

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

Animal Abstract

Element Code: AAABC05070

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Pseudacris triseriata* Stejneger and Barbour

COMMON NAME: Western chorus frog, Midland chorus frog, Chorus frog, Swamp tree toad, Swamp tree frog, Swamp cricket frog

SYNONYMS: *Hyla triseriata* Wied-Neuwied, *Pseudacris nigrita triseriata*, *Chorophilus triseriatus*, *Chorophilus nigrinus triseriatus*

FAMILY: Salientia: Hylidae

AUTHOR, PLACE OF PUBLICATION: *Pseudacris triseriata* Stejneger and Barbour, N. Am. Amph. Rept. p 31. 1917. *Hyla triseriata* Wied-Neuwied, Reise Nord-Amer. Vol. 1, Pt. 4, p. 249. 1838.

TYPE LOCALITY: Mount Vernon, Ohio River, Posey County, Indiana, U.S.A.

TYPE SPECIMEN: Current location unknown, originally in Wied private collection.

TAXONOMIC UNIQUENESS: Species *triseriata* is 1 of 14 species in the genus *Pseudacris* worldwide, all of which are found in North America, and 1 of 2 species found in Arizona. The other species of *Pseudacris* in Arizona is *P. regilla* (Pacific Treefrog). Four subspecies of *P. triseriata* occur, but only *P. t. triseriata* occurs in Arizona. Some evidence suggests that the subspecies may actually constitute separate species, however, the distributional relationships are not well understood and more research is required to clarify the taxonomy of the group (NatureServe 2005).

DESCRIPTION: A slim frog with no toe-pads and very little webbing. Size 0.75 - 1.5 in (1.9-4 cm) SVL. Coloration above is generally gray to brown, but is variable. Eyestripe extends to groin. There are generally three dark stripes that run along the back, but they may be broken, spots, or absent altogether. A white stripe is usually present on the upper jaw. Males of the species are generally smaller than the females, and have a greenish yellow to dark olive throat, with lengthwise folds of loose skin. The larvae are black-gray to olive above and silver with a copper sheen below. They also have a high arched dorsal fin that generally lacks or has little pigmentation.

AIDS TO IDENTIFICATION: The three stripes along the back, a lack of toe pads, and an eye stripe that extends to the groin help to distinguish the western chorus frog from the other frog species in Arizona.

ILLUSTRATIONS: Color drawing (Stebbins 1966: plate 13)
 Color drawing (Stebbins 1985: plate 16)
 Color photo (Behler 1979: plate 179)
 Color photo (Degenhardt et al. 1996: plate 19)
 Color photo (Mike Redmer *In*
http://www.inhs.uiuc.edu/cbd/herpdist/species/ps_triseri.html)
 Color photo (Randy Babb *In*
<http://www.reptilesfaz.com/Graphics/Turtle-Amphibs-Subpages/h-p-triseriata.html>)
 Color photos and drawing (*In*

Color photos (LeClere *in*
http://www.herpnet.net/Iowa-Herpetology/amphibians/frogs_toads/chorusFrog.html)
 Color photo (Suzanne Collins and Joseph Collins *In*
<http://www.enature.com/fieldguides/detail.asp?recnum=AR0155>)
 Color photos and call (*In*
http://www.cmnh.org/site/ResearchandCollections_VertebrateZoology_Research_Treefrogs_WesternChorus.aspx)

TOTAL RANGE: Great Bear Lake in Northwest Canada south to Gulf of Mexico; New Jersey to central Arizona and eastern border of Great Basin. Populations in Arizona and New Mexico are disjunct from the rest of the range.

RANGE WITHIN ARIZONA: Central Arizona east along Mogollon Rim area to New Mexico, as well as the extreme northeastern portion of the state.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: Has adapted well to human habitation. Occurs on farms and cities except in areas where pesticides are used heavily. Choruses occur night and day during the breeding season. The call is a rasping, rising trill lasting 1-2 seconds, and is very similar to the sound of running one's finger down the small teeth of a comb. This species is capable of withstanding freezing temperatures due to the presence of cyroprotectants in the blood (Zug 1993). Individuals average a lifespan of approximately 5 years in the wild (Animal Diversity). At the slightest threat, they disappear beneath the water surface. Populations may include only a few dozen adults or as many as tens of thousands of individuals.

REPRODUCTION: Breeds November through July in shallow temporary pools in the open but also uses deep, more permanent water in dense woods. Breeding occurs earlier in lower elevation populations and later in higher elevation populations, however populations at higher elevations have been shown to have larger ovum and more rapid development (Duellman and Trueb 1986). Amplexus results in the female laying 500-1,500 eggs in several clusters of about 7-300 eggs per cluster, onto submerged vegetation in clear quiet water. Adults are capable of breeding when less than one year of age (Duellman and Trueb 1986). An individual may lay two clutches of eggs in one breeding season (Degenhardt et al. 1996).
http://www.cmnh.org/site/ResearchandCollections_VertebrateZoology_Research_Treefrogs_WesternChorus.aspx

Tadpoles generally metamorphose at a size of approximately 13-15 mm (0.5 in-0.6 in) SVL (Degenhardt et al. 1996). They usually stay within 100m of breeding pool.

FOOD HABITS: Adults eat arthropods, particularly flies, springtails, spiders, beetles, and mites. Larvae eat suspended matter, organic debris, algae and plant tissue (NatureServe 2005).

HABITAT: Terrestrial, that is rarely seen outside of the breeding season. Occurs in high grasslands and forests of central plateau area of Arizona. Typically found on the ground, in low shrubs or in the grass near breeding sites. Frequents meadows, lake margins and generally marshy areas.

ELEVATION: In Arizona, from 6,300 – 8,290 ft (1920-2527 m). Near sea level to above 12,000 feet (3,670 m) in Uintah Mountains, Utah.

PLANT COMMUNITY:

POPULATION TRENDS: According to NatureServe (2005), the total global adult population size is unknown but surely exceeds 100,000. It is likely relatively stable in extent of occurrence, with probably less than 25% decline in population size, area of occurrence, and number/condition of occurrences. Has increased in some areas as a result of human augmented availability of breeding habitat. Most populations are unthreatened but for localized populations some threats could be substantial.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: None
OTHER STATUS: None

MANAGEMENT FACTORS: Pesticides can be a factor for this species.

PROTECTIVE MEASURES TAKEN: Arizona fishing license required to take any amphibian.

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

LAND MANAGEMENT/OWNERSHIP: USFS - Coconino and Kaibab National Forests; AGFD Region II Office; State Land Department; Private.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

- Amphibians of Canada. Western Chorus Frog. Accessed: 2005.
http://collections.ic.gc.ca/amphibians/taxa/species/pseudacris_triseriata.html.
- An Introduction to the Natural History of the Frogs and Toads of Ohio. Western chorus frog *Pseudacris triseriata*. http://www.cmnh.org/site/ResearchandCollections_VertebrateZoology_Research_Treefrogs_WesternChorus.aspx.
Accessed 2005.
- ARMI. National Atlas for Amphibian Distributions. 2004. Western Chorus Frog. Accessed 2005. <http://www.pwrc.usgs.gov/armiatlas/species.cfm?recordID=173525>.
- Babb, R. *In* <http://www.reptilesfaz.com/Graphics/Turtle-Amphibs-Subpages/h-p-triseriata.html>
- Behler, J.L. and F.W. King. 1979. The Audubon Society field guide to North American reptiles and amphibians. Alfred A. Knopf. New York. Pp. 415-416.
- Brennan, T. Arizona PARC. Reptiles and Amphibians of Arizona: Western Chorus Frog – *Pseudacris triseriata*. <http://www.reptilesfaz.com/Turtle-Amphibs-Subpages/h-p-triseriata.html>. Accessed 2005.
-
- Collins, S. and J. Collins. *In* <http://www.enature.com/fieldguides/detail.asp?recnum=AR0155>
- Conant, R. 1975. A field guide to western reptiles and amphibians. Houghton Mifflin Company. Boston, Massachusetts. Pp. 327-328.
- Degenhardt, W.G., C.W. Painter and A.H. Price. 1996. Amphibians and Reptiles of New Mexico. University of New Mexico Press. Albuquerque, New Mexico. Pp. 71-72.
- Duellman, W.E. and L. Trueb. 1986. Biology of Amphibians. The Johns Hopkins University Press. Baltimore, Maryland. Pp. 21, 31, 37, 51-52, 71, 83-84, 104, 164, 211, 213, 230, 273, 278.
- ENature. Web Abstract: Western Chorus Frog. National Wildlife Federation. Accessed 2005. <http://www.enature.com/fieldguides/detail.asp?recnum=AR0155>.
- Frost, D. American Museum of Natural History. Amphibian Species of the World 3.0, an Online Reference. Accessed 2005.
<http://research.amnh.org/herpetology/amphibia/references.php?id=5278>.
- Gardiner, K. 2000. "*Pseudacris triseriata*" (On-line), Animal Diversity Web. Accessed 2005. http://animaldiversity.ummz.umich.edu/site/accounts/information/Pseudacris_triseriata.html.
- INHS Amphibian and Reptile Collection. 2004. Illinois Natural History Survey. *Pseudacris triseriata*. http://www.inhs.uiuc.edu/cbd/herpdist/species/ps_triseri.html.
- LeClere, J. Iowa Herpetology: Western Chorus Frog. Accessed 2005.
http://www.herpNet.net/Iowa-Herpetology/amphibians/frogs_toads/chorusFrog.html.
- Lowe, C.H. 1964. The vertebrates of Arizona. University of Arizona Press. Tucson, Arizona. p. 157.
- Mierzwa, K. 2003. Chicago Region Amphibians: Western Chorus Frog.
<http://kmier.net/ecology/chorus.html>.
- Monday, D.C. and R. Doblek. 1999. Arizona Wildlife Views Special Edition. Arizona Game and Fish Department Publication. Phoenix, Arizona. Pp. 120.

- NatureServe. 2005. NatureServe Explorer: An online encyclopedia of life [web application]. Version 4.4. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: June 17, 2005).
- Redmer, M. In http://www.inhs.uiuc.edu/cbd/herpdist/species/ps_triseri.html
- Smith, H.M. 1978. Amphibians of North America. Golden Press. New York. p. 52.
- Stebbins, R.C. 1951. Amphibians of western North America. University of California Press. Berkeley, California. Pp. 305-313, 503.
- Stebbins, R.C. 1954. Amphibians and reptiles of western North America. McGraw-Hill Book Company, Inc. New York. Pp. 119-120, 146-147.
- Stebbins, R.C. 1966. A field guide to western reptiles and amphibians. Houghton Mifflin Company. Boston, Massachusetts. P. 66.
- Stebbins, R.C. 1985. Western reptiles and Amphibians. Houghton Mifflin Company. Boston, Massachusetts. P. 78.
- Stebbins, R.C. 2003. A field guide to western reptiles and amphibians. Third edition, revised. Houghton Mifflin Company. Boston, Massachusetts. Pp. 219-220, 442-443, 458, 477.
- Stejneger and Barbour. 1917. N. Am. Amph. Rept. p 31.
- Wied. 1838. Reise Nord-Amer., Vol. 1, Pt. 4, p. 249.
- Wright, A.H. and A.A. Wright. 1949. Handbook of frogs and toads. Comstock Publishing Associates. Ithaca, New York. Pp. 253-258.
- Zug, G.R. 1993. Herpetology: An Introductory Biology of Amphibians and Reptiles. Academic Press. New York. Pp. 253-254, 279, 285.

MAJOR KNOWLEDGEABLE INDIVIDUALS:**ADDITIONAL INFORMATION:**

Revised: 1993-07-19 (LAJ)
2005-07-29 (PCY)

To the user of this abstract: you may use the entire abstract or any part of it. We do request, however, that if you make use of this abstract in plans, reports, publications, etc. that you credit the Arizona Game and Fish Department. Please use the following citation:

Arizona Game and Fish Department. 20XX (= **year of last revision as indicated at end of abstract**). X...X (= **taxon of animal or plant**). Unpublished abstract compiled and edited by the Heritage Data Management System, Arizona Game and Fish Department, Phoenix, AZ. X pp.