American Forest Foundation
Public Policy Issue Brief

PROTECTING AMERICA'S WOODLANDS FROM FOREST PESTS

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Background:

America's forests and woodlands are under attack from both native and non-native forest pests—plants, insects, and diseases. These pests impact forests at a massive scale, destroying hundreds of thousands of acres of United States forests and woodlands each year. A recent analysis estimates that by 2060, 58 million acres of forests are at risk from devastating insects and disease—nearly half of which are privately owned.[i]

American Forest Foundation Policy:

The American Forest Foundation (AFF) supports policies and programs that work to prevent, detect, control, and eradicate forest pests, weeds and pathogens in the nation's woodlands while maintaining appropriate opportunities for international trade.

Invasive pests often enter the United States through international trade routes and human travel. They are then spread throughout forested ecosystems by transport of firewood, shipping of wood products and packaging material, and movement of plants such as nursery stock.

Native pests, such as the mountain pine beetle, have become increasingly destructive to America's forests. Largely in response to lack of active management and a changing climate, western forests have been devastated by this pest in recent years. To illustrate, a U.S. Forest Service study estimates that 100,000 beetle-killed trees fall every day in Colorado and Wyoming alone.[ii]

Family woodland owners, who own roughly one-third of the nation's forests and woodlands, are greatly impacted by these forest pests and pathogens. Pests don't limit their infestation to ownership boundaries and are equally destructive to publicly-owned forests, parks, and family-owned woodlands. However, for a family woodland owner, if a forest pest infests their land, it can mean a complete loss of their woodland, family treasure, a severe reduction in income from the land, or destruction of wildlife habitat they worked hard to create.

The damage to our communities, our environment, and our economy from these invasive species is tremendous. Some estimate the damages at over $138 billion annually, due to losses in the forest products industry, losses in the tourism and recreation industry that rely on forests, and a loss of income for woodland owners. While much harder to quantify, the impact on our environment is probably more severe and includes impacts like denuded watersheds, destruction of critical habitat for wildlife, and complete obliteration of tree species (i.e. the American Chestnut, which was essentially eliminated from the forest landscape in the mid-1900s by an invasive fungi, the chestnut blight).

Devastating Impact of Forest Pests

- A recent study found that wood boring insects such as the Emerald Ash Borer and Asian Longhorned Beetle are having a significant economic impact resulting in approximately $1.7 billion in local government expenditures plus an additional $1.5 billion per year in losses to property owners as a result of removal costs and reduced residential property values. [iii]
- The White Pine Blister Rust affects soft pine species and is often considered the most costly and damaging conifer disease in North America. In the Pacific Northwest, estimated losses totaled 5 million cubic feet of timber anually.[iv]
- Dutch Elm Disease losses are estimated at several billion dollars in decreased intrinsic value, tree removal, replacement, and control. Experts also estimate that officials spend close to $100 million/year to remove infested elm trees.[v]
- The Sudden Oak Death pathogen affects several oak species and has already killed 1 million individual trees. This pathogen is particularly difficult to contain because it affects several popular horticultural bushes and shrubs—meaning devastating oak impact will continue to spread.[vi]
- With continued spread of the Asian Longhorned Beetle, U.S. urban areas could lose up to 35% tree cover, accounting for 1.2 billion trees.[vii]
- The Hemlock Woolly Adelgid infestation now extends from northeastern Georgia to Maine, covering the natural range of eastern hemlock. The elimination of eastern hemlock threatens many plant and animal species which depend on hemlock-dominant communities.[viii]
- The gold spotted oak borer has contributed to the mortality of tens of thousands of oak trees on over 1.2 million acres in Southern California with significant potential to spread to more areas.[ix]
- Approximately 9 percent of southern forests or about 19 million acres are currently occupied by one or more of the 330 invasive terrestrial plants in the South. Japanese honeysuckle already occupies more forest land in the region than any other invasive plant; it is projected to spread by an additional 65,000 acres per year. Cogon grass, listed as a noxious weed by federal and state authorities, is already present on 66,000 acres. [x]

While pests have threatened our forests for centuries, with our increasingly globalized society, invasive forest pest infestations have increased significantly in the last decade. At the same time, this globalization has also opened new market opportunities for family woodland owners to generate income—income which can then be reinvested back into good forest stewardship.

AFF believes that to best tackle this problem, federal and state agencies and forest owners must work in partnership to address the threat at all possible stages: from initial entry, to early detection and rapid response, to on-the-ground mitigation and management, and finally to species restoration.

Targeted Solutions:

1. AFF believes that we'll never be able to fully eliminate this threat if we don't work to more effectively eliminate new introductions. There are room for several improvements in initial prevention, including but not limited to:
    a. Improvements in wood packaging regulations to eliminate the main pathway in which new species are introduced into the country.

b. Reduction in border inspection knowledge gaps, addressed with improved training, more comprehensive alerts and assessments.
c. Improved risk assessment investment for estimating the future foreign threats based on sound science.

2. AFF also believes that the U.S. Forest Service, USDA Animal and Plant Health Inspection Service, state forestry and agriculture departments bring critical tools and resources to the table. We will continue to fight for mission-critical program resources, while recognizing that inter-agency communication, collaboration and planning can also be increased.
3. AFF understands that the most updated available research is critical to work toward eradication—both in understanding the biology of the threat species and providing science-based solutions. Improved and better integrated research efforts are key to tackling this problem.
4. The best way to make an on-the-ground impact and promote healthy, resilient woodlands is to empower private forest owners with the necessary tools and resources to mitigate threats on their land. We must therefore maintain and enhance support for private landowner tools and resources.
5. AFF seeks to promote the restoration of native tree species adversely impacted by invasive introductions. AFF understands the important role specific tree species play in wildlife habitat, ecosystem services, and timber products, among others. We must promote programs that commit to preserving and restoring these species, so they can once again play a role in America's forest ecosystems.
6. Finally, AFF will support programs and policies that engage family woodland owners and the public at large in citizen science outreach and education campaigns to better tackle this problem.

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[i] US Forest Service. 2010. 2010 Resources Planning Act Assessment
[ii] Ibid.
[iii] Aukema, J.E., B. Leung, K. Kovacs, C. Chivers, K. O. Britton, J. Englin, S.J. Frankel, R. G. Haight, T. P. Holmes, A. Liebhold, D.G. McCullough, B. Von Holle. 2011. Economic Impacts of Non-Native Forest Insects in the Continental United States PLoS One September 2011 (Volume 6 Issue 9)
[iv] 2009. W. Keith Moser et al. "Impacts of Nonnative Invasive Species on U.S. Forests and Recommendations for Policy and Management." *Journal of Forestry.* September 2009
[v] Ibid.
[vi] Ibid.
[vii] Ibid.
[viii] Ibid.
[ix] http://cisr.ucr.edu/goldspotted_oak_borer.html
[x] Miller, James H. et al. Southern Forest Futures Project. Chapter 15 The Invasion of Southern Forests by Nonnative Plants: Current and Future Occupation with Impacts, Management Strategies, and Mitigation Approaches. United States Forest Service, Southern Research Station