

Altamaha Spiny Mussel

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 swift-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, only a 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.

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.

Endangered Species Act Consultation Checklist:

Applicant:

1. Does IPaC indicate federally listed aquatic species may occur in the project area?
 - a. No.....No effect. Provide IPaC information to the Savannah District with application/Pre-Construction Notice (PCN).
 - b. Yes.....Go to #2.
2. Has the Fish and Wildlife Service's Georgia Ecological Services Field Office (GA ES) already reviewed and provided comments on the project?
 - a. No.....Go to #3.
 - b. Yes.....Provide GAES project review documentation to the Savannah District with application/PCN.
3. Were determination key(s) completed in IPaC and a consistency letter auto-generated for the project?
 - a. No..... Provide completed EDGES Applicant Consultation Form and supporting documentation to the Savannah District with 404 application/PCN.
 - b. Yes.....Provide IPaC determination key and consistency letter to the Savannah District with application/PCN.

Savannah District:

4. Does IPaC indicate the Altamaha spiny mussel or its designated Critical Habitat may occur in the project area?
 - a. No..... No effect.
 - b. Yes.....Go to #5.

5. Has GA_ES reviewed the project and provided information that federally listed aquatic species will not be impacted by the project or has the Savannah district determined that the project will have ‘no effect’ on listed aquatic species?
 - a. No..... Go to #6.
 - b. Yes.....No effect.

6. Has the applicant provided a consistency letter from IPaC indicating the project will have ‘no effect’ on federally listed aquatic species or is ‘not likely to adversely affect’ federally listed species.
 - a. No..... Go to #7.
 - b. Yes.....Verify that the applicant has completed the IPaC determination key properly. No concurrence from GAES is required. Section 7 consultation complete.

7. Has the Savannah district completed the required determination key in IPaC and generated a concurrence letter?
 - a. No..... Go to #8.
 - b. Yes..... No concurrence from GAES required. Section 7 consultation complete.

8. Does the project’s area of effect overlap designated Critical Habitat for the Altamaha spiny mussel?
 - a. No..... NLAA. No concurrence from GAES required. Section 7 consultation complete.
 - b. Yes..... Go to #9.

9. Will this project require an Individual 404 Clean Water Act Permit, involve point source discharges, or result in new surface water withdrawals?
 - a. No..... NLAA. No concurrence from GAES required. Section 7 consultation complete.
 - b. Yes..... Go to #10.

10. Is the necessary information provided in the PCN or application to assist the Savannah District and GAES in Section 7 consultation?
 - a. No.....Request the information and, once received, continue with 10b.
 - b. Yes.....Share data with GAES and continue consultation. Go to #11.

11. Consultation results in a Savannah district determination of:
 - a. NLAA..... Concurrence letter from GAES required. Section 7 consultation complete
 - b. LAA.....Initiate formal consultation.

Information to be Provided the Savannah District for Endangered Species Act Review

All should be included with application (where applicable):

- Sediment and erosion control plan, showing all stream buffers, including widths.
- A post-construction stormwater management plan.
- A timeline documenting when land clearing, construction, and post-construction actions will be implemented.
- Location of new or improved culverts, bridges, dams, stormwater facilities, and utility crossings of streams.
- Acreage estimates of disturbed land, undisturbed land, and impervious surface post-construction.