

## **Coyote Predation on Aquatic Turtles**

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at night. Their distribution and abundance could be greatly affected by the presence or absence of the animals which make the burrows and also by soil type and terrain.

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## COYOTE PREDATION ON AQUATIC TURTLES

The following observations were made on 15 April 1965 near a shallow lake about 14 miles SW of Cuatro Ciénegas, Coahuila, México. I observed a male coyote, Canis latrans, standing about 40 yards from me near a sedge clump and attentively watching a turtle, Pseudemys scripta, that was swimming beneath the surface parallel to and about 25 yards from the shore. The coyote stood with ears erect and legs stiff for about a minute, then bounded into the water. He moved in jumps to the turtle, plunged his head and forequarters beneath the surface, and within a few seconds caught the turtle. Water at the point of capture was about 15 inches deep and clear; the bottom was of soft gypsum mud. The coyote's face was covered with mud, indicating that the turtle had attempted to bury itself in the bottom when attacked. The turtle was about a foot long and attempted to escape as the coyote carried it toward shore. The coyote held the turtle with lips curled back and head extended forward.

The coyote moved about 3 yards from the water and dropped the still-active *Pseudemys*. The turtle attempted to escape and was nudged and rolled by the coyote for about half a minute until it withdrew its head and limbs and remained quiet. The coyote shook itself, laid down, braced the turtle between its front paws and began gnawing at the front of the shell; this appeared to inflict considerable damage to the plastron. After about a minute the coyote looked directly at me for the first time and leaped into the air. He turned abruptly and moved rapidly away without looking back. In the interim the turtle escaped.

Along the shoreline of the lake, remains of nine other *Pseudemys* were found, along with remains of two *Trionyx* sp. Two of the *Pseudemys* appeared to have been recently killed. All of the remains bore tooth marks and were crushed at the anterior and posterior ends. All remains were associated with scats and tracks of coyote. Much of the shoreline of the lake was completely open, consisting of white, gypsum flats with scattered clumps of sedges. Turtle remains were invariably near clumps of sedges. *Terrapene coahuila* was relatively abundant in the lake, along the shore and for a short distance in open water. This species would appear to be much easier prey for coyotes than either *Pseudemys* or *Trionyx*, yet the remains of box turtles found along the banks showed no evidence of predation. Perhaps its ability to close the plastron and the highly arched carapace makes *Terrapene* more difficult for predators to open.

On 25 December 1965 at the same locality, a live *T. coahuila* was found on his back in shallow water. The carapace and plastron were severely scratched, but not broken, and fresh coyote tracks (as indicated by turbid water persisting in them) were abundant. The turtle was retained alive and was not obviously injured.

These observations were made in the course of other research being performed under NSF Grant No. GB-2461.—W. L. MINCKLEY, Department of Zoology, Arizona State University, Tempe. Accepted 1 June 1965.