

Urban Forest Health Monitoring

Assessing Threats from Invasive Pests in Urban Forests

U.S. Department of Agriculture
Forest Service
Northeastern Area State and Private Forestry



Description Community trees are a vital part of the Nation’s forest resources and our quality of life. About 7.4 billion urban trees cover nearly one-fourth of the lower 48 States, collectively shading more than a third of the urban area. Until recently, little had been done to measure and assess urban forests or to evaluate threats from invasive pests. Since 2008, the Northeastern Area State and Private Forestry (NA S&PF) has worked with the Northeastern Area Association of State Foresters to identify risks from invasive pests. Information gained from these efforts will help managers develop strategies to help prevent and reduce future impacts.

Key Issues

- Urban forest information is critical for developing comprehensive urban and community forestry policies and identifying management needs.
- Little has been known about the status of urban forest resources—whether conditions are changing or if there are factors that could threaten urban forest structure and health.
- There has been no full-scale inventory and monitoring system to quantify urban forest resources.
- There has been no system in place to survey for invasive pests and their symptoms in urban forests.
- The region would benefit from a well-developed strategic approach for coordinating urban forest health monitoring projects and activities.

Accomplishments

- NA S&PF supported a project with Davey Tree to develop i-Tree Pest, a field tool that identifies and documents symptoms of tree damage from pests. NA S&PF was joined by the Northern Research Station, University of Georgia, and the Society of Municipal Arborists in this effort. A working version was completed in 2011 and has been used in several of the region’s cities and municipalities.
- NA S&PF supported a joint project with Davey Tree and Purdue University to develop an Urban Forest Health Information Center (UFORHIC). A working version of UFORHIC was completed in 2011 and is ready to receive tree inventory and forest health data from municipalities. This tool will provide local, State, and regional reports on forest conditions and help users prioritize locations for early detection efforts.
- NA S&PF partners have used Redesign funds to work on projects related to citizen monitoring of invasive pests, public outreach, and collaboration with other agencies.

Budget History:

Urban Forest Health Monitoring					
(\$ thousands)					
	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
FHP	-	\$161	-	\$83	
UCF	-	80	50	83	
Stewardship	-	-	-	84	
Redesign	235	-	119	268	
Totals	\$235	\$602	\$169	\$518	

Future Direction:

- Davey Tree, with support from the Forest Service, will further promote i-Tree Pest as part of its i-Tree suite of products for urban forest inventories. i-Tree Pest developers will expand the software to include a sampling protocol for all land types and ownerships. They will also enhance i-Tree STREETS, a tool for inventorying street tree populations.
- The UFORHIC system is ready for use as an online tool. Launching UFORHIC depends on the availability of funds to support annual maintenance and periodic enhancements.
- Emphasis on coordination between Forest Health Protection and Urban and Community Forestry at both the NA S&PF and national levels will enable new, strategic approaches to urban forest health monitoring and promote the efforts of our partners.

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