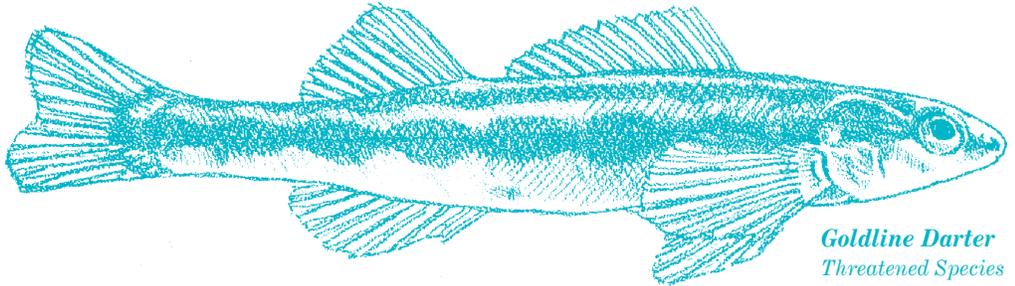


The Mobile River Basin



- Upper Tombigbee River*
- Buttahatchee River*
- Luxapallila River*
- Sipsey River*
- Lower Tombigbee River*
- Mobile River*
- Sipsey Fork*
- Mulberry Fork*
- Locust Fork*
- Black Warrior River*
- Cahaba River*
- Alabama River*
- Coosa River*
- Conasauga River*
- Coosawattee River*
- Etowah River*
- Tallapoosa River*

Background

The Mobile River Basin is the largest Gulf Coast drainage east of the Mississippi River. It includes 7 major river systems that drain portions of 10 physiographic provinces and 4 states. Defined by their soils, geology, topography, and other physical features, each physiographic province imparts a unique set of chemical and physical characteristics to the waters that flow through them. As such, the Mobile River Basin provides a wide variety of different habitats for many species of plants and animals. The Basin's isolation by time and geologic events (such as the last continental Ice Age about 10,000 years ago) has resulted in a high number of endemic species (species found nowhere else in the world).

Ecosystem in trouble

Historically, the Basin's endemic fauna includes 40 fishes, 33 mussels, and 110 aquatic snails, as well as a number of turtles, aquatic insects, and crustaceans. Today at least 16 endemic mussels and 38 endemic aquatic snails are presumed to be extinct, most within the past few decades. In addition, the Basin has 32 aquatic animal and plant species that are currently protected under the Endangered Species Act of 1973, including two turtles, ten fish, 17 mussels, one snail, and two plants. At least 62 other species are being reviewed as candidates for possible future listing. These imperiled species represent all levels of the aquatic food chain and include plants, insects, crustaceans, snails, mussels, fishes and turtles.

A stable ecosystem is defined as one where the chance of species extinction is low. The high number of extinct and imperiled species from a variety of aquatic habitats throughout the Basin — from small mountain streams to large coastal plain rivers — is a clear indication of an ecosystem in trouble.

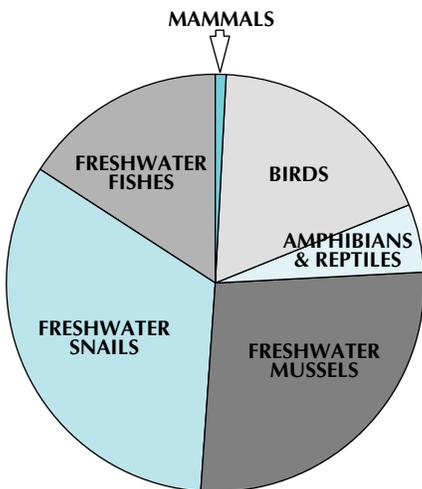
High rate of extinction

During the past two centuries, increasing human needs for transportation, housing, water supply, electricity, food, and waste disposal have caused many changes in the nature and quality of the Mobile Basin's aquatic habitats. As a result, the Basin is experiencing biotic extinctions at a rate unparalleled elsewhere in the continental United States; almost 50% of U.S. extinctions have occurred during this century in Mobile River Basin.

What are the principal causes of these dramatic declines?

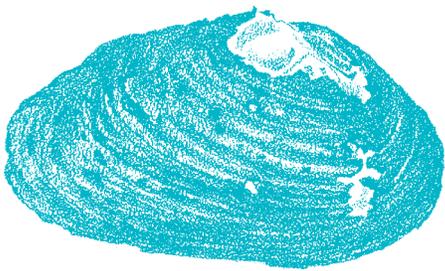
One of the primary causes of the precarious status of many of the Basin's species is habitat fragmentation. Man-made structures such as dams, locks, levees, and other channel modification projects have separated and fragmented the aquatic habitats of many species that depend on free-flowing rivers. This habitat fragmentation has resulted in the elimination of many riverine species from extensive portions of their former range. Most of the Basin's imperiled species now live in small and isolated populations.

These isolated populations, in turn, are made even more vulnerable to changes in land use that affect their habitats. Without natural avenues of immigration (i.e., ability to move unrestricted up and down a river), the loss of populations and the genetic codes they contain cannot be replaced. The surviving populations are then forced to face the gradual and combined effects of surface runoff (nonpoint source pollution) from common activities such as construction, agriculture, silviculture, urban activities, and other land use practices. Nonpoint source runoff can be toxic or cause sedimentation (siltation) and nutrification (excessive nutrient input).



U.S. Species Presumed Extinct Since European Arrival

Compiled by U.S. Fish and Wildlife Service and Natural Heritage Network Central Database.



Nonpoint source pollution may also contain fertilizers, herbicides, and pesticides from lawns, sod farms, golf courses, cultivated fields, pastures, and managed forests; animal wastes from cattle feedlots, dairy farms, poultry houses, and catfish ponds; septic tank and greywater leakages from rural and urban residences; and oils and greases from parking lots, highways, and roads.

Habitat needs

Each imperiled species within the Basin is unique in some aspect of its life history and habitat requirements. But two factors are shared by all: the adaptation to their natural fluctuations of a free-flowing riverine habitat and the dependence upon the stability of that environment, including substrate (river bottom materials) and water quality.



Traingular Kidney Mussel (endangered)

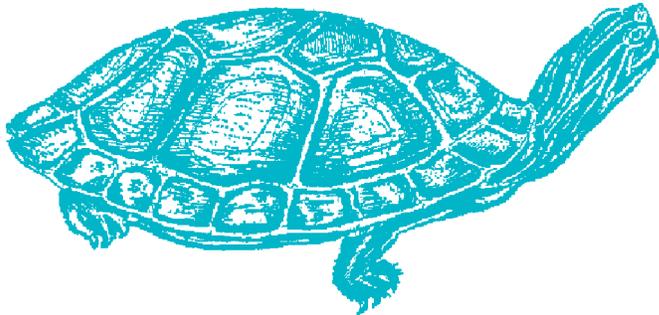
Many mussels live buried in rock shoals or gravel bars.

What can you do to help?

The recovery of an aquatic ecosystem can begin immediately on the land surface. Remember, whatever you put on the land may eventually enter our rivers. We can reduce the use of pesticides, fertilizers, and other chemicals. We can safely dispose of household chemicals and used motor oil and not pour them down the drain. We can keep livestock and their wastes out of rivers and streams.

We can also support programs that improve the water quality of the rivers. We can recognize the importance of the remaining free-flowing streams and their aquatic habitats. We can plant buffer strips of natural vegetation along the waterways to filter runoff, and report fish kills or illegal dumping to our state conservation agency.

Today, more than ever before, the Mobile Basin's plants and animals depend on us for their survival.



Alabama Red-bellied Turtle (endangered)

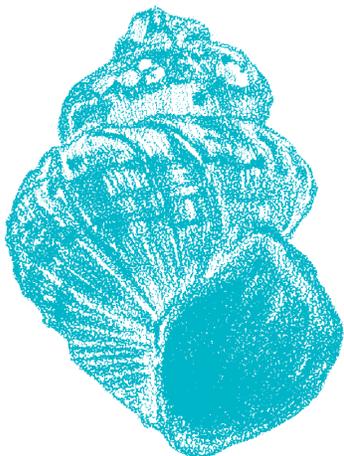
Basks on snags and rivers and backwater areas of bays.

For more information, contact:

U.S. Fish and Wildlife Service
Jackson Field Office
6578 Dogwood View Parkway, Suite A
Jackson, Mississippi 39213
601/965-4900

or

U.S. Fish and Wildlife Service
P.O. Box 1190
Daphne, Alabama 36526
334/441-5181



Tulotoma Snail (endangered)

One of the largest freshwater snails in North America.

