

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

RIO GRANDE LEOPARD FROG

Lithobates berlandieri

Family: RANIDAE

Order: ANURA

Class: AMPHIBIA

A050

Written by: T. Kucera, 1998

DISTRIBUTION, ABUNDANCE, SEASONALITY

The Rio Grande leopard frog is a relatively recent invader of extreme southeastern California. Platz et al. (1990) described their distribution along the lower Colorado River from the Mexican border to just above Yuma, Arizona, and did not find them in the Imperial Valley. More recently, Jennings and Fuller (in press) and Rorabaugh (pers. comm.) documented *R. berlandieri* in the Imperial Valley south of the Salton Sea, and argue that its range is expanding by dispersal via agricultural ditches and canals, rivers, and by human introductions. Its native range is southwestern Texas and southeastern New Mexico and adjacent Mexico.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Specific information is lacking, but like most ranids, it is probably an opportunistic feeder on a wide variety of aquatic and terrestrial prey (Stebbins 1985). Tadpoles feed by filtering algae and diatoms, and consume some plant material. Adults eat small adult insects and a variety of other invertebrate and some vertebrate prey, including other frogs (Stebbins 1972, Nussbaum et al. 1983).

Cover: Shoreline vegetation, both submerged and emergent, including Typha, Scirpus, and Phragmites, is important, although they have been found in concrete-lined canals with little vegetative cover (Platz et al. 1990).

Reproduction: Not well known, but like other ranids, probably prefers cattail and sedge marshes, weedy ponds, or other water with aquatic vegetation (Nussbaum et al. 1983). Eggs are attached to emergent vegetation, and tadpoles use shallow water near shore.

Water: Highly aquatic. Rarely found far from water. At breeding sites, water must persist long enough to permit development of larvae.

Pattern: Inhabitant of riverine, agricultural, and canal habitats, all created or highly modified by human activities (Rorabaugh, pers. comm.).

SPECIES LIFE HISTORY

Activity Patterns: Not well known, but probably like other ranids. Can be active at all times of day, but more active at night. Probably active all year.

Seasonal Movements/Migration: Not known. Thought to disperse via agricultural canals and along other watercourses (Platz et al. 1990, Rorabaugh pers. comm.).

Home Range: Not known. Probably small, but may make extensive movements during or just after warm rains.

Territory: Not known, but probably like other ranid frogs, males defend territories for sexual display (Martoff 1953, Emlen 1968).

Reproduction: Not known, but probably like other ranid frogs in which breeding and egg-laying may occur from December to June. Eggs hatch within three weeks, and tadpoles metamorphose within two to four months.

Niche: Because *R. berlandieri* is a rather large leopard frog, and because stomach contents often contain small leopard frogs (Platz et al. 1990), its effect on the native *R. yavapaiensis*, which has not been recorded from California since 1965, is uncertain (Jennings and Hayes 1994). Leopard frogs are often preyed upon by garter snakes, wading birds, and nocturnal mammals.

REFERENCES

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