

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

Animal Abstract

Element Code: AABH01040

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Rana blairi*
COMMON NAME: Plains Leopard Frog
SYNONYMS: *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. *R. blairi* part of the *R. pipiens* complex from the central United States. No subspecies recognized.

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, Painter and Price, 1996). The iris is medium-gold in color and lacks dorsal or ventral dark spots (Scott and Jennings, 1985 in Degenhardt, Painter and Price, 1996).

AIDS TO IDENTIFICATION: *Rana 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. *Rana 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, Painter and Price, 1996).

ILLUSTRATIONS: Color drawing (Stebbins 1985: plate 15)
Color photos (Behler and King, 1979: plates 197, 202)
Color photo (Degenhardt, Painter and Price, 1996: plate 22)

TOTAL RANGE: Western Indiana west across central and southern plains to eastern Colorado and New Mexico and southern Texas; isolated population in southeast Arizona.

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 burrows 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 March through October. Lays clutch of up to a few thousand eggs, that are attached to vegetation in shallow still water. 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. (1238-1792 m) in AZ; 350 - 8,500 ft. (107 - 2,593 m) rangewide.

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

POPULATION TRENDS:

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:

STATE STATUS: WSC (AGFD, WSCA in prep.)

OTHER STATUS:

[State Endangered AGFD, TNW 1988]
None (USDA, FS Region 3 1999)
[Forest Service Sensitive USDA, FS Region 3
1988]

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

LITERATURE CITATIONS:

- Arizona Game and Fish Department. 1988. Threatened Native Wildlife in Arizona. p. 9.
- Arizona Game and Fish Department. In prep. Wildlife of special concern in Arizona. Arizona Game and Fish Department Publication. Phoenix, Arizona. 32 pp.
- Behler, J.L. and F.W. King. 1979, reprint 1992. The Audubon Society Field Guide to North American Reptiles and Amphibians. Alfred A. Knopf, New York. P. 370.
- BISON-M, Biota Information System of New Mexico, web site.
<http://nrmhp.unm.edu/bisonm/bisonquery.php>.
- Degenhardt, W.G., C.W. Painter and A.H. Price. 1996. Amphibians and Reptiles of New Mexico. University of New Mexico Press, Albuquerque, NM. Pp. 81-82.
- Frost, J.S. and J.T. Bagnara. 1977. Sympatry between *Rana blairi* and the southern form of leopard frog in southeastern Arizona (Anura: Ranidae). The Southwestern Naturalist 22(4):443-453.
- Mecham, J.S. et al. 1973. A new species of leopard frog (*Rana pipiens* complex) from the plains of the central United States. Occasional Papers the Museum Texas Tech University. 18:1-11.
- NatureServe Explorer: An online encyclopedia of life [web application]. 2001. Version 1.6. Arlington, Virginia, USA: NatureServe. Available: <http://natureserve.org/explorer>. (Accessed: November 20, 2002).
- Stebbins, R.C. 1985. A field guide to western reptiles and amphibians. Second edition, revised. Houghton Mifflin Company, Boston. p. 90.
- University of Michigan, Animal diversity web site,
([http://animaldiversity.umms.umich.edu/accounts/rana/r._blairi\\$narrative.html](http://animaldiversity.umms.umich.edu/accounts/rana/r._blairi$narrative.html)).
- USDA, Forest Service Region 3. 1988. Regional Forester's Sensitive Species List.
- USDA, Forest Service Region 3. 1999. Regional Forester's Sensitive Species List.

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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)
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