

Foothill Yellow-Legged Frog Species Information

Foothill yellow-legged frog (*Rana boylei*) have a wide geographic range in California (Figure 1). The species is strongly associated with shallow, flowing streams and rivers that have a component of cobble substrate. They occupy habitat ranging from sea level to 5,800'. Breeding and oviposition (egg deposition) occurs in the spring after winter runoff has subsided and tadpoles metamorphose in late summer to fall. Eggs occur in a mass that is typically attached to cobble, boulder, bedrock, or wood substrates in the shallow, slow moving portions of the stream. The primary cause for mortality in eggs is desiccation¹. Eggs and tadpoles prefer stream temperatures higher than those required for salmonids, with tadpoles selecting temperatures between 16.5°C and 22.2°C. Depending on the life stage, the species will occupy riffle, pool, run, or glide habitat. Metamorphosed and adult frogs generally use watercourses for movement, rarely going beyond ten feet from the channel during any time of the year. Adults have been documented as far as 120 feet from the stream.



Figure 1. General distribution of foothill yellow-legged frog in California

Status

In December 2016, the California Fish and Game Commission (Commission) received a petition to list the foothill yellow-legged frog as threatened under the California Endangered Species Act (CESA). On June 21, 2017, the Commission voted to make the species a Candidate under CESA. During CESA candidacy, a species is afforded protections as a listed species and “take²” is prohibited unless authorized by permit per Fish and Game Code (FGC) §2081.1 or by the Commission per FGC §2084.

Considerations for Timber Harvesting Plans

For the purposes of the timber harvesting plan (THP) preparation, the foothill yellow-legged frog should be addressed in the THP. Distribution, presence of potential habitat, and any known detections should be discussed, as well as any potential impacts to the species and their habitat that could result from timber operations along with protection measures to avoid such impacts. The type, location, and timing of timber operations should be taken into consideration when developing avoidance measures. Given the high site fidelity to streams, watercourse and lake protection zone measures may provide adequate protection. The species prefer shallow streams to lay their eggs during spring low flows and desiccation is a concern. Water drafting operations should be conducted in a manner that doesn't dewater streams and maintains flows of sufficient quality and quantity to support foothill yellow-legged frogs. Watercourse crossing construction and reconstruction may also impact the species if they are present during operations. Surveys during appropriate times of year, prior to operations may be warranted.



¹ Desiccation is the process of drying, which for frog eggs and larvae comes from the result of being stranded out of water

² Take – FGC §86 – “Take” means hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill

Information compiled from: California Amphibian and Reptile Species of Special Concern and sources cited therein.

Reference

Thomson, R. C., A. N. Wright and H. B. Shaffer. 2016. [California Amphibian and Reptile Species of Special Concern](#). 390 pp. University of California Press.

Useful Information

[Amphibiaweb](#) for species information

[California Herps](#) for photos

California Wildlife Habitat Relationships System Foothill Yellow-Legged Frog

[Species Account](#)

[Range Map](#)

Fish and Game Commission [Foothill Yellow-Legged Frog CESA Listing Process](#)

[Standardized approach for habitat assessments and visual encounter surveys for the foothill yellow-legged frog \(*Rana boylei*\)](#)

[USDA Foothill yellow-legged frog conservation assessment in California](#)

Please note that there are many other sources of information and current literature on the species and those should be considered when developing mitigation measures to avoid take of foothill yellow-legged frog.