

## You Can Make a Difference!

Texas Amphibian Watch offers you the chance to help conserve amphibians in Texas and to learn more about the amphibians around you. Volunteers play an important role in being our eyes and ears in Texas. You can get involved by:

**Being an Amphibian Spotter** – watching for amphibians wherever you go.

**Adopting a Frog Pond** – picking a site that you will visit over time to watch (and listen) for changes in populations.

**Malformation Monitoring** – examining frogs and toads at your site to look for any abnormalities.

**Conducting a Texas Frog and Toad Survey** – you will establish listening stops on a roadside route that is part of a national monitoring system.

## Where to Learn More

[www.tpwd.state.tx.us/amphibians/](http://www.tpwd.state.tx.us/amphibians/)  
The TPWD Web site provides information and monitoring materials needed for Texas Amphibian Watch.

[www.zo.utexas.edu/research/txherps](http://www.zo.utexas.edu/research/txherps)  
This site, provided by the University of Texas, provides descriptions and pictures of all amphibians and reptiles in the state. It also has recordings of calls for most of the frogs and toads.

## Resources: How to Get Started

**Monitoring Packet** – A free monitoring packet, with complete instructions, is available from TPWD.

**Frog Call CD** – A CD of the calls of Texas frogs and toads, TAW Guide to the Calls of Frogs and Toads in Texas, is available for \$5. Make check payable to TPWD Nongame Fund.

**Training Workshops** – Texas Amphibian Watch offers several workshops throughout the state each year to help to better familiarize you with local amphibians.

**Educator Materials** – TPWD has several free resources designed to teach elementary and secondary school children about amphibians and amphibian monitoring.

## Contact Information

For more information about Texas Amphibian Watch, please contact:

(800) 792-1112 ext. 8062

Texas Parks and Wildlife Department  
4200 Smith School Road  
Austin, TX 78744

[amphibians@tpwd.state.tx.us](mailto:amphibians@tpwd.state.tx.us)

[www.tpwd.state.tx.us/amphibians/](http://www.tpwd.state.tx.us/amphibians/)

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Texas Amphibian Watch  
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Bullfrogs



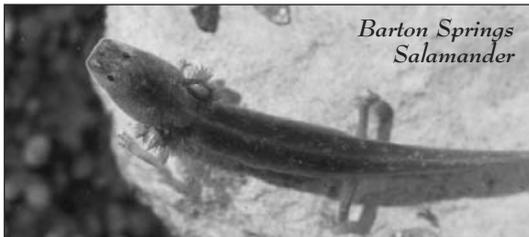
## What is an Amphibian?

Wart-covered, cold-blooded, slimy – these stereotypes don't pay fair tribute to this amazing group of animals. Amphibians, one of the five classes of vertebrates, show an amazing variety of forms and lifestyles developed as they pioneered life on land. The approximately 4,600 species in the world today can be divided into three groups:

- Anura: the frogs and toads
- Caudata: the salamanders
- Gymnophonia: the caecilians

Texas has an interesting array of about 30 species of salamanders and over 40 anurans, ranging in diversity from the colorless cave-dwelling Texas Blind Salamander to the plate-sized Marine Toad of South Texas to the eel-like Amphiuma of East Texas streams. Diversity in Texas is especially high due to the rich aquatic habitats in East Texas, the unique spring-fed ecosystems of the Texas Hill Country, the presence of subtropical habitats and species in South Texas and the isolated wetland habitats of West Texas.

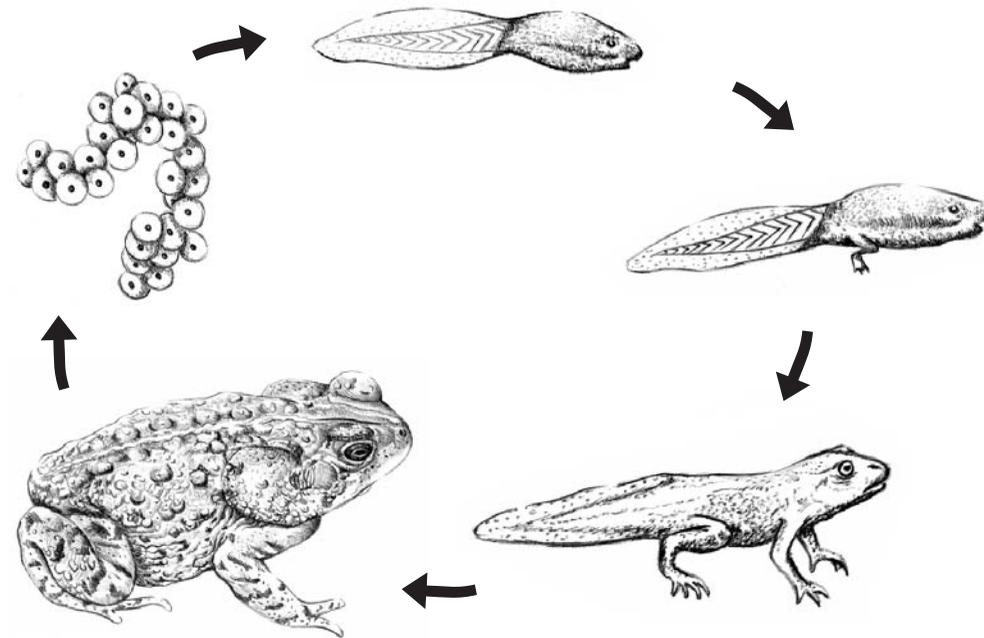
Barton Springs Salamander



## A Life Linked to Water

- The term “amphibian” means “two lives,” describing a life on both land and water.
- All amphibian species require water or moist habitats in which to lay their eggs and raise their young.
- Even after metamorphosis, land-dwelling amphibians utilize moisture to obtain some of their oxygen through their semi-permeable skin.
- Some salamanders remain aquatic throughout their life, using gills to breathe.
- Many amphibian species are sensitive to water quality changes, and may serve as indicators of water quality issues.

### Toad Metamorphosis



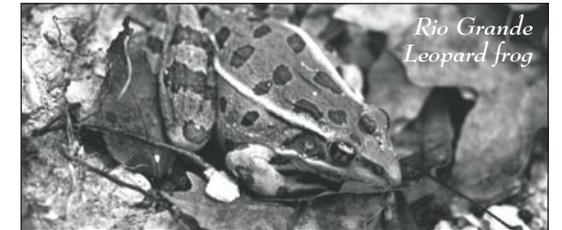
Frog and toad species undergo “metamorphosis,” or a change in form, as they develop. In most species, the larvae or tadpoles are aquatic, using gills to breathe, while the adults are terrestrial and use lungs to breathe.

## Where Have all the Frogs Gone?

At an international conference in 1989, scientists from all over the world became alarmed at what appeared to be dramatic declines in some amphibian populations. Then, in 1995, a group of school children in Minnesota were the first to call attention to an alarming rate of malformations in some frog populations. Research since that time has proposed that about one third of the amphibian species on earth are declining, apparently due to a variety of interacting causes, including:

- Habitat destruction
- Habitat modification due to climate shifts
- Increases in UV radiation
- Aquatic contaminants such as pesticides and pharmaceuticals
- Increases in parasites and disease, perhaps as a results of habitat changes

Rio Grande Leopard frog



## Why Watch Amphibians?

With their links to aquatic and terrestrial habitats and their semi-permeable skin, amphibians may serve as an important barometer of the health of environments we all share. Global declines have led to global calls for a better understanding of changes in amphibian populations. Through Texas Amphibian Watch, Texans can play a part in ensuring that amphibian populations in Texas are healthy, while learning more about these interesting animals!