Facts About American Eel

Anguilla rostrata

- American eels live along the Atlantic coastline from Venezuela to Greenland and Iceland. They can also be found inland in the Great Lakes and Mississippi River (Figure 1).
- They have a complex lifecycle (Figure 2) that begins far offshore in the Sargasso Sea where adults spawn (reproduce).
- After eggs hatch, young eels drift with ocean currents inland into streams, rivers and lakes for over 3,700 miles which may take many years. Along the way, they **metamorphose** or change through different life stages including glass eel and yellow eel when they enter freshwater systems (Figure 3).
- Eels move from the Atlantic Ocean into **estuaries** (where a river meets the ocean), rivers, and streams as juveniles. Young eels stay in freshwater until they reach maturity, between 10 to 25 years, before migrating back to the Sargasso Sea.

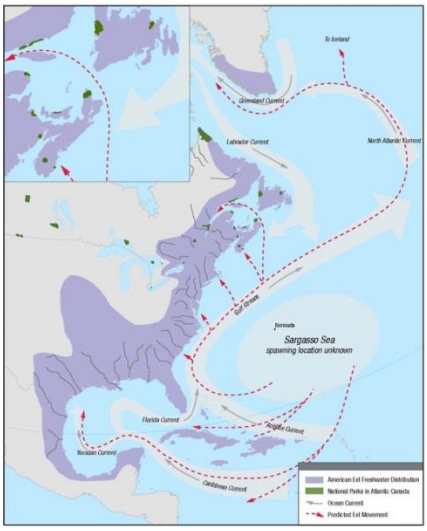


Figure 1 - American eel migration routes from Sargasso Sea (spawning area) to their distribution in fresh water on eastern coast of North America. Inset shows migration within the Gulf of St. Lawrence. Source: Parks Canada

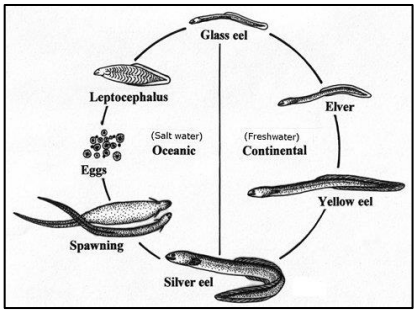


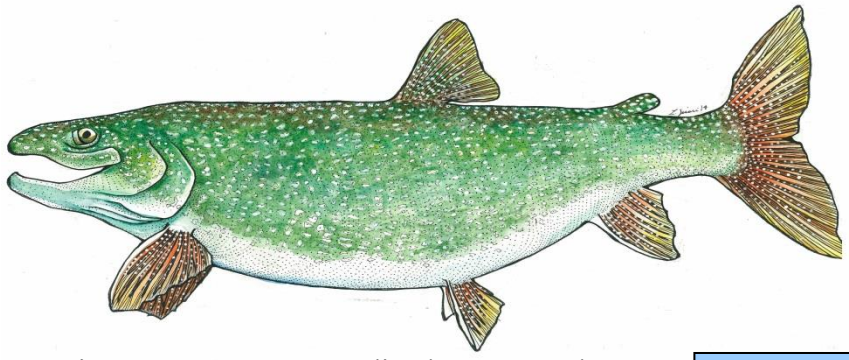
Figure 2 - Lifecycle of American eel.

- American eels can grow up to 48 inches in length and weigh up to 17 pounds. Females are generally larger than males, lighter in color, with smaller eyes and higher fins.
- They hunt at night, feeding on crustaceans and small insects. During the day, they hide among burrows, tree snags, plants, and other types of shelters found close to shore.
- American eels once made up over a quarter of the total fish found in Atlantic coastal streams. Dams and other fish passage barriers have limited the amount of upstream habitat available and during downstream migration. They also experience mortality in turbines at hydroelectric facilities.
- Biologists are currently studying the effects of hydro-electric dams on downstream migration of eels and working to develop ways for moving juvenile eels upstream of dams.

Figure 3 - Yellow eel stage.

Facts About Lake Trout

Salvelinus namaycush



- In North America, lake trout are broadly distributed in northern Canada, Alaska, the Great Lakes and parts of New England, as well as some mountain areas. (Figure 1).
- They are found almost always in deep, cold (48-52^{0}F), oligotrophic (low nutrient) lakes that have lots of oxygen.
- An average lake trout measures between 18 to 25 inches in length and weighs between 2.5 to 5 pounds.
- Lake trout have been recorded over 60 pounds and at lengths of 50 inches.

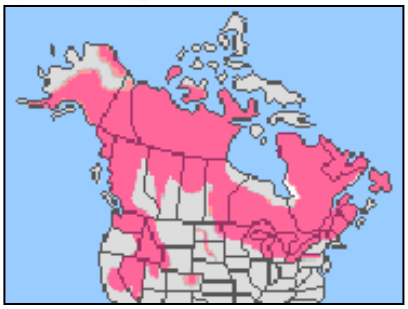


Figure 1 - Where lake trout are found.

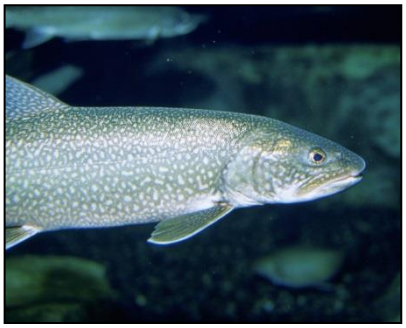


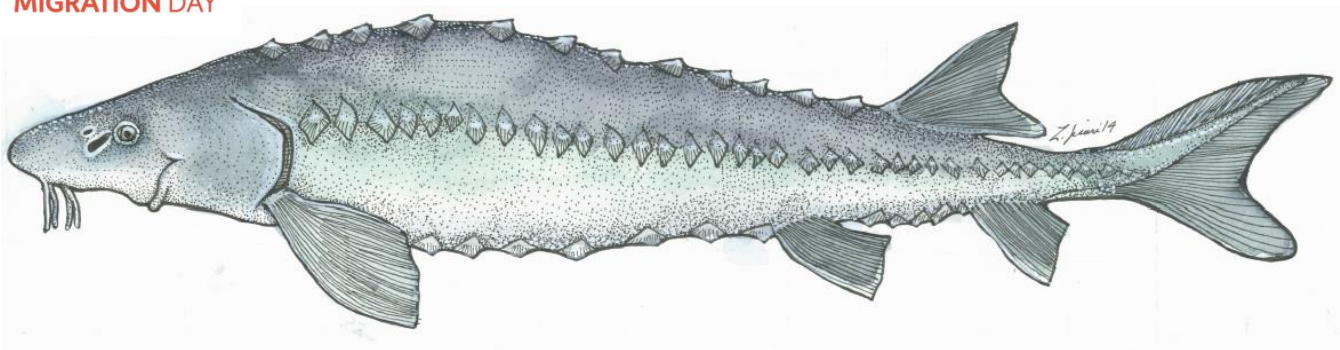
Figure 2 - Lake trout underwater.

- Lake trout begin reproducing at 5-6 years old and can live over 25 years.
- Lake trout are long with a stout head and large mouth.
- The snout usually overhangs the lower jaw when the mouth is closed (Figure 2).
- They have white or yellowish spots on a dark green to grayish background and the underside is white.
- They have a deeply forked tail and light spots on dark body. There are no red spots like found on other trout.
- Young lake trout eat plankton, insect larvae, insects, and other invertebrates, while adults eat smaller fish.
- Lake trout were once a valuable commercial fish, but were almost eliminated by sea lamprey, pollution, and overfishing during the 1950's.
- Lake trout populations are being restored but managed so they do not become overfished again. Invasive sea lamprey still pose a threat to the health of populations (Figure 3).

Figure 3 - Picture of lake trout with fresh sea lamprey wound.

Facts About Lake Sturgeon

(Acipenser fulvescens)



- Despite their name, lake sturgeon live in both rivers and lakes. They live in lakes but spawn in rivers where they were born.
- They were once found from Canada to Alabama in the Great Lakes, Hudson Bay and Mississippi basins (Figure 1).
- They are the largest fish in the Great Lakes, growing up to 9 feet long and weighing over 300 pounds.
- The average lake sturgeon measures between 3 to 5 feet in length and weighs between 10 and 80 pounds.

Figure 1 - Where lake sturgeon are found.

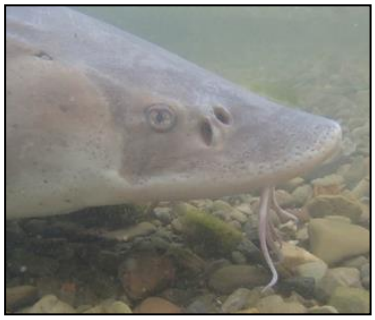


Figure 2 - Close up of lake sturgeon feeding on a river bed.

- Female lake sturgeon can live up to 150 years, while males live only 50 to 60 years. The oldest recorded was 154 years old.
- Females become adults between the ages of 14 and 33; males between 8 and 12 years.
- They have sharp, bony plates called **scutes** on their sides and back.
- Four whisker-like **barbels** hang down from their snouts to help find food (Figure 2).

- They have NO TEETH! Instead, lake sturgeon use a suction mouth to capture insects, clams, and small fish (Figure 3).
- People used to catch lake sturgeon for their delicious meat and eggs, called **caviar**.
- By the early 1900's, 80% of lake sturgeon were gone from Lake Erie; by the 1970's, they had almost entirely disappeared.
- Lake sturgeon can serve as environmental health indicators because they live a long time, prefer clean rivers, and feed on bottom-dwelling critters.
- Today, we are starting to see more lake sturgeon as a result of everyone's cooperation to improve water quality and restore these dinosaurs of the Great Lakes.

Figure 3 - Picture of lake sturgeon's barbels and suction mouth.