

Carolina Heelsplitter Mussel, Listed as Endangered with Critical Habitat:

When the USFWS proposes an animal or plant for listing as endangered or threatened under the ESA, specific areas that contain the physical or biological features essential to its conservation can be identified. This is the species' critical habitat. The ESA requires the USFWS to designate critical habitat when it is both "prudent and determinable." Critical habitat is a tool that supports the continued conservation of imperiled species by guiding cooperation within the Federal government. Designations affect only federal agency actions or federally funded or permitted activities.

The Carolina Heelsplitter was listed as endangered in 1993. Critical habitat was established in 2002.

<https://www.govinfo.gov/content/pkg/FR-1993-06-21/pdf/FR-1993-06-21.pdf>

<https://www.federalregister.gov/documents/2002/07/02/02-16580/endangered-and-threatened-wildlife-and-plants-designation-of-critical-habitat-for-the-carolina>

Primary Conservation Provision, Avoid activity within CHSM Critical Habitat and occupied watersheds:

The Carolina heelsplitter requires cool, clean, well-oxygenated water. Stable, silt-free stream bottoms appear to be critical to the species. Typically, stable areas occur where the stream banks are well-vegetated with trees and shrubs. The species' range has been seriously reduced by impoundments and the general deterioration of habitat and water quality resulting from siltation and other pollutants contributed by land use practices. Due to the species' limited distribution, any factors that adversely modify habitat or water quality in the stream reaches it now inhabits could further endanger the species.

Practices That Can Help:

Keep Streams Healthy: Like most mussels, the Carolina heelsplitter depends on undisturbed and well shaded stream habitat.

- Where possible maintain or plant hardwood riparian buffers and fence livestock out of streams. Buffer widths over 50ft are beneficial, with fully protective buffers being at least 200ft wide.
- Avoid dumping trash, tires, lawn clippings, animal waste, fuels and anything else into streams.

Install Aquatic Organism Passages: poorly designed culverts cause disconnects in stream habitat that block fish passage. Since fish are hosts of the larval stage of the mussel, such blockages affect distribution of the Carolina heelsplitter. Mussel-friendly culverts are generally bottomless or buried, do not obstruct fish passage, and are sized large enough to handle storm flows without overtopping.

See the webinar with USFWS Morgan Wolf and hosted by SCNRCS on December 9th, 2020:

<https://web.microsoftstream.com/video/f66fd4e3-1805-49b8-aa49-65aa646a88d1>

Carolina Heelsplitter Mussel Critical Habitat in South Carolina:

This map shows Carolina Heelsplitter occupied habitat overlain with occurrences recorded by the South Carolina Department of Natural Resources (SCDNR).

