Angella Moorehouse & Illinois Nature Preserve Commission

Photos: Angella Moorehouse (angella.moorehouse@illinois.gov). Produced by: Angella Moorehouse with the assistance of Alicia Diaz, Field Museum. Identification assistance provided by: multiple sources (inaturalist.org; bugguide.net)

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About the BEGINNER'S MOTHS OF THE MIDWEST GUIDES

Most photos were taken in west-central and central Illinois; a few are from eastern Iowa and north-central Wisconsin. Nearly all were posted to identification websites: BugGuide.net and iNaturalist.org. Identification help was provided by Aaron Hunt, Steve Nanz, John and Jane Balaban, Chris Grinter, Frank Hitchell, Jason Dombroskie, William H. Taft, Jim Wiker, and Terry Harrison as well as others contributing to the websites. Attempts were made to obtain expert verifications for all photos to the field identification level, however, there will be errors. Please contact the author with all corrections. Additional assistance was provided by longtime Lepidoptera survey partner, Susan Hargrove.

The intention of these guides is to provide the means to compare photographs of living specimens of related moths from the Midwest to aid the citizen scientists with identification in the field for Bio Blitz, Moth-ers Day, and other night lighting events. A taxonomic list to all the species featured is provided at the end along with some field identification tips.

WEBSITES PROVIDING IDENTIFICATION INFORMATION

BugGuide.net iNaturalist.org Mothphotographersgroup.msstate.edu Insectsofiowa.org centralillinoisinsects.org/weblog/resources/

WHICH MOTH GUIDE TO USE

The moths were split into 6 groups for the purposes of creating smaller guides focusing on similar features of 1 or more superfamilies. The guides are split up thusly:

1) Macromoths – large showy moths generally ranging in size of 5-18cm; Superfamilies; Bombycoidea (royal, silkmoths, and sphinx moths), Cossoides (carpenterworm), Lasiocampoidea (lappet moths)



Antheraea polyphemus Polyphemus moth



Prionoxystus robiniae Carpenterworm moth



Darapsa myron Virginia Creeper Sphinx

2) Micromoths – tiny moths with wingspans generally <2cm the exception being the clearwing borers (Sesioidae) which average between 1-3cm; Other Superfamilies: Adeloidea (fairy moths), Choreutidae (metalmarks), Epermenioides (fringe-tufted moths), Gelechioidea (curve-horned moths – has greatest number of species), Gracillarioidea (tube moths), Micropterigoidea (mandibulate archaic moths), Schreckensteiniodea (bristle-legged moths), Tineoidea (clothes, carpenter, and bagworm moths), Yponomatoidea (ermine moths)



Dichomeris inversella Inverse Dichomeris



Caloptilia blandella Walnut Caloptilia



Synanthedon acerni Maple Callus Borer



Atteva aurea Alianthus webworm

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WHICH MOTH GUIDE TO USE (Cont.)

3) Geometer Moths (Geometroidea) – medium sized with wingspan 3-5 cm, most have angular sharp-pointed wings held open like butterflies; most larvae are "inchworms"



Macaria multilineata Many-lined Angle



Pleuroprucha insulsaria Tan Wave



Haematopis grataria Chickweed Geometer

Noctuoids/Owlets (Noctuodea) – most species of any moth superfamily, medium sized with wingspan generally 2-5cm, triangular shape with stout bodies; most are nocturnal but includes some daytime pollinators; lichen, tiger, fungus, underwing, forage looper, litter, bird-dropping, dagger, wood nymph, groundling, dark owlet, earworm, flower, borer, cutworm, dart, quaker, wainscot, sallow, looper, and prominent moths



Catocala nuptialis Married Underwing



Acronicta vinnula Delightful Dagger



Hypena abalienalis White-lined Hypena

Pyralids and Crambid Moths (Pyraloidea) snout moths – large group of small moths with wingspan of 1-4 cm, head bears long upturned labial palpi or snout; Guide also includes the Superfamilies: Drepanoidea (hooktip moths), Pterophoroidea (plume moths), Thryidoidea (thyris moths)



Herptogramma aeglaelis Serpentine Webworm



Chrysoteuchia topiaria Cranberry Girdler



Geina sp. Plume Moth



Dysodia oculatana Eyed Dysodia

Tortricid Moths (Tortricoidae) – tortrix and leafroller moths – large group of small moths (often grouped with micromoths) with wingspan 1-3 cm. Most are drab with mottled and marbled brown coloration. Some (Olethreutinae) have larvae which bore into plant stems, roots, buds, or seeds; Tortricinae larvae construct leaf rolls; Guide also includes the Superfamily: Zygaenoidea (slug, hag, skiff, skeletonizer moths)



Epiblema abruptana Abrupt Epiblema



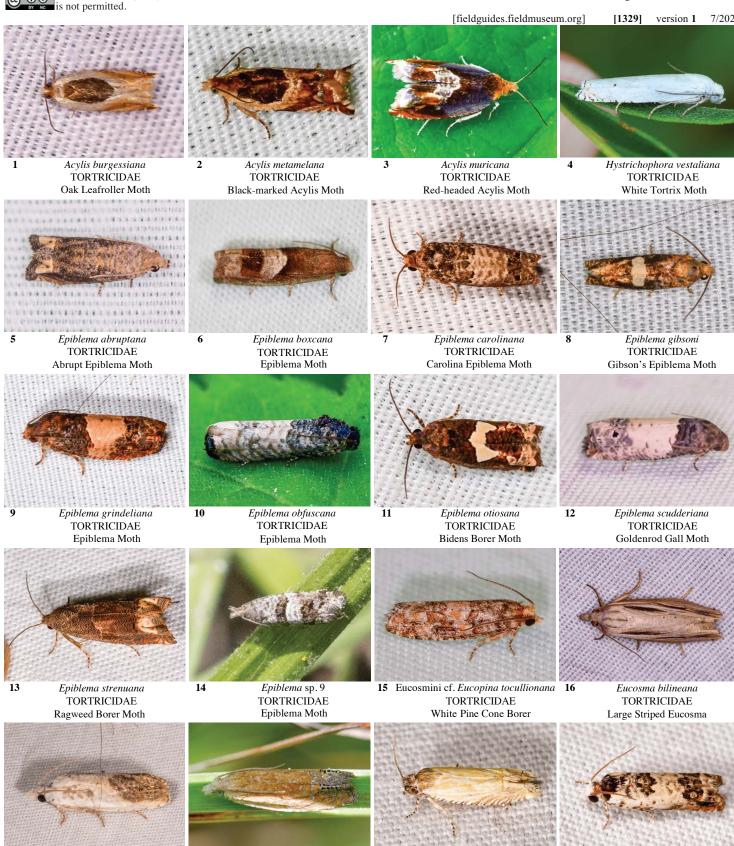
Choristoneura roseaceana Oblique-banded Leafroller



Apoda y-inversum Yellow-collared Slug Moth

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Eucosma giganteana TORTRICIDAE Giant Eucosma Moth

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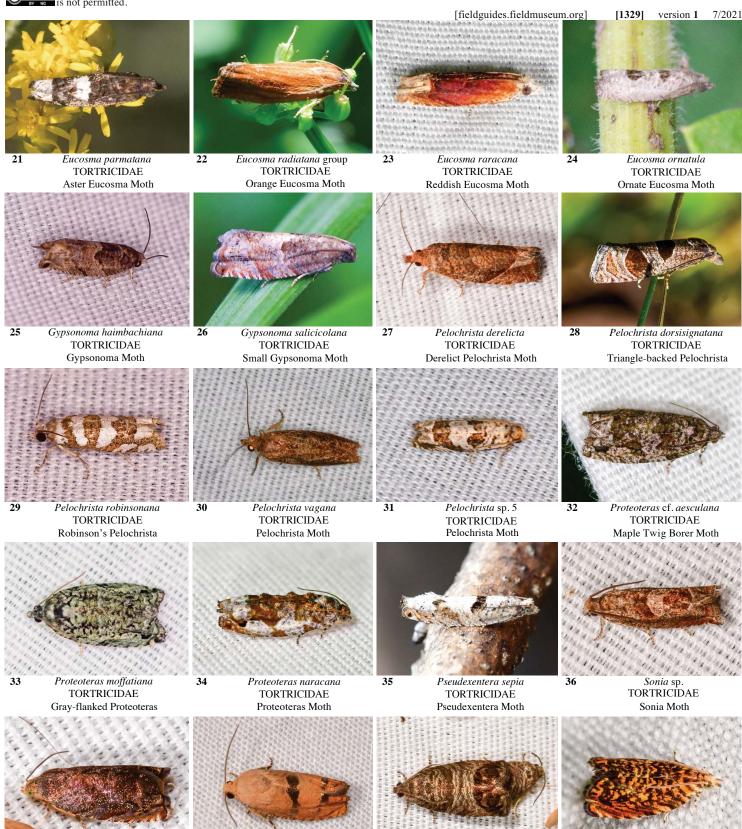
Eucosma glomerana TORTRICIDAE Eucosma Moth

19 Eucosma grindeliana TORTRICIDAE Eucosma Moth

Eucosma ornatula TORTRICIDAE Eucosma Moth

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Cydia caryana TORTRICIDAE Hickory Shuckworm Moth

Cydia latiferreana TORTRICIDAE Filbertworm Moth

Cydia pomonella TORTRICIDAE Codling Moth

Dichrorampha leopardana TORTRICIDAE Leopard Dichrorampha

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Archips argyrospila TORTRICIDAE Fruit Tree Leafroller Moth

Archips grisea TORTRICIDAE Gray Archips Moth

59 Archips purpurana TORTRICIDAE Omnivorous Leafroller

Archips semiferana TORTRICIDAE Oak Leafroller Moth

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Cochylichroa sp. 2 TORTRICIDAE Cochlid Moth

78 Phalonidia sp. TORTRICIDAE Rose-headed Tortrix

Rudenia leguminana TORTRICIDAE Black-tipped Rudenia

Coelostathma discopunctana TORTRICIDAE The Batman Moth

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TAXONOMIC LIST OF MOTHS INCLUDED IN FIELD GUIDE

This list attempts to depict the organization of the photos by taxonomic grouping. While all moths in the photos have assigned superfamilies and families not all of those are classified to subfamily, tribe or subtribe. Where these classifications are available, they were used to organize the photos. Taxonomic classification was obtained from i-Naturalist and BugGuide.

SUPERFAMILY: Tortricoidea FAMILY: Tortricidae

> SUBFAMILY: Olethreutinae TRIBE: Enarmoniini

- 1 Ancylis burgessiana Oak Leafroller: dark chocolate medial spot with white sides and rusty-orange posterior
- 2 Ancylis metamelana Black-marked Ancylis: very similar to A. burgessiana
- 3 Ancylis muricana Red-headed Ancylis: reddish-orange head with gray medially follow by white and brown posterior markings
- 4 Hystrichophora vestaliana White Tortrix Moth: all white with dark flecks on posterior end

TRIBE: Eucosmini Epiblema, Eucosma, and Pelochrista have a large number of species with variable coloration; Many of the Epiblema have a white central spot with brown or gray coloration;

- 5 Epiblema abruptana Abrupt Epiblema: overall warm brown with cream-peach wedge-shaped marks on the tips of the forewing; similar to E. strenuana but paler brown
- 6 Epiblema boxcana Epiblema Moth: reddish brown with whitish patches medially and towards the posterior end of the forewings
- 7 Epiblema carolinana Gray-blotched Epiblema: gray to grayish-brown with central pale mark speckled with light brown
- 8 Epiblema gibsoni Epiblema Moth: gravish-brown with distinct white medial slash across back
- 9 Epiblema glenni Glenn's Epiblema: gray to grayish-brown with larger medial band across middle of body
- 10 Epiblema obfuscana Epiblema Moth: flecked gravish anterior blending to a pale whitish towards the middle and posterior end
- 11 Epiblema otiosana Bidens Borer Moth: dark grayish-brown with a white notched medial mark on the center of the back
- 12 Epiblema scudderiana Goldenrod Gall Moth: dark blackish-gray head, white middle, and pale gray posterior
- 13 Epiblema strenuana Ragweed Borer Moth: overall warm brown with cream-peach wedge-shaped marks on the tips of the forewing; similar to E. abruptana but richer brown color
- 14 Epiblema sp. 9 Epiblema Moth
- 15 Eucopina tocullionana White Pinecone Borer: mottled horizontal bands of rust, peach, and white coloration
- 16 Eucosma bilineana Large Striped Eucosma: beige coloration with dark brown vertical streaks along the outer edges of the forewings
- 17 Eucosma giganteana Giant Eucosma: large, white with gray flecking on anterior and extending along sides; dark gray to brown central posterior; similar in appearance to bird-dropping moths (Owlet – genus Ponometia)
- 18 Eucosma glomerana Eucosma Moth: orange to pale brown coloration with thin silver-gray bands and markings at posterior end of forewing
- 19 Eucosma grindeliana Eucosma Moth: pale buffy yellow-tan coloration with darker head; leading edges of forewing white with dark brown diagonal striping
- 20 Eucosma ornatula Eucosma Moth: overall creamy white with mottled dark brown spots on thorax and down center of back
- 21 Eucosma parmatana Aster Eucosma: dark grayish-brown with large white medial spot and white at the posterior end of the forewings
- 22 Eucosma radiatana group Orange Eucosma: beige with vertical streaking of deep burnt orange; posterior end often dark rusty-brown
- 23 Eucosma raracana Reddish Eucosma: white head and posterior end with dark reddish to gray central coloration
- 24 Eucosma tomonana Aster-headed Eucosma: pale gray with two medial spots of dark chocolate brown
- 25 Gypsonoma haimbachiana Cottonwood Twig Borer: overall pale gray to white to brownish with darker anterior and pale posterior
- 26 Gypsonoma salicicolana Small Gypsonoma: warm orangish to brown often with darker rusty anterior and paler markings on posterior
- 27 Pelochrista derelicta Derelict Pelochrista: overall rusty brown coloration with darker diffuse mottled horizontal bands across
- 28 Pelochrista dorsisignatana Triangle-backed Pelochrista: light brown to gray coloration with medium brown central spot and triangular patches on each side posterioly
- 29 Pelochrista robinsonana Robinson's Pelochrista: horizontally banded with evenly sized white and medium brown
- 30 Pelochrista vagana Pelochrista Moth: rather indistinct orangish-brown coloration
- 31 Pelochrista sp. 5 Pelochrista Moth
- 32 Proteoteras aesculana Maple Twig Borer: mottled gray and olive with bumpy tufts along back ridge
- 33 Proteoteras moffatiana Gray-flanked Proteoterus: grayish-olive to green coloration with black spotting
- 34 Proteoteras naracana Proteoterus Moth: rusty olive coloration with white on sides and posterior
- 35 Pseudexentera sepia Pseudexentera Moth: pale brownish-gray often with dark brown central band followed by speckled white
- 36 Sonia sp. Sonia Moth: generally rusty brown overall coloration with pale medial band and posterior; difficult to identify to species without dissection

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Midwest Region, USA Beginner's Guide to Moths of the Midwest - Tortricids

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TAXONOMIC LIST OF TORTRICIDS MOTHS INCLUDED IN FIELD GUIDE (Cont.

TRIBE: Grapholitini

- 37 Cydia caryana <u>Hickory Shuckworm:</u> dark rosy to black-brown somewhat metallic coloration; may have paler vellowish-brown head
- 38 Cydia latiferreana Filbertworm Moth: peach-orange color with horizontal bands of metallic gold across the forewings
- 39 Cydia pomonella Codling Moth: finely mottled grayish-brown; posterior end dark metallic copper coloration
- 40 Dichrorampha leopardana Leopard Dichrorampha: bright orange with horizontal wavy bands of black-brown and dark gray
- 41 Ecdytolopha insiticiana Locust Twig Borer
- 42 Eumarozia malachitana Sculptered Moth
- 43 Grapholita interstinctana Clover Head Caterpillar Moth
- 44 Grapholita packardi Cherry Fruitworm Moth
- 45 Gymnandrosoma punctidiscanum Dotted Gymnandrosoma
- 46 Pammene felicitana Olethreutine Leafroller: white on head extending down center of back; dark gray to back posterior and sides of forewings

TRIBE: Olethreutini

- 47 Bactra sp. Bactra Tortrix Moth: mainly tan in coloration, narrow-winged, resemble crambids at rest
- 48 Celypha cespitana Celypha Moth: warm brown with mottled wide horizontal bands across mid-section and posterior end
- 49 Endothenia herbesana Verbena Bud Moth: difficult to identify without dissection; mottled brown with black and blue
- 50 *Hedya cyanana* The Rose Leaf-tyer: difficult to identify without dissection; similar to *Aterpia approximana* but has darker blue and black coloration, less brown overall
- 51 Olethreutes concinnana Olethreutes Moth: gray to black with curved spots throughout, often pale posterior
- 52 Olethreutes connectum Bunchberry Leafroller: olive-gray with dark brown diagonal shoulder streaks
- 53 Olethreutes fasciatana Banded Olethreutes: dark to medium brown with white horizontal band across center and posterior
- 54 Olethreutes sp. 3 Olethreutes Moth
- 55 Olethreutes sp. 4 Olethreutes Moth
- 56 Paralobesia sp. Olethreutine Moth: difficult to identify without dissection; overall orange to rust colored with wide gray bands across center

SUBFAMILY: Torticinae

TRIBE: Archipini

- 57 Archips argyrospila Fruit-tree Leafroller: rusty brown with pale orangish head and two lateral side spots
- 58 Archips grisea Gray Archips: gray with dark brown diagonal dash marks on shoulders, outside and terminal end of forewings
- 59 Archips purpurana Omnivorous Leafroller: orange-gray to purplish-gray coloration with darker net-like veins and wavy bands across forewings
- 60 Archips semiferana Archips Oak Leafroller: rusty orange coloration with cream colored head, thorax, center terminal mark and across posterior end of forewings
- 61 Argyrotaenia juglandana <u>Hickory Leafroller:</u> dark rusty coloration with buffy cream-colored flecking and central spot behind thorax, dark reddish brown v-shaped horizontal stripes
- 62 Argyrotaenia quercifoliana Oak Leafroller: pale cream coloration with orange lacy pattern and two horizontal orange v-shaped stripes across forewing
- 63 Argyrotaenia velutinana Red-banded Leafroller: orange coloration with pale cream colored posterior of forewings and darker brown medial markings
- 64 *Choristoneura fractivittana* <u>Broken-banded Leafroller:</u> light orangish-brown with broken horizontal bands of diffuse darker brown across forewings
- 65 Choristoneura parallela Spotted Fireworm Moth: orange-tan coloration with horizontal v-shaped darker bands across forewings
- 66 Choristoneura rosaceana Oblique-banded Leafroller: rosy tan coloration with horizontal v-shaped darker bands across forewings
- 67 Clepsis clemensiana Clemen's Clepsis: pale yellow-beige to peach coloration with minimal vertical streaking
- 68 Clepsis melaleucana Black-patched Clepsis: pale cream colored with black or dark chocolate central spot extending forward to the head
- 69 Clepsis peritana Garden Tortrix: peach-tan coloration with dark rusty v-shaped stripe across center of forewings and dark spots on outer tips of forewings
- 70 Pandemis lamprosana Woodgrain Leafroller: orange-tan coloration with light and dark wide v-shaped bands across forewings
- 71 Pandemis limitata Three-Lined Leafroller: tan to pale rosy-beige with light and dark v-shaped bands separated by 3 white horiztonal lines
- 72 Xenotemna pallorana Pallid Leafroller: pale buffy yellow coloration throughout

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TRIBE: Cochvlini

73 Aethes sp. 1 Aethes Moth: Aethes are typically pale cream to yellow colored with fuzzy head and snout and darker yellow or rusty central spot and diagonal markings across forewings

74 Aethes sp. 2 Aethes Moth

75 Atroposia oenotherana Primrose Cochylid: tiny with lemon yellow in front and deep pink posterior

76 Cochylichroa hoffmanana Hoffman's cochylid: cream to rusty orange coloration with dark brown to black markings and snout which points downward

77 Cochylichroa sp. 2 Tortrix Leafroller

78 Phalonidia sp. Rose-headed Tortrix: dark pink head and thorax with mottled cream and gray wings; some species cream colored with gray markings

79 Rudenia leguminana Black-tipped Rudenia: cream to rosy-white coloration with dark gray mottling, generally with darker head and posterior wing edges

TRIBE: Sparganothini

80 Coelostathma discopunctana The Batman Moth: pale buffy peach coloration with fine wavy horiztonal stripes and twin dots on center of forewings

81 Cenopis diluticostana Spring Dead Leafroller: rosy-orange to rust coloration with gray-rust horizontal bands across forewings

82 Cenopis niveana Aproned Cenopis: lemon yellow coloration with rosy-rust markings often as sideways v-shapes pointing open along leading edge of forewing

83 Cenopis pettitana Maple-basswood Leafroller: pale lemon yellow to whitish coloration with few markings of rust or orange on forewings

84 Platynota exasperatana Exasperating Platynota: distinct triangular shape with visible snout, beige to light gray on head and thorax; mottled dark brown to black forewings often with pale beige to light gray on posterior

85 Platynota flavedana Black-shaded Platynota: orange head, rusty middle, with posterior wing tips either orange or pale warm tan

86 Platynota idaeusalis Tufted Apple Budworm: variable coloration, generally pale gray with various mottling of brown or rusty brown often forming a v-shape across the central forewings

87 Sparganothis sulfureana Sparganothoides Fruitworm: often bright lemon yellow with distinct rufous-colored x across and web-like patterned rust across rest of forewing

TRIBE: Torticini

88 Acleris flavivittana Masked Leafroller: generally dark chocolate brown with pale yellow-beige color from head and thorax extending along center of back to tip of forewings

89 Acleris semipurpurana Oak Leaftier: lemon yellow to pale yellow with pale orange, rust, or brown medial markings across forewings

90 Acleris sp. 3 Acleris Leaftier

SUPERFAMILY: Zygaenoidea

FAMILY: Limacodidae

91 Phobetron pithecium Hag Moth: large bodied, warm brown coloration with cream colored tufts on the second set of legs 92 Prolimacodes badia Skiff Moth: pale warm brown with rusty to medium brown marks along leading edge of forewings forming a distinct to a semicircular pattern

SUBFAMILY: Limacondinae

93 Apoda y-inversum Yellow-collared Slug Moth: peach to pale orange coloration with 2-3 diagonal horizontal slash lines across forewings; often holds end of abdomen turned upward

94 Tortricidia testacea Early Button Slug Moth: peach colored with darker orange vertical streaking on posterior end of forewings; often holds end of abdomen turned upward

FAMILY: Zygaenidae

SUBFAMILY: Procridinae

95 Harrisina americana Grapeleaf Skeletonizer: black with bright red collar, long black antennae, generally holds wings open away from body revealing skinny body with tufted tip; frequent flower visitor

96 Pyromorpha dimidiata Orange-patched Smoky Moth: black with bright orange on shoulders extending halfway down outer portion of forewings