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Aquatic

# Shortface lanx (*Fisherola nuttalli*)

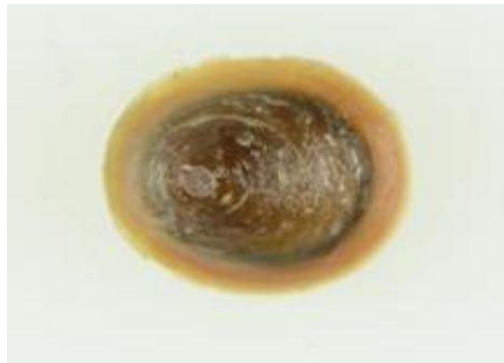


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Top view of a shortface lanx's shell and foot

**Category:** Molluscs

**Common names:** Giant Columbia River limpet

**State status:** [Candidate \(/species-habitats/at-risk/listed?](/species-habitats/at-risk/listed?state_status=25402)

[state\\_status=25402\)](/species-habitats/at-risk/listed?state_status=25402) ⓘ

**Vulnerability to climate change**

**(More details)**

Low	Low-Moderate	Moderate	Moderate-High	High
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If you see this species, please share your observation using the [WDFW wildlife reporting form \(/get-involved/report-observations\)](/get-involved/report-observations/). Providing detailed information such as a photo and exact coordinates will improve the confidence and value of this observation to WDFW species conservation and management.

The shortface lanx is an uncommon aquatic snail in Washington; its population size has a declining trend. Currently in the state, large populations of this snail persist in the Okanogan River and the Hanford Reach of the Columbia River; small populations are found in the Methow and Grand Ronde rivers. The species requires clear, cold, well-oxygenated waters, and is threatened by pollution and siltation.

## Description and Range

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## Physical description

Shortface lanx is a small pulmonate (lunged) snail in the family Lymnaeidae. It is also known as Giant Columbia River limpet because it has a low, flat conical shell, but it is not a limpet. The shell may be between 0.3 to 0.5 inches long, 0.25 to 0.4 inches wide, 0.12 to 0.2 inches high; size of adults varies with stream size. The shells are described reddish or brown in color.

## Ecology and life history

Shortface lanx are found in unpolluted, cold, well-oxygenated perennial streams and rivers, generally 100 to 325 feet wide, with a cobble-boulder substrate. Within such streams it is found primarily on diatom-covered rocks at the edges of rapids or immediately downstream from rapids in areas that have suitable substrate. These snails have not been found in areas with silt or mud substrates, extreme seasonal variations in water level, an abundance of aquatic plants or algae, bedrock substrate, or where dredging or mining occurs.

Shortface lanx feeds by scraping algae and diatoms from rock surfaces in streams. The species may occasionally feed on other plant surfaces.

*Fisherola* snails are hermaphrodites but do not appear to be self-fertilized, thus mating occurs between two individuals. Eggs are laid from spring to autumn in gelatinous capsules attached to plants, stones, or other objects. They lack a free-swimming larval stage, and hatchlings are morphologically similar to adults, except that they lack a functional reproductive system. Young snails appear to grow rapidly and require only a few months to reach full size.

Individual *F. nuttalli* probably live for only one year, as this species breeds once and dies afterwards (semelparous breeding).

Individuals are present year-round in the streams they inhabit, but they are inactive during the winter.

## Geographic range

This species was historically present throughout much of the Columbia River drainage in Washington, Montana, Oregon, Idaho, and British Columbia, but most populations were extirpated due to habitat loss

resulting from dams, impoundments, water removal, and pollution. This species is now presumed extirpated in Montana and possibly in British Columbia.

Currently in Washington, large populations of the species persist in the Okanogan River and the Hanford Reach of the Columbia River; small populations are found in the Methow and Grand Ronde rivers.

The species also occurs in the lower Deschutes River in Oregon, and the Snake River in Oregon and Idaho. In Idaho, it occurs in the Middle and Upper Snake River reaches from Elmore County, upstream to at least Bingham County. Populations also occur in the Salmon River and Hells Canyon of the Snake River including parts of Nez Perce and Idaho Counties. Additional small populations are found in Oregon in the Grande Ronde, John Day, and Imnaha Rivers, and the lower Columbia River near Bonneville Dam.

For maps of range-wide distribution and conservation status of this species, check out [NatureServe Explorer](#) and the [International Union for Conservation of Nature's Redlist](#).

## Climate vulnerability

## Conservation

This species is identified as a **Species of Greatest Conservation Need** (SGCN) under the [State Wildlife Action Plan \(/species-habitats/at-risk/swap\)](/species-habitats/at-risk/swap) (SWAP). SGCN-classified species include both those with and without legal protection status under the Federal or State Endangered Species programs, as well as game species with low populations. The WDFW SWAP is part of a nationwide effort by all 50 states and five U.S. territories to develop conservation action plans for fish, wildlife and their natural habitats—identifying opportunities for species' recovery before they are imperiled and more limited.

This species is identified as a **Priority Species** under WDFW's [Priority Habitat and Species Program \(/species-habitats/at-risk/phs\)](/species-habitats/at-risk/phs). Priority species require protective measures for their survival due to their population status, sensitivity to habitat alteration, and/or recreational,

commercial, or tribal importance. The PHS program is the agency's main means of sharing fish and wildlife information with local governments, landowners, and others who use it to protect priority habitats for land use planning.

For aquatic snails, limiting factors may include hardness, acidity, dissolved oxygen, salinity, high temperature, and food availability as associated with depth. Snails are uncommon in habitats with surface acidity greater than pH 5. Dissolved oxygen limits diversity, so severely polluted waters (oxygen consumed by algae blooms) are often devoid of freshwater snails excepting pollution-tolerant species. Most species live in the shallows, (depths less than 10 feet) where food abundance is greatest. As a result, drastic water fluctuations (draw-downs) may cause declines in snail populations.

## Conservation Threats and Actions Needed

- Fish and wildlife habitat loss or degradation
  - **Threat:** Pollution and siltation.
  - **Action Needed:** Protect water quality.
- Agriculture and aquaculture side effects
  - **Threat:** Pollution and siltation.
  - **Action Needed:** Develop management recommendations.

See the **Climate vulnerability** section for information about the threats posed by climate change to this species.

## Resources



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### Top tasks

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