

Lake Sturgeon

Acipenser fulvescens

A Saskatchewan Species at Risk



Class: Actinopterygii - the ray-finned fish

Subclass: Chondrostei - cartilaginous fish

Order: Acipenseriformes - primitive ray-finned fish

Family: Acipenserida - the Sturgeons

Genus: Acipenser - the true Sturgeons

Species: *Acipenser fulvescens* - the tawny-coloured Sturgeon

Did you know that we had a fish that often lives over 80 years, can reach 1.8 meters in length and weigh up to 90 kg and that lives in the lakes and the rivers of the Saskatchewan River system? This fish is from a very ancient line of fishes and has a partly bony and partly cartilaginous skeleton. It is the Lake Sturgeon or *Acipenser fulvescens*. (Acipenser = sturgeon, fulvescens = somewhat tawny).

Lake Sturgeon are fairly slow growing as they mature. The newly hatched are about 1.25 cm long but may reach 20 cm by the first summer. It may then take 20 years for them to reach 1 meter. The young have a very angular body with rough body shields with hooked spines and a very pointed snout. As the fish age, the body seems smoother and becomes torpedo shaped with a more rounded snout. Young sturgeon have a spotted pattern on their skin, which gradually disappears as they age.

The sturgeon is generally considered to be mature at between 8 to 13 years of age and first spawning may occur at 8 to 19 years for males and 14 to 23 years for females. Females will be ready to spawn only every four to six years, males usually every other year. Preferred spawning areas are generally near the shores of freshwater lakes in water depths of 5 to 6 meters with a gravel bottom and no mud. Thousands of eggs are fertilized and they adhere to water plants and stones with a sticky substance. They will hatch in three to seven days depending on the water temperatures.

Did you know?...

The Lake Sturgeon is Saskatchewan's largest freshwater fish. The largest lake Sturgeon on record is 120 kg (270 pounds) caught in the South Saskatchewan River in 1962.

Sturgeon are bottom feeders and possess a toothless mouth with thick sucking lips. There are four barbels (whiskery looking projections) in front of the mouth that help to direct food into the mouth. Their food sources are things very much smaller than they are such as insect larvae, crayfish, worms, snails, leeches and small fishes. The name "sturgeon" means "the stirrer" in several European languages because of the way they shuffle around in the mud searching for food. Adults require extensive areas of water of less than 10 meters deep for feeding.

The unfertilized eggs in the female are the delicacy called caviar. Sturgeon oil was once used as fuel on steamboats in North America. A form of gelatin from the swimbladder and vertebrae is known as isinglass and is used even today to clarify wines and for special cements and waterproofing materials. Sturgeon are also caught for eating purposes.

The lake sturgeon is considered to be Endangered in Alberta, Saskatchewan and Manitoba due to a number of factors including over-fishing, pollution of lakes and rivers, loss and degradation of spawning and nursery areas due to increasing development around lakes, and obstacles to migration on rivers. At one time, sturgeon were very abundant and widespread in rivers and lakes from central to eastern Canada down to the southeastern United States. However, in Western Canada they have been declining to less than 50 percent of their former numbers over the last three generations and the remaining populations are severely fragmented. Because of their slow breeding rates, the sturgeon populations will take a long time to recover from the reduction of their numbers and fishing of them should be stopped or severely restricted in all areas of Saskatchewan. There have been some attempts at aquaculture of sturgeon with limited success. The preservation and restoration of habitat, as is the case with nearly all threatened species, is the major need for continuing to have these animals co-existing with the human race.

In the South Saskatchewan River, Lake Sturgeon are a traditional source of food for Aboriginal people living along the river. For well over 100 years there was a commercial fishery for Sturgeon in Saskatchewan. However, in the 1950s there was a drastic reduction in the Sturgeon population. This was due to over-harvesting and habitat change caused by municipal and industrial water use, irrigation, and hydroelectric development.

The Lake Sturgeon on display at the zoo are part of a provincial program with fisheries biologists from the Saskatchewan Watershed Authority. The goal is to raise and release a group of Lake Sturgeon. Besides the Zoo, several other conservation agencies and schools have teamed up in the program.