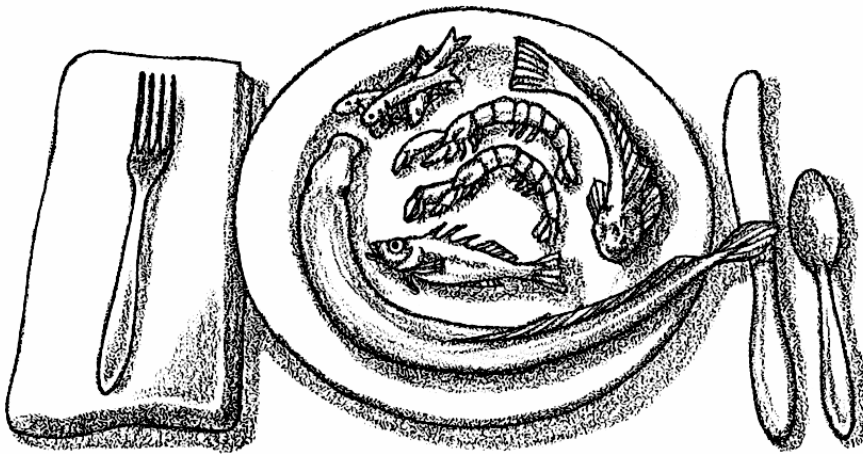


How Sturgeon Depend on Estuaries

by Kenn Oberrecht



Of the two species of sturgeon found in Oregon's estuaries, we know more about the habits and life history of the white sturgeon than its smaller cousin. The more

mysterious green sturgeon seems to spend most of its time near the mouths of estuaries, moving into fresh water only to reproduce during the fall and winter.

White sturgeon, however, seem to rely much more on the estuaries. In fact, some spend most of their lives in the estuaries of Oregon's largest coastal rivers, such as the Coos, Umpqua, and Columbia.

When schools of smelt, herring, or other forage species migrate into the estuary, sturgeon move in from the ocean to feed on them.

Feeding migrations vary from one locale to another and can be influenced by movement of forage species. Although white sturgeon feed on both plant and animal matter throughout their lives, adults are opportunistic predators, showing a distinct preference for fish and other animals.

When schools of smelt, herring, or other forage species migrate into the estuary, sturgeon move in from the ocean to feed on them. Lampreys and ghost shrimp are other favorite foods. They consume many kinds of fish, dead or alive, and even move up the rivers to feed on carcasses of spawned-out salmon. They also eat sculpins, sticklebacks, suckers, and even their own kind.

White sturgeon grow slowly, but live long. Although growth rates vary from one estuary to another, most young fish grow to about 20 inches in five years and add two inches in length each following year, to about age 35. After that, they grow more in bulk than length.

Male white sturgeon mature sexually any time between 11 and 22 years of age, females between 26 and 34.

Spawning in fresh water, usually in May or June, 35-pound females lay nearly 700,000 eggs, while the largest specimens of 800 pounds or more can produce three to four million eggs, with a mass weight exceeding 200 pounds. Poor parents, the adults leave eggs unattended and let young fend for themselves.

Juveniles consume mainly insect larvae, mysid shrimp, tiny crustaceans, mollusks, and other freshwater and marine invertebrates. After about five years, their preference turns to fish, which then make up about half their diet.

Male white sturgeon mature sexually any time between 11 and 22 years of age, females between 26 and 34. They survive spawning and may reproduce several times during their lives, although intervals between spawning get longer as the fish age. While younger females spawn every four years, older fish might spawn only once every decade. So it's important to protect the brood stock.

Toward that end, Oregon enforces strict size and catch limits, permitting anglers to keep two sturgeon a day: one between 40 and 48 inches, and one between 48 and 72 inches. Larger or smaller fish must be released unharmed.

Old photographs survive showing white sturgeon so big they had to be hauled out of the water with block and tackle or teams of mules. Many fish of 800 to 1,000 pounds or more were caught around the turn of the century. By the 1920's, the biggest breeders were gone.

Sturgeon of such huge size have lived for 60 to 80 years or more, so replenishing the brood stock is a slow process. Protecting them and the estuaries they depend on is essential if these great fish are to survive.