

# Impacts of Invasive Species

Invading Our Lands and Waters



No habitat or region is immune from the threat of invasive species.

Invasive species have contributed directly to the decline of 42% of the threatened and endangered species in the United States. The annual cost to the United States economy is estimated at \$120 billion a year, with over 100 million acres (an area roughly the size of California) suffering from invasive plant infestations. Invasive species are a global problem — with the annual cost of impacts and control efforts equaling five percent of the world's economy.

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## ISLANDS

Islands, and their incredibly rich biodiversity, are particularly susceptible to invasions because trade and transport has broken down their geographic isolation. The entire island chain of [Hawaii](#) has been devastated by an onslaught of foreign insects, plants, hoofed animals such as deer, goats and pigs and others pests. Feral pigs eat endangered bird's eggs and trample fragile native plants, rosy wolfsnails from Africa gorge themselves on the island's native snails, weeds such as Australian tree fern and miconia plants shade out native plants, and coqui tree frogs aggravate tourists, eat native insects and depress home values with their piercing calls.

## RIVERS, LAKES AND BAYS

Freshwater ecosystems and estuaries are especially vulnerable, and invasions in these areas are harder to contain and reverse. Introduced fish such as tilapia and mosquito fish dominate native species in many of [South America's](#) lakes and rivers. Waterways in [Florida](#) have been choked by the blanketing water hyacinth, which hampers boat passage and recreational use.

## SEAS AND OCEANS

[Marine](#) invasions are very difficult to assess and contain. Trade and transport links have enabled species such as the green mussel and the titan acorn barnacle to cross oceans and invade new habitats. The green mussel now threatens to disrupt power generation plants in Tampa Bay, Florida.

## **FORESTS**

[Forests](#) have suffered from the impact of invasive pests and pathogens, that weaken trees and can cause extensive die-offs. The arrival of chestnut blight in the United States in 1904 resulted in the near extinction of the American chestnut by the early 1950's.

## **GRASSLANDS**

The introduction of new plant species can alter the composition of grasslands with damaging consequences. Buffelgrass has invaded landscapes in South America, fueling fires that native species are unable to withstand. Spotted knapweed out-competes native grass species the United States by producing poisonous compounds. It also degrades the quality of grazing available for cattle.

## **ECONOMIES AND INDUSTRIES**

Invasive species also exact heavy costs in lost economic productivity. In [Brazil](#) for instance, South African lovegrass has destroyed the pasture value of 10 percent of southern grazing lands and severely damaged the area's cattle industry. Annual losses are calculated at \$30 million a year. The U.S. Department of Agriculture estimates the leafy spurge plague costs ranchers in [North Dakota](#), [South Dakota](#), [Montana](#) and [Wyoming](#) more than \$144 million a year in losses. The [arrival of the cactus moth in Mexico](#) could threaten an \$80 million annual industry based on cactus, which is an important source of food for humans and livestock.

The cost and damages of invasive species are great. The Nature Conservancy aims to control the threat to our lands and waters posed by invasive non-native plants, animals, insects and diseases through a combination of prevention, early detection, eradication, restoration, research and outreach.