

INVASIVE SPECIES IN HAWAII

What is an invasive species?

Invasive alien species are plants, animals, or other organisms that are introduced to a given area outside their original range and cause harm in their new home. Because they have no natural enemies to limit their reproduction, they usually spread rampantly. Invasive alien species are recognized as one of the leading threats to biodiversity and impose enormous costs to agriculture, forestry, fisheries, and other human enterprises, as well as to human health.

- The cost to control invasive species and the damages they inflict upon property and natural resources in the U.S. is estimated at **\$137 billion** annually.

Invasive Species in Hawaii: A Quick Look

Hawaii has been invaded by a number of harmful exotic plants and animals. Here is a quick look at some of the worst current and potential invaders:

Name	Type	Origin	Extent	Damage
Rosy wolfsnail	Snail	Latin America; introduced in 1950s to control introduced African snails, an agricultural pest	Found throughout the Hawaiian Islands	Instead of controlling African snails, the rosy wolfsnail has devastated HI's native snails, eliminating up to half of the 800 endemic species & endangering others
Miconia	Shrub/Tree	Central America; introduced as an ornamental in 1960s	Infests over 11,000 acres of Hawaii, Oahu, Maui and Kauai	Miconia forms dense thickets that block sunlight and kills other plants; has shallow roots so infested areas become very erosion-prone.
Fountain grass	Grass	Northern Africa; introduced in 1914 to HI as an ornamental grass	Found on Kauai, Oahu, Lanai, and Hawaii	Highly aggressive, fire-adapted colonizer that readily outcompetes native plants and reestablishes after burning; alters natural fire regime
Fire tree	Shrub/Small Tree	Azores, Madeira, and the Canary Islands; introduced in the late 1800s as an ornamental or for firewood	Occurs on nearly all of the major Hawaiian islands, covering more than 100,000 acres	Poses a serious threat to native plants on young volcanic sites, lowland forests, and shrublands, where it forms dense monocultural stands.
Strawberry Guava	Shrub/Small Tree	Originally introduced in the early 1800s for its edible fruit, it escaped cultivation	Occurs on all six of the largest Hawaiian islands	Poses major threat to Hawaii's rare endemic flora and fauna, forming shade-casting thickets with dense mats of surface feeder roots
Mongoose	Mammal	Europe; introduced to kill off the large rat population in the sugar cane fields	Throughout Hawaii	Diurnal so fails to control nocturnal rats; harms the ground nesting birds such as the Nene goose to stay alive
Feral Pig	Mammal	Europe; hybridized with smaller pig brought over by the Polynesians	Throughout Hawaii	Crushes and rips up plants, damages root systems and causes soil erosion; wallowing action promotes mosquitos (human and bird threat)



Miconia-caused landslide
(HI Dept of Land & Nat. Res.)

Name	Type	Origin	Extent	Damage
Yellow Himalayan Raspberry	Shrub	South Asia; introduced around 1960 for its edible fruit	Most wet forest habitats in HI between 2,000-5,000 ft	Forms impenetrable thickets, threatening native lowland wet forests and displacing native Hawaiian plant species
Brown tree snake	Snake	Solomon Islands; introduced to Guam in 1940s	Vigilant inspection has kept this species from establishing in HI	The brown tree snake has driven nine of Guam's eleven land bird species to extinction, has bitten hundreds of people and causes power outages by crawling on electrical lines

What Congress Can Do:

A. Make Prevention Our Top Priority

- Reverse current U.S. policy on the intentional import of live plants and animals, that is, switch from a “dirty” to a “clean” list approach that requires screening for invasiveness before import and which keeps out or limits import of species so as to prevent harm to native species or ecosystems – and make the legislative changes to do so.
- Substantially cut the unintentional introduction of aquatic invaders by overseeing federal standard-setting on the discharge of ballast water in the United States, supporting the development of technology to meet these standards; ensuring that agencies monitor and enforce compliance; and reauthorizing the 1996 National Invasive Species Act in the strongest and most comprehensive form.
- When considering, reviewing, or approving trade agreements, rigorously address invasive species, e.g., by allowing for restriction of imports of non-native species that are invasive elsewhere and by identifying pathways by which inadvertent introductions travel so that they may be interrupted.

B. Make Federal Agencies More Effective

- Use oversight authority to ensure that all federal agencies immediately and strongly implement that part of Executive Order 13112 that asks them to identify and reduce actions that introduce or spread invasive species in the United States or elsewhere.
- Appropriate adequate funds so that federal agencies have the resources to address invasive species problems promptly and comprehensively over the long-term.
- Strengthen the structure and leadership of the National Invasive Species Council and prompt more aggressive implementation of its National Management Plan.
- Oversee the work of the U.S. Department of Agriculture’s Animal and Plant Health Inspection Service to ensure that the agency and its Administrator are committed to protecting biological diversity as well as agriculture.
- Evaluate the serious problems with border inspection for pests, weeds, and pathogens, e.g., in staffing and cross-department coordination, exacerbated by moving these functions into the Department of Homeland Security and amend its authorizing legislation if needed.

References:

- NPS Fountain grass Fact Sheet <http://www.nps.gov/plants/alien/fact/pesel.htm>
 NPS Fire tree Fact Sheet <http://www.nps.gov/plants/alien/fact/mofa1.htm>
 NPS Strawberry Guava Fact Sheet <http://www.nps.gov/plants/alien/fact/pscal.htm>
 NPS Yellow Himalayan Raspberry Fact Sheet <http://www.nps.gov/plants/alien/fact/ruel1.htm>
 EcoISP “Species on the Brink” <http://www.ecoisp.com/species22.asp>
 America’s Least Wanted: Alien Species Invasions of U.S. Ecosystems.
<http://www.naturereserve.org/library/americasleastwanted2003.pdf>

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