

Arizona Mud Turtle

SCIENTIFIC NAME: The Arizona mud turtle, *Kinosternon arizonense*, belongs to the mud and musk turtle family Kinosternidae. The genus name *Kinosternon* is derived from the Greek words *kineo* (moveable) and *sternon* (breast), and refers to the double-hinged “plastron” (the bottom portion of the shell) that enables it to retract into and fully close its shell. The word *arizonense* means “belonging to Arizona.”

DESCRIPTION: Arizona mud turtles are small, up to 7 inches long. The top of the shell is olive, brown or yellowish-brown, often with yellow-marked outermost scutes (the hard outer covering on the shell). The underside is yellow. The top of the head is gray or brown, and the sides of the head, neck and throat are yellow or cream. The chin and throat have multiple small tubercles (fleshy projections). Males have a concave underside and a long, thick, spine-tipped tail.

These semi-aquatic freshwater turtles spend much of their time aestivating in underground burrows.

DISTRIBUTION: This turtle is found only in a small portion of extreme south-central Arizona and north-central Sonora, Mexico, at elevations from 2,000 to 3,500 feet. In Arizona, its range is confined to the Rio Sonoyta and Rio de la Concepcion drainage basins, with most occurring within the Tohono O’odham Nation. However, a few have been documented from desert tributaries to the Santa Cruz River.

HABITAT: Arizona mud turtles occupy low valleys and gently sloping bajadas in Sonoran Desert and semidesert grassland plant communities. Historically, their natural habitat likely included pools, arroyos



and playas that held water during the summer monsoon season. Today, these turtles are found more commonly in temporary, human-created water impoundments such as cattle tanks, charcos (catch basins created by the Tohono O’odham), ponds and roadside ditches.

BIOLOGY: These semi-aquatic freshwater turtles spend much of their time aestivating in underground burrows. Their activity is triggered by the onset of the summer monsoon (July through August). During this time, they are diurnal and spend much of their time basking on pond margins at midday. They are known to travel considerable distances across the desert floor during rainy conditions. Arizona mud turtles begin aestivation following the summer monsoon and remain buried in underground cavities, likely in the sides of drying ponds, until subsequent summer rains refill the pond. During droughts, they can remain underground for more than a year.

Arizona mud turtles are carnivores at the top of the aquatic food chain, eating tadpoles, frogs, toads, invertebrates and carrion. To maximize access to their preferred prey item, toads, they are seasonally nocturnal. They have been observed

pulling toads under the surface of the water during the summer monsoons.

When threatened, these turtles expel a pungent odor from musk glands located on each side of their body.

Arizona mud turtles lay a clutch of one to seven brittle-shelled eggs in an underground nest in July to August. Hatchlings measure less than 1 inch, and remain in the nests until the following monsoon season.

STATUS: Arizona mud turtles appear to be locally common, but rarely encountered. The abundant small, man-made earthen dams that temporarily hold water for livestock provide optimal microhabitat, and may have made this turtle more common today than it was historically.

MANAGEMENT NEEDS: Arizona mud turtles are the least studied of the three mud turtles that occur in Arizona, and significant information on their natural history is lacking. The only serious threat to this species is habitat destruction. Because the ephemeral pools in which they reside often are isolated, populations may be vulnerable to local extinctions if the habitat is destroyed. 🐢

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