

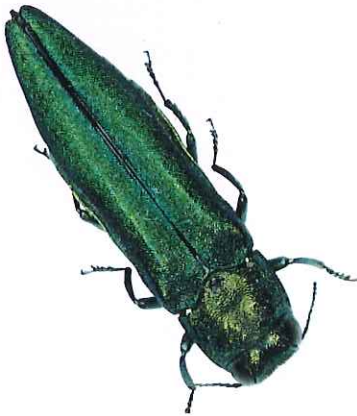


Invasive species in Oregon forests

Forest Health Fact Sheet

January 2017

Emerald ash borer
Penn. Dept. Nat. Res. For.



Overview

Exotic, non-native pests (i.e. invasive species) threaten sustainable forestry in Oregon and the Pacific Northwest. **Ninety percent of the 34 timber-producing tree species in the state face current or future threats from invasive species.** Noxious weeds, such as Scotch broom, outcompete tree seedlings for light and resources while invasive insects and diseases have caused significant reductions in their hosts and losses to industry. Oregon examples include white pine blister rust, Port-Orford-cedar root disease, and balsam woolly adelgid. More recent invaders (sudden oak death) and **future invaders** (emerald ash borer, left) **will cost Oregonians hundreds of millions of dollars** in control measures and lost goods.

What are the effects of invasive species?

- **Costs >\$120 billion annually** in U.S. from direct control measures and lost revenue.
- **Leading cause of species extinctions worldwide**, second only to direct habitat destruction.
- **Alter ecosystem processes** (fire, food chains) that humans rely upon for food, fiber and wildlife.
- State and federal quarantines for forest invaders **slow the speed of business.**

Current and impending invasive species in Oregon forests

- **Scotch broom** and **Himalayan blackberry**, major reforestation pests, cost Oregonians nearly \$80M annually, equivalent to 1,700 jobs (Source: ODA)
- **Sudden oak death**, caused by *Phytophthora ramorum*, has economic potential of **\$310M annually** to forest and ag industries in Oregon (OSU).
- White pine blister rust and balsam woolly adelgid have significantly **reduced tree distributions** and **altered timber harvests** across the state.
- **Emerald ash borer**, the world's costliest forest pest at \$3.5 billion, is expanding towards Oregon.



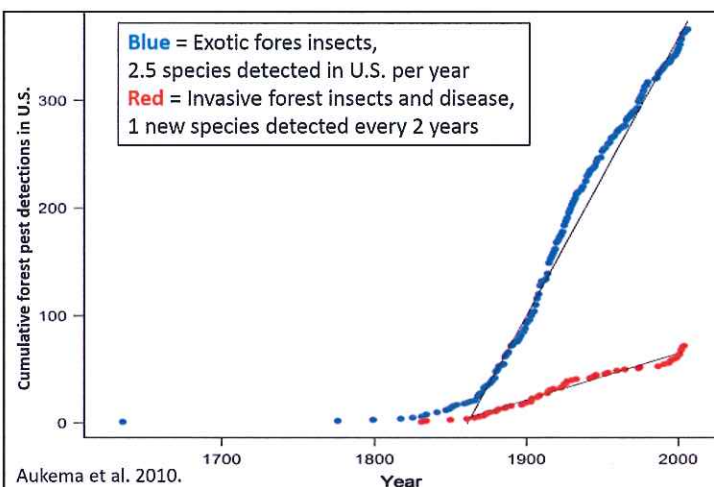
Invasions of cheatgrass (inset), Medusahead rye, and gorse alter fire cycles, leading to greater losses and higher costs of protection. Costs of fighting fire on ODF protected lands was over \$260 million between 2013-2015.

Anders Boyd

Ronald F. Billings



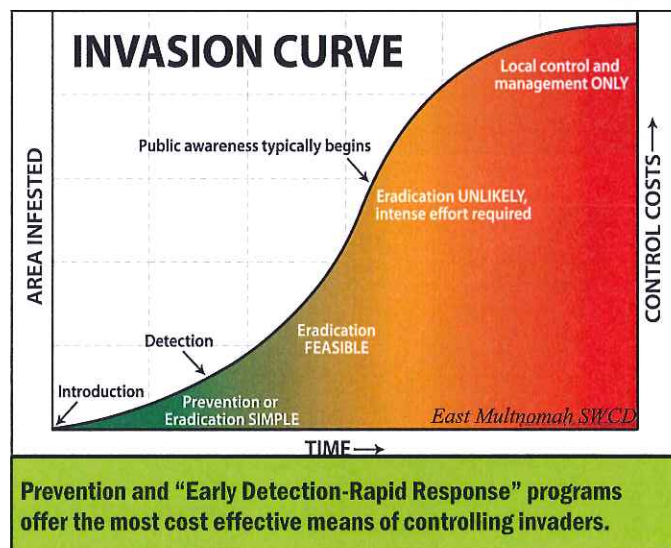
Subalpine fir mortality caused by the invasive balsam woolly adelgid (BWA, inset). BWA has led to the loss of true firs at many high elevation sites. With no tree species able to persist in the harsh habitat, plant and animal communities have been significantly altered.



Invasive forest pests have increased steadily in the U.S. due to global trade and travel.

Extent and spread of invasive species

- Natural resource agencies, academia and the public discover **dozens of new exotic species every year in Oregon.**
- 32% of Oregon's 4,700 plant species are exotic.
- The state's noxious weed list has grown from 70 species in 1980 to 134 in 2016.
- **International plant trade is responsible for 70% of the forest invasive insects and disease in the U.S.** The U.S. imports 4 billion plants per year.
- Domestically, forest invaders are moved with **contaminated firewood**, nursery stock, and as hitchhikers on household goods and other items.
- **Program success** for early detection, rapid response and enforcement is **contingent upon stable funding** from beneficiaries of healthy forests.



ODF leads & cooperates on invasive species:

- **Insect and disease surveys**, over all forest health monitoring on 11 million acres of nonfederal forestland (ORS 527)
- **Forest insects and disease management**, including invasive species (OAR 629 Division 51)
- Detection, quarantine and response to emerging invasive species, including **sudden oak death** and **Asian gypsy moth**
- Innovative training program for foresters and arborists, **Oregon Forest Pest Detector Program**, alerts Oregon officials to new invasive species
- **Weed Free Hay** requirement on State Forest Lands (OAR 629-025-0040)
- Adherence to **noxious weed law** on state and private forestlands (ORS 569, OAR 603-052-1200)
- Support of the state's **Firewood rule** to prevent invasive species in forests (OAR 603-052-1080)
- Membership on **Oregon Invasive Species Council** (ORS Chapter 570)
- Power to expend funds, **Invasive Species Emergency Control Account** (OAR 609-010)
- **Pesticides** (ORS Chapter 634, OAR 603-057)
- **Feral Swine** (OAR 603-010-0055)

More information:

Oregon Dept. of Forestry
Forest Health Unit
503-945-7200
<http://tinyurl.com/ODF-ForestHealth>