



Questions and Answers: Final Listing for the Sonoyta Mud Turtle

Arizona Ecological Services Field Office

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Q: What action is the U.S. Fish and Wildlife Service (Service) taking?

A: The Service is finalizing the listing of the Sonoyta mud turtle (*Kinosternon sonoriense longifemorale*) as endangered under the Endangered Species Act. The Service based its decision on a comprehensive Species Status Assessment (SSA) of the Sonoyta mud turtle's current and predicted future condition, and peer review of the proposed listing rule to arrive at a final determination that the subspecies is in danger of extinction throughout its range. The final listing will become effective 30 days following publication in the *Federal Register*.

Q: What is Sonoyta mud turtle and what habitat does it use?

A: The Sonoyta mud turtle is an aquatic turtle that is less-than six-inches long, has an olive brown to dark brown upper shell (carapace) and a hinged lower shell (plastron). Long barbels (whisker-like organs) are typically present on the chin, and its feet are webbed. The Sonoyta mud turtle is an isolated endemic subspecies closely related to the more populous and widely distributed Sonora mud turtle (*K. s. sonoriense*).

Sonoyta mud turtles require aquatic habitat to survive in an otherwise extremely arid environment, but are not strictly aquatic, using riparian vegetation and corresponding moist soil for nesting, moving between sources of water, and estivating (prolonged dormancy) during drought.

Q: Where is the Sonoyta mud turtle found?

A: The Sonoyta mud turtle was historically localized in (endemic to) the Rio Sonoyta basin in Arizona and Sonora, Mexico – an extremely arid environment. Today, there are five known populations of Sonoyta mud turtle – one at Quitobaquito Springs in Organ Pipe Cactus National Monument in Arizona, and four in Sonora, Mexico (one of which is in the Rio Guadalupe basin). These populations occupy less than 20 percent of the subspecies' historical range.

Q: What are the primary threats to the subspecies?

A: The most significant stressors for the Sonoyta mud turtle are the loss of aquatic and riparian habitat related to agricultural and municipal groundwater pumping, and long-term drought, which affect the amount of surface water and subsurface moisture available for the Sonoyta mud turtle. Reductions in

riparian habitat further decrease shade, needed for nesting sites and drought refuge for hatchlings, juvenile and adult turtles. Reduction in aquatic habitat also affects the invertebrate prey and space available for mud turtles. A complete discussion of threats is in the SSA and the proposed rule.

Q: Are there any conservation efforts focused on the Sonoyta mud turtle?

A: The National Park Service staff at Organ Pipe Cactus National Monument continues to implement actions to stabilize the water levels in the pond at Quitobaquito Springs, where the sole U.S. population occurs. The interagency Quitobaquito Rio Sonoyta Work Group is currently implementing conservation actions for this population. The working group consists of biologists and managers from the National Park Service (NPS), Arizona Game and Fish Department, Service, University of Arizona, Arizona-Sonora Desert Museum, the National Commission of Natural Protected Areas in Mexico, and private citizens interested in conservation of aquatic native species in the Rio Sonoyta basin of Arizona and Sonora. (Species experts that are members of the group served as peer reviewers of the species status assessment.)

Quitobaquito Rio Sonoyta Working Group management actions for the Sonoyta mud turtle in Mexico have included defining the ecological status and distribution of the Sonoyta mud turtle in Sonora, creating new habitat to replace lost habitat, removing non-native aquatic species, livestock exclusion from habitat, and outreach. These management actions have not yet addressed most of the risks to the four populations of the Sonoyta mud turtle in Mexico.

The working group is dedicated to continuing ongoing conservation actions for five aquatic species including the Sonoyta mud turtle. These five species depend on the aquatic and riparian habitats of the Rio Sonoyta watershed. The Endangered Species Act supports and inspires such cooperative conservation efforts.

Q: Is the Service proposing to designate critical habitat for the Sonoyta mud turtle?

A: Not at this time.

Q: Is the final rule effective immediately?

A: No. The listing and the protections afforded under the ESA will be effective October 20, 2017.

Q: What's next for the Sonoyta mud turtle under the Endangered Species Act?

A: Ongoing conservation efforts, as noted above, will continue. Endangered Species Act prohibitions against "taking" Sonoyta mud turtles will take effect on October 20, 2017, as will requirements for Federal agencies to conserve the species and consult with the Service if there projects may effect Sonoyta mud turtles. A recovery plan for the turtle will be developed.