

INVASIVE SPECIES IN MINNESOTA

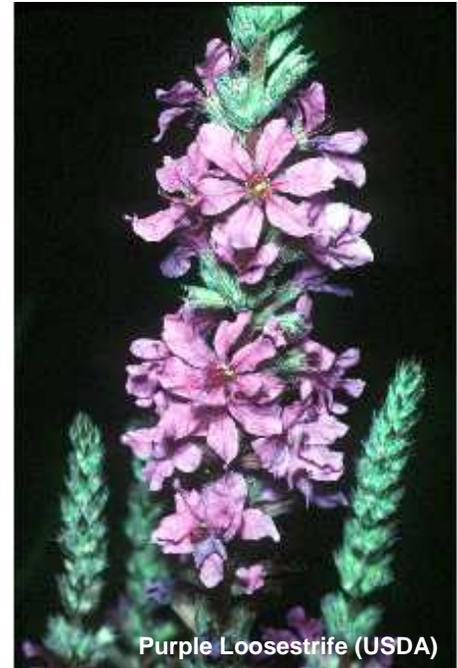
What is an invasive species?

Invasive alien species are plants, animals, or other organisms that are introduced to a given area outside their original range and cause harm in their new home. Because they have no natural enemies to limit their reproduction, they usually spread rampantly. Invasive alien species are recognized as one of the leading threats to biodiversity and impose enormous costs to agriculture, forestry, fisheries, and other human enterprises, as well as to human health.

- The cost to control invasive species and the damages they inflict upon property and natural resources in the U.S. is estimated at **\$137 billion** annually.

Invasive Species in Minnesota: A Quick Look

Minnesota has been invaded by a number of harmful exotic plants and animals. Here is a quick look at some of the worst current and potential invaders:



Purple Loosestrife (USDA)

| Name | Type | Origin | Extent | Damage |
|-------------------------------------|---------------|---|---|---|
| Zebra mussel | Mollusk | Caspian Sea region of Asia; accidentally released into Lake St. Clair in 1988 in ship ballast water | Lake Superior & two other lakes, Mississippi River | Voracious filter feeders that out-compete native animals; fouls boats & clogs intake pipes at power plants and municipal water sources |
| Dutch elm disease | Fungus | Asia; one strain of the disease arrived in the 1930s in Cleveland, OH on infected elm logs from Europe; a more virulent strain arrived in 1940s | American elm originally ranged in all states east of Rockies- most of this area is infested | Elms were once the nation's most popular urban street tree, have now largely disappeared from both urban and forested landscapes. It is estimated that "Dutch" elm disease has killed over 100 million trees. |
| Round Goby | Fish | Black & Caspian Seas in Europe; introduced via ship ballast water in 1990 | Found throughout Minnesota waterbodies and Great Lakes | Displaces native fish and eat their eggs and fish; are able to survive even in poor quality water |
| Asian Carp (Bighead, Black, Silver) | Fish | Asia; introduced in the 1970s for aquaculture and escaped | Mississippi, Missouri, & Illinois Rivers | Voracious eaters that outcompete native species for food resources; silver carp pose physical danger to boaters due to their leaping abilities |
| Purple loosestrife | Wetland plant | Europe and Asia; introduced in 1800s as ornamental and medicinal plant or ship ballast water | Minnesota currently has over 58,000 acres infested | Displaces native wetland plants; has less food and habitat value for waterfowl and other wildlife |

| Name | Type | Origin | Extent | Damage |
|------------|--------------------|--|---|---|
| Earthworms | Terrestrial Animal | Europe and Asia; arrived with soils and plants or via ship ballast in late 1800s/early 1900s or more recently as fish bait | At least 7 species present in Minnesota forests | Invading earthworms eat the leaves that create duff which causes soil erosion, negatively affects young seedlings, ferns, and wildflowers and decreases the habitat for ground-dwelling animals |

What Congress Can Do:

A. Make Prevention Our Top Priority

- Reverse current U.S. policy on the intentional import of live plants and animals, that is, switch from a “dirty” to a “clean” list approach that requires screening for invasiveness before import and which keeps out or limits import of species so as to prevent harm to native species or ecosystems – and make the legislative changes to do so.
- Substantially cut the unintentional introduction of aquatic invaders by overseeing federal standard-setting on the discharge of ballast water in the United States, supporting the development of technology to meet these standards; ensuring that agencies monitor and enforce compliance; and reauthorizing the 1996 National Invasive Species Act in the strongest and most comprehensive form.
- When considering, reviewing, or approving trade agreements, rigorously address invasive species, e.g., by allowing for restriction of imports of non-native species that are invasive elsewhere and by identifying pathways by which inadvertent introductions travel so that they may be interrupted.

B. Make Federal Agencies More Effective

- Use oversight authority to ensure that all federal agencies immediately and strongly implement that part of Executive Order 13112 that asks them to identify and reduce actions that introduce or spread invasive species in the United States or elsewhere.
- Appropriate adequate funds so that federal agencies have the resources to address invasive species problems promptly and comprehensively over the long-term.
- Strengthen the structure and leadership of the National Invasive Species Council and prompt more aggressive implementation of its National Management Plan.
- Oversee the work of the U.S. Department of Agriculture’s Animal and Plant Health Inspection Service to ensure that the agency and its Administrator are committed to protecting biological diversity as well as agriculture.
- Evaluate the serious problems with border inspection for pests, weeds, and pathogens, e.g., in staffing and cross-department coordination, exacerbated by moving these functions into the Department of Homeland Security and amend its authorizing legislation if needed.

References:

How to Identify and Manage Dutch Elm Disease. http://na.fs.fed.us/spfo/pubs/howtos/ht_ded/ht_ded.htm#intro
 USGS Zebra Mussel Page. <http://nas.er.usgs.gov/taxgroup/mollusks/zebramusel/>
 Minnesota DNR Round Goby Fact Sheet <http://www.dnr.state.mn.us/invasives/aquaticanimals/roundgoby/index.html>
 Minnesota DNR “Field Notes- Big Carp Problem” <http://www.dnr.state.mn.us/volunteer/marapr04/fncarp.html>
 Minnesota DNR Purple Loosestrife Fact Sheet
<http://www.dnr.state.mn.us/invasives/aquaticplants/purpleloosestrife/index.html>
 Minnesota DNR Earthworm Fact Sheet <http://www.dnr.state.mn.us/invasives/terrestrialanimals/earthworms/index.html>

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