

Common Name: **Atlantic Sturgeon**



Scientific Name: *Acipenser oxyrinchus oxyrinchus*

Area of Concern: Western Atlantic - Labrador, Canada through the St. Johns River, Florida

Year First Listed as a "Species of Concern": 1988 and formally retained in 1998

Species Description:

The Atlantic sturgeon is a subtropical, anadromous species. Spawning adults migrate upriver in spring, beginning in February-March in the south, April-May in the mid-Atlantic, and May-June in Canadian waters. In some areas, a small spawning migration may also occur in the fall. Spawning occurs in flowing water between the salt front and fall line of large rivers. Following spawning, males may remain in the river or lower estuary until the fall, females typically exit the rivers within four to six weeks. Adults forage on benthic invertebrates (mussels, worms, shrimp), live up to 60 years, reach lengths up to 14 feet, and weigh more than 800 pounds. Juveniles move downstream and inhabit brackish waters for a few months; at about 76-92cm TL, they move into coastal waters. Age of female sexual maturity is thought to be clinal: 7-19 years in SC, 15-30 in the Hudson River, and 27-28 years in the St. Lawrence River. Males mature at younger ages and smaller sizes than females also in clines: 5-13 years in SC, 11-20 years in the Hudson River, 22-34 years in the St. Lawrence River. Atlantic sturgeon are probably not annual spawners; males likely spawn more frequently than females. Tagging data indicate that immature Atlantic sturgeon travel widely once they emigrate from their natal rivers.

Rationale for "Species of Concern" Listing:

Demographic and Diversity Concerns:

Despite extensive mixing in coastal waters, statistically significant genetic differences between riverine stocks have been identified. However, not all portions of the species' range have been represented in the genetic testing.

Factors for Decline:

A large U.S. commercial fishery (100,000 - 250,000 lbs/yr) existed for the Atlantic sturgeon from the 1950's through the mid-1990's; the origin of the fishery is dated back to colonial times. The Atlantic sturgeon is managed under a Fishery Management Plan implemented by the Atlantic States Marine Fisheries Commission; a coast-wide moratorium on the harvest of wild Atlantic sturgeon was implemented in late 1997/early 1998. This moratorium is to remain in effect until there are at least 20 protected year classes in each spawning stock (anticipated to take up to 40 or more years). Most of the population data available before the moratorium were fishery-dependent, since the moratorium there have been few surveys to assess status and abundance. Cultured Atlantic sturgeon continue to be a valued commercial fish for both its flesh and their eggs (roe). Furthermore, because the sturgeon is dependant on the estuarine and freshwater habitat, habitat degradation continues to be a threat. Such factors included in habitat degradation are industrial and municipal pollution, blockage to access by dams, channelization or elimination of backwater habitats, de-watering of streams, and physical destruction of spawning grounds. Although currently there are no known disease organisms threatening the Atlantic sturgeon

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populations, there is concern that non-indigenous sturgeon pathogens could be introduced through aquaculture operations.

Status Reviews/Research Completed or Underway:

Apart from the National Marine Fisheries Service and the U.S. Fish and Wildlife Service, many of the programs set up for conservation of the Atlantic sturgeon are created by the Atlantic States Marine Fisheries Commission's Amendment 1 to the Atlantic sturgeon Fishery Management Plan, including measures for preservation of existing habitat, habitat restoration and improvement, monitoring of bycatch and stock recovery, and breeding/stocking protocols. Other organizations involved with Atlantic sturgeon conservation include, but are not limited to, State and local governments, private and conservation organizations which would include the Hudson River Foundation.

The [Atlantic Sturgeon status review](#) was completed in September 1998 in response to a petition, and it was scheduled to be updated in 2003 (See [FR notice](#)). The actual update should occur in 2004. In 1998 NMFS and FWS determined that Atlantic sturgeon did not warrant listing as threatened or endangered under the ESA. However, because of concerns regarding its status and uncertainties, NMFS retained this species on its candidate list. Now the Atlantic sturgeon is considered by NMFS to be a species of concern.

For further information on this Species of Concern, or on the Species of Concern Program in general, please contact Ms. Marta Nammack, NMFS, Office of Protected Resources, 1315 East West Highway, Silver Spring, MD 20910, (301)713-1401, Marta.Nammack@noaa.gov; or Kimberly Damon-Randall, NMFS, Northeast Region, Protected Resources Division, One Blackburn Drive, Gloucester, MA 01930-2295, (978) 281-9328, x6535, Kimberly.Damon-Randall@noaa.gov.

References:

National Marine Fisheries Service & U.S. Fish and Wildlife Service. 1998. [Atlantic Sturgeon Status Review](#).

Taub, S.H. 1990. Fishery Management Plan for Atlantic Sturgeon. Washington, D.C.