Mexican Burrowing Toad

by Jim Seeden

Several years ago, when I chaired the Rio Grande City Parks Commission, I became known as the toad man, because of my persistent efforts to protect the known local habitats of the Mexican burrowing toad. In the U.S., they're probably only to be found in Starr County. Texas lists them as a threatened species and they're fully protected by law.

The Mexican burrowing toad is a genetically isolated species! It has no close relatives. Its scientific name is ***Rhinophrynus dorsalis,*** and it's so distinctive that it's the only species in its genus and, remarkably, it's the only genus in the family ***Rhinophrynidae.*** How's that for being distinctive!

Research has revealed that its evolutionary path diverged from other amphibians and has proceeded independently for at least 190 million years. I quote a statement from edgeofexistence.org found on the internet, "A fruit bat, polar bear, killer whale, kangaroo and human are all more similar to one another than this species is to any other amphibian." **Wow!**

So, how is it different from other toads? Unlike the others, its tongue is attached in the back of the mouth, not the front. When threatened, it puffs up like a balloon. It also puffs up to produce its mating call of, "whoooaa." It sounds like a farmer trying to stop his horse or mule team. After mating, females can lay up to 8,000 eggs or more at a time. The head, with smallish eyes, is cone shaped and lacks any sign of a neck. Its hind legs have horny, shovel-like edges useful in digging into loose, friable soil. Its tadpoles have eleven barbels, like short whiskers surrounding their mouth that others don't.

These toads are fossorial, which means that they spend most of their time burrowing underground in search of food. Their diet consists primarily of termites, some ants and occasional other insects. The only time you might see and hear them is after a big rain when they come topside to mate.

If you are fortunate enough to see one, it's easy to recognize. About 3 to 3 and 1/2 inches long, it has a very distinct red-orange stripe down the middle of the back. Darkly blotched, there may be some speckles of red-orange. If you gently pick it up (no you won't get warts) and take a close look, you'll see that the belly is bluish-gray.

Finally, and also truly amazing, the Mexican burrowing toad can aestivate during long, dry periods. Aestivation is an extreme form of hibernation. The toad goes underground, its metabolic rate drops to near death, it covers itself with a sealant to conserve moisture and waits. One research study noted the date on which some burrowing toads were observed. That date was followed by a drought period which lasted nearly ten years. When the drought broke coincided with the next sighting of the toads. They apparently waited ten years for the next big rain! There are other studies using captive toads which have determined, with certainty, that burrowing toads can aestivate for several years. Again, I call it amazing.

We absolutely must do what we can to conserve this remarkable toad!!!