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General Information. Earthworms are mostly exotic organisms in New England. There is a total of 31 species in 4 families and 15 genera known to occur in New England. Of these 10 species are confined to greenhouses and composting facilities. The two species thought of as originating from North America are *Bimastos parvus* and *Microscolex phosphoreus*, although only one of them may be native to the northern tier of North America. The other 29 species are exotic and some of them are invasive. There are three earthworm ecotypes: epigeic, endogeic and anecic. Epigeic earthworms tend to live at the soil surface in resource rich parts of an ecosystem, e.g. forest leaf litter, mulch, thatch, etc. These worms tend to be pigmented. Endogeic earthworms live underground and feed on microorganisms that grow in the mineral soil layer. These are unpigmented worms with transparent pink, green and grey hues. Finally, anecic earthworms are those that make very deep vertical burrows. The only one known in New England is the Nightcrawler (*Lumbricus terrestris*). Anecic earthworms tend to be pigmented.

The Problem with Invasive Earthworms. They have the ability to change native ecosystems. In northern North America the most studied negative effects are in forested ecosystems. Typically invasive earthworms change the structure of forest soil, mixing the organic horizons with the underlying mineral material creating a substrate which is no longer suitable as a seed bed and germination medium for most understory plants. This has several additional effects: the dense understory of typical New England



woodland thins out (Fig. 1); regeneration of canopy species is slowed exacerbated by browsing of deer and other wildlife; nests of bird species which build their nests on the ground become more vulnerable to predators. There are other effects on nutrient cycling in forests that may favor early phenology invasive plants such as *Berberis* species, *Rosa multiflora*, and *Lonicera* species.

The Crazy Snake Worm, a New Threat? A relatively new invader in our forests is the Crazy Snake Worm or Jumper Worm, *Amyntas agrestis*, which originated in Japan and the Korean Peninsula. However it has been reported from greenhouse operations in the Northeast for over 50 years. Did this earthworm escape from the greenhouses only recently? In Vermont it has been found in deciduous and mixed deciduous-coniferous forests, compost, mulched beds, ornamental beds amended with municipal leaf litter waste, plant containers and gardens. This earthworm is very invasive and considered a forest pest, although few states officially recognize it as an invasive. Part of the problem is that regulators are so focused on insect pests and invasive plants that earthworms simply fall through the cracks. However, Wisconsin Natural Resources Law lists it as a prohibited species together with other usual suspects such as the Emerald Ash Borer and the Asian Longhorn Beetle.

Why Should You Worry? There have been reports from nurseries that this earthworm is abundant in both field and container stock. Presumably it is transported to customers' gardens in this way. Why would the customer care? There are reports from home owners in Connecticut who blame the abundant castings of this earthworm for the demise of their lawns. In Vermont,