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Great Lakes 4H Fact Sheet – Lake Whitefish

Michigan State University Cooperative Extension Service

4-H Club Bulletin

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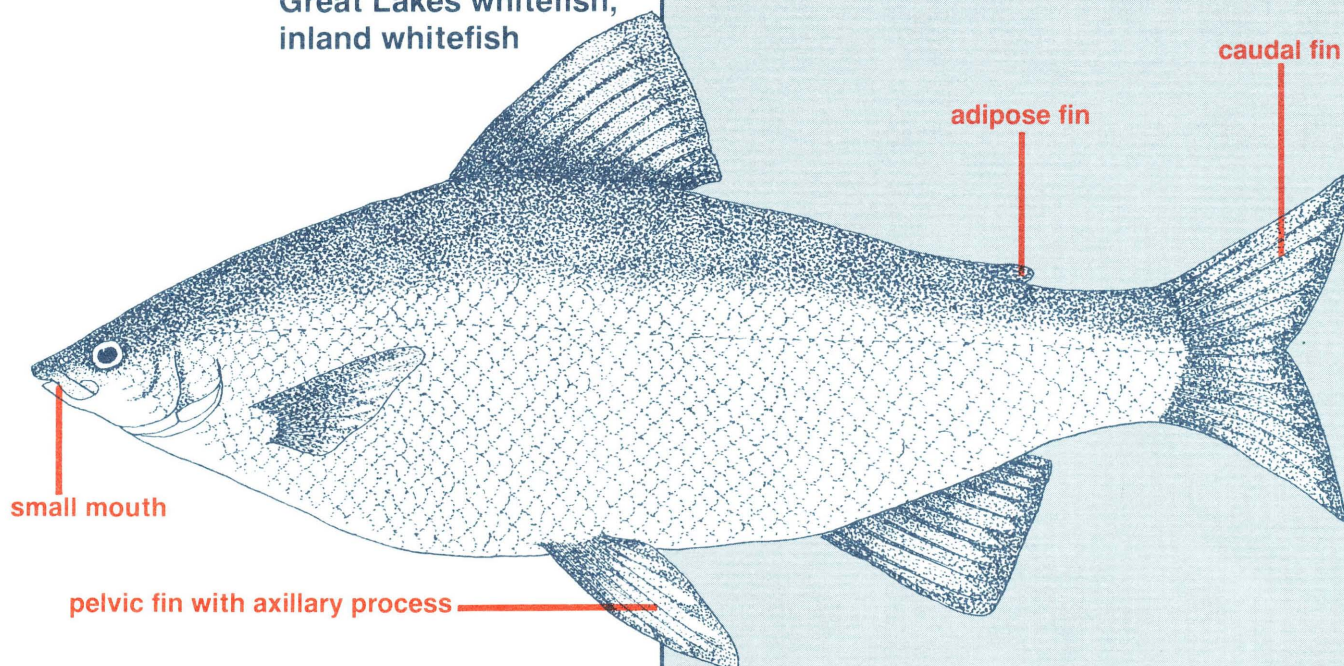
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Lake Whitefish

Scientific name: *Coregonus clupeaformis*

Common names: Whitefish, common whitefish, Lake Superior whitefish, Great Lakes whitefish, inland whitefish



Description

The lake whitefish is the most valuable commercially caught fish in the Great Lakes. The whitefish may reach over 2 feet in length and weigh 20 pounds, but most whitefish are 17 to 22 inches long and weigh 1½ to 4 pounds.

The lake whitefish is a long, deep-bodied fish with flattened sides. Young whitefish are usually slender. Older fish have deeper bodies and develop a large fleshy hump just behind the head. This hump, which is called the **nuchal hump**, may cause the head to appear small. The snout is rounded and projects beyond a small mouth located on the bottom of the head.

The whitefish's back is olive-green to olive-blue. Its sides are silver, and its belly is silver to milky white. The scales are larger than the scales of other salmon and trout species.

This fish belongs to the **salmonid** group of fishes, which also includes salmon and trout. Like most other salmonids, the whitefish has an **adipose fin**, a small fleshy fin located on the back just in front of the **caudal fin** (or tail). It also has an **axillary process**, a dagger-like projection on its belly or **pelvic fins**. The whitefish is different from other salmonids in its body shape and its very small mouth, which does not extend back past the eye.

Life History

Lake whitefish are almost always found in **schools**. During spring and summer, they seek cool water over 40 feet deep. During May and June, they may migrate to shallower water to feed. In November or December when the water temperature falls, adult whitefish migrate to shallow water (less than 25 feet) to spawn (reproduce).

During the breeding season, both males and females develop bumps called **nuptial tubercles** or **pearl organs** on their heads and sides. After the male finds a spawning site of rocky shoals, hard stony bottom, or sand, the female arrives about a week later. Spawning occurs at night. The female rises to the water surface while laying eggs. The male follows and fertilizes the eggs. The eggs then fall to the bottom where they remain over the winter in near-freezing (33 °F to 43 °F) water. The young fish hatch in April or May.

The diet of the lake whitefish consists mainly of snails, clams, aquatic insect larvae (young), and small fish. The whitefish may even eat terrestrial (land) insects found on the water surface.

Fishery

Lake whitefish are found in all five Great Lakes, in Lake St. Clair, and in many cold, deep inland lakes. However, habitat loss and overfishing have caused whitefish numbers to decline steadily during the past 60 years.

Although Native Americans can use **gill nets** to catch whitefish, commercial fishermen are prohibited from using them. Gill nets are large mesh nets in which a fish's gill covers, fins, and body become tangled, thus catching it. Commercial fishermen use large **trap nets** in 20 to 90 feet of water. Large trap nets are set out much like animal traps. Once fish swim into them, they cannot swim back out and are trapped.

The commercial fishing season varies between the five Great Lakes. The only closed season for commercial fishing is from November 1 to December 1. Since it is impossible to fish with trap nets through the ice, commercial fishing does not begin again until spring. Fishing done by Native Americans is regulated by the Great Lakes Indian Fishery Commission.

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Sportfishing for whitefish can be very challenging. Because whitefish have delicate mouths, it is very difficult to set the hook, especially when fishing in deeper water. Whitefish are most readily caught in shallow water during the fall and in shallow to medium depths during the winter using a small hook baited with a minnow. During the winter, ice fishermen use various spoons, jigs, and color-beaded hooks. During the spring, anglers can use a fly rod and wet or dry flies to catch whitefish in shallow water.

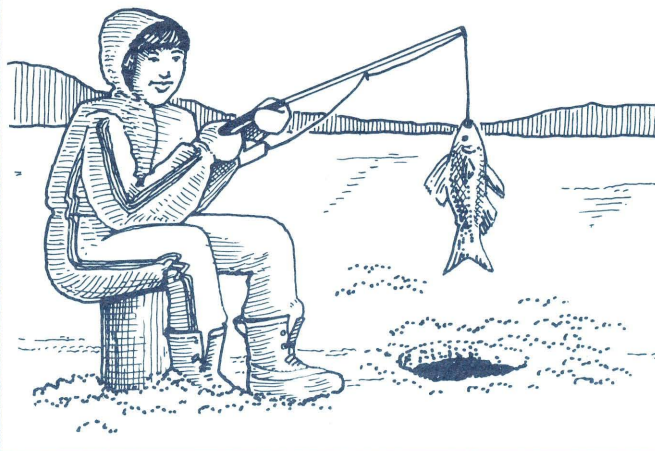
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Glossary

Adipose fin—small fatty fin between dorsal and tail fins

Axillary process—a dagger-like projection at the base of the pelvic or pectoral fins

Caudal fin—tail fin

Gill net—a large mesh net in which fish become tangled and are caught

Nuchal hump—a large fleshy hump just behind an older whitefish's head

Nuptial tubercles—small raised bumps on the skin of fish which develop during the breeding season; also called **pearl organs**

Pelvic fins—paired fins located on the belly of the fish

Salmonid—a member of the salmon family which includes salmon and trout

School—a large number of fish swimming or feeding together

Trap net—a large net into which fish swim and become trapped