The Lake Sturgeon (Nelson River Mainstem) a *Species at Risk* in the Prairie Provinces

COSEWIC Status – ENDANGERED November 2006
SARA Status – UNDER CONSIDERATION

Acipenser fulvescens
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Eight designatable units have been identified for Lake Sturgeon based on genetic and biogeographical distinctions. Within the Nelson River Mainstem designatable unit (DU3), this species has been identified as Endangered by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

It is currently being considered for listing under the federal *Species at Risk Act* (SARA). Protection is afforded through the federal *Fisheries Act*. If listed under the SARA, it will be afforded additional protection. Under the SARA, a recovery strategy must be developed for this species.

General Description

The Lake Sturgeon (*Acipenser fulvescens)* is a member of the family Acipenseridae. As a group, sturgeons are considered living fossils, having changed little from their ancestors of the Devonian Period. Lake Sturgeon is the only strictly freshwater species of sturgeon in Canadian waters. It also is the largest freshwater fish in Canada. Other common names include Rock Sturgeon, Common Sturgeon, Shell-back Sturgeon, Dog Face Sturgeon, and Great Lakes Sturgeon among others. The Lake Sturgeon has the following characteristics:

- Cartilaginous skeleton and shark-like caudal fin
- External bony scutes rather than scales on larvae and juveniles; less pronounced on larger fishes
- Pointed snout with four pendulous barbels
- Ventrally located mouth
- Dark to light brown in colour on back and sides; lighter belly
- Largest individual (Roseau River, Manitoba) was about 180 kg and 3 m long
- May live to over 100 years (oldest known specimen, about 154 years old from Lake of the Woods, Ontario)

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Distribution

The distribution of Lake Sturgeon once extended from western Alberta to the St. Lawrence drainage in Quebec, and from southern Hudson Bay drainages to the lower Mississippi drainage. Its abundance and historic range in the United States are much reduced and it is considered endangered in many states. In Canada, Lake Sturgeon occur in rivers around southern Hudson Bay, in the Great Lakes, and in inland lakes and rivers from Alberta to Quebec. Lake Sturgeon from the Nelson River (and its drainages) downstream of Lake Winnipeg to the coast of Hudson Bay represent a genetically distinct group (DU3).

Habitat and Life History

Lake Sturgeon are bottom-dwelling fish found in large rivers and lakes, at depths generally between 5 and 10 m, sometimes greater. Spawning occurs in the spring in fast-flowing water at depths between 0.6 and 5 m over hard-pan clay, sand, gravel and boulders. Sexual maturity is reached at 18 to 20 years in males and 20 to 24 years in females. The number of eggs may range from 50,000 to over 1,000,000 depending on the size of the fish, and incubation takes about 7 to 10 days in water of 13 to 15ºC. Larvae are negatively buoyant until the swim bladder starts to form about 60 days after hatching. The young-of-the-year grow rapidly and may reach 20 cm by the end of the first summer.

Diet

Lake Sturgeon feed on a variety of benthic organisms depending on the season, location and type of substrate. Some food items include small benthic fishes, molluscs, crayfishes, insect larvae, and on occasion, fish eggs. They may also feed in the water column on pelagic zooplankton such as *Daphnia*, and occasionally on insects at the surface.

Threats

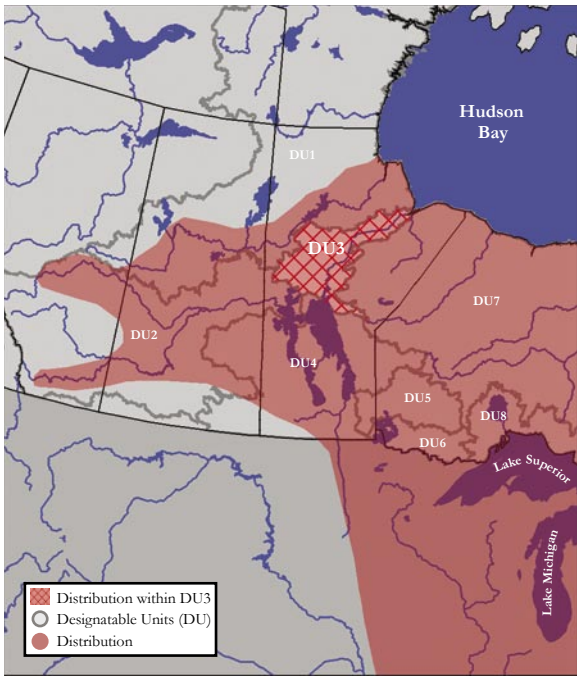
Human activities represent the most important threat to Lake Sturgeon. Historically, commercial fishing caused precipitous declines in many Lake Sturgeon populations. None of these populations has fully recovered. More recently, the direct and indirect effects of dams pose important threats. Dams result in habitat loss and fragmentation, altered flow regimes, and may increase mortality by entrainment in turbines. Habitat degradation resulting from poor land use and agricultural practices also has had an adverse impact on many populations. Other threats may include contaminants, poaching and the introduction of non-native species.

Similar Species

Lake Sturgeon can be distinguished from Shovelnose Sturgeon (*Scaphirhynchus platorynchus)* by its more rounded snout and caudal peduncle.

Text Sources: COSEWIC Interim Status Report 2006.

LAKE STURGEON DISTRIBUTION - Nelson River Mainstem (DU3)



Map modified from Scott & Crossman 1998.

For more information, visit the SARA Registry Website at www.SARAregistry.gc.ca and the Fisheries and Oceans Canada (DFO) Website noted below.

Cette publication est également disponible en français.

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www.aquaticspeciesatrisk.gc.ca

Section 32 (1) of the *Species at Risk Act* (SARA) states that *"no person shall kill, harm, harass, capture or take an individual of a wildlife species that is listed as an extirpated species, an endangered species or a threatened species."*