

Forests under threat from exotic earthworm invasion

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It is widely acknowledged that human beings are largely responsible for the widespread alteration of ecosystems on the planet. A recent study by Dara Seidl and Peter Klepeis of Colgate University in New York traces the ways in which humans are the principal agents of dispersal of exotic earthworms in the forests of Northern America. Their findings, published online in Springer's journal *Human Ecology*, suggest that humans spread earthworms both inadvertently via horticulture and land disturbance, in the tires and underbodies of vehicles, but also knowingly through composting and careless disposal of fish bait.

Non-native species of [earthworms](#) can have a detrimental effect on the flora and fauna of the forests. They can be responsible for accelerating the breakdown of the organic material on the surface of the forest floor, thereby reducing the habitat for the animals living there and possibly increasing [soil erosion](#).

The researchers conducted a case study in Webb, NY, a large township in the Adirondack State Park, home to the largest unbroken temperate forest in the world. They first analyzed the environmental history of the area and followed this up with a mail survey of 150 Webb residents to assess their recreation and environmental practices related to earthworm dispersal.

The authors found that the introduction of exotic earthworm species can be traced as far back as European settlers arriving in North America and dumping ship ballast, a mixture of soil and gravel, onto the land. Today,

the main culprits are [recreational fishing](#), gardening, composting and the movement of egg cases on vehicles which are mostly to blame for their continued spread.

The authors conclude that even the most environmentally conscious individuals do not currently realize what a threat these earthworms pose. They suggest that, in particular, gardening clubs and [convenience stores](#) which sell worms to anglers should be targeted with information and that "the public needs to be empowered to implement behavior that helps mitigate the introduction of earthworms."

More information: Seidl DE and Klepeis P. Human dimensions of earthworm invasion in the Adirondack State Park. Human Ecology 2011. [DOI:10.1007/s10745-011-9422-y](https://doi.org/10.1007/s10745-011-9422-y)

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