
Puerto Rican Crested Toad Fact Sheet (5/1/94)

Puerto Rican Crested Toad (*Peltophryne lemur*)

Description: The appearance of the Puerto Rican crested toad varies considerably between the male and female. The female crested toad is dull brown and is around four inches long, while the male is olive green and gold and only about three inches long. Both sexes have textured, pebbled skin, but the female's is much rougher and she has a high crest above her eyes. Both have striking marbled golden eyes.

Range: Puerto Rican crested toads are the only toad species native to Puerto Rico and once ranged over the entire island of Puerto Rico at lower elevations. While they may have also been found on Virgin Gorda, they are thought to be extinct on that island. They are presently found only in single locations on the northwest and southwest coasts.

Habitat: The drier, semi-arid sections of the island make up the toad's habitat. The toad is usually found in rocky limestone areas and utilizes rain pools for breeding. Because of the loss of breeding ponds, the northern population has only been observed breeding in walk-in concrete cattle troughs.

Diet: Very little is known of their diet, but wild crested toads are thought to eat insects, worms, larvae and other invertebrates.

Social Organization: Heavy rains prompts toad breeding, and the female toad may lay as many as 15,000 eggs in long black strands. The eggs hatch into tadpoles which advance to the toadlet stage and finally to adulthood. The growth from eggs to toadlets takes just 18 days. Young toadlets clump together to help each other save body moisture as they move away from their breeding pond.

Conservation Status: The Puerto Rican crested toad was thought to be extinct until 1967, and six were finally captured for a captive breeding program in 1982. Due to its small size and nocturnal habits, it is difficult to estimate the size of the present population, but there may be a few hundred at most, not counting the 4,000 captive bred toadlets and over 12,000 tadpoles which have been released. It is listed as a threatened species by the U.S. Fish & Wildlife Service and is a candidate species for listing in the IUCN Red Data Book.

Threats to Survival: Habitat loss in coastal areas of the densely populated island is the main threat to the crested toad. Another threat may be the proliferation of the giant marine toad, introduced from in the 1920's to control sugar cane grubs. This seven-inch toad competes with the native toads for food, habitat and spawning sites. Field studies have confirmed that the Indian maongoose introduced to control snakes (which it does not) and the introduced rat also prey on toads. Crested toads are thought to also be preyed upon by feral dogs and cats.

Zoo Programs - SSP: The crested toad was the first amphibian SSP program. (There are currently two amphibian SSPs). Almost 150 toads are held at eleven U.S. institutions, two Canadian zoos, and the Center for the Propagation of Endangered Species, University of Puerto Rico at Humacao. Reproduction in crested toads is stimulated by careful recreation of dry and rainy season conditions in Puerto Rico and the injection of hormones. Current projects include genetic research into the differences between the northern and southern populations of wild toads, development of a permanent marking system for identifying individuals, and prevention of disease. Research is also being done on calcium absorption in the toads, which has been an area of concern. The Department of Natural Resources of Puerto Rico has requested that 50% of the offspring of breeding program be returned to the island for reintroduction but, in fact, all captive breed toadlets or tadpoles are returned except for 20 which are kept to expand the captive population.

Conservation: The Puerto Rico Department of Natural Resources has plans to search for more natural or man-made ponds into which captive-bred toads can be released or wild toads can be transferred. They still fund searches for new and old toad populations.

Education: The Metro Toronto Zoo has developed an educational poster which will be distributed throughout Puerto Rico. The Spanish-language poster describes the toad and explains the threats to its survival. The poster also requests that people who may have seen the toad to contact the Department of Natural Resources.

Reintroduction: Over 4,000 toadlets and 12,000 tadpoles have been reintroduced to Puerto Rico. Reintroduction takes place within the historic boundaries of crested toad habitat but away from known current populations. In partnership, the USFWS and P.R. DNR have constructed two ponds just for toad releases and more are planned. Due to the difficulty in marking and tracking the toads, it is not known how many of the toadlets survive. A radio harness developed with help of a fashion consultant has been used to determine the home range of the toads.

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