From Obscurity to Notoriety: Large Gray Willow

The Challenge

Invasive exotic plants have infiltrated the forests, fields, wetlands, and urban landscapes of the Northeast, causing a wide range of environmental problems. They often gorge on available resources, crowding out and endangering indigenous plants. Invasive exotic plants rarely have local natural competitors or controls to keep their own populations in check. In turn, they can spread rapidly across the landscape. Colorful flowers, attractive fruit, or distinctive foliage help to identify many invasive exotic plants rather easily. But newly arrived species, especially those that are difficult to classify, sometimes proliferate without anyone noticing. Some of these new arrivals could become the problem plants of tomorrow. It is important that little known invasives, or ones similar in appearance to native plants, be identified and monitored as soon as possible.

The Solution

Early detection of invasive exotic plants is a challenge that requires technical expertise, constant vigilance, and a lot of legwork. The USDA Forest Service, Northeastern Area State and Private Forestry employs botanists to help our partners and the public address the early detection challenge. In late 2005, a Forest Service botanist detected the presence of the large gray willow (*Salix cinerea*), a European species that closely resembles the native pussy willow. The large gray willow and its close relative, rusty willow (*Salix atrocinerea*), were found crowding out native species along the pond shores and dune swales of southern New England. These exotic shrubs were endangering a large number of rare plant species that inhabit the coastal plain pond shores.

Forest Service forest health experts worked with staff public affairs professionals and State partners to get the word out about the discovery. They developed a communications initiative and press release, resulting in widespread Associated Press media coverage throughout the impacted area.

Early detection of invasive exotic plants, combined with agressive control measures, helps to keep the problem from growing out of control.

Forest Service Botanist Tom Rawinski (right) and Massachusetts Restoration Ecologist Tim Simmons examine rusty willow (*Salix atrocinerea*) on a Cape Cod pond shore in fall 2005. This highly invasive European species went undetected for decades. (photo by Stephen Smith, National Park Service)

Resulting Benefits

The botanist's discovery and the communications effort worked well together in getting the word out about a growing problem. Since then, botanists, landowners, land management agencies, and State invasive plant committees have embraced the stewardship challenge posed by large gray willow. Follow-up surveys revealed the alarming extent of the problem and expanded the botanical community's knowledge of the plant's distribution and life history. At several sites, aggressive control measures for large gray willow are now being implemented.

Sharing Success

The large gray willow serves as yet another example of the value of early detection and coordination of communications, as well as surveying and control of invasive species. Much of the success to date for this event can be attributed to broad-based educational efforts that have alerted the public to the problem. Media coverage of the detection also acted as a catalyst within the botanical community to seek out and control this invasive species. Willow experts are now striving to clarify distinctions between large gray willow and rusty willow. Dramatic recovery of the native flora is expected to result from these control efforts.

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