

# The European Sturgeon

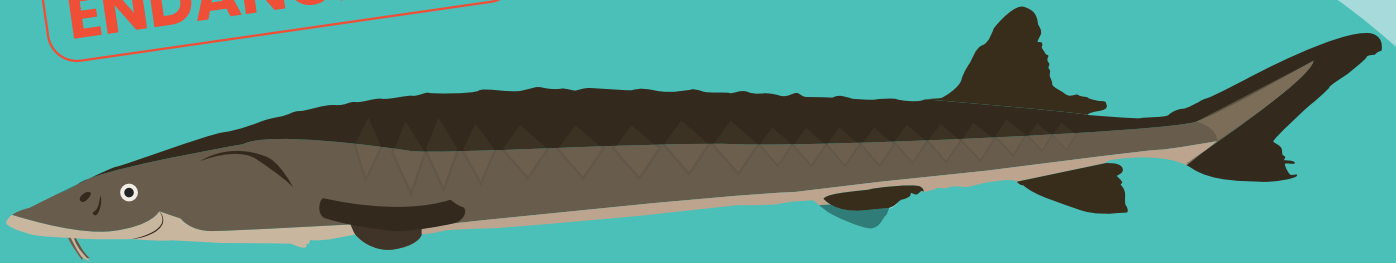
*Acipenser sturio*

River Gironde  
France



CONSERVATION  
STATUS:

**CRITICALLY  
ENDANGERED**



spend **MOST**  
of their  
life at sea



**14-18**

Females reproduce for the first  
time at age 14-18 and males  
12-14 years old.

**12-14**

Lifespan:

**100+**  
years

grow up to  
**5m**  
in length  
and weigh up to  
**350kg**



*A. sturio*

**4 long barbels**

with which they sense something  
edible and suck it up with their  
protrudible mouth.

only

**27**

**spawning sites**

for the last natural population  
in the Gironde River in France

# The European sturgeon

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## Range and Habitat

The European sturgeon is a diadromous fish. This means that they utilize both fresh and salt water. Originally, these species inhabited the major rivers in the Black, Mediterranean, North East Atlantic and North Seas as well as the coastal waters on the continental shelf including rare observations in the White and Baltic Seas. Currently, only one population of European sturgeon is known to still persist in the Gironde River in France. The last time the European sturgeon spawned here was in 1994. At this site, there are 27 potential spawning sites accessible for the sturgeons which cover less than 10 km<sup>2</sup>.

Migrating sturgeon can swim upstream a thousand kilometers to spawn and during this journey they do not eat. They reproduce on cobblestone-bottomed rivers and spawning usually takes place in spring and early summer. After spawning, the sturgeons immediately return to the sea.

The eggs stick to the cobbles until the sturgeons hatch from the eggs after 3-5 days. During the first few days, they receive nourishment from their own yolk-sac and hide in the gaps between stones and emerge before feeding after 10-12 days. When they begin feeding they also begin their journey downriver, gathering in habitats with plenty of food. After the first winter, they move into the estuary from where they start to migrate into marine waters at a size of 30-40cm. Feeding migrations bring them back to estuarine waters temporarily.

Most of the sturgeon's life is spent in the sea. Males mature at the age of twelve to fourteen while females mature around the age of fourteen to eighteen. As mature adults, they migrate back up the river to spawn and spawn multiple times in intervals of 1-5 years over the course of their life.

## Size

Today sturgeons are referred to as living dinosaurs as their lineage dates back to over 200 million years ago. They can exceed the incredible age of 100 years! In their lifetime, they can grow up to over 5 meters and weigh over 350 kilos.

## Feeding

In the sea, they mostly live at depths of 5 to 60 meters. Sturgeons are known to be scavengers and feed near to or on the seabed for shrimps and worms but also forage on mussels and small fish. Finding food for them is a matter of long and short distance senses. In the long range, movements of prey items are received by their lateral line. Their lateral line, located along the length of the fish can detect pressure and vibrations of their prey! Through smell, they can detect the location of their prey. While approaching the prey item, they use electric receptors on their snout and taste receptors in the 4 long barbels in front of their mouth to detect the prey. With these barbels they scan the ground underneath them and when they sense something edible they suck it up with their protrudable mouth.

## Commercial Role / Current Status

Up until the beginning of the 20th century, the European sturgeon was an important commercial fish for both their meat and their eggs, known as caviar. Now, this fish is protected in Europe.

Unfortunately, this magnificent species is critically endangered due to overfishing and massive impacts upon their habitats. The hatchery-raised sturgeons from the Gironde River population also serve as the donors for the ongoing restoration efforts in the German Elbe River as well as for the experimental releases in the Dutch Rhine.

Based upon a European Action Plan for the recovery of sturgeons, a collaborative approach for the recovery of the species, addressing the main adverse impacts in the native range as well as providing material for the initiation of self-sustaining populations nurtures the hope that the European sturgeon can be saved from going extinct. The survival of this sturgeon species is still dependent on the collaborative initiatives to safeguard the species and restore river habitats.

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## Bibliography:

Gessner, J., Williot, P., Rochard, E., Freyhof, J. & Kottelat, M. 2010. Acipenser sturio. The IUCN Red List of Threatened Species 2010: e.T230A13040963.  
<http://dx.doi.org/10.2305/IUCN.UK.2010-1.RLTS.T230A13040963.en>.

<https://fishbase.in/summary/Acipenser-sturio.html>

N W Brevé, H Vis, B Houben, G A Laak, A W Breukelaar, M L Acolas, Q A Bruijn, I Spierts. 2014. Exploring the possibilities of seaward migrating juvenile European sturgeon *Acipenser sturio* L, in the Dutch part of the River Rhine