



Home, Yard, and Garden Pest Newsletter

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Jumping Worm Update



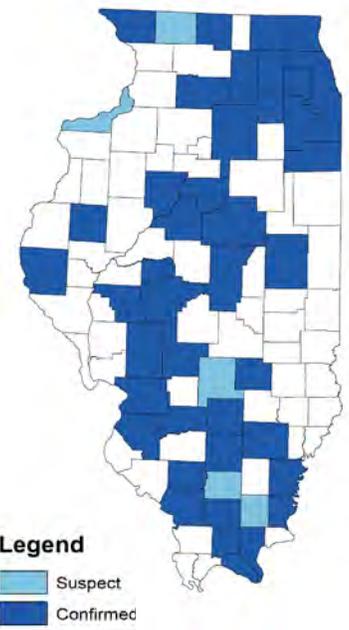
Jumping worm, Chris Evans, University of Illinois

The map of known locations of the invasive jumping worms in Illinois continues to expand as more reports are being submitted. In 2015, jumping worms were first found in Illinois with a total of seven reports in three counties. Currently, we have known populations in 42 counties with another five counties suspected of having jumping worms.

Jumping worms are a concern for landowners in Illinois because of their ability to alter soil conditions. Specifically, they process organic matter very quickly. This process leads to an initial increase in nutrient availability following by rapid decline as the nutrients stored in the soil or the leaf litter are changed to a more mobile form and are lost from the system. Additionally, soil aggregate size is increased, which reduces soil water holding capacity, making the soil more vulnerable to droughty conditions.

In most of Illinois, jumping worm adults die in winter. In far southern Illinois, the soil temperatures are likely mild enough through winter to allow some adults to survive. Even with the adults dying yearly, populations persist through cocoons, which house and protect the eggs. Eggs should be hatching now with the young hatchlings starting to grow. While you may not see full-sized adults yet, jumping worms can reach maturity fast, often in as little as 80-90 days. Often multiple generations are produced in a single season.

Look for very active worms that tend to move more like a snake, with side-to-side motions, instead of the typical stretch-and-shrink that we are used to seeing worms do. Jumping worms will often move on top of the soil and under the grass and can be fairly fast. When disturbed, jumping



Legend

- Suspect
- Confirmed

Jumping Worm Distribution as of October 25, 2021

worms will tend the thrash about wildly.

Look closer at jumping worms and you will see a band (the clitellum) around the worm that starts around the 14th segment behind the front of the worm. Most other worm species have a clitellum that starts further back, past the 20th segment. In jumping worms, this band will not be raised, but is instead the same diameter as the rest of the worm, setting it apart from most of the other worms that you might run across in Illinois.

If you suspect you have a population of jumping worms in a county that has not yet been verified, please report it by emailing pictures or a video of the worms to Extension Forester Chris Evans (cwevans@illinois.edu) or bring a sample to your local Extension office.

Chris Evans

Getting to Know Common Wasps

Throughout the summer you may encounter many different types of wasps. These wasps can look similar at first glance but they often have very different natural histories and behaviors. While one wasp species might be aggressive and sting, another may be more interested in the food you're serving at your family picnic or the juicy spiders in your garden. The following descriptions are intended to help landscape professionals and gardeners identify a few common wasps and determine whether they require control or may be neutral or beneficial in your shared space.

Yellow Jackets, Hornets, Paper Wasps and Potter Wasps (Vespidae)

While adult **eastern yellowjackets** (*Vespula maculifrons*) feed on nectar and other sweet foods, they seek out protein rich foods to feed their grub-like young. They may carry bits of meat from a picnic or trashcan back to their nests to feed their young or they may act as biocontrol, collecting insects like caterpillars in the garden. The nests are constructed underground, usually in abandoned rodent holes, and may house as many as 2000 individuals. Like honey bees, yellowjackets are social and their nests house queens, workers and drones (males).

Early in the season these insects may not be aggressive but as the season progresses and food sources become less available, yellowjackets may become persistent in their search for food and sting more easily. Their stings are painful and can be life threatening for people with wasp or bee allergies. These and other yellowjacket species may need to be controlled if they nest in a high traffic area, a location where work needs to be done or a location where children play. Wasps and bees are active during the day, so if nest control is needed, an insecticide labeled for wasps should be applied at night. One of the best control methods is to alter the environment to make it less attractive to yellowjackets. This includes reducing food sources by making sure trashcans are closed and drinks are covered while outdoors. Filling in potential nesting sites (if they are currently unoccupied) such as rodent holes or gaps behind brick pavers or wooden beam around flowerbeds can also be a good preventative strategy. Yellowjackets do not return to nesting sites they used the previous year.



Left: eastern yellowjacket (*Vespula maculifrons*) adult, Gary Alpert, Harvard University, Bugwood.org

Center: paper wasp (*Polistes fuscatus*) Jon Yuschock, Bugwood.org

Right: potterwasp (*Eumenes fraternus*), Jon Yuschock, Bugwood.org

Northern paper wasps (*Polistes fuscatus*) are a species you might recognize as the wasps that build a nest under overhangs or near outdoor lights on homes. Their nests are sometimes called “umbrella nests” because they often have a curved top with open comb-like cells on the underside. The nests are built in the spring by a few females but after a queen is established, the nest may grow to house as many as 200 individuals.

Northern paper wasps forage for protein rich food like insects and bits of carrion, as well as sweet foods like nectar and fruit. Northern paper wasps are usually docile but may become aggressive if their nest is disturbed. Like eastern yellowjackets, they can be controlled if they become a risk to people in the area and should be controlled at night.

Potter wasps (*Eumenes fraternus*) are solitary in nature. Each female builds a marble sized mud urn to house one or multiple offspring. The nests may be built on plants or on the sides of homes. The adult collects insect larvae or spiders and puts them inside the mud nest before laying one or more eggs and sealing the chamber. The young will hatch and feed on the stored food items until they emerge from the nest as adults. The adults feed on nectar from flowers. These wasps rarely sting people and may help remove caterpillars in the area.

Thread-waisted Wasps (*Sphecidae*)



Black and yellow mud dauber (Sceliphron caementarium), Howard Ensign Evans, Colorado State University, Bugwood.org

Black and yellow mud daubers (*Sceliphron caementarium*) are solitary wasps about 1 inch long. These

wasps usually have an elongated and very slender attachment point between their abdomen and thorax. Nests are constructed using small amounts of mud carried from puddles or other bodies of water and situated in sheltered locations, including porches and building overhangs. These wasps are behaviorally similar to potter wasps, preying upon insects and spiders, then storing and sealing them in their nests for their developing young. The adult wasps feed on the nectar of flowers like Queen Anne’s lace and rarely sting people.

Cicada killers (*Sphecius speciosus*) are large wasps, about 2 inches long, with red-brown heads, black bodies and yellow banding on their abdomens. Females sting and paralyze cicadas, which they carry back to their subterranean burrow to feed their young. Females may sting people but this typically only occurs if someone attempts to handle them or if they are stepped on.

These animals are sometimes confused with Asian hornets because of their large size but they are a native species that rarely sting humans. Asian hornets are not established in North America. For more information about cicada killers, please refer to [Issue 11 of the 2018 Home, Yard & Garden Pest Newsletter](#).



cicada killer (Sphecius speciosus), Nancy Hinkle, University of Georgia, Bugwood.org

Spider Wasps (Pompilidae)

Spider wasps vary in size but most are about ½ inch long. They are usually black, but may have a bluish shine, with transparent wings. Wasps in this group

stun spiders with a venomous sting and are protected from the spider's bite by their hard exoskeleton. After stunning the spider, the wasp will carry it back to her burrow or mud cell to feed her single offspring. Adult wasps feed on the nectar of flowers or honeydew produced by aphids. Spider wasps are not aggressive but may sting if they are threatened or handled. Spider wasp species in Illinois can have a mildly painful sting, though some species native to the Southwest (tarantula hawks) can produce a very painful sting. Give these insects a respectful distance if you are vacationing in the Southwest.



Spider wasp, David Cappaert, Bugwood.org

Parasitoid Wasps (multiple families)

Parasitoid wasps feed and develop on other insects, making them beneficial to landscapers and gardeners. The images above shows a tomato hornworm (left) that has been parasitized by braconid wasps (similar species shown right). These wasps lay their eggs in the caterpillars. As the young develop inside the caterpillars, the caterpillars will slow or stop feeding on the plants. When the young larvae mature, they will pupate in tiny cocoons on the surface of the parasitized caterpillars. These tiny cocoons are a good indication that these beneficial insects are making your garden their home. When they emerge as adult wasps, they will feed on the pollen, nectar of flowers or honeydew from aphids, then seek out a new caterpillar host for their own young. Parasitoid wasps do not sting people the way a hornet or bee might. If you find a parasitized caterpillar, the best thing to do is leave it undisturbed so the wasps can reproduce and consume more pest caterpillars.

Sarah Hughson



Tomato hornworm caterpillar parasitized, Maria Turner, University of Illinois



Braconid wasps on a centimeter scale, Jim Occi, BugPics, Bugwood.org

Weed Seedlings Recently Found in Central Illinois

Weeds can be challenging to identify. Tiny seedlings can be even trickier. Often times, letting your mystery seedlings grow a little so that all the parts are easier to see and handle can greatly help your identification efforts. Of course, waiting until your weeds are *too* tall can result in weeds that are more difficult to control or perhaps have exceeded label height restrictions. Therefore, timely identification is essential.

The following are 12 seedlings that have been prevalent the past few weeks. Of course, the southern part of the state likely saw these already. If that's the case for you, simply view this as a refresher if you

will. For you Northerners, these weeds will be popping up soon if they have not already. I trust they are there already with the warmer days we've had.

Broadleaf plantain (*Plantago major*) – is a rosette forming cool-season perennial that reproduces by seed. The leaves are dark green, broad-oval, with prominent parallel veins. The flowers are small; borne in dense clusters at the upper ends of 8 to 20 inch tall leafless flowering stalks that appear like fingers or rat-tails.



Broadleaf plantain, Michelle Wiesbrook, University of Illinois.

Common chickweed (*Stellaria media*) – is a winter annual with a shallow, fibrous root system. It grows 4 to 12 inches tall. The leaves are light green, opposite, and often teardrop shaped. The flowers are small and white and have five deeply notched petals. It is common in lawns, gardens, and landscape plantings.



Common chickweed, Michelle Wiesbrook, University of Illinois.

Common lambsquarters (*Chenopodium album*) – is an erect growing summer annual weed that can grow 3 to 4 feet tall. Once a taproot develops it can

be difficult to remove from the soil. The leaves are alternate, 1 to 3 inches long, and irregularly toothed; they usually have a gray mealy coating. Flowers are small, green, and inconspicuous. A single plant can produce thousands of seeds.



Common lambsquarters – large in center, Michelle Wiesbrook, University of Illinois.

Dandelion (*Taraxacum officinale*) – is a perennial weed that reproduces mainly by seeds but also by broken taproot segments. The leaves are borne in a rosette around the stem and are simple, 3 to 10 inches long, and deeply lobed (teeth point toward the leaf base). Seedlings can easily be confused with similar growing rosette forming species such as shepherd's-purse. Leaves, flower stalks, and taproot exude a milky juice when cut. The flower heads are 1 to 2 inches wide and bright yellow.



Dandelion, Michelle Wiesbrook, University of Illinois.

Ground ivy (Creeping Charlie) (*Glechoma hederaceae*) – is a perennial member of the mint family that reproduces by seeds and root pieces. It may

form patches as it creeps on square stems that can grow up to 2-1/2 feet long, sometimes rooting at the nodes. Occasionally, the stems grow in an ascending fashion. Leaves of ground ivy are opposite, round to kidney-shaped, and 1/2 to 1-1/2 inches in diameter. They may be smooth or hairy, medium to dark green, and have long petioles and a rounded, toothed margin. They produce a minty odor when crushed. The flowers are small, lavender to blue-purple, funnel-shaped, and clustered in leaf axils. Ground ivy flowers occur from April to June. This weed normally occurs in shaded sites with poorly drained, fertile soils. It can spread into sunny areas.



Ground ivy, Michelle Wiesbrook, University of Illinois.

Henbit (*Lamium amplexicaule*) – is a winter annual weed that appears in late fall and very early in the spring. The leaves are opposite, with rounded teeth to deeply lobed on the upper leaves, and only the lower leaves have petioles. The stems are square, green to purple, erect but branching at the base. Pinkish-to-purple flowers are borne in the axils of the upper leaves. It is found in gardens, lawns, and cultivated fields.



Henbit, Michelle Wiesbrook, University of Illinois.

Large crabgrass (*Digitaria sanguinalis*) – is typically a late-germinating summer annual that can grow prostrate or ascending, up to 3 feet in height. The leaf blades are usually hairy and are rolled in the bud. The ligule is jagged and membranous. Stems are capable of rooting at the nodes. Seed heads appear as spikes clustered at the top of stems in August and September. Large crabgrass, found in field- and container-grown nursery stock as well as in landscape plantings and flower beds, is one of the most common grass weeds in Illinois.



Large crabgrass, Michelle Wiesbrook, University of Illinois.

Prostrate knotweed (*Polygonum aviculare*) – is a flat growing summer annual that germinates early in the spring. Cotyledons are narrow and grass-like. Plants form a tough, wiry mat. True leaves are rounded and a bluish green. At the base of the leaf, the stems are surrounded by a papery sheath (ocrea). The flowers are small and inconspicuous. This weed is a common lawn species and can invade landscape plantings from lawns. It is often found on compacted soils and paths.



Prostrate knotweed, Michelle Wiesbrook, University of Illinois.

Speedwells (*Veronica* spp.) – are low-growing and freely branched. Many types exist. Some of the more common species in Illinois (corn speedwell and purslane speedwell) are winter annuals, but some types are perennial. Flowers occur in the spring; they are small and white, blue, purple, or pink. The seed capsule is generally heart-shaped but can be four-lobed on certain types. Leaf margin and arrangement vary according to type. Speedwells are common in lawns, gardens, roadsides, and fields and can be a particular problem in spring seedings. Shade and moisture are favored by several types.



Corn speedwell, Michelle Wiesbrook, University of Illinois.



Purslane speedwell, Michelle Wiesbrook, University of Illinois.

Violets (*Viola* spp.) – are a low growing cool-season annual or perennial spreading by seed and creeping rhizomes. The leaves are kidney-shaped to broadly oval with heart-shaped bases; 2-4 in. wide, often cupped, with margins that are toothed. The flowers appear early in spring and are pansy-like, white to blue to purple, and sometimes yellow. Violets prefer



Violets, Michelle Wiesbrook, University of Illinois.
moist, shady, fertile sites.

White clover (*Trifolium repens*) – is a cool-season perennial spreading primarily by seeds but also by creeping stolons that can root at the nodes and form patches. The leaves are comprised of 3 unstalked oval leaflets on one long petiole; leaflets are dark green, often with faint, white, crescent-shaped mark-



White clover, Michelle Wiesbrook, University of Illinois.

ings. Flower heads are ball-shaped, white to pink, up to 1 ¼ inches across.

Yellow woodsorrel (*Oxalis stricta*) – is a low, dense, perennial weed that can stand about 12 to 18 inches tall. Spread is primarily by seeds but can also be by rhizomes. The stems are weak, branched at the base, and hairy. The leaves have long petioles and are divided into three heart shaped leaflets. The flowers have five yellow petals. The seed pods are five ridged, pointed, and about 1 inch long.



Yellow woodsorrel, Michelle Wiesbrook, University of Illinois.

For assistance with identification, consult with your local University of Illinois Extension office or the booklet, “Identifying Weeds in Midwestern Turf and Landscapes” available at: <https://pubsplus.illinois.edu/products/identifying-weeds-in-mid-western-turf-and-landscapes>. You may also submit plant samples to our Plant Clinic located in Urbana. Please see <http://web.extension.illinois.edu/plant-clinic/> for more information.

Michelle Wiesbrook

Cherry Leaf Spot

Cherry leaf spot symptoms are evident on edible and ornamental cherries in Illinois. This disease is caused by the fungus, *Blumeriella jaapii*. We usually see symptoms appear in early to mid-summer, beginning as small reddish/purple spots on the upper leaf surface. These spots turn brown and may merge together. The centers of the spots may drop out, giving the leaves a shot-hole appearance. The affected leaves often turn yellow and may prematurely fall from the tree.



Cherry leaf spot, Travis Cleveland, University of Illinois



Cherry leaf spot on ornamental plum. Note the dark purple spots, and the round, necrotic tissue that is about to fall out of the leaf, leading to a “shot hole” appearance. Diane Plewa, University of Illinois Plant Clinic.

Fungicides can be applied to highly susceptible trees or trees that were severely affected in previous years. Fungicides containing chlorothalonil, chlorothalonil + thiopantate-methyl, copper + mancozeb, mancozeb, myclobutanil, propiconazole, and pyraclostrobin + boscalid are labeled for use against this disease. Applications should begin in spring at petal fall, with a second application 2-weeks later. If symptoms continue to develop, or if the spring application was missed, later applications in summer may be warranted, especially if the summer has been particularly wet or humid. For trees with edible fruits, carefully read the fungicide label to ensure that the product is approved for that use. The fungal pathogen survives the winter on fallen leaves; raking and removing leaves in the autumn may help reduce infection the following year.

Travis Cleveland

Cultivar Reversion

Don't be alarmed, but you have mutants in your yard! What's more, they are hiding in plain sight! Many of the unique cultivars that we use in our landscapes originated from sports or mutations growing on plants with normal characteristics of the species. Sports may differ by foliage shape, color, and branch structure. Breeders and growers propagate the more interesting sports, with some eventually working their way into the trade.

The mutations are not always stable, and they sometimes revert to the species' true form. Reversion is common on variegated trees and shrubs. I have seen many Tricolor European beech (*Fagus sylvatica* 'Purpurea Tricolor') trees develop shoots and branches with purple-green leaves characteristic of their parent.



Dwarf Alberta spruce Picea glauca 'conica' reverting back to back the original species normal form



Variegated European beech (Fagus sylvatica 'Purpurea Tricolor') with branch reverting back to purple leaved form.



Fothergilla 'Blue Shadow' with several branches reverting back to a green-leaved form.

At first glance, the reverted portion of the plant may seem interesting. However, reverted tissues are generally more vigorous than the other parts of the plant. If allowed to remain on the plant, reversions may eventually outgrow and overtake the desirable cultivar. Your best course of action is to prune out the reverted portion of the plant back to tissues displaying normal characteristics of cultivar.

Travis Cleveland

Modified Growing Degree Days

Station Location	Actual Total	Historical Average (11 year)	One- Week Projection
Base 50° F - March 1 through May 24			
Freeport	399	316	506
St. Charles	415	308	528
DeKalb	397	314	504
Monmouth	524	418	637
Peoria	544	451	660
Champaign	582	483	699
Springfield	614	569	730
Perry	611	528	728
Brownstown	758	543	878
Belleville	735	647	856
Rend Lake	812	710	933
Carbondale	821	675	942
Dixon Springs	833	708	954

Insect development is temperature dependent. We can use [degree days](#) to help predict insect emergence and activity. Home, Yard, and Garden readers can use the links below with the degree day accumulations above to determine what insect pests could be active in their area.

[GDD of Landscape Pests](#)

[GDD of Conifer Pests](#)

Degree day accumulations calculated using the [Pest Degree-Day Calculator](#) (a project by the Department of Crop Sciences at the University of Illinois and the Illinois Water Survey).

Kelly Estes



Illinois Extension

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