

Chiricahua Leopard Frog

SCIENTIFIC NAME: The Chiricahua leopard frog (*Rana chiricahuensis*) and five other native species in Arizona commonly are called leopard frogs because of leopard-like spots on their backs. *Rana* means “frog” in Latin and *chiricahuensis* refers to the Chiricahua Mountains of southeastern Arizona, where the species originally was discovered.

This frog belongs to a larger group, sometimes referred to as the “leopard frog complex.” Because its members look very similar, the complex has confused taxonomists (biologists who classify plants and animals) for a long time. Since the first leopard frog species was described in 1782, scientists have defined species in the complex based on the ever-changing science and technology available. With widespread use of DNA analysis, relationships within this species complex are becoming clearer. Experts now recognize five native and one nonnative leopard frog species in Arizona.

DESCRIPTION: Like other leopard frogs, the Chiricahua leopard frog has long, powerful legs; webbing on its hind feet; dorsal spots; and two ridges that run down its back. It is distinguished from other leopard

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frogs in the state by a combination of characteristics, including a snore-like mating call, eyes that are high on the head and a salt-and-pepper pattern on the inside thigh.

DISTRIBUTION: Chiricahua leopard frogs live in central Arizona, southeastern Arizona, southwestern New Mexico and northwestern Mexico. These frogs can be found from 3,500–7,900 feet in elevation. Within Arizona, the species’ range

is divided into two parts. The northern part extends from central Arizona east and south along the Mogollon Rim. The southern part is located south of the Gila River in southeastern Arizona.

HABITAT: Chiricahua leopard frogs are restricted to semi-permanent or permanent water sources, including livestock tanks, cienegas, lakes, springs, streams and reservoirs. If multiple water sources are close to each other, frogs can form “metapopulations” (frogs living in habitats connected by dispersal corridors). Frog metapopulations often are more stable than single populations.

BIOLOGY: Chiricahua leopard frogs generally are inactive from November to February and likely will overwinter near breeding sites. From March to October, adults can be active day or night; however, they tend to be more active at night, while juveniles are more active during the day.

During breeding season, adult male frogs attract females with a one- to three-second call made above or below the water’s surface. This mating call resembles a low-pitched, hollow snore.

Chiricahua leopard frogs breed from March through October and lay egg masses from March through August. Spherical egg masses normally are attached to vegetation and can contain up to 1,400 individual eggs. Tadpoles take three to nine months to metamorphose completely into frogs.

Juvenile and adult frogs eat aquatic and terrestrial invertebrates and small vertebrates. Due to differences in digestive physiology and structure, tadpoles mainly

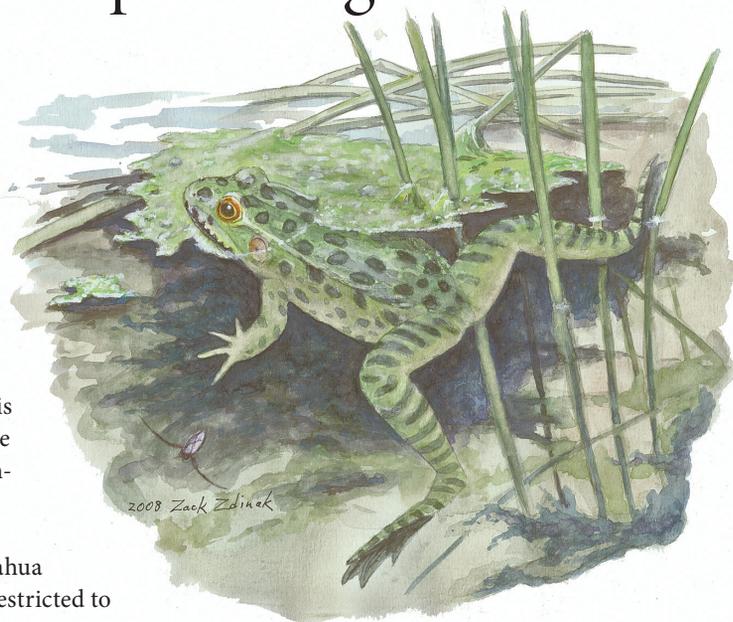


ILLUSTRATION BY ZACKERY ZDINAK

feed on algae, organic matter and plant tissue.

STATUS: Due to population declines starting in the 1970s, the U.S. Fish and Wildlife Service listed the frog as “threatened” under the federal Endangered Species Act in 2002. The recovery plan, finalized in 2007, includes goals and objectives to re-establish populations and ultimately remove this frog from the endangered species list.

These frogs are negatively impacted by the introduction of nonnative species, drought, habitat degradation and disease. In particular, the infectious disease “chytridiomycosis” has affected amphibians worldwide and may be responsible for declines in Chiricahua leopard frog populations.

MANAGEMENT NEEDS: Monitoring and protecting remaining populations of Chiricahua leopard frogs is a conservation priority. Managers work to minimize threats and disease, restore frog habitats and research the conservation biology of amphibians. 🦎

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