

USACE Natural Resource Management

Freshwater Mussels



Cracking Pearlymussel

Cracking Pearlymussel (*Hemistena lata*): This is a medium-size mussel with a thin and slightly inflated shell. The outer surface is brownish green to brown and usually has dark green rays. The inner shell ranges from a pale bluish color to purple. The anterior shell is rounded, while the posterior end is truncated. (USFWS)

Status: Endangered, listed 1989

NatureServe: Critically Imperiled



Genus: According to the Integrated Taxonomic Information System, *Hemistena* was first described by Rafinesque in 1820. Currently there is a single species in the genus. (ITIS)

Range: The species historical range included Alabama, Illinois, Indiana, Kentucky, Ohio, Tennessee, and Virginia. The species has been extirpated from Ohio, Indiana, and Illinois. (USFWS)

Photos Left to Right:
External Shell (USFWS), Inner Shell (USFWS), and External Shell (Illinois Natural History Survey)

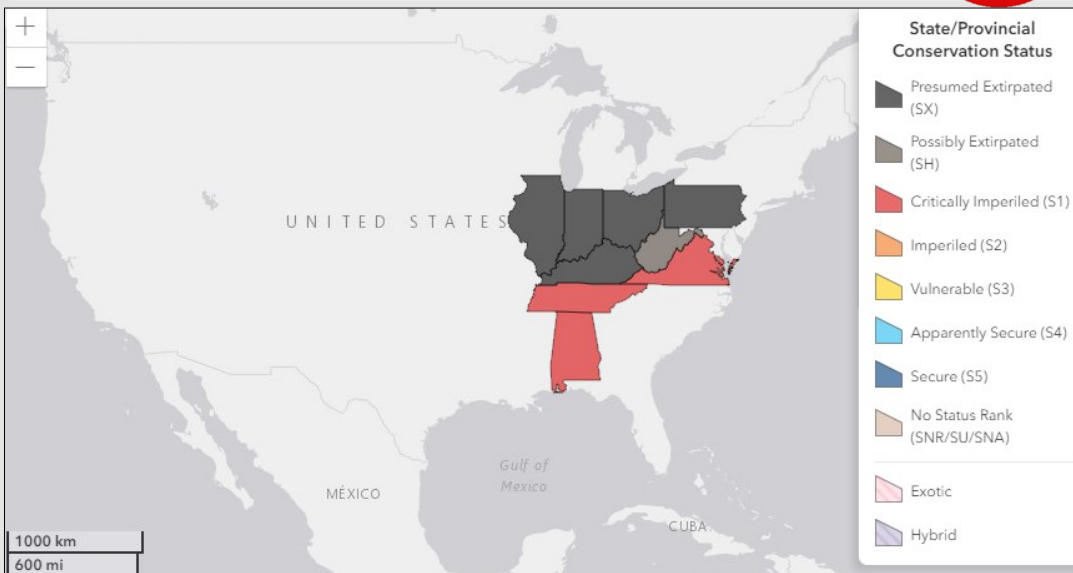


Photo: NatureServe map of species' status by state.

Management and Protection: This mussel's range has been restricted as a result of the construction of impoundments and other impacts to habitat. Due to this species' limited distribution, any factors that may adversely modify habitat or water quality of inhabited rivers could further threaten the species. (USFWS)

- Inhabits medium-sized rivers, usually buried deep in substrates. Has predominantly been found in riffle habitat with sand, gravel, and/or cobble substrates, but some specimens have been taken from mud and sand substrates in slower flowing waters. (USFWS)
- In 2001, the USFWS established a non-essential experimental population in the Tennessee River below Wilson Dam downstream to Pickwick Reservoir.
- In 2006, the USFWS proposed a rule to reintroduce this species into the French Broad River of Tennessee. (USFWS)



USACE ROLE: According to the Engineering Research and Development Center's Threatened and Endangered Species Team Cost Estimates, the USACE has expended over \$26,000 on efforts related to the cracking pearlymussel. These funds have been expended by several USACE business lines including Environmental Stewardship, Flood Risk Management, Hydropower, Navigation, Recreation, Regulatory, and Water Supply. Expense types include Coordination and Determination as well as Site Visits and Inspections.



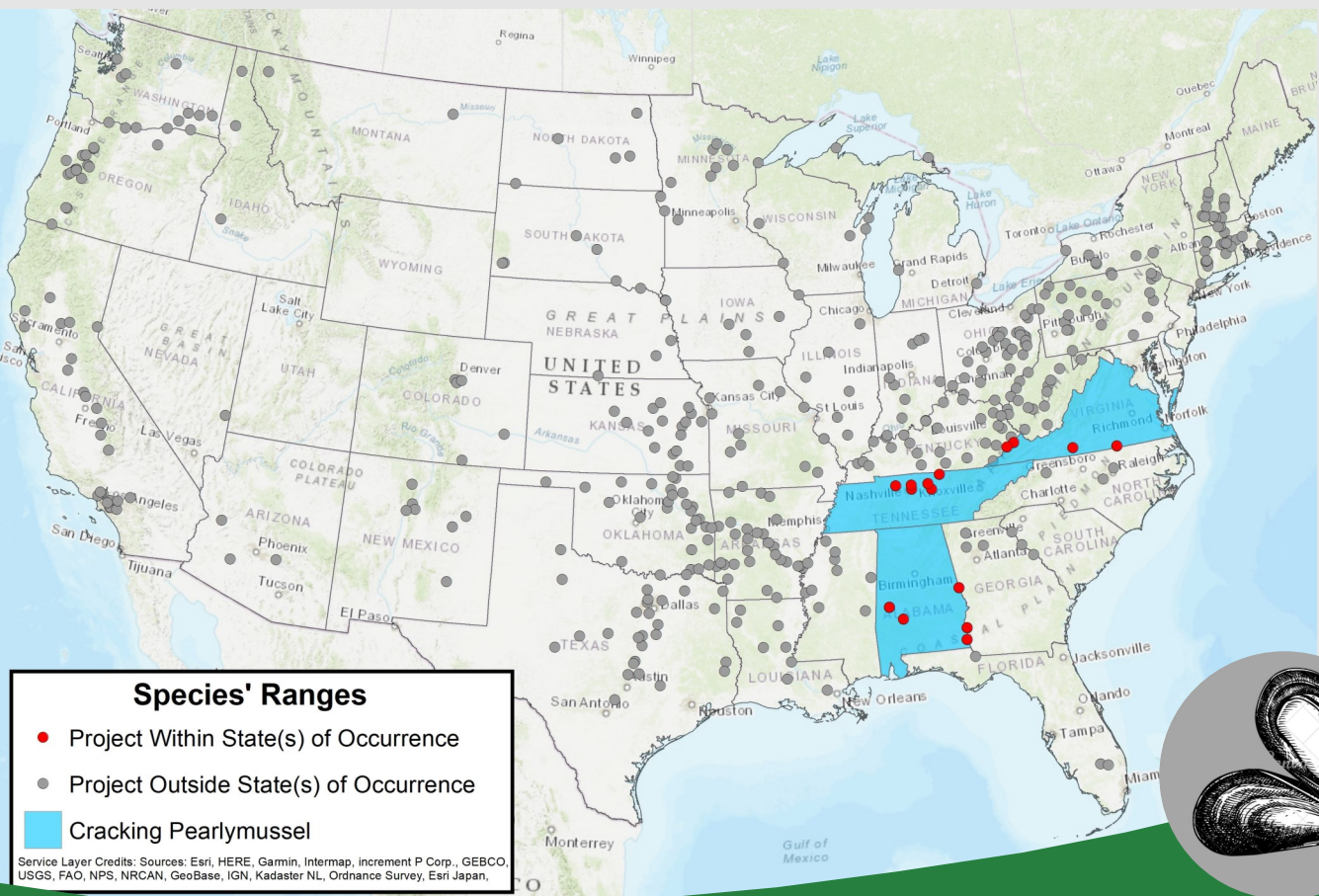
Cracking Pearlymussel = \$26,351 (2005)

In the 2020 NRM Assessment, the cracking pearlymussel was listed by two projects within the Great Lakes and Ohio River Division. Both projects are found within the Nashville District. Dale Hollow Lake is marked as have the potential for the cracking pearlymussel to occur at the project. Additionally, Wolf Creek Dam and Lake Cumberland is noted to have rare occurrences of the cracking pearlymussel.



Photo: Aerial image of Wolf Creek Dam and Lake Cumberland, which has rare occurrences of the species.

This fact sheet has been prepared as an unofficial publication of the U.S. Army Corps of Engineers (USACE). This online publication is produced to provide its readers information about best management practices related to special status species. Editorial views and opinions expressed are not necessarily those of the Department of the Army. Mention of specific vendors does not constitute endorsement by the Department of the Army or any element thereof.



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



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