

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Animal Abstract**

**Element Code:** AAABH01040

**Data Sensitivity:** No

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Rana blairi*  
**COMMON NAME:** Plains Leopard Frog  
**SYNONYMS:** *Lithobates blairi*, *Rana pipiens* complex  
**FAMILY:** Anura: Ranidae

**AUTHOR, PLACE OF PUBLICATION:** Mecham, et al. 1973. Occasional Papers the Museum Texas Tech University 18:1-18.

**TYPE LOCALITY:** 1.6 km west of New Deal, Lubbock County Texas.

**TYPE SPECIMEN:** Holotype: #131690. University of Michigan Museum of Zoology. Charles Everett, 6 August 1971.

**TAXONOMIC UNIQUENESS:** Large genus, including Old and New World species. *L. blairi* is part of the *L. pipiens* complex from the central United States. No subspecies recognized.

Frost et al. (2006) recognized *Lithobates* (Anura: Ranidae) for all species of North American "*Rana*" not placed in *Rana* sensu stricto. The Raninae revision by Che et al. (2007) also placed this species in *Lithobates*. Although Crother (2008) accepted this change, others expressed a reluctance to accept this taxonomy (Hillis 2007, Wiens et al. 2009). Hillis and Wilcox (2005) provided a phylogenetic taxonomy that retained the species now under *Lithobates* within *Rana*. The nomenclature of North American ranids continued to be debated (Dubois 2007, Pauly et al. 2009, Frost et al. 2009), without resolution. Fouquette and Dubois (2014) suggested *Lithobates* be considered a subgenus of *Rana*, and Yuan et al (2016) suggested returning *Lithobates* to *Rana*. Crother (2017) suggested the best course of action was to hold this taxonomic change in abeyance and retained the use of *Lithobates*, as does Frost (2021). Holycross et al. (2022a, 2022b) and Arizona Game and Fish Department (2022) follow Yuan et al. (2016), using *Rana*, so HDMS uses *Rana* for the genus.

**DESCRIPTION:** Stocky frog; males smaller than females with the mean SVL in males 64.4 mm (2.5 in), in females 75.5 mm (3 in). Generally pale-colored; light buffy brown to dull green above with brown to olive-green dorsal spots that lack or have very narrow pale borders. Dorsal spots are often arranged in loosely defined longitudinal rows. Whitish stripe on upper lip. White below, sometimes with some fine dark stippling or mottling on throat. Some yellow may be present in groin, on lower abdomen and at base of thighs. Usually a well-defined pale spot in center of eardrum. Dorsolateral folds not continuous (Stebbins

1985), and angled inward toward the rear. Area around the cloaca is covered with tubercles. Part of a third row of upper labial teeth, are present in about half of all large specimens. This row consists of 1-3 labial teeth on either or both side of the beak. There are three lower rows of labial teeth. The lower papillae are usually unpigmented, relatively small, and densely packed lateral to the beak. (Degenhardt et al. 1996). The iris is medium-gold in color and lacks dorsal or ventral dark spots (Scott and Jennings 1985 in Degenhardt et al. 1996).

**AIDS TO IDENTIFICATION:** *L. blairi* can be distinguished from *R. pipiens* by its discontinuous dorsolateral folds, the reticulated thigh pattern, and halos surrounding the dorsal spots that are absent or very faint. *L. blairi* can be distinguished from *R. yavapaiensis* by the presence of spots on the nose anterior to the eyes, the presence of a spot on the tympanum, and a complete supralabial stripe. (Degenhardt et al. 1996).

**ILLUSTRATIONS:**

Color drawing (Stebbins 1985: plate 15)  
Color photos (Behler and King, 1979: plates 197, 202)  
Color photos (Brennan and Holycross 2006: p. 43)  
Color photo (Degenhardt et al. 1996: plate 22)  
Color photos (Holycross et al. 2022a: p. 47)

**TOTAL RANGE:** Western Indiana west across central and southern plains to eastern Colorado and New Mexico and southern Texas (Brown 1992; Crawford et al. 2005); isolated and disjunct population in southeast Arizona - the next nearest known populations are about 200 miles east in the Rio Grande valley (Rorabaugh 2023).

**RANGE WITHIN ARIZONA:** Isolated population in southeastern Arizona; western side of Chiricahua Mountains (Turkey Creek, etc.) and adjoining Sulphur Springs Valley.

**SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** Primarily a nocturnal frog, although it can be found foraging along the water's edge on cloudy days. Frequents prairie pools, ponds, and streams (including temporary water sources) where water is muddy and shallow at times. Plains Leopard Frog is more drought-resistant than the Northern Leopard Frog. They burrow into mud and leaves of pond and stream bottoms during winter. The voice consists of 2 or 3 guttural notes a second; almost a chuckle. When caught by predators, it issues a loud explosive distress call.

**REPRODUCTION:** They move from wintering sites to breeding sites in spring. Breeds February through October (Crawford et al. 2005). Lays clutch of up to a few thousand eggs that are attached to vegetation in shallow still water (Crawford et al. 2005). Clutches are often laid after heavy rains. Eggs are light gray in color. Hatching occurs in 5-20 days

**FOOD HABITS:** Arthropods and other invertebrates.

**HABITAT:** Found mainly around streams, ponds, creek pools, reservoirs, marches or irrigation ditches in prairie and desert grasslands, but also can be found in oak and oak-pine woodland and farmland. Can range into terrestrial habitat near water during wet weather. Often bask on vegetation mats at water's edge.

**ELEVATION:** Generally 4,060 – 5,880 ft. (1,238 – 1,792 m) in AZ; 350 - 8,500 ft. (107 – 2,593 m) rangewide.

**PLANT COMMUNITY:** Desert grassland, also oak to oak-pine woodlands

**POPULATION TRENDS:** Populations have declined with some local extirpations, particularly in the western United States (Crawford et al. 2005).

### **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None

**STATE STATUS:** 1 (AZGFD, AWCS 2022)  
[1A (AGFD SWAP 2012)]  
[WSC (AGFD, WSCA 1996 in prep.)]  
[Endangered (AGFD, TNW 1988)]

**OTHER STATUS:** Not Forest Service Sensitive (USDA, FS Region 3 2013)  
[Forest Service Sensitive (USDA, FS Region 3 2007)]  
[Not Forest Service Sensitive (USDA, FS Region 3 1999)]  
[Forest Service Sensitive USDA, FS Region 3 1988]  
Bureau of Land Management Sensitive as *Lithobates* (USDI, BLM AZ 2010, 2017)  
[Not Bureau of Land Management Sensitive (USDI, BLM AZ 2008)]  
LC (IUCN SSC Amphibian Specialist Group 2022)

**MANAGEMENT FACTORS:**

**PROTECTIVE MEASURES TAKEN:** Arizona fishing license required for taking any amphibian.

**SUGGESTED PROJECTS:** Distribution, habitat, population and life history studies.

**LAND MANAGEMENT/OWNERSHIP:** FWS – San Bernardino National Wildlife Refuge; State Land Department; AGFD – White Water Draw Wildlife Area; Private.

## **SOURCES OF FURTHER INFORMATION**

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**ADDITIONAL INFORMATION:**

Coexists with the Chiricahua Leopard Frog at Turkey Creek and elsewhere.  
 Known to hybridize with other *Rana* in overlapping ranges in Texas.

**Revised:** 1992-11-06 (SSS)  
 1995-07-18 (MJS)  
 1997-04-04 (SMS)  
 2002-11-20 (RHB)  
 2002-11-27 (SMS)  
 2013-11-08 (BDT)  
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