

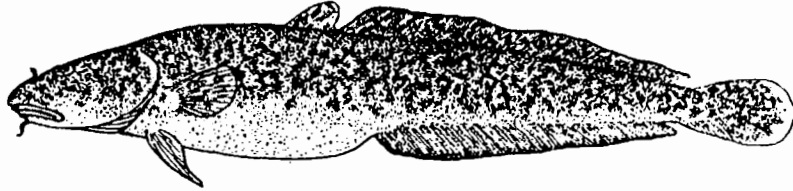
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Natural History Notes

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THE BURBOT



Burbot

The burbot is one of our most unique fishes. It is the only member of the cod family that lives its entire life in freshwater and thus is sometimes called the freshwater cod. The cod family comprises about 60 species, including the codfish, haddock and hake, which are ocean dwellers. If you don't recognize the name "burbot," other common names are loche, eelpout, lawyer, dogfish, and lush. Many members of the cod family are among the most important fishes in the world. Their high-quality flesh is widely used as food and the liver as a source of cod-liver oil. Like other codfishes, the burbot's liver is a remarkable fluid rich in vitamins A and D, and also an ingredient in ointments due to its healing properties. In many European countries, especially Scandinavia, smoked and canned burbot liver is considered a delicacy, often served on crackers as an hors d'oeuvre. The burbot's flesh is white and flakey, comparable to that of the walleye or northern pike.

Another unique aspect of the burbot is its unusual habit of winter spawning, most often from January to March when water temperatures are 33° to 35° F. Spawning takes place in water up to ten feet deep over sand and gravel bottoms. The spawning activity reportedly involves 10-12 intertwined individuals that move over the bottom in a ball about two feet in diameter. Large numbers of very small eggs (about 1/20 of an inch in diameter) are laid. A single female weighing over five pounds may produce over 1,000,000 eggs which hatch in one to two months; however, very large, early mortality occurs.

The young may reach up to eight inches in length at the end of their first year. Adults in very large North American lakes can reach sizes over 36

inches and 15 pounds. This species has been reported to reach four feet in length and over 75 pounds elsewhere in the world. The burbot is primarily a night feeder, eating mostly bottom-dwelling invertebrates such as mayfly nymphs and crayfish, while larger individuals prey on fish. This secretive night feeder also eats the eggs of other fish.

When compared to other fishes of the area, the burbot's eel-like appearance is somewhat unusual. Its most noticeable identifying characteristic is a single barbel or "whisker" on its chin. Long dorsal and anal fins and a rounded tail give it an eel-like appearance. It feels slimy and smooth to the touch but actually has very small scales. This fish is very difficult to grasp and hold. Adults are yellowish to light brown or tan overlaid by a lace-like pattern of black and dark brown.

The burbot is common in large, deep, cold lakes and has been taken in depths in excess of 500 feet. If waters warm above about 72° F. in summer, the burbot usually will not survive unless it can find refuge in cooler areas. Burbot generally do not reach large sizes in streams but are common inhabitants even in smaller streams where they are important food of trout.

We often consider fishes like the burbot as "undesirable," as some of its common names imply. Our eating and angling habits tend to become engrained, and high-quality resources such as the burbot go unutilized. Perhaps this is lucky for the burbot in contrast to our highly exploited "game-fishes." Herein lies another unusual aspect of this unique animal.