

The Outside Story

The Early Bird Gets the *Jumping* Worm

By Jen Weimer

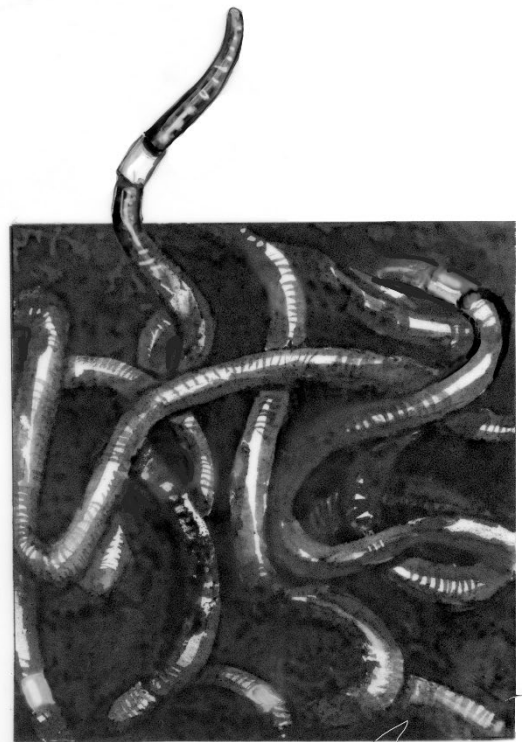
We've all heard the idiom, "The early bird gets the worm." When it comes to invasive jumping worms, unfortunately, there are more than enough to go around. These invasive worms can consume excessive amounts of organic matter and leaf litter in a garden or forest, to the point that it becomes uninhabitable to native plants and wildlife. This may sound crazy – and some have aptly named these jumpers "crazy worms" – so let's back up.

Worms, of course, are common creatures found crawling around our gardens, lawns, and driveways after a spring rain. Fishermen (and fisherwomen) dig them up and wrap them around hooks to tantalize fish. Kids find them intriguing and dare each other to eat them. Earthworms are also beneficial soil aerators in the garden, and a tasty meal for birds. Although they've become common, there are no earthworms native to the Northeast. Most of the worms found in the soil here are descendants of worms that arrived with early European settlers.

More recently, however, other non-native worms – commonly referred to as invasive jumping worms – have been inadvertently imported to the United States in landscaping materials from Asia. Currently there are three species of invasive jumping worms found in the Northeast: *Amyntas agrestis*, *Amyntas tokioensis*, and *Metaphire hilgendorfi*.

These new invaders go by many names, including crazy worms, jumping worms, or snake worms. Whatever they're called, you don't want them. Forget creepy crawly; these worms are fast moving, aggressive, jump out of potted plants, and drop their tails as a defense mechanism when grabbed. Unlike most earthworms, jumping worms are parthenogenetic, meaning they can reproduce without a mate, which results in large populations.

Once established, jumping worms turn soil into granular pellets that resemble coffee grounds. They are voracious feeders and consume more organic matter and nutrients in the soil than regular earthworms. This changes the chemistry and structure of the soil, which can affect microbial communities and kill plants. Invasive plant species often replace native species in forests containing jumping worms, which is detrimental to forest structure and negatively impacts native wildlife species such as ground nesting birds, amphibians, and invertebrates. Jumping worms can even out compete and exclude previously established beneficial earthworms.



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So how do you find jumping worms? These pests now exist in every state in the Northeast. They live in the upper soil layers, leaf litter, mulch, and compost. They prefer moist conditions and are often found under lumber or other materials left on the ground. Jumping worms are smooth and glossy dark brown or gray in color, with a distinct ring-shaped white band, called the clitellum, which completely encircles the body near the head. Conversely, European earthworms are more reddish in color, and their raised pink clitellum is further from the head and does not go all the way around the body.

Mature jumping worms are active from August through September and are easier to identify than the juveniles which emerge in the spring. Adult worms will die with the first frost, but jumping worm eggs will survive the winter in tiny cocoons, which hatch in the spring. This makes them difficult to detect if you purchase plants early in the growing season.

Prevention is key to minimizing jumping worm damage and spread, as there are no known effective controls for these invasive pests. If possible, it's best to buy bare root stock and be mindful when moving any plants, soil, compost, or mulch onto your property. Homeowners have reported finding jumping worms in materials purchased from large box stores, local garden centers, and even from municipal compost piles. Local plant swaps and sales can also be a source of jumping worms. And if you fish, be certain not to use jumping worms as bait or dump any excess worms on the ground, which can lead to further spread.

If you do find jumping worms in your garden, one way to capture and dispose of them is to pour a mustard seed solution (1/3-cup ground yellow mustard seed mixed in 1 gallon of water) on the soil. This will irritate the worms and bring them to the surface, where you can attempt to hand pick them and seal them in a bag to dispose of in the trash. This is tedious work. But when it comes to jumping worms, it's best to be proactive and – as the old saying goes – be the early bird who gets the worms, before they ruin your landscape.

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