

Stink Bugs of Oregon

A guide to members of the insect family Pentatomidae and their relatives commonly found in Oregon



INTRODUCTION

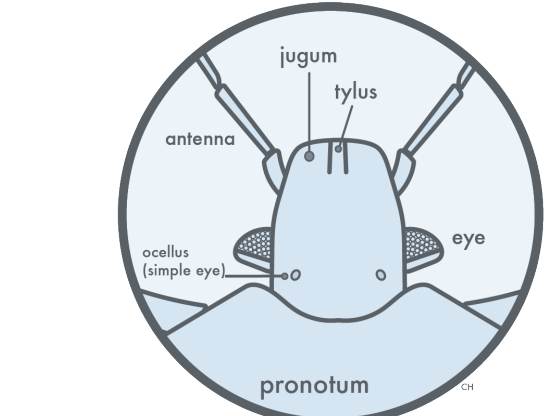
Stink bugs are insects in the order Hemiptera, known to entomologists as the “true bugs.” True bugs are characterized by having sucking mouthparts that they use to suck juices from plants or prey. More specifically, stink bugs are in the family Pentatomidae, and are distinguished from other hemipterans by having five antennal segments (penta = five, tomo = part); other hemipterans have four or less. When disturbed, stink bugs emit defensive liquids from their scent glands that can have a strong odor and a bad taste to discourage predators. Although most are herbivorous on a wide variety of plants, a few are predacious on other insects. Over 50 known stink bug species have been found in Oregon. This guide features some of the common species, and some close relatives, that growers and others might find on their farms, in their gardens, or in their homes. For species with common names, they are provided under the scientific name, but not all species possess a common name. In Oregon, a few species of stink bug can be nuisance or agricultural pests, but most are not considered pests and none are dangerous to people. This guide is intended to aid you with identifying stink bugs that you find around the state to help with pest management decisions or to satisfy your curiosity.

ATTRACTIVE PLANTS

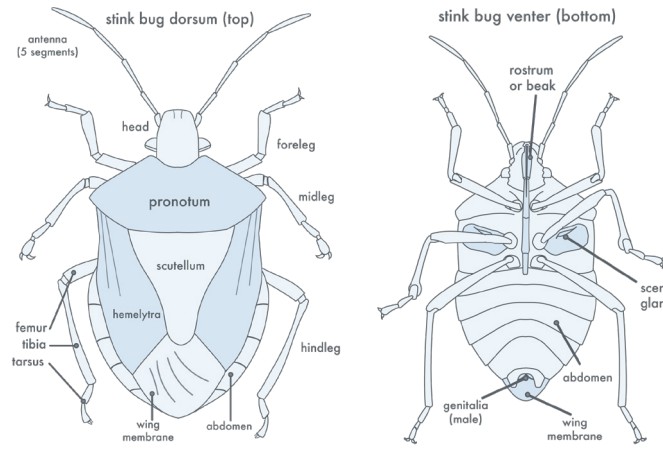
These plants are attractive to many species of stink bugs throughout the spring and summer:

- Antelope bitterbrush (*Purshia tridentata*)
- English holly (*Ilex aquifolium*)
- Hawthorn (*Crataegus* spp.)
- Himalayan blackberry (*Rubus armeniacus*) and other *Rubus* sp.
- Oregon grape (*Mahonia aquifolium*)
- Red alder (*Alnus rubra*)
- Tree of Heaven (*Ailanthus altissima*)
- Wild carrot (*Daucus carota*)
- Wild and weedy grasses

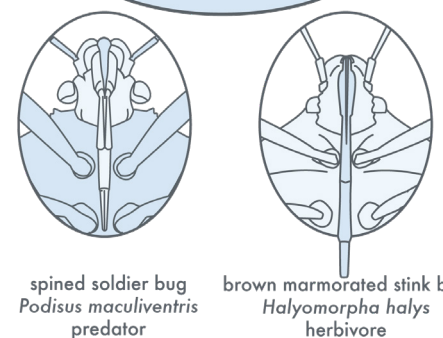
BODY PARTS



detail of stink bug head

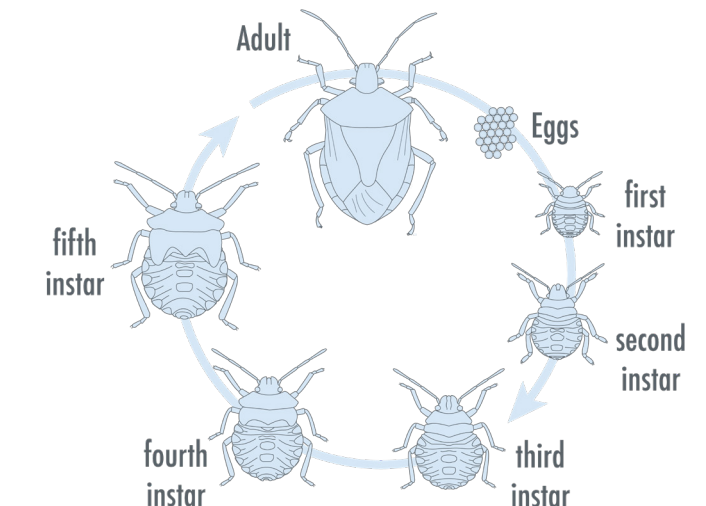


Predatory stink bugs have short and robust beaks. Herbivores have long and thin beaks.



LIFE CYCLE

When the weather warms in the spring and the days get longer, adult stink bugs come out of hibernation to feed, mate, and lay eggs. These adults will die a few weeks later, but their offspring will hatch and develop through the summer. Stink bug egg clusters can have seven to as many as fifty eggs, varying by species. After hatching, the young insects, called nymphs, go through five “instars”, or immature stages, before molting into a winged adult. The first instars generally remain on the egg cluster but later instars can be very mobile. The different stages can be distinguished by their relative size to one another and the development of the wing pads on the later instars. There is variation between species and some stages can be difficult to discern. Stink bug nymphs will always complete five instars before molting into adults.



At the end of the summer, as days get cooler and shorter, adults will begin to move into hibernation areas and settle down for the winter. Most adult stink bugs spend the winter in leaf litter or under tree bark, but some, like the brown marmorated stink bug, will gather in structures. Some stink bugs are univoltine, or have a single generation per year, but others are multivoltine, completing two or three depending on summer conditions. (Image adapted from illustrations in *The Developmental Stages of Some Species of the Japanese Pentatomoidea (Hemiptera)*, Kobayashi 1967).

PREDATORS

Apoecilus bracteatus

Size: 13 – 17 mm
Description: Pale orange, pink, or tan with solid red antennae. Abdomen with alternating dark bands along the edge. *Apoecilus* is univoltine and overwinters in the egg stage. The defensive fluid smells putrid. It has been reported that nymphs and adults are generally solitary but will aggregate to molt.



Hosts: Predacious on Lepidoptera larvae, including fall webworm, and some leaf beetle larvae and sawfly larvae. Nymphs and adults have been found on golden rod and alfalfa.

Range: Have been collected in Oregon from western, south and central regions. Occurs in the northern United States, and in the western states, south to New Mexico and Colorado.

Perillus bioculatus Two-spotted stinkbug

Size: 8.5 – 11 mm
Description: Mostly black with bright red or orange markings. Pronotum red with two black marks. Head black with solid black antennae. Edge of scutellum with red marks. Color can be variable, from red to orange to very pale orange. Color on hemelytra can be present or not, but there are always two black marks in a field of color on the pronotum. Nymphs have black or metallic blue wingpads and bright abdomens.



Hosts: *Perillus bioculatus* nymphs are voracious predators of the Colorado potato beetle (*Leptinotarsa decimlineata*). Nymphs and adults will feed on the beetle eggs and larvae.

Range: Occurs statewide across Oregon, and across the United States.

Podisus brevispinus, *Podisus maculiventris* Spined soldier bugs

Size: 8.5 – 13 mm

Description: Adults are mottled light brown to tan dorsally, but can appear to be slightly red or pink or on the hemelytra. Pronotum often with pointed “spines” on the hind angles, but these can also be rounded. Wing membranes often have a central black stripe. Antennae are solid tan colored. *Podisus brevispinus* can be distinguished from *P. maculiventris* by the presence of a small spine that extends forward from the abdomen between the base of the hind legs on *P. maculiventris*, which is not present or does not reach the hind legs on *P. brevispinus*.

Hosts: *Podisus* species are predators on many pest species, and are important in many integrated pest management systems. They primarily feed on Lepidoptera larvae, but because they are opportunistic will feed on many other types of insects.

Range: Both species are found across the United States and have been collected statewide in Oregon.

Zicrona caerulea Blue shieldbug

Size: 4.5 – 9 mm

Description: Distinctive dark blue to black metallic color both dorsally and ventrally. Legs and antennae are black.

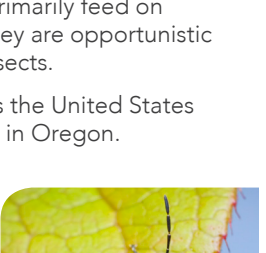


Photo by Thomas Shahan

Hosts: Predacious on beetle larvae, particularly leaf beetles, and Lepidoptera larvae (according to literature outside of North America). In Britain, said to occur on low vegetation habitats such as heathland, damp grassland, and low woodlands. They are solitary and overwinter as an adult.

Range: Found across the United States and has been collected statewide in Oregon.

For more information

Oregon Department of Agriculture
Insect Pest Prevention & Management Program
635 Capitol St. NE
Salem, OR 97301
www.oregon.gov/ODA
(503) 986-4621

Photos and illustrations by Chris Hedstrom, unless otherwise noted. Information written and compiled by Chris Hedstrom using various published sources. Please inquire for references.

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STINK BUGS

Banasa dimidiata

Size: 7 – 10 mm

Description: Distinctive bi-colored pronotum; green towards the head and red towards the abdomen. Body usually glossy with small dark punctures. Scutellum often green with light spot on the tip. Hemelytra green or red. Antenna tan to green with dark tips. Head is reddish with dark punctures. Color of this species is highly variable. Often referred to as *B. dimiata* in literature. Nymphs have a dark thorax with a tan abdomen and are often more oval than round when compared to other stink bug nymphs. *Banasa tumidifrons* and *B. rolstoni* are other species that are also reported from Oregon. These differ in size, rostrum length, and the coloration of punctures on the head.

Hosts: Wide range of hosts, but commonly found in Oregon on mountain-ash (*Sorbus* spp.), English holly, lilac (*Syringa vulgaris*), arborvitae (*Thuja* spp.), and cane berries (*Rubus* spp.). In the Columbia River Basin, species of *Banasa* can be found on conifers.

Range: Very common across Oregon and found across the United States.



Chinavia hilaris Green stink bug

Size: 13 – 19 mm

Description: One of the largest stink bugs in Oregon. Uniform bright green color, abdomen has distinctive black marks or notches along the outer edge. Antennae dark with light bands. Edges of body may be tinged with yellow. Nymphs are brightly colored with black wingpads and white and green striped abdomens. Very young nymphs have an orange pronotum. Older nymphs have orange patches on the edge of the pronotum, which nymphs of other species in Oregon do not have. Often referred to as *Acrosternum hilare* in literature.

Hosts: Wide range of hosts including English holly, hawthorns, red alder, and Himalayan blackberry. Prefer woody shrubs and trees. Can be a pest on corn, cotton, tree fruits, tobacco, and other crops in some states.

Range: Common in the Willamette Valley and elsewhere in Oregon. Can be found in southern Canada, New England, and across the U.S.



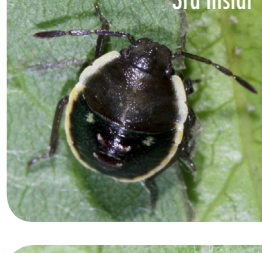
Chlorochroa ligata Conchuela bug

Size: 13 – 20 mm

Description: Ranges from bright to dark green (almost black in some regions) with a bright band along the edge of pronotum and abdomen ranging from red to yellow. Antennae are solid black. Many have a lighter colored spot at the tip of the scutellum. Nymphs tend to be mostly black except for the margins of their abdomen and pronotum, which is white to yellow. In other regions of the country, the color is highly variable. Wings reportedly with purple flecks on specimens outside of Oregon and Washington. Defensive liquid smells sour and candy-like.

Hosts: Wide range of hosts including Oregon grape, on which it is very common, English holly, winegrapes, Himalayan blackberry, hawthorn, and arborvitae (*Thuja* spp.). *C. ligata* is considered a pest of apples in California and of cotton in New Mexico.

Range: Very common throughout western and southern Oregon, and is found in the western United States.



Chlorochroa rossiana

Size: 10 – 15 mm

Description: Bright green oval shape with yellow edges along abdomen. Small depression running along the middle of the scutellum. Juga extend just past the tylus. If small spots are present on the base of the scutellum, they are weak and indistinct, otherwise they are not present. Wing membrane is clear or colorless. Antennae are dark, except for the first segment which is green. Literature on this species is scarce.

Hosts: Found on Oregon grape, spectacle pod (*Dithyrea maritima*), groundsel (*Senecio vulgaris*), clover (*Trifolium* spp.), alfalfa (*Medicago sativa*), and cocklebur (*Xanthium strumarium*).

Range: Specimens in Oregon collected from Central and SE Oregon, but entire range is unknown.

Chlorochroa uhleri

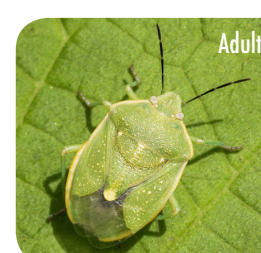
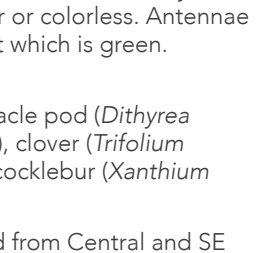
Size: 12 – 16 mm

Description: Oval shape overall, pale green with abdomen edged in yellow, without black markings. Antennae almost entirely black, first segment green. Three distinctive light spots on the base of the scutellum. Hemelytra with yellow specks. Wing membranes clear (without purple flecks, as can be seen on some *Chlorochroa ligata*). Tylus and juga equal or nearly so. Embolium (ridge on hemelytra originating at the anterior point of the forewing) is slightly wider towards the posterior end than at the origin.

Hosts: Russian thistle (*Salsola iberica*), tansymustard (*Descurainia pinnata*), alfalfa (*Medicago sativa*), wheat (*Triticum aestivum*), tumbled mustard (*Sisymbrium altissimum*), and antelope bitterbrush in eastern Oregon (*Purshia tridentata*).

Range: Similar to above, specimens in Oregon collected from Central and SE Oregon, but range is unknown.

Note: *Chlorochroa* species look very similar and are difficult to determine to species without examining internal anatomy. The descriptions in this guide are based on descriptions from “Revision of the species of the Sayi-Group of *Chlorochroa* Stal (Hemiptera: Pentatomidae)” by Buxton et al. California Dept. of Food and Agriculture, 1983).



Thyanta custator Red-shouldered stink bug

Size: 10 – 11 mm

Description: Pale to light green, often with a distinctive red stripe across the pronotum, but are also often light brown or tan with no stripes or distinctive markings. Wing membranes with scattered dark spots. Nymphs are dark brown to black. Early nymphs have two distinctive pale spots on opposite sides of their abdomens and appear hairy compared to other stink bug nymphs. *Thyanta custator* is very closely related to *T. pallidoviensis* and they are morphologically indistinguishable, but there is chromosomal evidence that they are separate species. This also species contains some subspecies.

Hosts: *T. custator* is a generalist feeder and is reported to be a minor pest on a variety of crops including beans, corn, peaches, and wheat. The closely related *T. pallidoviensis* is a pest of pistachios in California.

Range: Common through Oregon and North America.

