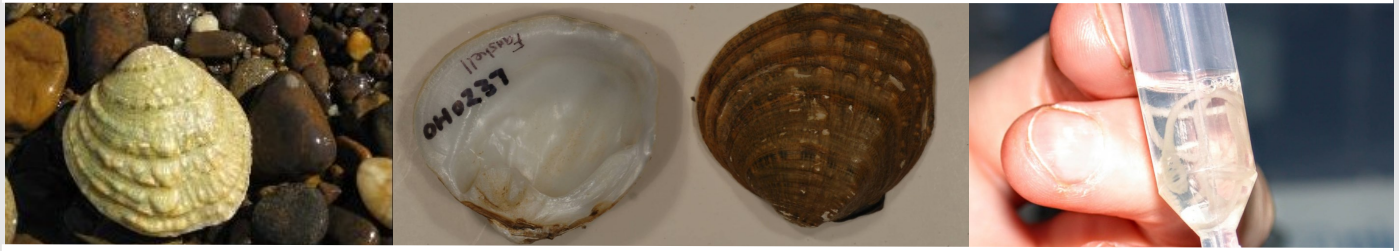


USACE Natural Resource Management Freshwater Mussels



Fanshell

Fanshell (*Cyprogenia stegaria*): This is a medium-sized mussel which rarely grows more than 3.2 inches in length. The shell shape is subcircular. The outer shell coloration may be light green with green rays or yellow with green mottling. The inner shell is typically a silvery white.

Status: Endangered, listed 1990

NatureServe: Critically Imperiled



Genus: First described in 1852 by Agassiz, this is a genus in the family *Unionoidea*. Currently there are two taxonomically valid species assigned to the *Cyprogenia* genus. (Integrated Taxonomic Information System)

Range: There are three reproducing populations--the Green and Licking Rivers in Kentucky and the Clinch River in Tennessee and Virginia. Non-reproducing populations occur in the Ohio River Basin. (USFWS)

Photos Left to Right:
Fanshell on shore (USFWS), Fanshell specimen (USFWS), Conglutinates of the fanshell in a pipette (USFWS)

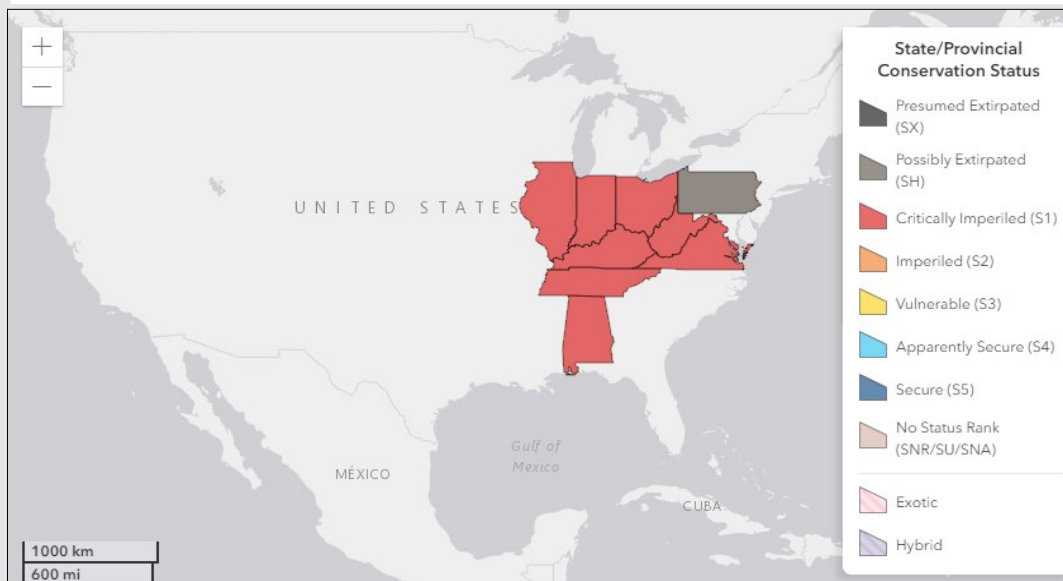


Photo: NatureServe map of species' status by state.

Management and Protection:

- The distribution and reproductive capacity of this mussel has been negatively impacted by the construction of impoundments and navigation facilities, dredging for channel maintenance, sand and gravel mining, and water pollution. (USFWS)
- In 2010, the USFWS took adult fanshells from the Licking River in Kentucky and relocated them to the lower Muskingum River in Ohio, the Kanawha River in West Virginia, and the Ohio River in West Virginia. In 2015 the USFWS stocked the lower Tennessee River in Kentucky and in 2016 the Ohio River in Ohio and West Virginia was stocked. (USFWS)
 - Life history and propagation techniques have been researched since the fanshell's listing. Gravid females have been observed from late October to late May and nine host fish species have been identified. (USFWS)



USACE ROLE: According to the Engineering Research and Development Center's Threatened and Endangered Species Team Cost Estimates, the USACE has expended over \$463,000 on efforts related to the fanshell. These funds have been expended by multiple business lines including Environmental Stewardship, Hydropower, Navigation, Planning and Program Management, Recreation, and Regulatory. Expense types include Coordination and Determination, Site Visits and Inspections, and Inventory, Survey, and Monitoring efforts.



**Fanshell =
\$463,752 (2005)**

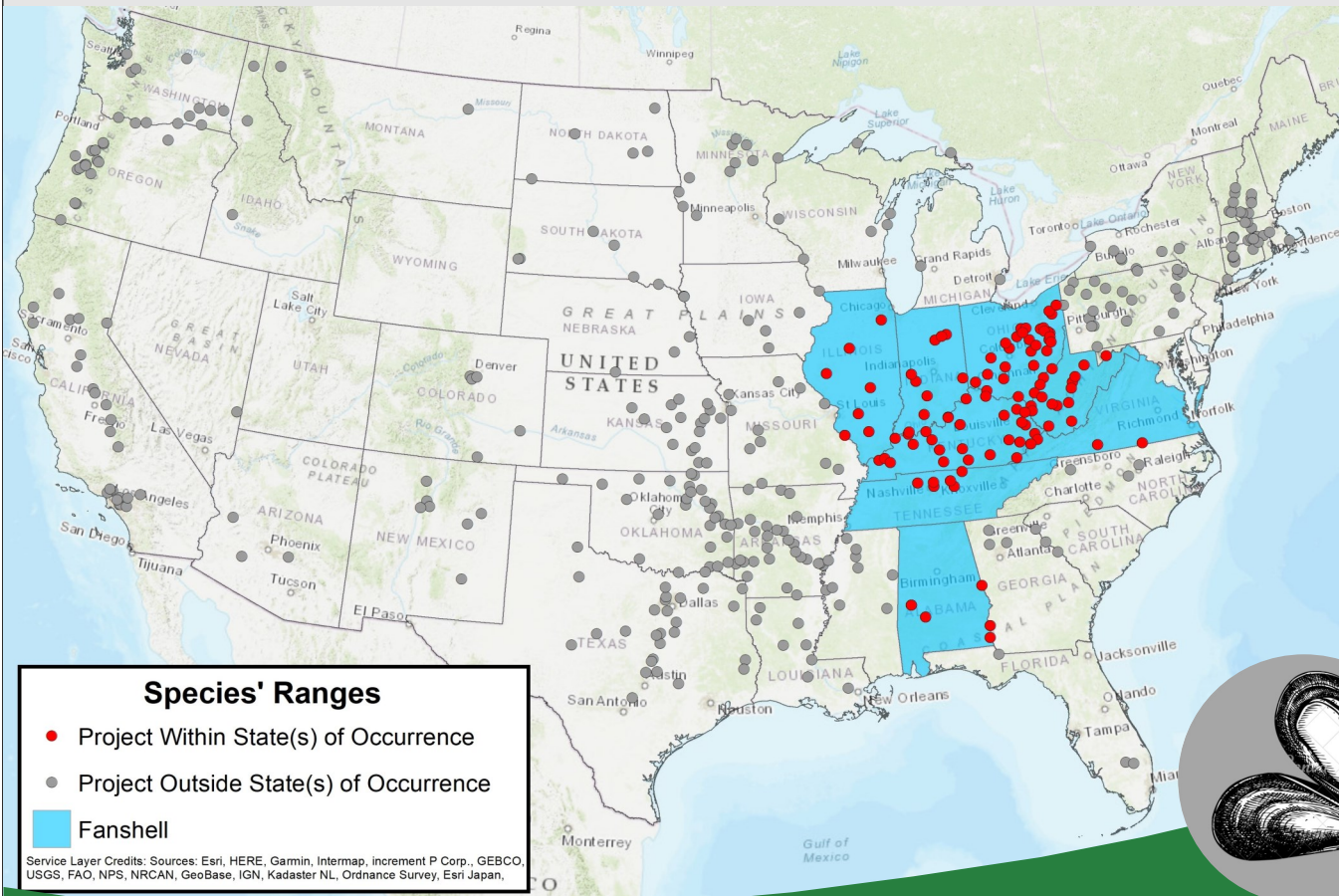
According to the 2019 NRM Assessment, the fanshell mussel has the potential to occur at seven projects. All seven projects are part of the Great Lakes and Ohio River Division. Within this division, these projects span four districts including Huntington, Louisville, Nashville, and Pittsburgh District.

Across the species' range, the USACE works closely with the appropriate natural resource agencies to ensure that no current or future work will negatively impact the fanshell mussel or its habitat.



Photo: Mahoning Creek Lake has the potential for the fanshell to occur according to the 2019 NRM Assessment.

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



Freshwater Mussels