



# Colorado Bug Mugs

(Mug Shots of the Most Common Insect ID Requests)



**An Entomology Resource for Colorado  
County Extension Offices**

## **The *Colorado Bug Mugs* Project**

The **Colorado Bug Mugs** project is an innovative approach to helping county Extension offices in Colorado identify the arthropods most likely to be brought by clients for diagnosis.

The format is a series of single page, informal, illustrated descriptions, inspired by the “mug shots” used in law enforcement. They provide information on how to identify different insects, spiders, and other arthropods that are most commonly encountered by Coloradoans and that generate interests or concerns. In addition to descriptive information, reference to available formal Extension publications is provided to allow follow-up.

The goal of this project is to provide identification aids for the species that comprise 95% of client inquiries involving arthropods at Colorado Extension offices. An attempt has been made to develop sheets on those species that are most often encountered, while limiting the number of sheets produced to a reasonable number (less than 50) for easy perusal and reference.

This project is ongoing, and additional species may be added if requested and needed by Extension personnel. Furthermore, the format may be modified in the future to improve ease of use. Once the format and species list are finalized, a formal publication may be developed for wider dissemination. Please forward any suggestions for improvement to the Extension Entomology specialists who developed Colorado Bug Mugs:

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## **Colorado Bug Mugs**

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## Boxelder Bug

**Typical Location When Observed:** In homes from fall through mid-spring. During warm periods on sun-warmed exterior walls. During growing season associated with boxelder maple.

**Geographic Location:** Statewide where boxelder maple (*Acer negundo*) is present

**Importance/Damage:** Nuisance pest in homes during cool season.

**Distinguishing Features:** Boxelder bugs are dark gray-black insects of moderate size (9-14 mm). Prominent red-orange markings are present along the sides of the body and form a V across the wings. Nymphs, which lack fully developed wings, have a bright red-orange abdomen.

**Look-Alikes:** The goldenrain bug (*Jadera haematoloma*) is another species that periodically masses and enters buildings that are near its host plant, goldenrain tree (*Koelreutria paniculata*). A common seed bug associated with many weeds, the small milkweed bug (*Lygaeus kalmii*) is also commonly mistaken for boxelder bugs but does not occur as a nuisance invader of buildings.

**Resources:** This insect is covered in more detail in Extension Fact Sheet 5.552, *Boxelder Bugs*.

**Scientific Name:** *Boisea trivittata*

**Order:** Hemiptera (Bugs, Aphids, Scale Insects, Cicadas, etc.)

**Family:** Rhopalidae (Scentless Plant Bugs)



Boxelder bug, adult



Boxelder bug nymphs and adult

Actual Length

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## Western Conifer Seed Bug



Western conifer seed bug

**Typical Location When Observed:** In homes from fall through mid-spring.

**Geographic Location:** Statewide in association with pine trees

**Importance/Damage:** Nuisance pest in homes during cool season.

**Distinguishing Features:** Western conifer seed bugs are brown insects about 16-20 mm in length. The head is narrow and a prominent beak extends underneath. The hind legs are

long and there is a flattened area at the end. When disturbed these insects often produce a distinctive, somewhat piney odor.

**Look-Alikes:** Because of the narrow head these insects are commonly mistaken for assassin bugs (Reduviidae family). Unlike assassin bugs, the western conifer seed bug can not bite humans.

**Resources:** This insect is covered in more detail in Extension Fact Sheet 5.588 *Conifer Seed Bugs*.

**Scientific Name:** *Leptoglossus occidentalis*

**Order:** Hemiptera (Bugs, Aphids, Scale Insects, Cicadas, etc.)

**Family:** Coreidae (Leaffooted Bugs)

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## False Chinch Bugs



False chinch bug adult R. Otten/IPM  
Images)



False chinch bug nymphs, adults



False chinch bugs feeding in mass

**Typical Location When Observed:** False chinch bugs are most commonly found feeding in large groups on plants in the mustard family.

**Importance/Damage:** False chinch bugs can be a temporary nuisance in homes and other buildings during hot, dry weather.

**Distinguishing Features:** False chinch bugs are small (1/8 inch), elongate, grayish bugs with prominent eyes. They commonly feed in large aggregations.

**Look-Alikes:** Black grass bugs, chinch bugs

**General Life History and Habits:** False chinch bug adults overwinter on mustards, such as flixweed. Egg laying starts in early spring. Multiple generations are produced annually. Their feeding is not very damaging. Mustards such as radish, canola, and mustard greens, are preferred but they feed on many others, including potato, kochia, lettuce, pigweed, quinoa and even turfgrasses. The largest feeding aggregations are usually found on plants that are flowering or producing seed.

**Resources:** Details may be found in CSU Extension Fact Sheet 5.603, *False Chinch Bugs*.

**Scientific Name:** *Nysius raphanus*

**Order:** Hemiptera

**Family:** Lygaeidae (seed bugs)

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## Bed Bug

**Typical Location When Observed:** In cracks and crevices near sleeping areas.

**Importance/Damage:** A very important biting insect that is adapted to human dwellings. Bed bugs are increasingly abundant and may occur where ever they have been transported by humans.

**Distinguishing Features:** Unfed bed bugs have an oval body form and are flat; when fed they become distended and more elongate. General coloration ranges from light to dark brown. Adults are about 5 mm; immature stages can be considerably smaller.

**Look-Alikes:** Four other species of cimicid bugs can be found in Colorado including the bat bug and the swallow bug. These species look very similar to the bed bug but have important differences in life history and habits. They are discussed in the fact sheet referenced below.

**Resources:** This insect is covered in more detail in Extension Fact Sheet 5.674, *Bat Bugs, Bed Bugs and Relatives*.



Bed bug, unfed




Bed bug adult (center) and nymphs. Photo courtesy Gary Alpert and IPM Images.

**Scientific Name:** *Cimex lectularius*

**Order:** Hemiptera (Bugs, Aphids, Scale Insects, Cicadas, etc.)

**Family:** Cimicidae

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## Masked Hunter

**Typical Location When Observed:** Although the masked hunter can be found outdoors, it is almost always encountered within homes or outbuildings.

**Importance/Damage:** Found in homes occasionally. A predator of other arthropods, it may incidentally bite humans. Bites are painful but not medically important.

**Distinguishing Features:** The adult masked hunter is very dark brown to black, ranging from 10-12 mm in length. The head is narrow with a prominent beak running below. The fore legs are slightly thickened, an adaptation for grasping prey.

The nymphs are gray-brown. However, they are almost always covered with debris. Where such covering material is abundant the insect is completely obscured and may resemble a walking ball of dust.

**General Life History and Habits:** The masked hunter is a predator of other insects which they impale and paralyze with piercing mouthparts. The nymphs hunt by ambush and camouflage themselves in lint, sawdust or other debris that clings to their sticky body.

**Scientific Name:** *Reduvius personatus*

**Order:** Hemiptera (True Bugs and Relatives)

**Family:** Reduviidae (Assassin Bugs)



Adult masked hunter



Masked hunter nymph covered with lint

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## Black Carpet Beetle

**Typical Location When Observed:** In homes, with adults most commonly seen in late spring. Outdoors common on certain flowers (e.g., *Spirea*).

**Importance/Damage:** Sometimes common indoors. Occasionally may damage woolens, feathers, or other materials of animal origin.

**Distinguishing Features:** Adults are golden tan to dark brown, oval-form, and about 3-5 mm in length. The larvae are quite active but avoid light and will curl up and play dead when disturbed.

**Look-Alikes:** Dermestid beetles in the genus *Trogoderma* are generally similar in appearance, but the uniform dark color of the black carpet beetle distinguishes it. *Trogoderma* spp. have some patterning on the wing cover and the larvae feed on grain products.

**General Life History and Habits:** Outdoors they feed on various types of animal-produced debris and are frequently associated with animal nests. Indoors they may be feeding on lint of dead skin flakes, hair, dead insects and similar materials.

**Resources:** Management of the household species of dermestid (carpet) beetles are discussed in Extension Fact Sheet 5.549, *Carpet Beetles*.

**Scientific Name:** *Attagenus unicolor unicolor*

**Order:** Coleoptera (Beetles)

**Family:** Dermestidae (Hide and Carpet Beetles)



Black carpet beetle adult and larva. Photograph courtesy of Clemson University and IPM Images.

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## “Carpet Beetles” - *Anthrenus* spp.

**Typical Location When Observed:** In homes, with adults most commonly seen in late spring. Outdoors common on certain flowers (e.g., *Spirea*).

**Importance/Damage:** Common in homes. A general scavenger that feeds on dead insects, household lint, hair and other animal debris. Occasionally damages wool or feathers products.

**Distinguishing Features:** Adults are small beetles, typically about 2-3 mm long and have a generally round body form. Most have colorful body patterning produced by scales of yellow, browns and white. The larvae are very spiny with a blunt body that is slightly narrower at the head end than at the posterior.




Adult and larvae of the furniture carpet beetle. Photograph courtesy of Clemson University and IPM Images.

**Resources:** Management of the household species of dermestid (carpet) beetles are discussed in Extension Fact Sheet 5.549, *Carpet Beetles*.

**Scientific Names:** *Anthrenus verbasci* (**varied carpet beetle**), *Anthrenus flavipes* (**furniture carpet beetle**), and *Anthrenus scrophulariae* (**common carpet beetle**).

**Order:** Coleoptera (Beetles)

**Family:** Dermestidae (Hide and Carpet Beetles)

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## “Carpet Beetles” - *Trogoderma* spp.



Larvae and adult of a *Trogoderma* species of dermestid (carpet) beetle.

**Typical Location When Observed:** In homes, with adults most commonly seen in late spring. Outdoors common on certain flowers (e.g., *Spirea*).

**Importance/Damage:** Common in homes and the most common species of dermestid beetles found in stored foods. Larvae develop on seeds, grains, herbs, spices and other materials of plant origin.

**Distinguishing Features:** Adults are oblong bodied, about 3-4 mm long and generally dark bodied. Wavy bands or faint patches mark the wing covers of some species. Larvae are elongate bodied and tend to be lighter colored than most other dermestids.

**Look-Alikes:** The black carpet beetle is generally similar but adults are uniformly dark colored.

**Resources:** Management of the household species of dermestid (carpet) beetles are discussed in Extension Fact Sheet 5.549, *Carpet Beetles*.

**Scientific Name:** *Trogoderma* spp.

**Order:** Coleoptera (Beetles)

**Family:** Dermestidae (Hide and Carpet Beetles)

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## Elm Leaf Beetle



Summer coloration form of elm leaf beetle

**Typical Location When Observed:** In homes from fall through mid-spring. Outdoors on elm trees during the growing season.

**Geographic Location:** Potentially where ever elms grow. Highest populations in recent years have occurred in the Arkansas Valley.

**Importance/Damage:** Nuisance pest in homes during cool season. Adults and larvae chew elm leaves.

**Distinguishing Features:** The adult elm leaf beetle is about 6-7 mm long with an elongate oval body. The semi-dormant stages that occur indoors are generally a dark khaki green color. Actively developing stages on their elm host during the growing season acquire a lighter color that is predominantly yellow.

**Look-Alikes:** There are other similar leaf beetles that develop on sage (*Trirhabda* spp.) And tamarisk (*Diorhabda elongata*), but these never enter buildings. Elm leaf beetles may superficially resemble in shape and size certain dermestid (carpet) beetles of the genus *Trogoderma*. The latter are distinguishable by having clubbed antennae and a uniformly dark brown coloration.




Overwintering elm leaf beetles exposed in wood pile

**Resources:** This insect is covered in more detail in Extension Fact Sheet 5.521, *Elm Leaf Beetles*.

**Scientific Name:** *Xanthogaleruca luteola*

**Order:** Coleoptera (Beetles)

**Family:** Chrysomelidae (Leaf Beetles)

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## Red Flour Beetle

**Typical Location When Observed:** In homes associated with cereal products.

**Importance/Damage:** Red flour beetles are among the most common insects associated with flour and other milled grain materials.

**Distinguishing Features:** Red flour beetles are small beetles, about 3/16-inch (3.5 mm). They are reddish-brown with an elongate body form. The segments of the antennae gradually enlarge at the tips forming a small club.

**Look-Alikes:** The confused flour beetle (*Tribolium confusum*) may also be found in pantries and is almost identical in size and general form. The sawtoothed grain beetle, another common pantry pest, has ridging along the sides of the thorax.

**Resources:** The recognition and management of this insect is covered in Extension Fact Sheet 5.501, *Insect Pests of Home-Stored Foods*.

**Scientific Name:** *Tribolium castaneum*

**Order:** Coleoptera (Beetles)


**Family:** Tenebrionidae (Darkling Beetles)



Red flour beetle. Photograph courtesy Peggy Grebb/IPM Images.



Red flour beetle with wheat kernel. Photograph courtesy Clemson University/IPM Images.

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## Sawtoothed and Merchant Grain Beetles



Sawtoothed grain beetle adults and larvae (Clemson University/IPM Images)



Sawtoothed grain beetle (Gary Alpert/IPM Images)



Sawtoothed grain beetle, damage (Clemson University/IPM Images)

**Typical Location When Observed:** In the home, infesting any of a variety of dry foods. The sawtoothed grain beetle prefers grains and grain products, while the merchant grain beetle is more likely to be found in oil seeds and processed cereal grains.

**Importance/Damage:** These beetles are very common in dry, home-stored foods. The food can be ruined if the infestation is allowed to continue.

**Distinguishing Features:** Both of these small (1/10 inch) beetles have a row of six projections along the edge of the thorax, just behind the head. The shape of the head and the position of the eyes can be used to tell sawtoothed grain beetle from merchant grain beetle.

**Look-Alikes:** Flour beetles, flat grain beetle, rusty grain beetle.

**General Life History and Habits:** Eggs are laid in or on dried foods. Adults and larvae feed on broken bits of grain and processed foods. The adults live several months to several years.

**Resources:** For more information see Extension Fact Sheet 5.501, *Insect Pests of Home-stored Foods*, and Extension Bulletin 557A, *Household Insects of the Rocky Mountain States*.

**Scientific Name:** *Oryzaephilus surinamensis* and *O. mercator*

**Order:** Coleoptera (beetles)

**Family:** Silvanidae (flat bark beetles)

Actual Length

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## Pine Sawyers



**Typical Location When Observed:** Outdoors in association with pines.

**Importance/Damage:** A curiosity due to large size and the extremely large antennae. These insects may become locally common following death of pines due to mountain pine beetle or other causes.

**Distinguishing Features:** Adult pine sawyers are large (14-24 mm) black to brownish-gray beetles with white markings. They possess extremely long antennae that can extend one to three times the body length.

**General Life History and Habits:** Larvae are a type of roundheaded borer that develop in wood of recently killed/felled pines.



Spotted sawyer (top) and whitespotted sawyer (bottom)

**Scientific Names:** *Monochamus scutellatus scutellatus* (**Whitespotted sawyer**); *Monochamus clamator* (**Spotted sawyer**)

**Order:** Coleoptera (Beetles)

**Family:** Cerambycidae (Longhorned Beetles)

Body Length

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## Mountain Pine Beetle



Mountain pine beetle.

**Typical Location When Observed:** Associated with pine forests and carried on recently cut pine firewood.

**Geographic Location:** Normally found in forested areas of lodgepole and ponderosa pine. Occasionally moved to other areas with infested logs.

**Importance/Damage:** A serious pest of forests capable of killing live, healthy trees. Can cause extensive tree mortality during its periodic outbreaks.

**Distinguishing Features:** A small insect (5-7 mm) with a stubby body and dark brown-black overall coloration. When invading living trees a mixture of pitch and sawdust forms “pitch tubes” on the trunk. Larvae are legless and grub-like, found in galleries under the wood.

**Look-Alikes:** There are several *Dendroctonus* species of very similar appearance but are associated with other tree species (e.g., spruce, Douglas-fir). Ips beetles may also occur in pines but can be separated from mountain pine beetle by examining them in side profile. The hind edge of *Ips* beetles are jagged, whereas the wing covers of *Dendroctonus* species smoothly cover the hind body.

**Resources:** The life history, habits and management of this insect are covered in Extension Fact Sheet 5.528, *Mountain Pine Beetle*.

**Scientific Name:** *Dendroctonus ponderosae*

**Order:** Coleoptera (Beetles)

**Family/Subfamily:** Curculionidae/Scolytinae (Bark Beetles)



Mountain pine beetle larvae in tunnels. Photograph courtesy Scott Tunnock/IPM Images.

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## Ips Beetles

**Typical Location When Observed:** Associated pines and spruce and common associate of firewood.

**Importance/Damage:** Often a minor pest of living trees, usually causing damage to trees suffering severe drought stress and/or recent root injuries. Large numbers may locally develop on slash piles and later move to living trees.



**Distinguishing Features:** A small brown beetle (4-6 mm) with a stubby body and jagged hind end. When invading the trunks of trees fine brown sawdust accumulates below the entry point. Larvae are legless and grub-like, found in galleries under the wood. The gallery pattern often involves a central area (nuptial chamber) with 3-4 radiating egg galleries.

Ips beetle. The jagged hind end of the wing covers is a diagnostic feature. Photograph courtesy Ladd Livingston/ IPM Images.

**Look-Alikes:** There are several *Ips* species of very similar appearance. Ips beetles can be separated from the more damaging *Dendroctonus* species of bark beetles (e.g., mountain pine beetle, spruce beetle) by having the hind edge of *Ips* beetle body being jagged; the wing covers of *Dendroctonus* species smoothly cover the hind body.

**Resources:** The life history, habits and management of this insect are covered in Extension Fact Sheet 5.558, *Ips Beetles*.

**Scientific Name:** *Ips* species

**Order:** Coleoptera (Beetles)

**Family/Subfamily:** Curculionidae/Scolytinae (Bark Beetles)



Galleries produced under bark by spruce Ips.

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## Root Weevils



Rough strawberry root weevil (Ken Gray Collection)



Black vine weevil (Ken Gray Collection)



Strawberry root weevil (Ken Gray Collection)

**Typical Location When Observed:** Root weevils (black vine weevil, lilac root weevil, rough strawberry root weevil, and strawberry root weevil) are occasional nuisance invaders of homes.

**Importance/Damage:** In addition to being a nuisance in the home, these weevils may damage the leaves and roots of a variety of ornamental plants.

**Distinguishing Features:** Root weevils are small (1/4 to 1/2 inch, depending on the species). The smaller species are a shiny brownish black, while the larger black vine weevil (center photo) has patches of yellow hairs on the wing covers.

**Look-Alikes:** Many different weevil species


**General Life History and Habits:** Root weevils generally overwinter as nearly full-grown larvae on the roots of strawberry, raspberry, clover, spruce, Douglas-fir and many woody shrubs. Some black vine weevils may over-winter as adults. Most adults emerge sometime in June. Adults climb plants to feed at night and hide around the soil surface during the day. Eggs are laid near the crowns of plants throughout the summer. Root weevil feeding by adults produces characteristic notches along leaf margins on such plants as euonymous, peonies and lilac.

**Resources:** More information may be found in Extension Fact Sheet 5.551, *Root Weevils*.

**Scientific Name:** *Otiorhynchus* species

**Order:** Coleoptera (beetles)

**Family:** Curculionidae (weevils)

Actual Length  


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## Tenlined June Beetle



Tenlined June Beetle

**Typical Location When Observed:** Outdoors, typically attracted to night lights.

**Importance/Damage:** Mostly a curiosity due to large size and ability to hiss.

**Distinguishing Features:** The tenlined June beetle is a large beetle (22-30 mm) with distinct white stripes running along the body. The antennae of the males are large and may spread fan-like. When disturbed these beetles may hiss.

**Look-Alikes:** *Polyphylla diffracta* is a closely related species, particularly common in western Colorado. *Polyphylla hammondi* is most common in eastern Colorado. Both are about the same size as the tenlined June beetle but their striping is less distinct.

**General Life History and Habits:** Larvae are a type of white grub that feeds on plant roots. Adults chew foliage of trees and shrubs. Neither stage is seriously damaging since these insects are rarely very abundant.

**Scientific Name:** *Polyphylla decemlineata*

**Order:** Coleoptera (Beetles)

**Family:** Scarabaeidae (Scarab Beetles, May/June Beetles)

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## Bumble Flower Beetle

**Typical Location When Observed:** Outdoors in flower blossoms, overripe fruit, and at flows. Larvae occur in compost and animal manure.

**Importance/Damage:** Mostly curiosity. Adults commonly visit plant injuries to feed on ooze.

**Distinguishing Features:** These are broadly oval beetles, about 12-15 mm long. The general color ranges from yellow-brown to dark reddish brown. Dark spots pattern the body, which is also densely covered with yellowish-brown hairs. Adults are strong fliers and may make an audible buzzing noise in flight. Larvae are C-shaped white grubs found in compost and animal manure.

**General Life History and Habits:** Adults are scavengers with particular fondness for fermenting materials. Larvae develop on decaying organic matter, particularly animal manures.

**Scientific Name:** *Euphoria inda*

**Order:** Coleoptera (Beetles)

**Family:** Scarabaeidae (Scarab Beetles, May/June Beetles)



Bumble flower beetles feeding on ooze at tree wound



Bumble flower beetle larvae in horse manure

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## Indian Meal Moth



Indian meal moth larva (Clemson University/IPM Images)



Adult Indian meal moth (Gary Alpert/IPM Images)



Indian meal moth adult and larvae (Clemson University/IPM Images)

**Typical Location When Observed:** Indian meal moth is the most common moth found infesting foods in the home. The adults are found flying in the home, often near stored foods. Larvae infest nuts, herbs, dried flowers, coarsely ground grains, and other pantry items.

**Importance/Damage:** Infested materials eventually will be ruined, and, if not controlled, the infestations can spread to other foods stored nearby.

**Distinguishing Features:** Adults are small (3/8 inch), slender moths. The outer half of the front wings are bronze and purple in color, which distinguishes Indian meal moths from other moths found in homes. The larvae are similar in appearance to other food-infesting caterpillars.

**Look-Alikes:** Webbing clothes moth, Mediterranean meal moth, meal moth

**General Life History and Habits:** The moths are nocturnal. Females lay tiny eggs on or near food. Larvae usually feed on the surface of foods, often producing quantities of silk. They are capable of chewing through plastic bags and thin cardboard to get at food. Indian meal moths go through 3-4 generation per year in Colorado, with adults observed most commonly in the winter.

**Resources:** More complete information is available in Extension Fact Sheet 5.598, *Indian Meal Moth*.

**Scientific Name:** *Plodia interpunctella*

**Order:** Lepidoptera (butterflies and moths)

**Family:** Pyralidae (pyralid moths)

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## *Ceroxys latiusculus* (A picture-winged fly)

**Typical Location When Observed:** Indoors from early fall through spring. It is most often noticed around windows.

**Importance/Damage:** Nuisance invader and curiosity

**Distinguishing Features:** *Ceroxys latiusculus* is a moderate sized fly (9-12 mm) about the size of a house fly. Its general coloration is grayish-brown but the most notable physical feature are the wings which have dark patterned markings. This is the only common “picture-winged fly” that occurs in Colorado buildings.



*Ceroxys latiusculus*, a picture-winged fly that commonly enters buildings in fall

**General Life History and Habits:** Larvae develop within the seed heads of *Senecio* and other composite flowers.

**Resources:** This species is mentioned in Extension Fact Sheet 5.502, *Flies in the Home*.

**Scientific Name:** *Ceroxys latiusculus*

**Order:** Diptera (True Flies)

**Family:** Ulidiidae (Picture-winged flies)

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## Cluster Flies

**Typical Location When Observed:** In homes from late September through April. This is the most common indoor fly of buildings during the cool months.

**Geographic Location:** Potentially statewide where earthworms are present. Most severe infestations occur in higher elevation communities.

**Importance/Damage:** Nuisance pest within homes



Cluster fly

**Distinguishing Features:** General color is grayish-brown and it is typical house fly size (6-9 mm). Golden tangled hairs on the prothorax are useful for identifying cluster flies. (Note: These hairs readily rub off and may be largely absent in poorly handled samples.)

**Look-Alikes:** Some other blow flies (*Phormia regina*, *Calliphora* species) will winter in the adult stage and sometimes occur in homes during the winter months. These flies lack the golden hairs on the thorax that characterize cluster flies.

**General Life History and Habits:** Cluster flies develop as a parasite of earthworms. They are not associated with garbage, carrion or other foods typically associated with blow flies.

**Resources:** This insect is also mentioned in Extension Fact Sheet 5.502, *Flies in the Home*.




Cluster fly

**Scientific Name:** *Pollenia* species

**Order:** Diptera (True Flies)

**Family:** Calliphoridae (Blow Flies)

Actual Length  


Version: July 29, 2009



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## Drain Flies



Drain fly adult



Drain fly adult(Ken Gray Collection)



Drain fly adult

**Typical Location When Observed:** Found around drains of sinks, particularly in spring.

**Importance/Damage:** Drain flies are important primarily as a nuisance in the home.

**Distinguishing Features:** Drain flies are small (1/5 to 1/6 inch) and mothlike in appearance, however, they have only one pair of wings.

**Look-Alikes:** Fungus gnats, small moths


**General Life History and Habits:** Drain fly eggs, maggots and pupae are found in the gelatinous film found lining the drains of many household sinks, where the maggots feeding on bacteria and other organic materials. Adults will be observed around drains or at lights at night. Large numbers of the flies can be produced where there is a problem with broken or leaking drain pipes.

**Resources:** More details on drain flies may be found in Extension Fact Sheet 5.502, *Flies in the Home*.

**Scientific Name:** *Psychoda* species

**Order:** Diptera (flies)

**Family:** Psychodidae (moth flies)

Actual Length  


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## Fungus Gnats



Fungus gnat

**Typical Location When Observed:** In homes around houseplants and collected around the base of windows.

**Importance/Damage:** Primarily a minor nuisance pest in homes, particularly during cool season. Larvae can cause minor injuries to plant roots.

**Distinguishing Features:** Adults are 3 mm long, delicate, black flies with long legs and antennae. There is a distinct “Y-shaped” pattern on the forewings. The larvae are

worm-like, translucent, with a black head capsule and are located in the growing medium of houseplants.

**Resources:** This insect is covered in more detail in Extension Fact Sheet 5.584, *Fungus Gnats as Houseplant and Indoor Pests*. It is also mentioned in the Fact Sheet 5.595, *Managing Houseplant Pests* and in Fact Sheet 5.502, *Flies in the Home*.

**Scientific Name:** *Bradysia* spp.

**Order:** Diptera (True Flies)

**Family:** Mycetophilidae (Darkwinged Fungus Gnats)



Fungus gnat on a sticky card

Actual Length

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## European Paper Wasp

**Typical Location When Observed:** Outdoors in yards and gardens. Nests are often conspicuous and constructed under eaves, in small cavities and other protected sites. Adults may be seen regularly throughout the warm season in cruising flights and searching plants.

**Importance/Damage:** A very common yard/garden insect in much of the state since its establishment within the past decade. Capable of stinging.



European paper wasp gnawing on wood

**Distinguishing Features:** Yellow and black, about 15-18 mm long. Superficially they may resemble a yellowjacket. However, the body of the European paper wasp is narrower and it has long hind legs that trail in flight.

The paper nests are not covered and consist of open cells. They hang under eaves or other protected sites or are made in small cavities. The European paper wasp does not come to “wasp traps”. It does not scavenge food or garbage.



European paper wasps on nest

**Resources:** More information on this insect is available in Extension Fact Sheet 5.611, *European Paper Wasp*.

**Scientific Name:** *Polistes dominula*

**Order:** Hymenoptera (Bees, Wasps, Ants, Sawflies and Relatives)

**Family:** Vespidae (Vespid/Paper Wasps)

Actual Length

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## Western Yellowjacket



Western yellowjacket

**Typical Location When Observed:** Outdoors visiting dining areas, garbage, and sweets (e.g., aphid honeydew). Nests in hollows of walls, belowground burrows. Occasionally found in homes, particularly in fall..

**Importance/Damage:** The most common stinging insect in Colorado. A serious nuisance pest.

**Geographic Location:** Residential and open wooded areas, excepting the eastern Plains.

**Distinguishing Features:** The western yellowjacket is brightly marked with yellow and black and is not heavily covered with hairs, as are bees. Workers, most commonly seen during late summer, are about 10-13 mm. The overwintering queens, sometimes seen in homes in fall and again in early spring, are considerably larger (15-17 mm).

The western yellowjacket and the prairie yellowjacket (*Vespula atropilosa*) are the two species commonly captured in “wasp traps”.

**Look-Alikes:** Several other yellowjackets occur Colorado, but these do not scavenge and rarely are a source of stings. In yards, the European paper wasp may be a very common yellow and black species of very similar appearance. These can be separated by details in Extension Fact Sheet 5.611, *European Paper Wasp*.

**Resources:** Yellowjackets and their management are discussed in Extension Fact Sheet 5.525, *Nuisance Wasps and Bees*.



Western yellowjackets scavenging

**Scientific Name:** *Vespula pensylvanica*

**Order:** Hymenoptera (Bees, Wasps, Ants, Sawflies and Relatives)

**Family:** Vespidae (Vespidae/Paper Wasps)

Actual Length

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## Carpenter Ants



Carpenter ant queen (Ken Gray  
Collection)



Wood damaged by carpenter ants  
(R. Werner/IPM Images)



Carpenter ant worker (Ken Gray  
Collection)

**Typical Location When Observed:** Winged adults usually emerge from a nest during spring or early summer and may accumulate at windows and doors.

**Importance/Damage:** Carpenter ants prefer to nest in decayed, often water-damaged wood. Occasionally, they move into the sound structural wood of a building and can cause serious damage. Winged carpenter ants inside a home indicate a three- to four-year-old infestation. The year-round presence of wingless forms in the home is a sign of infestation. Seasonal presence indicates that the nest is outdoors, and that the ants entered the home in search of food. Additional warning signs of carpenter ant activity are small piles of sawdust in isolated areas, such as crawl spaces or dark closets, and faint rustling noises in walls.

**Distinguishing Features:** Carpenter ants are large (1/4 to 3/8 inches) and black or reddish black in color. When viewed from the side, the thorax is smooth with no apparent indentations.

**Look-Alikes:** Termites, other ants especially field ants (*Formica* species)

**General Life History and Habits:** Carpenter ants nest in decaying wood and feed on a mixture of dead insects and insect products.

**Resources:** More information is available in Extension Fact Sheets 5.554, *Carpenter Ants*, and 5.518, *Ants in the Home*.

**Scientific Name:** *Camponotus* species

**Order:** Hymenoptera (ants, bees, sawflies, wasps)

**Family:** Formicidae (ants)

Actual Length

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## Field Ants



Field ant worker (Ken Gray  
Collection)



Winged field ant (Ken Gray  
Collection)



Field ant worker (J. Berger/IPM  
Images)

**Typical Location When Observed:** Field ants often enter homes in search of food in the spring.

**Importance/Damage:** Field ants are considered a nuisance in the home.

**Distinguishing Features:** Field ants are medium size (3/16 to 1/3 inch) and black or reddish brown and black in color. They are smaller than carpenter ants and lack the smoothly rounded thorax characteristic of carpenter ants.

**Look-Alikes:** Carpenter ants, termites

**General Life History and Habits:** Field ants are among the most common ants found in yards and gardens. They nest outdoors in loose soil and some produce mounds that incorporate twigs, dried leaves and other plant materials. Migrations into homes occur in spring when soils warm enough to cause colonies to resume activity but cool temperatures prevent normal foraging in yards. Field ants feed on a variety of foods but most often are observed visiting honeydew excreted by aphids or other sweet materials.

**Resources:** More information may be found in Extension Fact Sheets 5.518, *Ants in the Home*, and 5.554, *Carpenter Ants*.

**Scientific Name:** *Formica* species

**Order:** Hymenoptera (ants, bees, sawflies, wasps)

**Family:** Formicidae (ants)

Actual Length  
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Pavement ant worker (J.  
Berger/IPM Images)



Winged pavement ant



Pavement ant mounds in  
pavement seams

## Pavement Ants

**Typical Location When Observed:** Pavement ant mounds are commonly observed under pavement, in pavement cracks or under rocks.

**Importance/Damage:** Pavement ants may enter the home in search of food. Mounds may be unsightly in pavement or landscaping.

**Distinguishing Features:** Pavement ants are small (1/10 to 1/16 inch), dark brown ants. Fine grooves on the head are visible under magnification.

**Look-Alikes:** Cornfield ants, odorous house ants, pharaoh ants

**General Life History and Habits:** Pavement ants produce small mounds of soil at entrances of their nest, generally located under pavement or rocks. Pavement ants forage a wide variety of foods, usually consistently preferring greasy materials. Feeding habits shift during the season with higher protein materials being sought when young are being reared and sugars more favored at other times.

**Resources:** More details may be found in Extension Fact Sheet 5.518, *Ants in the Home*.

**Scientific Name:** *Tetramorium caespitum*

**Order:** Hymenoptera (ants, bees, sawflies, wasps)

**Family:** Formicidae (ants)

Actual Length  
—



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## Subterranean Termites



Termite swarm (Susan Ellis/IPM  
Images)



Termite damage (Gary Alpert/IPM  
Images)



Termite worker (Gary Alpert/IPM  
Images)

**Typical Location When Observed:** Winged adults are found swarming in or around homes. Damaged wood is found near soil or associated with mud tunnels leading from soil.

**Importance/Damage:** Termites feed on wood and can cause significant damage to homes by damaging structural wood.

**Distinguishing Features:** Termites are similar to ants in size (2/5 inch including wings) and appearance, except they have straight antennae and do not have any constrictions at the “waist”. Also, the front and hind wings are equal in length.

**Look-Alikes:** Carpenter ants

**General Life History and Habits:** Termites live in colonies in the soil and feed on wood and wood products. In these colonies, different individual types or castes, with distinctive appearances, are responsible for specific tasks involved in colony maintenance. Swarms of winged adults usually appear in the spring or fall. This represents a mating flight, resulting in mated queens that will form new colonies. A swarm inside a structure indicates that an infestation is present. A swarm outside a structure may have come from nearby nonstructural wood.

**Resources:** More details may be found in Extension Fact Sheet 5.532, *Termites*.

**Scientific Name:** *Reticulitermes flavipes* (and others)

**Order:** Isoptera (termites)

**Family:** Rhinotermitidae (subterranean termites)

Actual Length

**Version:** July 31, 2009



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## European Earwig

**Typical Location When Observed:** Most often outdoors, occasionally in buildings. Flower heads, sweet corn ear tips, borer holes, areas along door jambs, woodpiles and other areas that provide daytime cover are among the many sites where earwigs are encountered.



European earwig (male). Photograph courtesy of David Cappaert/IPM Images.

**Geographic Location:** Widespread in the state, particularly along the Front Range and at higher elevations. Absent in some areas of the eastern Plains, although range within Colorado continues to expand. This is an introduced species, native to Europe.

**Importance/Damage:** Locally common insect that hides in all manner of cracks and crevices. A minor pest of flowers and tender garden plants. The large hind pincers frequently cause (unwarranted) concern.

**Distinguishing Features:** Elongated body with pair of pincers at the tip of the abdomen. General color is brown. Adults have short wing covers that do not cover the abdomen.



European earwig found in peach pit.

**Look-Alikes:** Although earwigs are quite distinctive, they are sometimes confused with rove beetles. The latter have similar body shape and short wing covers, but lack the hind pincers.

**Resources:** The life history, habits and management of this insect are covered in Extension Fact Sheet 5.533, *European Earwigs*.

**Scientific Name:** *Forficula auricularia*

**Order:** Dermaptera (Earwigs)

**Family:** Forficulidae (European earwigs)

Actual Length

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## Jerusalem Cricket

**Typical Location When Observed:** Outdoors, usually found under rocks. Rarely will enter basements.

**Geographic Location:** Western Colorado counties along Utah border

**Importance/Damage:** Curiosity due to bizarre appearance. These odd insects usually attract attention when encountered and are called by many common names including “child of the earth”, “potato bug”, “skull head” and “old bald-headed man”.



Jerusalem cricket

**Distinguishing Features:** They are large insects (2-3 cm), flightless with spiny legs. Their bulbous abdomen is often banded but the most noticeable feature is their very large, round head.

**General Life History and Habits:** Jerusalem crickets spend most time below ground and tunnel with their powerful front legs. Much of their food consists of roots and tubers but they are omnivorous and will eat other insects as well as scavenge dead plant and animal matter.

**Scientific Name:** *Stenopelmatus fuscus*

**Order:** Orthoptera (Grasshoppers, Crickets, Katydid, and Relatives)

**Family:** Stenopelmatidae (Jerusalem, Sand or Stone Crickets)

Actual Length

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## German Cockroach

**Typical Location When Observed:** The German cockroach is restricted to indoor settings where food, water, and warm temperatures allow this tropical species to survive.

**Importance/Damage:** A serious household pest that scavenges on many food items within homes. German cockroaches also can spread food-borne pathogens and are an important allergen source.

**Distinguishing Features:** The adult German cockroach is pale brown with two longitudinal dark stripes. Body length is typically 11-13 mm and wings are fully developed so they cover the abdomen. Nymphs have a similar pale brown color and oval body form but are smaller. They are wingless but the pair of dark stripes is present and extends along the entire thorax.

Typical of all cockroaches the body is flattened dorsoventrally and the antennae are extremely long and thin. A pair of cerci on the hind end is visible and particularly prominent in the younger, wingless nymphs. They are fast moving insects.

**Look-Alikes:** The American cockroach (*Periplaneta americana*) and the Oriental cockroach (*Blatta orientalis*) also occur in the state. Both of these are much larger than is the German cockroach. The Oriental cockroach is quite dark colored, has short wings and is usually found in sewers or other very moist sites.

**Resources:** The German cockroach and other cockroaches found in Colorado are discussed in Extension Fact Sheet 5.533, *Cockroaches*.

**Scientific Name:** *Blattella germanica*

**Order:** Blattodea (Cockroaches)

**Family:** Blattellidae



German cockroach adult. Photograph courtesy IPM Images.



German cockroach nymphs on sticky trap. Photograph courtesy Gary Alpert/IPM Images.

Actual Length

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## Silverfish and Firebrats

**Typical Location When Observed:** Indoors, particularly in attics, storage areas and other sites that are infrequently disturbed. The firebrat tends to occur in warm sites such as near furnaces

**Importance/Damage:** Minor pest of stored products in homes

**Distinguishing Features:** Members of this order (Thysanura) are wingless insects with a flattened, elongate body and long thin antennae. The body tapers and from the terminal end extend three long filaments that are often bristly. General coloration is silver or grayish but they are covered with fine scales and some species have extensive patterning of the body. They are fast moving and quickly move to avoid light.

**Look-Alikes:** The jumping bristletails (Order Microcoryphia) have a similar general shape and long terminal "tails". However they are humped, can jump when disturbed and are uncommon insects only found outdoors.

**Scientific Names:** *Lepisma saccharina* (**common silverfish**), *Ctenolepisma lineata* (**foullined silverfish**), *Thermobia domestica* (**firebrat**)

**Order:** Thysanura

**Family:** Lepismatidae



Silverfish. Photo by Ed Manigault; Courtesy IPM Images



Firebrat. Photo courtesy Clemson University/IPM Images

Actual Length

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## Springtails



Springtail (collembola.org)



Large mass of springtails  
(collembola.org)



Springtails (collembola.org)

**Typical Location When Observed:** Springtails are temporary invaders of homes during hot, dry weather.

**Importance/Damage:** Apart from the nuisance caused by their presence in homes, springtails generally are not considered pests.

**Distinguishing Features:** Springtails are very small (1/5 inch) insect relatives that get their name from a springlike mechanism that helps them jump.

**Look-Alikes:** None


**General Life History and Habits:** Most springtails live in soil, feeding on fungi, algae, decaying plant matter and bacteria. Some are predators of small soil animals, and a few may damage tender plants. However, springtails do not bite and are harmless to humans and other animals. Springtails can attain great abundance under ideal conditions – thousands per square foot. Overcrowding and soil drying may induce migrations. Springtails are well adapted to cool conditions, and some species are known as “snow fleas” because they can build up to large numbers on snow.

**Resources:** More details may be found in Extension Fact Sheet 5.602, *Springtails*.

**Scientific Name:** many species

**Order:** Collembola (springtails)

**Family:** Several families

Actual Length  


**Version:** July 31, 2009



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## Funnel Weaver Spiders

**Typical Location When Observed:** Outdoors in dense vegetation within a non-sticky web comprised of a densely spun silk platform and a hidden “retreat” where the spider normally rests. Indoors they are usually seen trapped in sinks and bathtubs.

**Importance/Damage:** Common, but harmless spiders that frequently enter buildings, particularly in late summer and fall. Funnel weaver spiders are often mistaken for recluse spiders and wolf spiders.

**Distinguishing Features:** Funnel weaver spiders are generally brownish or grayish spiders with a body typically ranging from 9-15 mm when full grown. They have four pairs of eyes which are roughly the same size. The legs and body are hairy and legs usually have some dark banding.

**Look-Alikes:** They are often mistaken for wolf spiders (Lycosidae family) but the size and pattern of eyes can most easily distinguish them. Like wolf spiders, the funnel weaver spiders are very fast runners.



Male, *Agelenopsis* sp.



Female, *Tegenaria* sp.

Because of their brown coloration and patterning on the back they are also mistaken frequently for recluse spiders. The characters distinguishing these different spiders are discussed in Extension Fact Sheet 5.607, *Brown Recluse Spiders in Colorado: Appearance and Spiders of Similar Appearance*.

**Resources:** These spiders are discussed in Extension Fact Sheet 5.512, *Spiders in the Home*.

**Scientific Name:** *Agelenopsis* spp., *Hololena* spp., *Tegenaria* spp.

**Class:** Arachnida

**Order:** Araneae (Spiders)

**Family:** Agelenidae (Funnel weaver spiders)

Body Length

Version: July 30, 2009



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## Yellow-legged Sac Spiders

**Typical Location When Observed:** In homes.

**Importance/Damage:** Common spider found in home. A species that can produce a painful bite.

**Distinguishing Features:** General coloration is yellow or creamy. The abdomen is round or slightly oval and lacks any distinct markings. Legs are long and it is an active hunter that does not use a web for prey capture. These are the most common yellow spiders found indoors in Colorado.



Yellow-legged sac spider. Photograph courtesy Joseph Berger and IPM Images.

**Resources:** These spiders are discussed in Extension Fact Sheet 5.512, *Spiders in the Home*.

**Scientific Name:** *Cheiracanthium inclusum*, *C. mildei*

**Class:** Arachnida

**Order:** Araneae (Spiders)

**Family:** Miturgidae



Yellow-legged sac spider and silk retreat.

Body Length

Version: July 30, 2009



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## Cat-faced Spider

**Typical Location When Observed:**

Outdoors, usually in the corner of a window or near a porch light. This species attracts attention when it matures in late summer and fall.

**Importance/Damage:** Mostly curiosity. This is a large spider of odd appearance, but is harmless.



Two mature female cat-faced spiders

**Distinguishing Features:** The large, full-grown females are the stage most often seen. They have a bulbous abdomen with a pair of projections on the front. A faint white line runs down the midline of front of the abdomen and it is crossed with small V-shaped markings. Over all coloration is highly variable and ranges from straw-colored to dark grayish brown.

**Look-Alikes:** Other large-bodied orb weaver spiders can be common in yards, gardens, and fields. Most of these are in the genera *Neoscona* or *Araneus* but these lack the distinctive markings and raised humps on the abdomen that characterize the cat-faced spider.

**Resources:** This spider is discussed in Extension Fact Sheet 5.512, *Spiders in the Home*.

**Scientific Name:** *Araneus gemmoides*

**Class:** Arachnida

**Order:** Araneae (Spiders)

**Family:** Araneidae (Orb weaver spiders)

**Version:** July 29, 2009



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## Bold Jumper

**Typical Location When Observed:** Indoors, crawling on walls; outdoors on plants.

**Importance/Damage:** Common, but harmless spiders that occur outdoors and sometimes enter buildings in late summer and fall. Their bright patterning and active habits attract attention.

**Distinguishing Features:** The bold jumper is a spider of moderate size (6-12 mm) and somewhat fuzzy. General coloration of the bold jumper is often is black or gray but there may be areas of yellow, white, brown, blue or green and there is a light spot on the back of the abdomen. Metallic blue green coloration is also present on the chelicerae that support the jaws. There are 8 eyes with the front pair being very large and directed forward.



Bold jumper

The bold jumper is an active hunter that can make short jumps.

**Look-Alikes:** The bold jumper is one of over 45 species of jumping spiders that occur in Colorado. Some other species that attract attention are marked with red or orange. All jumping spiders are active hunters with large eyes.

**Resources:** Jumping spiders are included in Extension Fact Sheet 5.512, *Spiders in the Home*.

**Scientific Name:** *Phidippus audax*

**Class:** Arachnida

**Order:** Aranae (Spiders)

**Family:** Salticidae (Jumping Spiders)



Face of the bold jumper

Actual Length

Version: July 29, 2009



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## *Dysdera crocata* “Roly-poly Hunter”

**Typical Location When Observed:** Under rocks or boards outdoor; occasionally in basements.

**Importance/Damage:** A common spider found outdoors that occasionally enters homes. Its bizarre appearance attracts attention/concern, although the species is harmless.

**Distinguishing Features:** *Dysdera crocata* is a spider of moderate-size, ranging 9-15 mm in length. The front half of the spider (cephalothorax) and the appendages are orange or reddish orange. The abdomen is grayish white. Perhaps the most striking feature is the very large jaws and associated fangs.



*Dysdera crocata*, aka “the roly-poly hunter”

**General Life History and Habits:** This is an introduced species of spider, native to Europe, that specializes on sowbugs and pillbugs (“roly-polies”).

**Resources:** This spider is discussed in Extension Fact Sheet 5.512, *Spiders in the Home*.

**Scientific Name:** *Dysdera crocata*

**Class:** Arachnida

**Order:** Araneae (Spiders)

**Family:** Dysderidae

Actual Length

Version: July 29, 2009



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## Western Widow



Western widow, mature female

**Typical Location When Observed:** Found both indoors and outdoors. Webs are established in dark, undisturbed sites. Window wells, corners of garages and outbuildings, and wood piles are among the more common sites where these spiders establish.

**Importance/Damage:** A spider with venom that is potentially dangerous to human. This is the common “black widow” of Colorado.

**Distinguishing Features:** Mature females have a bulbous abdomen and reach a length of about 1/4 to 1/3 inch. Adult females are distinctively shiny and

dark colored, generally black or occasionally dark-brown. The immature stages of both sexes and adult male widow spiders may have many red or red-orange or yellow spots and stripes on the top of their abdomen.

The distinguishing feature of all widows (*Latrodectus* spp.) is the presence of a red or red-orange “hourglass” pattern on the underside of the abdomen. However, this pattern can be highly variable with the western widow. The pattern may appear as two unconnected spots, as a roughly rectangular area or be so faint as to be barely visible.

**Look-Alikes:** Another cobweb spider that can be glossy black is *Steatoda grossa*. This species often has a white band running across the abdomen and lacks reddish markings.

**Resources:** This spider is discussed in Extension Fact Sheet 5.605, *Western Widow*.

**Scientific Name:** *Latrodectus hesperus*

**Class:** Arachnida

**Order:** Araneae (Spiders)

**Family:** Theridiidae (Cobweb spiders)



Western widow, immature female

Body Length

**Version:** July 30, 2009



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## Wolf Spiders

**Typical Location When Observed:** Occasionally indoors on lower floors, although wolf spiders rarely enter buildings. Wolf spiders are usually seen crawling actively on the soil.

**Geographic Location:** Statewide. The large burrowing wolf spiders are most often seen in grassland areas.

**Importance/Damage:** Wolf spiders are not dangerous and will bite only if handled. However, they are fast moving spiders, somewhat hairy and several species are large – features that commonly promote spider fears.

**Distinguishing Features:** Wolf spiders are gray-brown to gray-black and capable of crawling quickly. The center two pair of eyes on the top of the head are enlarged. Sizes range widely among the 85+ Colorado species, from less than ½ inch to 3 inches long.

Female wolf spiders have the unique habit of carrying their egg sac attached to the tip of the abdomen. Recently hatched spiderlings are carried on the back of the mother for a couple of weeks.

**Look-Alikes:** Wolf spiders are probably most often confused with funnel weaver spiders. The enlarged pair of eyes in the front of the head and the absence of web building separate wolf spiders from funnel weavers. The larger species are sometimes mistaken for tarantulas.

**Resources:** These spiders are discussed in Extension Fact Sheet 5.512, *Spiders in the Home*.

**Scientific Name:** Many species

**Class:** Arachnida

**Order:** Aranae (Spiders)

**Family:** Lycosidae (Wolf spiders)



*Schizocosa mccooki*, a common wolf spider that is over one inch long.



Female wolf spider carrying spiderlings.



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**Version:** November 12, 2009

## Sunspiders



Sunspider or windscorpion (E. Nelson/IPM Images)



Sunspider or windscorpion



Sunspider or windscorpion

**Typical Location When Observed:** Sunspiders, also known as windscorpions, are occasional invaders of homes, often due to the nighttime lighting that attracts the insects they prey on.

**Geographic Location:** Sunspiders are found in many parts of Colorado, but are most common the southeastern part of the state.

**Importance/Damage:** Sunspiders are considered beneficial because they feed on insects. They will bite if handled, but are not poisonous.

**Distinguishing Features:** Sunspiders appear to have 10 legs, although the first pair of legs actually are actually part of the prominent jaws and used to detect their prey. They generally are reddish brown to tan in color and up to 1 1/4 inches in length.

**Look-Alikes:** Certain spiders and scorpions.

**General Life History and Habits:** Most sunspiders are active at night. They are fast runners and are able to climb even smooth, vertical surfaces. They lay eggs under rocks and other protected areas in silk-lined burrows constructed by the mother. She guards the eggs and may help capture prey to feed her young. Sunspiders usually live one or two years.

**Resources:** For more information, see Extension Fact Sheet 5.589, *Sunspiders (Windscorpions)*.

**Scientific Name:** Eleven species in Colorado

**Class:** Arachnida

**Order:** Solifugae

**Family:** Eremobatidae

Actual Length

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## Duff Millipedes

**Typical Location When Observed:** Duff millipedes may appear in various areas of the home but most often are concentrated around sources of moisture, such as kitchen sinks and bathrooms.

**Geographic Location:** Foothills areas and forested lands near pines, particularly ponderosa pine.

**Importance/Damage:** Nuisance invader and curiosity



Duff millipede

**Distinguishing Features:** Duff millipedes are pale brown and minute only reaching about 2-3 mm. They have a generally elongated body form but are not at all worm-like as are other millipedes found in Colorado. Bands of hairs encircle the body and there is a distinct tuft of hairs protruding from the tip of the abdomen.

**Look-Alikes:** Due to their very hairy appearance duff millipedes are sometimes mistaken for larvae of dermestid beetles (carpet beetles). The small size of duff millipedes and the bunched hair tufts protruding from the abdomen allow them to be distinguished from carpet beetle larvae.

**General Life History and Habits:** Duff millipedes feed on lichens and fungi and are usually associated with tree bark.



Carpet beetle larvae

**Resources:** This species is mentioned in Extension Fact Sheet 5.552, *Millipedes, Centipedes and Sowbugs*.

**Scientific Name:** *Polyxenus* sp.

**Class:** Diplopoda (Millipedes)

**Order:** Polyxenida

**Family:** Polyxenidae

Actual Length  
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## Millipedes

**Typical Location When Observed:**

Outdoors, usually found under rocks, leaves or other cover. Occasionally enter basement areas during spring and early fall.

**Geographic Location:** Potentially statewide but most common in irrigated lawns and moist wooded areas.



A julid millipede, *Cylindroiulus caeruleocinctus*

**Importance/Damage:** A minor nuisance invader of buildings in spring and fall. Some species may feed on soft, overripe fruit (strawberries, tomatoes) that rests on soil.



A blaniulid millipede, *Blaniulus guttulatus*

**Distinguishing Features:** The julid millipedes are generally wormlike. Mature individuals are brown to nearly black and may exceed 3 cm. However, young stages are smaller and lighter. Two pairs of legs occur on all body segments, but the legs are small and directed beneath the body so that they may be difficult to see.

**Related Species:** Although most millipedes that people observe are cylindrical and wormlike, other millipede orders have somewhat different appearance. The polydesmid millipedes are more flattened and have more prominent legs that extend to the side. The minute duff millipedes have a very different body form that is more compact and covered with dense hairs.

**Resources:** Millipedes are generally covered in Extension Fact Sheet 5.552, *Millipedes, Centipedes and Sowbugs*.

**Class:** Diplopoda

**Order:** Julida

**Families:** Julidae, Blaniulidae, Parajulidae

Actual Length

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## Clover Mites



Clover mite adult



Clover mite under microscope  
(Gary Alpert/IPM Images)



Clover mite molting to adult (R.  
Lehman/IPM Images)

**Typical Location When Observed:** Clover mites commonly enter homes from infested turf on the south sides of buildings in late fall and early spring.

**Importance/Damage:** Clover mites can be a serious nuisance in homes, appearing in large numbers and leaving reddish stains when crushed. They also damage turf in warm, dry areas of lawns during early to mid-spring.

**Distinguishing Features:** Tiny (1/12 inch) clover mites have legs as long as the body. This will help distinguish them from our common mites except brown wheat mite, also found on turf.

**Look-Alikes:** Brown wheat mite, Banks grass mite

**General Life History and Habits:** Clover mites feed on turfgrass, clover and other plants during spring and fall. There are two or more generations during the year. In late spring, clover mites produce overwintering eggs that do not hatch until the return of freezing temperatures in fall. Clover mite injury to turf is commonly mistaken for winter kill and usually is found in the same sunny, dry areas of the lawn where winter drying problems occur. Furthermore, almost all injury occurs within 10 feet of a building, tree or some other upright surface, where they can climb to shed their old skins and lay eggs.

**Resources:** More information on clover mites may be found in Extension Fact Sheet 5.505, *Clover and Other Mites of Turfgrass*.

**Scientific Name:** *Bryobia praetiosa*

**Class:** Arachnida

**Order:** Acari (mites and ticks)

**Family:** Tetranychidae (spider mites)

Actual Length  
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## Brown Dog Tick



Unengorged female on leaf (James Gathany, Center for Disease Control and Prevention).



Engorged female on dog.



Engorged female with eggs (M.D. Bazan/BugGuide).

**Typical Location When Observed:** Brown dog tick infests buildings harboring dogs. They tend to crawl upward and often are found behind ceiling moldings or in other cracks and crevices in the ceiling. These ticks also hide behind curtains, in furniture, and under rugs.

**Importance/Damage:** Brown dog ticks are an irritation to dogs, but are not known to transmit any diseases. They generally do not feed on humans.

**Distinguishing Features:** Brown dog ticks are reddish brown in color. The connection between the head to the body is hexagonal in shape. An adult female is about 3/16 inches in length

**Look-Alikes:** American dog tick, Rocky Mountain wood tick

**General Life History and Habits:** The female feeds on the dog for about a week and then drops off to lay up to 5,000 eggs. Tick larvae hatch within a few weeks and find a host, preferably a dog, to feed on for a week or less. Larvae leave the host to develop into nymphs over the next two weeks. Nymphs feed on the host for a week or so and then drop off to develop into adults. The life cycle is completed in about two months, however, each stage can survive three to five months without feeding.

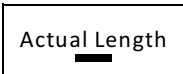
**Resources:** More detail about brown dog ticks are found in Extension Fact Sheet 5.593, *Colorado Ticks and Tick-Borne Diseases*.

**Scientific Name:** *Rhipicephalus sanguineus*

**Class:** Arachnida

**Order:** Acari (mites and ticks)

**Family:** Ixodidae (hard ticks)



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## House Centipede



House centipede

**Typical Location Where Observed:** Indoors, crawling on the floor. They are usually noticed when turning the light on in a previously darkened room.

**Importance/Damage:** An arthropod sometimes found in buildings with unusual appearance.

**Distinguishing Features:** The house centipede has 15 pairs of extraordinarily long

legs, the last pair often exceeding the body length. The overall body is usually grayish-yellow and marked with three stripes running longitudinally. Banding also occurs on the legs.

A pair of very long antennae protrude from the head. The eyes, although not prominent, are larger than found with most other centipedes. Full-grown the body length typically ranges from 1- 1 ½ inches (2.5-4 cm); with the legs and antennae extended it may be 3-4 inches (8-10 cm).

**Life History and Habits:** Typical of all centipedes, the house centipede is a predator of insects and other small invertebrates. They are normally active at night but may hunt during the day in dark indoor rooms. The house centipede is the only centipede that can adapt to indoor life, provided it has some access to moisture.

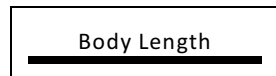
House centipedes are not aggressive and will bite only if physically confined. The mouthparts (including the maxillipeds) are fairly weak and can only penetrate skin with difficulty. The bites are reportedly mildly painful.

**Scientific Name:** *Scutigera coleoptrata*

**Class:** Chilopoda (Centipedes)

**Order:** Scutigromorpha (House Centipedes)

**Family:** Scutigeridae (House Centipedes)



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