

species of *Rana*, the tadpoles, fully two inches in length, were seen in the pools. Several times during perhaps an hour, a short, deep croak was heard coming from the willow thickets. It reminded the writer of *Rana palustris*.

Of another frog only the call, a soft click-click-click, was heard. It came from a cluster of aquatic plants in the middle of a pool, but the songster, undoubtedly a very diminutive creature, could not be found.

GEORGE P. ENGELHARDT,  
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#### A NEW RECORD FOR THE RING-NECKED SNAKE IN MICHIGAN.

A specimen of *Diadophis punctata* (L.), captured near Marquette, has been presented to the Museum of Zoology, University of Michigan, by the Northern State Normal School. This is of interest not only as a new locality for the snake but also because it extends the known range of the species considerably, since it is the first authentic record of its occurrence in the Northern Peninsula. The species had been reported from Marquette, but, in view of the fact that young *Storerias* may be easily mistaken for ring-necked snakes, this record has been "open to question," as stated by Ruthven in the "Herpetology of Michigan."

HELEN THOMPSON GAIGE,  
*Ann Arbor, Michigan.*

#### HABITS AND BEHAVIOR OF THE TEXAS HORNED LIZARD, *Phrynosoma cornutum*, Harlan, II.

An interesting fact mentioned by many writers, and easily confirmed, is that the horned lizard is very sensitive to the stings of the large agricultural ants which form its principal food. The lizard will fidget



nervously when stung by an ant on the back or on the leg, yet can swallow the insect alive and entire. The lining of the esophagus and the stomach seems to be peculiarly resistant.

A common habit, seen in about twenty-five per cent. of specimens, is that of wagging the tail when irritated. Incidentally, this habit is quite general among reptiles. Many non-venomous snakes vibrate the tail when surprised. Often they are mistaken for rattlesnakes, as the sound of a rapidly vibrating tail in leaves or dead grass is not unlike the warning of *Crotalus*.

The male horned lizards sometimes fight each other in hot weather,—if confined closely. This fighting seems to be rather harmless, consisting mainly of vigorous puffing and blowing. The writer once observed a large male dragging around a smaller one holding its tail in his mouth.

Horned lizards, unlike other lizards, do not have the power to break off the tail, when that member is grasped. In fact, a convenient method of capture is to seize the animal by its tail.

The Texas form may at times greedily lap up water, but seems to depend mainly on drops of dew on the vegetation. This habit is shared by the other members of the genus.

In North-central Texas, the horned lizards disappear with the first cold burst, which comes on usually between the middle of September and the first of October. Occasional specimens, especially very young forms, may be found as late as the first of December; but the majority are gone for the winter, after the first "norther" despite the many warm days which may follow.

W. M. WINTON,  
*Fort Worth, Texas.*



Winton, W. M. 1917. "Habits and Behavior of the Texas Horned Lizard, *Phrynosoma cornutum*, Harlan, II." *Copeia* 39, 7-8.

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