

THIS PROJECT IS FUNDED BY THE EU'S LIFE PROGRAMME





### Conservation

# The threats to Danube sturgeons



5 OUT OF 6

STURGEON SPECIES
IN THE DANUBE ARE
CRITICALLY ENDANGERED

Originating 200 million years ago, sturgeons are an ancient migratory fish which is today close to extinction. The Danube River basin preserves some of the most important sturgeon populations in the world, with Romania and Bulgaria holding the only viable populations of wild sturgeons in the European Union. Danube sturgeons play an important role as indicators of healthy ecosystems. They live mostly in the Black Sea, migrating up the Danube

to spawn. They get up to 6 meters long and can live to be 100 years old.

Illegal fishing – principally for their caviar - is the main direct threat to the survival of Danube sturgeons. Funded by the EU's Life + programme, WWF works to tackle this threat. Habitat loss and disruption of spawning migration are further threats that WWF is working to prevent.

#### Overfishing and the caviar trade

Overfishing – once legally and now illegally – is the main direct threat to the survival of Danube sturgeons. Due to their long life cycles and late maturity, sturgeons are especially vulnerable to overfishing, with stocks taking many years to recover.

In 2006 Romania was the first country in the region to announce a ban on sturgeon fishing. The 10-year ban will expire at the end of December 2015. Bulgarian authorities followed suit and in 2011 announced a one-year ban, which was later extended also until the end of 2015.

As sturgeon fishing is now illegal, facts are by their nature difficult to obtain, and most information is anecdotal. However, poaching still seems to occur rather widely. This was demonstrated in 2011-2012 in a first-time WWF caviar market survey conducted in Romania and Bulgaria. According to the survey, despite the good legal situation, illegal caviar could be bought by surveyors on several occasions in Romania and was offered for sale in Bulgaria.

The main driver for overexploitation is the extremely high economic value of sturgeon caviar. There are flourishing black markets in the whole region and illegal caviar from Bulgaria and Romania is found in several other EU Member States.

#### The Iron Gates dams and disruption of spawning migration

Spawning migration is an integral part of the natural life cycle of all Danube sturgeons. This makes them especially sensitive to the impacts of physical barriers such as dams. After damming, fish are confined, unable to complete their migration to spawning sites. Enclosed sturgeon populations can experience the negative effects of inbreeding and loss of genetic variability.

Located just below the Iron Gates gorge (Djerdap) between Romania and Serbia, Iron Gates is the largest hydropower dam and reservoir system along the entire Danube. The dams are constructed at river km 942 and river km 863 upstream of the Danube delta, in effect restricting migratory sturgeons to 863 km of the river and cutting off important spawning sites in the Middle Danube.

#### **Habitat loss**

Sturgeons are very sensitive to habitat changes. Altered habitats can immediately impact on their spawning, wintering and feeding success, and ultimately lead to their extinction. Most sturgeon species today spawn on the clean gravel banks of the Lower Danube, where they lay their sticky eggs before migrating back to the Black Sea. Spawning takes place in deep waters, and at temperatures of at least 9–15C.

Sturgeon populations have been most seriously affected due to the loss of suitable habitat in the Danube River basin. Straightening and channelization of the river and the building of dikes along the banks to prevent flooding, has resulted in a dramatic loss of 80% of the natural floodplains and wetlands that are part of a river system. Navigation has been a major threat to sturgeon habitats, mainly due to activities that have involved deepening, straightening and dredging of the river. Sand and gravel extraction, as well as bottom trawling, too, have had very harmful effects on sturgeon populations.



## THE IRON GATES DAMS

CUT OFF STURGEON SPAWNING SITES IN THE MIDDLE DANUBE



Why we are here.

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

www.danube-sturgeons.org

The project "Joint actions to raise awareness on overexploitation of Danube sturgeons in Romania and Bulgaria" aims to tackle overfishing, the main direct threat to the survival of Danube sturgeons.

For more information:

www.danube-sturgeons.org