

The top 10 invaders in Washington state: Wild pigs, monster fish, killer flowers and more

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Recent news stories told of the Lummi Nation, west of Bellingham, describing a tiny, invasive crab—about 3 inches across the shell—as an

"environmental disaster" and "one of the most destructive" aquatic creatures in the world.

The European green crab is on the list of the Top 10 Washington state invasive species, compiled by Justin Bush, executive coordinator at the Washington Invasive Species Council.

These are take-no-prisoners organisms, not native to the ecosystem and on the march. They've arrived by boat, uninvited passengers on cargo ships. They've been introduced by accident, and sometimes on purpose by sometimes-naïve types believing they're doing something good.

The Earth version of the "Alien" movies, they're ready to devastate everything from seafood to agriculture to our [native trees](#). Our state and federal agencies have their own army of biologists to fight them off, sometimes successfully, sometimes reaching more of a detente.

The council already has compiled more than 700 invasive species for this state. From those, it chose 50 "priority species" that were particularly damaging. Bush says the Top 10 is admittedly a subjective list, but, still, "some of the most impactful."

European green crab

It's found a home in the sheltered 750-acre Sea Pond by Lummi Bay, from where the tribe fears it'll attack the Dungeness crabs, clams and juvenile salmon in those waters.

William Jones Jr., Lummi chairman, remembers when about nine months ago he was crab fishing in the bay and pulled up one of the green crabs in a Dungeness crab pot.

"They're small. They fell through the mesh," he says. "We weren't too

alarmed at first."

Then the tribe's fish biologists explained what could happen.

"They start to multiply like crazy. They attack any species," says Jones. "Fishing, crabbing, our clam beds, it's been handed to us for several hundred generations. That's our future."

The tribe says Dungeness crab account for upward of 80% of the value of fish and shellfish it harvests. The baby Dungeness would be prime targets for the green crabs, a voracious, indiscriminate eating machine that scarfs down clams, oysters, even marine worms.

Nationally, according to a widely referenced 2005 paper in Ecological Economics, with the renowned environmental scientist David Pimentel as lead author, some 50,000 species of plants and animals have invaded the United States. Annual cost: \$175 billion in today's dollars.

The green crab, native to the ocean waters of Northern Africa up to Norway, ended up here in the ballast water from its origination port, stored in a ship's hull to provide stability.

Upon reaching a destination, the water is emptied at the new port. It's a free ride for all kinds of organisms.

In this state, the green crab has been detected not just by the Lummi, but in Grays Harbor and Willapa Bay.

In December, the number trapped at the Lummi Sea Pond reached 79,000. The invasion is definitely underway.

Northern pike

Bryan McMannis, of St. Maries, Idaho, an elementary school teacher, understands why the Northern pike is a thrill to catch. On April 9, 2004, at Spokane Lake, a reservoir on the river by the same name, he landed the state record for the fish: 34.06 pounds.

The fish now is mounted and displayed in his classroom. McMannis knows the Northern pike are not native to our waters and considered by Washington's Department of Fish and Wildlife as a "highly invasive predator."

But they give a fishing thrill.

"He took the line right out," remembers McMannis. "They fight real hard."

With their big mouths and up to 700 needle-point teeth angled inward to prevent prey from escaping, these are nasty looking fish. Barracudalike is one description.

State fish biologist Chuck Lee, of Spokane, has a photograph of what he found inside a 31-inch Northern pike. It was a 16-inch rainbow trout.

"It can eat a fish almost half of its body size," he says. "They just finagle it until they can eat it head first and swallow it whole."

The first Northern pike were observed in this state in 1970. One can imagine how that happened: some buddies who used to catch them in the Midwest, where they're native and have a fan base. OutdoorNews.com wrote: "They shake their head, they pull hard, they get even feistier at the side of the boat, and I've even had them jump high in the air."

They somehow managed to carry some alive and dump them into waters in Montana and Idaho.

From there, the Northern pike made their way into this state, says Lee, gobbling up our native fish, and ready to take over. A female can lay 200,000 eggs.

Lake Roosevelt, a reservoir created by the impoundment of the Columbia River, and the Box Canyon Reservoir in northeast Washington are a couple of places where they're found.

Now, says Lee, the state contains the pike by netting them and shooting electricity from generators on boats to stun them. The fish are cut up and sunk to the bottom, "to put nutrients back in." The Colville Confederated Tribes offer \$10 for every Northern pike head turned in.

But they're here to stay, even if it's in smaller numbers. "The system is so big. Lots of water," says Lee.

Japanese knotweed

"It dominates a number of river banks. It blanks out everything that's native—shrubs, trees, willows, dogwoods," says Steve Burke, King County's noxious weed control manager.

It's certainly a showy plant, growing up to a reported 15 feet, bamboolike, with clusters of flowers that are white or pink.

It's so showy that it was brought from Asia to the United States in the late 1800s as an ornamental plant for East Coast estates. It didn't take long for it spread and take over. It's now found in 42 states.

In King County, cutting and pulling up the plants is time consuming, plus, its roots can extend 30 feet or more, and 6 feet deep. If you dig up the roots and a fragment is left in the ground, the knotweed will resprout.

Another method is to use a needle and inject an herbicide right into the cane of the knotweed.

"It's a lot of work," says Burke.

Zebra and quagga mussels

Sometimes, an invasive species is put on a watch list because of the unmitigated disaster that would result if they made a home here.

Zebra and [quagga mussels](#) are both freshwater species, native to Eastern Europe, with the zebra mussel growing up to 2 inches in length, and the quagga mussel slightly bigger. They are listed together as invasive because of their similarities. Not surprisingly, they arrived in this country in the ballast water of ships.

They were discovered in the Great Lakes in 1988 and have since spread to three dozen states.

"We're thankful that the Columbia River is the last major U.S. river with no zebra or quagga mussel population," says Allen Pleus, aquatic invasive species manager for the state.

The mussels can clog pipes and mechanical systems of industrial plants, utilities, locks and dams. If they take hold in Washington, officials estimate it would cost more than \$100 million each year to keep the state's power and water infrastructure running.

The mussels also create ecological havoc.

"They're extremely good filter eaters," says Pleus. That means they are superb at removing nutrients from the water column, effectively starving the native populations of lakes and rivers.

The state has checkpoints such as one on I-90 near the Idaho border. Those towing watercraft have to pull over. The tiny mollusks can stay alive for days outside the water, clinging to the underside of boats.

In 2020, more than 32,000 boats were inspected, with 32 found to be carrying the mussels.

Says the state's material warning about the mussels: "They are only a day's drive away."

Gypsy moth

This moth "is one of the most destructive forest pests ever introduced into the United States," warns the state's Department of Agriculture.

The agency says that through aerial spraying with Btk—naturally occurring bacteria that kills the *Lymantria dispar* moth—the bugs have not gained a foothold in the state. It tracks the moth population by using 20,000 cardboard traps that contain a synthetic version of a sex hormone emitted by females to attract males.

If you ever see one of these moths fluttering around, it's a male, says Patrick Tobin, an associate professor and insect ecologist at the University of Washington's School of Environmental and Forest Sciences.

"It's completely erratic. They're flying around trying to pick up the scent," he says.

The moths are great hitchhikers, says Tobin.

"When people move here from the East Coast, they bring outdoor furniture, kids' toys. They come with egg masses," he says.

The European variety of the moth is permanently found in 20 states and devours over 300 types of trees and shrubs. The Asian version is even worse, attacking over 600 types of trees and shrubs.

The moths do their damage while in their caterpillar stage. They can almost totally defoliate a tree; the USDA says left unchecked, they can defoliate 13 million acres of trees in one season, and by 2017 had defoliated 75 million acres.

The European version got to America in the 1860s because of a well-meaning but naïve artist and amateur entomologist named Étienne Léopold Trouvelot.

He brought the moth eggs from France to his home in Medford, Massachusetts, hoping to breed hardy silkworms to establish a silk industry in this country, according to a 1989 paper in the Bulletin of the Entomological Society of America.

Instead, some of the caterpillars escaped from a room in his house in which he was cultivating them.

The Asian version likely arrived on the West Coast by way of ships from eastern Russia that were infested with moth egg masses, says the U.S. Department of Agriculture. It was first detected in 1991 near the Port of Vancouver in British Columbia. The larvae hatched and were blown ashore.

(The Entomological Society of America acknowledges the creature's common name contains a slur. It likely referred to the larvae floating around for miles. The group is now polling its members for a new name. Until then, it urges using the moth's scientific name—*Lymantria dispar* or *L. dispar*—allowing it's a mouthful.)

African clawed frog

Yes, another voracious invader, this one from sub-Saharan Africa, came by way of pet stores, then by way of people who bought them, got tired of the frogs and dumped them.

They now have been found in Lacey, Bothell and Issaquah, often in stormwater ponds, says Max Lambert, aquatic research section manager for the state's Department of Fish and Wildlife.

The invasive species council says the clawed frog competes with native species for food, and may introduce pathogens that'll hurt salmon and other natives.

"Small mollusk, crayfish, dragonfly, even small fish, whatever is in their face, they'll put in their mouth," says Lambert. "They can eat things bigger than their mouths. With their little claws they can shred things."

Lambert says the state has put fences around the ponds where the clawed frogs have been found, drained the ponds and sprayed table salt in the ponds to euthanize them. The frogs moved from the ponds to the sewers, then came back.

The frogs are a prohibited species in this state and can't be bought at pet stores. You can't buy them online for transport to this state, says Lambert. "But there are ways around that," he admits.

Asian giant hornet

Reaching 1 1/2 to 2 inches long, it looks like a hornet on steroids—the world's largest species of its kind.

The first confirmed report in Washington was on Dec. 8, 2019, when a Blaine resident found one of these mammoths dead in his backyard.

The hornets became a media sensation, especially with descriptions of what they do to those innocent honeybees that just want to pollinate: They murder them.

"The hornets invade the hive, and the worker bees try to defend it, but they fail," says Tobin, the UW insect ecologist.

"Anybody in their way, the hornets rip their heads off. What they want are the developing larvae inside the honeycomb, which they then take back to their colony to feed their young."

It's not clear how the hornets got here, but one way, says Canada's National Collaborating Centre for Environmental Health, is on cargo ships arriving in British Columbia.

Since 2020, 45 giant hornets have been confirmed, and four nests eradicated, vacuumed out by workers wearing protective suits.

Because the first hornets here were reported so quickly, it's easier to control their spread, says Tobin.

"There's always a little bit of luck," he says.

Flowering rush

You can see it in Silver Lake Park, 32 miles northeast of Bellingham. It's quite a pretty aquatic plant, with cuplike pink flowers.

"They get around by their good looks," says Laurel Baldwin, coordinator for the Whatcom County noxious weed program.

The pretty in pink plant is native to much of Europe and parts of Asia. It was brought here as an ornamental plant, but by 1897 it had escaped into the wilds and was first reported growing in mud flats near Montreal.

It's now been found along the Yakima River and west to the lakes and wetlands at Joint Base Lewis-McChord, according to the state's Noxious Weed Control Board.

Baldwin says that along with crowding out native plants, the flowering rush, with its massive foliage, clogs everything from irrigation canals to recreational boat motors.

At the 180-acre Silver Lake, she says, the county has tried using herbicides and even sending divers 20 to 22 feet down into the lake to pull up the variation of the plant that stays permanently under water.

"We're having limited success," she says. "It bounces right back."

Cordgrass (Spartina)

These are the bright-green aquatic grasses that you see growing in circular clumps in mud flats and marshes.

Chad Phillips, the state's spartina coordinator, is proud of the work his crews have done.

From a statewide high of over 9,000 solid acres infested in 2003, the program has reduced the cordgrass to 2 1/2 acres in 2021, although that's spread along thousands of miles of shoreline in the Puget Sound, Willapa Bay, and Grays Harbor.

This grass outcompetes native plants, including rare and endangered plant species.

If the invasive version of the cordgrass hadn't been controlled, "It would have been devastating to the oyster industry, to crabbing on the coast, shorebirds," Phillips says.

One type of spartina came a century ago as packing material for oysters from the East Coast. Another type was intentionally introduced by well-meaning types in the hopes of stabilizing dike areas or to provide waterfowl habitat for hunters.

The plants are usually spot sprayed with the herbicide imazapyr.

There have been delays on using the chemical because of "the political climate and regulatory restrictions," said a 2017 Washington State University paper about Willapa Bay.

But, the researchers concluded, this "very effective aquatic herbicide" saved the bay for shorebirds.

Feral swine

Numbering over 6 million, they're now found pillaging the landscape in at least 35 states, says the U.S. Department of Agriculture.

They were first brought into the United States in the 1500s by early explorers and settlers as a source of food. Repeated introductions occurred thereafter, as well as breeding with escaped domestic pigs, according to the USDA.

Says Dr. Ric Torgerson, a veterinarian with the state, "They are the most destructive mammal on the planet. They can eat almost anything that's edible. They destroy crops. They carry multiple diseases."

Feral pigs have been called the "rototillers" of nature because with their

long snout and tusks they rip and root for food.

Although a few feral swine have been sighted in southwest Washington, they are abundant in California, Oregon, and Idaho, says the [invasive species](#) council.

If you think you've seen one of these feral pigs, with their coarse, bristly hair, the male weighing 130 to 440 pounds, with its long snout flattened at the end, four sharp tusks that grow continuously, report it to invasivespecies.wa.gov.

Best not to try to get near it.

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