

# ANNOTATED LIST OF UTAH TORTRICID MOTHS: A PROVISIONAL COMPILATION

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Microlepidoptera have been relatively neglected in Utah compared to several other western states. During the early part of the descriptive era for western Nearctic micros, 1879-1929, Colorado and California attracted more visitors who collected small moths. California, British Columbia, and Washington had resident microlepidopterists through parts of the 1880s to early 20th century, and there have been greater efforts by visiting collectors in Arizona in recent decades than has been true for Utah.

Tom Spalding was the major pioneer for discovery of Tortricidae in Utah. He collected Lepidoptera beginning about 1900, particularly at Stockton, Tooele Co. and Eureka, Juab Co., where he worked night shifts at the entrance to mines. According to Tanner (1929), Spalding moved to Provo in 1905 and established a collecting cabin at Vineyard, on the sand dunes about five miles northwest of Provo. He collected numerous species of moths at these and other sites, which he sold to collectors in the eastern U. S.

Most of the Tortricidae went to W. D. Kearfott of Montclair, New Jersey, and Wm. Barnes of Decatur, Illinois. Kearfott (1907) described 10 species of Tortricidae collected by Spalding and listed several others in Utah, which he described from Colorado and California. The Barnes collection, which later went to the Smithsonian Institution, was studied by Heinrich (1923, 1926) in his monographs of Olethreutinae and by subsequent tortricid taxonomists. Heinrich described 13 species based on Spalding's specimens and listed numerous others from Utah. In total, 14 species of Lepidoptera were named as patronyms honoring Spalding, including three tortricids.

The first treatment specifically of Utah Microlepidoptera was by Annette Braun, who spent about seven weeks in the vicinity of Logan during the summer of 1924 and recorded 113 species, including many new (Braun 1925). Although she did not describe new Tortricidae, she recorded 40 species, including five from immediately adjacent sites in Idaho. Many were new for Utah. Her collection subsequently went to the Philadelphia Academy of Sciences.

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Another notable contributor to knowledge of Utah microlepidoptera was G. F. Knowlton, an entomologist with the Utah State University Extension Service, who deposited specimens in the Utah State U. and Brigham Young U. collections and sent unprocessed insect specimens to Berkeley during 1956 to 1961. I pinned samples of Tortricidae from his light trap collections, primarily from Ogden and Hooper, Weber Co. and Spanish Fork and Benjamin, Utah Co. At least one species, *Clepsis penetralis* Razowski, was described from that material, which included many other tortricids.

Knowlton and Phillips (1980) compiled a mimeographed list of Utah moths in the Utah State University collection. Gillette et al. (1990, 1996), published a list of Utah Lepidoptera that includes 13 species of Tortricidae, of which 10 were not recorded by Heinrich or Braun. Johnson (2003) summarized Utah records and listed 25 species of Tortricidae. These lists evidently were compiled independent of previous literature, and no collection data are given for individual species.

### Methods

This list is compiled from the above publications and several taxonomic papers cited in the individual species accounts, and from previously unpublished specimen records from several museums. I made 11 brief visits to Utah, between late May and September, 1965 to 2006, several times accompanied by Liz Randal, David Powell, John DeBenedictis, or Felix Sperling. We collected moths on about 35 dates in 14 counties, primarily in the Wasatch Range and in the south, Garfield, Kane, Piute, and Washington counties. My material is deposited in the Essig Museum of Entomology, University of California, Berkeley.

J. J. Kruse and I prepared genitalic dissections necessary for identifications. In general nearly all of my records for Tortricinae, excepting Cochylini, are included, whereas identifications and data from Olethreutinae are less complete. Most of my Cochylini remain unidentified, as is true of this group for most western collections.

I have not captured data systematically from collections that likely contain specimens which would provide unpublished records (e.g., LACM, USNM, and the institutional collections in Utah). However, I include a number of records from specimens in various institutions, based on identifications I have made over the past 40 years. Paul Opler provided records of Tortricidae from the CSU and USNM collections.

I use the nomenclature of Powell (1983) or updated to more recent taxonomic works, but I

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made no attempt to confirm identifications of most published records. In a few instances reports that may be based on misidentifications are so indicated. I have not made a systematic search of the literature, and no doubt there are additional published records. For the most part we are not burdened with the arbitrary nomenclature of subspecies in North American Tortricidae. However, I have included subspecific designations for a few species where the names have been treated at the species level in past literature and/or controversy as to their specific status persists.

Acronyms for institutional collections are as follows:

AMNH - American Museum of Natural History, New York

CAS - California Academy of Sciences, San Francisco

CSU - C. P. Gillette Museum, Colorado State U., Ft. Collins

EME - Essig Museum of Entomology, U. California, Berkeley

LACM - Los Angeles County Museum, Los Angeles

RL - Ron Leuschner, Manhattan Beach, CA

USNM - U.S. National Museum of Natural History, Washington, D.C.

## Results and Discussion

The present list contains 178 species, or 15% of the estimated 1,200 described species of Tortricidae in America north of Mexico. We think about 90% of the species known in collections for several tribes are described, but many species in collections await description, particularly in Eucosmini and Cochylini. Based on the proportional representation of butterflies known in Utah, 156 of the 760 species in America north of Mexico (21%) (Gillette et al. 1996, Miller & Brown 1983), we might expect to find at least 20% of the described Tortricidae (240 species) occurring in the State, in addition to undescribed species. Similarly, Utah has about 60% as many butterflies as California and therefore might be expected to have about 260 species of Tortricidae (i. e., 60% of the 438 tortricid total known in California, Table 1). It seems likely that Utah, with a great diversity of desert, Great Basin, montane, and boreal habitats of Rocky Mountain affinities, is home to 250-300 species of Tortricidae. Hence, this list can be viewed as a work in progress. Both the field collections and assessment of material already in collections lag well behind those of larger Lepidoptera in Utah.

As would be expected, the richness of tortricid species and intensity of inventory effort have

combined to create a disharmonious distribution among the records compiled so far. No tortricid is recorded in 3 of Utah's 29 counties (Carbon, Millard, Morgan) and fewer than 5 species are known in 12 counties. The lists for only 10 counties include 20 or more species and more than 30 species for only 5 (Cache, Garfield, Sanpete, Tooele, and Utah), with more than 40 species known only from Sanpete and Utah Counties. However, there are many additional collection records for species listed from Utah without locality data. For example, Heinrich (1923, 1926) recorded at least 37 species of Olethreutinae for Utah whose type localities are elsewhere, and several species of Tortricinae are listed by State only (Knowlton and Phillips 1980, Gillette et al. 1990, Powell 1964).

## OLETHREUTINAE

### Bactrini

*Bactra furfurana* (Haworth, 1811) TL: England

Cache Co.? (Braun 1925: 198); Utah Co., Weber Co. (EME)

*Bactra verutana* Zeller, 1875 TL: TX

syn: *albipuncta* Heinrich, 1926: 84 TL: CO; paratypes Juab Co., Tooele, Utah Co.

*Bactra maioriana* Heinrich, 1923b: 105 TL: VA

Paratypes Utah Co.; Great Salt Lk., Box Elder Co. (Braun 1925: 198)

### Olethreutini

*Ahmosia galbinea* Heinrich, 1926: 98 TL: Eureka, Juab Co.

Paratypes Utah Co.

*Endothenia hebesana* (Walker, 1863) TL: North America

Grand Co. (EME)

*Endothenia melanosticta* (Walsingham, 1895) TL: CO

UT (Heinrich 1926: 103); Sanpete Co. (EME)

*Endothenia rubipunctana* (Kearfott, 1907) TL: CO

UT (USNM)

*Apotomis removana* (Kft., 1907) TL: PA

Grand, San Juan, Utah Cos. (Adamski & Peters 1986); Sanpete Co. (EME)

*Pseudosciaphila duplex* (Walsingham, 1895) TL: CO

UT (Heinrich 1926: 124); Duchesne, Kane, Piute, Sanpete Summit Co., Utah Co.

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*Orthotaenia undulana* (Denis & Schiff., 1775) TL: Europe

Utah Co. (EME)

*Hedya ochroleucana* (Hbn., 1814) TL: Europe

UT (Heinrich 1926: 163)

*Olethreutes punctanum* (Walsingham, 1879) TL: CA

Cache Co. (Braun 1925: 198)

*Olethreutes glaciana* (Moeschler, 1860) TL: Labrador

Cache Co? (Braun 1925: 198) (as syn. *fuscalbana* Z.)

*Olethreutes* sp. near *valdanum*?

Utah Co. (EME)

*Olethreutes buckellana albidula* Heinrich TL: CA

Sanpete Co. (EME)

*Olethreutes cespitana* (Hübner, 1814) TL: Europe

UT (Heinrich 1926: 179); Weber Co. [+? ID, Utah Co.] (EME)

Eucosmini

*Rhyacionia zozana* (Kft., 1907) TL: CA

Davis Co. (Powell & Miller 1978: 14; possibly sp. near)

*Rhyacionia pallifasciata* Powell TL: AZ

Garfield Co. (EME)

*Petrova burkeana* (Kearfott, 1907) TL:

UT (USNM)

*Spilonota ocellana* (D. & S., 1775)

UT (Knowlton & Phillips 1980, Johnson 2003)

*Phaneta corculana* (Z., 1874) TL: B.C.

Cache Co. (Braun 1925: 198); + ?ID Sanpete Co. (EME)

*Phaneta parmatana* (Clem., 1860) TL: unstated [PA?]

Weber Co. (Miller 1983: 100); [+ ?ID, Garfield Co., Rich Co.] (EME)

*Phaneta columbiana* (Walsingham, 1879) TL: OR

Utah Co. (Heinrich 1923: 44)

*Phaneta mormonensis* (Heinrich, 1923: 44) TL: Salt Lake Co., Salt Lake City

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- Phaneta elongana* (Wlsm., 1879) TL: OR  
Cache Co. (Braun 1925: 198)
- Phaneta cinerolineana* (Heinrich, 1923: 52) TL: Juab Co., Eureka
- Phaneta indagitricana* (Heinrich, 1923: 56) TL: Utah Co.,  
Provo; Juab Co. paratype; Garfield, Rich, Weber Co. (EME)
- Phaneta tenuiana* (Walsingham, 1879) TL: CA  
?ID Garfield Co. (EME)
- Phaneta misturana* (Heinrich, 1923) TL: Saskatchewan  
Cache Co. (Braun 1925: 198); [+ ?ID, Rich Co.] (EME)
- Phaneta parvana* (Wlsm., 1879)  
?ID Garfield, Rich Co. (EME)
- Phaneta striatana* (Clemens, 1860) TL: MD  
UT (Heinrich 1923: 58)
- Phaneta delphinoides* (Heinrich, 1923: 59) TL: Juab Co., Eureka
- Phaneta pallidarcis* (Heinrich, 1923) TL: CA  
Franklin, IDA (Braun 1925: 199); Garfield, Grand Co. (EME); [+ ?ID, Weber Co.]  
(EME)
- Phaneta salmicolorana* (Heinrich, 1923: 62) TL: Tooele Co., Stockton  
Juab, Wasatch Co. paratypes; Duchesne, Piute, Summit Co. (EME)
- Phaneta artemisiana* (Wlsm., 1879) TL: CA  
?ID: Duchesne, Piute, Summit Co. (EME); + ?ID Garfield Co. (EME)
- Phaneta infimbriana* (Dyar) TL:  
Sanpete Co. (EME)
- Phaneta octopunctana* (Walsingham, 1895) TL: CO  
UT (Heinrich 1923: 64)
- Phaneta setonana* (McDunnough) TL: B.C.  
Piute Co. (EME)
- Phaneta benjamini* (Heinrich, 1923: 66) TL: Utah Co., Vineyard
- Phaneta griseocapitana* (Walsingham, 1879) TL: CA  
UT (Heinrich 1923: 66)
- Phaneta nepotiana* Heinrich, 1923: 263 TL: Juab Co., Eureka  
paratype Tooele Co.

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- Phaneta offectalis* (Hulst, 1886) TL: CO  
UT (Heinrich 1923: 71)
- Eucosma crambitana* (Walsingham, 1879) TL: CA  
UT (Heinrich 1923: 81)
- Eucosma aurilineana* Ferris, 2004 TL: WY  
Uintah Co. paratype
- Eucosma canariana* Kft., 1907: 18) TL: Tooele Co., Stockton  
Tooele Co. (EME)
- Eucosma ridingsana* (Rob., 1869) TL: CO  
UT (Heinrich 1923: 82); Garfield Co. (EME)
- Eucosma fernaldana* (Grote, 1880) TL: CO  
UT (Heinrich 1923: 82); Garfield Co. (EME)
- Eucosma caniceps* (Walsingham, 1884) TL: MT  
UT (Heinrich 1923: 83)
- Eucosma spaldingana* Kft., 1907: 19 TL: Tooele Co., Stockton.
- Eucosma gilletteana* Dyar, 1903 TL: AZ  
UT (Heinrich 1923: 85); San Juan Co. (CSU)
- Eucosma optimana* Dyar, 1893 TL: CO  
UT (Heinrich 1923: 85)
- Eucosma agassizii* (Rob., 1869) TL: TX  
UT (Heinrich 1923: 85)
- Eucosma bolanderana* (Walsingham, 1879) TL: CA  
UT (Heinrich 1923: 86); Tooele Co. (EME)
- Eucosma morrisoni* (Walsingham, 1884) TL: MT  
UT (Heinrich 1923: 90); Beaver, Duchesne, Garfield Co., Kane Co. (EME)
- Eucosma agricolana* (Walsingham, 1879) TL: CA  
UT (Heinrich 1923: 91); Cache Co. (Braun 1925: 199); UT (Heinrich 1923: 89);  
Cache Co. (Braun 1925: 199) [as *argentialbana* Walsingham; synonymy by Miller  
1974]; Garfield, Kane, Rich, Wayne Co. (EME)
- Eucosma costastrigulana* Kft., 1907: 171. TL: CA  
UT (Heinrich 1923: 92); Garfield Co. (EME)
- Eucosma comatulana* (Zeller, 1875) TL: TX

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- UT (Heinrich 1923); [+ ?ID, Emery Co., Utah Co., Wayne Co., Weber Co.] (EME)  
Eucosma atomosana (Wlsm., 1879)  
    ?ID Garfield Co. (EME)  
Eucosma perdricana (Walsingham, 1879) TL: CA  
    syn: *kandana* Kft., 1907: 20 TL: Stockton, Tooele Co.  
Eucosma consociana Heinrich, 1923: 101 TL: Juab Co., Eureka  
Eucosma irroratana (Walsingham, 1879) TL: CA  
    Garfield Co. (EME)  
Eucosma subflavana (Walsingham, 1879) TL: OR  
    Cache Co. (Braun 1925: 199)  
Eucosma handana Kearfott., 1907 TL: Tooele Co., Stockton  
Eucosma maculatana (Walsingham, 1879) TL: CA  
    Cache Co. (Braun 1925: 199); [+ ?ID \_ Sanpete Co. (EME)]  
Eucosma sepulchrana Meyrick, 1927 TL: "Dividend" UT  
Eucosma immaculatana Kearfott, 1907 TL:  
    Tooele Co. (EME)  
Eucosma bobana Kft., 1907: 26 TL: CO  
    UT (Heinrich 1923: 104); Cache Co. (Braun 1925: 200);  
    Juab, Kane, Sanpete, Sevier, Tooele, Utah, Weber Co. (Powell 1968); Piute Co.  
    (EME).  
Eucosma siskiyouana (Kearfott, 1907) TL: CA  
    UT (Johnson 2003)  
Eucosma lolana Kft., 1907: 29 TL: CO  
    Juab Co. (Heinrich 1923: 105); Cache Co. (Braun 1925: 200)  
Eucosma emaciatana (Walsingham, 1884) TL: AZ  
    Juab Co., Utah Co. (Heinrich 1923: 108)  
Eucosma totana Kft., 1907: 32 TL: South Utah  
    Stockton, Tooele Co., paratype  
Eucosma matutina (Grote, 1873) TL:  
    Emery Co. (CSU)  
Eucosma larana (Walsingham, 1879) TL: CA  
    Utah Co. (Heinrich 1923); Juab Co. (Wright, 2005); [+ ?ID Garfield, Sanpete Co.



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(EME]

*Eucosma* sp. (rust FW) genitalia similar to *larana*

Sanpete Co. (EME)

*Eucosma piperata* Wright, 2005 TL: Vineyard, Utah Co.

Juab Co., Sevier Co. paratypes

*Eucosma taosana* Wright, 2005 TL: NM

Tooele Co. paratypes

*Eucosma bilineana* Kft., 1907 TL: IL

UT (Heinrich 1923: 115)

*Eucosma mediodstriata* (Walsingham, 1895) TL: CO

UT (Heinrich 1923: 116)

*Eucosma nuntia* Heinrich, 1929: 11 TL: Callao, Juab Co.

Garfield C. (EME)

*Eucosma suadana* Heinrich, 1923: 130 TL: Utah Co., Vineyard

*Eucosma conspiciendana* Heinrich, 1923: 135. TL: Tooele Co., Stockton

Garfield Co., Grand Co., Juab Co., Summit, Weber Co. (EME)

*Pelochrista idahoana* (Kearfott, 1907 TL: ID

Garfield, Grand Co. (EME)

*Pelochrista popana* Kft., 1907: 31 TL: Tooele Co., Stockton

Utah Co. (Heinrich 1923: 109); Uintah Co. (Wright 2005); Deschutes, Piute Co.  
(EME)

*Pelochrista powelli* Wright, 2005 TL: ID

Daggett Co., Garfield Co., Juab Co. paratypes

*Pelochrista occipitana* of Heinrich, 1923, not (Zeller, 1875) TL: TX

?ID Summit Co. (EME)

*Pelochrista corosana* (Walsingham, 1884) TL: MT

UT (Heinrich 1923: 127); Utah Co. (EME); Weber Co. (Wright 2005)

*Pelochrista expolitana* Heinrich, 1923: 132 TL: Utah Co., Provo.

Sanpete Co., Washington Co. (EME)

*Pelochrista rorana* Kft., 1907: 31. TL: Tooele Co., Stockton

Utah Co. (Heinrich 1923: 132); + ?ID: Kane, Piute Co. (EME)

*Epiblema strenuana* (Wlk., 1863) TL: N.A.

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- UT (Heinrich 1923: 140)
- Epiblema sosana* (Kft., 1907: 32) TL: Tooele Co., Stockton  
Emery, Uintah Co. [source?]
- Notocelia culminana* (Walsingham, 1879) TL: CA  
UT (Heinrich 1923; Utah Co. (EME))
- Suleima baracana* (Kft., 1907: 43) TL: Tooele Co., Stockton
- Suleima daracana* (Kearfott, 1907) TL: CA  
Rich Co. (EME)
- Sonia vovana* (Kft., 1907: 33) TL: Tooele Co., Stockton  
Garfield Co., Tooele Co. (EME)
- Proteotera arizonae* Kearfott, 1907 TL: AZ  
Juab Co. (Powell 1962: 191); Rich, Tooele, Weber Co. (EME)
- Zeiraphera canadensis* Mut. & Freeman, 1967 TL: Canada: Que.  
?ID: Kane, Sanpete Co. (EME)
- Zeiraphera pacifica* Mut. & Free, TL:  
[?ID: Cache Co., Kane, , Utah Co.(EME)]
- Epinotia albicapitana* (Kft., 1907: 47) TL: CA  
UT (Heinrich 1923: 206)
- Epinotia castaneana* (Walsingham, 1895) TL: CO  
Kane Co., Sanpete Co. (EME); Tooele Co. (Brown 1980: 226)
- Epinotia cercocarpana* (Dyar, 1903) TL:  
Tooele Co. (EME)
- Epinotia columbia* (Kearfott, 1904) TL: B.C.  
Cache Co., Utah Co. (Brown 1980: 163)
- Epinotia marmoreana* Heinrich, 1923: 222 TL: Tooele Co., Stockton  
paratype Utah Co.; Duchesne, Piute, Sanpete Co. (EME)
- Epinotia medioplagata* (Walsingham, 1895) TL: CO  
Sanpete, Summit Co. (EME); UT, Rockwell
- Epinotia meritana* Heinrich, 1923: 226 TL: Carbon Co.  
Kane Co., Sanpete Co. (EME)
- Epinotia criddleana* (Kearfott) TL: Manitoba  
Duchesne, Sanpete Co. (EME)

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- Epinotia pulsatillana* (Dyar, 1903) TL: CO  
Cache Co. (Brown 1980: 138) [reared by Braun but not recorded by Braun 1925]  
Sanpete C. (EME)
- Epinotia solandriana* (L., 1758) TL: Europe  
Sanpete Co. (EME); Tooele, Uintah Co. (Brown 1980: 175)
- Epinotia trossulana* (Walsingham, 1879) TL: CA  
Sanpete Co., Utah Co. (EME)
- Epinotia* n. sp. (Rhyacionia-like FW pattern)  
Kane Co. (EME)
- Ancylis comptana* (Frölich, 1828) TL: Europe  
UT: Knowlton & Phillips (1980), Johnson 2003)
- Ancylis* sp. unplaced (not *comptana*)  
Utah Co., Weber Co. (EME)
- Hystricophora stygiana* (Dyar, 1903) TL: AZ  
UT (Heinrich 1923: 256); + [?ID Beaver, Piute, Salt Lake Co. (EME)]
- Hystricophora asphodelana* (Kearfott, 1907: 42) TL: AB  
UT Heinrich 1923: 258)
- Hystricophora ochreicostana* (Wlsm., 1884) TL: MT  
UT Heinrich 1923

Grapholitini

- Dichrorampha capitana* (Busck, 1906) TL: CO  
UT (Heinrich 1926: 11)
- Dichrorampha radicolana* Wlsm., 1879 TL:  
?ID: Duchesne, Sanpete Co. (EME)
- Ofatulena duodecemstriata* (Walsingham, 1884) TL: AZ  
UT (Heinrich 1926: 40)
- Cydia colorana* Kearfott, 1907 TL: CO  
UT, Johnson (2003) from Leuschner
- Cydia populana* (Busck, 1916) TL: MT  
Piute, Sanpete, Summit Co. (EME)
- Cydia prosperana* (Kft. 1907b) TL: CA

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- UT (Heinrich 1926: 57); Wasatch Co. (EME)  
*Cydia latiferreana* (Walsingham, 1879) TL: CA  
UT (Heinrich 1926: 68); Piute, Sanpete Co. (EME)  
*Cydia pomonella* (L., 1758) TL: Europe  
UT (Heinrich 1926: 71); Grand, San Juan, Washington Cos. (EME)

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Tortricini

- Acleris hastiana* (L., 1758) TL: Europe  
Utah Co. (EME)  
*Acleris nivisellana* (Walsingham, 1879) TL: CA  
Cache Co. (Braun 1925: 202)  
*Acleris gloverana* (Walsingham, 1879) TL: CA  
UT (USNM)  
*Acleris maximana* (B. & Bsk., 1920) TL: B.C.  
Cache Co. (Obraztsov 1963a)  
*Acleris nigrolinea* (Robinson, 1869) TL: Canada  
UT: (Johnson 2003 from RHL) [probably refers to *A. disputabilis* Obraztsov]  
*Acleris foliana* (Walsingham, 1879) TL: CA  
Cache Co. (Braun 1925: 202); Sanpete Co. (RL, EME); Juab, Piute, Summit, Utah  
Co. (EME)  
*Croesia albicomana* (Clem., 1865) TL: VA  
Duchesne, Kane, Summit, Utah Co. (EME)

Euliini

- Anopina internacionana* Brown & Powell, 2000) TL: MEX, Durango  
Utah Co., Wasatch Co. (paratypes); + [?ID Piute Co., EME]  
*Anopina silvertonana* Obraztsov, 1962 TL: CO  
San Juan Co. (Obraztsov 1962a); Beaver, Salt Lake, San  
Juan, Sanpete, Uintah counties (Brown & Powell 2000)  
*Dorithia semicircularana* (Fern., 1882) TL: CO  
San Juan, Sanpete, Tooele, Utah, Wasatch counties (Brown & Powell 1991); Juab,

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Piute Co. (EME)

Cnephasiini

*Decodes basiplaganus* (Walsingham, 1879) TL: TX

Utah Co. (Powell 1980: 83)

*Decodes fragarianus* (Busck, 1919) TL: B.C.

Utah Co. (Obraztsov & Powell 1961: 116)

*Decodes horarianus* complex

UT (USNM)

*Eana argentana* (Clerck, 1759) TL: Europe

Cache Co. (Braun 1925: 201); Knowlton & Phillips (1980)

[this could refer to *E. geogiella*, which was not recognized as a valid species at the time]

*Eana georgiella* (Hlst., 1887) TL: CO

Duchesne, Emery, Kane, San Juan, Sanpete, Sevier, Tooele, Utah, Wasatch counties (Obraztsov 1963b); Garfield, Piute, Utah, Weber counties (EME)

Archipini

*Pandemis pyrusana* Kft., 1907 TL: CA

UT (Powell 1964): 247; Beaver, Duchene, Piute, Summit, Tooele Co. (EME)

*Argyrotaenia burnorum* Powell, 1960 TL: TX

San Juan Co. (CSU, EME)

*Argyrotaenia coloradana* (Fernald, 1882) TL: CO

Duchesne, Garfield, Iron, Juab, Kane, Piute, San Juan, Sanpete, Summit, Utah counties (EME)

*Argyrotaenia spaldingiana* Obraztsov, 1961: 20 TL: Stockton, Tooele Co.

*Argyrotaenia dorsalana* (Dyar 1903) TL: AZ

Duchesne, Kane Co., Piute, Sanpete, Summit Co., Tooele, Utah Co. (EME); Knowlton & Rockwell (1980)

*Argyrotaenia paiuteana* Powell, 1960 TL: CA

Juab Co. paratype

*Argyrotaenia burroughsi* Obraztsov, 1961 TL: CO

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Piute, Sanpete Co. (EME)

*Argyrotaenia provana* (Kearfott, 1907) TL: B.C.

UT (Powell 1964); Duchesne, Garfield, Kane, Sanpete, Summit counties (EME)

*Diedra intermontana* Rubinoff & Powell, 1999 TL: NV

[=*Argyrotaenia cockerellana*; of authors, not Kearfott., 1907, TL: CO]

UT (Powell 1964); Iron, Juab, Kane, Sanpete, Tooele counties, paratypes; Piute Co. (EME)

*Archips argyrospilus* (Walker, 1863) TL: GA

Cache Co. (Braun 1925: 201); Knowlton & Phillips 1980. [The name *vivdanus* (Dyar, 1902) (TL CO) may be applicable. See Powell & De Benedictis (1995) for discussion of the status of names in western members of the complex.]

*Archips griseus* (Robinson, 1869) TL: [?ID]

UT (Johnson 2003, from Knowlton & Phillips 1980)

*Archips cerasivoranus* (Fitch, 1856) TL: NY

Cache Co. (Braun 1925, EME); Piute Co. (EME)

*Archips negundanus* (Dyar, 1902) TL:

Cache, Piute, Utah, Weber Cos. (EME); UT (Knowlton & Phillips 1980)

*Archips alberta* (McDunnough, 1923) TL: Canada, AB

UT (USNM)

*Choristoneura conflictana* (Walker, 1863) TL: CANADA

UT (Powell 1964: 135); Beaver, Grand, Kane, Piute, Summit, Sanpete, Utah Co. (EME)

*Choristoneura rosaceana* (Harris, 1841) TL: MA

Utah Co. (EME); UT (Knowlton & Phillips 1980); Sanpete Co. (EME)

*Choristoneura zapulata* (Robinson, 1869) TL:

Utah Co. (Powell 1964: 166)

*Choristoneura occidentalis* Freeman, 1967 TL: WA

Cache Co. (Braun 1925: 201, as *fumiferana*); Kane Co., Utah Co. (De Benedictis 1995); Beaver, Duchesne, Piute, Sanpete Co. (EME); Rockwell

*Choristoneura lambertiana* (Busck, 1915) TL: OR

Kane Co. (De Benedictis 1995); Duchesne, Piute, Sanpete Wayne (EME); Rockwell

*Choristoneura retiniana spaldingiana* Obraztsov, 1962: 6 TL: Provo, Utah Co.

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- Kane Co. (De Benedictis 1995: 134); Sanpete, Piute Co. (EME)
- Cudonigera houstonana (Grote) TL: TX  
San Juan Co. (CSU), Sanpete Co. (EME)
- Clepsia peritana (Clemens, 1860) TL: not specified  
Cache Co. (Braun 1925: 201); Grand, Tooele, Washington Co. (EME)
- Clepsia penetralis Razowski, 1979: 121 TL: Cache Co., Logan  
Duchesne, Garfield, Tooele, Uintah, Weber Cos. (EME)
- Clepsia virescana (Clem., 1865) TL: not specified  
UT (Powell 1964: 233); Garfield, Kane, Piute, Sanpete, Utah Co. (EME); Iron Co. (EME; LACM)
- Clepsia persicana forbesi Obraztsov, 1962 TL: B.C.  
Duchesne Co., Sanpete Co., Tooele Co. (Obraztsov, 1962b: 25); Duchesne, Sanpete, Summit, Utah Co. (EME)
- Clepsia clemensiana (Fern., 1879) TL:  
UT (Powell 1964: 239); Weber Co. (EME)
- Xenotemna pallorana (Rob., 1869) TL: PA  
Utah Co., Weber Co. (EME)

Sparganothidini

- Sparganothis distincta (Walsingham, 1884) TL:  
Cache Co. (Braun 1925: 201)
- Sparganothis senecionana (Walsingham, 1879) TL: CA  
Tooele Co.(AMNH; EME), Utah Co. (AMNH); Garfield, Juab, Kane Cos.(EME)
- Sparganothis tunicana (Walsingham, 1879) TL: CA  
Bear Lk., IDA (Braun 1925: 201, as *californiana* Walsingham)
- Sparganothis directana (Walker)  
Summit Co. (EME)
- Platynota labiosana (Z., 1875) TL:  
Washington Co. (EME)
- Platynota nigrocervina (Walsingham, 1895) TL:  
Cache Co. (Braun)
- Synnoma lynosyrana Walsingham, 1879 TL: CA

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Emery Co. (EME)

Cochylini

*Aethes* ?*deutchiana* (Zett., 1840) TL: Europe

Cache Co. (Braun 1925: 202) [the ID was doubted by Braun but may be correct according to present concepts]

*Recavicula hospes* (Walsingham, 1884) TL: NC

UT (USNM); Utah Co., Weber Co. (EME)

“*Cochylis*” *angulatana* (Rob., 1869) TL:

Cache Co. (Braun 1925: 202)

“*Cochylis*” *grandis* (Busck, 1907) TL:

UT (USNM)

*Eugnosta mexicana* (Busck, 1907) TL:

UT (USNM); Sanpete, Summit Co. (EME)

*Henricus infernalis* (Heinrich) TL: NM

Sanpete Co. (EME)

*Saphenista campicolana* (Walsingham, 1879) TL:

Cache Co. (Braun 1925: 202); Sanpete, Summit Co. (EME)

*Phtheochroa aureoalbida* (Walsingham, 1895) TL:

Cache Co. (Braun 1925: 202); Garfield, Sanpete Co. (EME)

*Phtheochroa aegrana* (Walsingham) TL: CA

?ID: Summit, Utah Co. (EME)



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NUMBERS OF TORTRICIDAE RECORDED IN CALIFORNIA AND UTAH

	<u>CALIF</u>	<u>UTAH</u>
OLETHREUTINAE:		
BACTRINI	5	3
OLETHREUTINI	23	13
EUCOSMINI	234 (53%)	96 (54%)
GRAPHOLITINI	40	8
ST	302	120
TORTRICINAE:		
TORTRICINI	21	7
CNEPHASINI	16	5
EULIINI	3	3
ARCHIPINI	42 (10%)	27 (15%)
SPARGANOTHINI	14	7
COCHYLINI	38	9
ST	134 (31%)	58 (33%)
Total	436	178
Minimum projected total (60% of 436):		262