



AQUATIC LANDS HABITAT CONSERVATION PLAN — Species Spotlight

Columbia Spotted Frog — *Rana luteiventris*

Protection status: *State candidate in Washington State*

(Possible listing as State Endangered, Threatened, or Sensitive upon further review)

The historic range of the Columbia spotted frog extends from southern Alaska through British Columbia and western Alberta to Washington, Oregon, Nevada, and Utah. In Washington, the species occurs on the eastern side of the Cascade Mountains.

Life history

Columbia spotted frogs range in size from 2 to 4 inches (5 to 10 cm) in length and reach sexual maturity between 2 to 6 years old. Females breed every 1 to 3 years in the spring.



Columbia spotted frog. Photo: Lisa Hallock/ Washington Department of Fish and Wildlife

The species has a maximum life span of 10 to 12 years and lives near permanent water. Clutch sizes range between 150 and 2,400 eggs, with the larvae (tadpoles) emerging within 8 to 21 days. While most tadpoles metamorphose in mid- to late summer, northerly populations or those at higher elevations may metamorphose as late as October or November.

Tadpoles feed on algae and other vegetation, organic debris, and zooplankton, while adult frogs feed on insects, mollusks, crustaceans, and spiders. This frog hibernates during the winter after burrowing into mud at the bottom of ponds and lakes.

Habitat use

Spawning and incubation occur in permanent waters of 4 to 8 inches (10 to 20 cm) deep in most aquatic habitats, and the frogs only use the slow-moving reaches of river habitat. Spawning depends on temperature and generally occurs from March through June, with egg masses deposited as free-floating clusters.

Adult frogs move overland between temporary and permanent water sources, with juveniles moving greater distances than adults. Research indicates that females move up to a half mile (1,030 m) from breeding habitats; males move less than 0.1 miles (200 m), with maximum distances recorded at 3.5 miles (5,750 m).

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Why are Columbia spotted frogs included in the Aquatic Lands HCP?

The Aquatic Lands Habitat Conservation Plan (HCP) addresses 29 species of animals that depend on submerged or intertidal lands for either all or a significant portion of their life history. Specific threats that warrant protection of the Columbia spotted frog include:

- Changes in habitat structure.
- Increase in predation.
- Decline in water and sediment quality.
- Physical harm or harassment from covered activities.

The Aquatic Lands Habitat Conservation Plan

The Washington State Department of Natural Resources (DNR) is the steward of more than 2.6 million acres of state-owned aquatic lands beneath Washington's navigable lakes, rivers, marine waters, and estuaries. DNR sustainably manages these aquatic lands on behalf of the people of the state—to protect fish and wildlife and to provide opportunities for commerce, navigation, and public access.

The increased demand for the use of aquatic lands can be harmful to aquatic habitats and species. To encourage a balanced approach to managing and protecting these lands, DNR is developing an Aquatic Lands **Habitat Conservation Plan** (HCP). The HCP will provide a framework for managing the aquatic lands under DNR's stewardship to ensure the continued health of our state's marine and fresh waters and the species that inhabit them.

Learn more

For more information about DNR's Aquatic Lands HCP and the other species that are covered in the plan, visit: www.dnr.wa.gov/aquaticHCP.

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