

USACE Natural Resource Management

Reptiles & Amphibians



Flattened Musk Turtle

REASONS FOR LISTING STATUS: On June 11, 1987, the U.S. Fish and Wildlife Service listed the flattened musk turtle offering it protection under the Endangered Species Act as a Threatened species. Critical habitat has not been designated for the species.

Endemic to the upper Black Warrior River system in Alabama, the flattened musk turtle Recovery Plan was approved by the USFWS in 1990. The most recent 5-year review was completed in 2014 which noted that the population numbers have continued to decline since listing. A new 5-year review was initiated for this species, along with 52 other species, in June 2019.

MANAGEMENT AND PROTECTION: Siltation has been identified as the biggest threat to populations of flattened musk turtles. Habitat has also been lost to impoundments, agricultural, residential, and industrial development. The species is further threatened by over collection and disease. (USFWS)

HABITAT NEEDS: Although the flattened musk turtle is capable of living in a variety of streams, optimum habitat appears to be free flowing large creeks or small rivers with vegetated shallows about 2 feet deep.

- When inhabiting lakes, these turtles often prefer areas along the bank that have an abundance of shelf like rocks.
- Flattened musk turtles prefer an abundance of crevasses and submerged rock.
- Quality habitat supports abundant mollusk and aquatic insect populations which are the primary diet for the species.
- Adults appear to feed primarily on gastropods and clams (including the exotic Asiatic clam) and mussels.

(USFWS)

Description: With a distinctly flattened carapace (upper shell), the flattened musk turtle is a small aquatic turtle that typically reaches up to 4.7 inches in length. The carapace is dark brown to orange with dark bordered seams. The plastron (lower shell) is pink to yellowish. Male flattened musk turtles have thick, long, spine-tipped tails. Juveniles are usually lighter yellow in color; the carapace flattens as the species ages.

Photo: USFWS, Encyclopedia of Alabama

Natural Resource Management (NRM)

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USACE ROLE: While USACE has only recorded \$30,000 in expenditures related to the flattened musk turtle since 2010, costs have been attributed to coordination and determination efforts, site visits and inspections, along with equipment purchases by the Environmental Stewardship and Regulatory business lines. (USACE Threatened and Endangered Species Costs Database)

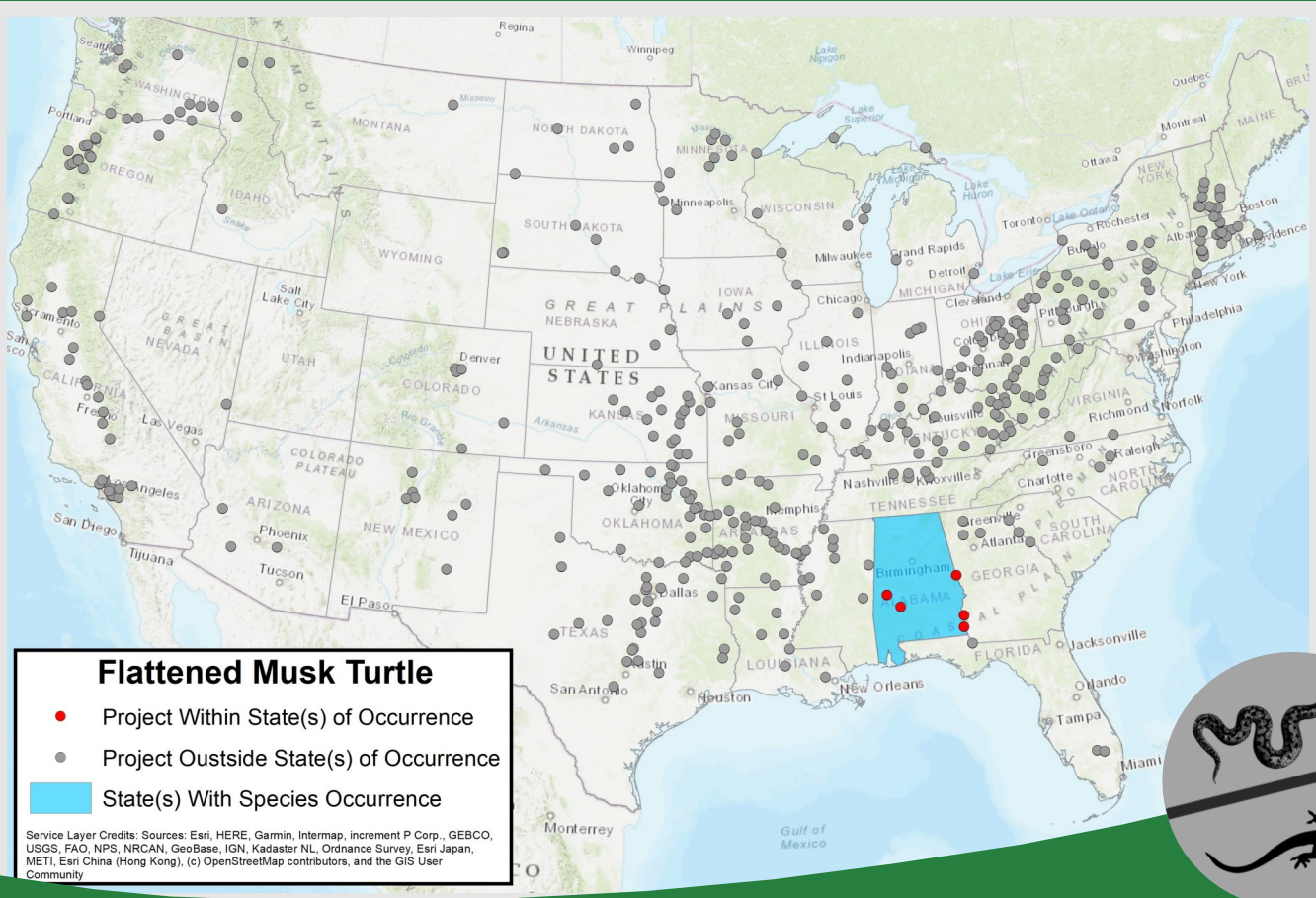
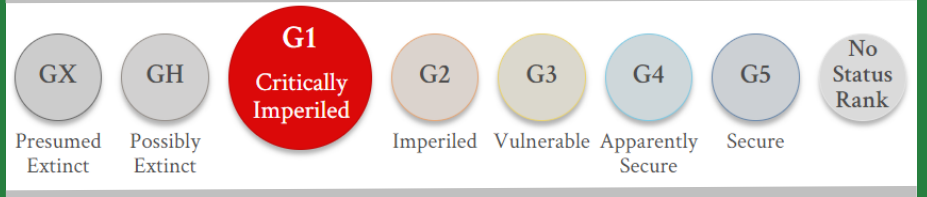
Photo: Black Warrior & Tombigbee Lakes, USACE

Graphic: NatureServe reports the flattened musk turtle as a critically imperiled species.



WHAT IS USACE NRM DOING:

The Black Warrior and Tombigbee Lakes in Mobile District, have reported rare occurrences of the species as part of the Natural Resources Management annual reporting through NRM Assessment. The Black Warrior-Tombigbee Project Office is home to six lakes including Bankhead, Holt, Oliver, Warrior, Demopolis, and Coffeeville Lakes. Commercial navigation, hydropower, and recreational opportunities are provided as part of the larger Black Warrior and Tombigbee Waterway system. USACE staff coordinate with resource agencies to ensure actions do not negatively impact the flattened musk turtle or other special status species.



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 Source: Map provided by Ashleigh Boss, ONISE Fellowship, Institute for Water Resources

