

## THE TROUBLE WITH WORMS!

We think of worms as a “good” thing. Native worms, for the most part, are great in our gardens and lawns. Worms condition the soil by decomposing organic matter. They act as little plows aerating the soil allowing oxygen to reach roots, and allowing water to penetrate the soil. There are two types of native worms: The first is endogenic worms, which burrow deeply into the soil pulling nutrients with them to a depth of up to six feet. The second, epigenic worms, work in the surface layer of the soil and act like miniature plows.

During the last Ice Age, all earthworms were eliminated north of approximately central Pennsylvania/Baltimore area – the glacier did not move any farther south. As the glacier retreated, the native earthworms migrated at the lightning fast speed of 10 meters per year north. At that breakneck speed, native worms would be barely into central Pennsylvania in the 12,000 years since the glacier retreated. Before 1492, we only had worms native to North America. After 1492, worms were purposely or inadvertently brought into North America in ships’ ballast, root balls, introduced plants, etc. We now can find non-native worms all the way to the Arctic Circle.

Worms thrive in a pH condition around 7 (neutral), the pH of gardens and lawns. The native and introduced species work well together. There was little cause for concern. Most worms we find now are not native, but they still do the same “work” as the native worms. And, with man’s help, they have traveled everywhere.

Enter the Asian Jumping Worm! The trouble with these worms is that they live in the top 6” of the soil and are voracious eaters of organic matter. They leave their casings but disturb the soil to the point that all the nutrients wash or leach away. This disturbance of the soil is the perfect situation for invasive plant species to take hold, for example, garlic mustard.

Northern forests that evolved as the glaciers retreated, developed thick layers of organic matter but without worms. They have a pH of around 4, which means they were high in acid. The Asian Jumping worms have glands on their collars that neutralize the acid making the casings they leave a pH more toward 7. As the worms feed they cause the soil to become more basic, it prevents seedlings from developing. This action accelerates the introduction of non-native invasive plant species, like swallow wort.

From my experience, the trouble with these worms is, as I was working in park and raked away some leaf litter, I came across a writhing mass of Asian Jumping worms, which appeared as if they were attacking me! They “jump” out of the ground as a mass! There is work being done on eliminating them, but it is nearly impossible to do. They are OK to have in your garden, but not in the woods.