

USACE Natural Resource Management

Reptiles & Amphibians



Black Warrior Waterdog

FAST FACTS

REASONS FOR LISTING STATUS: The Black Warrior waterdog was listed in 2018 by the U.S. Fish and Wildlife Service as Endangered range wide under the Endangered Species Act.

This salamander's natural range is small, populations are isolated, and there is low genetic diversity. These factors coupled with habitat fragmentation caused by impoundment had detrimental effects on the Black Warrior waterdog and subsequently led to the species' ESA listing. (USFWS)

MANAGEMENT AND PROTECTION: After listing this salamander as Endangered in 2018, the USFWS then drafted a recovery plan outline for the species. A full recovery plan is not yet drafted nor finalized. The USFWS also designated critical habitat for the Black Warrior waterdog.

It is important to maintain a riparian buffer width of 100 feet with deciduous trees along banks to create leaf packs and reduce sedimentation. Efforts should be made to maintain seasonal flow to provide connectivity and to remove excessive sediment covering the stream bottom and leaf packs. (USFWS)

HABITAT NEEDS: The Black Warrior waterdog is only found in streams contained within the Black Warrior River Basin in Alabama.

- Stream substrate is very important for life processes such as breeding, rearing, protection, foraging and feeding. This salamander prefers bedrock or clay with little sand.
- Occupied streams must have abundant rock slabs and crevices to utilize for shelter and egg laying.
- Breeding sites are typically comprised of large boulders or bedrock outcrops with sand and gravel beneath them
- Retreat areas are most often on the downstream side of shelter rocks and are actively developed and maintained free of algae and debris.
 - Excessive siltation is detrimental as it fills crevices and reduces available foraging, feeding, breeding, and retreat areas. (USFWS)

Description: This species is aquatic and permanently retains a larval form with external gills. The larval form grows up to 2 inches in length and is dark brown or black with two light stripes running along the sides. Adults grow up to 4 inches in length and do not have stripes like juveniles, but do have a single dark stripe from the eye to the gills. The head and body are depressed and the tail is also compressed laterally. (USFWS)

Photos: Joseph Jenkins, Alabama NHP & Suzanne L. Collins, CNAH

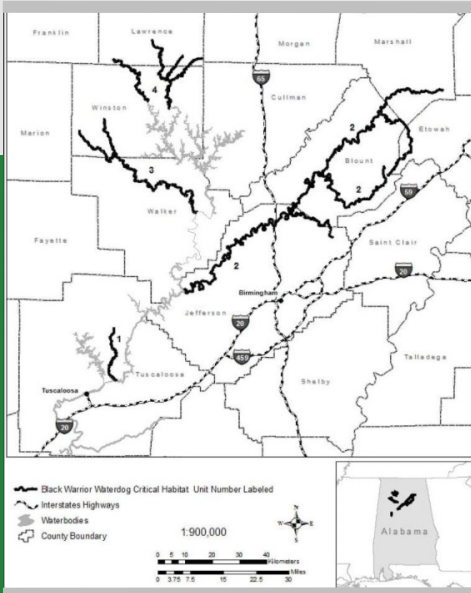
Natural Resource Management (NRM)

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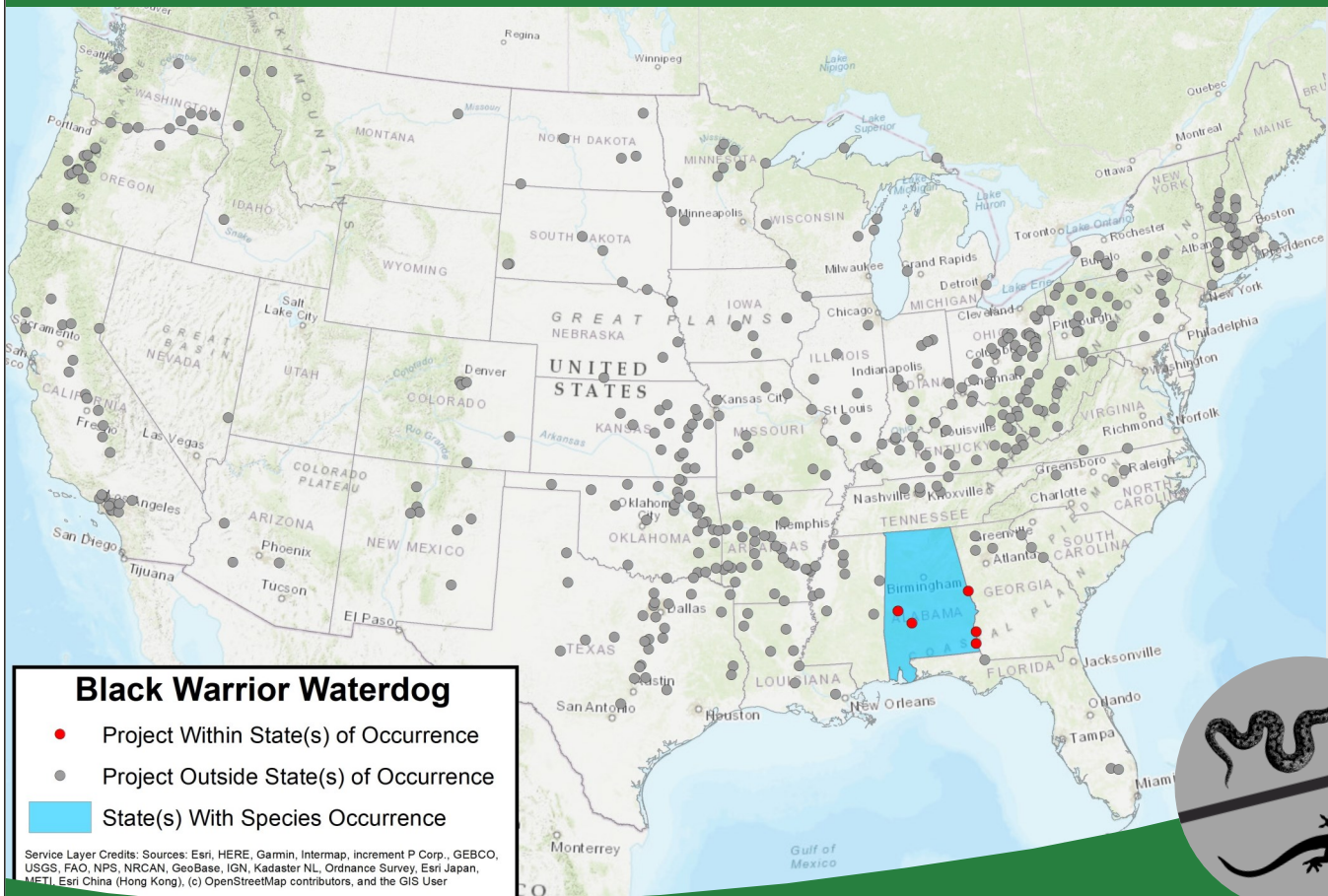
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USACE ROLE: The USACE manages several lakes within the Black Warrior basin which this species inhabits. Since 2013, the USACE has expended over \$6,000 on efforts related to the Black Warrior waterdog. These funds have been used predominantly by the Regulatory Business Line to fund coordination and determination efforts.

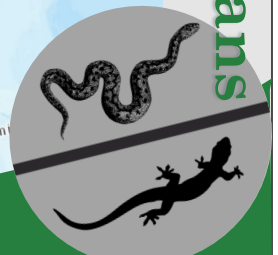


WHAT IS USACE NRM DOING: The USACE manages several lakes within the Black Warrior basin which this salamander inhabits. These lakes have the potential to provide suitable habitat, or provide flow to suitable streams, for this salamander. As such, the USACE works diligently to ensure that all current and future work will not impact this species or the habitat on which it depends. The USACE closely coordinates with resource agencies such as the U.S. Fish and Wildlife Service to prevent negative impacts to the Black Warrior waterdog.

Map, above: Species' range map as provided by U.S. Fish and Wildlife Service's Environmental Conservation Online System. Map, left: Critical habitat as designated by USFWS



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



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