



Photos Courtesy of Agriculture and Agri-Food Canada and Leo Michels

Invasive Species

WETLANDS

WETLANDS ARE VULNERABLE TO INVASIVE SPECIES

- ▶ Wetlands naturally accumulate debris, sediments, water, and nutrients and create canopy gaps, making them especially vulnerable to invasive species.
- ▶ Although wetlands account for less than 6% of the earth's surface, 24% of the world's most invasive plant species are found in wetlands.
- ▶ The highly invasive purple loosestrife is found in wetlands of all lower 48 states. Human and natural disturbances to wetland soils provide space and opportunity for purple loosestrife seeds to spread and quickly take over the land. Forty-five million dollars are spent annually to control the plant and to compensate for its damages.
- ▶ Nutria are beaver-like rodents, introduced for commercial fur production, that have endangered the remaining coastal marshes in Louisiana. Prolific breeders, nutria can destroy as much as 10,000 acres of coastal wetlands in Louisiana in one year alone.

INVASIVES THREATEN BIODIVERSITY

The spread of invasive species is a major threat to wetland biodiversity. Invasive plant species can grow rapidly into dense stands that choke waterways, lower water tables, and alter the natural vegetation community, eliminating habitats necessary for native wetland species.

In the Northeastern United States, invasive species are destroying the remaining wetland habitats of the bog turtle, a species listed as threatened at the federal level and endangered by several states. Invasive grasses and reeds are replacing the short grass and wet meadow habitats necessary for the turtle to survive. Throughout the region, federal and state agencies are collaborating with non-profit organizations and private landowners to save the turtles. In fact, prescribed grazing by cows, sheep, and goats has proven to be a particularly effective means of clearing the invasive vegetation and restoring turtle habitat.

Across the country, the application of targeted herbicides, controlled burning, mowing, prescribed grazing, and physical barriers offer means of fighting established wetland invaders. Once established, invasive species can be incredibly difficult to control. After prevention, early detection and rapid response (EDRR) may be the most important line of defense against future invasions. The earlier new invasive species are detected and contained, the more likely they can be controlled in the long-term.

WETLANDS IN A CHANGING CLIMATE

Wetlands are already more susceptible to invasive species than other ecosystems, and increases in rainfall and drought from climate change may exacerbate this problem. Warming temperatures and changing precipitation patterns may cause shifts in the areas where invasive species can thrive and allow for increased growth of existing populations of invasive species. For example, inland populations of the highly invasive common reed (*Phragmites*) may increase with higher temperatures, making it more difficult to control. This may be particularly problematic for sensitive wetland plants already stressed by climate change.

National Wetlands Awards

For the past 20 years, the National Wetlands Awards program has honored leaders in wetland conservation, research, and education. These wetland champions personify the concept of “think globally, act locally,” dedicating countless hours and resources to our nation’s wetlands.

MAKING AN IMPACT



2008 Wetland Community Leader recipient Diane Nygaard founded the non-profit group Preserve Calavera, a community conservation organization based in San Diego County, California. Preserve Calavera organized public education programs about invasive weeds and hosted an annual “Eat the Invasives” picnic, drawing the attention of both the California State Senate, which gave her organization a Certification of Recognition, and the Carlsbad Watershed Network, which gave Preserve Calavera their “Weed Warrior” award.

Her organization successfully helped the City of Oceanside’s fire department convince the city to amend its nuisance ordinance to prohibit tamarisk, arundo, and pampass grass—all non-native invasive species that have spread quickly through various parts of the United States. The fire department began this effort after a series of arson fires in areas with arundo grass raised concerns about fire safety. Preserve Calavera helped refine the ordinance and lobbied and testified to get it passed. In the Agua Hedionda watershed, Preserve Calavera and the Carlsbad Watershed Network have removed both arundo and pampass grass. For more information, visit their website, www.preservecalavera.org.

YOU CAN MAKE A DIFFERENCE

LEARN more about wetland habitats and restoration efforts in your area, at www.ducks.org.

CONTACT your state wetland program or your local natural heritage program at www.natureserve.org/visitLocal.

EDUCATE friends, family, local reporters, and elected officials about the importance of wetlands.

VISIT us online, check out former National Wetland Awards recipients at nationalwetlandsawards.org.

VOLUNTEER with a local conservation group or floodplain restoration project.

PROTECT wetlands on your own land. Find out how at www.aswm.org/fwp/consultant/index.htm#guides.

The National Wetlands Awards are administered by the Environmental Law Institute and supported by the U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, USDA Natural Resources Conservation Service, USDA Forest Service, Federal Highway Administration, and NOAA Fisheries.