U.S. Fish and Wildlife Service

Sierra Nevada yellow-legged frog
Rana sierrae

CLASSIFICATION
Endangered—April 2014

DESCRIPTION
The Sierra Nevada yellow-legged frog is medium size, measuring about 1.5 to 3.25 inches on average. Females also tend to be slightly larger than males. Adult frogs have a mix of brown and yellow coloring on their upper body, but can also be grey, red, or greenish-brown, usually with dark spots or splotches. These spots can look like lichen or moss, as to give the frog a camouflaged look. Their belly and underside of their back legs, and sometimes all the way up to their front legs, are yellow or light-orange. This gives the frog its name of "yellow-legged."

If disturbed or threatened, these frogs can produce a distinctive mink- or garlic-like odor to ward off predators and other animals. Although these frogs do not have vocal sacks, they can vocalize in or out of water, making what has been described as a flat clicking sound.

The Sierra Nevada yellow-legged frog is very similar to the mountain yellow-legged frog in that they look similar and are found in very similar habitats, but are a genetically different species. One physical difference between them is that, on average, the Sierra Nevada yellow-legged frog has shorter legs. At one time, both frogs were thought to be the same species, the mountain yellow-legged frog, until biologists determined that they were indeed different species.

Typical habitat includes lakes, ponds, marshes, meadows, and streams, at high elevations. They tend to spend the winter at the bottom of frozen lakes, emerging shortly after snowmelt. In years of heavy snow, these frogs may only be active for about three months between snowmelt and the onset of the next winter.

DISTRIBUTION
The Sierra Nevada yellow-legged frog occupies the western Sierra Nevada north of the Monarch Divide (in Fresno County) and the eastern slope of the Sierra Nevada from Inyo County, through Mono County (including the Glass Mountains), to areas north of Lake Tahoe.

At lower elevations within their historical range, these species have been associated with rocky streambeds and wet meadows surrounded by coniferous forest.

At higher elevations, these species occupy lakes, ponds, streams and small steep-banked mountain lakes or pools.

The species uses streams with high gradients and numerous pools, rapids, and small waterfalls, as well as streams with low gradients and slow flows, marshy edges, and sod banks.

Most of these frogs are now found on National Forest and National Park lands.

THREATS
Studies show that populations of Sierra Nevada yellow-legged frog have declined by almost 70 percent. This is due to a variety of possible factors, including a loss of habitat from fish stocking, disease, and effects from climate change.

Threats include habitat degradation and fragmentation, predation and disease, climate change and the interaction of these various stressors impacting small remnant populations. There has been a range-wide reduction in abundance and geographic extent of surviving populations of frogs following decades of fish stocking, habitat fragmentation, and most recently a disease epidemic.

Surviving populations are smaller and more isolated, and recruitment in disease-infested populations is much reduced relative to historic norms.

CRITICAL HABITAT:
Designated—2014

RECOVERY PLAN:
None