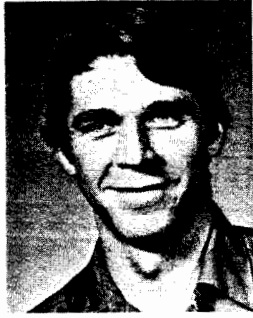


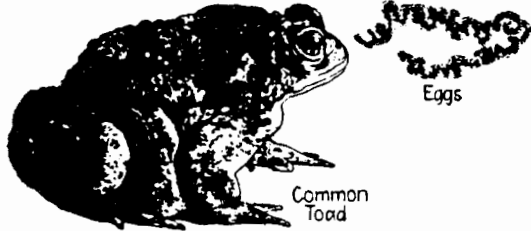
6/13/81



# Natural History Notes

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## THE AMERICAN TOAD



The American toad is one of the most common and beneficial amphibians in North America. It ranges from the east coast to the Rocky Mountains, south to Mexico and north to Great Bear Lake. The females may be 5 1/2 inches long, but the male rarely exceeds 3 1/2 inches. Their skin is conspicuously warty, usually yellow-brown. Their underbelly is cream colored with a rough texture. The throat of the male is black and the female is more brightly colored than the male.

*Bufo americanus* is the scientific name given to this species. *Bufo*, in Latin, means toad. The American toad hibernates in the winter by digging into about three feet of loose soil. As winter passes and the soil warms, the toads emerge and move to ponds where they breed. The males arrive at the pond before the females. They begin their tireless singing which is most intense on rainy days. As in other species of frogs, only the males sing. They are difficult to observe during the day, but if one quietly approaches a pond at night with a dim lantern you may see the toads. They are often attracted by the dim light and will approach it.

A female will lay from 4,000 to 15,000 eggs which are fertilized in the water. They are laid in a cylindrical, transparent, jelly-like mass arranged in a single row. The jelly-like strands of eggs may be up to 72 feet long and are wound around debris and vegetation. The eggs appear as little black dots in the strand of jelly.

The rate of hatching depends upon temperature; the warmer the water, the faster the eggs hatch. Under ideal conditions the eggs hatch in four days and on the tenth day tiny black tadpoles are swimming about, searching for food. Like all youngsters, the tadpoles have voracious appetites. They feed on algae and tender plants which they bite or scrape off. Tadpoles grow rapidly and feed almost constantly.

In about six to eight weeks the typical amphibian metamorphosis takes place and the aquatic tadpoles begin to change into terrestrial frogs. The gills transform into lungs, then the hind legs appear, followed by the front legs. The mouth becomes wider and the tail shortens. When the time is right, an army of little cricket-sized frogs will leave the pond. Their numbers are sometimes so great we may think it has rained toads. In fact, the emergence of the little toads is often correlated with a warm rain, leading to the old wives' tale that it rains frogs.

This is a very dangerous time for the toads because they now must find a new home and predators are all around. But many do survive and take up residence in damp cool places on land.

They begin feeding mostly on insects and it is at this stage that they do great service to man. They consume insect pests by the thousands. In France toads are bought and placed in gardens. However, they usually occur there naturally and eat and eat and eat. They must fill their stomachs four times a day, so fortunately their hunting skills are very good. Toads stalk their prey very patiently and capture it with their tongue. Their tongue differs from the ordinary in that it is attached at the tip of the lower jaw. It can be thrust out several inches and is sticky, so insects adhere to it. They are then brought back into the mouth and swallowed. This takes place so fast the insect rarely has time to get away.

The toads grow rapidly and shed their skin by molting. In an adult this takes place four times a year. The toad eats the old skin and the entire molting process takes about five minutes. Toads do not drink water but must absorb it through their skin. Living in a damp environment is necessary. In dry periods the toad may have to find a puddle to jump into and absorb moisture.

Toads do not mate until they are about four years old and may live quite a long time. There is record of an European toad that was 36 years old when killed accidentally . . . Probably cut down in the prime of life! Have high regard for the toad in your yard, it is doing you a great service.