Invasive Species in Oregon

Report Card, 2004



Prepared by:
Oregon Invasive Species Council

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Introduction

This year the Oregon Invasive Species Council gives Oregon a grade of "B" for success at excluding invasive species in 2004. This is the same grade the state received in 2003 and slightly better than the "B-" grade from 2002.

Oregon continues to be bombarded with undesirable invasive species. Many are intercepted, some incipient populations are discovered and eradicated and a few escape and become permanently established. The creation of Oregon's Invasive Species Council in 2002 gave Oregonians a new vehicle for addressing issues in this area. This report card is a product of that Council. Its purpose is to summarize current efforts to exclude undesirable invasive species from Oregon. The Council hopes that an annual report card will help raise awareness of invasive species issues among all Oregonians and lead to more success at excluding them.

The body of this report is divided into four sections: background on the Council, activities of the Council in its third year, report on exclusion of the top 100 most dangerous species threatening to invade the State, and a review of significant incidents from 2004.

Invasive Species Council Background

Formation

Oregon's Invasive Species Council came into existence on January 1, 2002. The statute (ORS 561.685) creating the Council identifies four main functions for the body. First, the Council is directed to create and publicize a system for reporting sightings of invasive species and referring those reports to the appropriate agency. Second, the Council is directed to undertake educational activities to increase awareness of invasive species issues. Third, the statute directs the Council to develop a statewide plan for dealing with invasive species. Finally, the Council is authorized to administer a trust account for funding eradication and education projects.

Membership

The Council consists of twelve members. There are four *ex officio* members representing the agencies with a lead role in invasive species management: Oregon Department of Agriculture, Portland State University, Oregon Department of Fish & Wildlife, and the Sea Grant College of Oregon State University. The *ex officio* members appoint eight at large members for 2-year terms. The members may represent federal, state, and local governments, universities, industry and other groups having an interest in invasive species. A list of current members is found at the end of this report.

Mark Systma, Director of the Center for Lakes and Reservoirs at Portland State University, was elected Chair in 2003. The Chair was supposed to rotate to Oregon Department of Fish and Wildlife in 2004, but at the request of that agency, Mark continued as Chair in 2004. Martin Nugent, Oregon Department of Fish & Wildlife will take over as Chair in 2005.

2004 Council Activities

Meetings

The Invasive Species Council met this year in Keizer (January and June), and Florence (September). Minutes from these meetings are available on the Council webpage. For information on future meetings, contact the current chairperson.

Education and Outreach

The Council focused on developing an educational/outreach strategy in 2004. A request for proposals to develop a strategy to increase public awareness of invasive species was prepared. Anthill Marketing was selected and $20,000 in contributions was collected to pay for the initial strategy development.

Pencils advertising the toll-free hotline number (1-866-INVADER) are available. Approximately 2,000 have been distributed so far.

Reporting Hotline

The Council supports a centralized, toll-free number (1-866-INVADER) to encourage sightings of all types of invasive species. Information received from calls to the hotline is referred to the appropriate agency for any necessary follow-up. The number of calls received varies with the season and amount of publicity about invasive species. For example, 37 calls were received in March, 16 in July and 11 in September. Perhaps the most important call of the year was a sighting of yellow floating heart, an aquatic weed never before reported in Oregon from a Beaverton park wetland.

Webpage

The Council maintains a webpage connected to the Oregon Department of Agriculture website where information about Council activities is available. The address is: http://oregon.gov/ODA/PLANT

Information Sharing Network

The Council also maintains an information-sharing network to connect people and organizations in the state that have an interest in invasive species. Short documents are sent out via FAX, longer ones via regular mail. In the future most information will be forwarded electronically. Anyone interested in invasive species in Oregon is invited to join the network by contacting: Dan Hilburn, ODA Plant Division, 635 Capitol St. NE, Salem, OR 97301; 503-986-4663; <dhilburn@oda.state.or.us>.

Awards

In an effort to recognize people and organizations that are making outstanding contributions to protecting the state from invasive species the Council has created four awards:

Eagle Eye Awards -- presented to the person or persons reporting the most important sighting(s) of an invasive species. 2004 winner(s): **Greg Mazer** for reporting yellow floating heart from a park in Beaverton. **John Ekberg, Alan Mudge, and Christy Brown** for discovering a pathway for introduction of gypsy moth egg masses on nursery stock from Ontario, Canada.

Outstanding Defender Awards -- presented to the person(s)/organization (non-government) making the most outstanding contribution to protecting Oregon from invasive species. 2004 winner(s): **Marc Cool** for producing outstanding white papers on appropriate uses of grass species including their potential for invasiveness. **Johathan Soll** and the **Portland-Area Preserves Stewardship Team (PAPST)** for their heroic efforts to control Japanese and giant knotweeds along the Sandy and Clackamas Rivers.

Ten Fingers in the Dike Awards -- presented to the person(s) or unit in a government agency going above and beyond the call of duty to keep new invaders out of the state. 2004 winner(s): **Kathleen Johnson** for her outstanding success at keeping gypsy moth and Japanese beetle out of Oregon. **Jim Athearn** for being a tireless propanent of aquatic nuisance species prevention in the Pacific Northwest. **Ken French** for twenty-five years of excellent work protecting southwest Oregon from noxious weeds including distaff thistle and Patterson's curse.

Invader Crusader Awards -- presented to the Oregon student(s) making a difference in protecting Oregon from invasive species. 2004 winner(s): No awards this year.

OISC Service Award -- presented to members of the Oregon Invasive Species Council who are leaving after having completed at least one two-year term: **Blaine Parker**, council member 2002-4; **Keith Warren**, 2002-4; **Paul Heimowitz,** 2002-4; and **Richard Mishaga**, 2003-4.

Former Winners

	Eagle Eye	Outstanding Defender	Ten Fingers	Invader Crusader
2002	Alice Pfand Scott Rose Gary Garth	Sandy Diedrich	Alan Kanaskie Nancy Osterbauer Everett Hansen Ellen Goheen	Erik Hanson
2003	Nick Otting Danna Lytjen Gary Weaver Pat Patterson	Mandy Tu Project YESS	Mary Pfauth Vanessa Howard Dennis Isaacson Jack Wylie	Kim Powell

Action Plan

The invasive species council statute directed the Council to "develop a statewide plan for dealing with invasive species." A first edition of the plan was completed in early 2003; an updated version was posted in 2004. The Council is in the process of reviewing and updating the Plan again. This will be an annual process. The latest version is available online at:
http://oregon.gov/ODA/PLANT

Exclusion, early detection and rapid response are by far the most cost-effective ways of dealing with undesirable invaders. The goal of the Action Plan is to facilitate efforts to keep invasive species out of the state, find invasions before they establish permanent footholds, and do whatever it takes to eradicate incipient populations of undesirable species. Education and cooperation are key components to an effective strategy.

100 Most Dangerous Invaders Threatening Oregon in 2004

The Council developed the following list of least wanted species for 2004. These organisms threaten to invade at any time and available information allows us to predict that they would have a serious negative economic or ecological impact if they were to become established in the State. Eradication should be seriously considered if incipient populations are found. The costs of eradication are likely to be much less than the impacts associated with permanent establishment. The Council updates this list annually and our record of success or failure at exclusion of these species is reported in annual report cards and tracked by the Oregon Progress Board.

Micro-Organisms

alder root rot	*Phytophthora* sp.
brown root rot	*Phellinus noxious*
cherry leaf roll	cherry leaf roll nepovrius (CLRV)
chronic wasting disease	CWD prion
elm yellows	elm yellows phytoplasma
golden nematode	*Globodera rostochiensis*
hazelnut bacteria canker	*Pseudomonas avellanae*
infectious salmon anemia virus	ISAV
oak wilt	*Ceratocystis fagacearum*
pear trellis rust	*Gymnosporangium fuscum*
Pierces's disease	*Xylella fastidiosa*
plum pox	plum pox potyvirus (PPV)
poplar canker	*Xanthomonas populi*
potato cyst nematode	*Globodera pallida*
potato tuber necrosis	NTN strain of potato virus y
potato wart	*Synchytrium endobioticum*
ramorum blight (a.k.a. sudden oak death)	*Phytophora ramorum***
Sheep Pen Hill virus	carlavirus (BBScV-NJ)
whirling disease	*Myxobolus cerebralis***
willow watermark disease	*Erwinia salicis*

Aquatic Plants

African waterweed	*Lagarosiphon major*
caulerpa seaweed	*Caulerpa taxifolia*
cordgrasses	*Spartina alterniflora*, S. densiflora,*

	S. anglica
dead man's fingers	*Codium fragile tomentosoides*
European water chestnut	*Trapa natans*
giant salvinia	*Salvinia molesta*
golden algae	*Prymnesium parvum*
hydrilla	*Hydrilla verticillata*
toxic cyanobacteria	*Cylindrospermopsis raciborskii*

Land Plants

African rue	*Peganum harmala***
camelthorn	*Alhagi pseudalhagi*
cape ivy	*Senecio mikanioides***
coltsfoot (not *Petasities frigidus*)	*Tussilago farfara***
giant hogweed	*Heracleum mantegazzianum***
giant reed grass	*Arundo donax***
goatgrasses (barbed, ovate)	*Aegilops triuncialis, A. ovata*
hawkweeds (king-devil, meadow, mouse-ear, orange, yellow)	*Hieracium piloselloides, H. pratense**, *H. pilosella, H. aurantiacum**, *H. floribundum*
kudzu	*Pueraria lobata***
matgrass	*Nardus stricta***
mile-a-minute weed	*Polygonum perfoliatum**
Paterson's curse	*Echium plantagineum***
Portugese broom	*Cytisus striatus***
purple nutsedge	*Cyperus rotundus*
silverleaf nightshade	*Solanum elaegnifolium*
skeletonleaf bursage	*Ambrosia tomentosa*
squarrose knapweed	*Centaurea virgata***
starthistles (Iberian, purple)	*Centaurea iberica**, *C. calcitrapa***
Syrian bean-caper	*Zygophyllum fabago*
Texas blueweed	*Helianthus ciliaris*
thistles (plumless, smooth distaff, woolly distaff)	*Carduus alanthoides**, *Carthamus baeticus, Carthamus lanatus***

Aquatic Invertebrates

Asian clam	*Potamocorbula amurensis*
Asian tapeworm	*Bothriocephalus acheilognath*
fishhook waterflea	*Cercopagis pengoi*
Japanese shore crab	*Hemigrapsus sanguineus*
Japanese oyster drill	*Ceratostoma inornatum*
Leidy's comb jelly	*Mnemiopsis leidyi*
mitten crabs	*Eriocheir spp.**
New Zealand isopod	*Sphaeroma quoyanum*
New Zealand sea slug	*Philine auriformis*
rusty crayfish	*Orconectes rusticus*
spiny waterflea	*Bythotrephes cederstroemi*
veined rapa whelk	*Rapana venosa*
zebra mussel	*Dreissena polymorpha*

Land Invertebrates

Africanized honey bee	*Apis mellifera scutellata*
Argentine ant	*Linepithema humile**
Asian longhorned beetles	*Anoplophora glabripennis, A. chinensis*
blueberry maggot	*Rhagoletis mendax*
brown spruce longhorn beetles	*Tetropium fuscum, T. castaneum**
decollate snail	*Rumina decollata*
emerald ash borer	*Agrilus planipennis*
European chafer	*Rhizotrogus majalis*

European corn borer	*Ostrinia nubilalis*
European woodwasp	*Sirex noctilio*
glassy-winged sharpshooter	*Homalodisca coagulata**
gypsy moths (European, Asian, pink, nun moth)	*Lymantria dispar*, L. mathura*, L. monacha*
imported fire ants (red, black)	*Solenopsis invicta*, S. richteri*
Japanese beetle	*Popillia japonica**
Japanese cedar longhorned beetles	*Callidiellum rufipenne, C. villosulum**
khapra beetle	*Trogoderma granarium*
Mexican bean beetle	*Epilachna varivestis*
old world bollworm	*Helicoverpa armigera*
Oriental beetle	*Anomala orientalis*
plum curculio	*Conotrachelus nenuphar*
pine shoot beetle	*Tomicus piniperda*
red haired pine bark beetle	*Hylurgus ligniperda*
sawyers	*Monochamus urussovi*, M. alternatus**
Siberian moth	*Dendrolimus superans*
silver Y moth	*Autographa gamma*
spruce bark beetle	*Ips typographus*

Fish

Asian carp (bighead, silver)	*Hypophthalmichthys nobilis, H. molitrix*
Atlantic salmon	*Salmo salar*
black carp	*Mylopharyngodon piceus*
muskellunge, northern pike, tiger muskie	*Esox spp.**
round goby	*Neogobius melanostomas*
ruffe	*Gymnocephalus cernuus*
Shimofuri goby	*Tridentiger bifasciatus*
snakeheads	*Channa spp.*

Birds

Eurasian collared dove	*Streptopelia decaocto*
mute swan	*Cygnus olor*

Mammals

feral swine	*Sus scrofa***

*Detected previously in Oregon, but eradicated or did not establish.
**Currently under eradication or restricted to a small area in Oregon.
***In danger of becoming permanently established.

Report Card Grade -- How Did We Do?

Ecologically and economically, it would be desirable to keep all of the organisms on the 100 Most Dangerous Invaders list out of the state. Realistically, 100% success is not feasible; the "ambitious but realistic" target set for our state by the Oregon Progress Board is 99% success each year. Benchmark #89 measures the "Number of most threatening invasive species not successfully excluded or contained since 2000." If Oregon does a good job at exclusion, we'll meet the target of five or fewer species from the annually updated list of 100 Most Dangerous Invaders becoming permanently established by 2005, the next grading period.

There is often a lag time of at least a year or two before it can be determined whether an eradication or containment program has succeeded or failed. Where no effort is made, permanent establishment is probable. One species from the 2004 list is thought to be in danger of becoming permanently established: feral swine (*Sus scrofa*). A risk assessment of the feral swine problem in Oregon was completed this year by Oregon State University. The potential for serious economic and ecological damage is high. Little if any progress toward eradication of existing populations was made in 2004.

The fight against ramorum blight (a.k.a. sudden oak death) intensified significantly this year. Positive samples were collected at twenty-three Oregon nurseries in 2004. Though this is a small percentage of the total tested (approximately 800) it continues a trend of increasing numbers of finds in nurseries each year since 2002. This suggests introductions continue and our exclusion, detection and eradication programs are not as effective as they need to be. Thankfully, there is hope. A new standard federal inspection and testing program has been implemented in all three west coast states, quicker and more accurate diagnostic tests are on the horizon and certification programs for nurseries incorporating practices designed to minimize the threat of disease introduction and establishment are being developed. The next few years will be pivotal.

Surveys for many of the 100 Most Dangerous Invaders were completed and eradication projects against eight species were carried out in 2004: ramorum blight, giant hogweed, meadow hawkweed, kudzu, Patterson's curse, purple starthistle, distaff thistle, gypsy moth and Japanese beetle.

Given the fact that to the best of our knowledge all 100 target species were successfully excluded or contained, and only one species from the list is in danger of becoming permanently established, Oregon's grade for 2004 from the Oregon Invasive Species Council is a "B."

Significant Incidents in 2004

The annual grade recognizes our collective success at excluding the most dangerous invasive species threats to Oregon. This is important; however, it is not the whole story. One shortcoming of this simple measure is that it does not reflect the rate at which the state is challenged with new invasions, nor does it reflect the efforts many people put in to fighting invasive species. Many of these people deserve "A's." The following list documents important invasive species interceptions and actions taken in 2004. Twenty-five similar incidents were documented in the 2002 and 30 more in 2003.

January

1. Oregon participates in a national recall of Ya pears from China after a disease was found that threatened pear growers in the U.S.
2. Oregon participates in a national recall of scented pinecones from India after live longhorned beetles were found in pot pourri mixes.

3. A shipment of bareroot trees from New York is returned do to excess soil, a risk for introducing Japanese beetle eggs and larvae.

March

4. Ramorum blight, *P. ramorum* (a.k.a. sudden oak death) was found at a large shipping nursery in California. Potentially infected plants had been sent to 39 states including Oregon. Fifty-two Oregon customers were tested and infected material was found at nine of them.

May

5. Patterson's curse, *Echium plantagineum*, was discovered in Douglas County. Eighty acres were treated by helicopter.
6. Specimens of two non-native ambrosia beetles, *Xylosandrus germanus* and *Xyloterinus politus*, were collected in Forest Park, Portland.
7. *P. ramorum* was confirmed at a Columbia Co. nursery as the result of a traceback from a customer in Maryland. In response, approximately $500,000 worth of plants at the nursery were incinerated.

June

8. Live insects, including longhorned beetles and Ichneumonid wasps, were found in a container carrying reed mats from Hungary. The container was fumigated.
9. Six Japanese beetles were trapped near the cargo terminals at PDX. Several insecticide treatments were made to turf and ornamental plantings in the area.

July

10. Yellow floating heart, *Nymphoides peltata*, was reported from a Beaverton park wetland. This is the first record of this plant in the state.
11. Two European click beetles (wireworms), *Agriotes lineatus* and *A. obscurus*, were confirmed at two nurseries in the Portland area.
12. An exotic scarab beetle, *Rhyssemus germanus*, was found in a funnel trap in Bend. This is a new state record.

August

13. Three new state records of ambrosia beetles were trapped in The Dalles: *Xylosandrus crassiusculus*, *Monarthrum mali*, *Euplatypus* sp. These are hardwood borers and are thought to have arrived on untreated, hardwood railroad ties from the Southeast.

September

14. *P. ramorum* was confirmed at a large Washington Co. nursery. Nine semi-trailer truckloads of nursery stock were incinerated.
15. Gypsy moth egg masses were found on blue spruce nursery stock at an Eagle Creek nursery in Clackamas County.

October

16. Four gypsy moths were trapped statewide; two in Eagle Creek (Clackamas Co.), one in Bull Run (Multnomah Co.) and one in Sun River (Deschutes Co.).

An eradication program is planned for the Eagle Creek site in the spring of 2005.

November

17. A brown marmorated stinkbug, *Halyomorpha halys*, was caught in a funnel trap in Portland. This Asian species was first detected in Pennsylvania in 1998. It is both an agricultural pest of fruits and a nuisance pest in houses.
18. Several additional nurseries were confirmed positive for *P. ramorum*, bringing the total to 23 out of nearly 800 tested. All tested Christmas tree plantations and blocks of trees where boughs are harvested test negative for the disease.

Major Incidents Elsewhere with Implications for Oregon

19. A new infestation of emerald ash borer, *Agrilus planipennis*, was found in Virginia. Infested nursery stock from the large infested area in Michigan is believed to be the pathway. All infested trees were destroyed. This insect could spread to most regions of North America where ash trees occur.
20. A new infestation of Asian longhorned beetle, *Anoplophora glabripennis*, was discovered in New Jersey. All host trees in the infested area will be destroyed. Earlier infestations in New York, Illinois, New Jersey and Toronto have proven to be difficult to eradicate.
21. Swede midge, *Contarinia nasturtii*, was trapped in Niagra Co., N.Y. This is the first record in the U.S. of this pest of crucifers.
22. An exotic sea squirt, *Didemnum lahillei*, was discovered at Edmond's Underwater Park in Puget Sound, Washington. The site was covered and treated with chlorine.
23. A northern snakehead, *Channa argus*, was caught in Lake Michigan.
24. USDA adopts new regulations for wood packing material that require measures to eliminate pests. Enforcement will begin in September 2005.
25. Soybean rust, *Phakopsora pachyrhizi* , was detected in Louisiana and several other southeastern states. This is the first time this Asian plant disease has been detected in North America. It infects many legumes besides soybeans.
26. Mediterranean pine engraver beetle, *Orthotomicus erosus*, discovered in large numbers near Fresno, California.
27. *Phytophthor kernovii*, a new plant disease related to ramorum blight is discovered in Cornwall, England.

2004 Oregon Invasive Species Council Members

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At Large Members

	Term Expires
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Richard Mishaga 3320 Barrington Dr. West Linn, OR 97068 (503) 557-4491 thrush-1@comcast.net	January 1, 2005
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Former Council Members

Shaun Monahan, Waves Marine Aquaria, 2002
Paul Lagner, Port of St. Helens, 2002
Bill Cook, Port of Astoria, 2003
Steve Buttrick, The Nature Conservancy, 2002-2003