

Carolina

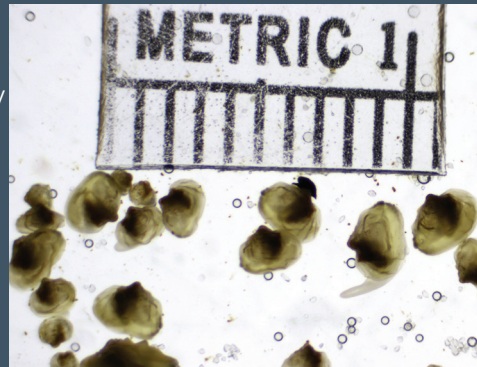
HEELSPLITTER

There are roughly 150 species of freshwater fish, 36 species of freshwater crayfish, and 29 species of freshwater mussels found throughout the state of South Carolina, including the federally endangered Carolina Heelsplitter. Freshwater mussels make up the base of the food web, filtering algae and bacteria from the water, and in the process, improving water quality. Freshwater mussels like the Carolina Heelsplitter improve habitat for other freshwater species and benefit humans by making the waters around them cleaner for drinking water and recreation. Often cited as “the canary in the coal mine” for aquatic systems, when mussels begin to disappear from a water body it is a clear sign that something is wrong. Around 10% of all freshwater mussel species in the U.S. are already extinct, and many more are in decline.

The Carolina Heelsplitter, like most freshwater mussels, are vulnerable to a variety of threats related to human disturbance. Some disturbances include polluted wastewater from sewage treatment plants and industrial discharges, storm water runoff carrying silt, fertilizers, pesticides, and other pollutants to waterways. Disturbances that lack storm water control or cause erosion are some of the most detrimental to Carolina Heelsplitter and their habitat. Habitat alterations including impoundments, channelization, dredging, and streambank scouring have contributed to the decline of the Carolina Heelsplitter and adversely affects remaining populations. Activities such as agriculture, forestry, road construction, mining, urban development, and other land use activities that do not adequately control stormwater runoff and soil erosion reduce the remaining Carolina Heelsplitter habitat.

There are eleven remaining populations of Carolina Heelsplitter, ten of which can be found here in SC. One population is found in the PeeDee River basin in Lancaster, Chesterfield, and Kershaw counties. Five populations can be found in the Catawba River basin in York, Chester, and Lancaster counties. The Saluda River basin is home to two populations in Saluda and Greenwood counties, and two populations can be found in the Savannah River basin in Edgefield, McCormick, and Greenwood counties.

South Carolina Department of Natural Resources (SCDNR) is working with the U.S. Fish and Wildlife Service (USFWS) to monitor these populations. If you live near Carolina Heelsplitter, you may have received a letter letting you know we are in the area to survey. SCDNR and the USFWS are also culturing Carolina Heelsplitter mussels for stocking. The goal of these efforts are to increase the size of the remaining populations and reduce the likelihood of extinction. You can help protect Carolina Heelsplitter and the other freshwater mussels of the state by allowing plants to grow near waterbodies, properly disposing of waste, and being aware of how water drains on your property.



“Juvenile mussels are very small, pictured above are 2 month old Carolina Heelsplitter in culture at Cohen Campbell Fisheries Center in West Columbia. These juveniles have already more than quadrupled in size.”

By working together to maintain healthy mussel populations, we know our aquatic ecosystems can be healthy enough to serve the people of South Carolina and the aquatic plant and animal communities that depend on them. Please remember that the taking of freshwater mussels, except the invasive Asian Clam (*Corbicula*), is unlawful without a permit from SCDNR. A freshwater fishing license is required to take any freshwater mussel species, even Asian Clam. Take of Carolina Heelsplitter will also require a permit from the USFWS.

Carolina Heelsplitter Life Cycle

Like all of South Carolina’s native freshwater mussels, Carolina Heelsplitter mussels use a fish host to complete their life cycle. Bluehead Chub, Satisfin Shiner, Highfin Shiner, Spottail Shiner, and Bluegill are some of the fish known to be compatible hosts for Carolina Heelsplitters. If a host is not present, Carolina Heelsplitter will not be able to reproduce. Larvae remain on the host for a few weeks dropping off as tiny filter feeders in the bottom of the stream.

