1]

Corethrogyne filaginifolia var. *virgata*; C.D.A.[1]

Encelia californica; Foote, R. H. and Blanc, 1963: 88. Tauber and Tauber, unpublished record.[4]

Encelia sp.; Foote, R. H. and Blanc, 1963: 96.

Erigeron foliosus var. *stenophyllus*; C.D.A.[1]

Haplopappus squarrosus ssp. *grindelioides*; C.D.A.[1]

Haplopappus venetus; Foote, R. H., 1960d: 15 (as *Aplopappus venatus*).

Lepidospartum squamatum; Foote, R. H. and Blanc, 1963: 88.

Perezia microcephala; C.D.A.[1]

Solidago californica; C.D.A.[1]

Trupanea sp.

Vernonia interior; Schwitzgebel and Wilbur, 1943: 4.

Trypanea actinobola (Loew) - see *Trupanea actinobola* (Loew).

Trypanea dacetoptera Phillips - see *Trupanea dacetoptera* Phillips.

Trypanea jonesi Curran - see *Trupanea jonesi* Curran.

Trypanea mevarna (Walker) - see *Trupanea mevarna* (Walker).

Trypeta acidusa - see *Anastrepha mombinpraeoptans* Sein.

Trypeta (Aciura) aplopappi (Coquillett) - see *Aciurina aplopappi* (Coquillett).

Trypeta aequalis - see *Euaresta aequalis* (Loew).

Trypeta alba - see *Neaspilota alba* (Loew).

Trypeta angustigena Foote

Arnica alpina; Frick, 1971a: 21.

Arnica chamissonis; Frick, 1971b: 6.

Arnica chamissonis ssp. *jepsoniana*; Frick, 1971a: 21.

Arnica montana; Frick, 1971a: 21.

Artemisia douglasiana; Frick, 1971a: 21.

Cacalia suaveolens; Frick, 1971a: 21.

Chrysanthemum morifolium; Frick and Hawkes, 1970: 1089. Frick, 1971a: 21.

Cynara scolymus; Frick, 1971a: 21.

Petasites palmatus; Frick, 1971a: 21.

Senecio jacobaea; Frick and Hawkes, 1970: 1089. Frick, 1971a: 21.

Senecio mikanioides; Frick, 1971b: 6.

Senecio paludosus; Frick, 1971a: 21.

Senecio serra; Frick, 1971a: 21.

Senecio triangularis; Frick, 1971a: 21.

Trypeta asteris Harris - see *Eurosta solidaginis* (Fitch).
Trypeta bigeloviae - see *Aciurina bigeloviae* (Cockerell).
Trypeta canadensis Loew - see *Epochra canadensis* (Loew).
Trypeta (Eutreta) diana - see *Eutreta diana* (Osten Sacken).
Trypeta florescentiae - see *Orellia ruficauda* (Fabricius).
Trypeta fractura (Coquillett)
No host information.
Trypeta fratria Loew - see *Euleia fratria* (Loew).
Trypeta gibba Loew - see *Callachna gibba* (Loew).
Trypeta inaequalis (Coquillett)
No host information.
Trypeta ludens Loew - see *Anastrepha ludens* (Loew).
Trypeta maculosa (Coquillett)
No host information.
Trypeta notata - see *Aciurina notata* (Coquillett).
Trypeta palposa - see *Orellia palposa* (Loew).
Trypeta polita Loew - see *Procecidochares polita* (Loew).
Trypeta pomonella Walsh - see *Rhagoletis pomonella* (Walsh).
Trypeta sigma (Phillips)
No host information.
Trypeta solidaginis Fitch - see *Eurosta solidaginis* (Fitch).
Trypeta (Tephritis) baccharis Coquillett - see *Eutreta baccharis* (Coquillett).
Trypeta tortilis Coquillett
No host information.

Urophora affinis Frauenfeld*
Centaurea diffusa; Zwolfer, 1970: 3.
Centaurea maculosa; Zwolfer, 1970: 3.
Urophora formosa (Coquillett)
Chrysothamnus viscidiflorus; O.S.U.[3]
Grindelia camporum; C.D.A.[1]
Grindelia nana; Curran, 1932a: 13 (insect as *Aleomyia caurina* Doane). O.S.U.[3]
Grindelia sp.; Foote, R. H. and Blanc, 1963: 96.
Haplopappus squarrosus ssp. *grindelioides*; C.D.A.[1]
Haplopappus venetus; Foote, R. H. and Blanc, 1963: 90.
Urophora grindeliae (Coquillett)
Grindelia squarrosa var. *nuda*; Coquillett, 1908: 147 (insect as *Rhagoletis grindeliae*).
Urophora jaceana (Hering)
Centaurea nigra; Varley, 1937: 109 (insect as *Euribia jaceana*

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* A European species introduced for control of knapweed (*Centaurea* spp.). It was released in British Columbia and Ontario in 1970. It is now established in both areas on *Centaurea maculosa* and also on *C. diffusa* in British Columbia. The United States Department of Agriculture plans releases in the northwestern U.S. against *C. diffusa* in 1973; teste Dr. Lloyd A. Andres, personal communication.

Hering). Shewell, 1961: 1045.

Urophora rufipes (Curran)
No host information.

Urophora siruna-seva (Hering)*
Centaurea solstitialis; Zwolfer, 1969: 109.

Urophora timberlakei Blanc and Foote
Gutierrezia microcephala; Foote, R. H., host list[5] (as *Gutierrezia lucida*).

Urophora sp.
Borrichia frutescens; Bush and Huettel, 1970: 91.

Valentibulla californica (Coquillett)
Chrysothamnus nauseosus; Foote, R. H. and Blanc, 1963: 95. Novak et al., 1967: 148.
Chrysothamnus sp.; Foote, R. H. and Blanc, 1959: 151.

Valentibulla munda (Coquillett)
Chrysothamnus nauseosus; Novak et al., 1967: 148.
Chrysothamnus sp.; Foote, R. H. and Blanc, 1959: 153.

Valentibulla thurmanae Foote
No host information.

Xanthaciura connexionis Benjamin
Ageratum littorale; Benjamin, 1934: 45. Aczel, 1949: 254.
Ageratum sp.; Aczel, 1952a: 260.
Bidens leucantha; Foote, R. H., host list.[5]
Eupatorium coelestinum; Benjamin, 1934: 45. Aczel, 1949: 254. Aczel, 1952a: 260 (as *Conoclinium coelestinum*). Stegmaier, unpublished record.[2]
Eupatorium macrophyllum; Aczel, 1952a: 260 (as *Eupatorium adenophorum*).
Eupatorium sp.; Foote, R. H., host list.[5]

Xanthaciura insecta (Loew)
Ageratum sp.; Stegmaier, unpublished record.[2]
Bidens coronata; Aczel, 1952a: 266.
Bidens laevis; Aczel, 1952a: 266. Stegmaier, unpublished record.[8]
Bidens leucantha; Benjamin, 1934: 45. Aczel, 1949: 255. Aczel, 1952a: 266.
Bidens mitis; Stegmaier, unpublished record.[8]
Bidens nashii; Aczel, 1952a: 266.
Bidens pilosa; Needham, 1946: 343. Needham, 1948: 444. Stegmaier, unpublished record.[2]
Bidens pilosa var. *radiata*; Steyskal, 1972: 87.

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* A European species introduced into California for control of yellow star thistle (*Centaurea solstitialis*). Releases have been made in Alameda, Butte, Contra Costa, Mendocino, and Sacramento Counties in 1969, 1970, and 1971. No recovery has been made, so it is not known if the species has become establised; teste Mr. Junji Hamai, correspondence with author, Aug. 9, 1972.

Bidens sp.; Foote, R. H., host list.[5]
Xanthaciura tetraspina (Phillips)
Ageratum houstonianum; Benjamin, 1934: 46. Aczel, 1952a: 277.
Eupatorium coelestinum; Benjamin, 1934: 46.
Eupatorium maculatum; Novak et al., 1967: 148.
Eupatorium purpusii; Aczel, 1952a: 277 (as *Eupatorium petiolare*).
Xanthaciura sp.
Mikania sp.; Stegmaier, unpublished record.[12]

Xanthomyia nora (Doane)
No host information.
Xanthomyia platyptera (Loew)
No host information.

Xenochaeta aurantiaca (Doane)
No host information.
Xenochaeta dichromata Snow
Hieracium cynoglossoides; Novak et al., 1967: 147.

Zonosema electa Say - see *Zonosemata electa* (Say).

Zonosemata electa (Say)
Capsicum annuum; Peterson, 1923: 7 (insect as *Spilographa electa* Say). Burdette, 1930: 260 (insect as *Spilographa electa* Say). Burdette, 1935: 4. Peterson, 1953: 330.
Capsicum frutescens; Beirne, 1971: 68.
Capsicum sp.; Burdette, 1930: 260 (insect as *Spilographa electa* Say). Peterson, 1946: 96. Foott, 1963: 75. Foott, 1967b: 19. Foott and Timmins, 1969: 105. Beirne, 1971: 68.
Lycopersicon esculentum; Benjamin, 1934: 20.
Physalis subglabrata; Anon., 1959: 721.
Rosa sp.; Hall, 1938: 55 (insect as *Zonosema electa* Say).
Solanum aculeatissimum; Benjamin, 1934: 19.
Solanum carolinense; Williston, 1886: 307 (insect as *Spilographa electa*). Snow, 1894: 161 (insect as *Spilographa electa* Say). Malloch, 1923: 217 (insect as *Spilographa electa*). Peterson, 1923: 7 (insect as *Spilographa electa* Say). Phillips, 1923: 128 (insect as *Zonosema electa* Say). Burdette, 1935: 4. Anon., 1942: 83. Peterson, 1953: 330. Foott, 1963: 75. Foott, 1967a: 17. Foott and Timmins, 1969: 105. Beirne, 1971: 68.
Solanum elaeagnifolium; Anon., 1959: 721.
Solanum melongena; Peterson, 1923: 7 (insect as *Spilographa electa* Say). Burdette, 1935: 4. Peterson, 1953: 330.
Solanum melongena var. *esculentum*; Phillips, 1946: 96. Foott, 1963: 75. Foott and Timmins, 1969: 105.
Solanum sp.; Foote, R. H., host list.[5]
Zonosemata vittigera (Coquillett)
Solanum elaeagnifolium; Foote, R. H., 1960c: 115. Cazier, 1962: 181.
Solanum sp.; Foote, R. H., host list.[5]

SECTION III. HOST FAMILIES

(1) ANACARDIACEAE
Anacardium - *Anastrepha*
Mangifera - *Anastrepha*; *Toxotrypana*
Spondias - *Anastrepha*

(2) ANNONACEAE
Annona - *Anastrepha*

(3) APOCYNACEAE
Carissa - *Anastrepha*
Tabernaemontana - *Toxotrypana*
Thevetia - *Anastrepha*
Zschokkea - *Anastrepha*

(4) AQUIFOLIACEAE
Ilex - *Myoleja*

(5) BERBERIDACEAE
Berberis - *Rhagoletis*
Mahonia - *Rhagoletis*

(6) BORAGINACEAE
Cordia - *Anastrepha*

(7) CACTACEAE
Hylocereus - *Anastrepha*
Lemaireocereus - *Anastrepha*
Opuntia - *Anastrepha*

(8) CAPRIFOLIACEAE
Symphoricarpos - *Rhagoletis*

(9) CARICACEAE
Carica - *Anastrepha*; *Toxotrypana*

(10) COMBRETACEAE
Terminalia - *Anastrepha*

(11) COMPOSITAE
Achillea - *Trupanea*
Actinomeris - *Neotephritis*
Actinospermum - *Dioxyna*; *Trupanea*
Ageratum - *Trupanea*; *Xanthaciura*
Agoseris - *Paroxyna*
Ambrosia - *Callachna*; *Euaresta*; *Euarestoides*; *Eutreta*; *Procecidochares*; *Strauzia*

Anaphalis - *Trupanea*
Arnica - *Euarestoides; Tephritis; Trupanea; Trypeta*
Artemisia - *Aciurina; Euleia; Eutreta; Metatephritis; Orellia; Oxyna; Tephritis; Trypeta*
Aster - *Dioxyna; Eutreta; Neaspilota; Neotephritis; Paroxyna; Procecidochares; Tephritis; Trupanea*
Baccharis - *Aciurina; Euarestoides; Eutreta; Tephritis; Trupanea*
Balsamorhiza - *Neotephritis; Trupanea*
Bebbia - *Trupanea*
Bidens - *Dioxyna; Icterica; Paroxyna; Xanthaciura*
Borrichia - *Paracantha*
Brikellia - *Procecidochares; Trupanea*
Cacalia - *Trypeta*
Callistephus - *Eutreta*
Carduus - *Orellia*
Carthamus - *Trupanea*
Centaurea - *Urophora*
Chrysanthemum - *Euarestoides; Eutreta; Trypeta*
Chrysothamnus - *Aciurina; Procecidochares; Tephritis; Trupanea; Valentibulla*
Cirsium - *Orellia; Paracantha*
Cnicus - *Orellia*
Conyza - *Procecidochares*
Coreopsis - *Dioxyna; Trupanea*
Corethrogyne - *Neaspilota; Procecidochares; Tephritis; Trupanea*
Cosmos - *Dioxyna*
Cynara - *Paracantha; Trypeta*
Dahlia - *Neotephritis*
Eclipta - *Trupanea*
Encelia - *Neotephritis; Trupanea*
Erigeron - *Neaspilota; Procecidochares; Tephritis; Trupanea*
Eriophyllum - *Neotephritis; Paroxyna*
Eupatorium - *Xanthaciura*
Gaillardia - *Euarestoides; Neotephritis*
Gnaphalium - *Trupanea*
Grindelia - *Procecidochares; Tephritis; Urophora*
Gutierrezia - *Aciurina; Procecidochares; Urophora*
Haplopappus - *Aciurina; Neaspilota; Paroxyna; Trupanea; Urophora*
Helenium - *Dioxyna; Trupanea*
Helianthella - *Neotephritis; Trupanea*
Helianthus - *Eutreta; Gymnocarena; Neotephritis; Paracantha; Procecidochares; Strauzia; Trupanea*
Heliopsis - *Struazia*
Hemizonia - *Trupanea*
Heterotheca - *Neaspilota; Peronyma; Procecidochares; Tephritis; Trupanea*
Hieracium - *Acidogona; Neaspilota; Trupanea; Xenochaeta*

Iva - *Euarestoides*
Lactuca - *Jamesomyia*
Lepidospartum - *Trupanea*
Machaeranthera - *Neaspilota; Procecidochares; Tephritis*
Madia - *Trupanea*
Melanthera - *Dyseuaresta*
Microseris - *Paroxyna*
Mikania - *Xanthaciura*
Perezia - *Tomoplagia; Trupanea*
Petasites - *Trypeta*
Pluchea - *Acinia; Dyseuaresta; Neaspilota*
Porophyllum - *Trupanea*
Prenanthes - *Euleia; Neaspilota*
Raillardella - *Trupanea*
Ratibida - *Eutreta*
Senecio - *Paroxyna; Stenopa; Tephritis; Trupanea; Trypeta*
Sitilias - *Trupanea*
Solidago - *Aciurina; Eurosta; Eutreta; Procecidochares; Tephritis; Trupanea*
Tagetes - *Dioxyna; Trupanea*
Tanacetum - *Tephritis*
Tessaria - *Acinia*
Trilisa - *Euarestoides*
Vernonia - *Eutreta; Neaspilota; Tomoplagia; Trupanea*
Viguiera - *Procecidochares*
Wyethia - *Neotephritis; Trupanea*
Xanthium - *Euaresta; Euarestoides; Neotephritis*

(12) CORNACEAE
Cornus - *Rhagoletis*

(13) CUCURBITACEAE
Cucurbita - *Anastrepha*
Momordica - *Anastrepha*

(14) CUPRESSACEAE
Juniperus - *Paraterellia; Rhagoletis*

(15) EBENACEAE
Diospyros - *Anastrepha*

(16) ERICACEAE
Gaultheria - *Rhagoletis*
Gaylussacia - *Rhagoletis*
Vaccinium - *Rhagoletis*

(17) EUPHORBIACEAE
Manihot - *Anastrepha*
Phyllanthus - *Anastrepha*

(18) FLACOURTIACEAE

Dovyalis - *Anastrepha*
Flacourtia - *Anastrepha*
Zuelania - *Anastrepha*

(19) GRAMINEAE
Poa - *Tephritis*

(20) GUTTIFERAE
Garcinia - *Anastrepha*
Mammea - *Anastrepha*

(21) JUGLANDACEAE
Carya - *Rhagoletis*
Juglans - *Anastrepha; Rhagoletis*

(22) LAURACEAE
Persea - *Anastrepha*

(23) LEGUMINOSAE
Acacia - *Anastrepha*
Inga - *Anastrepha*
Phaseolus - *Anastrepha*

(24) MALPIGHIACEAE
Malpighia - *Anastrepha*

(25) MORACEAE
Ficus - *Anastrepha*

(26) MUSACEAE
Musa - *Anastrepha*

(27) MYRTACEAE
Britoa - *Anastrepha*
Calyptranthes - *Anastrepha*
Eugenia - *Anastrepha*
Myrciaria - *Anastrepha*
Pseudanamomis - *Anastrepha*
Psidium - *Anastrepha*
Syzygium - *Anastrepha*

(28) OLACACEAE
Schoepfia - *Anastrepha*
Ximenia - *Anastrepha*

(29) OLEACEAE
Chionanthus - *Rhagoletis*
Osmanthus - *Rhagoletis*

(30) OXALIDACEAE
Averrhoa - *Anastrepha*

(31) PASSIFLORACEAE
Passiflora - *Anastrepha*

(32) PUNICACEAE
Punica - *Anastrepha*

(33) ROSACEAE
Amelanchier - *Aciurina; Rhagoletis*
Aronia - *Rhagoletis*
Chaenomeles - *Anastrepha*
Chrysobalanus - *Anastrepha*
Cotoneaster - *Rhagoletis*
Crataegus - *Rhagoletis*
Cydonia - *Anastrepha*
Eriobotrya - *Anastrepha*
Fragaria - *Anastrepha*
Malus - *Anastrepha; Rhagoletis*
Prunus - *Anastrepha; Rhagoletis; Tomoplagia*
Pyracantha - *Rhagoletis*
Pyrus - *Anastrepha; Rhagoletis*
Rosa - *Rhagoletis; Zonosemata*
Sorbus - *Rhagoletis*

(34) RUBIACEAE
Coffea - *Anastrepha*

(35) RUTACEAE
Casimiroa - *Anastrepha*
Citrus - *Anastrepha*
Clausena - *Anastrepha*
Fortunella - *Anastrepha*
Murraya - *Anastrepha*
Sargentia - *Anastrepha*
Severinia - *Anastrepha*
Triphasia - *Anastrepha*

(36) SAPINDACEAE
Litchi - *Anastrepha*
Turpinia - *Anastrepha*

(37) SAPOTACEAE
Achras - *Anastrepha*
Bumelia - *Anastrepha; Pseudodacus*
Calocarpum - *Anastrepha*
Chrysophyllum - *Anastrepha*
Labatia - *Anastrepha*
Lucuma - *Anastrepha; Lucumaphila*
Manilkara - *Anastrepha*
Mimusops - *Anastrepha*
Pouteria - *Anastrepha*
Sideroxylon - *Anastrepha*

Synsepalum - *Anastrepha*

(38) SAXIFRAGACEAE
Ribes - *Epochra*; *Rhagoletis*

(39) SOLANACEAE
Capsicum - *Anastrepha*; *Zonosemata*
Cyphomandra - *Anastrepha*
Lycopersicon - *Anastrepha*; *Zonosemata*
Physalis - *Rhagoletis*; *Zonosemata*
Solanum - *Anastrepha*; *Zonosemata*

(40) ULMACEAE
Celtis - *Rhagoletotrypeta*

(41) UMBELLIFERAE
Angelica - *Euleia*
Conium - *Euleia*
Cryptotaenia - *Euleia*
Heracleum - *Euleia*; *Neaspilota*
Oenanthe - *Euleia*
Pastinaca - *Euleia*

(42) VITACEAE
Vitis - *Anastrepha*

SECTION IV. SOURCES OF UNPUBLISHED DATA

1. Data from specimens in California Department of Agriculture Collection.

2. As covered in correspondence with author, Feb. 9, 1971.

3. Data from specimens in Oregon State University Collection. Records transmitted by G. C. Steyskal (in correspondence with author, Dec. 8, 1971). Records are assumed to be Oregon, but no specific localities or dates are given.

4. As covered in correspondence with author, May 19, 1971.

5. R. H. Foote's host list was compiled over a number of years from a variety of sources including literature, specimen data, and unpublished records. Many of the previously published records in this list have been traced to a source. Dr. Foote is considered the authority for the remainder, mostly unpublished.

6. University of California, Riverside Collection. Records transmitted by S. Frommer (in correspondence with author, Jan. 5, 1972).

7. Data from specimens in Oregon Department of Agriculture Collection. Records transmitted by G. C. Steyskal (in correspondence with author, Dec. 8, 1971). Records are assumed to be Oregon, but no specific localities or dates are given.

8. Correspondence R. H. Foote to C. E. Stegmaier, June 17, 1965.

9. As covered in correspondence with author, Nov. 22, 1971.

10. Correspondence K. Frick to F. L. Blanc, April 9, 1962.

11. M. D. Huettel (personal communication with J. A. Novak) in correspondence with author, Nov. 22, 1971.

12. Correspondence C. E. Stegmaier to G. C. Steyskal, May 16, 1971.

13. Correspondence K. Goeden to F. L. Blanc, June 7, 1967.

14. As covered in correspondence with author, May 12, 1971.

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