



The Sustainable Forestry Initiative® (SFI®) Invasive Exotic Species



Louisiana Sustainable Forestry Initiative

www.laforestry.com

A Threat to Louisiana's Forests

Invasive exotic species, nonnative invasive species and other terminology is used to describe a number of plants, animals and insects that have been brought to the United States and either purposely or inadvertently released. Invasive Exotic Species (IES) have established themselves as a significant threat to native flora and fauna. They can pose a threat several ways including crowding out native species, limiting plant diversity, occupying productive forestlands and the implementation of expensive control measures. IES become established through ornamental plantings, movement of contaminated machinery, livestock forage, inadvertent and intentional releases and escaped pets or livestock. Without the presence of natural control agents, IES have rapidly spread across many regions of the country. Keeping nonnative exotic species out of your forestland has a number of benefits including improved wildlife habitat, enhanced returns from your forest management activities and limiting costs to control nonnatives.

Risk Assessment for IES – there are several ways to assess the risk of an invasive species:

- The potential to negatively affect forest productivity and habitat diversity.
- The organism's ability to spread and colonize new habitats.
- The landowner's ability to control the species.
- The cost to control the species.

Louisiana Forestlands "Big Six" IES

Cogongrass – This nonnative is one of the south's worst invasive species. It is an aggressive, colony-forming dense perennial grass 1 to 5 feet tall. It grows in a range of sites, often in circular infestations which excludes most other vegetation. It aggressively invades right-of-ways, new forest plantations, open forests, old fields and pastures. It colonizes by rhizomes and spreads by wind-dispersed seeds, road maintenance activities and excavation operations. Control includes multiple treatment with herbicide and tillage. Several Best Management Practices to minimize the spread of cogongrass by machinery have been developed.

Tallowtree – Invades stream banks, riverbanks and wet areas like ditches as well as upland sites. Thrives in both freshwater and saline soils and is shade and flood tolerant. Most often found close to cities and towns through ornamental plantings. Spreads by bird- and water-dispersed seeds and can colonize through prolific surface root sprouts. According to recent US Forest Service Data, tallowtree is now recognized to be the 5th most common tree in Louisiana. Tallowtree can be dif-

icult to control. Multiple herbicide applications may be necessary.

Kudzu – Occurs in old infestations, along right-of-ways and stream banks. Forms dense mats over ground, debris, shrubs and mature trees forming dense patches by twining around objects. Most often colonizes by vines rooting at nodes. Spreads by variety of methods. Often spread by mowing equipment and road maintenance. Kudzu can be difficult to control. Multiple herbicide applications and controlled burning are the most effective means.

Privet – Japanese privet and Chinese privet primarily infest fence rows and bottomland hardwood areas. They are shade tolerant and can be aggressive competitors, forming dense stands. Easily distinguished by their multi-stemmed, drooping branches, fragrant white flowers in the late spring and large clusters of blue to purple drupes (berries) in the late fall to spring. Colonizes by root sprouts and bird droppings. Herbicides are the most effective and efficient method to control.

Feral Hogs – Hogs are very intelligent, so control measures must change as hogs learn to avoid traps and hunters. They are opportunistic feeders, prolific breeders and often have more than one litter annually. The hogs' rooting behavior causes most damage. Many plant species are eaten, trampled or uprooted by foraging hogs. Native animals are also victim to the wild hog through direct consumption, destruction of habitat and competition. Wallowing and rooting contaminate streams which cause potential problems for aquatic animals. The most successful control method for hogs is trapping.

Emerald Ash Borer - In February of 2015, the Emerald Ash Borer (EAB), a severe insect pest of ash trees, was confirmed in Webster Parish making Louisiana the 25th state to be invaded by the insect. EAB is a federally regulated plant pest that almost exclusively attacks ash trees. It was first reported in the U.S. in Michigan in 2002. The beetle, which is native to Asia, most likely entered the U.S. in wooden pallets. Since that time it has spread down the East Coast as far south as North Carolina and Georgia and west to Colorado. Most recently it was found in southern Arkansas in July 2014. Since 2002, it has killed tens of millions of trees in the U.S. from forests to neighborhoods.

The EAB is bright metallic green, about 1/2" long with flattened back. It has purple abdominal segments under its wing covers. The larva of the EAB does all the harm to ash trees by tunneling under the bark and disrupting the tree's systems that transport food and water. Eventually it kills the tree.

EAB adults are strong flyers, but most fly only short distances (about 1/2 mile.) Consequently they don't spread far on their own. Most new infestations are caused by people unknowingly taking infested ash (mainly firewood) to an uninfested area. It is difficult to determine if an ash tree is infested because tree decline is gradual. Early symptoms include dead branches near the top of the tree, epicormic branching, D-shaped exit holes and bark splits exposing S-shaped tunnels.

In addition, woodpecker activity might also indicate the presence of EABs. Adult beetles begin emerging in mid to late May and begin laying eggs in the tree bark about two weeks later. The eggs hatch and the larvae tunnel into trees, creating the S-shaped galleries as they feed on the inner bark. They spend the winter in the tree and drill their way out as mature beetles the following spring (the distinct D-shaped exit hole.)

Additional information/references:

LSU AgCenter - Cooperative Extension Service

Nonnative Invasive Plants of Southern Forests,
www.invasive.org/eastern/srs/

National Invasive Species Information Center

LA Department of Wildlife and Fisheries,
www.wlf.louisiana.gov/

Louisiana AgCenter
<http://www.lsuagcenter.com/>

Emerald Ash Borer (EAB)
www.invasiveinfo.gov
www.emeraldashborer.info
www.ldaf.state.la.us/news/emerald-ash-borer-detected-in-louisiana/



LEFT: Feral hogs are the most prolific wild game animal in the country. In a 2008 survey conducted in Louisiana, 80 percent of the respondents reported feral hogs on their land and 95 percent indicated problems with food plots and timber resources.

RIGHT: Cogongrass is a relatively new invader to Louisiana and is considered one of the world's worst weeds. It grows in clumps and spreads by its rhizomes.



LEFT: Tallowtree is the fifth most common tree in Louisiana, although it has no commercial value.



BELOW: The emerald ash borer threatens the very existence of Louisiana's ash trees.

