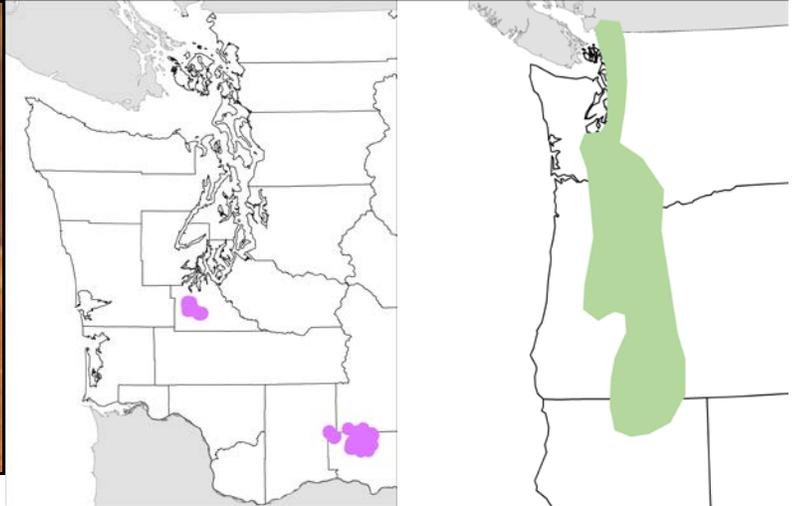


# Species Fact Sheet

## Oregon spotted frog

### *Rana pretiosa*



### **STATUS: CANDIDATE**

Oregon spotted frog potentially occurs in these Washington counties: Thurston, Klickitat, Skamania, Clark, Skagit, Snohomish, King, and Pierce.

*(Map may reflect historical as well as recent sightings)*

The Oregon spotted frog, *Rana pretiosa*, became a candidate for listing under the Endangered Species Act in 1993.

### ***Current and Historical Status***

The Oregon spotted frog may have been lost from at least 90 percent of its former range. Historic data is limited; however this species was documented at 61 sites ranging from British Columbia south to the Pit River drainage in northeastern California. Currently, this species is known to occur at 39 sites ranging from extreme southwestern British Columbia, south through the eastern side of the Puget/Willamette Valley Trough and the Columbia River Gorge in south-central Washington, to the Cascades Range, and the Klamath alley in Oregon. It is believed to have been extirpated from California.

In Washington, Oregon spotted frogs occur within the Black River drainage, Trout Lake Creek, and at Conboy Lake. These populations are isolated from each other and vulnerable to a wide variety of factors that interfere with reproduction or survival. Within the Black River drainage in Thurston County, most of the frogs occur on private lands and land owned by Washington Department of Fish

and Wildlife (WDFW) and the Black River Unit of the [Nisqually NWR](#). The Trout Lake frogs in Skamania and Klickitat Counties occur on private and public lands, including the Washington Department of Natural Resources' [Trout Lake Natural Area Preserve](#) and the Gifford Pinchot National Forest. The frogs at Conboy Lake occur predominately within the [Conboy Lake NWR](#). The remaining portion occurs on privately owned land.

## ***Description and Life History***

The Oregon spotted frog is named for the black spots that cover the head, back, sides, and legs. The dark spots have ragged edges and light centers, which are usually associated with tubercles or raised areas of skin. These spots become larger and darker and the edges become more ragged with age. Body color also varies with age. Juveniles are usually brown or, occasionally, olive green on the back and white or cream with reddish pigments on the underlegs and abdomen. Adults range from brown to reddish brown, but tend to become redder with age; large, presumably older individuals may be brick red over most of the back. Red surface pigments increase on the abdomen with age, and the underlegs become a vivid orange-red. Tan to orange folds along the sides of the back (dorsolateral folds) extend from behind the eye to midway along the back. The eyes are upturned; there is a faint mask, and a light jaw stripe extends to the shoulder. The hind legs are short relative to body length, and the hind feet are fully webbed.

The Oregon spotted frog is a medium-sized frog, ranging from 44 to 105 millimeters (mm) in body length. Females are typically larger (up to 105 mm) than males (up to 75 mm). This species breeds by three years of age. Breeding occurs in February or March at lower elevations and in late May or early June at higher elevations. Females may deposit egg masses at the same location in successive years in shallow, often temporary, pools no more than six inches deep. Eggs usually hatch within three weeks after oviposition. Tadpoles are grazers, having rough tooth rows for scraping plant surfaces and ingesting plant tissue and bacteria. They also consume algae, detritus, and probably carrion. During their first summer, the tadpoles metamorphose into froglets. Post-metamorphic Oregon spotted frogs feed on live animals, primarily insects.

The Oregon spotted frog has a weak call consisting of a rapid series of six to nine low clucking notes described as sounding like a distant woodpecker's tapping. Males will call at any time, both day and night, to attract females. This species rarely vocalizes except during the breeding season; however vocalizations have been heard during the fall in Washington.

## ***Habitat***

*R. pretiosa* inhabits emergent wetland habitats in forested landscapes, although it is not typically found under forest canopy. Historically, this species was also associated with lakes in the prairie landscape of the Puget lowlands. This species is the most aquatic native frog in the Pacific

Northwest. It is almost always found in or near a perennial body of water that includes zones of shallow water and abundant emergent or floating aquatic plants, which the frogs use for basking and escape cover. Oregon spotted frogs seem to prefer fairly large, warm marshes (approximate minimum size of 4 hectares (ha) (9 acres)) that can support a large enough population to persist despite high predation rates and sporadic reproductive failures. However, Oregon spotted frogs also occupy smaller sites and are known to occur at sites as small as 1 ha and as large as 1,989 ha. Large concentrations of Oregon spotted frogs have been found in areas with the following characteristics: (1) the presence of good breeding and overwintering sites connected by year-round water; (2) reliable water levels that maintain depth throughout the period between oviposition and metamorphosis; and (3) the absence of introduced predators, especially warm-water game fish and bullfrogs.

## ***Reasons for Decline***

Many factors are believed to have caused Oregon spotted frogs to decline and continue to threaten this species. These include loss of habitat, non-native plant invasions, and the introduction of exotic predators such as bullfrogs. Conservative estimates for Washington indicate that over 33 percent of wetlands were drained, diked, and filled between pre-settlement times and the 1980s. Changes in hydrology (due to construction of ditches and dams) and water quality, and development continue to result in habitat loss, alteration, and/or fragmentation. Non-native plant invasions by such aggressive species as reed canarygrass, *Phalaris arundinacea*, and succession of plant communities from marsh to meadow also threaten this species' existence. Introductions of bullfrogs and non-native fishes have affected this species directly, by predation, and indirectly, by outcompeting or displacing them from their habitat.

## ***Conservation Efforts***

Protecting Oregon spotted frog populations through maintaining healthy aquatic habitats will continue to be the key objective of land managers.

The Nisqually NWR is in active acquisition status at the Black River Unit. One of the goals of acquiring parcels within this unit is to protect Oregon spotted frog habitat.

Conboy Lake NWR was awarded a grant for wetland restoration work that will improve habitat for Oregon spotted frogs. In addition, in early 2007, an initial agreement was made with a local landowner to swap 110 acres of habitat which will give the refuge improved wetland habitat management capabilities on 600 acres of wetlands utilized by breeding Oregon spotted frogs.

## ***References and Links***

[Listing Status](#)

[Species Assessment](#)

[WA National Heritage Program](#)

[USFWS Threatened and Endangered Species Profile](#)

[Endangered Species Bulletin 2008](#)

[WDFW Reports](#)