Photo by: Tom Potterfield

AMYNTHAS spp. EARTHWORMS

Although many of us consider earthworms in the garden to be a sign of healthy soil, most earthworms seen on the east coast of the US are not native to North America. When glaciers moved down from the north during the last ice age, they scoured much of the land down to bedrock and killed the species that were native to northeastern America. Nevertheless, we see many worms in our gardens - mostly introduced species from Europe and Asia. The common European earthworm *Lumbricus terrestris* (a.k.a. the nightcrawler) is a well-known nonnative that has been present in eastern US since the time of colonial settlement, although many people may not realize that it was not present before the settlers came. Earthworms have been called “ecosystem engineers” because of the far-reaching repercussions of their activities in our native forested ecosystems. Whether or not they are helpful in garden, they can be highly detrimental to our woodlands.

A species important for its impact on native ecosystems is the new invader ***Amynthas agrestis***, otherwise known as the Asian jumping worm or crazy snake worm. Other worms in the genus *Amynthas* have also colonized areas of the US, but *A. agrestis* is the most common *Amynthas* species in DE. They are easily recognized by their red coloration and tendency to move quickly and erratically when disturbed, even arching and snapping their bodies to jump several inches. They inhabit the leaf litter layer rather than tunnels deep underground - in some heavily invaded areas it’s easy to find dozens of them in a few minutes. *Amynthas* worms have been responsible for changing forest ecosystems by removing leaf litter and changing soil chemistry in a way that promotes the growth of nonnative plant species and negatively impacts the regeneration of native plants. Our native plants evolved over millions of years to use the litter layer as part of their life cycle, as have many invertebrates, and some amphibians such as salamanders. In places where *Amynthas* worms are common, the entire litter layer may be reduced to loose, pebbly soil. If you spot an area covered with the invasive stiltgrass (*Microstegium vimineum*) you will often find that the underlying soil is heavily infested with nonnative earthworms. In this way the entire process of regeneration and nutrient cycling is badly disturbed, and it would be very difficult to restore it to its former functioning.

Photo: Wikimedia

Unfortunately, once these worms have been introduced to a suitable habitat it is difficult or impossible to remove them without causing even more damage through the use of chemicals, or the introduction of nonnative parasites and predators. Even worse, these worms are parthenogenic, meaning they can reproduce without finding a mate.

The best we can all do is to avoid moving them in soil or potted plants into new areas. Like so many of our worst invertebrate invaders, they cannot spread quickly without humans accidentally moving them!

QUICK FACTS

- *Amynthas agrestis* also known as Asian Jumping Worm or Crazy Snake Worm
- Red coloration
- Can reach 8" in length
- Move quickly and erratically when disturbed
- Remove leaf litter and change soil chemistry, making it favorable for non-native vegetation
- Difficult to impossible to remove once introduced

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