

SPECIES INFORMATION SHEET

Acipenser oxyrinchus

English name: American Atlantic sturgeon	Scientific name: <i>Acipenser oxyrinchus</i>	
Taxonomical group: Class: Actinopterygii Order: Acipenseriformes Family: Acipenseridae	Species authority: <i>Mitchill, 1815</i>	
Subspecies, Variations, Synonyms:	Generation length:	
Past and current threats (Habitats Directive article 17 codes): Fishing (F02), By-catch (F02), Eutrophication (H01.05), Migration barriers (J03.02.01)	Future threats (Habitats Directive article 17 codes): Fishing (F02), By-catch (F02), Eutrophication (H01.05), Migration barriers (J03.02.01)	
IUCN Criteria: –	HELCOM Red List Category:	RE Regionally Extinct
Global / European IUCN Red List Category: NT/NE	Habitats Directive: Annex V	
Previous HELCOM Red List Category (2007): RE		
Protection and Red List status in HELCOM countries: Denmark –/–, Estonia <i>protected by national law</i> / RE , Finland –/RE, Germany <i>reintroduction programme</i> / O (extinct, Baltic Sea), Latvia –/RE, Lithuania –/RE, Poland <i>Not under species protection but year round prohibiting of catches and a reintroduction programme</i> / RE , Russia <i>illegal to fish or land specimens (obviously extinct in the region)</i> / RE , Sweden –/RE		

Distribution and status in the Baltic Sea region

The sturgeon occurring in the Baltic after 1800 has most probably been *A. oxyrinchus* and not as previously believed *A. sturio* (Gessner & Ritterhoff 2004). The sturgeon populations have declined to extinction throughout its distribution range in the HELCOM area. Along the Atlantic coast of eastern North America, more or less stable populations of the species belonging to several genetically distinct entities still occur. Former Baltic Sea populations have been genetically most similar to the northernmost Canadian population of the species which still lives in St. Lawrence and St. John rivers (Ludewig et al. 2002).



American Atlantic sturgeon. Photo: Simon Pierre Barette

Habitat and ecology

The American Atlantic sturgeon lives demersally above sand and mud bottoms, in the ocean from inshore coastal waters down to around 50 meters depth. The species usually lives solitarily. As an anadromous migrating species, it enters rivers for reproduction, and spawns at depths of 2 to 10 m on



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stony bottoms. Females produce 800 000 to 2 400 000 sticky eggs which adhere to stones and the larvae hatch in a week. After hatching, juveniles may remain in fresh or brackish water for 3–5 years, then migrate slowly into the sea where they spend at least 8 years (often up to 30 years) before they mature and start their spawning migration again (they spawn every 3–4 years). American Atlantic sturgeons feed on crustaceans, molluscs, polychaete worms, and small fish and reported maximum total length is 403 cm (male) or 430 cm (female). In the Gulf of Finland, there is a record of a sturgeon caught in 1934 (near settlement Repino) that was 280 cm in length, 177 kg in weight, and 22 years old. The last record in the Neva River was in June 1994. (Gessner & Ritterhoff 2004, Froese & Pauly 2011)

Description of major threats

American Atlantic sturgeon is highly sensitive to human activities. It was a target species of (historical) fisheries, and it was caught as by-catch in demersal and river fisheries. Furthermore, eutrophication degrades its spawning habitat (as the species would need clean gravel beds), and dam and weir construction in rivers barriers spawning routes and causes too strong water velocity along the spawning routes. The species used to be common, but is now extinct.

Assessment justification

Species is red-listed as Regionally Extinct (RE). It is deemed likely that it has ceased to reproduce within the HELCOM area. The last large female was caught in Estonia in May 1996. The ongoing re-introduction programmes in Germany and Poland have not yet resulted in any successful reproduction.

Recommendations for actions to conserve the species

This species is extirpated in the Baltic region and the possibilities for spontaneous reintroduction are very low. Therefore hatchery rearing and stocking are needed. However, before this action is taken, it is necessary to improve understanding of the causes of extinction, as well as on suitable conditions for reintroduction. Conservation schemes should include scientifically advised restocking programmes into suitable rivers over an extended period of time (using as stocking material specimens out of the northernmost population of the North American stocks, from around St.-Lawrence and St.-John rivers, Canada), as well as fisheries restrictions, freshwater and marine protected areas, measures to reduce eutrophication of the spawning rivers, and construction of special fish passes or sturgeon elevators around weirs.

In May 2007 the first release of young sturgeon was made in the Odra River. The fish were all tagged and some had transmitters attached. The restocking trials were continued in 2008, and some 35,000 fish have now been released into the Odra and its tributaries. This forms part of research into sturgeon migratory behaviour and habitat utilization in the Odra region to assess the river system's suitability for reestablishment of a sturgeon population. A monitoring programme identifies and quantifies risk factors for survival of the young fish. The research outcomes will provide the basis for management of a possible large-scale reintroduction to follow.

Common names

DE: Baltischer Stör; DK: Vestatlantisk stør; ES: Atlandi tuur; FI: Sinisampi; LV: Store, Atlantijas store, LT: Sturys (Aštriašnipis eršketas); PL: Jesiotr ostronosy; RU: Amerikanskij osjotr; SE: Atlantisk stör





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