

California Wildlife Habitat Relationships System
California Department of Fish and Wildlife
California Interagency Wildlife Task Group

LOWLAND LEOPARD FROG
Family: RANIDAE
A052

Lithobates yavapaiensis
Order: ANURA

Class: AMPHIBIA

Written by: CWHR Staff Dec 2018

DISTRIBUTION, ABUNDANCE, AND SEASONALITY

The lowland leopard frog is assumed to be extirpated from California, otherwise extremely rare (Jennings and Hayes, 1994; Clarkson and Rorabaugh, 1989). Historically the frog inhabited San Bernardino, Riverside and Imperial counties, along the Colorado River Valley and Imperial Valley. Preferred habits include aquatic systems with adjacent riparian vegetation (Lannoo 2005). Localities range from near sea level to 1,817 m. (5,961 ft.).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Larval lowland leopard frogs are herbivores, while adults consume a variety of aquatic and terrestrial invertebrates and vertebrates, other anurans and small birds (Stebbins 1951).

Cover: In semi-permanent aquatic habitats, frogs will retreat to into deep mud cracks, mammal burrows or rock fissures (Howland et al. 1997). Utilize deep water or shoreline vegetation to hide from predators (Lannoo 2005).

Reproduction: Lowland leopard frogs are habitat generalists and will breed in both natural and anthropogenic aquatic systems (Lannoo 2005). Eggs are deposited near the surface of the water in masses and attached to submerged vegetation, bedrock, or gravel (Sartorius and Rosen, 2000).

Water: Aquatic habitats are necessary for all life stages. Eggs are less tolerant of brackish water than adults; minimal lethal salinity of eggs of eggs and adults is 5 ppt and 13 ppt, respectively (Ruibal 1959).

Pattern: Optimum habitats are in or near water bodies in desert scrub, grassland, woodland and Pinyon Juniper habitats (Nafis 2018).

SPECIES LIFE HISTORY

Activity Patterns: Little is known of aestivation behavior for this species. The presence of constant warm water permits year-round adult activity and winter breeding (Scott and Jennings 1987).

Seasonal Movements/Migration: Little is known about seasonal migrations; there are cases of frogs moving to other water sources following drying of current habitat (Lannoo 2005).

Home Range: No study of home range has been done.

Territory: Not territorial.

Reproduction: Reproduction is aquatic (Lannoo 2005). Breeding activity occurs following the frogs emergence in spring and continues through summer into fall. Egg masses have been seen January through late April and October. Males attract females by emitting a call consisting of a series of low pulses (Platz and Frost, 1984).

Niche: Studies have shown that juveniles are more frequently associated with smaller pools and marshy areas, while adults tend to prefer larger pools (Seim and Sredl 1994). The frog has been observed throughout its range to cohabitate with other amphibians, such as tiger salamanders and other toads and frogs (Lannoo 2005). They have been noted to be sympatric with other members of the *Rana pipiens* complex (Platz and Frost, 1984). Survivorship of adult and juvenile age classes follow seasonal patterns; high in the spring and summer, low in the fall and winter (Sredl et al. 1997).

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