

Sturgeon

Acipenser baerii



Biology

Several species from the *Acipenseridae* family are farmed in Europe, including the Siberian sturgeon, Danube sturgeon, Sterlet sturgeon, Common sturgeon and Adriatic sturgeon. Many of the sturgeon species are considered endangered or even critically endangered. Their population has drastically decreased because of the construction of dams cutting migration routes, overfishing and pollution. The farming of sturgeon is important, therefore, not only for producing flesh and caviar but also for restocking these species to the extent that it has a beneficial impact on wild stock conservation.

One of the sturgeons most commonly farmed in the EU is the Siberian sturgeon (*Acipenser baerii*). Rearing systems for Siberian sturgeon were developed in the 1970s in the former Soviet Union. The first specimens were introduced into France at more or less the same time, as part of a scientific cooperation programme.

Farming

The reproduction of Siberian sturgeon is complicated in that the females do not ovulate every year and not all at the same time. By controlling water temperature, however, it is possible to obtain eggs over a relatively long period, from December to May.

Siberian sturgeon can be reared in raceways, circular tanks, ponds or cages. They are carnivorous and are fed pellets with fishmeal and fish oil as well as vegetable extracts. The average rearing time for sturgeon cultured for their meat is 14 months, obtaining a fish weighing 700 g. At harvesting time they are caught in nets.

Exploiting sturgeon for caviar production is costly, because the females cannot reproduce until they are at least seven years old. During this period they are reared in tanks of running fresh water. In the past, the females were slaughtered and their eggs removed. However, in recent years, fish farmers have developed techniques to remove the caviar without killing the fish, which reduces production costs by improving the yield per mother fish.

Production and trade

At worldwide level, sturgeon fisheries have almost disappeared as a result of stock depletion. Farming has taken over fisheries, and Chinese aquaculture now accounts for 85% of the total sturgeon output worldwide. After China, the main producers of sturgeon are Russia and the EU. More Siberian sturgeon are being reared in Western Europe now that there is a ban on exporting caviar from wild specimens in order to protect stocks. Statistics for caviar production are not entirely accurate, but it appears that caviar accounts for over 80% of the value of sturgeon aquaculture. Italy and France are the main caviar producers in the EU. Thanks to the development of aquaculture in Europe, the value of exports of caviar to third countries has now overtaken the value of imports. Intra-EU trade of caviar amounts to half the value of EU production, with main flows from Italy to France, Germany and United Kingdom.

Most commonly associated with caviar, sturgeon are also farmed for their boneless flesh.

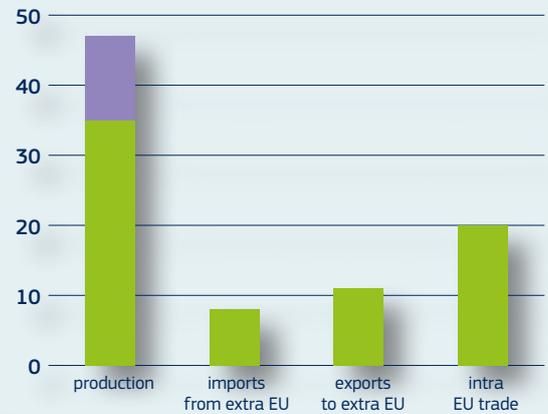


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Presentation on the market

Caviar, which comes from sturgeon eggs preserved with salt, is a well-known luxury product. The term 'caviar' is reserved exclusively for the roe of sturgeon of the family *Acipenseridae*. Roe from other species of fish may only be called 'caviar substitute'. Siberian sturgeon meat has no bones, which makes it appealing to consumers. European consumers, however, are not yet familiar with this fish, which can be sold filleted or smoked.

EU sturgeon supply and trade* (2009) (million EUR)



- Meat
- Caviar

* from fishery and aquaculture.

Source: Eurostat for meat, estimation from different sources by EC Directorate-general for Maritime Affairs and Fisheries for caviar.

Sturgeon steaks in tarragon

Ingredients for 4 people

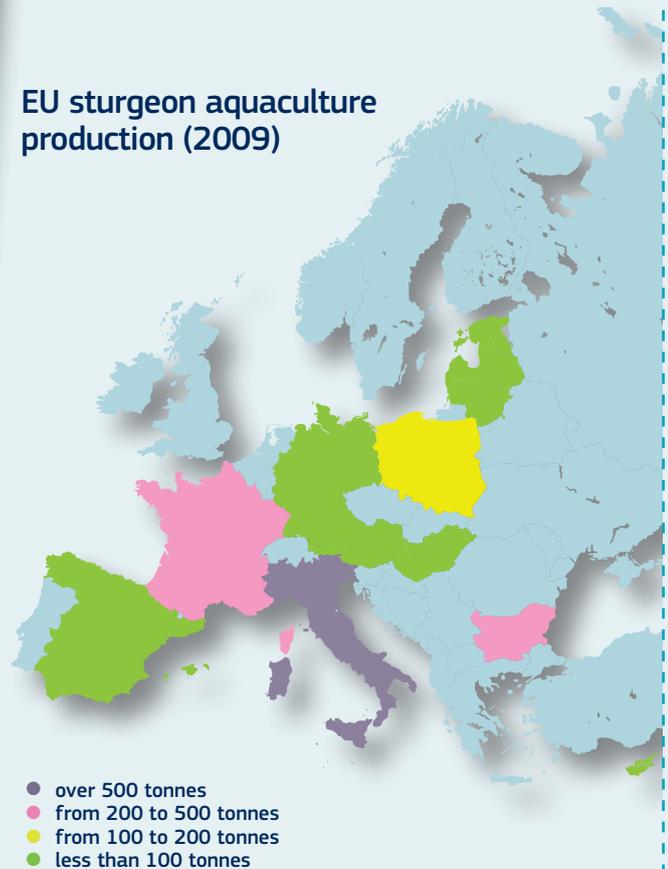
- 4 sturgeon steaks
- 30 g butter
- 1 shallot
- 3 sprigs of fresh tarragon
- 10 cl dry white wine
- 10 cl cream
- 1 fresh tomato
- 20 cl fish stock
- Edible flowers
- Salt and pepper

Instructions

1. Bake the seasoned steaks in the fish stock at 175° for 15 minutes.
2. Remove the steaks and keep them warm.
3. Simmer the cooking liquid on the hob until it has reduced by 2/3.
4. In a saucepan, soften the shallots in the butter and add the diced tomato.
5. Add the finely chopped tarragon and the reduced cooking liquid.
6. Add the cream and reduce until the sauce thickens. Check the seasoning.
7. Pour the sauce over the fish steaks and dress with edible untreated flowers in season (violets, roses, nasturtiums, geraniums, primroses, cornflowers, borage, pansies, etc.).

Recipe provided by Chef Philippe Votquenne (Euro-Toques Belgium)

EU sturgeon aquaculture production (2009)



Source: Eurostat.