



NOAA Fisheries: Protecting and Regulating Ocean-River Migratory Fish and Habitat

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The U.S. Department of Commerce's NOAA National Marine Fisheries Service began coordination with the U.S. Army Corps of Engineers, the states, and commercial fisheries in 1873 after the Civil War and originally was named the U.S. Fish Commission. Later, the Commission was renamed the Bureau of Commercial Fisheries (BCF), and became a bureau in the U.S. Department of the Interior, in collaboration with U.S. Fish and Wildlife Service. In 1970, the BCF was transferred to the National Oceanic and Atmospheric Administration and was renamed the National Marine Fisheries Service (NOAA). Today, we are referred to as NOAA Fisheries. Throughout our agency's history, our primary focus has been on protection and regulation of ocean-river migratory fish species of commercial and recreational interest.

In essentially all large Piedmont river basins on the Atlantic Coast, historically there were huge migrations (often hundreds of millions) of ocean-river fish species from the oceans into large rivers like the Savannah River all the way up to the Appalachian Mountains. American shad, river herring, striped bass, Atlantic and shortnose sturgeons, and American eels were examples of important ocean-river migratory fish. Scientifically we call them diadromous fish species.

The shad, herring, striped bass and sturgeons historically spawned throughout the Piedmont and Coastal Plain, and millions of young fish hatched and migrated back to coastal waters—and in many cases, moved all the way to the North Atlantic Ocean offshore from Canada.

American eels live up to 15 to 30 years in fresh water rivers and eventually move offshore to the Sargasso Sea to spawn. Trillions of small, transparent eels move back into Atlantic and Gulf Coast rivers to continue their life cycle. For river-spawning fish, after some years of growth, they would return to their natal river reaches to spawn in late winter and spring. Those ocean-river migratory fish hugely supported riverine, estuarine, and

ocean food webs, as well as marine mammals, whales, shore birds, sharks, tunas, and many other commercially and recreationally important fish species.

The damming of most Piedmont rivers to supply important hydroelectric power and water supply storage for the public have reduced ocean-river migratory fish populations, and significantly affected riverine, estuarine, and ocean ecosystems. Many commercial and recreational fisheries and wildlife populations have reduced significantly as a result of the decline of ocean-river fish migrations in the Savannah River.

Balancing the flow carefully in the Savannah River is very important for protection and restoration of ocean, estuarine and riverine ecosystems, fisheries, and wildlife populations. Available rocky shoal spawning habitat has reduced by more than 95 percent due to blockage of upstream migrations. Carefully regulating Savannah River flows to important remaining spawning and maturation habitats is critical for protection of all species, particularly shortnose and Atlantic sturgeon. Improving fish passage to important spawning habitats above existing dams in the future is a major benefit for the restoration of ecosystems, fisheries and wildlife.

Current Savannah River Basin stakeholder collaboration on water flow management during low-flow conditions offers an important opportunity for protection and restoration of the Savannah River's aquatic ecosystems and public resources.

**—Provided by Kim Amendola and Prescott Brownell,
National Oceanic and Atmospheric Administration
(NOAA) National Marine Fisheries Service.**