Columbia Spotted Frog

Rana luteiventris
Family Ranidae

FWS Status: Candidate
BLM Status: Sensitive (AK, ID, MT, NV, OR, UT, WA)
Global Rank: G4
State Rank: S1 (UT); S2 (AK, OR); S2S3 (NV, WY); S3S4 (ID, WA); S4 (MT)

Distribution: Prior to 1996, the spotted frog was considered to be one species (*Rana pretiosa*) and the Great Basin population, a subspecies (*R. p. luteiventris*). Now considered two distinct species, the Oregon spotted frog (*R. pretiosa*) extends from the Cascade Mountains to the Pacific Coast in Oregon, and the Columbia spotted frog (*R. luteiventris*) from central Oregon to the East. Species accounts are similar for both species until range maps and characteristics of each species are more fully developed. The overall range of the spotted frog extends from southeastern Alaska south through most of British Columbia and the western edge of Alberta; most of Idaho, Washington, and Oregon; western Montana; northwestern Wyoming; and isolated populations in higher elevations of northern

Current range of the Columbia spotted frog

Nevada and Utah. They occur from near sea level to about 10,000 ft. (3,050 m.) in elevation.

Description: Adult spotted frogs are about 3.5 in. (9 cm.) in snout-vent length. Key characteristics include dorsal black spots with "fuzzy" edges; white lip stripe; full webbing between hind toes; somewhat bumpy skin; pointed snout; and upturned eyes. Adult spotted frogs have yellow or red coloration on the underside of legs and belly; however, this coloration is usually lacking in juveniles. The voice is a series (4 to 50) of faint, rapid, low-pitched clicks, lasting up to about 10 seconds. The call may be given above and occasionally under water.

Reproduction: Frogs at lower elevations reach maturity at about two years of age, breed earlier in the year and on a yearly basis, and live about five years. At higher elevations, they mature more slowly, do not breed every year, and live longer. Breeding occurs from February in lower elevations to July in mountain locations. Eggs are laid in softball-sized clutches up to 2,400 eggs. Egg masses float on the surface and many females may deposit their eggs at the same site. Recently hatched tadpoles are black. As they grow, they become brownish green, flecked with gold, have medially located eyes, and the intestines are visible. Tadpoles may become as large as 3 in. (8 cm.) before metamorphosing. Most tadpoles metamorphose their first year, except some may overwinter as larvae at high elevations.

Food: Adults eat a wide variety of insects, mollusks, and arachnids. Larvae eat algae, organic debris, plant tissue, and minute waterborne organisms.

Habits: Spotted frogs are closely associated with water, being dependent on streams, rivers, marshes, springs, pools, and small lakes for overwintering, breeding, and foraging habitat. After breeding, they may move overland a considerable distance from water. Breeding areas are mostly shallow, standing water, springs, or slow moving and backwater portions of rivers and streams. For overwintering in cooler portions of their range, they may congregate in areas where the water does not freeze. Preferred habitat is usually areas with thick algae and emergent vegetation, but may use sunken, dead, or decaying vegetation as escape cover.

Management Implication: The introduced bullfrogs are a major threat to all stages of spotted frogs. Other threats include loss and fragmentation of habitat through factors such as livestock impacts (vegetation removal, trampling, changes in water quality), drought, water diversions, contaminants, and various kinds of developments. Importance of factors such as increased ultraviolet radiation, parasites, or other factors which may be causing world-wide declines in amphibians are still unknown.

Important References: Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. The Peterson Field Guide Series; Houghton Mifflin Company, New York, NY; Csuti, B., A.J. Kimerling, T.A. O'Neil, M.M. Shaughnessy, E.P. Gaines, and M.M.P. Huso. 1997. Atlas of Oregon wildlife. Oregon State University Press, Corvallis, OR; Groves, C.R., B. Butterfield, A. Lippincott, B. Csuti, and J.M. Scott. 1997. Atlas of Idaho's wildlife. Idaho Department of Fish and Game, Boise, ID.