

## NEW HOST RECORDS FOR OLETHREUTINAE (TORTRICIDAE)

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**ABSTRACT.** Host records are given for 33 species of Nearctic Olethreutinae in the genera *Epiblema*, *Eucosma*, *Pelochrista*, *Phaneta*, *Cydia*, *Ecdytolopha*, *Ethelgoda*, *Grapholita*, *Satronia*, *Episimus*, *Larisa*, and *Zomaria*.

Host plant records have been published for nearly half of the approximately 800 species of Nearctic Olethreutinae. The following records are given for 33 species represented in the U.S. National Museum of Natural History and the Florida State Collection of Arthropods; specimens in the latter are indicated by FSCA following the entries. Identifications of the Olethreutinae were made by the senior author. Plant identifications have not been confirmed since their original identifications; host information is given as recorded on the label, except the nomenclature has been emended following Kartesz and Kartesz (1980). Family names of hosts are given after the initial listing of the plant genus. The letter (n) represents the number of specimens reared. Dates are given as on the specimen labels and do not imply natural emergence times because of the various rearing conditions.

The publication of host records should be tempered with a precautionary note. The following records do not imply that the listed plant species is the favored host. Some species may be incidental hosts, while others may represent the plant upon which the larva was collected and not necessarily the plant on which the larvae were feeding or the plant upon which the female oviposited. More than one larval collection record from a particular plant provides greater evidence of the preferred host. As some plant species might possibly be misidentified, it is here recommended that voucher specimens of host plants be maintained in a reference collection accompanying the reared insect.

### EUCOSMINI

#### *Epiblema benignata* McDunnough

*Artemisia dracunculus* L. (Asteraceae)—Washington: Whitman Co., Snake River opp. Clarkston, J. F. G. Clarke, gall maker on stem (6n).

*Artemisia vulgaris* L.—same data as *A. dracunculus* (49n). An additional series of 15 specimens has been reared from *A. vulgaris* at Wilma, Whitman Co., by Clarke. However, these individuals did not form galls on the stems. The reared adults are slightly smaller than those from Clarkston, but do not differ in maculation or genitalia.

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*Epiblema sosana* (Kearfott)

*Ambrosia acanthicarpa* Hook. (Asteraceae)—CALIFORNIA: Los Angeles Co., Sierra Madre (1n); Riverside Co., Sunnymead (6n); San Bernardino Co., Cucamonga (5n); R. D. Goeden and D. W. Ricker; AA Lots 69-2A, 69-47A, 69-6B, 69-7B, 68-2B.

*Epiblema scudderiana* (Clemens)

*Heterotheca subaxillaris* (Lam.) Britt. & Rusby (Asteraceae)—FLORIDA: Alachua Co., Gainesville, 22 Aug. 1980, D. H. Habeck, A-2663, FSCA (3n).

*Eucosma agricolana* (Walsingham)

*Artemisia vulgaris* L.—WASHINGTON: Whitman Co., em. 8 May–5 Jun. 1932, J. F. G. Clarke (10n).

*Eucosma bilineana* Kearfott

*Helianthus tuberosus* L. (Asteraceae)—ILLINOIS: Du Page Co., Hinsdale, em. 24 Jan.–24 Feb., Satterthwait (10n).

*Eucosma bolanderana* (Walsingham)

*Machaeranthera canescens* (Pursh) Gray (Asteraceae)—ARIZONA: Pinal Co., Superior, em. 24 Sept. 1937; boring in roots (1n).

*Eucosma mandana* Kearfott

*Solidago* sp. (Asteraceae)—WASHINGTON: Whitman Co., Almota, em. 15 Mar.–16 May, J. F. G. Clarke; boring in roots (9n).

*Eucosma ridingsana* (Robinson)

*Heterotheca villosa* (Pursh) Shinnars (Asteraceae)—WASHINGTON: Whitman Co., Snake River opp. Clarkston, em. 13 Sept., J. F. G. Clarke (1n).

“Greasewood”—COLORADO: El Paso Co., Garden of the Gods; root borer (1n).

*Eucosma totana* Kearfott

*Chrysothamnus nauseosus* (Pall.) Britt. (Asteraceae)—IDAHO: Lincoln Co., 4 mi. NE Richfield, 21 Jul. 1961, W. F. Barr (1n).

*Pelochrista rorana* (Kearfott)

*Helianthus annuus* L. (Asteraceae)—WASHINGTON: Whitman Co., Almota, em. Jan.–May, J. F. G. Clarke, in roots (12n).

*Phaneta amphorana* (Walsingham)

*Grindelia* sp. (Asteraceae)—WASHINGTON: Whatcom Co., Bellingham, em. 19 Oct.–20 Dec. 1932, 1933, J. F. G. Clarke (15n).

*Phaneta argenticostana* (Walsingham)

*Artemisia dracunculus* L.—WASHINGTON: Whitman Co., Snake River opp. Clarkston, em. 13 May 1932, J. F. G. Clarke (4n); Wilma, em. 22 Mar.–5 May 1935, J. F. G. Clarke (3n).

*Phaneta dorsiatomana* (Kearfott)

*Artemisia vulgaris* L.—WASHINGTON: Whitman Co., Snake River opp. Clarkston, em. 31 Jan.–13 Mar. 1933, J. F. G. Clarke (7n); Wilma, em. 18 Feb.–17 Mar. 1934, J. F. G. Clarke (13n).

*Phaneta misturana* (Heinrich)

*Artemisia tridentata* Nutt.—IDAHO: Owyhee Co., 7 mi. S Bruneau, 10 Apr. 1963, O. O. Fillmore, 020-19 (1n); Twin Falls Co., 6 mi. W Rogerson, 11 Apr. 1963, W. F. Barr, 843-01 (3n).

*Atriplex confertifolia* (Torr. & Frem.) S. Wats (Chenopodiaceae)—IDAHO: Cassia Co., 6 mi. NE Malta, 22 May 1962, W. F. Barr, 764-01 (1n).

*Phaneta stramineana* (Walsingham)

*Haplopappus* sp. (Asteraceae)—TEXAS: Cameron Co., Brownsville, May 1945, Lot 45-13040, Brownsville 59044 (3n).

*Haplopappus suffruticosus* (Nutt.) Gray—ARIZONA: Pima Co., 35 mi. S Tucson, em. Oct. 22, 1937, A. Voth and L. P. Wehrle (2n).

## GRAPHOLITINI

*Cydia populana* (Busck)

*Populus tremuloides* Michx. (Salicaceae)—ARIZONA: Kaibab National Forest. 4 Jun. 1965, D. A. Pierce, Hopk. #51106-6 (2n).

*Cydia flavicollis* Walsingham

*Pithecellobium unguis-cati* (L.) Benth. (Fabaceae)—FLORIDA: Sugarloaf Key, 22 Apr. 1945, Lot 45-8793 (1n).

*P. arboreum* (L.) Urb.—PUERTO RICO: Mayaguez, in seeds (2n).

*Cydia garacana* (Kearfott)

*Populus* sp.—ILLINOIS: Cook Co., Chicago, 16 Jun. 1920, E. Beer (1n).

*Cydia ingrata* (Heinrich)

*Fraxinus pennsylvanica* Marsh. (Oleaceae)—NORTH DAKOTA: Bottineau Co., 9 Jun. 1970, M. E. McKnight, Hopk. #54051 (1n).

*Cydia lautiuscula* (Heinrich)

*Salix* sp. (Salicaceae)—WASHINGTON: King Co., Seattle, 25–27 Apr. (6n).

*Ecdytolopha mana* (Kearfott)

*Celtis* sp. (Ulmaceae)—TEXAS: Cameron Co., Brownsville, 20 Apr. 1945, Lot 45-9929, in leaf gall (1n); Travis Co., Austin, 29 Jun., 3 Aug. 1953, J. Riemann, in petiole gall (6n).

*Ethelgoda texanana* (Walsingham)

*Stillingia sylvatica* Garden ex L. (Euphorbiaceae)—FLORIDA: Charlotte Co., 13 Sept. 1949 (1n).

*Stillingia* sp.—FLORIDA: Polk Co., Lake Alfred, 1 Jun.–16 Jul., L. J. Bottimer (3n).

*Euphorbia* sp.—TEXAS: "Monard," 18–20 Jun., L. J. Bottimer, in seed capsules (2n).

*Grapholita conversana* (Walsingham)

*Trifolium douglasii* House (Fabaceae)—IDAHO: Idaho Co., Grangeville, em. 6 Apr., T. R. Chamberlin and L. P. Rockwood (9n).

*Grapholita lana* (Kearfott)

*Lupinus* sp. (Fabaceae)—CALIFORNIA: San Diego Co., Cuyamaca Lake, 27 Apr. 1935, C. Dammers, on leaves (1n).

*Sophora leachiana* M. Peck (Fabaceae)—OREGON: Josephine Co., 6 May 1977, Cheryl Crowder (6n).

*Grapholita lunatana* (Walsingham)

*Lathyrus* sp. (Fabaceae)—OREGON: Washington Co., Forest Grove, July 1924, S. K. Keen (1n); Multnomah Co., Portland, em. 24 Apr.–2 May, S. K. Zimmerman (2n).

*Grapholita packardi* (Zeller)

*Pyracantha* sp. (Rosaceae)—TEXAS: Jefferson Co., Beaumont, 8–15 Jan. (2n).

*Grapholita vitrana* (Walsingham)

*Astragalus* sp. (Fabaceae)—CALIFORNIA: San Diego Co., Otay, 12 Mar. 1948, E. D. Algert (5n).

*Satronia tantilla* Heinrich

*Pinus elliotii* Engelm. (Pinaceae)—FLORIDA: Baker Co., em. 16 Apr., Hopk. #40169, B. H. Ebel, on male flowers (3n).

*Pinus* sp.—ARKANSAS: Johnson Co., "RP," em. 4 Apr. 1967, I. Brown on male flowers (2n).

## OLETHREUTINI

*Episimus tyrius* Heinrich

*Prunus caroliniana* (Mill.) Ait. (Rosaceae)—FLORIDA: Alachua Co., Gainesville, 21 May 1973, em. 11 Jun. 1973, D. H. Habeck (1n); 30 Jul. 1980, em. 16 Aug. 1980 (1n), FSCA.

*Larisa subsolana* Miller

*Carya illinoensis* (Wangenh.) C. Koch (Juglandaceae)—TEXAS: Brown Co., Brownwood, 26 May 1919, A. T. Fabis, Quaintance No. 18829 (1n); Menard Co., Ft. McKavett, em. 26 Jun. 1919, A. T. Fabis, Quaintance No. 188828 (1n).

*Zomaria andromedana* (Barnes and McDunnough)

*Lyonia ferruginea* (Walt.) Nutt. (Ericaceae)—FLORIDA: Marion Co., 11 mi. E Lynne, 17 Sept. 1980, em. 29 Sept.–13 Oct. 1980, D. H. Habeck, A-2684f, FSCA.

*Zomaria interruptolineana* (Fernald)

*Befaria racemosa* Venten. (Ericaceae)—FLORIDA: St. Johns Co., St. Augustine, 17 Jan. 1968, A. E. Graham, FSCA (1n).

- Bumelia lanuginosa* (Michx.) Pers. (Sapotaceae)—FLORIDA: Columbia Co., Ichetucknee Springs St. Pk., em. 12 Jun. 1973, D. H. Habeck, FSCA (1n).
- Leucothoe populifolia* (Lam.) Dipp. (Ericaceae)—FLORIDA: Marion Co., Juniper Springs, 30 Mar. 1979, D. H. Habeck, A-2349a, FSCA (1n).
- Vaccinium arboreum* Marsh.—FLORIDA: Columbia Co., Santa Fe River, 8 mi. S Ft. White, c. 6 Apr. 1974, p. 9 Apr. 1974, em. 15 Apr. 1974, D. H. Habeck, FSCA (2n).
- V. stamineum* L.—FLORIDA: Alachua Co., Gainesville, 30 Apr. 1972, em. 17 May 1972, D. H. Habeck, FSCA (2n).
- Zomaria rosaochreana* (Kearfott)
- Lyonia lucida* (Lam.) C. Koch—FLORIDA: Glades Co., Palmdale, 13 Mar. 1973, D. H. Habeck, FSCA (3n); Alachua Co., Gainesville, 13 Aug. 1972, D. H. Habeck, FSCA (40n).

## LITERATURE CITED

- KARTESZ, J. T. & R. KARTESZ. 1980. A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland. Vol. II. The Biota of North America. Univ. of North Carolina Press, Chapel Hill. xlviii + 498 pp.