

Invasive Species Update

Jumping Worms



Jumping worms, a group of non-native earthworm species in the *Amyntas* and *Metaphire* genera, were first discovered in Illinois in 2015. Since then, they have been identified in 46 counties.

Jumping worms are a threat to forests and gardens

The jumping worm (*Amyntas spp.*) is an earthworm native to East Asia that has been sold in the United States for vermiculture or as fishing bait called crazy worms, Alabama jumper, or snake worms. Jumping worms, named for their thrashing behavior, are highly invasive and detrimental.

Adults reach maturity in 60 days, with populations doubling in the growing season. They can reproduce without mating and eggs survive Illinois winters.

The worms are voracious eaters that consume the top layer of organic matter and quickly convert the soil into grainy castings that look like dry coffee grounds. They change the soil structure, deplete available nutrients, damage plant roots, and alter water holding capacity of the soil. Changing the soil has a ripple effect across ecosystems.

Environmental scientists are concerned about the effect jumping worms will have on natural and landscaped areas.

• **Status: Highly invasive.**

- Jumping worms consume organic matter in the soil that is needed by plants.
- Can damage roots and kill plants.
- Worms impact natural systems and forests by reducing leaf litter and habitat for soil macroinvertebrates.
- Large populations of worms can change the soil quality.
- These worms jump and thrash when disturbed.
- Prevention is currently the only known way to slow the spread of jumping worms.

Where to find them

- Adult worms are active from mid-summer to the first freeze.
- They live in the leaf litter or mulch layer, or in the top 3 to 4 inches of soil in wooded areas, garden beds, and lawns.
- On pavement and sidewalks after rain.



Fig. 1. An adult jumping worm that was submitted to an Illinois Extension office for identification.

What they look like

- Adults are 4 to 8 inches long. Eggs are not visible to the human eye.
- The body is a smooth, glossy, dark gray, brown color.
- The clitellum band is cloudy-white or gray and fully encircles the body. It is flush, not raised.
- Jumping worms thrash or jump wildly when handled or disturbed.
- The worm can shed its tail in defense.

Symptoms

Soil that is like dry, grainy coffee grounds.

How to test for jumping worms

1. Mix 1 gallon of water with 1/3 cup of ground yellow mustard seed.
2. Clear a bare batch of soil and pour the solution slowly over the soil.
3. The solution irritates the worms and drives them to the surface.
4. Safely destroy worms by placing them in a plastic bag in the sun for 10 minutes.

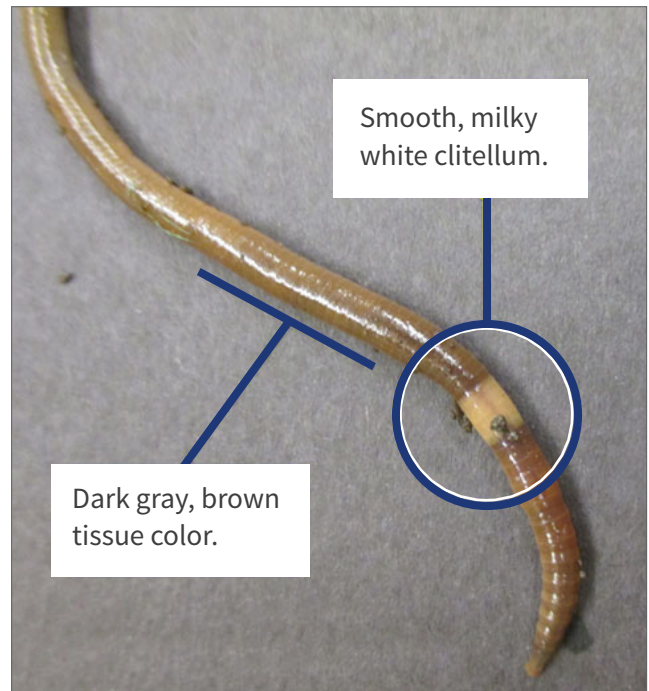


Fig. 2. Jumping worms have a smooth, dark body and a light-colored band that is not raised unlike other worms. Photo: Illinois Plant Clinic.



Fig. 3. Common earthworms, (*Lumbricus terrestris*) are a red-brown color with a raised clitellum. Photo: Joseph Berger, Bugwood.org

Report jumping worm sightings

Report sightings in unconfirmed Illinois counties, see map on page 3, by taking a few clear, well-lit pictures of the worm, including a close up of the band. Physical specimens are not needed. Note the county and environment where it was found. Include details such as how many worms were found or if the soil was impacted.

Submit photos to:

- The University of Illinois Plant Clinic at plantclinic@illinois.edu or call (217) 333-0519.
- Illinois Extension Forester Chris Evans at cwevans@illinois.edu or call (618) 695-3383.
- Your local county Illinois Extension office, go.illinois.edu/ExtensionOffice.

Stop the spread of jumping worms

There is currently no research-based management practice for getting rid of jumping worms. If gardeners are near counties confirmed to have jumping worms, there is a good likelihood their county has them and homeowners should take precautions to avoid spreading the worms to other areas.

- Do not buy or use jumping worms for bait or vermicomposting.
- Only use heat-treated commercial compost or mulch. Do not share home compost, mulch, or plants.
- Carefully inspect any new plants before installing.
- Arrive clean, leave clean. Clean soil off of equipment and shoes, especially if working at multiple garden sites.

If you have jumping worms

- Gardeners should remove soil and wash plant roots before transplanting them to another part of the yard to prevent spreading eggs.
- Maintain organic matter for plant health by regularly fertilizing and mulching

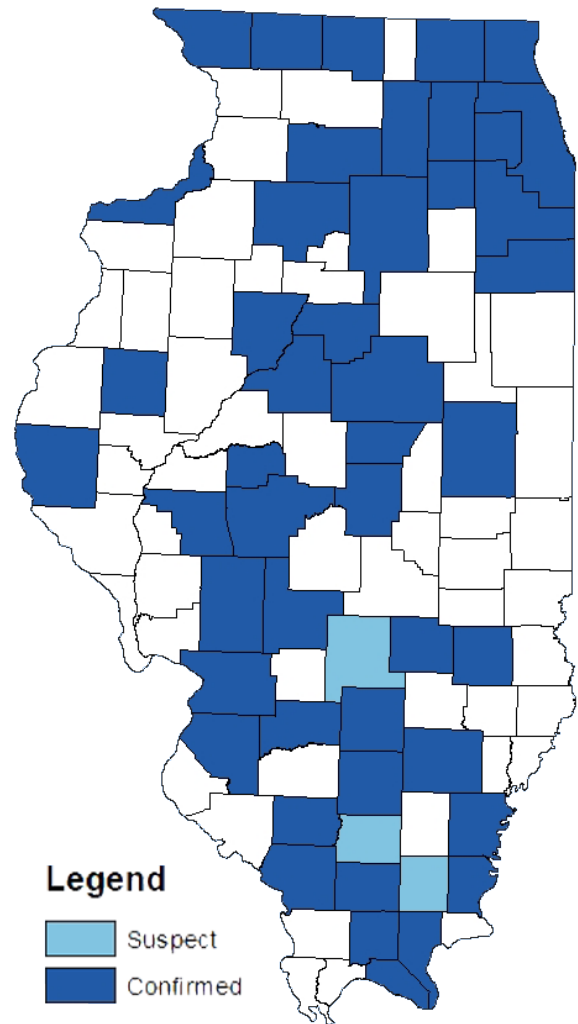


Fig. 4. Jumping worm distribution in Illinois counties as of August 2022. Map: Chris Evans, University of Illinois Extension.

More information

- Illinois Extension Forestry: extension.illinois.edu/forestry.
- Illinois Plant Clinic: extension.illinois.edu/plant-clinic.
- Wisconsin Department of Natural Resources, dnr.wi.gov/topic/invasives/fact/jumpingWorm/index.html.

Authors

Chris Evans, Richard Hentschel, Diane Plewa, 2021. "Invasive Species Update: Jumping Worms." University of Illinois Extension.

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