INVASIVE SPECIES IN WEST VIRGINIA

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.

Garlic mustard (USDA)

- 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 West Virginia: A Quick Look

West Virginia 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:

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	Ohio, Monongahela and Kanawha Rivers in WV	Voracious filter feeders that out-compete native animals; fouls boats & clogs intake pipes at power plants and municipal water sources
Chestnut blight	Fungus	China; probably introduced on nursery stock in the 1890s. It was first detected in New York city in 1904.	By 1926, the disease had devastated chestnuts from Maine to Alabama	Chestnut once comprised one-fourth to one-half of eastern U.S. forests, and was prized for its durable wood, and as a food for humans, livestock and wildlife. Today, only stump-sprouts from killed trees remain.
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.
Hemlock woolly adelgid	Aphid-like insect	Japan and China, introduced accidentally around 1924	Found from Maine to Georgia, including 21 counties in eastern WV	Causes up to 90% mortality in eastern hemlock species, which are important for shading trout streams, and provide habitat for about 90 species of birds and mammals.
Japanese Knotweed	Weed	Asia; introduced in the late 1800s	Nearly 600 acres on Ohio River Islands Natl. Refuge	Thrives on riparian habitats, completely covering streambanks

Name	Type	Origin	Extent	Damage
Garlic mustard	Weed	Europe; brought by settlers as a vitamin-rich winter herb	Ranges from Canada, south to Virginia and west to Kansas and Nebraska	Grows earlier in spring than native plants, allowing it to dominate forest understory and crowd out natives

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:
Forest Pathology.org. Chestnut Blight. http://www.forestpathology.org/dis_chestnut.html
How to Identify and Manage Dutch Elm Disease. http://na.fs.fed.us/spfo/pubs/howtos/ht_ded/ht_ded.htm#intro
USDA Forest Service. Hemlock Woolly Adelgid Page. http://www.fs.fed.us/na/morgantown/fhp/hwa/hwasite.html
USGS Zebra Mussel Page. http://nas.er.usgs.gov/taxgroup/mollusks/zebramussel/
NPS Garlic Mustard Fact Sheet http://www.nps.gov/plants/alien/fact/alpe1.htm
WV DNR Dirty Dozen Fact Sheet http://www.wvdnr.gov/Wildlife/DirtyDozen.shtm

For more information, please contact Aimee Delach at Defenders of Wildlife
202-682-9400 x271 ◗ adelach@defenders.org