

# become a part of the restoration of the European sturgeon

The European sturgeon (*Acipenser sturio*) is an endangered species and is strictly protected. According to the Plan dedicated to it in France, operations are underway to restore the species in both French and European territorial waters. The mobilization of the fishermen is a key-factor to their success.

In case of an incidental capture of a specimen, release it and contribute to the return of the largest migratory fish in Western Europe.







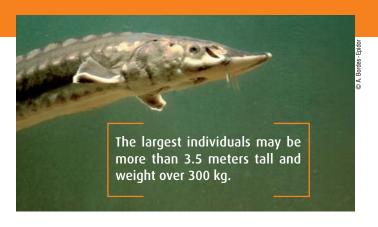
## Situation and status

#### > Wild or farmed sturgeon?

Twenty seven species of sturgeon are identified worldwide and most of them are actually threatened. While several species are reared in fish farms for their caviar and meat. there is no commercial production of the European sturgeon, the wild migratory species of the North-East Atlantic. A sturgeon accidentally bycatch in marine waters is always a European sturgeon.

#### > Life cycle of the European sturgeon

The European sturgeon spends most of its life cycle in the sea, in shallow coastal waters located between the South of the Bay of Biscay and the Scandinavian coasts.



#### > Endangered species

In the past, the European sturgeon was abundant by the shores and in most of the European rivers. But during the 19th and 20th centuries it suffered from the combined effects of the destruction of its essential habitats (spawning sites, nurseries), the apparition of migratory obstacles and an excessive fishing. Only a fragile and unique population now remains. Since 1950, the Garonne and the Dordogne river basins in France host the last operating spawning sites of the species.

#### > Multiples threats

decades, specimens only reach maturity after 10 years for the males and 15 years for the females and in areas subject to intensive pressures including pollution, urban development or used for various activities such as dredging and fishing for example. The surgeon must endure extremely high constraints to achieve its life cycle.

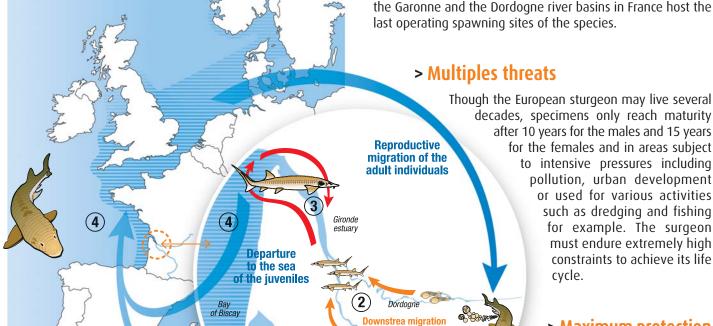
#### > Maximum protection

The European sturgeon is now one of the most endangered

species in Europe. It is inscribed on

every lists elaborated in every major to the sea international convention for the protection of nature and species. It is protected in Europe since 1998 and identified as a priority species for the Direction of Habitats. Intentional capture, transport or the setting on sale and the sale of European sturgeons are strictly prohibited in France as it is in many other member states of the European Union (the UK, the Netherlands, Belgium, Germany, Spain, etc.).

> In France, non-compliance with regulation on this protected species is liable to a 22 500€ fine. (Art. L436-16 of the French Environment Code).



Return

of the adults

1) As soon as spring begins the adult specimens progressively move up the estuary and the rivers to the spawning sites where they reproduce in May and June. The eggs develop after ten days or so.

2 The larva and then the juveniles remain in fresh water during the entire summer, close to the reproduction areas. The young sturgeons then start moving downstream to the estuary that they will reach during their first winter, at the age of 6 to 8 months. Their descent to the sea will last until the end of their third summer.

3 Between 3 and 6 years, the juveniles operate regular but not mandatory twoways trips between the estuary and shallow coastal waters. They reach the sea during winter and remain in the estuary for summer.

4 After 4 years old, the sturgeons leave the estuary and spread along the marine continental shelf, mostly in areas which do not exceed 40 meters depth. They will return to the river they were born after having reached their maturity and then, every 2 to 4 years for reproduction.

## **Actions underway**

#### > Implementation of a national plan

Despite its protected species status and the various safeguards going on since the 70's, notably in France, the species keeps declining. As for now, the main constraints and actions required to restore the species have been identified and mobilize several stakeholders within the frame of the



2011-2015 French Action Plan in favor of the European sturgeon. Monitored by the DREAL<sup>1</sup> Aguitaine, this ambitious restoration plan aims at preserving the wild population and its aquatic habitats while planning complementary implementation of restocking actions.

First results of the 2011-2015 Plan are encouraging and may let us hope a possible return of this great migratory fish. But due to its long life-cycle, there is still a long way to go before this species leaves the list of protected species.

#### > Supporting the wild population

Several dozens of spawners are held in captivity in pools at the French Plan experimental station and benefit from exclusive skills acquired by the scientific and technical teams of IRSTEA<sup>2</sup> and MIGADO<sup>3</sup>. Since 2006, every year or so, from one to several artificial reproductions of European sturgeons are conducted. Every summer hundreds of thousands of 7 days larva and 3 months juveniles which are born during the operation are released in the lower parts of the Garonne and Dordogne rivers, and for a minor part, in some other European rivers such as the Elbe in Germany. During the first three years of the Plan, over 1.5 million of individuals raised in this station have been released in their natural environment.



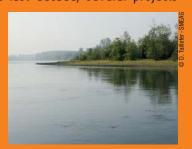


These restocking actions are inevitable as long as the wild spawners are too few to ensure the future of their species. The last natural reproduction has been observed in 1994.

#### > Protection of the essential habitats

In order to ensure the protection of the spawning sites in the Garonne and the Dordogne rivers, the nurseries of the Gironde estuary and some of the marine habitats essential to the development of this species, several regulation tools are underway. They may notably influence or forbid practices and the implementation of structures which could represent a risk of deterioration of these areas, essential to this species. Thanks to them, during the last decade, several projects

of aggregates dredging and extraction on the Gironde-Garonne-Dordogne system never fulfilled. These rules also benefit to the other aquatic species which depends on these aquatic habitats, of their quality and connectivity.



#### > Monitoring the population in its natural environment.

A lot of qualitative and quantitative indicators are used to estimate the situation and the evolution trend of the population in the wild. To do so, IRSTEA relies on the results of fry releases, but also on information provided by accidental sturgeon captures and declared by fishermen. In addition, data provided by various experimental approaches (scientific fish-

ery, marking, follow-up of the very early stages, etc.) conducted, for most of them, in fresh water and in estuaries. The sum of the collected elements helps us improving our knowledge of anadromous fish biology.



#### To learn more, please consult the French Plan website at: http://www.sturio.eu

#### > Technical and Financial Partners

























<sup>&</sup>lt;sup>1</sup> DREAL (Regional Office for Environment, Development and Housing),

<sup>&</sup>lt;sup>2</sup> IRSTEA (National Research Institute of Sciences and Technologies for Environment and

MIGADO (Association for the Restauration and the Monitoring of migratory fishes in the Garonne and the Dordogne watersheds)

## Contribution of the fishery world

# > Fishermen, key actors of the European sturgeon protection

Despite in Europe there are no commercial exploitations of that fish anymore, the risk of mortality by incidental captures in rivers, estuaries and seas remains and represents one of the very first threats for the species. However, the experience shows that the European sturgeon, when caught in a gillnet, a trammel net or a bottom trawl, to mention the most concerned fishing gears, are resistant to these strains. In a large majority, sturgeons are still alive when brought on board and discovered by fishermen. Their reaction is thus crucial. The survival of each specimen matters and sturgeons must immediately be released. The future of this species may depend on the fishermen awareness.





#### > Why is it interesting for the fishermen?

Beyond the citizen gesture, the mobilization of fishermen through such a preservation program empowers their role of aquatic environment sentries. Their action contributes to a responsible fishery. Information declared, as they are often the only witnesses, are essential and con-

tribute to outline the situation of the population and the knowledge of the European sturgeon ecology.

#### > Declarations in significant increase

Thanks to the restocking efforts underway and due to the migrations of that fish in areas which represent an important activity zone for professional and recreational fishery fleets, the number of declarations of incidental capture has significantly increased during the past years. In 2012, the record number of 320 captured and declared specimens have been registered. The growing presence and the recent dispersion of European sturgeon to the entire coastline of the Bay of Biscay, the Channel and the North Sea are now demonstrated.

### In case of an incidental capture of a European sturgeon, you must:

- 1. Write down its length, its weight, the date and the place of the catch
- 2. If it wears a yellow mark, leave it on and write down its number
- 3. If it wears a beacon, detach it and send it to the address written on it
- 4. Release it whatever its state might be



External mark to leave on the fish



Beacon to detach from the fish

**5. Report it** on the website **WWW.Sturio.eu**, or for French and English speakers, by calling French Plan partners at this number 00 33 5 57 49 67 59.



#### Thank you for your vigilance and your contribution











