

As gardeners we should all take an interest in this article put out by Minnesota DNR!

Jumping worm (*Amyntas* species)



Photo by Josef Gorres, University of Vermont.

Description

Appearance

Jumping worms are a type of earthworm. They are called “jumping worms” because of their unusual behavior when disturbed – they move like a snake and sometimes appear to be jumping. A light-colored ring extends around the body and may be more prominent than in other earthworms.



Biology

Jumping worms refers to multiple species, all in the genus *Amyntas*. Jumping worms live and feed in the leaf litter layer on the soil surface and in the top few inches of the soil, but do not create burrows. They produce cocoons in late summer and early autumn. Then the adults die and the cocoon stage survives through the winter. Cocoons hatch in early spring and adults mature in summer. *Amyntas* are able to survive a variety of conditions including cold winter temperatures.

Origin and Spread

No earthworms are native to [Minnesota and other northern states](#). Jumping worms are native to Asia. People spread jumping worms throughout North America by moving potted plants, soil, compost, mulch and fishing bait.

Researchers at the University of Minnesota have confirmed jumping worms in Minnesota. Dr. Lee Frelich first observed *Amyntas agrestis* in Loring Park in Minneapolis in 2006. Dr. Frelich has also observed jumping worms on the University of Minnesota St. Paul campus since 2007.

Means of spread include:

- Moving soil, potted landscape plants, sod, mulch (including bark mulch or woodchips), or compost can move earthworms and their cocoons from one place to another.
- Earthworms, such as red wigglers (*Eisenis fetida*) purchased for composting may be contaminated with jumping worms.
- Earthworms purchased for fishing bait, such as European nightcrawlers (*Lumbricus terrestris*) may be contaminated with jumping worms.

Don't be fooled by these look-alikes

Keys to jumping worm identification include:

- Look for soil with a similar appearance to coffee grounds. As jumping worms eat and excrete waste, the soil gets a unique texture like coffee grounds.
- Jumping worms are very active, move like snakes and secrete yellow mucus when agitated (see [video from Wisconsin DNR](#) (link is external) showing their movement).
- When a jumping worm is disturbed, its tail can break off and continue to flail.
- The ring (clitellum) on adults is closer to the end than on nightcrawlers, milky pink to milky gray in color, encircles the whole body evenly, and is barely raised above the skin.
- Setae (tiny hairs the worm uses to move) are evenly spaced around the entirety of each segment, not in pairs or concentrated on the bottom or sides of the body.

Jumping worms can look similar to European nightcrawlers (*Lumbricus terrestris*).

Regulatory Classification

Jumping worms (*Amyntas* species) are classified as [unlisted nonnative species](#) in Minnesota. They cannot be legally introduced into the environment in Minnesota.

To prevent future introductions of jumping worms (*Amyntas* species), the DNR is considering listing *Amyntas* species as [prohibited invasive species](#) in Minnesota. This would make it a misdemeanor to possess, import, purchase, transport or introduce jumping worms without a permit.

Threat to Minnesota

Invasive species populations may cause recreational, economic and ecological damage and can change how residents and visitors use and enjoy Minnesota lands and waters.

Jumping worm impacts:

- Jumping worms can dramatically change soils, giving it a unique texture similar to coffee grounds. Jumping worms feast on mulch and strip vital nutrients from topsoil. This kills plants and increases erosion. Homeowners may see garden plants killed and may have difficulty growing plants.
- Jumping worms can cause environmental harm where they are established. Studies have found nonnative earthworms dramatically change forest soils by eating the leaf litter layer and impacting soil chemistry, soil organisms and plant communities. Jumping

worms have been shown to have similar effects. When the soil changes, the forest can't support the same plant and animal species it did before earthworms.

What you should do

You can help prevent the spread of jumping worms.

- Everyone:
 - Don't buy worms advertised as jumping worms, "snake worms", "Alabama jumpers" or "crazy worms" for any purpose.
 - View the video [Invasive jumping worms: Impacts and prevention](#) (link is external)
- Anglers:
 - Dispose of unwanted bait worms in the trash. Never release any worm into the environment – all earthworms are non-native to Minnesota.
 - The common bait worms in Minnesota are different species than jumping worms, but are still harmful to forests. Continue to dispose of unused bait worms in the trash.
 - View the video [Jumping worms: What anglers should know](#) (link is external).
- Gardeners:
 - Be on the lookout for jumping worms in soil, potted landscape plants, mulch or compost. You might see soil that looks like coffee grounds or notice unusually jumpy worms in your mulch. Don't move any material that might be harboring jumping worms, and report any suspected jumping worms to the DNR.
 - Clean soil off of your gardening gear (tools, gloves, shoes, carts, etc.) before taking it to another yard.
- Vermicomposters:
 - If you purchase worms for composting, know how to identify the species you are buying.
 - Check your order to ensure it doesn't have jumping worms in it.
 - Follow Great Lakes Worm Watch's "[ABC's of composting with earthworms safely](#) PDF (link is external)".
- Recreationists:
 - Follow the recommendations of [PlayCleanGo: Stop Invasive Species in Your Tracks](#) (link is external)
 - REMOVE plants, animals, and mud from boots, gear, pets and vehicle.
 - CLEAN your gear before entering and leaving a recreation site.
 - STAY on designated roads and trails.

Report new occurrences of jumping worms to the DNR by contacting laura.vanriper@state.mn.us (link sends email) or log in and submit a report through [EDDMapS Midwest](#) (link is external).

- Take photos of the live worm. Researchers need high resolution, clear photos to identify jumping worms. Rinse off the worm so that it is free of soil. Place the worm on a plain surface such as a piece of paper. Make sure the photos are in focus and have a clear view of the ring around the body (clitellum) in relation to the head as researchers will count the body segments between the head and clitellum.
- Take a short video of the movement of the worm when touched.
- If possible, keep the specimen, in case an expert needs to see the sample. Add alcohol to a small bottle, jar, re-sealable plastic bag, or plastic storage container. Place the worm inside and store in the refrigerator.

Control Methods

Preventing the introduction and spread of jumping worms in Minnesota is more effective than controlling established populations. Do not purchase or import jumping worms, and remember to inspect mulch, plants, soil and bait for jumping worms.

There are no known methods for controlling invasive earthworms on a large scale in natural settings. Chemical treatments that would kill earthworms would kill beneficial soil organisms as well. Jumping worms live near the top of the soil surface and in the leaf and mulch layer. You can hand collect worms, seal them in a bag, and dispose of them in the trash. This may help reduce the amount of jumping worms at your site.

Gardeners have many questions about how the timing of gardening activities or how various soil amendments or mulches affect jumping worms. There may be garden management techniques that reduce the impacts of jumping worms, but we have little information on this. If you are a gardener and have a site with jumping worms, University of Minnesota Extension invites you to share the results of your management so that researchers can learn from your experiences. Visit Extension's [Report Jumping Worm Management webpage](https://www.extension.umn.edu/garden/pests/jumping-worms/) (link is external) to contribute.

Resources (dnr.state.mn.us/invasives/terrestrialanimals/jumping-worm/index.html)

