

## **INVASIVE SPECIES**

### BACKGROUND BRIEF

#### **BACKGROUND**

"Invasive species" are plants, animals and microbes not native to a region. When introduced, the species outcompete native species for available resources, reproduce prolifically and dominate regions and ecosystems. Invasive species often arrive in

new areas unaccompanied by their native predators, making them difficult to control. Left unchecked, many invasives can transform entire ecosystems, as native species and habitats disappear.

# OREGON INVASIVE SPECIES COUNCIL

The Oregon Invasive Species Council (OISC) was created by the legislature in 2001 (ORS 570.750). The mission of the Council is to protect Oregon's resources natural and economy by planning and leading a coordinated and comprehensive campaign to prevent the introduction of invasive species and eradicate, contain or manage existing invasive species in Oregon. The Council has 17 members (7 ex-officio members from state agencies and academic

institutions and 10 from organizations and entities that comprise federal, state and local

governments, nonprofit organizations and industry).

The Council has four main statutory functions:

1. Create and publicize a system for reporting sightings of invasive species and refer those reports to appropriate agencies;

- 2. Undertake educational activities to increase awareness of invasive species;
- 3. Develop a statewide plan for dealing with invasive species; and
- 4. Administer a trust account for funding eradication and education projects.

### COUNCIL GOALS

- 1. Promote cooperation, coordination and communication among government agencies, tribal governments, industry, nonprofit organizations, citizen groups and landowners relative to invasive species;
- 2. Ensure long-term sustainable funding and the use of an emergency fund to address the threat of invasive species to

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Oregon's economy, environment and quality of life;

- 3. **Identify gaps in Oregon's legislation** and promote new and enhanced regulations to protect Oregon from the spread of invasive species and new introductions;
- 4. Instill in all Oregonians and those visiting and conducting business with the state an appreciation, awareness and understanding of the threat invasive species has to Oregon's economy, environment and quality of life, ultimately leading to actions that lessen the threat; and
- 5. Promote systems, forums and processes that result in efficient and cost-effective methods of research and surveillance of invasive species in Oregon.

The Council publishes a list of the 100 most dangerous invasive species to keep out of Oregon. This list includes micro-organisms, aquatic and land plants, land invertebrates, fish, birds, mammals and reptiles. To be placed on the list, species must be non-native to Oregon and absent from the state or limited to a small, contained range within the state. Species are removed from the list when they have become established beyond a small, contained range, or are lower priority than another eligible species not currently on the list.

#### **INVASIVE SPECIES OF CONCERN**

European and Asian Gypsy Moths are exotic insects whose caterpillars feed on the foliage of trees and shrubs and can cause widespread forest defoliation. The European gypsy moth

(EGM) is native to temperate forests of western Europe and was introduced to the eastern U.S. in 1869. It has since spread to 20 states and four Canadian provinces where it causes significant damage to hardwood forests.

The Asian gypsy moth (AGM) is native to southern Europe, northern Africa, Asia and parts of the Pacific. A subspecies of the EGM, AGM is similar to its European counterpart in many ways, but has a much broader host range (more than 500 trees and shrubs) and the female moth has the ability to fly, enabling populations to expand more rapidly. In 2015, the Oregon Department of Agriculture (ODA) and its partners caught 12 EGMs and 2 AGMs in the state. The AGMs were discovered near the Port of Portland and in Forest Park. The EGMs were discovered in the Portland Metro area and near the city of Grants Pass. An AGM and EGM eradication plan was developed for the Northwest Portland area in 2016, and approximately 8,000 acres were treated with an aerial application of a biological pesticide to eradicate the gypsy moth infestation. To date, Oregon has been 100 percent successful at early detection and eradication of gypsy moths.

Quagga and Zebra Mussels are freshwater mollusks native to eastern Europe and western Asia that typically have a dark and white (zebra-like) pattern on their thin, fragile, shells. They are the only freshwater mollusks that attach to hard surfaces via hair-like threads. They were likely introduced to the Great Lakes of North America in the ballast water of cargo ships in the mid-1980s. Once established, zebra and quagga mussels can dramatically alter the ecology of a water body, devastate fisheries and cause extensive economic damage to irrigation systems. They are considered virtually impossible to



eliminate. Transport vectors for adult mussels include contaminated machinery, aquarium dumping, and, most importantly, trailered boats with adult mussels attached to the hulls, motors or engine-cooling intake pipes. In Washington, California and Oregon, zebra and quagga mussels are classified as a prohibited species and are therefore illegal to possess. To aid in the fight against these destructive mussels, Oregon adopted an Aquatic Invasive Species Prevention Program in 2009.

Feral Swine have spread from Europe and Russia to habitats around the world via human introduction. They cause damage to agricultural crops, rangelands and fish and wildlife habitat. Their destructive rooting and grubbing activities increase erosion and degrade water quality in streams; encourage the growth of noxious weeds and cause millions of dollars agricultural, in environmental and property damage. Feral swine also prey on lambs, calves, fawns, upland birds and other types of terrestrial wildlife. Feral swine can transmit diseases such as brucellosis, pseudorabies, toxoplasma, Leptospirosis, E. coli and influenza to wildlife, livestock and humans.

Cordgrass is native to the east coast of the U.S. and Canada. Two of the four non-native species of cordgrass have been found in Oregon. It invades and quickly converts estuarine mudflats and salt-marsh ecosystems into uniform expanses of dense grass. Cordgrass displaces thousands of acres of shorebird habitat. drastically reduces biodiversity and disrupts navigational channels.

Spotted-Wing Drosophila is a fruit fly native to Asia. It was first discovered in California in

2008. A 2009 survey in Oregon found the fruit fly from Portland, south to Douglas County and it is now established in at least 10 Oregon counties. Unlike most fruit flies, the spotted-wing drosophila attacks ripe, healthy fruit, and thus is of great concern to Oregon's fruit/berry industry.

# PREVENTION AND THE ECONOMICS

Preventing a new invasive species from being introduced and established typically offers the most cost-effective means to minimize the economic, ecological and community impacts. Prevention incorporates education and outreach to raise awareness of the invasive species problem and reduce the chance of unintentional introduction of invasive species.

Invasive species pose a threat to Oregon's economy. A total of 21 noxious weed species in Oregon cost the state \$125 million annually in production losses, fire damage and control costs. It is estimated that control costs to 13 hydropower facilities would reach \$25.5 million/year if zebra mussels became established.

### Invasive Species <u>Online</u> <u>Hotline</u> and 1-866-INVADER

Early detection and rapid response (EDRR) is the most economic and effective way to protect Oregon from invasive species. The Oregon Invasive Species Online Hotline and 1-866-INVADER telephone line are designed to help all Oregonians become involved in this effort. By using the Online Hotline or calling 1-866-INVADER to report suspected invasive species, Oregonians can contribute



vital early detection information to the experts best able to stop the spread of invasive species.

# PUBLIC OUTREACH AND EDUCATION

Informing the public about the role they can play to prevent the introduction and spread of invasive species is critical to the future of Oregon's economy and natural resources. In 2008, the Council, with numerous partners, launched a Silent Invasion campaign to raise awareness about the threat of invasive species to Oregon. In 2010, the Council launched, in cooperation with Washington and Idaho, a tri-state outreach campaign to raise awareness about the movement of untreated firewood as a vector of invasive species. In 2012, the Council began partnering with Washington and Idaho on a "Squeal on Pigs" campaign that focuses on feral swine. In 2015, OISC held a high school media contest in which participants were asked to create a poster for the "Don't Let It Loose" campaign, an effort to raise awareness about the release of invasive species and how Oregonians can help prevent their spread.

# AQUATIC INVASIVE SPECIES PREVENTION PROGRAM

In 2009, the legislature passed House Bill 2220 that created an Aquatic Invasive Species (AIS) Prevention Program and established an AIS Prevention Permit and new user fee for boaters. Funds generated from sales of the permit are used to support water craft inspection teams, public education and outreach efforts and implement other related activities to protect Oregon against AIS. The program is co-managed by Oregon

Department of Fish and Wildlife (ODFW) and the Oregon State Marine Board (OSMB), with a primary objective of keeping Oregon's waters free of invasive species.

Watercraft inspections began in spring of 2010 and in 2011 roadside watercraft inspections became mandatory with the passage of House Bill 3399. During 2013, ODFW deployed five Watercraft Inspection Teams stationed in Ashland, Klamath Falls, Lakeview, Ontario and Brookings. ODFW conducted 7,441 watercraft inspections and 279 watercraft decontaminations; 17 of which were for quagga or zebra mussels. The sites are staffed seasonally, and hours depend on the location. For 2016, the typical open hours are from 11:00 AM to 6:00 PM, Thursday through Monday, although the Ashland and Ontario sites are open seven days per week from 7:00 AM to 7:00 PM. ODFW technicians at the Ontario boat inspection station intercepted a Quagga mussel infested boat last used in Lake Havasu, Arizona within the first 6 days of opening for the 2016 season.

#### RECENT LEGISLATION

Clean Launch Law (2009): Prohibits launching a boat if the boat has any visible aquatic species on its exterior hull, or aquatic invasive species within interior parts of boat (including the bilge). It authorizes the Oregon Fish and Wildlife Commission, in consultation with ODA, to adopt rules to allow presence of certain aquatic species on or within a boat. A violation of the launch prohibition is designated a Class B violation, punishable by maximum fine of \$287 (House Bill 2583).





**Feral swine control (2009):** Prohibits selling or offering to sell a hunt for feral swine on public or private lands (House Bill 2221).

Releasing live fish into Oregon waters (2009): Increases penalties for releasing or attempting to release live fish into a body of water without a permit (Senate Bill 571).

Ballast water management funding (2011): Established vessel arrival fee to implement a private-public, cost-share partnership to support aquatic invasive species prevention efforts associated with commercial shipping (Senate Bill 81).

Importation of untreated firewood (2011): Prohibits the importation into Oregon of firewood harvested from outside the Pacific Northwest unless the wood has been treated (House Bill 2122).

County weeds programs (2011): Requires ODA to establish a program for issuing grants to counties for noxious weed control (House Bill 3358).

Ballast water management funding increase (2015): Increases vessel arrival fee from \$70 to \$88 to support Department of Environmental Quality's ballast water program efforts (Senate Bill 261).

#### STAFF CONTACTS

Beth Reiley Legislative Policy and Research Office 503-986-1755 beth.reiley@state.or.us

Beth Patrino
Legislative Policy and Research Office
503-986-1751
beth.patrino@state.or.us

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