

What Happened to our Horny Toads?

Growing up in the country in the Permian Basin of the High Plains of Texas, I have many fond memories of finding horny toads and box turtles and of listening to quail calls and the sounds of pump jacks. But after leaving Texas to finish my graduate education, I did not spend much time in the Texas countryside until we moved back here 35 years later.

After we had lived here a while I noticed I wasn't seeing any horny toads or box turtles and very few quail. For that matter, I wasn't seeing hardly any rattlesnakes either.

At a recent monthly meeting of the Hill Country Master Naturalists (all of which are free and open to the public), retired Texas Parks and Wildlife biologist Lee Ann Linam talked about the plight of horned lizards in Texas.

It turns out that since they are in fact not toads, but lizards, the proper name is "horned lizards". There are three species in Texas, the most common, Texas Horned Lizard, which used to range over almost all of Texas, except for the piney woods, the Round-tailed Horned Lizard, a less common species found in the western half of the state, and the Greater Short-horned Lizard found only in the Davis and Guadalupe mountains.

There is no question that the numbers of horned lizards in Texas are very much smaller than they used to be and that the decline in numbers started in either the late sixties or early seventies. The burning question that everyone wants answered, of course, is what caused the decline of our horny toads and can we bring them back? There is no single, simple answer to either question.

Among the causes believed to have contributed at least somewhat to the decline in horny toad numbers are:

Loss of habitat due to increased amounts of cultivated farm land and "improved" grass (bermudagrass, buffelgrass) pasture acreage (probably the biggest contributor to the decline).

Increased human population, and the accompanying land "development" and land fragmentation.

Loss of red harvester ants, a preferred food, due to a combination of increasing fire ant populations and increasing use of pesticides.

Over-collection for the pet trade.

Feral cat predation.

Horned lizards main food is red harvester ants and their preferred habitat is relatively open areas with some bare ground, preferably with loose soil, but areas with enough grass and forb seeds to sustain high populations of harvester ants. The lizards like to station themselves along the harvester ant trails and pick off individual ants as they go out foraging. Fire ants don't have such well-defined foraging trails, and if they found a horned lizard, they would attack it in mass.

Interestingly, the decline in our quail populations have somewhat coincided with the decline in horned lizard populations and there is a lot of similarity in preferred habitat between the two species and a lot of similarity in the list of contributory causes for their decline.

The study of the decline of the box turtle is just beginning and we don't know as much about them. When I was a kid I collected box turtles and at one time had several in a large pen with alfalfa that my father had used to raise pheasants. I even had one lay eggs and found several hatchlings. I have not seen a box turtle in the Hill Country in the past 14 years.

Not surprisingly, when any species undergoes a precipitous decline in a relatively short period of time, the cause almost always has to do with the human population and the tremendous effects we have had on the environment and native habitats in the past few decades. In addition to the horned lizards, box turtles, and quail we can add golden-cheeked warblers, black-capped vireos, prairie chickens, whooping cranes, and prairie dogs to the list of declining species in Texas.

We have left a huge footprint on the land in the past century or so. We humans can change the habitat for wildlife faster than the wildlife can adapt to the change. Some wildlife have learned to cope or even thrive in our midst, others have not been so lucky. Which species will be next? Have we had our "canary in the coal mine" warning about our environment yet? If not, when?

Until next time...

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