

Cornell Cooperative Extension

Overview: Invasive species issue

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Exotic, Invasive Plants

There is a war underway to fight off and control alien invaders! Most people are completely unaware of the battle and some are even unwittingly helping out the bad guys. As worldwide commerce and travel becomes faster and more commonplace, an unfortunate side-effect of this phenomenon is the proliferation of “foreign” diseases, insects, plants, and animals coming to the U.S. (and visa-versa). Some are legally imported, some hitch a ride on shipping containers, and others slip through Customs inspection.

‘Exotic’, ‘alien’, ‘introduced’, and ‘non-native’ are terms used to describe plants that have established themselves in locations outside their known historic ranges. Many have been intentionally introduced because of some unique and desirable attribute such as; beauty, erosion control, or wildlife habitat. The domestic apple tree is an example of a successful, useful exotic, non-invasive plant.

Unfortunately, many imports later turn out to have negative attributes that outweigh their positive values. Regardless of how the exotic and invasive plants arrive, they rapidly spread across the landscape taking over natural ecosystems and out-competing more desirable, natural plant species for light, water, soil nutrients, and space. This is possible because our ecosystems did not evolve with these unique plants, consequently the exotic plants typically do not have any natural “enemies” such as viruses, fungi, insects, or herbivores to slow their growth and spread. Healthy ecosystems are collections of interacting plants and animals that form diverse and functioning natural communities. For example, butterflies pollinate flowers, deer browse on buds and leaves, squirrels eat and disperse nuts, and birds similarly disperse berries and nest in grasslands. The aliens typically interact in very few positive manners and therefore are non-contributors and overload natural ecosystems with their sheer numbers. That’s their ‘invasive’ attribute. Native species can also be invasive (ex. hay-scented fern) as a result of disturbances or improper management.

Management

Home owners and managers of rural areas should be on the look-out for exotic and invasive plants. Many guides and lists are available from the references listed below. Surprisingly, some exotic and invasive plants are still available from nurseries. Ask for native plants when choosing landscape plantings. Invasives typically get a start in disturbed areas where native vegetation has been removed, so attempt to re-establish native plants soon after such disturbances.

If exotic invasives are discovered, attempt to eradicate them or at least control their spread. Suggestions by species are listed in the below references. Control typically falls into three categories; 1) physical removal (mow, cut, pull, and burn), 2) use of herbicides, and/or 3) biological control (introduction of insects that feed specifically on the exotic plant species). Control is often difficult, time consuming, and expensive, therefore read through the suggested techniques and pick those that you can undertake successfully.

Other Resources

Publications:

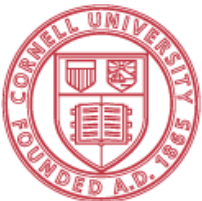
Forest Connect Fact Sheet Series

Controlling Invasive Species in Woodlots available at: www.dnr.cornell.edu/ext/info/pubs/

Invasive Plants Field and Reference Guide: An ecological perspective of plant invaders of forests and woodlands. NA-TP-05-04 USDA Forest Service. Northeastern Research Station, Morgantown, WV. (304) 285-1503

Websites:

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| Ecology and Management of Invasive Plants Program | --Cornell University
http://www.invasiveplants.net/ |
| Invasive Plant Council of New York | http://www.ipcnys.ene.com/ |
| Invasive Plant Atlas of New England | --USDA, Univ. of Connecticut, USF&W Service,
New England Wildflower Soc.
http://invasives.uconn.edu/ipane/ |
| Weeds Gone Wild: Alien Plant Invaders of Natural Areas | --Plant Conservation Alliance
http://www.nps.gov/plants/alien/ |
| USDA Forest Service Invasive Species | http://www.fs.fed.us/invasivespecies/ |
| Invasive and Exotic Species | http://www.invasive.org/ |
| The Global Invasive Species Initiative | --The Nature Conservancy
http://tncweeds.ucdavis.edu/esadocs.html |
| Exotic Invasive Plant Species in Minnesota Forests | --Community Forestry Resource Center, Inst. for
Agriculture & Trade Policy
http://www.forestrycenter.org/library.cfm?refID=76483 |



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