

INVASIVE SPECIES

Jumping Worms

Amyntas spp. and *Metaphire spp.*

Also known as crazy snake worm, Alabama jumper, Asian worm



Cornell University
Cooperative Extension



Not to be confused with:



Common invasive European species have a raised or saddle-shaped, segmented clitellum.

PC Holger Casselmann



This mature jumping worm can be identified by its characteristic smooth, often milky white clitellum (band near the head of the worm). PC Susan Day/ UW- Madison Arboretum

What to look for:

Worms are smooth, glossy gray or brown;
1.5 to 8 inches long

- **Crazy behavior!** They jump and thrash wildly when handled, moving more like a threatened snake. They can also shed their tails in defense.
- **Clitellum** (the narrow band around their body) is smooth to the body, unlike most other species which have a raised and pink colored clitellum. Their clitellum completely encircles the body and is often cloudy white to gray colored. Body looks metallic.
- **Soil signature** Jumping worms leave distinctive grainy soil full of worm castings. The soil becomes granular and looks like dried coffee grounds.
- **Timing** Best time to find them is late August or September when they are largest.

Jumping worms threaten forest health

Nearly all earthworms in the Northeast today are non-native, and these European and Asian invasives are altering the soil structure and chemistry of our forests. They consume the critical layer of organic matter that supplies vital nutrients for plants and provides food, protection and habitat for wildlife. However, jumping worms are especially concerning. These Asian exotics devour organic matter more rapidly than their European counterparts, stripping the forest of the layer critical for seedlings and wildflowers. Jumping worms grow twice as fast, reproduce more quickly and can infest soils at high densities. In areas of heavy infestation, native plants, soil invertebrates, salamanders, birds and other animals may decline. Jumping worms can severely damage roots of plants in nurseries, gardens, forests and turf. They, along with other invasive worms, can also help spread invasive plant species by disturbing the soil. Jumping worms are widespread across much of the Northeast, Southeast and Midwestern US, and the first records date to the late 19th century. Unfortunately, relatively little is known about them compared to European earthworms.

Jumping worms are PROHIBITED by the New York State Dept. of Environmental Conservation. Prohibited invasive species cannot be knowingly possessed with the intent to sell, import, purchase, transport or introduce.

INVASIVE SPECIES: Jumping Worms

Where to find them?

They can be found on the soil surface and in the leaf litter, making them easy to find. They can live anywhere from urban parks and suburban backyards, to rural forests. You are very likely to find them in compost piles and along roads.

Not one problem, but THREE!

Jumping worms all look very similar, but there are actually at least three species: *Amyntas agrestis* (which is most often cited as the culprit), *Amyntas tokioensis*, and *Metaphire hilgendorfi*. We know that species co-occur, but we need more information on the distribution of each species and their respective impacts.

A highly invasive species

Many worm species can reproduce without mating, which means a single worm can start a whole population. Because jumping worms are more aggressive and their populations can grow faster than the common European species, they may outcompete existing worm populations.

Adults die prior to winter, but their young survive harsh New York winters in tiny, resilient cocoons. Cocoons are very small and dirt colored, so they are nearly impossible to spot with your own eyes. Cocoons can be spread easily in potted plants, and on landscaping equipment, mulch, tire treads and even hiking boots.



Worms quickly convert good soil into grainy dry castings that look like dry coffee grounds and cannot support many native plants.

PC Bernadette Williams/ Wisconsin DNR

Stop the SPREAD!



We currently have no viable earthworm control methods, but we CAN prevent their spread!

- Do NOT buy or use jumping worms for bait, vermicomposting or gardening.
- Only sell, purchase or trade compost that was heated to appropriate temperatures and duration following protocols for reducing pathogens.
- Clean compost, soil and debris from vehicles, personal gear, equipment, and gardening tools before moving to and from sites.
- Check your property for earthworms using a mustard pour (it won't harm your plants!) Mix a gallon of water with 1/3 cup of ground yellow mustard seed and pour slowly into the soil. This will drive any worms to the surface. If you have jumping worms, report it and avoid moving plants or soil from your yard.
- Be careful when sharing and moving plants. Always check for worms and know where your plantings come from. Buy bare root stock when possible.
- Dispose of all live worms in the trash or place them in a bag and leave out in the sun for at least 10 minutes. Then throw bag away.

Report Your Sightings

If you see jumping worms, please report your sightings to

www.nyimainvasives.org



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