



# Critical Habitat for Freshwater Mussels in the Mobile River Basin



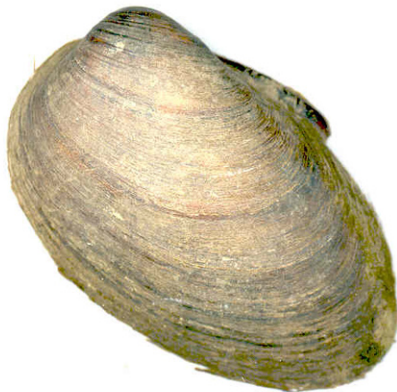
*Coosa moccasinshell*



*Finelined pocketbook*



*Orange-nacre mucket*



*Southern clubshell*



*Southern pigtoe*

## Why is the U.S. Fish and Wildlife Service designating critical habitat for several freshwater mussels in the Mobile River Basin?

In a 1993 final rule, the U.S. Fish and Wildlife Service (Service) listed 11 freshwater mussels under the Endangered Species Act (ESA) and made a finding that designating critical habitat was prudent but not determinable.

On October 12, 2000, the Southern Appalachian Biodiversity Project filed a lawsuit against the Service for failing to designate critical habitat for nine of the 11 mussels identified in the 1993 rule. The lawsuit did not include the dark pigtoe and orange-nacre mucket. On November 8, 2001, the United States District Court, Eastern District of Tennessee, ordered the Service to propose critical habitat for the nine freshwater mussels by no later than March 17, 2003.

In compliance with the court order, the Service is currently assessing the best scientific and commercial data available to evaluate critical habitat for each species.

## What is critical habitat?

Critical habitat is a term used in the ESA to refer to specific geographic areas that are essential for the conservation of a threatened or endangered species and that may require special management and protection.

## What is the purpose of designating critical habitat?

Federal agencies are required to consult with the Service on actions they carry out, fund or authorize to ensure that their actions will not jeopardize the continued existence of the species or destroy or adversely modify critical habitat. In this way, a critical habitat designation protects areas that are necessary for the conservation of the species. It also may serve to enhance awareness within Federal agencies of the importance of the habitat and the need for special management considerations.

## What does it mean to “consult”?

Consultation is a process by which Federal agencies use the Service’s expertise to evaluate the potential effects of a proposed action on ESA listed species and their critical habitats. Consultation may also identify alternatives to the proposed action to avoid adverse effects on listed species and their habitats.

## What is the impact of designating critical habitat on private lands and private landowners?

The designation of critical habitat on private land will have no impact on private landowner activities that do not require Federal funding or permits. The designation of critical habitat is only applicable to Federal activities.

## How does the Service determine what areas to designate as critical habitat?

The Service considers physical and biological habitat features that are essential to the conservation of these species, including:

- space for individual and population growth and for normal behavior;
- cover or shelter;
- food, water, air, light, minerals or other nutritional or physiological requirements;
- sites for spawning and rearing offspring; and
- habitats that are protected from disturbances or are representative of the historic geographical and ecological distribution of a species.

## Freshwater Mussels Fast Facts

**Common and scientific names:** Fine-lined pocketbook (*Lampsilis altilis*), orange-nacre mucket (*Lampsilis perovalis*), Alabama moccasinshell (*Medionidus acutissimus*), Coosa moccasinshell (*Medionidus parvulus*), ovate clubshell (*Pleurobema perovatatum*), southern clubshell (*Pleurobema decisum*), dark pigtoe (*Pleurobema furvum*), southern pigtoe (*Pleurobema georgianum*), triangular kidneyshell (*Ptychobranchus greenii*), upland combshell (*Epioblasma metastriata*) and southern acornshell (*Epioblasma othcaloogensis*).

**Status:** All 11 mussels were listed together on March 17, 1993. The fine-lined pocketbook, orange-nacre mucket and Alabama moccasinshell are threatened and the other eight are endangered.

**Description:** Mussels are bivalve mollusks, which means that they have two shells surrounding a soft fleshy body. Freshwater mussels are related to snails, oysters, clams and squids.

**Habitat:** Mussels live in the sand and gravel bottoms of streams and rivers. They require good water quality, stable stream channels and free-flowing water.

**Diet:** Mussels filter their food out of the water. They eat algae, other small plants and animals and possibly bacteria that grow on pieces of plant debris.

**Life history:** The larvae of these mussels are parasites on the gills of freshwater fishes, including darters, minnows and bass. The larvae use the host fish for dispersal and cause them little to no harm. Several of the mussels attract host fish by mimicking lures, minnows, worms, leeches or aquatic insects.

**Natural enemies:** Some species of fishes and turtles, as well as muskrats, racoons and otters feed on mussels.

**Threats to survival:** Habitat modification through man-made structures like dams and channel alterations have destroyed free-flowing water habitats. These modifications restrict many mussels from dispersing which results in small, isolated populations. In addition to habitat modifications, mussel populations are exposed to point source pollution and nonpoint source pollution (toxic runoff containing fertilizers, herbicides and pesticides from land use practices).

## Do listed species in critical habitat areas receive more protection?

Listed species are protected through the ESA's prohibition against take whether or not they are in an area designated as critical habitat. Take may include harm to the habitat if the action actually kills or injures wildlife by significantly impairing essential behavior patterns, including breeding, feeding or sheltering. Designation of an area as critical habitat provides an additional means by which the habitat of an endangered or threatened species can be protected from destruction or adverse modification resulting from Federal activities or projects.

## Does a critical habitat designation affect all activities that occur within the designated area?

No. An area designated as critical habitat is not a refuge or a sanctuary for the species. Only activities that involve a Federal permit, license or funding and that may affect critical habitat will require consultation. Most use of critical habitat by the public will not be affected by a critical habitat designation. Most activities such as recreational boating, canoeing, swimming, fishing and commercial boat traffic would not involve a Federal action that may affect critical habitat and therefore would not trigger a consultation requirement.

## Must Federal agencies consult with the Service even where critical habitat has not been designated?

Yes. Even when there is no critical habitat designation, Federal agencies must consult with the Service to ensure any action they carry out, fund or authorize is not likely to jeopardize the continued existence of a listed species. Where critical habitat is designated, a consultation also ensures that the critical habitat is not destroyed or adversely modified.

## Does the ESA consider economic consequences as a part of designating critical habitat?

Yes. Unlike ESA listing decisions, the Service must take into account the economic impact, as well as any other relevant impacts, of specifying any particular area as critical habitat. The Service may exclude any area from critical habitat if it is determined that the benefits of excluding it outweigh the benefits of specifying the area as a part of critical habitat, unless the Service determines that the failure to designate the area as critical habitat will result in the extinction of the species.

## What is the impact of a critical habitat designation on economic development?

The vast majority of actions that require consultation with the Service proceed with little or no modification.

## How many species have critical habitat designations?

The Service has designated critical habitat for 162 of the 1,260 species listed as threatened or endangered.

## Who should you contact for more information?

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