

DRAFT – Altamaha Spiny Mussel -- DRAFT
Effects Determination Guidance for Endangered & Threatened Species (EDGES),

**Appling, Ben Hill, Coffee, Jeff Davis, Long, Montgomery, Tattnall, Telfair, Toombs,
Wayne, and Wheeler Counties**

Species Covered by This EDGES: Altamaha spiny mussel (*Elliptio spinosa*) - Endangered

The Altamaha spiny mussel is endemic to the Altamaha River basin. These mussels are found most often in very coarse to fine sand, although they sometimes occur in sloughs that form between an exposed sandbar and the bank. Adults are not as sessile or sedentary as most freshwater mussels. They apparently move about their sandbar habitat, but are often found buried 2 to 4 inches below the sandbar surface. The mussel's large spines are presumably used to anchor it to the shifting sand of sandbars within swiftly-flowing rivers. Adult mussels are filter feeders and usually feed upon plankton and detritus from their aquatic environment. To reproduce, these mussels release larva, called glochidia, into the water. Glochidia must find and attach to the gills or fins of an appropriate host fish to complete development.



Despite intensive survey efforts since 2000, few individuals have been found at very few locations, and the mussel may be extirpated from the Oconee River. Currently, the Altamaha spiny mussel is believed to only occur within the extent of its designated Critical Habitat, which is comprised of approximately 70 miles of the Altamaha River, 68 miles of the Ocmulgee River, and 9 miles of the Ochopee River occurring in Appling, Ben Hill, Coffee, Jeff Davis, Long, Montgomery, Tattnall, Telfair, Toombs, Wayne, and Wheeler Counties (map on page 2).



Mussel glochidia (larvae) on fish gill. Rachel Mair

Threats to the species include habitat loss or degradation due to sedimentation; water quality degradation due to contamination from industrial and municipal effluents and to nonpoint sources; drought and surface water withdrawals that reduce flow, which may strand the mussels on their sandbars; all-terrain vehicle use on river margins during low flow conditions that degrade mussel habitat; and loss of host fish for larval development.

This EDGES covers any project that might impact Critical Habitat for the Altamaha spiny mussel.

Endangered Species Act Consultation Checklist:

Applicant:

1. IPAC indicates Altamaha spiny mussels may occur in the project area (see range map on Page 2).
 - a. No.....No effect. Provide IPaC information to the Savannah District with application/PCN.
 - b. Yes.....Go to #2.

2. The Fish and Wildlife Service-Georgia Field Offices (FWS-GA) provided documentation evaluating habitat, potential presence of species, suitable survey methodology and/or potential project impacts (FWS-GA signed letter or sticker, T&E survey where FWS-GA provided concurrence with negative findings, or similar documentation).
 - a. No.....Provide completed EDGES Applicant Coordination Slip and supporting documentation to the Savannah District with 404 application/PCN.
 - b. Yes.....Provide FWS-GA project review documentation and/or survey data to the Savannah District with application/PCN.

Savannah District:

3. IPAC indicates the project is within designated Critical Habitat for the Altamaha spiny mussel.
 - a. No.....Go to #4.
 - b. Yes.....Contact FWS-GA-Townsend to determine if consultation is needed to evaluate impacts on Critical Habitat.

4. The project is in Appling, Ben Hill, Coffee, Jeff Davis, Long, Montgomery, Tattnall, Telfair, Toombs, Wayne, or Wheeler Counties.
 - a. No.....NLAA. Consultation complete. FWS-GA concurrence not needed.
 - b. Yes.....Contact FWS-GA-Townsend to determine if consultation is needed based on the project's potential impact on water quality, hydrology, sediment load, and other habitat factors.

