How AIS spread

Ballast water

Unwashed watercraft and equipment

Natural movement

Release by humans

How WDFW is combatting AIS

Left: *WDFW staff pulling a European green crab trap.*
Right*: WDFW AIS staff checking a plankton tow device for the presence of invasive species.*

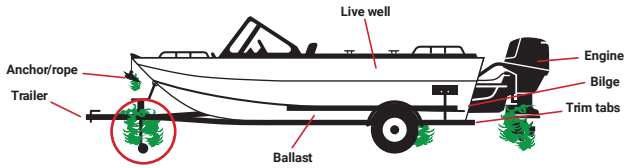
Monitoring: Washington Department of Fish and Wildlife field teams routinely monitor for AIS in Washington waterways using traps, visual inspections, plankton tows, and eDNA surveys.

Control: In infested areas, WDFW may use traps, chemicals, or other methods to remove AIS.

AIS Permit: Operators of watercraft not registered in Washington, seaplanes, and some commercial transporters must buy AIS prevention permits.

Watercraft inspections: During boating season, if you pass a check station, you are required to stop and have your boat inspected. Boaters bringing watercraft into Washington should call 888-WDFW-AIS to learn if they need a free boat inspection.

How you can help



CLEAN

Clean watercraft, paddles, trailer, and vehicle of any organic matter such as aquatic plants and mud.

DRAIN

Drain water from watercraft, hatches and/or buckets at the boat launch. Keep bilge plug out during transport.

DRY

Dry watercraft and all equipment before launching into another body of water.

Decontaminate

In addition to "clean, drain, dry," decontaminate all watercraft and gear when traveling long distances or between areas with AIS. Visit our website at **wdfw.wa.gov/species-habitats/invasive** or contact us to learn about decontamination methods, including hot water and freezing.

Host your own clean, drain, dry, dispose party!

WDFW and the Washington Invasive Species Council offer FREE Clean, Drain, Dry, Dispose (CD3) stations at some boat launches and a mobile CD3 unit is available for checkout. If you are interested in having a CD3 unit at your event, please email ais@dfw.wa.gov.

Report AIS

Report possible invasive species at **invasivespecies.wa.gov/report-a-sighting/** or via the WA Invasives app. **Make sure to take a photo of the suspected AIS!**

888-WDFW-AIS | ais@dfw.wa.gov

*Request this information in an alternative format or language at **wdfw.wa.gov/accessibility/requests-accommodation**, 833-855-1012, TTY (711), or CivilRightsTeam@dfw.wa.gov.*

Washington Department of FISH & WILDLIFE

Stop the spread of Aquatic Invasive Species

Learn more at **wdfw.wa.gov/species-habitats/invasive**

Or scan this QR code on the right to visit our website.

AIS Brochure Version 1.0 October 2023

Aquatic Invasive Species

An aquatic invasive species (AIS) is a **freshwater or marine organism** that has spread beyond its native range and is either **causing harm** or may cause harm to environmental, economic, or human resources.

Aquatic invasive species can harm our environment and resources by:

Competing with native animals and plants for food, space, and resources.

Cooler full of invasive European green crabs, which can quickly multiply and outcompete native species.

Clogging boat parts and aquatic infrastructure such as hydropower and hatcheries.

Propeller covered and clogged by invasive mussels.

Disrupting ecosystems, industry, recreation, and fisheries as well as tribal and cultural resources.

Invasive northern pike with a belly full of young fish.

Photo by Alaska Dept. of Fish and Game

AIS OF CONCERN

African clawed frogs

Xenopus laevis

ID: Freshwater frogs with blotchy olive to brown skin. Unwebbed front feet; webbed back feet with sharp claws. Eyes and nostrils on top of head. Up to 5" long.

Photo by Michael Linnebach

Threat: Harm ecosystems by competing with and preying on native species. Can potentially introduce harmful pathogens that hurt native fish and amphibians.

European green crabs

Carcinus maenas

ID: Shore crab that is not always green. They can also be red, brown, or orange. Five spines on either side of their eyes. Up to 4" wide.

Threat: Threatens native shellfish, eelgrass, and estuary habitat -- resources critical for salmon and orca recovery. Potential to harm the shellfish industry, tribal and cultural resources, and more.

New Zealand mud snails

Potamopyrgus antipodarum

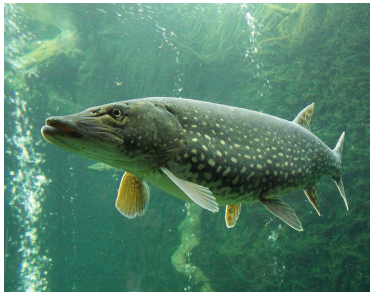
ID: Freshwater snails no longer than 1/5." Cone-shaped shells with five to six whorls. Shell color varies from light brown to black.

Photo by Washington Invasive Species Council

Threat: Can harm environments by quickly reproducing and taking food and space from native animals. Feed on algae and natural waste needed by insects, a critical food for salmon.

Northern pike

Esox lucius



ID: Freshwater fish with large duck-bill mouth. Long body, dorsal fin near tail fin. Grey-green with rows of pale oval spots. Usually up to 2' long, can be longer.

Photo by NPS

Threat: A serious predator that is a threat to other fish species. Their voracious appetite for other fish and prolific spawning can cause great ecological and economic damage.

Zebra and quagga mussels

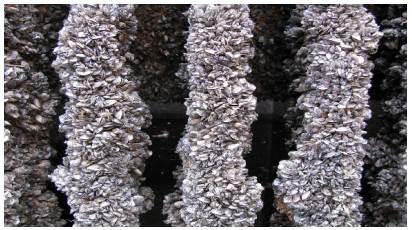
Zebra mussels

Dreissena polymorpha

Quagga mussels

Dreissena rostriformis bugensis

ID: Both are freshwater mussels and have byssal threads (hair-like structures they use to attach to hard surfaces). No native freshwater mussels have byssal threads. Zebra mussels are triangular and variable in color, often with stripes or zig-zags. Quagga mussels are rounded and light tan to whitish, usually with thin stripes.



Hoover Dam trash rack covered and clogged by quagga mussels.

Photo by Washington Invasive Species Council

Threat: These mussels could cost taxpayers hundreds of millions of dollars a year by covering and clogging critical infrasturcture, such as hydropower dams. They could also limit water access for recreation and some industry.