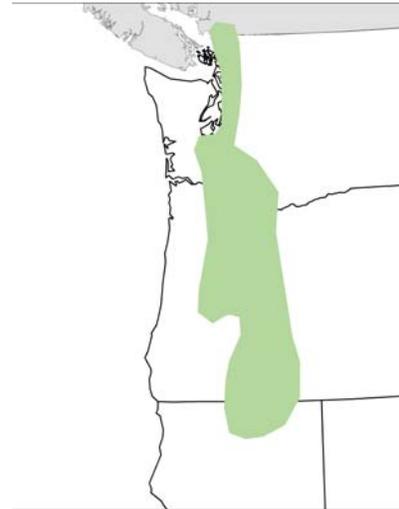


**Species Fact Sheet**  
**Oregon Spotted Frog**  
*Rana pretiosa*  
**STATUS: THREATENED**



**Oregon spotted frog atop egg mass.**  
**Photo Credit: K. McAllister**



**Historical range**

The Oregon spotted frog, *Rana pretiosa*, became Federally listed by the U.S. Fish and Wildlife Service as threatened in August 2014.

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

The Oregon spotted frog may have been lost from as much as 90 percent of its former range. Historic data is limited, however this species was documented in 31 sub-basins ranging from Lower Fraser River in British Columbia south to the Pit River drainage in northeastern California. Currently, this species is known to occur in 15 sub-basins ranging from extreme southwestern British Columbia, south through the eastern side of the Puget Trough and the Columbia River Gorge in south-central Washington, to the east side of the Cascades Range, and the upper Klamath River basin in Oregon. It may be extirpated from the Willamette Valley in Oregon and from California.

The Oregon spotted frog potentially occurs in the following counties. Washington: Whatcom, Skagit, Snohomish, King, Pierce, Thurston, Clark, Klickitat, and Skamania. Oregon: Lane, Wasco, Jackson, Deschutes, and Klamath.

## ***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 varies with age and location. 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 yellow-green 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 1.7 to 4.1 inches (44 to 107 millimeters) in body length. Females are typically larger (up to 4 inches) than males (3 inches). This species breeds by three years of age. Breeding occurs in February or March at lower elevations and between early April and early June at higher elevations. Females deposit egg masses in shallow, often temporary, pools generally no more than six inches deep. Eggs usually hatch within three weeks. 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.

## ***Habitat***

Oregon spotted frogs inhabit emergent wetland habitats. This species is a native frog that is found in or near perennial bodies of water, such as springs, ponds, lakes, riverine oxbows and wetlands, sluggish streams, irrigation canals, or roadside ditches. The species requires shallow water areas for egg and tadpole survival, perennially deep, moderately vegetated pools for adult and juvenile survival in the dry season, and

perennial water for protecting all age classes during cold wet weather. Emergent or floating aquatic plants are used by the frogs for basking and escape cover. Oregon spotted frogs seem to prefer fairly large, warm marshes (approximate minimum size of 9 acres (4 hectares (ha)) 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; they are known to occur at sites as small as 2.5 acres (1 ha) and as large as 4,915 acres (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 egg-laying 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. Habitat necessary to support all life stages is continuing to be impacted and/or destroyed by human activities that result in the loss of wetlands by land conversions; hydrologic changes resulting from operation of existing water diversions/manipulation structures, new and existing residential and road developments, drought, and removal of beavers; changes in water temperature and vegetation structure resulting from reed canarygrass invasions, plant succession, and restoration plantings; and increased sedimentation, increased water temperatures, reduced water quality, and vegetation changes resulting from the timing and intensity of livestock grazing (or in some instances, removal of livestock grazing at locations where it maintains vegetation structure essential for breeding). Introductions of bullfrogs and non-native fishes have affected this species directly, by predation, and indirectly, by outcompeting or displacing them from their habitat. In addition, the extant populations are isolated, with low connectivity and low genetic diversity.

## ***Conservation Opportunities***

In their wetland habitats, Oregon spotted frogs are an integral part of the food web. Tadpoles can keep waterways clean by feeding on plant tissue, bacteria, algae, detritus, and carrion. Adults eat insects, including those that can transmit diseases to livestock. Adults are a food resource for apex predators such as Sandhill cranes, herons, snakes, and river otters. In addition, Oregon spotted frogs have shown a possible resistance to the chytrid fungus (*Batrachochytrium dendrobatidis* (Bd), otherwise known as the “frog plague” which has been implicated in the decline and extinction of numerous amphibian species around the world. The Oregon spotted frog could assist in ongoing research to

understand this fungus. Therefore, protecting Oregon spotted frog populations through maintaining and restoring healthy aquatic habitats is the key objective of conservation efforts. Such efforts may include:

- Restoring natural hydrologic regimes. For example, maintaining or putting beaver back into ecosystems or managing water levels to accommodate life cycle needs.
- Managing invasive vegetation. For example, replacing reed canarygrass with native, emergent wetland vegetation; maintaining height of reed canarygrass to facilitate life cycle needs; or removing trees or shrubs encroaching into egg-laying areas.
- Removing predators, such as nonnative warm-water fish and bullfrogs.

## ***References and Links***

[Washington Herp Atlas](#)

[USFWS Threatened and Endangered Species Profile](#)