

USACE Natural Resource Management Reptiles & Amphibians



Mountain Yellow-legged Frogs

FAST FACTS

REASONS FOR LISTING STATUS: Mountain yellow-legged frogs in the family, *Rana*, consists of two species, the Southern mountain yellow-legged frog and the Sierra Nevada yellow-legged frog. Threats to both species include habitat degradation and fragmentation, predation and disease, climate change, inadequate regulatory protections, and the interaction of these various stressors impacting small remnant populations. Across their range, both species have experienced significant declines in abundance resulting in the U.S. Fish and Wildlife Service granting the frogs the Endangered status under the Endangered Species Act. (USFWS)

MANAGEMENT AND PROTECTION: In July of 2014, the USDA's Forest Service published MOUNTAIN YELLOW-LEGGED FROG CONSERVATION ASSESSMENT for the SIERRA NEVADA MOUNTAINS OF CALIFORNIA, USA: A Collaborative Inter-Agency Project. This document outlined how a conservation strategy for both species of mountain yellow-legged frogs would be developed by multiple federal agencies. Possible conservation actions include management at multiple scales, identifying and managing priority basins, increasing the amount of fishless habitat, investigating the feasibility of translocation, and further research on habitat, disease, and contaminants. (USFS)

HABITAT NEEDS: The mountain yellow-legged frogs while closely related, do not overlap in range. The mountain yellow-legged frog (*R. muscosa*) is found in the San Gabriel, San Bernardino, and San Jacinto Mountains in southern California and in the southern Sierra Nevada, and the Sierra Nevada yellow-legged frog (*R. sierrae*) found in the central and northern Sierra Nevada.

Occupied habitat for both species is similar and includes lakes, ponds, marshes, meadows, and streams at high elevations.

- This species are highly aquatic. Adults are often found sitting along shorelines where there is little to no vegetation.
- Habitat is often void of trout. The impact of introduced trout on mountain yellow-legged is well documented and trout removal is part of recovery efforts.
- Post-metamorphic stages are known to move aquatic sites seasonally and can rapidly colonize unoccupied habitat. (USFS)

Description: Average size of 1.5 to 3.25 inches in length. Females are usually slightly larger than males in both species. *R. muscosa* has slightly longer legs than *R. sierra*. Skin pattern for both species is variable. The upper body is often a mix of brown and yellow, but can also be grey, red, or greenish-brown. The back has dark spots or splotches which may look like lichen or moss to help the species camouflage. The frog's belly, underside of the back legs, and sometimes front legs are yellow or light orange.

Photos: Left: Rick Kuyper of USFWS (*R. sierrae*), Middle: Joel Sartore (*R. muscosa*), Right: USFS Sierra Nevada Amphibian Monitoring Program

*Natural Resource
Management (NRM)*

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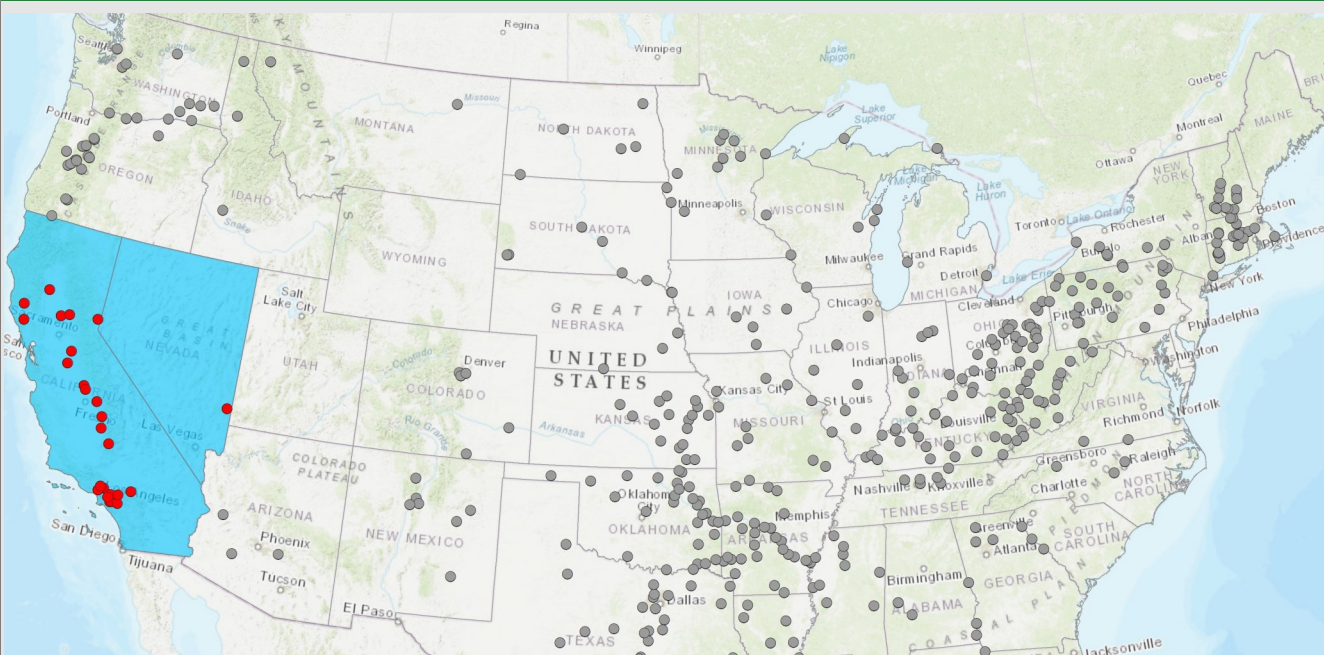


USACE ROLE: With a restricted range, the distribution of both species is contained entirely within the South Pacific Division. In the 2019 Natural Resource Management Assessment it is noted that Martis Creek Lake of Sacramento District has the potential for the Sierra Nevada yellow-legged frog to occur. The Southern mountain yellow-legged frog has rare occurrences at several USACE projects including Haines Canyon Debris Basin, Hansen Dam, Lopez Dam, and the San Antonio Dam. The species is common at the Mojave River Reservoir where a final biological opinion has been issued.

Map, right: The Sierra Nevada yellow-legged frog's range as depicted in U.S. Fish and Wildlife Service's Environmental Conservation Online System. Graphic, right: NatureServe considers the Sierra Nevada yellow-legged frog to be Imperiled.



WHAT IS USACE NRM DOING: While the range of both species only intersects a handful of USACE projects, USACE works to ensure that all current future projects will not negatively impact the species, their habitat, or other special status species. Work is coordinated with the appropriate resource agencies, such as USFWS, to verify that all impacts and outcomes for special status species are considered when undertaking new projects.



Sierra Nevada Yellow-legged Frog

- Project Within State(s) of Occurrence
- Project Outside State(s) of Occurrence
- State(s) With Species Occurrence

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Southern Mountain Yellow-legged Frog

- Project Within State(s) of Occurrence
- Project Outside State(s) of Occurrence
- State(s) With Species Occurrence

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 Source: Map provided by Ashleigh Boss, ORISE Fellowship, Institute for Water Resources