Why We Should Care - The Impacts of Invasive Plants

A native species is one that historically occurred in a particular region. Certain non-native species are called *invasive,* as they can reduce biodiversity, compete with native organisms for limited resources, and alter habitats. Invasive species can have a significant effect on our natural resources, human health, and economy.

Non-native invasive plants generally do well in habitats similar to that of their country of origin and have characteristics that allow them to outcompete native plants. A non-native plant often has more seeds than many native plants; these allow it to gain a better foothold than native plants. Most invasive plants come without the predators, pests, parasites, and pathogens that keep their populations in balance in their native ecosystems. They thrive here without these limitations to reproduction and survival. Most invasive plants operate by out-competing native plants for essential nutrients, light, and moisture

Some invasive plants were intentionally introduced. For example, Norway maple was introduced as a salt-tolerant street tree. Since it tolerates deep shade, it leafs our earlier than native trees and the leaves stay on longer than native trees, it now crowds native forest trees. The beautiful Purple Loosestrife came from Europe, and has tiny seeds that spread by wind or water. Here, it can cover thousands of acres, crowding out open water habitat for butterflies and amphibians. Once touted as 'great food for wildife', non-native oriental bittersweet, shrub honeysuckle, burning bush and Japanese barberry have grown out of control for similar reasons.

In the 1990s two beetles native to Europe were introduced, and these insects now help to control purple loosestrife in the US, since the beetles *require* this plant to complete its life cycle. Many loosestrife colonies are now much smaller as a result. The beetles were chosen because purple loosestrife is the 'host' plant for feeding its young larvae. Research on biocontrols for other invasive plants is on-going, although at a fairly slow pace.

Many native insects often require a particular plant on which to lay its eggs - the iconic Monarch butterfly requires milkweed. Many other types of insects require a certain 'host' plant for its larvae. For example, oak trees are the 'host plant' for 557 types of butterfly and moth larvae[1]. When the plant communities in native habitats are simplified, animals that depend on native plants soon disappear.

Why does this happen? Many animals feed on insects. For example, more than 90% of our native birds *must* feed insects to their young, to supply the protein needed to become an adult. It may take 6,000 to 9,000 caterpillars in a season to raise a brood of five chickadees[2]. Think about that!

Many online resources[3] exist for explaining why invasive plants are problematic. The PLA website directs readers to other helpful materials for identification and control of the invasive plants found near Piseco Lake.

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[1] Tallamy, Douglas. *Bringing Nature Home*, page 126. Numerous types of wasps, beetles and other insects also use oaks

[2] Tallamy, Douglas. *Nature's Best Hope*, page 133.

[3] US Fish and Wildlife Service: fws.gov/invasives/
NY invasive species: nyis.info/invasive_species
See also the TIP TEAM contact page for more resources.