

PHOTOGRAPHS OF THE SPECIES: SKIPPERS, BUTTERFLIES & MOTHS



The photographs of Lepidoptera are organized alphabetically by family and then by genus within the categories of skippers, butterflies, and moths. While many of the species illustrated here are common, only a small percentage of the species in the Northwest are represented.

If the identity of a macromoth from the western United States cannot be determined by matching a specimen with a description or photo in this book, then look in Miller and Hammond (2000) or Covell (1984). Covell (1984) provides an extensive assortment of photographs for species that occur in the eastern United States so the probability of a match to a western species is limited to those species that are widespread across the North American continent. Also, serious students of moths should look in the references cited at the end of the discussion of each family in the section on macromoth families. If the identity of a butterfly from the Pacific Northwest cannot be determined by matching a specimen with a description or photo in this book, then look in Pyle (2002) or Neill (2001).

For each of the 239 species presented with a photograph of the caterpillar/adult we provide a narrative that includes three sections: Caterpillar, Adult, and Ecology. The caterpillar and adult sections are descriptive for general identification purposes. The ecology section presents information on abundance, foodplants, seasonality, flight, and biogeography. (**Note:** The photographs contained in this guide were printed to maximize the size of the subject to the print dimensions of the image. Thus, in print the small species appear to be the same size as the large species. Therefore, it is not possible to compare sizes among the species. Numerical measurements of a typical wingspan are included for each species.)

A note about the organization. Black type in the chapter title heading indicates whether you are on a page containing information about a skipper, butterfly, or moth.

HESPERIIDAE

EPARGYREUS CLARUS - SILVERSPOTTED SKIPPER



CATERPILLAR Yellow with transverse subdorsal black streaks; T1 black and narrower than head and T2; true legs and midabdominal prolegs orange. Head black with two prominent anterior orange spots.

ADULT Wingspan 4.5 centimeters. Forewings dark brown; each forewing has a large yellow-orange medial patch. Hindwings dark brown, ventrally each hindwing with a large silver medial patch.

ECOLOGY Caterpillars are uncommon in most of our area; feed on Fabaceae, particularly lotus, in the Pacific Northwest during July and August. Adults are diurnal; fly from early to midsummer. Found in open wet forests and riparian habitats at lower elevations; widely distributed throughout North America.

HESPERIIDAE

PROPERTIUS DUSKY WING - *ERYNNIS PROPERTIUS*



CATERPILLAR Pale green with white speckles and a faint yellow subdorsal longitudinal line. Head brown with tan patches.

ADULT Wingspan 4.2 centimeters. Forewings dark black-brown with extensive pale gray scales and a row of small white postmedian spots. Hindwings dark black-brown.

ECOLOGY Caterpillars are common; feed on oak and chinquapin during late spring. Adults are diurnal; fly in spring. Found in dry, open forests and oak woodlands from southern California to British Columbia.

HESPERIIDAE

PYRGUS COMMUNIS - CHECKERED SKIPPER



CATERPILLAR Light brown with small white dots and densely covered with short white hairs; T1 black and narrower than head and T2. Head black.

ADULT Wingspan 2.6 centimeters. Forewings black with white discal spots, a white median band, and white submarginal spots. Hindwings black with a white median band and white submarginal spots.

ECOLOGY Caterpillars are common; feed on Malvaceae during late spring. Adults are diurnal; fly throughout the summer. Found in open meadows and disturbed forest habitat at lower elevations; widely distributed in western North America.

LYCAENIDAE

GREAT PURPLE HAIRSTREAK - *ATLIDES HALEUS*

CATERPILLAR Blue-green with short, fine, white hairs; a white diamond-shaped blaze middorsally on T2.

ADULT Wingspan 3.5 centimeters. Wings iridescent blue with black borders. Hindwings have thin wispy tails of nearly equal length; two-tailed in female and one-tailed in male.

ECOLOGY Caterpillars are uncommon; feed on mistletoe growing on oaks during spring. Adults are diurnal; fly from late spring to midsummer. Found in oak woodlands of the Southwest and the Pacific western states.

LYCAENIDAE

CELASTRINA ARGIOLUS - ECHO BLUE



CATERPILLAR White, each segment slightly swollen, immaculate.

ADULT Wingspan 2.8 centimeters. Wings violet-blue. Hindwings ventrally white with small, black, median spots and submarginal spots.

ECOLOGY Caterpillars are common; feed on many broadleaf trees, such as snowbrush and spiraea, during spring. Adults are diurnal; fly in spring and summer. Found in forest and riparian habitats; widely distributed in western North America.

LYCAENIDAE

CHINQUAPIN HAIRSTREAK - *HABRODAIS GRUNUS*

CATERPILLAR Yellow-green with a pale-yellow subdorsal line.

ADULT Wingspan 3.0 centimeters. Forewings yellow-orange with a black apical border. Hindwings ventrally yellow with rows of fine brown spots; each hindwing has a short, wispy tail.

ECOLOGY Caterpillars are common; feed during spring on evergreen Fagaceae, such as chinquapin, canyon live oak, and tan oak. Adults are diurnal; fly from mid- to late summer. Found in oak woodlands and distributed from Arizona and southern California to western Oregon.

LYCAENIDAE

ICARICIA ICARIOIDES - LUPINE BLUE



CATERPILLAR Light green, immaculate.

ADULT Wingspan 3.0 centimeters. Wings are violet-blue with a silver sheen. Hindwings ventrally white to gray with rows of black median and submarginal spots.

ECOLOGY The subspecies *I. icarioides fenderi* (featured in the photos) is rare (listed as an endangered species) and endemic to the Willamette Valley of Oregon; *I. i. fenderi* only feeds on a rare lupine, *Lupinus sulphureus kincaidii*, during April and May. Adults are diurnal; fly in early summer.

Caterpillars of the nominate species are common; feed on lupines during the spring. Adults are diurnal; fly from spring to midsummer. Found in montane meadows, open forests, and sagebrush rangelands; widely distributed in western North America.

LYCAENIDAE

WESTERN BROWN ELFIN - *INCISALIA AUGUSTINUS*

CATERPILLAR Light green; subdorsally off-white to golden triangular patches with pale red shading, similar coloring laterally in streaks.

ADULT Wingspan 2.6 centimeters. Wings gray-brown to red-brown. Hindwings ventrally red-brown with black median spots and patches, and black postmedian spots.

ECOLOGY Caterpillars are common; feed on snowbrush and manzanita during spring. Adults are diurnal; fly in spring. Found in montane forests; widely distributed in western North America.

LYCAENIDAE

LYCAEIDES MELISSA - MELISSA BLUE



CATERPILLAR Green with a white lateral line, otherwise immaculate.

ADULT Wingspan 2.6 centimeters. Wings are violet-blue. Hindwings ventrally light gray with rows of black discal, median, postmedian, and submarginal spots, and a broad red-orange submarginal band.

ECOLOGY Caterpillars are common; feed on various Fabaceae, such as lupine, during spring. Adults are diurnal; fly from spring to midsummer. Found in montane meadows, riparian habitats, and sagebrush rangelands; widely distributed east of the Cascade Mountains.

LYCAENIDAE

TAILED COPPER - *LYCAENA AROTA*

CATERPILLAR Green, with prominent, anterior middorsal white dashes.

ADULT Wingspan 3.0 centimeters. Wings copper to purple-brown. Hindwings ventrally gray with small black spots, white postmedian and submarginal spots; each hindwing has a thin, wispy tail.

ECOLOGY Caterpillars are uncommon; feed on currant during late spring. Adults are diurnal; fly from mid- to late summer. Found in dry woodlands, canyon lands, and riparian habitats; widely distributed in western North America.

LYCAENIDAE

MITOURA GRYNEA - CEDAR HAIRSTREAK



CATERPILLAR Green with chevron or circular subdorsal patches of white; lateral white streaks.

ADULT Wingspan 2.7 centimeters. Wings gray-brown to red-brown. Hindwings ventrally red-brown to purple-brown with a white and black median line, black postmedian spots, and blue submarginal patches; each hindwing has a small, wispy tail.

ECOLOGY Caterpillars are common; feed on western juniper, incense cedar, and western red cedar during spring. Adults are diurnal; fly from spring to midsummer. Found in conifer forests and juniper woodlands; widely distributed in western North America.

LYCAENIDAE

THICKET HAIRSTREAK - *MITOURA SPINETORUM*

CATERPILLAR Tan-brown to green-brown with rosy-red, subdorsal chevron markings, and lateral patches of rosy-red spots.

ADULT Wingspan 2.7 centimeters. Wings dull steel blue with black borders. Hindwings ventrally dark brown with a white and black median line, black postmedian spots; each hindwing has two, thin, wispy tails of unequal length.

ECOLOGY Caterpillars are common, and during spring feed on dwarf mistletoe growing on conifers, such as ponderosa pine. Adults are diurnal; fly from spring to midsummer. Found in conifer forests; widely distributed in western North America.

LYCAENIDAE

SATYRIUM BEHRII - BEHR'S HAIRSTREAK



CATERPILLAR Various shades of green with white hue and white streaks; dorsal segments ridged; lateral dashed line and subdorsal oblique lines with pale yellow shading above.

ADULT Wingspan 2.7 centimeters. Wings yellow-orange with black borders broadened at the apex into a large patch. Hindwings ventrally gray with rows of black median, postmedian, and submarginal spots.

ECOLOGY Caterpillars are uncommon; feed on bitterbrush during late spring. Adults are diurnal; fly from early to late summer. Found in open, dry, pine forests, juniper woodlands, and sagebrush rangelands east of the Cascade Mountains; widely distributed in western North America.

LYCAENIDAE

CALIFORNIA HAIRSTREAK - *SATYRIUM CALIFORNICUM*

CATERPILLAR Mix of dark and light brown; discontinuous dorsal gray-green longitudinal band; discontinuous subdorsal white longitudinal line; lateral oblique white lines.

ADULT Wingspan 3.2 centimeters. Wings gray-brown. Hindwings with an orange spot near the subanal margin, ventrally gray-brown with a row of small black median spots, red submarginal spots; each hindwing has two, thin, wispy tails of unequal length.

ECOLOGY Caterpillars are common; feed on bitterbrush during late spring. Adults are diurnal; fly from early to late summer. Found in dry forests and woodlands; widely distributed in western North America.

LYCAENIDAE

SATYRIUM SAEPIUM - RUSSET HAIRSTREAK



CATERPILLAR Green with subdorsal and lateral discontinuous yellow line.

ADULT Wingspan 3.0 centimeters. Wings red-brown. Hindwings ventrally red-brown, with a narrow black median line, small black postmedian spots, blue subanal spots; each hindwing has a short, thin, wispy tail.

ECOLOGY Caterpillars are very common; feed on species of *Ceanothus* during spring. Adults are diurnal; fly from early to late summer. Found in dry forests and woodlands; widely distributed in western North America.

LYCAENIDAE

GRAY HAIRSTREAK - *STRYMON MELINUS*

CATERPILLAR Light green to pink-brown, with lighter-colored to nearly white, subdorsal, oblique dashes.

ADULT Wingspan 3.0 centimeters. Wings dark gray. Hindwings with a red-orange subanal spot containing a black spot; ventrally light gray with a black and white median line, small black postmedian spots, a red subanal spot, and a pair of thin wispy tails of unequal length.

ECOLOGY This caterpillar will tend to be the same color as the foodplant (The photograph here used a caterpillar removed from a pink-red flower and placed on the stem of the same plant.) Caterpillars are common and during spring feed on many flowering plants, such as legumes and mallows, during spring. This species may cause economic damage in commercial bean production. Adults are diurnal; fly from spring to fall. Found in open areas associated with oak woodlands and agricultural habitats; widely distributed in western North America.

NYMPHALIDAE

ADELPHA BREDOWII - CALIFORNIA SISTER



CATERPILLAR Dorsum green with fine white speckles; ventrally light brown; elongate light brown scoli on T2, T3, A2, A4, A7, and A9. Head light brown with multiple small spines, including one pair of spines at the top of the head capsule.

ADULT Wingspan 6.3 centimeters. Forewings black-brown, each with a narrow white median band, and a large, round, orange apical patch. Hindwings black-brown, each with a white median band.

ECOLOGY Caterpillars are common; feed on oak during late spring. Adults are diurnal; fly throughout the summer. Found in montane forests and oak woodlands in the Pacific western states from southern California to western Oregon.

NYMPHALIDAE

MONARCH BUTTERFLY - *DANAUS PLEXIPPUS*

CATERPILLAR Black, white, and yellow rings; a distinctive pair of long, thin, black tubercles on T2 and A8. Head with oblique bands of black and yellow.

ADULT Wingspan 9.5 centimeters. Forewings elongate, orange with black veins, a black submarginal border, and small white submarginal spots.

ECOLOGY This caterpillar sequesters cardiac glycosides from its milkweed hostplant and is poisonous to potential vertebrate predators; the adult is migratory. Caterpillars are common east of the Cascade Mountains, very uncommon on the west side; feed on milkweed during early summer. Adults are diurnal; fly from spring to fall when they migrate south. Found in open habitats, particularly along roadsides and fencerows; widely distributed in North America.

NYMPHALIDAE

EUPHYDRYAS CHALCEDONA - CHALCEDON CHECKERSPOT



CATERPILLAR Mottled with black and white markings; three longitudinal rows of short black spines on an orange base. Head black.

ADULT Wingspan 4.4 centimeters. Wings are black with white discal, median, and postmedian spots; red marginal spots. Hindwings ventral with alternating red and white bands or spots.

ECOLOGY Caterpillars are common; feed on penstemon and snowberry in spring. Adults are diurnal; fly from early to midsummer. Found in open forests, riparian habitats, and mountain meadows in the Pacific western states and northern Rocky Mountains.

NYMPHALIDAE

LORQUIN'S ADMIRAL - *LIMENITIS LORQUINI*

CATERPILLAR Dorsum with humps on T1 (white), T2 (white), A2 (orange and large), A3 (orange and small), A7, and A8, and white patches most extensive on T1, T2, A4 through A6; laterally white patches extend from T1 through A10 along the lateral line; a pair of prominent scoli on T1.

ADULT Wingspan 6.0 centimeters. Forewings black with a white discal bar, a white median band, and an orange apical margin. Hindwings black with a white median band.

ECOLOGY Caterpillars are common; feed on willow, poplar, and certain Rosaceae, during spring. Adults are diurnal; fly throughout the summer. Found in moist forests and riparian habitats; distributed throughout the Pacific western states and the northern Rocky Mountains.

NYMPHALIDAE

NYMPHALIS ANTIOPA - MOURNINGCLOAK BUTTERFLY



CATERPILLAR Black with fine white hairs; middorsal longitudinal black line, red-orange spots, numerous small white spots and black spines.

ADULT Wingspan 7.0 centimeters. Wings black-burnt brown with a tint of purple; metallic blue postmedian spots within a black band, and a broad yellow submarginal border. Hindwings ventrally black, mottled with fine lines, and yellow borders.

ECOLOGY Caterpillars are common on willows from May to July. Adults are diurnal; fly throughout the year. Found in moist forests and riparian habitats; widely distributed in western North America.

NYMPHALIDAE

CALIFORNIA TORTOISESHELL - *NYMPHALIS CALIFORNICA*

CATERPILLAR Mostly black with two pale yellow dorsal stripes and dense short white hairs; yellow-orange dorsal spines from A1 through A7 and laterally from A1 through A6; remaining spines black.

ADULT Wingspan 6.0 centimeters. Forewings yellow-orange with black spots and bars and a black border. Hindwings ventrally dark black-brown and mottled with fine lines.

ECOLOGY This species will occasionally occur in very large numbers, defoliating snowbrush over many acres. Caterpillars are common; feed on various broadleaf shrubs, particularly snowbrush, from June to August. Adults are diurnal; fly in midsummer. Found in conifer forests; widely distributed in western North America.

NYMPHALIDAE

PHYCIODES PULCHELLUS - FIELD CRESCENT



CATERPILLAR Black with a white lateral band containing red-brown speckles; faint white subdorsal line. Head black.

ADULT Wingspan 3.4 centimeters. Wings are mostly black with yellow and orange bands or spots. Hindwings ventrally yellow-orange with fine brown lines and spots.

ECOLOGY Caterpillars are common; feed on asters during June and July. Adults are diurnal; fly from early to midsummer. Found in montane meadows; widely distributed in western North America.

NYMPHALIDAE

FAUN ANGLEWING - *POLYGONIA FAUNUS*

CATERPILLAR Yellow-orange with an extensive dorsal patch of white, irregularly bordered in black, on A3 through A9. Multi-branched spines occur from T2 through A9. Dorsal spines on T2 through A2 are light orange; dorsal spines are mostly white on A3 through A9, and the subspiracular spines on A1 through A9. Head black and mottled with orange.

ADULT Wingspan 4.5 centimeters. Forewings yellow-orange with black median spots, yellow postmedian spots, and a broad black margin. Hindwings yellow-orange with black median spots, yellow postmedian spots, and a broad black margin, ventrally mottled gray-brown with green postmedian spots.

ECOLOGY Caterpillars are common; feed on Salicaceae and Betulaceae, particularly willows, during June and July. Adults are diurnal; fly throughout the year. Found in moist montane and riparian forests; widely distributed in western North America.

NYMPHALIDAE

POLYGONIA GRACILIS - ZEPHYR ANGLEWING



CATERPILLAR Yellow-orange with separate dorsal patches of white on A3 through A9; multi-branched spines occur from T2 through A9; dorsal spines on T2 through A2 are light orange; dorsal spines are mostly white on A3 through A9 and the subspiracular spines on A1 through A9. Head black and mottled with orange.

ADULT Wingspan 4.8 centimeters. Forewings yellow-orange with black median spots, yellow postmedian spots, black margin. Hindwings yellow-orange with black median spots, yellow postmedian spots, margin mostly orange, ventrally mottled gray-brown with yellow postmedian spots.

ECOLOGY Caterpillars are common; feed on currant during June and July. Adults are diurnal; fly throughout the year. Found in dry forests, woodlands, riparian habitats, and sagebrush rangelands; widely distributed in western North America.

NYMPHALIDAE

ATLANTIS FRITILLARY - *SPEYERIA ATLANTIS*

CATERPILLAR Black with faint off-white streaks; a dual longitudinal line along the middorsum; subdorsal and lateral scoli gray to tan. Head black.

ADULT Wingspan 5.5 centimeters. Wings are orange with heavy black basal suffusion and rows of black spots and bars. Hindwings ventrally black-brown or red-brown with a narrow, yellow, submarginal band, and metallic silver or cream-white spots.

ECOLOGY Caterpillars are common; feed on violets, particularly *Viola adunca*, *V. nuttallii*, and *V. canadensis*, during spring. Adults are diurnal; fly in midsummer. Found in wet forests, bogs, and meadows at high elevations; widely distributed in western North America.

NYMPHALIDAE

SPEYERIA CYBELE - GREAT SPANGLED FRITILLARY



CATERPILLAR Black with tan middorsal, subdorsal, and lateral scoli. Head black.

ADULT Wingspan 7.0 centimeters. Wings orange with heavy black basal suffusion and rows of black spots and bars. Hindwings ventrally dark red-brown with a wide, yellow, submarginal band, and small metallic silver spots.

ECOLOGY Caterpillars are common; feed on violets, particularly *Viola glabella*, *V. palustris*, and *V. adunca*, during spring. Adults are diurnal; fly in midsummer. Found in wet forests and riparian habitats at lower elevations; widely distributed in western North America.

NYMPHALIDAE

ZERENE FRITILLARY - *SPEYERIA ZERENE*

CATERPILLAR Light black to dark gray with faint off-white mottling; gray-black dorsal and subdorsal scoli; lateral scoli on A1 through A8 cream-white. Head black.

ADULT Wingspan 6.0 centimeters. Wings orange with wide black discal and median bars, and rows of black postmedian and submarginal spots. Hindwings ventrally variable red-brown, purple-brown, or yellow, with metallic silver or white spots; narrow yellow to lavender submarginal band.

ECOLOGY This species has many described subspecies. Among them, *S. zerene hippolyta*, the Oregon silverspot, is a federally listed endangered species. Regarding the nominate species: caterpillars are common; feed on violets, particularly *Viola adunca* and *V. nuttallii*, during spring. Adults are diurnal, fly from mid- to late summer. Found in montane forests, juniper woodlands, and sagebrush rangelands; widely distributed in western North America.

NYMPHALIDAE

VANESSA ATALANTA - RED ADMIRAL



CATERPILLAR Dorsum black with white speckles; base of primary setae (which are spines in this species) black; venter black; broken yellow lateral line.

ADULT Wingspan 5.8 centimeters. Forewings black with a red-orange median band and white subapical spots. Hindwings black with a red-orange submarginal band and small black submarginal spots; ventrally mottled black, gray, and brown with dark postmedian spots.

ECOLOGY Caterpillars are common; feed on nettles during spring. Adults are diurnal; fly from spring to fall. Found in open habitats and along woodland edges; widely distributed in western North America.

NYMPHALIDAE

PAINTED LADY - *VANESSA CARDUI*

CATERPILLAR Dorsum black with small white spots; base of primary setae (which are spines in this species) orange; venter gray white with irregular black markings; white hairs covering the body.

ADULT Wingspan 6.0 centimeters. Forewings orange with black median spots and a black apex with white subapical spots. Hindwings ventrally mottled green-brown with white spots, and blue postmedian eyespots ringed with yellow.

ECOLOGY Caterpillars are common; feed on thistles, lupines, and various Malvaceae during July and August. Adults are diurnal; fly from spring to fall. Found in open grassland, roadsides, and montane meadows; widely distributed in western North America.

PAPILIONIDAE

BATTUS PHILENOR - PIPEVINE SWALLOWTAIL



CATERPILLAR Black with distinct orange tubercles of varying lengths along rows positioned subdorsally, laterally, and sublaterally. The lateral pair of tubercles on the prothorax is much longer than the others. Head orange-black.

ADULT Wingspan 8.0 centimeters. Forewings black with white submarginal spots. Hindwings metallic blue with white submarginal spots and a scalloped wing margin; each hindwing has a single tail.

ECOLOGY Caterpillars are common south of the Pacific Northwest; feed on Dutchman's pipevine during spring and fall. Adults are diurnal; fly from spring to late fall. Larvae are found in riparian habitats where the hostplant grows; adults are strong fliers and can be found far from rivers and streams. Widely distributed in the Southwestern States; locally distributed in northern and central California, straying into southwest Oregon.

PAPILIONIDAE

OREGON SWALLOWTAIL - *PAPILIO BAIRDII*

CATERPILLAR Light green, shades of blue green in dorsal, subdorsal, and lateral patches; alternating black dashes with yellow spots create a broken transverse band across the middle of each thoracic and abdominal segment. Head green with oblique black lines encompassing a yellow patch with a black dash in the center.

ADULT Wingspan 8.0 centimeters. Forewings yellow with black discal bars and a black border. Hindwings yellow, with blue postmedian spots, yellow submarginal spots, a scalloped wing margin; each hindwing has one long tail, and lacks a black median stripe.

ECOLOGY Caterpillars are common; feed on green sagebrush during late spring. Adults are diurnal; fly from spring to fall. Found in dry canyon lands east of the Cascade Mountains and typically distributed near patches of the hostplant; widely distributed in western North America.

PAPILIONIDAE

PAPILIO EURYMEDON - PALE TIGER SWALLOWTAIL



CATERPILLAR Dorsum yellow-green transitioning to a light blue tone laterally and ventrally; thorax enlarged; T2 with a broken transverse band of yellow marked with a black line and circle encompassing a blue spot; the intersegmental region between A1 and A2 with a broad black band counter-shaded with yellow along the anterior edge; A1 with light blue spots dorsally and subdorsally; A4 with a subdorsal dark blue spot; A5 to A7 with dark blue spots dorsally and subdorsally; A2 to A7 with dark blue dots below the spiracles.

ADULT Wingspan 8.5 centimeters. Forewings white with broad black discal bars and a black border. Hindwings white with a black median stripe, blue postmedian spots, white submarginal spots, a scalloped wing margin; each hindwing has one long tail.

ECOLOGY Caterpillars are common; feed on many species of hardwoods, particularly *Ceanothus*, during the spring. Adults are diurnal; fly from late spring to early summer. Found in montane forests; widely distributed in western North America.

PAPILIONIDAE

INDRA SWALLOWTAIL - *PAPILIO INDRA*

CATERPILLAR Contrasting white and black rings with a small spot of orange dorsally.

ADULT Wingspan 6.5 centimeters. Forewings black with a yellow median band and submarginal spots. Hindwings black with a broad yellow median band, blue postmedian spots, yellow submarginal spots, and a scalloped wing margin; each hindwing has one short tail.

ECOLOGY Caterpillars are common; feed on Apiaceae, particularly *Lomatium* and *Cymopterus*, during late spring. Adults are diurnal; fly from late spring to early summer. Found in dry, rocky habitats east of the Cascade Mountains, where it is widely distributed.

PAPILIONIDAE

PAPILIO RUTULUS - WESTERN TIGER SWALLOWTAIL



CATERPILLAR Dorsum yellow-green with only a subtle transition into a light blue tone ventrally; thorax enlarged; T2 with a broken transverse band of yellow marked with a brown line and black circle encompassing a faint blue spot; A1 with a transverse yellow band along the anterior edge; A1 with blue spots dorsally and subdorsally; A4 with a subdorsal faint blue spot; A5 to A7 with blue spots dorsally and subdorsally; A2 to A7 with faint blue dots below the spiracles.

ADULT Wingspan 8.5 centimeters. Forewings yellow with black discal bars and a black border. Hindwings yellow with a black median stripe, blue postmedian spots, yellow submarginal spots, a scalloped wing margin; each hindwing has one long tail.

ECOLOGY Caterpillars are common; feed on many hardwoods, particularly poplar, willow, alder, and maple, during late spring. Adults are diurnal; fly from late spring to late summer. Found in montane and riparian forests; widely distributed in western North America.

PAPILIONIDAE

ANISE SWALLOWTAIL - *PAPILIO ZELICAON*

CATERPILLAR Variable color depending on age. Early instars are mostly black with some white markings, and have the appearance of bird droppings. Later instars, as shown here, are green with black streaks between orange spots on T1 through A8; midabdominal prolegs with black spots.

ADULT Wingspan 7.5 centimeters. Forewings yellow with black discal bars and a black border. Hindwings yellow, with blue postmedian spots, yellow submarginal spots, and a scalloped wing margin; each hindwing has one long tail and no black median stripe.

ECOLOGY Caterpillars are common; feed on Apiaceae, including cow parsnip and fennel, during late spring. Adults are diurnal; fly from early spring to fall. Found in coastal forests, subalpine meadows, and sagebrush rangelands; widely distributed in western North America.

PAPILIONIDAE

PARNASSIUS CLODIUS - CLODIUS PARNASSIAN



CATERPILLAR Black; single row of yellow subdorsal spots on A1 through A8.

ADULT Wingspan 6.5 centimeters. Forewing white with elongate black discal bars and a black border. Hindwings white with round red spots.

ECOLOGY Caterpillars are not commonly seen, but adults can be very common. Caterpillars feed on bleeding heart during late spring to early summer. Adults are diurnal; fly from early to midsummer. Found in coastal rainforests, riparian forests, and subalpine meadows; widely distributed in western North America.

PAPILIONIDAE

SMINTHEUS PARNASSIAN - *PARNASSIUS SMINTHEUS*

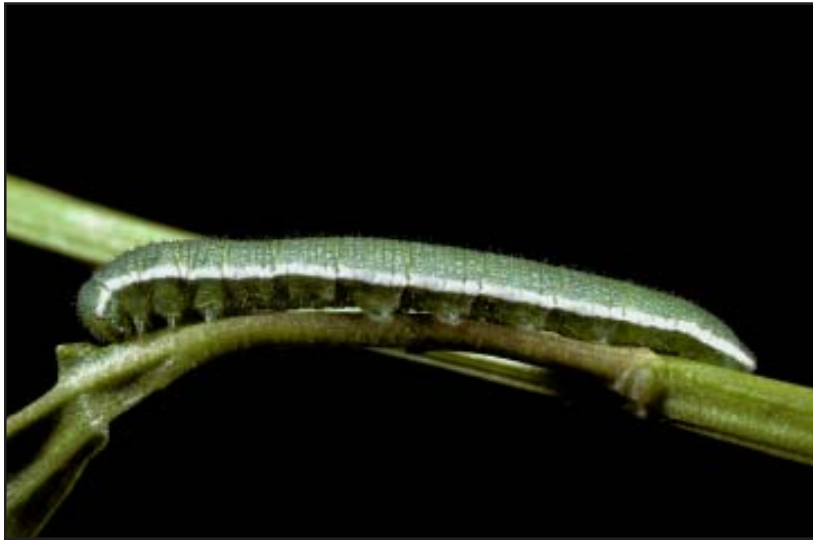
CATERPILLAR Black; single row of yellow subdorsal spots on A1 through A8; another single row of a triplet of yellow subdorsal spots on A1 through A8, the anterior spot with a smaller yellow dot to the lateral side.

ADULT Wingspan 6.0 centimeters. Forewings white with round black discal spots, a pair of red spots. Hindwings white with round red spots.

ECOLOGY Caterpillars are not commonly seen, but adults can be very common. Caterpillars feed on stonecrop during late spring to early summer. Adults are diurnal; fly from early to midsummer. Found in montane meadows and along rocky ridge tops; widely distributed in western North America.

PIERIDAE

ANTHOCARIS SARA - SARA ORANGETIP



CATERPILLAR Two tones of green, dorsally light green ventrally dark green, separated by a white lateral band. Head green.

ADULT Wingspan 4.0 centimeters. Forewings white with a black discal bar and a red-orange subapical patch. Hindwings white with marginal brown-black markings.

ECOLOGY Caterpillars are common; feed on Brassicaceae, particularly rockcress and tumbled mustard, during spring. Adults are diurnal; fly in spring. Found in wet forests, subalpine meadows, and sagebrush rangelands; widely distributed in western North America.

PIERIDAE

PINE WHITE - *NEOPHASIA MENAPIA*

CATERPILLAR Dark velvet green over entire body; subdorsal cream-white longitudinal line; a sublateral white line may be present. Head green.

ADULT Wingspan 4.5 centimeters. Forewings white with a curved black discal bar and black apical patch with white spots. Hindwings white, immaculate.

ECOLOGY The pine white is the most abundant butterfly in mixed Douglas-fir/western hemlock forests. Caterpillars are very common but normally not encountered, because they occur in the higher reaches of the forest canopy; feed on conifers, such as Douglas-fir and pines, during late spring. Adults are diurnal; fly in late summer. Found in coniferous forests; widely distributed in western North America.

PIERIDAE

PIERIS RAPAE - CABBAGE WHITE



CATERPILLAR Velvet green appearance over entire body with a middorsal yellow longitudinal line and a broken yellow lateral line.

ADULT Wingspan 4.2 centimeters. Forewings white with two black median spots and a black apical patch. Hindwings white; each hindwing has a marginal black spot.

ECOLOGY This species is an exotic pest of vegetable crops. Caterpillars are very common; feed on Brassicaceae during spring and summer. Adults are diurnal; fly from early spring to fall. Found in agricultural and urban areas; widely distributed in western North America.

SATYRIDAE

LARGE WOOD NYMPH - *CERCYONIS PEGALA*

CATERPILLAR Light green with a dense covering of short hairs; lateral line yellow; faint subdorsal longitudinal yellow lines; light orange spiracles.

ADULT Wingspan 4.8 centimeters. Wings dark brown with variably sized postmedian black spots encompassing a central small white dot. Hindwings ventrally dark brown with a row of small postmedian spots and fine wavy lines.

ECOLOGY Caterpillars are common; feed on grasses in June and July. Adults are diurnal; fly from mid- to late summer. Found in dry forests and woodlands, riparian environments, and wet meadows; widely distributed in western North America.

ARCTIIDAE

ARCTIA CAJA - GARDEN TIGER MOTH



CATERPILLAR Thoracic and lateral abdominal hairs mostly golden orange; dorsal and subdorsal abdominal hairs black with numerous longer white hairs.

ADULT Wingspan 6.5 centimeters. Forewings brown with irregular white bands. Hindwings orange with round black spots. Abdomen orange with middorsal black markings.

ECOLOGY Caterpillars are common, generalist feeders on foliage of herbaceous plants and small flowering shrubs, such as vetch and willow; present in fall; overwintering, with development completed by May or June. Adults are nocturnal; fly in midsummer. Found in open habitats, such as meadows and forest edges; widely distributed at lower elevations in western North America.

ARCTIIDAE*CISSEPS FULVICOLLIS*

CATERPILLAR Hairs gray-white with longer lateral black tufts. Head orange.

ADULT Wingspan 3.6 centimeters. Forewings brown. Hindwings brown along outer margin with a light blue tint in the middle of the wing. Body is black with an orange-yellow collar behind the head.

ECOLOGY Caterpillars are common; feed on foliage of grasses, sedges, and rushes during late spring. Adults are diurnal; fly from early to midsummer. Found in grasslands among coniferous forests; widely distributed in western North America.

ARCTIIDAE

CLEMENSIA ALBATA



CATERPILLAR Cryptically patterned with mottled green and black; thin middorsal white line.

ADULT Wingspan 2.4 centimeters. Forewings white with a mottled pattern of fine black lines and spots. Hindwings off-white and diffusely mottled with light brown.

ECOLOGY Caterpillars are common; feed on lichens in trees and large shrubs during spring; most common on Oregon white oak upon foliage they might eat, as well. Adults are nocturnal; fly in late summer. Found in woodlands and forests west of the Cascade Mountains.

ARCTIIDAE

CTENUCHA RUBROSCAPUS

CATERPILLAR White hairs on a black and white body. Head orange.

ADULT Wingspan 4.5 centimeters. Wings black, edged with white distally. Thorax black, laterally with two red longitudinal lines, prothorax with a red apical patch. Head red and black. Abdomen iridescent blue.

ECOLOGY Caterpillars are common; feed on grasses during spring. Adults are diurnal; fly in midsummer. Found in wet meadows along the West Coast in California and Oregon.

ARCTIIDAE

GNOPHAELA LATIPENNIS



CATERPILLAR Yellow with dorsal, lateral, and ventral black patches; clusters of white hairs originate from black bases with blue spots. Head red-brown.

ADULT Wingspan 5.4 centimeters. Wings black with white markings in a distinctive pattern. Each forewing with a single, small, basal, white spot; the medial and distal clusters consist of four white spots. Each hindwing with one medial cluster of three white spots, and one distal cluster of two white spots.

ECOLOGY Caterpillars are common; feed on foliage of hound's tongue during late spring and early summer. Adults are diurnal; fly from mid- to late summer. Found in open pine forests from California to western Oregon.

ARCTIIDAE

GRAMMIA ORNATA

CATERPILLAR Longer white hairs interspersed among black hairs located dorsally and laterally; ventrally hairs orange. Head black.

ADULT Wingspan 4.3 centimeters. Forewings black with narrow yellow streaks. Hindwings red-orange with a black border and central black spots of variable proportions. Head is yellow with the thorax striped in yellow and black.

ECOLOGY Caterpillars are common, generalist feeders on foliage of herbaceous plants during spring. Adults are nocturnal; fly in early summer. Found in meadows and clearcuts; widely distributed in western North America.

ARCTIIDAE

HEMIHYALEA EDWARDSII



CATERPILLAR Tan hairs on thorax; long white hairs interspersed among black abdominal hairs dorsally and tan hairs laterally.

ADULT Wingspan 6.5 centimeters. Wings semitransparent, creamy yellow-orange with faint black markings. Thorax yellow; abdomen red-pink.

ECOLOGY Caterpillars are not commonly encountered; feed on oak foliage during late spring and summer. Adults very common at lights, nocturnal, fly in late summer. Found in oak woodlands in California and western Oregon.

ARCTIIDAE

FALL WEBWORM - *HYPHANTRIA CUNEA*

CATERPILLAR Long white hairs originate from red spots on a black body with yellow markings.

ADULT Wingspan 3.4 centimeters. Wings white with no other markings. Abdomen yellow-white; ventral side of prothorax and femur of foreleg with orange hairs.

ECOLOGY The communal caterpillars are very common, forming large silk tents on the branches of broadleaf trees; at times considered a pest. Caterpillars feed on numerous plants, particularly willow, alder, and black cottonwood, during August and September. Adults are nocturnal; fly in midsummer. Found in woodlands, riparian, and urban environments; widely distributed in western North America.

ARCTIIDAE

LOPHOCAMPA ARGENTATA - SILVER SPOTTED TIGER MOTH



CATERPILLAR Clusters of short yellow hairs are concentrated subdorsally with clusters of short orange hairs located laterally; middorsal clusters of short black hairs. Body black.

ADULT Wingspan 4.1 centimeters. Forewings gold-brown with silvery white spots. Hindwings off-white, nearly immaculate. Abdomen yellow.

ECOLOGY This species is abundant, sometimes considered a pest. Caterpillars are very common; feed on conifers, particularly Douglas-fir. Early instars are gregarious, present in August; overwintering, with development complete by May or June the following spring. Adults are nocturnal; fly from late July to early August. Found in moist conifer forests along the West Coast from California to British Columbia.

ARCTIIDAE

SPOTTED TUSSOCK MOTH (MID INSTARS) - *LOPHOCAMPA MACULATA*

CATERPILLAR (Mid instars) This is one of many caterpillars that develops through more than one color phase, either by stage of development, genetic polymorphism, or other environmental factors; in this species color phases differ according to age. Mid instar: Midabdominal segments with middorsal clusters of red hairs among bright yellow hairs; anterior and posterior with long wisps of white hairs and shorter yellow and black hairs.

ARCTIIDAE

LOPHOCAMPA MACULATA - SPOTTED TUSSOCK MOTH (LAST INSTAR)



CATERPILLAR (Last instar) midabdominal segments with wisps of long white hairs among red-orange hairs; anterior and posterior with long wisps of white hairs among short black hairs.

ADULT Wingspan 4.5 centimeters. Forewings yellow with brown bands. Hindwings immaculate. Abdomen yellow.

ECOLOGY Caterpillars are very common; feed on many broadleaf trees, such as big-leaf maple, oak, and red alder, during July and August. Adults are nocturnal; fly in midsummer. Found in low elevation woodlands and wet forests; widely distributed in western North America.

ARCTIIDAE

PLATYPREPIA VIRGINALIS

CATERPILLAR Black with orange hairs at the anterior and posterior ends; middle portion of the body with long white hairs.

ADULT Wingspan 6.2 centimeters. Forewings black with many large, round, pale-yellow to off-white spots. Hindwings variable, either orange with black bands or mostly black with orange spots. Thorax black with dorsal-anterior patches of yellow.

ECOLOGY Caterpillars are common; feed on herbs and grasses, present in fall; overwintering, with development completed by June the following spring. Adults are diurnal; fly in early summer. Found in wet meadows of coniferous and hardwood forests throughout western North America.

ARCTIIDAE

PYRRHARCTIA ISABELLA - BANDED WOOLLYBEAR



CATERPILLAR Dense cover of hairs over body, midabdominal segments with reddish orange hairs, anterior and posterior segments with black hairs.

ADULT Wingspan 5.3 centimeters. Forewings mustard-yellow with numerous small, dark spots. Hindwings yellow-orange with a few small, dark spots.

ECOLOGY This is the species of folklore in predicting the weather based on the extent of the orange band; the more black covering the body (less orange), the colder the upcoming winter. Caterpillars are very common; feed on herbs, such as nettles, during fall and spring; overwintering, with development completing in the spring. Adults are nocturnal; fly in midsummer. Found at lower elevations in woodlands and wet forests; widely distributed in western North America and particularly common west of the Cascade Mountains.

ARCTIIDAE*SPILOSOMA VESTALIS*

CATERPILLAR Black hairs dorsally; white hairs laterally. Head black.

ADULT Wingspan 5.2 centimeters. Wings and abdomen white with small black spots. Femur of foreleg with red hairs.

ECOLOGY Caterpillars are common, generalist feeders on foliage of flowering trees, particularly oak, during spring. Adults are nocturnal; fly from late May through June. Found in moist hardwood and coniferous forests west of the Cascade Mountains.

ARCTIIDAE

SPILOSOMA VIRGINICA - YELLOW WOOLLYBEAR

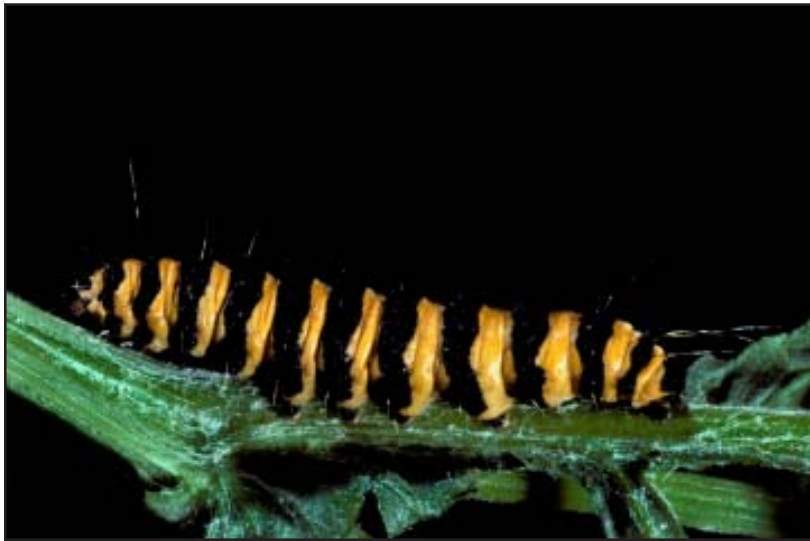


CATERPILLAR Long hairs white; short hairs white and yellow-orange; colors uniformly dispersed over body except for lateral region of A4 through A6 where hairs appear white.

ADULT Wingspan 4.2 centimeters. Wings white with a few small spots toward the outer margin. Hindwings white with submarginal spots. Femur orange-yellow on foreleg. Abdomen white and orange with dorsal patches of black spots.

ECOLOGY Caterpillars are common; feed on herbs, such as dandelion and Queen Anne's lace, present in fall; overwintering, with development completed by June or July. A second generation occurs during the summer. Adults are nocturnal; fly in midsummer. Found in wet forests and meadows; widely distributed in western North America.

ARCTIIDAE

CINNABAR MOTH - *TYRIA JACOBABAEAE*

CATERPILLAR Hairs are sparse, atypical for arctiids. Alternating orange and black rings occur along the entire length of the body.

ADULT Wingspan 3.7 centimeters. Forewings dark gray-black, each forewing with a red costal stripe and two red submarginal spots. Hindwings nearly all red with gray margins. Abdomen black.

ECOLOGY This species feeds on tansy ragwort, a noxious weed for which it was intentionally introduced into the western United States as a biological control agent. Caterpillars are very common, and with rare exception feed only on species of *Senecio*, particularly *S. jacobaea*, during July and August. The gregarious caterpillars are poisonous to vertebrate predators due to the sequestration of pyrolizidine alkaloids from the hostplant. Adults are diurnal; fly in May and June. Found in open habitats west of the Cascade Mountains.

DIOPTIDAE

PHRYGANIDIA CALIFORNICA - CALIFORNIA OAKWORM



CATERPILLAR Two middorsal white bands bordered in purple; yellow subdorsal and spiracular bands separated by a gray-purple band bordered in black; transverse black stripe on T1, A1, and A8; A5 with a middorsal black spot. Head tan with a faint tint of orange.

ADULT Wingspan 4.0 centimeters. Forewings tan-light brown with a yellow median patch. Hindwings tan and immaculate.

ECOLOGY This species is an occasional pest on live oak and chinquapin. Caterpillars are common; feed on live oak and chinquapin during fall, winter, and spring. Adults are nocturnal; fly in midsummer. Found in dry woodlands in western Oregon and California.

DREPANIDAE

ARCHED HOOKTIP - *DREPANA ARCUATA*



CATERPILLAR Dorsum with shades of brown, purple, and black on green; knobby warts most prominent on T2 through A2.; anal segment extended into a single point. Head white-tan with two dark brown transverse bands.

ADULT Wingspan 3.7 centimeters. Forewings pale yellow-brown with smooth outer margins and noticeably hooked (falcate) at the apex, postmedian line is narrow.

ECOLOGY Caterpillars are uncommon; feed on red alder during July and August. Adults are nocturnal; fly from May to August. Found in riparian habitats and moist forests; widely distributed in North America.

GEOMETRIDAE

AETHALOIDA PACKARDARIA



CATERPILLAR Uniformly gray; dorsal tubercles on A2, A4, and A8; ventral tubercle on A3. Third pair of true legs much larger than other true legs. Head silver-gray, slightly cleft.

ADULT Wingspan 3.5 centimeters. Wings dark gray with fine black wavy lines.

ECOLOGY Caterpillars are common on buckbrush during June and July. Adults are nocturnal, typically with two observable flight periods; the first from March to June, the second in August and September. Found in dry forests in California and southwestern Oregon.

GEOMETRIDAE

ANACAMPTODES CLIVINARIA

CATERPILLAR Silver-gray; a subtle hump on dorsum of A2 and A8.

ADULT Wingspan 4.0 centimeters. Forewings mottled white and gray, wavy black and yellow medial lines. Hindwings with nearly straight medial lines.

ECOLOGY Caterpillars are common; feed on snowbrush and bitterbrush during late spring. Adults are nocturnal; fly from late spring to early summer. Found in open dry forests and woodlands; widely distributed in western North America.

GEOMETRIDAE

ANAGOGA OCCIDUARIA - AMERICAN BARED UMBER



CATERPILLAR Yellow-tan with diffuse red-brown shading; small hump on middorsum of A5.

ADULT Wingspan 2.8 centimeters. Forewings pale yellow to brown with a jagged dark brown median band.

ECOLOGY Caterpillars are common; feed on flowering trees and shrubs, particularly maple, blueberry, and ocean spray. Adults are nocturnal; fly in early summer. Found in wet conifer forests; widely distributed in western North America.

GEOMETRIDAE

APODREPANULATRIX LITARIA

CATERPILLAR Green with a wide middorsal white band.

ADULT Wingspan 3.5 centimeters. Forewings mottled dark gray or brown with two wavy dark medial lines and a row of black postmedian spots.

ECOLOGY Caterpillars are uncommon; feed on *Ceanothus* during spring. Adults are nocturnal; fly from late summer to fall. Found in moist coniferous forests; widely distributed in western North America.

GEOMETRIDAE

ARCHIEARIS INFANS



CATERPILLAR Green; dorsally with yellow spots at the location of primary setae (pinaculae); subdorsally two faint yellow longitudinal lines; laterally a distinct yellow line. The presence of four pairs of midabdominal prolegs is a very unusual feature for inchworms. Head yellow-green.

ADULT Wingspan 3.5 centimeters. Forewings dark red-brown to black with a white median band and white subapical patch. Hindwings red-orange with a black anal band and discal spot.

ECOLOGY Caterpillars are uncommon; feed on alder during late spring. Adults are diurnal; fly in early spring. Found in wet forests; widely distributed in northern North America.

GEOMETRIDAE

PEPPER MOTH - *BISTON BETULARIA*

CATERPILLAR Intermixed shades of tan and light green; cone-like humps on head and T1.

ADULT Wingspan 4.8 centimeters. The wings are variable in color from pale gray to a dark black-brown, with wavy black lines and heavily speckled with dark gray spots.

ECOLOGY This species is the pepper moth that has been cited as an example of industrial melanism in England. Caterpillars are common, generalist feeders on flowering trees and shrubs, particularly alder, willow, and chinquapin. Adults are nocturnal; fly from early to midsummer. Found in wet forests and riparian habitats; widely distributed in western North America.

GEOMETRIDAE

CAMPAEA PERLATA - FRINGED LOOPER



CATERPILLAR The presence of two pairs of midabdominal prolegs is an unusual feature for inchworms. In this species the prolegs on A5 are slightly reduced. In contrast, the midabdominal prolegs on A5 and A6 in plusiines (Noctuidae) are nearly equal in size (see *Autographa californica*). The body color is variable in this species but is generally drab, such as the gray-brown depicted here. The ventral fringe of knobby hairs is unique among inchworms in the Pacific Northwest.

ADULT Wingspan 3.9 centimeters. Forewings pale green-white with two white lines counter-shaded with darker green.

ECOLOGY Caterpillars are common; feed on many broadleaf trees, such as serviceberry, red and mountain alder, and hazel, during April and May. Adults are nocturnal; fly in summer. Found in moist forests; widely distributed in western North America.

GEOMETRIDAE

CHESIADODES CINEREA

CATERPILLAR Yellow-green; middorsal white band encompassing a golden central longitudinal line with black edged gray dashes on A2 through A8; broken scalloped white lateral line.

ADULT Wingspan 3.0 centimeters. Forewings elongate, light to dark gray with thin black lines.

ECOLOGY Caterpillars are common; feed on rabbitbrush during June and July. Adults are nocturnal; fly in midsummer. Found in dry sagebrush rangelands and juniper woodlands; widely distributed in western North America.

GEOMETRIDAE

CHLOROCHLAMYS TRIANGULARIS



CATERPILLAR Yellow-green. Head more strongly yellow.

ADULT Wingspan 1.9 centimeters. Forewings pale green with thin white lines that may fade to yellow as the moth ages.

ECOLOGY Caterpillars are common; feed on rabbitbrush during June and July. Adults are nocturnal; fly in late summer. Found in dry sagebrush rangelands and juniper woodlands; widely distributed in western North America.

GEOMETRIDAE

CHLOROSEA BANKSARIA

CATERPILLAR The lateral flanges on A2 through A5 are characteristic of three common inchworms (see *Nemoria darviniata*; the third species, *Synchlora aerata*, is not illustrated in this volume). Green with minute white dots and oblique yellow-white stripes; enlarged lateral flanges on A2 through A5.

ADULT Wingspan 3.4 centimeters. Wings green with a single white line. This moth may be distinguished from other green geometers by its large size and the single white line.

ECOLOGY Caterpillars are common; feed on ocean spray during May and June. Adults are nocturnal; fly in midsummer. Found in wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

COCHISIA SINUARIA



CATERPILLAR Yellow with an undertone of green; T1 with a pair of minute bumps. Head red-brown with two cone-like projections.

ADULT Wingspan 5.0 centimeters. Wings pale gray with narrow wavy black lines.

ECOLOGY Caterpillars are common; feed on manzanita during late spring to early summer. Adults are nocturnal; fly in fall. Found in dry woodlands and forests from western Oregon to Arizona.

GEOMETRIDAE

CYCLOPHORA DATARIA

CATERPILLAR The colors of this inchworm vary in the intensity of contrast between light and dark markings. Colors range from tan, to brown, to gray, but always with the darker middorsal semicircle countered by the anterior lateral light markings, particularly on A2 through A5.

ADULT Wingspan 2.4 centimeters. Wings yellow to pale brown with fine black speckles and a small round white spot near the discal cell.

ECOLOGY Caterpillars are common; feed on white oak during July and August. Adults are nocturnal; fly in summer. Found in oak woodlands ranging from California to British Columbia.

GEOMETRIDAE

DASYFIDONIA AVUNCULARIA



CATERPILLAR Red-brown with shades of dark pink; broken yellow spiracular line; lateral patches of dark red-brown on each abdominal segment.

ADULT Wingspan 3.0 centimeters. Forewings brown with black lines and a white subapical spot. Hindwings red-orange, each with two black lines.

ECOLOGY Caterpillars are uncommon; feed on bitter cherry during late spring to early summer. Adults are diurnal; fly in spring. Found in montane forests; widely distributed in western North America.

GEOMETRIDAE

DREPANULATRIX CARNEARIA

CATERPILLAR Yellow-green with pale-yellow speckles; multiple discontinuous, longitudinal lines, and ten middorsal red spots.

ADULT Wingspan 2.5 centimeters. The wings vary from cream-white, to pink or orange; each forewing has three narrow, nearly straight red lines.

ECOLOGY Caterpillars are uncommon; feed on *Ceanothus* during July and August. Adults are nocturnal; fly in early summer. Found in wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

DREPANULATRIX FALCATARIA



CATERPILLAR A patchwork of white, silver, gray, tan, and black; a thin yellow spiracular line, counter shaded with black patches, is broken by patches of gray-white.

ADULT Wingspan 3.0 centimeters. Forewings slightly falcate, red-orange to pink, each with three lines. Hindwings white.

ECOLOGY Caterpillars are common; feed on *Ceanothus* during spring. Adults are nocturnal; fly in early spring. Found in wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

DREPANULATRIX FOEMINARIA

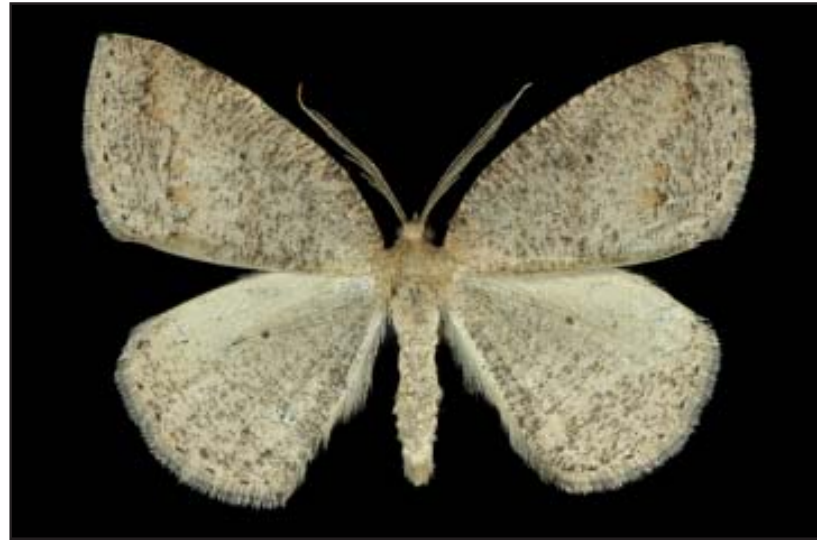
CATERPILLAR Body color variable, green or brown; lateral yellow band with ragged edges on light green body with faint white longitudinal markings; spiracles orange.

ADULT Wingspan 3.1 centimeters. Wings brown, speckled with black, and show amorphous gray-black markings.

ECOLOGY Caterpillars are common; feed on *Ceanothus* from June through August. Adults are nocturnal; fly in spring. Found in wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

DREPANULATRIX MONICARIA



CATERPILLAR Green with a velvet appearance; small middorsal white spots or patches may occur on midabdominal segments; middorsal red-brown streak on thorax and anterior abdomen.

ADULT Wingspan 2.8 centimeters. Forewings pink to light red, finely mottled with black flecks, postmedian line of black spots.

ECOLOGY Caterpillars are common; feed on species of *Ceanothus* from May through July. Adults are nocturnal; fly from spring to fall. Found in wet and dry forests; distributed along the West Coast from southern California to British Columbia.

GEOMETRIDAE

DREPANULATRIX UNICALCARARIA

CATERPILLAR Mottled brown and gray-black; faint scalloped subspiracular line.

ADULT Wingspan 4.0 centimeters. Forewings gray to red-orange with a narrow, sharply angled postmedian line.

ECOLOGY Caterpillars are common; feed on *Ceanothus* during spring. Adults are nocturnal; fly during two distinct periods: late spring to early summer and late summer to fall. Found in wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

DYSSTROMA CITRATA



CATERPILLAR Yellow-green; no other markings.

ADULT Wingspan 3.2 centimeters. Forewings with a black median band, a dark brown basal band, and a yellow apical patch.

ECOLOGY Caterpillars are common; feed on flowering trees and shrubs, such as alder and thimbleberry. Adults are nocturnal; fly from midsummer to fall. Found in moist forests; widely distributed in western North America.

GEOMETRIDAE

DYSSTROMA FORMOSA

CATERPILLAR Light green with a white hue, and white subdorsal longitudinal lines.

ADULT Wingspan 3.1 centimeters. Forewings with a gray median band and a dark brown basal band.

ECOLOGY This species is the most common inchworm on currants and gooseberries; feeds on many species of *Ribes* during June and July. Adults are nocturnal; fly in midsummer. Found in dry forests; widely distributed in western North America.

GEOMETRIDAE

DYSSTROMA SOBRIA



CATERPILLAR Head and body yellow green with ten middorsal red spots.

ADULT Wingspan 3.8 centimeters. Forewings with a white median band and dark brown basal and postmedian bands.

ECOLOGY Caterpillars are uncommon; feed on species of Ericaceae, such as salal and rhododendron, during April and May. Adults are nocturnal; fly in midsummer. This species is limited to moist forests of the Pacific West.

GEOMETRIDAE

SADDLEBACK LOOPER - *ECTROPIS CREPUSCULARIA*

CATERPILLAR Mottled white, gray, tan, brown, and golden; a black subdorsal dual striped longitudinal line extends from the head to A8; A8 with a pair of small dorsal warts.

ADULT Wingspan 4.1 centimeters. Forewings white with fine, dentate black lines.

ECOLOGY Caterpillars are very common, generalist feeders occurring in the spring and early summer on numerous flowering trees and shrubs, such as alder, willow, and snowberry, and conifers, such as Douglas-fir and western hemlock. Adults are nocturnal; fly in spring. Found in wet forests, riparian habitats and woodlands; widely distributed in western North America.

GEOMETRIDAE

ELPISTE LORQUINARIA



CATERPILLAR Body may be either green or brown; prominent lateral yellow band and faint yellow longitudinal markings are consistent in both body colors.

ADULT Wingspan 2.8 centimeters. Forewings with falcate apex, pale yellow or brown; each forewing has two narrow lines and three black marks in the submarginal area.

ECOLOGY Caterpillars are common; feed on red alder and willow from June through August. Adults are nocturnal; fly in late summer. Found in rain forests of the Pacific Northwest.

GEOMETRIDAE

MAPLE SPANWORM - *ENNOMOS MAGNARIA*

CATERPILLAR Green with yellow shading; tan-brown circumsegmental swellings around the posterior edge of A2, A3, and A5. Head green.

ADULT Wingspan 5.2 centimeters. Forewings yellow-orange with many small dark spots and a sharply angular outer margin.

ECOLOGY Caterpillars are uncommon; feed on alder and willow in late spring. Adults are nocturnal; fly in fall. Found in moist forests; widely distributed in western North America.

GEOMETRIDAE

ERANNIS TILIARIA - LINDEN LOOPER



CATERPILLAR Dorsum brown with black longitudinal lines; yellow laterally with faint to distinct red-brown shading around the spiracles; ventral part of body off-white.

ADULT Females are wingless. Male wingspan 4.0 centimeters. The wings are cream colored to pale yellow with fine speckles and dark wavy bands, the outer bands varying from solid black to pale brown.

ECOLOGY Caterpillars are very common; feed on many broadleaf trees and shrubs, such as serviceberry, white oak, and hazel, during May and June. Adults are nocturnal; fly in late fall. Found in oak woodlands; widely distributed in western North America.

GEOMETRIDAE

EUCHLAENA JOHNSONARIA

CATERPILLAR Small dorsal warts on A1 and A5, body with swirls of cream and light brown colors.

ADULT Wingspan 4.0 centimeters. Forewings falcate with a scalloped margin, dark brown to pale yellow with thin lines and black postmedian spots. Hindwings with a strongly scalloped margin.

ECOLOGY Caterpillars are uncommon; feed on cascara and mock orange during May and June. Adults are nocturnal; fly in midsummer. Found in moist forests; widely distributed in western North America.

GEOMETRIDAE

EUCHLAENA TIGRINARIA



CATERPILLAR Silver and gray with dorsal patches of red-brown; posterior of A1 and A5 with a subdorsal wart.

ADULT Wingspan 3.9 centimeters. Wings pale orange and speckled with many dark spots.

ECOLOGY Caterpillars are common; feed on many broadleaf trees and shrubs, particularly serviceberry and hazel, during April and May. Adults are nocturnal; fly in midsummer. Found in moist forests; widely distributed in western North America.

GEOMETRIDAE

EUDREPANULATRIX RECTIFASCIA

CATERPILLAR Brown head and light green body with faint white lines; small middorsal reddish brown spots or patches may occur on midabdominal segments; middorsal reddish brown streak on thorax and anterior abdomen.

ADULT Wingspan 2.8 centimeters. Forewings white to pink with fine gray mottling and a narrow postmedian line.

ECOLOGY Caterpillars are common; feed on species of *Ceanothus* from June through August. Adults are nocturnal; fly from early to late summer. Found in wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

EULITHIS XYLINA



CATERPILLAR Red-brown-amber; black collar around T2; intersegmental rings are pale gray-brown.

ADULT Wingspan 3.4 centimeters. Forewings with a dark brown median band with a smooth outer margin.

ECOLOGY Caterpillars are very common; feed on many broadleaf trees and shrubs, such as ocean spray, red stem osier, ninebark, and azalea, during June and July. Adults are nocturnal; fly in midsummer. Found in moist forests and riparian habitats; widely distributed in western North America.

GEOMETRIDAE

EUPITHECIA ANNULATA

CATERPILLAR Golden-yellow-green dorsally and laterally; venter olive green, no other markings.

ADULT Wingspan 2.3 centimeters. Forewings gray-brown with faint dark bands and a black discal spot. Hindwings with a checkered margin.

ECOLOGY Caterpillars are common; feed on conifers, such as hemlock and Douglas-fir, during late spring and early summer. Adults are nocturnal; fly in early spring. Found in coastal rain forests of the Pacific western states.

GEOMETRIDAE

EUPITHECIA GILVIPENNATA



CATERPILLAR Yellow-green with a dark red middorsal line from the head to A10.

ADULT Wingspan 2.6 centimeters. Forewings black, often with orange medial spots and an orange subapical patch.

ECOLOGY Caterpillars are common; feed on manzanita during late spring and early summer. Adults are nocturnal; fly in early spring. Found in dry forests and oak woodlands in the Pacific western states.

GEOMETRIDAE

EUPITHECIA GRAEFII

CATERPILLAR Color variable from solid green, a rosy pink, to red-pink, typically matching color with the hostplant.

ADULT Wingspan 2.3 centimeters. Forewings brown with a red-yellow cast; each forewing has an elongate, black discal spot.

ECOLOGY Caterpillars are common; feed on manzanita and madrone from April through June. Adults are nocturnal; fly in summer. Found in dry forests and woodlands; widely distributed in western North America.

GEOMETRIDAE

EUPITHECIA MAESTOSA



CATERPILLAR Light green throughout; immaculate.

ADULT Wingspan 2.0 centimeters. Forewings with brown basal and medial lines; each forewing has a faint transverse yellow band.

ECOLOGY Caterpillars are common, generalist feeders occurring in the spring on hardwood trees and shrubs, such as serviceberry, ash, ocean spray, and elderberry. Adults are nocturnal; fly from spring to midsummer. Found in moist forests; widely distributed in western North America.

GEOMETRIDAE

EUPITHECIA MISTURATA

CATERPILLAR Variable in color from white to rosy brown; A1 through A6 with distinct darker transverse band that is expanded anteriorly in the center and along each side near the subdorsal area.

ADULT Wingspan 1.8 centimeters. Forewings pale gray; each forewing has a small black discal spot.

ECOLOGY Caterpillars are very common, generalist feeders occurring in late spring and early summer on the foliage and flowers of flowering trees and shrubs, particularly ocean spray, manzanita, snowberry, and oak. Adults are nocturnal; fly in summer. Found in woodlands and wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

EUPITHECIA NEVADATA



CATERPILLAR Darker green dorsally with small white dots; lighter green ventrally with a white hue and small white dots; lateral off-white band bordered with streaks of red, mostly on thorax and posterior abdominal segments.

ADULT Wingspan 2.6 centimeters. Forewings white to gray with red to brown costal and submarginal patches.

ECOLOGY Caterpillars are common; feed on bitterbrush and species of *Ceanothus* during June and July. Adults are nocturnal; fly in early spring. Found in dry forests and juniper woodlands; widely distributed in western North America.

GEOMETRIDAE

EUPITHECIA RAVOCOSTALIATA

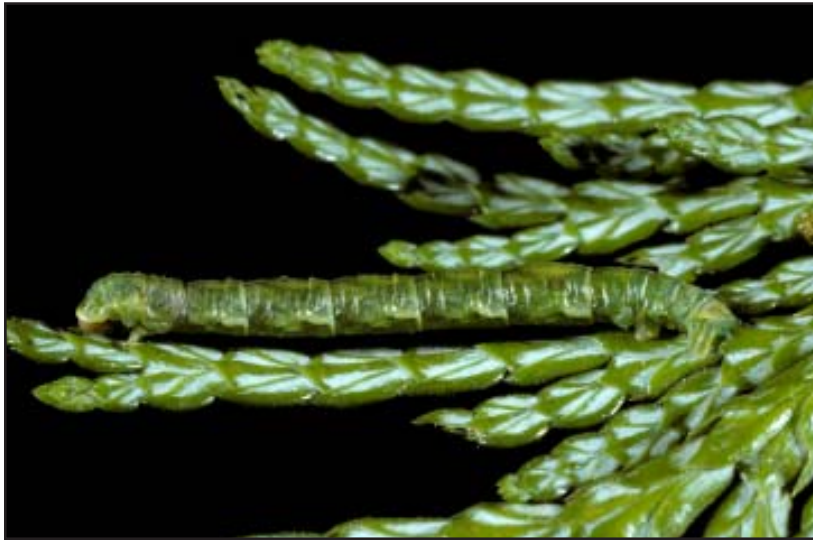
CATERPILLAR Dorsum and venter green; lateral off-white band bordered by a solid red line below.

ADULT Wingspan 2.3 centimeters. Forewings elongate and pointed with white and black costal and submarginal patches.

ECOLOGY Caterpillars are common; feed on cascara from June to August. Adults are nocturnal; fly in early spring. Found in woodlands and wet and dry forests in the Pacific western states.

GEOMETRIDAE

EUPITHECIA UNICOLOR



CATERPILLAR Green with shades of yellow, matching foliage of the foodplant for a cryptic appearance.

ADULT Wingspan 2.5 centimeters. Forewings red-brown to yellow-orange with a thin black medial line, often with black streaks along the submarginal border.

ECOLOGY Caterpillars are common; feed on western red cedar from May to July. Adults are nocturnal; fly in late summer. Found in wet coniferous forests from southern California to British Columbia.

GEOMETRIDAE

EUSTROMA SEMIATRATA

CATERPILLAR Red-brown; T3 with a transverse black line.

ADULT Wingspan 3.3 centimeters. Forewings with a black median band that has a jagged outer margin.

ECOLOGY Caterpillars are common; feed on herbaceous plants, such as fireweed, during spring. Adults are nocturnal; fly in fall. Found in open habitats associated with wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

GABRIOLA DYARI



CATERPILLAR Mostly brown, dorsum with light caramel-colored patches; subdorsally and laterally abdomen with slightly swollen areas; white dorsal patches on A1, A3, and A8. This caterpillar can contort its body into a configuration that looks like a male cone of conifers.

ADULT Wingspan 2.8 centimeters. Forewings dark, mottled gray to black; each forewing has a narrow, wavy, black median line and a curved, black basal line.

ECOLOGY Caterpillars are uncommon; feed on conifers, such as Douglas-fir and western hemlock, during late spring. Adults are nocturnal; fly in summer. Found in wet and dry coniferous forests; widely distributed in western North America.

GEOMETRIDAE

HESPERUMIA LATIPENNIS

CATERPILLAR Gray mixed with white-gray; small dorsal tubercles on A2 and A2 slightly bulging laterally; small ventral tubercles on A3.

ADULT Wingspan 3.5 centimeters. Forewings a uniform pale gray; each forewing has a narrow, sharply dentate median line.

ECOLOGY Caterpillars are common; feed on ocean spray and currants during spring. Adults are nocturnal; fly in midsummer. Found in wet and dry forests; most common west of the Cascade Mountains, ranging from California to British Columbia.

GEOMETRIDAE

HESPERUMIA SULPHURARIA



CATERPILLAR The body color of this species is highly variable, often matching its background. The subdorsal wart on A2 is the best trait for tentative field identification.

ADULT Wingspan 3.5 centimeters. Forewings pale to dark yellow with purple-brown median and basal bands and a broad purple-brown discal spot; markings are variable from very prominent bands to nearly no marks except for the discal spot.

ECOLOGY Caterpillars are very common; feed on many broadleaf trees and shrubs, such as species of *Ceanothus*, manzanita, ocean spray, and bitterbrush, from May through July. Adults are nocturnal; fly in midsummer. Found in woodlands and wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

HYDRIOMENA MANZANITA

CATERPILLAR Off-white, almost translucent; middorsal black line from T2 through A9. Head light brown.

ADULT Wingspan 3.2 centimeters. Forewings elongate and pale gray with obscure markings forming dark curved bands.

ECOLOGY Caterpillars are common; feed on manzanita and madrone during June and July. Adults are nocturnal; fly in spring. Found in dry conifer forests and oak woodlands along the West Coast from California to British Columbia.

GEOMETRIDAE

HYPAGYRTIS UNIPUNCTATA



CATERPILLAR Tan and brown; A4 and A5 with a diffuse patch of white.

ADULT Wingspan 3.3 centimeters. Forewings white, mottled with yellow and brown; each forewing has a small black discal spot. Hindwings with margin slightly scalloped.

ECOLOGY Caterpillars are common; feed on alder during spring. Adults are nocturnal; fly in late summer. Found in wet forests; widely distributed in western North America.

GEOMETRIDAE

IRIDOPSIS EMASCULATA

CATERPILLAR Dorsal red markings with irregular borders, noticeably expanded and constricted on A3 through A6; subdorsally and laterally green.

ADULT Wingspan 3.5 centimeters. Forewings pale gray-cream with narrow wavy black lines and a brown patch bordered by two black tooth-like marks in the subapical area.

ECOLOGY Caterpillars are common; feed on maple, alder, and *Vaccinium* during spring. Adults are nocturnal; fly in midsummer. Found in woodlands, riparian habitats, and wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

ITAME BITACTATA

CATERPILLAR Green to gray-brown with white and brown shading on each segment separated at an oblique angle.

ADULT Wingspan 3.1 centimeters. Forewings gray with black dashes and lines.

ECOLOGY Caterpillars are common; feed on currants and gooseberries during late spring. Adults are nocturnal; fly in midsummer. Found in dry forests; widely distributed in western North America.

GEOMETRIDAE

ITAME COLATA

CATERPILLAR Mottled silver, gray, and white; darker patch near spiracles.

ADULT Wingspan 2.3 centimeters. Forewings gray; each forewing has a broad brown postmedian band curved and outlined in black.

ECOLOGY Caterpillars are common; feed on bitterbrush and sagebrush during spring. Adults are nocturnal; fly from mid- to late summer. Found in pine forests and juniper woodlands; widely distributed in western North America.

GEOMETRIDAE

ITAME GUENEARIA



CATERPILLAR Light red to orange-pink; lateral yellow patches on A1 and A2.

ADULT Wingspan 2.8 centimeters. Forewings pale gray; each forewing has a yellow postmedian band outlined with brown. Hindwings white to yellow.

ECOLOGY Caterpillars are common; feed on California coffeeberry during spring. Adults are nocturnal; fly in midsummer. Found in dry open forests and woodlands; distributed in the Pacific western states and the Southwestern states.

GEOMETRIDAE

ITAME QUADRILINEARIA

CATERPILLAR Green with dark brown patches sublaterally.

ADULT Wingspan 2.8 centimeters. Forewings gray with fine dark lines; each forewing has a bright yellow patch along the costal margin on the venter (not shown) of the forewing.

ECOLOGY Caterpillars are common; feed on snowbrush during spring. Adults are nocturnal; fly in midsummer. Found in wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

LAMBDA FISCCELLARIA - OAK (HEMLOCK) LOOPER



CATERPILLAR Color highly variable, typically white, gray, and light brown; longitudinal lines in different shades of typical body colors; paired black dorsal spots.

ADULT Wingspan 3.7 centimeters. Forewings slightly falcate, gray to yellow-tan, each with narrow black postmedian and basal lines edged with orange, and a small black discal spot.

ECOLOGY This caterpillar is very common and may cause heavy defoliation of its principal host, white oak; present from June to September. Adults are nocturnal; fly in fall. Found in oak woodlands and coniferous forests; widely distributed in western North America.

GEOMETRIDAE

MELANOLOPHIA IMITATA

CATERPILLAR Green with multiple white lines creating a middorsal longitudinal band; lateral white line extends from T1 to A10.

ADULT Wingspan 3.7 centimeters. Forewings a dull mottled brown with narrow wavy lines and small black marginal spots.

ECOLOGY Caterpillars are common; feed on Pinaceae, particularly Douglas-fir, during spring and early summer. Adults are nocturnal; fly in early spring. Found in wet and dry coniferous forests; widely distributed in western North America.

GEOMETRIDAE

NEMATOCAMPA RESISTARIA - FILAMENT BEARER



CATERPILLAR Mottled caramel, brown, and gray-white. Two very long filaments middorsal on A2 and A3, each forked creating two smaller filaments with white tips.

ADULT Wingspan 2.5 centimeters. Forewings falcate, pale cream to deep yellow with broad purple-brown borders and narrow wavy lines.

ECOLOGY Caterpillars are common; feed on the foliage of flowering trees, shrubs, and herbaceous plants such as maple, alder, snowberry, oak, and mint, during spring and early summer. Adults are nocturnal; fly in late summer. Found in open habitats, woodlands, and forests; widely distributed in western North America.

GEOMETRIDAE

NEMORIA DARWINIATA

CATERPILLAR The lateral flanges on A2 through A5 are characteristic of three common inchworms (see *Chlorosea banksaria*; the third species, *Synchlora aerata*, is not illustrated). Coloration in this species varies among light green, yellow, tan, and brown.

ADULT Wingspan 2.9 centimeters. Wings green with narrow, curved, white basal and median lines.

ECOLOGY Caterpillars are common; feed on many broadleaf trees and shrubs, such as white oak, myrica, ocean spray, bitterbrush, and snowbrush, during March to September. Adults are nocturnal; fly in midsummer. Found in woodlands, and wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

NEOALCIS CALIFORNIARIA



CATERPILLAR This caterpillar is variable in color (shades of off-white, brown, and gray) and pattern. In fact, the lack of notable features in combination with the presence of mature larvae occurring in early spring serve as the best clue to the identity of this species.

ADULT Wingspan 3.6 centimeters. Forewings mottled cream to dark brown with wavy dark median and basal lines.

ECOLOGY This is the most abundant moth species that is capable of feeding extensively on foliage of numerous species of conifers and angiosperms in the fall and into the early summer of the following year. Caterpillars are very common; feed on broadleaf trees, such as big-leaf maple and serviceberry; shrubs, such as myrica and blueberry; as well as many conifers, such as pines and Douglas-fir. Adults are nocturnal; fly from late summer into fall. Found in woodlands, and wet and dry forests, particularly common west of the Cascade Mountains; distributed from California to British Columbia.

GEOMETRIDAE

NEPYTIA UMBROSARIA

CATERPILLAR Middorsal white band edged with a thin black line; laterally golden brown with a faint white spiracular line.

ADULT Wingspan 3.6 centimeters. Forewings mostly gray with jagged median and basal lines; each forewing has a small black discal spot.

ECOLOGY This is one of the most abundant conifer-feeding caterpillars in western forests. Caterpillars are very common; feed on conifers in spring. Adults are nocturnal; fly from mid- to late summer. Found in wet and dry coniferous forests; widely distributed in western North America.

GEOMETRIDAE

OPEROPHTERA BRUCEATA - BRUCE SPANWORM



CATERPILLAR Green; prominent subdorsal white bands.

ADULT Females are wingless. The male wingspan is 2.9 centimeters. Forewings solid dark gray to pale cream with fine dark lines.

ECOLOGY This species was previously known as *O. occidentalis* and is very similar in appearance to an exotic pest, *O. brumata*, the winter moth. This is one of just a few species of moths exhibiting a limited flight period restricted to November and December. Caterpillars are very common; feed on many broadleaf trees, such as big-leaf maple, oak, red alder, bitter cherry, hazel, and willow, from March to June. Adults are nocturnal, males fly in early winter. Found in low elevation woodlands and wet forests; widely distributed in western North America.

GEOMETRIDAE

OPEROPHTERA DANBYI

CATERPILLAR Green with white spots demarking the location of primary setae and three dorsal white longitudinal lines, lateral line light yellow.

ADULT Females are wingless. The male wingspan is 3.4 centimeters. Forewings elongate and gray with dark lines.

ECOLOGY This is one of just a few species of moths exhibiting a limited flight period restricted to November and December. Caterpillars are uncommon, generalist feeders on the foliage of flowering trees and shrubs, particularly ash, cherry, and oak, during the spring. Adults are nocturnal, males fly in early winter. Found in woodlands in the Pacific Northwest.

GEOMETRIDAE

PERIZOMA COSTIGUTTATA



CATERPILLAR Red-brown; immaculate.

ADULT Wingspan 2.5 centimeters. Forewings gray with three black costal bars.

ECOLOGY Caterpillars are common; feed on ocean spray during spring. Adults are nocturnal; fly from spring to midsummer. Found in woodlands, and wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

PERO MIZON

CATERPILLAR Body color is highly variable, often gray with faint black markings; A2 through A4 swollen ventrally. Head slightly cleft.

ADULT Wingspan 4.1 centimeters. Forewings pale red-brown with a darker median area, wing edge dentate.

ECOLOGY Caterpillars are common; feed on many broadleaf trees, such as snowbrush, hazel, Pacific dogwood, and madrone, from April to August. Adults are nocturnal; fly from mid- to late summer. Found in wet conifer forests of the Pacific Northwest, especially abundant west of the Cascade Mountains.

GEOMETRIDAE

PERO OCCIDENTALIS



CATERPILLAR Mottled light yellow, tan, and brown; no other distinctive markings.

ADULT Wingspan 3.4 centimeters. Forewings dark gray-brown, wing edges dentate; each forewing with a red-black median band. Males have slightly dentate antennae with minute antennal branches.

ECOLOGY Caterpillars are common; feed on the foliage of Pinaceae and some hardwood shrubs, such as ocean spray, during spring. Adults are nocturnal; fly from late spring to midsummer. Found in woodlands, and wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

PHIGALIA PLUMOGERARIA

CATERPILLAR Gray-brown; lateral golden yellow patches on A1 through A3 apparent, faint on A4 through A7; a pair of small dorsal warts on A1 through A3, and A8.

ADULT Females are wingless. Male wingspan 4.5 centimeters. Forewings pale gray; each forewing with four thin black lines. Hindwings pale gray, each with a small black discal spot. Antennae pectinate.

ECOLOGY Caterpillars are common; feed on oak and serviceberry during spring. Adults are nocturnal, males fly in early spring. Found in oak woodlands along the Pacific coast from California to British Columbia.

GEOMETRIDAE

PROBOLE AMICARIA



CATERPILLAR Pale green and brown to red-brown; A5 with a slightly raised transverse ridge.

ADULT Wingspan 3.5 centimeters. Forewings falcate, pale mottled brown with a darker brown submarginal area, the subapical part of the median line extends to the wing margin in an abrupt, concave curve.

ECOLOGY Caterpillars are common; feed on dogwood and huckleberry during spring. Adults are nocturnal; fly from late spring to early summer. Found in wet conifer forests of the Pacific Northwest.

GEOMETRIDAE

PROTITAME MATILDA

CATERPILLAR Yellow-green to light red-brown; no other notable markings.

ADULT Wingspan 2.1 centimeters. Forewings white to pale yellow with a thin, straight basal line and postmedian line. Hindwings with a curved postmedian line.

ECOLOGY Caterpillars are common; feed on willow and poplar during spring. Adults are nocturnal; fly from spring to midsummer. Found in woodlands, and wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

RHEUMAPTERA SUBHASTATA



CATERPILLAR Black; prolegs and spiracular area pale orange. Head orange.

ADULT Wingspan 3.1 centimeters. Forewings white with black borders and mottled black basal and median areas.

ECOLOGY This caterpillar lives in folded leaf tents and is common on mountain alder during August and September. Adults are diurnal; fly from late spring to midsummer. Found in montane forests; widely distributed in western North America.

GEOMETRIDAE

OMNIVOROUS LOOPER - *SABULODES AEGROTATA*

CATERPILLAR Dorsum and lateral region of T1 through A9 with longitudinal stripes of black, orange, gray, and white; mostly light yellow below the spiracular line. Head orange with a pair of black spots near the top of the head capsule.

ADULT Wingspan 4.4 centimeters. Forewings slightly falcate, pale yellow to darker brown with converging, dentate median and postmedian lines.

ECOLOGY This is one of just a few species that may occur 'on the wing' any month of the year, a behavior connected to its distribution along relatively mild coastal environments. Caterpillars are common; feed on red elderberry, salmonberry, red alder, and ocean spray, from May to September. Adults are nocturnal; fly throughout the year. Found in wet coastal forests in the Pacific western states.

GEOMETRIDAE

SELENIA ALCIPHEARIA



CATERPILLAR Head, thorax and parts of A5 and A6 streaked with white and gray; A1 through A4 golden yellow; A6 through A10 darker brown; A5 and A6 with a pair of dorsal humps.

ADULT Wingspan 4.2 centimeters. Forewings falcate, mottled pale yellow to brown; each forewing has three narrow, black lines and an apical orange patch.

ECOLOGY The caterpillar in this photo was reared in the lab from eggs obtained from a female moth field-collected live at a blacklight and then placed in a container for a couple of days. Caterpillars are uncommon; feed on the foliage of maple, alder, and birch. Adults are nocturnal; fly from early spring to midsummer. Found in wet forests; widely distributed in western North America.

GEOMETRIDAE

SEMIOTHISA BURNEYATA

CATERPILLAR Green mottled with white patches and spots, the dark and light green hues of the caterpillar result in a remarkable example of cryptic coloration.

ADULT Wingspan 3.0 centimeters. Forewings light red-pink-brown; each forewing has two to three nearly straight black lines.

ECOLOGY Caterpillars are common; feed on cedars during late spring and early summer. Adults are nocturnal; fly from early to late summer. Found in wet coniferous forests; distributed in the Pacific western states.

GEOMETRIDAE

SEMIOTHISA SUBMINIATA



CATERPILLAR Green with faint white dorsal longitudinal lines; cream-white lateral line.

ADULT Wingspan 2.8 centimeters. Forewings pink to red-pink; each forewing has a broad, curved, black postmedian band and a smaller black basal band.

ECOLOGY Caterpillars are uncommon; feed on willow during late spring. Adults are nocturnal; fly in midsummer. Found in riparian habitats of dry forest and woodlands; widely distributed in western North America.

GEOMETRIDAE

SERICOSEMA JUTURNARIA

CATERPILLAR Poorly defined patches of alternating light and dark gray-brown; minute warts subdorsally on A2 through A5; yellow spiracles.

ADULT Wingspan 3.5 centimeters. Forewings pale tan with a curved black postmedian line and a variable black submarginal border.

ECOLOGY This species may be the most abundant moth in post-fire regeneration habitats, where snowbrush is the dominant vegetation. Caterpillars are very common; feed on *Ceanothus* from May to July. Adults are nocturnal; fly in midsummer. Found in woodlands, and wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

SICYA CROCEARIA



CATERPILLAR Green with red-brown highlights; middorsum of A3 and A5 with a dual pronged horn the length of which is equal to the body width; a third shorter horn occurs middorsally on A8.

ADULT Wingspan 3.4 centimeters. Forewings slightly falcate, yellow with narrow basal and median lines, pink-red in the postmedian areas.

ECOLOGY Caterpillars are uncommon; feed on red alder during June and July. Adults are nocturnal; fly in midsummer. Found in wet conifer forests; widely distributed in western North America.

GEOMETRIDAE

SPARGANIA MAGNOLIATA

CATERPILLAR Yellow-green with a lateral diffuse band of rosy red.

ADULT Wingspan 3.0 centimeters. Forewings gray with wavy black lines and bands; each forewing has a small black discal spot. Hindwings pink-gray.

ECOLOGY Caterpillars are common; feed on fireweed during spring. Adults are nocturnal; fly from spring to late summer. Found in open habitats associated with wet forests; widely distributed in western North America.

GEOMETRIDAE

STAMNODES COENONYMPHATA



CATERPILLAR Green with a tint of yellow along a subdorsal longitudinal band.

ADULT Wingspan 3.1 centimeters. Forewings pale yellow with a white postmedian band and gray-black median and apical patches.

ECOLOGY Caterpillars are common; feed on mountain mahogany during late spring. Adults are nocturnal; fly in early spring. Found in dry oak woodlands; distributed in southern California and southwestern Oregon.

GEOMETRIDAE

SYNAXIS CERVINARIA

CATERPILLAR Light green to green-brown to red-orange; dorsally T2 swollen into a transverse ridge; minute middorsal wart on A4 and A8.

ADULT Wingspan 4.3 centimeters. Forewings strongly falcate, red-brown to gray, with narrow basal and median lines.

ECOLOGY Caterpillars are common; feed on willow, cascara, bitterbrush, and species of *Ceanothus* from June to August. Adults are nocturnal; fly from spring to midsummer. Found in woodlands, and wet and dry forests; widely distributed in western North America.

GEOMETRIDAE

SYNAXIS FORMOSA



CATERPILLAR Dorsally gray-brown with thin longitudinal lines; ventrally gray-yellow with patches of gray-brown; a pair of small dorsal warts on A2 through A5; A8 with a small hump.

ADULT Wingspan 4.2 centimeters. Forewings gray with jagged black postmedian and basal lines outlined in white. Hindwings white with a scalloped gray margin.

ECOLOGY Caterpillars are common; feed on rabbit brush during late spring. Adults are nocturnal; fly in fall. Found in dry juniper woodlands and sagebrush rangelands in western North America.

GEOMETRIDAE

SYNAXIS JUBARARIA

CATERPILLAR Mottled gray to light brown-red; a pair of prominent dorsal warts on T1, A4, and A5; a pair of very small warts on A3, A6, and A7.

ADULT Wingspan 4.0 centimeters. Forewings strongly falcate, pale yellow to orange, with narrow basal and median lines.

ECOLOGY Caterpillars are common; feed on many broadleaf trees and shrubs, such as big-leaf maple, ash, red alder, and snowberry, during late spring. Adults are nocturnal; fly in fall. Found in wet conifer forests; widely distributed in western North America.

GEOMETRIDAE

THALLOPHAGA TAYLORATA



CATERPILLAR One of very few species found on sword fern. This caterpillar is easily identified by its orange, brown, and tan body with faint white subdorsal longitudinal lines; midabdominal intersegmental areas orange brown.

ADULT Wingspan 3.3 centimeters. Forewings slightly falcate, lightly speckled brown with a dark brown median band and postmedian line, or separate small postmedian spots.

ECOLOGY This is the most abundant caterpillar on sword fern. Caterpillars are common; feed on sword fern during May and June. Adults are nocturnal; fly in early spring. Found in wet conifer forests in the Pacific western states.

GEOMETRIDAE

TRIPHOSA CALIFORNIATA

CATERPILLAR Numerous longitudinal lines and bands of pink-gray, black, yellow, and light brown; the most distinctive trait is the lateral yellow band edged dorsally by a black line.

ADULT Wingspan 3.3 centimeters. Forewings dark gray with a wavy median band and thin lines. Hindwings white with gray borders and scalloped margins.

ECOLOGY Caterpillars are common; feed on coffeeberry during late spring and early summer. Adults are nocturnal; fly in early spring. Found in open habitats, woodlands, and wet forests in the Pacific western states.

GEOMETRIDAE

TRIPHOSA HAESITATA



CATERPILLAR Translucent green; lateral off-white band; dorsal and lateral cream-white lines.

ADULT Wingspan 3.9 centimeters. Forewings variable red-brown with darker and lighter wavy bands. Hindwings with the margin strongly dentate.

ECOLOGY This is the most abundant caterpillar on cascara. Caterpillars are common; feed on cascara during June and July. Adults are nocturnal, overwinter, fly from late summer into next spring. Found in woodlands and wet conifer forests; widely distributed in western North America.

LASIOCAMPIDAE

WESTERN TENT CATERPILLAR - *MALACOSOMA CALIFORNICUM*

CATERPILLAR White dorsal patches bordered in black surrounded by orange; an off-white spiracular line with two blue patches per segment above it; dense white hairs laterally.

ADULT Wingspan 2.9 centimeters. Forewings of male (see photo) variably red-brown to yellow with two thin lines. Hindwings of male red-brown. Female wings are more yellow than those of the male, with red-brown shading.

ECOLOGY The extensive blue coloring is unusual in caterpillars and typical of the genus *Malacosoma*. Caterpillars are very common; feed on many broadleaf trees, such as big-leaf maple, oak, and red alder, during early summer. Adults are nocturnal; fly in midsummer. Found in a wide variety of habitats, particularly oak woodlands; widely distributed in western North America.

LASIOCAMPIDAE

MALACOSOMA CONSTRICTUM - PACIFIC TENT CATERPILLAR



CATERPILLAR Blue and black; dense white hairs laterally.

ADULT Wingspan 3.0 centimeters. Forewings of male (see photo) variably yellow with two thin dark lines. Hindwings of male yellow. Female wings with red-brown shading.

ECOLOGY Caterpillars are very common; feed on oak during late spring to early summer. Adults are nocturnal; fly in midsummer. Found in oak woodlands from southern California to western Oregon.

LASCIOCAMPIDAE

FOREST TENT CATERPILLAR - *MALACOSOMA DISSTRIA*

CATERPILLAR Blue and black; silvery-white dorsal patches bordered in black; a yellow orange subdorsal and lateral longitudinal line also bordered in black; dense white hairs laterally.

ADULT Wingspan 2.8 centimeters. Forewings of male (see photo) variably yellow to red-brown with two thin lines; female forewings are darker red-brown than those of male. Hindwings of male and female red-brown.

ECOLOGY This species does not construct a tent. Caterpillars are very common; feed on many broadleaf trees such as madrone, oak, and red alder, during early summer. Adults are nocturnal; fly in midsummer. Found in a wide variety of habitats, particularly oak woodlands; widely distributed in western North America.

LASIOCAMPIDAE

PHYLLODESMA AMERICANA - LAPPET MOTH



CATERPILLAR Silver and gray with black tones; soft, fuzzy, gray hairs; transverse orange yellow line across A1 and A2; small middorsal raised area on A8.

ADULT Wingspan 3.6 centimeters. Forewings red-brown with fine spots and a deeply notched anal margins. Hindwings small with dentate margins.

ECOLOGY Caterpillars are very common; feed on many broadleaf trees, such as white oak, serviceberry, alders, chinquapin, and willows, during spring. Adults are nocturnal; fly between late spring and early summer. Found in woodlands, and wet and dry forests; widely distributed in western North America.

LASIOCAMPIDAE

TOLYPE DISTINCTA

CATERPILLAR Dark gray and bronze brown; soft, fuzzy, silver white hairs; transverse black line with orange spots across the intersegmental area between A1 and A2.

ADULT Wingspan 3.3 centimeters. Forewings pale gray with dark gray bands and white veins.

ECOLOGY The caterpillar in this photo was reared during the spring from eggs collected from a female attracted to a blacklight in October. Caterpillars are uncommon; feed on Pinaceae during spring. Adults are nocturnal; fly in late summer and fall. Found in wet and dry coniferous forests; widely distributed in western North America.

LYMANTRIIDAE

DASYCHIRA GRISEFACTA



CATERPILLAR Dense covering of white, gray, and black hairs of varying lengths, including thick tufts of gray hairs on A1 through A4; a pair of long tufts of black hairs project laterally anterior from A1 and laterally posterior from A8; also a single tuft of long black hairs projects dorsally posterior from A8; clusters of short white clubbed hairs occur dorsally and laterally; bright red glands middorsal on A6 and A7; a row of single long, black, clubbed hairs point laterally.

ADULT Wingspan 4.2 centimeters. Forewings light gray to black with a small white subanal spot in the postmedian area.

ECOLOGY We have reared field-collected larvae that resulted in the emergence of wingless females. Caterpillars are uncommon; feed on Pinaceae, particularly Douglas-fir and grand fir, during April and May. Adults are nocturnal; fly from mid- to late summer. Found in coniferous forests; widely distributed in western North America.

LYMANTRIIDAE

VARIABLE TUSSOCK MOTH - *DASYCHIRA VAGANS*

CATERPILLAR Dense covering of white, gray, and black hairs of varying lengths, including thick tufts of gray hairs on A1 through A4; a pair of long tufts of black hairs project laterally anterior from A1 and laterally posterior from A8; also a single tuft of long black hairs projects dorsally posterior from A8; clusters of short white clubbed hairs occur dorsally and laterally; red middorsal glands on A6 and A7; a row of paired long, black, clubbed hairs point laterally.

ADULT Wingspan 4.5 centimeters. Forewings gray with pale mottling, no white subanal spot.

ECOLOGY Caterpillars are common on many species of broadleaf trees, particularly white oak, during May and June. Adults are nocturnal; fly from early to late summer. Found in oak woodlands and low elevation forests; widely distributed in western North America.

LYMANTRIIDAE

LEUCOMA SALICIS - SATIN MOTH



CATERPILLAR Creamy yellow highlighted with black; midline of dorsum with irregular yellow circles; subdorsally a broken stripe of yellow bordered in black; laterally and ventrally light creamy color speckled with irregular black markings; base of hair tufts red-orange; dorsal hairs red-orange; lateral and ventral hairs mostly white.

ADULT Wingspan 5.2 centimeters. Wings with a silk white, satin sheen, and light yellow costal and basal areas. Leg hairs colored in black and white rings.

ECOLOGY This is an accidentally introduced species and on occasion is considered a pest on quaking aspen in Oregon's central Cascade Mountains. Caterpillars are common on willow and quaking aspen during late spring. Adults are nocturnal; fly in midsummer. Found in urban areas, riparian habitats, and montane forests; widely distributed in North America.

LYMANTRIIDAE

GYPSY MOTH - *LYMANTRIA DISPAR*

CATERPILLAR Long tan hairs rise from subdorsal tufts; T1 through A2 with a pair of dorsal blue warts; A3 through A7 with a pair of dorsal red warts. Head with two wide, black, oblique lines and mottled with black spots.

ADULT Male (see photo): Wings brown with prominent zigzag black lines on the forewings; each forewing has a single discal spot. Female: Wings white with prominent zigzag black lines on the forewings; each forewing has a single discal spot.

ECOLOGY Introduced from Europe, the gypsy moth is now widely distributed in North America. This species is a notorious pest, which is why we have illustrated it here. Although it is not established in the Pacific Northwest, it is a chronic pest problem in the region. Caterpillars feed on numerous broadleaf trees, particularly oaks, as well as some conifers, including Douglas-fir and Colorado blue spruce, likely to occur during May and June. Adults are diurnal; females possess wings but are flightless, males fly in midsummer. Historically, the gypsy moth in the Pacific Northwest has been found in metropolitan and rural areas, including orchards and surrounding low elevation oak woodlands and conifer forests.

LYMANTRIIDAE

ORGYIA ANTIQUA - RUSTY TUSSOCK MOTH



CATERPILLAR Densely covered with light yellow hairs originating from a pale red base; middorsal tufts of off-white hairs on A1 through A4; tufts of long black hairs project forward and laterally from A1; a single tuft of long black hairs projects dorsally and posterior from A8; pale red middorsal glands on A6 and A8.

ADULT Females are wingless; the male wingspan is 3.0 centimeters. Forewings red-brown with a large white subanal spot in the postmedian area. Hindwings red-orange to orange-brown.

ECOLOGY Caterpillars are very common on many broadleaf trees and shrubs, such as willow, white oak, and black cottonwood, during June and July. Adults are nocturnal, males fly from late summer to fall. Found in low elevation woodlands and forests; widely distributed in North America.

LYMANTRIIDAE

DOUGLAS-FIR TUSOCK MOTH - *ORGYIA PSEUDOTSUGATA*

CATERPILLAR Densely covered with white hairs that originate from a red base; middorsal tufts of golden-tipped white hairs on A1 through A4 and A8; tufts of long black hairs project laterally and anterior from A1; a single tuft of long black hairs project dorsally and posterior from A8; bright red middorsal glands on A6 and A7.

ADULT Females are wingless. The male wingspan is 3.3 centimeters. Forewings gray to black with a small subanal spot. Hindwings dark red-brown.

ECOLOGY This species is known as the Douglas-fir tussock moth and is considered a forest pest causing severe defoliation of certain conifer species. Caterpillars are very common; feed on Pinaceae during late spring. Adults are diurnal, males fly from late summer to fall. Found in coniferous forests; widely distributed in western North America.

NOCTUIDAE

ABAGROTIS DUANCA



CATERPILLAR Gray, brown, and black with subdorsal patches of orange; white scalloped spiracular band (mostly on A4 through A6) with brown markings within the band.

ADULT Wingspan 2.4 centimeters. Forewings dark gray-black with a pale gray postmedian border, and small reniform and orbicular spots that are obscure or outlined in white.

ECOLOGY Caterpillars are common; feed on big sagebrush during spring. Adults are nocturnal; fly from mid- to late summer. Found in dry juniper woodlands and sagebrush rangelands; widely distributed in western North America.

NOCTUIDAE

ABAGROTIS GLENNI

CATERPILLAR Variable shades of green to pink-brown, later instars mostly pink-brown; white dashed line below black shading along dorsum of T1 through A10 and laterally on T1 through T3.

ADULT Wingspan 3.4 centimeters. Forewings pale gray-brown with a large white reniform spot and black basal and discal streaks.

ECOLOGY Caterpillars are uncommon; feed on western juniper during early summer. Adults are nocturnal; fly in late summer. Found in juniper woodlands; widely distributed in western North America.

NOCTUIDAE

ACHYTONIX EIPASCHIA



CATERPILLAR Green, middorsal, subdorsal, and subspiracular white longitudinal bands extend from T1 through A10. Head green.

ADULT Wingspan 3.4 centimeters. Forewings dark gray to black with gray to red-brown discal spots and the reniform spot at the end of the discal cell slightly curved.

ECOLOGY Caterpillars are uncommon; feed on various conifers, including Douglas-fir, during early summer. Adults are nocturnal; fly in late summer. Found in moist conifer forests; widely distributed in western North America.

NOCTUIDAE*ACRONICTA CYANESCENS*

CATERPILLAR Extremely long and dense white hairs obscure the green body.

ADULT Wingspan 4.7 centimeters. Forewings gray with black basal and subanal streaks.

ECOLOGY Only one individual caterpillar of this species has been field-collected during the fifteen years of our projects. Caterpillars are rare; feed on snowbrush during late spring. Adults are nocturnal; fly in midsummer. Found in dry forests of western North America.

NOCTUIDAE

ACRONICTA FUNERALIS



CATERPILLAR Early instars brown with white markings; fourth instar black with middorsal light yellow markings triangular to elliptical with transverse black streaks in the center and black sparse long hairs with flattened tips.

ADULT Wingspan 3.4 centimeters. Forewings pale gray with an irregular black band across the inner wing margin.

ECOLOGY Caterpillars are uncommon; feed on broadleaf plants, such as blueberry, hazel, and white oak, during early summer. Adults are nocturnal; fly from late spring to early summer. Found in low elevation forests west of the Cascade Mountains; widely distributed in western North America.

NOCTUIDAE

GRAY DAGGER MOTH - *ACRONICTA GRISEA*

CATERPILLAR Green, dorsal brown patch wider on T1 and A4 through A8; outside edge of dorsal brown patches counter-shaded with yellow. Head brown with two conical points.

ADULT Wingspan 4.0 centimeters. Forewings dark gray with black basal and anal margin dashes, postmedian band with a sharply dentate margin. Hindwings white.

ECOLOGY Caterpillars are common; feed on red alder during late summer. Adults are nocturnal; fly in midsummer. Found in moist forests; widely distributed in western North America.

NOCTUIDAE

ACRONICTA HESPERIDA



CATERPILLAR Covered with tufts of dense orange hairs on dorsum and white hairs laterally; anterior and posterior a few longer white and black “wild” hairs stick out beyond the tufts of shorter hairs.

ADULT Wingspan 5.3 centimeters. Forewings pale gray with reniform and orbicular discal spots strongly outlined.

ECOLOGY Caterpillars are uncommon; feed on red alder and mountain alder during late summer. Adults are nocturnal; fly in midsummer. Found in moist forests; widely distributed in western North America.

NOCTUIDAE

YELLOW-HAIRED DAGGER MOTH - *ACRONICTA IMPLETA*

CATERPILLAR Two prominent tufts of hairs on thorax, partially encircled with white hair tufts; two gray hair pencils on dorsum of A8.

ADULT Wingspan 4.8 centimeters. Forewings dark black-gray with the postmedian band outlined as small white spots.

ECOLOGY Caterpillars are uncommon; feed on red alder during spring. Adults are nocturnal; fly in early summer. Found in coastal rainforests; widely distributed in western North America.

NOCTUIDAE

ACRONICTA IMPRESSA - IMPRESSED DAGGER MOTH



CATERPILLAR The brown-black color of the body provides a strong contrast to the clusters of white hairs that originate from reddish orange spots.

ADULT Wingspan 3.8 centimeters. Forewings dark, mottled with gray, discal spots outlined and filled with darker gray. Hindwings gray.

ECOLOGY Caterpillars are common; feed on wild roses and bitterbrush during midsummer. Adults are nocturnal; fly in early summer. Found in many forest habitats; widely distributed in western North America.

NOCTUIDAE

ACRONICTA MARMORATA



CATERPILLAR Yellow and brown; dark brown middorsal line. Head dark brown.

ADULT Wingspan 4.3 centimeters. Forewings mottled black, gray, and white with black basal and subanal dashes.

ECOLOGY Caterpillars are very common; feed on oak during midsummer. Adults are nocturnal; fly from spring to early summer. Found in oak woodlands; widely distributed in Pacific western states.

NOCTUIDAE

ACRONICTA PERDITA



CATERPILLAR A broad white spiracular band constricts at each spiracle from T1 through A8; clusters of off-white and black hairs originate from pale orange-yellow spots on a brown-black body.

ADULT Wingspan 4.4 centimeters. Forewings gray and heavily suffused with black. Hindwings white in male (shown here) and gray in female.

ECOLOGY Caterpillars are common; feed on bitterbrush during midsummer. Adults are nocturnal; fly from late spring to early summer. Found in dry forests including oak and juniper woodlands; widely distributed in western North America.

NOCTUIDAE

ALYPIA LANGTONI

CATERPILLAR Yellow-orange with irregular black markings on a white body; relatively long primary setae; dorsum of A9 with a brighter yellow streak. Head yellow with black spots.

ADULT Wingspan 3.0 centimeters. Forewings black; each forewing has two round, cream-yellow spots. Hindwings also with one or two round cream-yellow spots.

ECOLOGY Caterpillars are common; feed on fireweed during midsummer. Adults are diurnal; fly from late spring to midsummer. Found in open habitats associated with montane forests; widely distributed in western North America.

NOCTUIDAE

AMPHIPYRA PYRAMIDOIDES - COPPER UNDERWING



CATERPILLAR Light green with sparse white spots; black spiracles; white spiracular line with shades of yellow; A8 with large dorsal hump.

ADULT Wingspan 5.1 centimeters. Forewings light brown to black-brown with a pale submarginal border and the discal spots greatly reduced. Hindwings orange to red-copper.

ECOLOGY Caterpillars are common; feed on many broadleaf trees and shrubs, particularly big-leaf maple and manzanita, during spring. Adults are nocturnal; fly from late summer to fall. Found in wet conifer forests in western regions of California to British Columbia.

NOCTUIDAE

ANDROPOLIA AEDON

CATERPILLAR Light brown and a shade of light green, with a black scalloped sublateral line; A8 with a transverse black line; venter light gray.

ADULT Wingspan 4.6 centimeters. Forewings gray with distinct discal spots outlined in black, including a jagged, dentate black submarginal line.

ECOLOGY Caterpillars are common; feed on alder, maple, ocean spray, and ninebark during spring. Adults are nocturnal; fly from mid- to late summer. Found in wet conifer forests in the Pacific West.

NOCTUIDAE

ANDROPOLIA DIVERSILINEATA



CATERPILLAR Gray-brown with a black scalloped sublateral line; thoracic and abdominal segments with a subdorsal black patch; A8 with a transverse black line; venter gray-brown.

ADULT Wingspan 4.4 centimeters. Forewings gray with very obscure markings except for a jagged, dentate black submarginal line. Males have pectinate antennae.

ECOLOGY Caterpillars are common; feed on bitterbrush during early summer. Adults are nocturnal; fly in late summer. Found in pine forests and juniper woodlands; widely distributed in western North America.

NOCTUIDAE*ANDROPOLIA THEODORI*

CATERPILLAR Dark brown with a black scalloped sublateral line; A8 with a transverse black line; venter pink-white.

ADULT Wingspan 5.2 centimeters. Forewings gray with shades of red and a black, sharply dentate submarginal line. Hindwings faint red-tan; each hindwing has a dark medial line and discal spot.

ECOLOGY Caterpillars are common; feed on snowbrush and ocean spray during spring. Adults are nocturnal; fly from mid- to late summer. Found in dry forests and woodlands in western North America.

NOCTUIDAE

ASEPTIS BINOTATA



CATERPILLAR Dark green dorsum and light green venter with off-white speckles; white spiracular band, dorsal edge with a red line; faint discontinuous off-white subdorsal line. Head green.

ADULT Wingspan 3.4 centimeters. Forewings dark brown; each forewing has a round yellow mark on the outer margin of the reniform spot.

ECOLOGY This species possesses the broadest foodplant range among the Pacific Northwest Lepidoptera. Caterpillars are very common, generalist feeders on numerous flowering trees and shrubs, such as maple, alder, madrone, hazelnut, Indian plum, ocean spray, currant, willow, and snowberry, during spring. Adults are nocturnal; fly in midsummer. Found in moist forests; widely distributed in western North America.

NOCTUIDAE

ASEPTIS ETHNICA

CATERPILLAR Body and head mottled in shades of green; a yellow-white spiracular band extends from A7 to anal prolegs. Head green.

ADULT Wingspan 3.9 centimeters. Forewings dark brown to black with the only noticeable markings the white flecks along the postmedian line.

ECOLOGY Caterpillars are common; feed on manzanita and madrone during spring. Adults are nocturnal; fly in midsummer. Found in dry forests and woodlands in western Oregon and California.

NOCTUIDAE

Aseptis fumosa



CATERPILLAR Dark green dorsum and light green venter; white spiracular line, dorsal edge with a red line; faint discontinuous yellow longitudinal line and oblique subdorsal lines. Head green.

ADULT Wingspan 3.8 centimeters. Forewings brown with the reniform and orbicular spots distinctly outlined in dark brown.

ECOLOGY Caterpillars are common; feed on bitterbrush and species of *Ceanothus* during spring. Adults are nocturnal; fly in midsummer. Found in dry forests in the Pacific Northwest.

NOCTUIDAE

ALFALFA SEMILOOPER - *AUTOGRAPHA CALIFORNICA*

CATERPILLAR Two pair of midabdominal prolegs, a trait indicative of the Plusiinae. Green; distinct white spiracular line and faint discontinuous longitudinal dorsal white lines.

ADULT Wingspan 4.2 centimeters. Forewings mottled gray with a large white comma-shaped stigma. Hindwings yellow with a broad black submarginal border.

ECOLOGY This species is an economic pest in vegetable crops and also occurs on native plants in forests and woodlands. Caterpillars are common; feed on numerous herbaceous plants from early spring to midsummer. Adults are nocturnal; fly from spring to fall. Found in agricultural and urban areas, and open habitats associated with lowland and montane forests; widely distributed in western North America.

NOCTUIDAE

CATOCALA AHOLIBAH - AHOLIBAH UNDERWING



CATERPILLAR Gray- tan with a subtle rosy pink hue and covered with minute black speckles; small tubercles middorsum on A5 and A8; ventral row of short whisker-like hairs; true legs pink-red. Head is cream colored with reticulated lines.

ADULT Wingspan 7.9 centimeters. Forewings mottled black, gray, and red-brown with jagged black lines. Hindwings rosy red with a black median band narrowly constricted in the center and broad black submarginal borders.

ECOLOGY Caterpillars are common; feed on white oak during spring. Adults are nocturnal; fly in late summer. Found in oak woodlands; widely distributed in western North America.

NOCTUIDAE

CATOCALA BRISEIS

CATERPILLAR Gray and tan with finely reticulated markings; A5 and A8 with small warts tipped in orange; subdorsal orange spots in a line; intersegmental area between A5 and A6 with an orange and black patch; ventral row of short whisker-like hairs. Top of head with two orange spots; a black arc extends from the base of the mandibles over the top of the head.

ADULT Wingspan 6.8 centimeters. Forewings gray-black, often with white markings, and a jagged postmedial line. Hindwings red with black submarginal borders and black median bands that are not narrowly constricted.

ECOLOGY Caterpillars are uncommon; feed on willow during late spring. Adults are nocturnal; fly in late summer. Found in wet forest and riparian habitats; widely distributed in northern North America, southernmost portion of its distribution extending into the northern Rocky Mountains and the Pacific Northwest.

NOCTUIDAE

CATOCALA ILIA - ILIA UNDERWING



CATERPILLAR Mottled with green and black.

ADULT Wingspan 7.9 centimeters. Forewings mottled black and gray with jagged black lines. Hindwings orange, the black median band and submarginal border with wavy undulations.

ECOLOGY Cryptic coloration and pattern match the lichens on oak branches. Caterpillars are uncommon; feed on white oak during late spring. Adults are nocturnal; fly in late summer. Found in oak woodlands ranging from California to the Pacific Northwest.

NOCTUIDAE

CATOCALA VERRILLIANA

CATERPILLAR Uniformly gray white with a pale pink hue; middorsum of A5 and A8 with tubercles; ventral row of short whisker-like hairs. Head same color as body but with reticulated lines.

ADULT Wingspan 4.6 centimeters. Forewings pale gray with jagged black lines. Hindwings orange-red with the black median band constricted in the center and a broad black submarginal border with red marginal patches.

ECOLOGY Caterpillars are common; feed on oak during spring. Adults are nocturnal; fly in late summer. Found in oak woodlands in the Pacific western states.

NOCTUIDAE

CISSUSA INDISCRETA



CATERPILLAR Mottled with silver, gray, and black; subdorsal and lateral longitudinal lines scalloped and nearly entire.

ADULT Wingspan 4.0 centimeters. Forewings light to dark brown with fine wavy lines and a black discal bar.

ECOLOGY Caterpillars are common; feed on oak during spring. Adults are nocturnal; fly in early spring. Found in dry oak woodlands from southern California to western Oregon and Washington.

NOCTUIDAE

COSMIA CALAMI



CATERPILLAR Green with extensive faint white markings; single white middorsal stripe. Head pale green.

ADULT Wingspan 3.2 centimeters. Forewings pale yellow to light brown with small discal spots, basal line strongly transverse and nearly touching the postmedian line along the inner margin. Hindwings white.

ECOLOGY Caterpillars are very common; feed on oak during late spring. Adults are nocturnal; fly in midsummer. Found in oak woodlands in the Pacific western states.

NOCTUIDAE

CUCULLIA PULLA



CATERPILLAR Green with six prominent longitudinal white lines; the lateral line with a yellow dot just below and posterior to the spiracle.

ADULT Wingspan 4.2 centimeters. Forewings elongate and sharply pointed, black with fine gray streaks and jagged lines. Hindwings black.

ECOLOGY This species was previously placed in the genus *Lathosea*. Caterpillars are uncommon; feed on rabbitbrush during late spring. Adults are nocturnal; fly in early spring. Found in dry juniper woodlands and sagebrush rangelands; widely distributed in western North America.

NOCTUIDAE

EGIRA CRUCIALIS

CATERPILLAR Color highly variable, mottled silver, gray, and black to bi-colored with rosy pink-red; dorsum darker than venter separated at the lateral line. Head red.

ADULT Wingspan 4.0 centimeters. Forewings gray with a small orbicular spot and a broken line of black postmedian dashes.

ECOLOGY Caterpillars are common; feed on numerous trees and shrubs, including alder, snowbrush, bitterbrush, and oak, during spring. Adults are nocturnal; fly in spring. Found in moist forests; widely distributed in western North America.

NOCTUIDAE

EGIRA CURIALIS



CATERPILLAR Mottled with silver, gray, and black; lateral longitudinal band white with mottled markings between faint black borders. Head mottled tan, brown, and black.

ADULT Wingspan 4.0 centimeters. Forewings dark gray with obscure markings. Hindwings mostly white.

ECOLOGY Caterpillars are common; feed on bitter cherry and hackberry during spring. Adults are nocturnal; fly in spring. Found in dry forests; widely distributed in western North America.

NOCTUIDAE

EGIRA FEBRUALIS

CATERPILLAR White with blue-gray shading; subdorsal yellow streaks; black spots; black spiracles. Head mottled tan and black with a dorsal black triangular patch.

ADULT Wingspan 3.7 centimeters. Forewings mottled black and white. Hindwings pale cream.

ECOLOGY Caterpillars are uncommon; feed on oak during late spring. Adults are nocturnal; fly in early spring. Found in dry forests in the Pacific western states.

NOCTUIDAE

EGIRA PERLUBENS



CATERPILLAR Color highly variable, mottled silver, gray, and black to bi-colored with rosy tan-brown; dorsum faintly darker than venter. Head mottled tan and black.

ADULT Wingspan 4.0 centimeters. Forewings dark gray-black with a red subapical patch and a white or pale gray orbicular spot. Hindwings white.

ECOLOGY Caterpillars are common; feed on many broadleaf trees, such manzanita, snowbrush, bitterbrush and ocean spray, during spring. Adults are nocturnal; fly in spring. Found in dry forests; widely distributed in western North America.

NOCTUIDAE

FERALIA DECEPTIVA

CATERPILLAR Green with subdorsal and lateral white longitudinal lines; the lateral line broken with dashes of red along the upper border; white dashes sublaterally on T1 through A8. Head green.

ADULT Wingspan 4.0 centimeters. Forewings dark green with black and white markings. Hindwings solid black.

ECOLOGY Caterpillars are uncommon; feed on Douglas-fir during late spring. Adults are nocturnal; fly in early spring. Found in wet coastal forests in the Pacific western states.

NOCTUIDAE

FERALIA FEBRUALIS



CATERPILLAR Light green with sparse white spots; tan spiracles; white spiracular line with red dorsal edge which is more obvious on T1; A8 with large dorsal hump; true legs red.

ADULT Wingspan 3.4 centimeters. Forewings pale green with large discal spots. Hindwings white.

ECOLOGY Caterpillars are uncommon; feed on white oak, during spring. Adults are nocturnal; fly from late winter to early spring. Found in dry forests and oak woodlands in the Pacific western states.

NOCTUIDAE

FISHIA EVELINA

CATERPILLAR Green to rosy brown; dorsum dark green with a faint white subdorsal longitudinal line; a thin off-white spiracular line; venter light green.

ADULT Wingspan 4.3 centimeters. Forewings elongate, dark gray; each forewing has a red median patch and the submarginal line strongly dentate. Hindwings mostly white in males, gray in females.

ECOLOGY Caterpillars are common; feed on many broadleaf trees and shrubs, such as manzanita, snowbrush, cherry, bitterbrush, and elderberry, during late spring. Adults are nocturnal; fly in fall. Found in dry forests; widely distributed in western North America.

NOCTUIDAE

HYPENA CALIFORNICA



CATERPILLAR Dark green with longitudinal subdorsal white line.

ADULT Wingspan 3.4 centimeters. Forewings narrow and highly variable in color, mottled yellow and brown or solid red-brown with small black discal spots. Labial palps long.

ECOLOGY Caterpillars are common; feed on nettles during late spring. Adults are nocturnal; fly from early spring to fall. Found in wet forests from California to British Columbia.

NOCTUIDAE

LACANOBIA LILACINA

CATERPILLAR Yellow-green with a prominent subdorsal yellow longitudinal line; gray-green lateral longitudinal line; venter yellow. Head mostly yellow with two gray-green lines.

ADULT Wingspan 3.5 centimeters. Forewings pale violet-brown with obscure markings or with black spots and pale streaks.

ECOLOGY Caterpillars are common; feed on red alder during spring. Adults are nocturnal; fly in midsummer. Found in riparian habitats and wet forests; widely distributed in western North America.

NOCTUIDAE

LITHOMOIA GERMANA



CATERPILLAR Dark brown; white lateral band. Head tan with two black oblique bands.

ADULT Wingspan 5.0 centimeters. Forewings pale gray with gray streaks; each forewing has a large white reniform spot. Hindwings light to dark gray.

ECOLOGY Caterpillars are common; feed on blueberries during spring. Adults are nocturnal; fly in fall. Found in wet forests and bogs across the northern regions of North America, extending south into the northern Rocky Mountains and the Pacific Northwest.

NOCTUIDAE

LITHOPHANE AMANDA



CATERPILLAR Light green with a frosty white hue; lateral line off-white; faint dorsal and subdorsal white line. Head with white spots.

ADULT Wingspan 4.0 centimeters. Forewings pale gray; each forewing has an orange subapical patch and red-brown submarginal spots. Hindwings pale brown.

ECOLOGY Caterpillars are common; feed on willow during spring. Adults are nocturnal; fly in fall and early spring. Found in wet forests and bogs across the northern regions of North America, extending south into the northern Rocky Mountains and the Pacific Northwest.

NOCTUIDAE

LITHOPHANE ATARA



CATERPILLAR Green with a velvet appearance; sublateral yellow longitudinal band. Head green.

ADULT Wingspan 4.6 centimeters. Forewings dark gray-black with well defined streaks. Hindwings pink with a dark submarginal band and discal spot.

ECOLOGY Caterpillars are common; feed on conifers, such as ponderosa pine, during late spring. Adults are nocturnal; fly in fall and early spring. Found in coniferous forests; widely distributed in western North America.

NOCTUIDAE

LITHOPHANE CONTENTA



CATERPILLAR Dark green with white mottled spots; spiracular band white to yellow, with an uneven bottom edge, and pink patches around the spiracles in later instars. Head green; labrum and area around stemmata white.

ADULT Wingspan 4.1 centimeters. Forewings gray with obscure discal spots. Hindwings pale gray.

ECOLOGY Caterpillars are common; feed on oak during spring. Adults are nocturnal; fly in fall and early spring. Found in oak woodlands in Pacific western states.

NOCTUIDAE

LITHOPHANE GEORGII



CATERPILLAR Green; lateral line white to yellow with parallel edges.

ADULT Wingspan 4.8 centimeters. Forewings pale gray with a submarginal line of small black spots. Hindwings dark gray.

ECOLOGY Caterpillars are common; feed on many broadleaf trees and shrubs, such as spiraea, hawthorn, maple, oak, red alder and ocean spray, during spring. Adults are nocturnal; fly in fall and early spring. Found in a wide variety of habitats; widely distributed in western North America.

NOCTUIDAE

LITHOPHANE INNOMINATA



CATERPILLAR Mottled yellow, gray, and light green. Head tan with two darker gray-green patches dorsally.

ADULT Wingspan 3.8 centimeters. Forewings yellow to light brown with black medial and submarginal spots. Hindwings black.

ECOLOGY Caterpillars are common; feed on many broadleaf trees, such as red alder, hawthorn, ocean spray, and willow, during spring. Adults are nocturnal; fly in fall and early spring. Found in woodlands and wet forests; widely distributed in North America.

NOCTUIDAE

LITHOPHANE LONGIOR



CATERPILLAR Irregularly shaped white spots forming a discontinuous dorsal and subdorsal band; laterally white spots behind the spiracles with patches of light green above; white circles at the base of each true leg and midabdominal prolegs.

ADULT Wingspan 4.2 centimeters. Forewings pale gray with obscure markings and a dark median band. Hindwings light to dark gray.

ECOLOGY Caterpillars are uncommon; feed on western juniper during late spring and early summer. Adults are nocturnal; fly in fall and early spring. Found in juniper woodlands; widely distributed in western North America.

NOCTUIDAE*LITHOPHANE THAXTERI*

CATERPILLAR Green with a thin subdorsal yellow longitudinal line; yellow speckles. Head green.

ADULT Wingspan 4.2 centimeters. Forewings gray with black basal and medial dashes and a jagged black submarginal line. Hindwings dark pink-gray.

ECOLOGY Caterpillars are uncommon; feed on spiraea during spring. Adults are nocturnal; fly in fall and early spring. Found in wet forests and bogs across northern regions of North America, extending south into the northern Rocky Mountains and the Pacific Northwest.

NOCTUIDAE

LITOCALA SEXSIGNATA



CATERPILLAR Brown with subdorsal scalloped dashes; a fluffy fringe of hairs along the sublateral area.

ADULT Wingspan 3.3 centimeters. Forewings gray-black with white medial and subapical spots. Hindwings black; each hindwing has three white spots, thereby providing the basis for the specific epithet “sexsignata,” meaning six-spotted.

ECOLOGY Caterpillars are common; feed on oak and chinquapin during spring. Adults are diurnal; fly in spring. Found in oak woodlands from the Southwestern states to Washington.

NOCTUIDAE

MESOGONA RUBRA

CATERPILLAR Mottled gray, silver, black, and pink to dark brown; a distinct dark brown prothoracic shield. Head brown.

ADULT Wingspan 4.2 centimeters. Forewings red, pink-gray, or pale pink, with obscure discal spots. Hindwings red.

ECOLOGY Caterpillars are common; feed on manzanita during spring. Adults are nocturnal; fly in fall. Found in dry forests in the Pacific western states.

NOCTUIDAE

NOLA MINNA



CATERPILLAR Mottled pink-white, gray, and green-brown; clusters of hairs originate from raised areas.

ADULT Wingspan 2.3 centimeters. Forewings elongate, pale gray; each forewing has a black basal spot and a narrow black postbasal line.

ECOLOGY Caterpillars are common; feed on *Ceanothus* during late spring. Adults are nocturnal; fly in early spring. Found in wet forests in the Pacific western states.

NOCTUIDAE

OLIGIA ILLOCATA

CATERPILLAR Orange-tan to green-gray with dorsum darker than the venter; lateral line off-white.

ADULT Wingspan 4.0 centimeters. Forewings mottled red-brown; each forewing has a large white reniform spot and a black medial bar.

ECOLOGY Caterpillars are common; feed on red alder, rhododendron, and red blueberry during spring. Adults are nocturnal; fly in late summer and fall. Found in wet forests across northern regions of North America, extending south into the northern Rocky Mountains and the Pacific Northwest.

NOCTUIDAE

ONCOCNEMIS CHALYBDIS



CATERPILLAR Golden brown with faint off-white wavy longitudinal lines; middorsum of T1 with white streak bordered by dark brown; A8 and A9 swollen dorsally.

ADULT Wingspan 3.4 centimeters. Forewings pale gray; each forewing has a black median band and irregular black submarginal band. Hindwings white with broad black submarginal borders.

ECOLOGY We previously believed this species to be the closely related species *Oncocnemis piffardi* of northeastern North America. The abdomen for the moth shown here is missing because it was used for dissection of genitalia to provide confirmation of the species identity. Caterpillars are uncommon; feed on spiraea during late spring. Adults are nocturnal; fly in late summer. Found in moist montane forests and bogs of the Pacific Northwest.

NOCTUIDAE

ONCOCNEMIS NEAR COLUMBIA

CATERPILLAR Gray to light brown; longitudinal lines discontinuous and with irregular edges; dorsum of A8 swollen.

ADULT Wingspan 3.8 centimeters. Forewings light to dark gray with small discal spots and thin black basal and postmedial lines. Hindwings white with gray submarginal borders.

ECOLOGY We previously believed this specimen to be *Oncocnemis columbia* but Jim Troubridge suggests it is an undescribed species. Caterpillars are common; feed on ocean spray during late spring and early summer. Adults are nocturnal; fly in late summer. Found in dry forests ranging from northern California to Washington.

NOCTUIDAE

ONCOCNEMIS DUNBARI



CATERPILLAR Light green with faint discontinuous white markings along longitudinal lines; intersegmental area pale yellow. Top of head with lateral red dash.

ADULT Wingspan 3.4 centimeters. Forewings mottled gray with large round discal spots. Hindwings white with gray submarginal borders.

ECOLOGY Moths of this species are not attracted to UV blacklight. Caterpillars are common; feed on ocean spray during late spring and early summer. Adults are nocturnal; fly in late summer and fall. Found in wet coastal forests west of the Cascade Mountains.

NOCTUIDAE

SPECKLED GREEN FRUITWORM - *ORTHOSIA HIBISCI*

CATERPILLAR Light green with small white spots; white dorsal, subdorsal, and spiracular longitudinal lines. Head green.

ADULT Wingspan 3.8 centimeters. Forewings with a varying mix of colors of pale lavender, purple-gray, and dark red-brown with large round discal spots. Hindwings gray.

ECOLOGY This species is an occasional pest in orchards. Caterpillars are very common; feed on many broadleaf trees and shrubs, such as maple, cherry, oak, and willow. Adults are nocturnal; fly in early spring. Found in orchards, woodlands, and forests; widely distributed in western North America.

NOCTUIDAE

ORTHOSIA MYS



CATERPILLAR Brick red with dark brown shading; faint transition demarcation between a darker dorsum and a lighter venter on A7 through A10. Head black.

ADULT Wingspan 3.5 centimeters. Forewings falcate, pale to dark red with few markings. Hindwings pink-white. Males with pectinate antennae.

ECOLOGY Caterpillars are common; feed on manzanita during spring. Adults are nocturnal; fly in fall. Found in dry forests in the Pacific western states.

NOCTUIDAE

ORTHOSIA PACIFICA

CATERPILLAR Green with many small white spots; broad transverse white streak on A8; white spiracular line thicker at posterior; small black spots mark the primary setae.

ADULT Wingspan 3.9 centimeters. Forewings mottled yellow-brown with a narrow dark reniform spot. Hindwings pale brown.

ECOLOGY Caterpillars are common; feed on white oak, madrone, and snowbrush during late spring. Adults are nocturnal; fly in early spring. Found in dry forests in the Pacific western states.

NOCTUIDAE

ORTHOSIA PULCHELLA



CATERPILLAR Mottled cream, pink, and tan, otherwise nearly immaculate; black prothoracic shield. Head dark red-brown.

ADULT Wingspan 3.6 centimeters. Forewings falcate and highly variable in color and pattern, gray, red, or brown, often with a black median band. Hindwings dark gray. Male antennae are strongly pectinate.

ECOLOGY Caterpillars are common; feed on manzanita during late spring. Adults are nocturnal; fly in early spring. Found in dry forests; widely distributed in western North America.

NOCTUIDAE

ORTHOSIA TRANSPARENS



CATERPILLAR Golden-yellow and green-brown, middorsum lighter than subdorsum. Head orange-brown.

ADULT Wingspan 3.7 centimeters. Forewings falcate, light red to dark red-brown with a black reniform spot. Hindwings dark gray to black. Males with filiform antennae.

ECOLOGY Caterpillars are common; feed on madrone and rhododendron during spring. Adults are nocturnal; fly in early spring. Found in dry forests in the Pacific western states.

NOCTUIDAE

PANTHEA PORTLANDIA



CATERPILLAR Black with red spots and light brown hairs. Head black.

ADULT Wingspan 5.0 centimeters. Forewings white to dark black-gray with jagged, dentate black lines. Hindwings white with a dark submarginal band or pure gray. Males with pectinate antennae.

ECOLOGY Caterpillars are common; feed on conifers, such as Douglas-fir, during spring. Adults are nocturnal; fly in summer. Found in coniferous forests; widely distributed in western North America.

NOCTUIDAE

PERIGONICA ANGULATA

CATERPILLAR Body color may be a mixture of shades from green to yellow; faint off-white to yellow longitudinal lines, barely apparent at the subdorsal and lateral position; a few small black spots mark the primary setae.

ADULT Wingspan 3.6 centimeters. Forewings strongly falcate, pale yellow to red with faint markings. Hindwings white. Males with filiform antennae.

ECOLOGY Caterpillars are common; feed on live oak, tan oak, and chinquapin during late spring. Adults are nocturnal; fly in spring. Found in dry forests in the Pacific western states.

NOCTUIDAE

PERIGONICA PECTINATA



CATERPILLAR Green with faint white longitudinal lines and black pinaculae.

ADULT Wingspan 3.5 centimeters. Forewings slightly falcate, variable pale yellow, pink, orange or gray, often with a black reniform spot. Hindwings black. Males with pectinate antennae.

ECOLOGY Caterpillars are common; feed on chinquapin and canyon live oak during late spring. Adults are nocturnal; fly in early spring. Found in dry forests in the Pacific western states.

NOCTUIDAE

PHLOGOPHORA PERICULOSA



CATERPILLAR Color varies from a bright green to tan-brown; middorsal dashed white line with subdorsal white spots.

ADULT Wingspan 4.5 centimeters. Forewings pale pink-orange with a darker red-brown median band and the discal spots joined together.

ECOLOGY Caterpillars are common; feed on sword fern and many broadleaf trees shrubs, such as red alder, and willow, during early spring. Adults are nocturnal; fly in midsummer. Found in wet coastal forests.

NOCTUIDAE

PLATYPOLIA CONTADINA



CATERPILLAR Green with a subtle tone of yellow and mottled with white; subdorsal longitudinal line dotted white and faint; lateral longitudinal line white. Head pale green.

ADULT Wingspan 4.0 centimeters. Forewings black with large discal spots and other markings strongly outlined in white; submarginal line strongly dentate. Hindwings black; populations in wet coastal forests have a white postmedian band, but populations from the high Cascade Mountains east to the Rocky Mountains have a black postmedian band.

ECOLOGY Caterpillars are uncommon; feed on the foliage of flowering trees and shrubs, particularly huckleberry, during spring. Adults are nocturnal; fly in fall. Found in wet conifer forests; widely distributed in western North America.

NOCTUIDAE

PLEROMELLOIDA CINEREA

CATERPILLAR Dark brown with parallel wavy white and brown lines laterally on A2 through A6; dorsum with middorsal white line most distinct on A7 and A8; A7 and A8 swollen.

ADULT Wingspan 3.3 centimeters. Forewings with pale gray streaks and a thin black postmedian line and submarginal spots.

ECOLOGY Caterpillars are common; feed on snowberry during spring. Adults are nocturnal; fly in fall. Found in woodlands, and wet and dry forests; widely distributed in western North America.

NOCTUIDAE

PSEUDORTHODES IRRORATA



CATERPILLAR Light brown and tan coloration slightly darker above the spiracles; dorsum of A1 through A8 with white streaks. Colors are variable during development and among individuals. Therefore, noctuids with this appearance should be reared for reliable identification of the species.

ADULT Wingspan 3.0 centimeters. Forewings red-brown; each forewing has a small white or gray reniform spot and a thin black submarginal line. Hindwings black.

ECOLOGY Caterpillars are common; feed on hazel and red alder during spring. Adults are nocturnal; fly from spring to late summer. Found in wet forests in Pacific western states.

NOCTUIDAE

HERALD MOTH - *SCOLIOPTERYX LIBATRIX*

CATERPILLAR Green with white lateral line.

ADULT Wingspan 4.7 centimeters. Forewings strongly falcate, scalloped, gray to pale brown with a red-orange median band and white postmedian line.

ECOLOGY Caterpillars are common; feed on willow and black cottonwood during spring. Adults are nocturnal; fly throughout the year, hibernating in winter. Found in woodlands, riparian habitats, and wet and dry forests; widely distributed in western North America.

NOCTUIDAE

STRETCHIA MURICINA



CATERPILLAR Green with a dorsal and subdorsal longitudinal white line. Head yellow-green.

ADULT Wingspan 3.2 centimeters. Forewings with the orbicular and reniform spots fused together to form a large, white v-shaped spot, the median area dark gray to red with the discal spots outlined in black, the postmedian and submarginal area white to pale gray. Males with pectinate antennae.

ECOLOGY Caterpillars are common; feed on currant and gooseberry during late spring. Adults are nocturnal; fly in early spring. Found in wet conifer forests; widely distributed in western North America.

NOCTUIDAE

SYNEDOIDA OCHRACEA

CATERPILLAR Longitudinal bands of various shades of yellow and tan bordered in darker shaded lines, especially the subdorsal band. Head with six distinct bands.

ADULT Wingspan 4.6 centimeters. Forewings light to dark brown with a narrow black reniform spot. Hindwings orange; each hindwing has a black median band, submarginal border, and discal spot.

ECOLOGY Caterpillars are common; feed on blue and red elderberry during spring. Adults are nocturnal; fly in midsummer. Found in wet forests west of the Cascade Mountains and in riparian woodlands and forests east of the Cascade Mountains.

NOCTUIDAE

SYNGRAPHA RECTANGULA



CATERPILLAR Green with five white distinct longitudinal white bands; midabdominal prolegs only on A5 and A6. Head green.

ADULT Wingspan 3.5 centimeters. Forewings black; each forewing has contrasting white basal and submarginal areas and a large white, bifurcate stigma. Hindwings pale brown with broad black submarginal borders.

ECOLOGY Caterpillars are common; feed on conifers, primarily Pinaceae such as Douglas-fir, during spring. Adults are nocturnal; fly in midsummer. Found in wet conifer forests of the Pacific Northwest and northern Rocky Mountains, and is common in wet coastal forests.

NOCTUIDAE

TESAGROTIS CORRODERA

CATERPILLAR Light brown and green-brown with a darker green-brown scalloped lateral line edged in white below; dorsum with oblique dark green-brown bands edged in white behind. Head tan.

ADULT Wingspan 4.0 centimeters. Forewings with red-brown streaks with a yellow streak at the reniform spot. Hindwings white with gray margin.

ECOLOGY Caterpillars are uncommon; feed on bitterbrush during late spring. Adults are nocturnal; fly in late summer. Found in open pine forests, juniper woodlands, and sagebrush rangelands; widely distributed in western North America.

NOCTUIDAE

XESTIA MUSTELINA



CATERPILLAR Brown; broad white lateral band.

ADULT Wingspan 3.6 centimeters. Forewings pink-gray with very large gray discal spots outlined in black.

ECOLOGY Previously known as *Anomogyna mustelina*. Caterpillars are common; feed on many broadleaf trees and conifers, such as Douglas-fir, madrone, huckleberry, and myrica, during spring. Adults are nocturnal; fly in late summer. Found in wet conifer forests; widely distributed in western North America.

NOCTUIDAE

XYLENA BRUCEI



CATERPILLAR Brown with lateral white line edged in black above; dorsum mottled with white streaks and a faint subdorsal longitudinal white line; venter light brown to brown-green. Head tan with two oblique black lines.

ADULT Wingspan 5.2 centimeters. Forewings pale gray with discal spots and wing margins outlined in black. Hindwings dark brown.

ECOLOGY Caterpillars are uncommon; feed on bitterbrush during spring. Adults are nocturnal; fly from fall, through the winter, and into the spring. Found in open pine forests and juniper woodlands; widely distributed in western North America.

NOCTUIDAE

ZALE LUNATA - LUNATA MOTH



CATERPILLAR Gray with shades of brown to solid tan; A1 and A8 swollen dorsally with two minutely pointed tips; middorsally a light longitudinal band bordered by a darker band.

ADULT Wingspan 4.8 centimeters. Forewings may have a varying mix of yellow, red-brown and black mottled with fine dark lines, apical part of the postmedian line is strongly dentate.

ECOLOGY Caterpillars are common; feed on blackberry and willow during spring. Adults are nocturnal; fly in spring and late summer. Found in wet coastal forests west of the Cascade Mountains and in riparian environments east of the Cascade Mountains.

NOCTUIDAE

ZALE TERMINA

CATERPILLAR Light gray with dark gray longitudinal lines; subdorsal line nearly black and scalloped; prolegs on A3 smaller than on A6.

ADULT Wingspan 3.7 centimeters. Forewings dark gray with fine lines and black basal and postmedian bands. Hindwings dark gray with fine black lines and scalloped margins.

ECOLOGY Caterpillars are common; feed on live oak and chinquapin during spring. Adults are nocturnal; fly from early to midsummer. Found in dry forests and oak woodlands of the southwest and Pacific western states.

NOCTUIDAE

ZOTHECA TRANQUILLA



CATERPILLAR Middorsal line of yellow circles bordered in black; subdorsal pale purple band; lateral-ventral area solid yellow with black spots.

ADULT Wingspan 3.6 centimeters. Forewings white with green highlights and a (very) few tan tones (more on the thorax), with a background of off-white with faint, light green tones. Hindwings are whiter than the forewings.

ECOLOGY Caterpillars are common; feed on blue and red elderberry during spring. Adults are nocturnal; fly in midsummer. Found in wet coastal forests west of the Cascade Mountains and in riparian habitats associated with coniferous forests east of the Cascade Mountains.

NOTODONTIDAE

FURCULA CINEREA

CATERPILLAR Yellow-green; dorsum with brown saddles edged in red on T1, A4, A5, A8, and A9; elongate anal prolegs create the appearance of a forked tail and ringed with brown, green and red.

ADULT Wingspan 4.0 centimeters. Forewings pale to dark gray with dark gray or black bands and fine black spots along the margins.

ECOLOGY Caterpillars are uncommon; feed on willow during July and August. Adults are nocturnal; fly from spring to midsummer. Found in wet forests and riparian habitats; widely distributed in western North America.

NOTODONTIDAE

FURCULA SCOLOPENDRINA



CATERPILLAR Yellow; dorsum with brown black saddles on T1 through T3, A2 through A7, and A8 through A10; elongate anal prolegs create the appearance of a forked tail.

ADULT Wingspan 3.5 centimeters. Forewings elongate and white with black bands and fine black spots along the wing margins.

ECOLOGY Caterpillars are uncommon; feed on willow and poplar during spring. Adults are nocturnal; fly throughout the summer. Found in wet forests; widely distributed in North America.

NOTODONTIDAE

GREEN OAK CATERPILLAR - *NADATA GIBBOSA*

CATERPILLAR Late instar: green with yellow spots; red spiracles; transverse yellow streak across A9; pale yellow middorsal longitudinal line.

ADULT Wingspan 5.6 centimeters. Forewings yellow with brown-tan shading; each forewing has an orange discal cell; the reniform spot consists of two small white dots, and narrow dark basal and postmedian lines.

ECOLOGY This is one of many caterpillars that exhibit more than one color phase, either by stage of development, genetic polymorphism, or other environmental factors. Color phases differ according to age. Caterpillars common on white oak during July and August. Adults are nocturnal; fly in midsummer. Found in oak woodlands; widely distributed in North America.

NOTODONTIDAE

SCHIZURA CONCINNA - REDHUMPED CATERPILLAR



CATERPILLAR Yellow with multiple white bands separated by black stripes along the subdorsal region; white streaks bordered in black at the base of the midabdominal prolegs; middorsum of T3 red. Head red.

ADULT Wingspan 3.5 centimeters. Forewings pale yellow with shades of lavender and few markings except for a dark purple band across the inner margin. Hindwings white in males (see photo) and brown in females.

ECOLOGY Early instars are gregarious and solid yellow with black spines. When agitated the odor of glacial acetic acid is emitted from the larvae. Caterpillars are common on many broadleaf trees and shrubs, particularly snowbrush and white oak, during July and August. Adults are nocturnal; fly in midsummer; moths are not as commonly collected relative to the common presence of caterpillars. Found in oak woodlands and forests; widely distributed in western North America.

NOTODONTIDAE

FALSE UNICORN CATERPILLAR - *SCHIZURA IPOMOEAE*

CATERPILLAR Head, T1, and A1 through A10 tan or light brown with red veined markings; T2 and T3 a distinctive green with a reddish middorsal line; A1, A5, and A8 with dorsal humps tipped with a pair of small wart-like tubercles; A1 through A4, and A6 with middorsal white patch; A7 with an oblique middorsal white band; small spots of yellow at the base of dorsal setae on A2 through A4, A6, and A8; primary setae long. Head tan with two oblique bands.

ADULT Wingspan 4.5 centimeters. Forewings a mottled brown and pale gray; each forewing has a small pale reniform spot, narrow dentate basal and postmedian lines, and black marginal dashes. Hindwings white in males (see photo) and brown in females.

ECOLOGY Caterpillars are common on white oak, madrone, dogwood, and hawthorn from July to September. Adults are nocturnal; fly from late spring to late summer. Found in woodlands, and wet and dry forests; widely distributed in North America.

NOTODONTIDAE

SCHIZURA UNICORNIS - UNICORN CATERPILLAR



CATERPILLAR Head, T1, and A1 through A10 dark to gray black; T2 and T3 a distinctive green; A1, A5, and A8 with dorsal humps tipped with a single elongate tubercle; A7 with an oblique middorsal white band; primary setae short.

ADULT Wingspan 3.5 centimeters. Forewings pale pink and gray; each forewing has a small black reniform spot, a broad yellow subapical patch, and small black subapical dashes.

ECOLOGY Caterpillars are common; feed on cherry, apple, hawthorn, oak, and dogwood during spring. Adults are nocturnal; fly from late spring to late summer. Found in woodlands, and wet and dry forests; widely distributed in North America.

SATURNIIDAE

POLYPHEMUS MOTH - *ANTHRAEA POLYPHEMUS*

CATERPILLAR Green; base of primary setae red, subdorsal and lateral setae have a silver shading below; end of prolegs with yellow ring and tipped in black; diagonal streak of black and silver on A9. Head and true legs brown.

ADULT Wingspan 12.2 centimeters. Forewings tan-brown with pink edges to the basal and submarginal lines, reniform spot is round and translucent, apical spot is small and black. Hindwings tan-brown; each hindwing has a broad black submarginal line and a large black, blue, and yellow discal eyespot.

ECOLOGY Caterpillars are common; feed on many broadleaf trees, such as white oak and big-leaf maple, during late spring. Adults are nocturnal; fly between late spring and early summer. Found in wet forests; widely distributed in western North America.

SATURNIIDAE

COLORADIA PANDORA - PANDORA MOTH



CATERPILLAR Dark brown with white spots and light yellow-mustard green transverse bands at the anterior of each segment; middorsal, subdorsal and lateral white longitudinal dashed bands.

ADULT Wingspan 8.1 centimeters. Forewings black-brown with gray scales, basal and postmedian lines are black and jagged to dentate, reniform spot is small, black, and round. Hindwings pink; each hindwing has a round, black reniform spot and black postmedian line and submarginal border.

ECOLOGY Caterpillars are very common; feed on conifers, particularly ponderosa pine, during late summer; overwintering, with development completed in June. Pupae remain in the soil for one year. Adults are crepuscular/nocturnal, fly in midsummer. Found in dry coniferous forests, particularly abundant in ponderosa pine forests where it is considered a pest; widely distributed in western North America.

SATURNIIDAE

BROWN DAY MOTH - *HEMILEUCA EGLANTERINA*

CATERPILLAR This brownish black caterpillar has whorls of orange hairs on dorsal and subdorsal black spines. Black spines also occur laterally and sublaterally with off-white hairs; white spiracular band. Gregarious early instars are solid black.

ADULT Wingspan 6.4 centimeters. Forewings rose-pink and orange; each forewing has black basal and postmedian bands, a round reniform spot and submarginal dashes. Hindwings orange with a similar pattern of black as on forewings. Abdomen orange with black bands. Color variants may lack all black markings, with pure unmarked rose-pink and orange wings or the black markings may be distinct, or greatly enlarged covering most of the wing.

ECOLOGY The hairy spines of this caterpillar are urticating. Caterpillars are common, generalist feeders on flowering trees and shrubs, particularly Rosaceae, such as rose, hawthorn, cherry, serviceberry, and bitterbrush, during spring. Adults are diurnal; fly in midsummer. Found in woodlands, and wet and dry forests; widely distributed in western North America.

SATURNIIDAE

HYALOPHORA EURYALUS - CEANOTHUS SILK MOTH



CATERPILLAR This caterpillar changes colors as it develops and molts (see Chapter 3, page 20). Mid-instars are the most brilliantly colored with nine pairs of dorsal yellow spines, the first three pairs with partial to complete black rings; a middorsal yellow spine on A8; two rows of lateral blue spines tipped with white along T1 through A8; white-tipped blue spines also occur on the head, at the base of the true legs, and in the anal region; body ranges from green to white-green. Later instars white-green with white spines.

ADULT Wingspan 10.3 centimeters. Forewings variable rose-red, purple-red or dark red-brown; each forewing has a large white, comma-shaped reniform spot, white basal and postmedian lines, and a round black subapical spot. Hindwings similar to the forewings, but each hindwing has an extremely elongate reniform spot.

ECOLOGY Caterpillars are common on snowbrush and bitterbrush, sometimes found on Douglas-fir, during July and August. Adults are nocturnal; fly in spring. Found in woodlands, and wet and dry forests; widely distributed in the Pacific Northwest.

SATURNIIDAE

SATURNIA MENDOCINO

CATERPILLAR Highly variable through the various instars. Late instars (shown here) are dorsally yellow with fine wispy white hairs and some patches of shorter densely packed orange hairs; ventrally black anterior to the prolegs. Head brown.

ADULT Wingspan 6.5 centimeters. Forewings dark brown; each forewing has a round black reniform spot. Hindwings yellow-orange; each hindwing has a black postmedian band and round reniform spot.

ECOLOGY The hairs on the caterpillar are urticating. Caterpillars are uncommon; feed on the foliage of manzanita, madrone, and species of *Ceanothus*. Adults are diurnal; fly in early spring. Found in dry forests, ranging from California to western Oregon.

SPHINGIDAE

PACHYSPHINX OCCIDENTALIS



CATERPILLAR Light green dotted with white; oblique white band extends from subventral area of A6 to tip of horn on A8; oblique white lines on A1 through A6 extend from in front of the spiracle to the dorsum of the adjacent posterior segment; transverse white band at the base of the anal prolegs. Head green with converging yellow bands.

ADULT Wingspan 12.5 mm. Forewings pale yellow or gray; each forewing has a brown medial band. Hindwings have a central patch of purple-red, and a blue anal spot crossed with a black dash.

ECOLOGY Caterpillars are uncommon; feed on willow and black cottonwood during July and August. Adults are nocturnal; fly from mid- to late summer. Found in riparian habitats in low elevation desert regions of western North America.

SPHINGIDAE

BLIND EYED SPHINX - *PAONIAS EXCAECATUS*

CATERPILLAR Yellow-green with dense white speckles; oblique yellow line extends from the base of proleg on A6 to dorsal horn on A8; also six oblique yellow lines from A1 through A6; white spiracles with black rim. Head green, edged in white along posterior margin.

ADULT Wingspan 7.8 centimeters. Forewings pale to dark brown with the outer margins scalloped. Hindwings rose-red; each hindwing has a round black anal spot containing a solid blue pupil.

ECOLOGY Caterpillars are common; feed on foliage of trees and shrubs, particularly oaks and ocean spray, during July and August. Adults are nocturnal; fly from late spring to midsummer. Found in dry forests west of the Cascade Mountains and in riparian forests east of the Cascade Mountains.

SPHINGIDAE

SMERINTHUS CERISYI



CATERPILLAR Green with white speckles, yellow lines dorsally are longitudinal and laterally they are oblique stripes just above the spiracles; a prominent oblique white stripe extends to the tip of the horn which is purple. Head green with two lateral yellow lines.

ADULT Wingspan 7.8 centimeters. Forewings falcate, pale gray with darker red or black-brown lines and bands, the outer margins not scalloped. Hindwings rose-red with gray-tan margins; each hindwing has a blue ring on a round black anal spot, creating the appearance of an eyespot.

ECOLOGY Caterpillars are common; feed on the foliage of willow and poplar. Adults are nocturnal; fly from spring to early summer. Found in wet forests in western North America, particularly in coastal forests, riparian forests east of the Cascade Mountains, and quaking aspen forests of the Rocky Mountains.

SPHINGIDAE

SEQUOIA SPHINX - *SPHINX SEQUOIAE*

CATERPILLAR Dark green with bright white patches dorsally and subdorsally; lateral white patches on thorax without brown shading; lateral white patches on abdomen with brown shading above; black spiracles with white rim. Head green with faint oblique yellow-green lines.

ADULT Wingspan 5.0 centimeters. Forewings gray with narrow black lines. Hindwings solid gray without markings. Thorax gray with two narrow black lines. Abdomen with black and gray lateral spots or bands.

ECOLOGY Caterpillars are common; feed on foliage of western juniper during July and August. Adults are nocturnal; fly in midsummer. Found in dry forests with cedars in the Pacific West, and particularly abundant in juniper woodlands east of the Cascade Mountains.

THYATIRIDAE

CERANEMOTA FASCIATA



CATERPILLAR Mottled white, tan, black, and yellow; tail-end of abdomen typically held above the substrate.

ADULT Wingspan 4.0 centimeters. Forewings white to gray with wavy, black lines in the basal band and postmedian band.

ECOLOGY Caterpillars are common; feed on serviceberry during late spring. Adults are nocturnal; fly in late fall. Found in coastal wet forests in the Pacific western states.

THYATIRIDAE

LETTERED HABROSYNE - *HABROSYNE SCRIPTA*

CATERPILLAR Tan-golden orange and light brown mottled pattern; abdomen with a middorsal, longitudinal black line and transverse black bands, laterally with slightly curved black dashes. Head gold-orange.

ADULT Wingspan 3.8 centimeters. Forewings gray-brown with faint pink basal and submarginal lines and a zigzag postmedian line. Hindwings pale gray-brown and immaculate.

ECOLOGY Caterpillars are uncommon; feed on salmonberry. Adults are nocturnal; fly from midsummer to fall. Found in wet coastal forests; widely distributed in western North America.

THYATIRIDAE

PSEUDOTHYATIRA CYMATOPHOROIDES



CATERPILLAR Tan-gold-orange and light brown mottled pattern; abdomen with middorsal longitudinal black line. Head gold-orange.

ADULT Wingspan 4.2 centimeters. Forewings angular, pale gray-brown with narrow dentate basal, postmedian, and submarginal lines, some moths with a black basal band and subanal spot. Hindwings transition from light to dark gray toward the margin, immaculate.

ECOLOGY Caterpillars are uncommon; feed on thimbleberry. Adults are nocturnal; fly from late spring to late summer. Found most often in wet coastal forests; widely distributed in western North America.