



# YOSEMITE TOAD

Anura

Family: Bufonidae

Genus: *Anaxyrus*

Species: *canorus*



**Range:** endemic to California. High elevations (4,800 - 12,000 ft.) in the Sierra Nevada Mountains

**Habitat:** alpine and subalpine meadows; wet mountain meadows, willow thickets, and the borders of forests, usually not more than a hundred meters from permanent water; frequents moist microhabitats

**Niche:** terrestrial, insectivorous (adults), diurnal with some nocturnal and crepuscular activity during warmer periods

**Wild diet:** invertebrates: beetles; ants; spiders; bees; wasps; flies; and millipedes. Tadpoles feed on bottom detritus, or by filtering suspended plant material and planktonic animals.

**Zoo diet:**

**Life Span:** 15 years

**Sexual dimorphism:** sexually dichromatic and males are smaller than females and have fewer and smaller warts.

**Location in SF Zoo:**

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## APPEARANCE & PHYSICAL ADAPTATIONS:

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The Yosemite toad is a medium-sized toad. Adults are robust and stocky with dry, uniformly warty skin. Paratoid glands are large, flat, and oval and produce a toxin to help protect them from predators. Eyes are closely set with horizontal pupils. They are the most sexually dichromatic anuran in North America, with males and females displaying strikingly divergent patterns and coloration at maturity. Males are smaller and one solid color: pale yellowish green or olive. Females and young are heavily blotched on a light background. Throat and belly is pale on both sexes.

<b>Weight:</b>
<b>Length:</b> 1.2 – 2.8 inch
<b>Width:</b>

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## STATUS & CONSERVATION

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Listed as Endangered on the IUCN Red list. It has been estimated that the Yosemite Toad has disappeared from over 50% of its historic range, even in habitats that still appear to be unaltered. Remaining populations may not be reproducing enough to survive. Threats to the Yosemite toad include habitat degradation, climate change, and the chytrid fungus.

In August, 2016, the U.S. Fish and Wildlife Service announced the designation of 1.8 million acres of protected critical habitat in the Sierra Nevada mountains for *Rana sierrae*, the Sierra Nevada Yellow-legged Frog, the northern population of *Rana muscosa*, the Southern Mountain Yellow-legged Frog, and *Anaxyrus canorus*, the Yosemite Toad. The San Francisco Zoo is involved in raising the Yosemite Toad for release in the wild.

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## COMMUNICATION AND OTHER BEHAVIOR

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Yosemite toads are usually in sunny areas, where basking in sunlight is needed to maintain an optimal body temperature. Like most toads, this one is slow moving, often using a walking or crawling motion along with short hops.

Their prey is located by vision, then the toad lunges while deploying a large sticky tongue to catch the prey. In hotter, drier months they can often be found in moister areas. They use spaces under surface objects, including logs and rocks, for temporary refuge.

During winter, Yosemite toads use burrows of small animals willow thickets, forest edges adjoining meadows, and in clumps of vegetation near water for hibernating.

Males defend small areas around themselves during the breeding period; males will call to advertise their fitness to competing males and to females. The defended space changes as the male toad moves.

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## COURTSHIP AND YOUNG

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Breeding is aquatic; mating and egg-laying takes place from May to July shortly after the snow melts in shallow pools in meadows, the margins of lakes and quiet streams. Fertilization is external, with the male grasping the back of the female and releasing sperm as the female lays her eggs. The adults leave the water and the eggs hatch into tadpoles, which feed in the water and eventually grow four legs, lose their tails and emerge onto land where they disperse into the surrounding territory. Females do not breed every year. Tadpoles metamorphosed in 52 - 63 days.

After breeding, males and females move from the breeding pond into meadows where they feed for 2 - 3 months before the snows return.

Incubation: 10 – 12 days # of young: 1,500-2,000 eggs	Sexual Maturity: F 4-6 yrs M 3 – 5 yrs Weight at birth: Length at birth:
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## MISCELLANEOUS

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The long lifespan of the Yosemite toad is really unusual for a toad. It is thought to be an adaptation to this alpine environment, where growing seasons are so short that to complete its life cycle it really has to be able to survive for a long time. In order to capture optimal conditions for breeding, it may need to wait a long time.

### Sources:

<http://www.californiaherps.com/frogs/pages/a.canorus.html>

<http://www.iucnredlist.org/details/3180/0>

[https://www.fws.gov/sacramento/es\\_species/Accounts/Amphibians-Reptiles/es\\_yosemite-toad.htm](https://www.fws.gov/sacramento/es_species/Accounts/Amphibians-Reptiles/es_yosemite-toad.htm)

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