

# Northern Leopard Frog

*Rana pipiens*  
Family Ranidae



**BLM Status:** Sensitive (ID, OR)

**Global Rank:** G5

**State Rank:** S1 (WA); S2 (AZ, CA, OR); S3 (CO, ID, NV, WY); S3S4 (MT); S4 (NM); S4S5 (UT)

**Distribution:** Widely distributed from the Northwest Territories to mid-Arizona and New Mexico and from Nevada to the New England coast in a line northeasterly from southeastern Colorado. Populations along the Snake River drainage in Idaho and the Rocky Mountains in Montana. Isolated populations occurred in Oregon and Washington, and the species has been widely introduced into western states.

**Description:** Adult northern leopard frogs reach up to 4 in. (10 cm.) in snout-vent length. Key characteristics include 12 or 13 dark, oval spots with a light halo between the dorsolateral folds on the back with the two anterior-most spots overlapping the dorsolateral folds. The hind limbs are barred or spotted. General coloration is dark brown to light green on the dorsal surface and white on the belly. The skin is smooth, the hind feet are moderately webbed, and relatively long. Tad-



*Current range of the northern leopard frog*

poles reach up to 3.3 in. (8.5 cm.) total length and have key characteristics of brown or gray dorsal coloration with metallic flecks; light or transparent ventrally; intestines visible; tail fins translucent; and eyes dorsally located. Adult males develop swollen, darkened thumb base and loose skin between the jaw and shoulder during breeding season. Voice is a low "motorboat" or snorelike sound, interspersed with grunting and chuckling, and lasting about one to five seconds. Paired vocal sacs expand over the forelimbs.

**Reproduction:** The frogs gather at breeding ponds in the spring after water temperatures have warmed to about 50 degrees. Up to 6,000 eggs are laid in flattened spheres and usually attached to vegetation in shallow water. Many females may deposit their eggs in the same site. The tadpole stage lasts about two months and they usually emerge by early August. Partly transformed tadpoles with hind legs have been found in September at higher elevations, but these probably do not survive or overwinter in the larval form. Adults reach sexual maturity in two years.

**Food:** Carnivorous adults eat invertebrates such as snails, leeches, spiders, small insects, and vertebrates such as birds, garter snakes, tadpoles, small frogs, and fish. They have been known to be hooked by fishermen using earthworms and small artificial flies. Larvae feed on algae, plant tissue, organic debris, and probably small invertebrates.

**Habits:** Northern leopard frogs are found in or near permanent water in the plains, foothills, and montane zones, with preferred habitats of swampy cattail marshes at lower elevations and beaver ponds at higher elevations. They probably hibernate in the bottoms of streams and ponds during the winter, and may forage far from permanent water during damp weather. When disturbed, they leap rapidly and

erratically. They are preyed upon by garter snakes and bullfrogs.

**Management Implications:** Northern leopard frog populations have decreased in numerous parts of their range. Predation by bullfrogs are probably a factor, and may have caused reductions or extinction of populations in Oregon and Washington. The species has been widely collected for use as biological specimens, but the impacts of this on population viability is 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; Baxter, G.T., and M.D. Stone. 1980. Amphibians and reptiles of Wyoming. Wyoming Game and Fish Department, Cheyenne, WY; 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.