

CHIRICAHUA LEOPARD FROGS



Photo by Cecil Schwalbe.

Chiricahua leopard frogs are one of the many federally-listed threatened species that calls Arizona home. Although their numbers have declined dramatically, they are making the leap toward recovery through the hard work of biologists, land-owners, and other interested parties.

Identification

Chiricahua leopard frogs are relatively large and stocky, reaching just over four inches in length. They are green or brown with small, dark spots. Distinction from the other 5–6 leopard frog species that reside in Arizona can be difficult, but a combination of features aids in identification: Adults have a salt-and-pepper pattern on the rear of the thigh, dorsolateral folds that are interrupted and inset toward the rear, and relatively rough skin on their back and sides. Additionally, their eyes are higher and more upturned than other leopard frogs, and they have a more robust appearance. Their call has been described as a “snore” with an unusually fast pulse rate, lasting 1–3 seconds.



Photo by Erik F. Anderson.

Cool Facts

- ◇ Two distinct populations of Chiricahua leopard frogs inhabit Arizona: one in the Mogollon Rim area in central Arizona and another in the southern part of the state. Genetic analyses have indicated that these could be two different species, but additional studies are needed before such a distinction can be made.
- ◇ Until recently, the Ramsey Canyon leopard frog, which inhabits the eastern slope of the Huachuca Mountains in southern Arizona, was listed as a separate species. It has now been subsumed into the Chiricahua leopard frog species.

- ◇ Chiricahua leopard frogs are one of the few frog species that commonly call below water.
- ◇ They are one of the most aquatic species of leopard frogs and are generally restricted to perennial waters. They can move overland and through drainages during summer monsoons.

Threats

Chiricahua leopard frogs once occupied a variety of wetland habitats throughout central Arizona to west-central New Mexico and from southern Arizona down into Mexico. However, they are now primarily restricted to man-made waters, such as stock tanks, and streams and springs that lack introduced predators. The species has been extirpated from over 80 percent of historical U.S. localities, and the remaining populations are small and scattered.

Leopard frogs face three primary threats: habitat loss, introduced species, and disease. As with many species, habitat destruction and degradation is foremost among these concerns, causing direct mortality and also placing additional stresses on leopard frogs. Development, water diversions, groundwater pumping,



Photo by Carroll Spring.

grazing, environmental contamination, and so forth are increasing throughout leopard frog habitat.

Introduced species, which are becoming more abundant throughout Arizona, pose serious danger. Chief among these non-natives are bullfrogs, crayfish, and introduced fishes, some of which eat native species and compete for food.

An introduced fungal skin disease called chytridomycosis is also a significant threat. This fungus is killing frogs, toads, and salamanders around the planet and is responsible for declines of several species in Arizona. The disease causes lethargy, abnormal posture, loss of the righting reflex, and death.

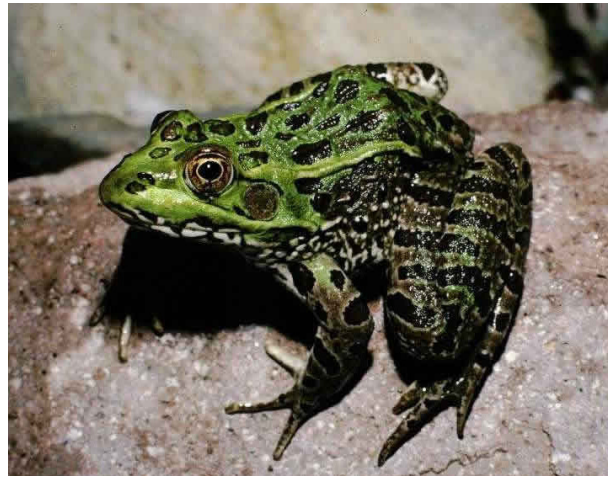


Photo by Jim Rorabaugh, USFWS.

Climate Change

Climate change is affecting amphibians worldwide. With regards to Chiricahua leopard frogs, it is expected to further exacerbate existing threats while adding new dangers.

Climate change is expected to increase drought conditions across the Southwest, which will eliminate already rare habitat. Many of the remaining leopard frog populations occur in small, isolated habitats that are subject to drying during drought.

The frequency and severity of weather events is also expected to change, resulting in more extreme storms, floods, and fires. Even the most stable populations are projected to suffer catastrophic losses from these events.

Additionally, changing temperatures have resulted in earlier breeding in many amphibian species that inhabit mountainous areas. For a species such as the Chiricahua leopard frog, this could subject populations to killing frosts. It may also increase the duration of the larval period, at which time amphibians are most vulnerable.



Photo by Jim Rorabaugh, USFWS.

What's Being Done?

In 2002, the Chiricahua leopard frog was listed as threatened under the Endangered Species Act. A recovery plan was developed with the goal of stabilizing and increasing populations through habitat restoration, releases of captive-bred frogs, and monitoring of wild populations. The first reintroduction in Arizona occurred in 2009 through the cooperation of the U.S. Fish and Wildlife Service, Arizona Game and Fish Department, and private landowners.

Various programs, including those associated with the Endangered Species Act, are aiding in these efforts, including the Safe Harbor Agreement, which helps address recovery on private lands.

Learn More!

U.S. Fish and Wildlife Service

<http://www.fws.gov/southwest/es/arizona/CLF.htm>

Arizona Game and Fish Department

http://www.azgfd.gov/w_c/edits/documents/Ranachir.fi_000.pdf

Climate Change and Amphibians

http://rep3.repository.syr.edu/46/1/Climate_Change_and_Amphibians.pdf

For information on what you can do to help wildlife in Arizona, contact the Grand Canyon Chapter at (602) 253-8633 or grand.canyon.chapter@sierraclub.org.

