

100 Most Dangerous Invaders To Keep Out of Oregon in 2010

Species in bold are those species that have had risk assessments completed.

Micro-Organisms

alder root rot	<i>Phytophthora alni</i> subsp.
bacterial blight of grape	<i>Xylophilus ampelinus</i>
blackberry yellow vein disease, blackberry yellow vein-associated virus (BYVaV) and blackberry virus Y (BVY)	
chronic wasting disease	CWD prion
elm yellows	elm yellows phytoplasma
hazelnut bacteria canker	<i>Pseudomonas avellanae</i>
infectious salmon anemia virus	ISAV
oak wilt	<i>Ceratocystis fagacearum</i>
<i>Phytophthora taxon C</i>	<i>Phytophthora kernoviae</i>
plum pox	plum pox potyvirus (PPV)
poplar canker	<i>Xanthomonas populi</i>
potato cyst nematodes	<i>Globodera rostochiensis</i> and <i>G. pallida</i>
potato wart	<i>Synchytrium endobioticum</i>
ramorum canker and blight (sudden oak death)	<i>Phytophthora ramorum</i> **
blueberry hill carlavirus - New Jersey strain	(BBScV-NJ)
Southern wilt, bacteria wilt	<i>Ralstonia solanacearum</i> Race 3 Biovar 2
viral hemorrhagic septicemia virus (VHSV)	<i>Novirhabdovirus</i> spp.
whirling disease	<i>Myxobolus cerebralis</i>**
willow watermark disease	<i>Brenneria salicis</i>

Aquatic Plants

algae, toxic (golden, toxic cyanobacteria)	<i>Prymnesium parvum</i> , <i>Cylindrospermopsis</i> <i>raciborskii</i>
African waterweed	<i>Lagarosiphon major</i>
caulerpa seaweed	<i>Caulerpa taxifolia</i>
common reed	<i>Phragmites australis</i>
cordgrasses	<i>Spartina alterniflora</i>* , <i>S. densiflora</i> , <i>S. anglica</i> , <i>S.</i> <i>patens</i> **
dead man's fingers	<i>Codium fragile tomentosoides</i>
European water chestnut	<i>Trapa natans</i>
flowering rush	<i>Butomus umbellatus</i>
giant salvinia	<i>Salvinia molesta</i>
hydrilla	<i>Hydrilla verticillata</i>
rock snot	<i>Didymosphenia geminate</i>
yellow floating heart	<i>Nymphoides peltata</i>**

*Detected previously in Oregon, but eradicated or did not establish.

**Currently under eradication or restricted to a small area in Oregon.

Land Plants

African rue
camelthorn
coltsfoot (not *Petasities frigidus*)
giant hogweed
goatgrasses (barbed, ovate)
goat's rue
hawkweeds (king-devil, meadow,
mouse-ear, orange, yellow)
Japanese dodder
kudzu
matgrass
oblong spurge
Paterson's curse
purple nutsedge
silverleaf nightshade
skeletonleaf bursage
squarrose knapweed
starthistles (Iberian, purple)
Syrian bean-caper
Texas blueweed
thistles (plumeless, smooth
distaff, woolly distaff, **taurian**)

white bryonia

Peganum harmala**
Alhagi pseudalhagi
Tussilago farfara**
Heracleum mantegazzianum**
Aegilops triuncialis, *A. ovata*
Galega officinalis
Hieracium piloselloides, *H. pratense***, *H. pilosella*,
*H. aurantiacum***, *H. floribundum*
Cuscuta japonica
*Pueraria lobata***
*Nardus stricta***
Euphorbia oblongata
Echium plantagineum**
Cyperus rotundus
Solanum elaeagnifolium
Ambrosia tomentosa
*Centaurea virgata***
*Centaurea iberica***, *C. calcitrapa***
Zygophyllum fabago
Helianthus ciliaris
*Carduus alanthoides***, *Carthamus*
baeticus, *Carthamus lanatus***, ***Onopordum***
tauricum
Bryonia alba

Aquatic Invertebrates

Asian clam
Asian tapeworm
Japanese shore crab
Leidy's comb jelly
mitten crabs
New Zealand sea slug
rusty crayfish, red swamp crayfish
(non-native crayfish)
sea squirt
transparent tunicate
club tunicate
veined rapa whelk
waterflea (fishhook, spiny)
zebra mussel, quagga mussel

Potamocorbula amurensis
Bothriocephalus acheilognath
Hemigrapsus sanguineus
Mnemiopsis leidyi
Eriocheir spp.*
*Philine auriformis***
Orconectes rusticus*, *Procambarus clarkia

Didemnum sp.
Ciona savignyi
Styela clava
Rapana venosa
Cercopagis pengoi, *Bythotrephes cederstroemi*
Dreissena polymorpha, *Dreissena rostriformis*
bugensis

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Land Invertebrates

Africanized honey bee

Argentine ant

Asian longhorned beetles

brown spruce longhorn beetles

emerald ash borer

European chafer

European corn borer

European woodwasp

granulate ambrosia beetle

gypsy moths (European, Asian,
pink, nun moth)

imported fire ants (red, black)

Japanese beetle

Japanese wax scale

khapra beetle

light brown apple moth

Mexican bean beetle

old world bollworm

Oriental beetle

plum curculio

Siberian moth

silver Y moth

spruce bark beetle

Swede midge

White garden snail, vineyard snail, and heath snail (terrestrial snails)

Apis mellifera scutellata

*Linepithema humile**

Anoplophora glabripennis, *A. chinensis*

Tetropium fuscum, *T. castaneum**

Agrilus planipennis

Rhizotrogus majalis

Ostrinia nubilalis

Sirex noctilio

*Xylosandrus crassiusculus**

*Lymantria dispar*** , *L. mathura** , *L. monacha*

*Solenopsis invicta** , *S. richteri*

*Popillia japonica***

Ceroplastes japonicus

Trogoderma granarium*

Epiphyas postvittana

Epilachna varivestis

Helicoverpa armigera

Anomala orientalis

Conotrachelus nenuphar

Dendrolimus superans

Autographa gamma

Ips typographus

Contarinia nasturtii

Theba pisana*, *Cernuella virgata*, *Xerolenta obvia

Fish

Amur goby, round goby, Shimofuri goby

Asian carp (bighead, silver), black carp

Atlantic salmon

golden Shiner

muskellunge, northern pike,
tiger muskie

ruffe

snakeheads

threadfin Shad (yellow tails, shad and
shad minnow)

Rhinogobius brunneus, *Neogobius melanostomus*,

Tridentiger bifasciatus

***Hypophthalmichthys nobilis*, *H. molitrix*,**

Mylopharyngodon piceus

Salmo salar

Noteigonus crysoleucas

Esox spp. *

Gymnocephalus cernuus

Channa spp.

Dorosoma petenense

Birds — mute swan

Cygnus olor**

Mammals — feral swine

Sus scrofa**

Reptiles — eastern snapping turtle

Chelydra serpentina serpentina

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Changes that were made to the 100 Worst List from 2009 to 2010:

Aquatic Plants

Two species were combined to create an algae category:

1. Golden algae and toxic cyanobacteria were combined under algae, toxic.

One species was added to the list:

2. Common reed was added to the list.

Land Plants

One species was added to the list:

1. Japanese dodder was added to the list.

Aquatic Invertebrates

Two species were combined to create one waterflea category:

1. Spiny waterflea and fishhook waterflea were combined under waterflea.

Changes that were made to the 100 Worst List from 2008 to 2009:

Micro-organisms

The following were removed from the list:

1. cherry leaf roll nepovirus (CLRNV) is found in Oregon, although on an alternate host. It has failed to move to cherries. Also, like pear trellis rust, the damage it is capable of causing is significantly less than the new species we added to the list.
2. pear trellis rust (*Gymnosporangium fuscum*) is established in WA and is a manageable disease. Also, it is not fatal to its host, unlike the others.

The spelling was corrected:

1. sudden oak death *Phytophthora ramorum*** (corrected spelling)

There was a name change for:

1. Sheep pen hill virus blueberry hill carlavirus - New Jersey strain (BBScV-NJ)
carlavirus (BBScV-NJ) (corrected name change)

The following were added to the list:

1. blackberry yellow vein disease, blackberry yellow vein-associated virus (BYVaV) and blackberry virus Y (BVY) (this disease is caused by the two viruses acting synergistically)
(Nancy K. Osterbauer, ODA)
2. bacterial blight of grape *Xylophilus ampelinus*

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Aquatic Plants

The following was added to the list:

1. Flowering rush, *Butomus umbellatus*—Montana is asserting that this plant could eventually spread through much of the Columbia Basin. It's not far from the northeast and southeast Oregon borders

Land Plants

The following were removed from the list:

1. mile-a-minute weed (*Polygonum perfoliatum*)* This species is not listed in either Oregon or Washington.
2. Portugese broom (*Cytisus striatus*)** (Note: *Note this would be a removal because it "got away," and therefore would count against our benchmark.) This plant is a "B" rated plant in Oregon. Though Portuguese broom is a high priority for protection of our forest lands in the state, programs implementing control projects have moved from eradication mode into containment mode with this plant.

The following were added to the list:

1. white bryonia (*Bryonia alba*)—White bryonia is a vigorous herbaceous perennial vine resembling kudzu in appearance and growth habit. Infestations will overgrow and smother small trees and shrubs forming dense mats which shade out all the vegetation it grows upon. If established in areas with no structure to climb, it will form a dense mat covering the ground. Vines emerge each spring from a large fleshy parsnip-shaped tuber and grow rapidly, sometimes to 30 feet. Populations are documented from south-east Washington State, Idaho, Utah and Montana. Should white byronia become established in Eastern Oregon it poses a huge threat for forest and range land, not to mention ecosystems of the Hells Canyon/Snake River area.
2. goat's rue, *Galega officinalis*—Goat's rue, *Galega officinalis*.L., is a USDA federally listed noxious weed. A member of the legume family, it was introduced into Utah in 1891 as a potential forage crop. Escaping cultivation, it now occupies in excess of 60 square miles in Cache, County, Utah. Within this area, goat's rue infests cropland, fence lines, pastures, roadsides, waterways, and wet, marshy areas (Evans and Ashcroft 1982). The plant's stems and leaves contain a poisonous alkaloid, galegin, which renders the plant unpalatable to livestock, and toxic in large quantities. It is particularly lethal to sheep. Because of these issues, goat's rue invasion can reduce forage availability and quality.
3. oblong spurge, *Euphorbia oblongata*—Oblong spurge is a weedy escaped ornamental species of *Euphorbia* known from only one site in Salem, Oregon. Suspected to have been introduced from California in contaminated flax or machinery that was used at the State Penitentiary flax mill in the early part of the 1900's, it has slowly expanded its territory on the penitentiary property. Growing up to 3' tall, this species is capable of forming dense stands in more arid climates and could be expected to be a troublesome weed to control should it spread and establish in eastern Oregon.

Aquatic Invertebrates

The following were removed from the list:

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1. Unnamed estuarine snail (Coos Bay), *Assiminea* sp. (Increasingly widespread establishment is one of our criteria for bumping a species off the 100 worst list. The small brackish water snail we saw on the rip-rap of the Yaquina river, capable of carrying the human liver flukes parasite is *Assiminea* parasitological.

The following was added to the list (with other nonnative crayfish):

1. Red swamp crayfish (Louisiana crayfish), *Procambarus clarkia*— Native to south central United States, this species has been found in California, Idaho, Oregon and Washington. Noted for its burrowing activity which could damage dams, levees, and water control structures. Introduced into Oregon as a bait species and releases from classroom science experiments.

Land Invertebrates

The following were removed from the list:

1. pine shoot beetle (*Tomicus piniperda*) PSB does not appear to present a threat to forest ecosystems, primarily being a threat to Christmas tree plantations. Granted, the latter commodity is important, but pines are being phased out as Christmas trees in favor of other species which are not hosts known to support PSB reproduction.
2. sawyers (*Monochamus urusovi**, *M. alternatus**) (I think there is too little information to support the two *Monochamus* spp. as major threats to our forests).

The following were added to the list with the other terrestrial snail:

1. vineyard snail, *Cerzuela virgata* and *heath snail*, *Xerolenta obvia*—These two snails have the potential to be pests of many more commodities (cereals, forage crops, grapes, orchards, etc.) and would greatly increase molluscicide use. They are certainly much more difficult to control or eradicate than PSB and probably more so than *Monochamus* species. The technologies for detection and delimitation are also much less effective (try "primitive"). At least one of these species can also vector human and animal parasites and both can vector plant diseases.

Fish

The following was grouped with other non-native carp:

1. black carp (*Mylopharyngodon piceus*) (Move black carp with Asian carp to group like species).

The following were added to the list:

1. Threadfin Shad (yellow tails, shad and shad minnow), *Dorosoma petenense*— Native to the south-central United States and introduced into parts of the northern United States. Arizona and California as a forage and baitfish for warm water fish species such as largemouth bass, crappie and walleye. Feeds on zooplankton, and breeds quickly.
2. Golden Shiner, *Noteigonus crysoleucas*— Native to eastern United States. Introduced as a baitfish, ornamental and forage fish. Impact to Oregon is through competition with native fish for food and habitat. Lays up to 200, 000 eggs and may spawn more than once during a breeding season.

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