

## **MSU Extension Publication Archive**

Archive copy of publication, do not use for current recommendations. Up-to-date information about many topics can be obtained from your local Extension office.

Great Lakes 4H Fact Sheet – Lake Trout

Michigan State University Cooperative Extension Service

4-H Club Bulletin

Michael F. Masterson, Donald L. Garling, Shari L. McCarty, Fisheries and Wildlife

Issued April 1986

2 pages

The PDF file was provided courtesy of the Michigan State University Library

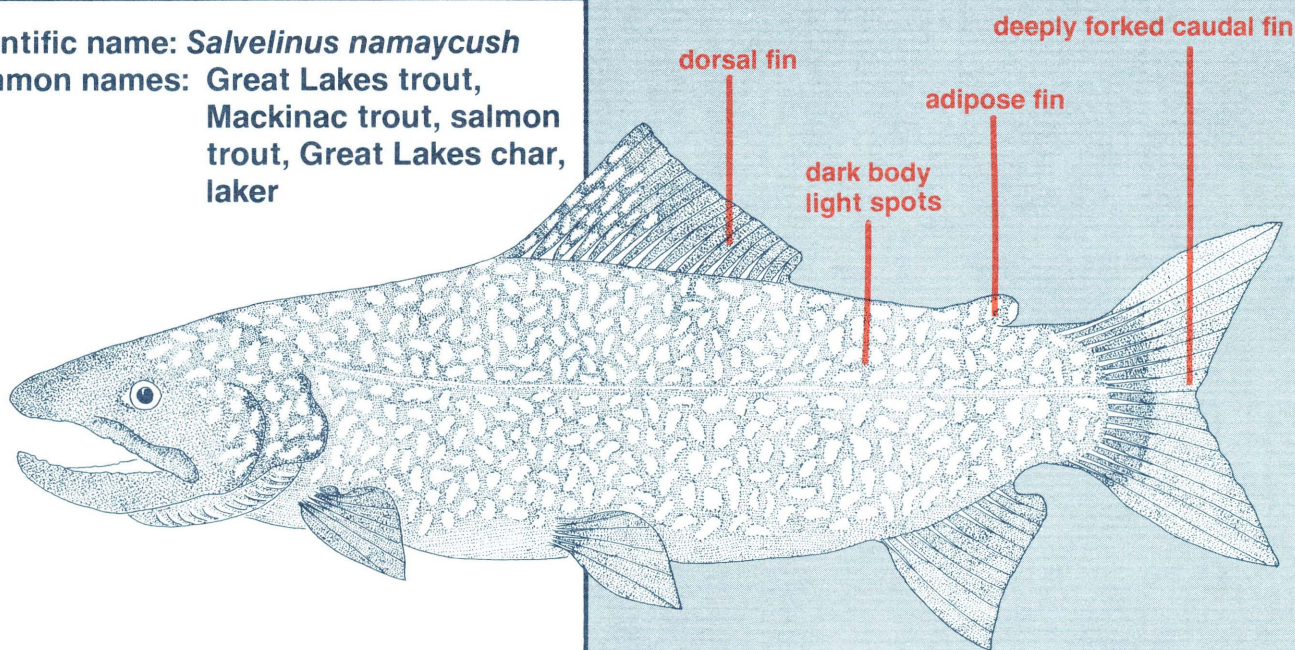
**Scroll down to view the publication.**

M.S.U. EXTENSION  
NEWAYGO COUNTY  
817 S. Stewart  
Fremont, MI 49412  
(616) 924-0500

# Lake Trout

Scientific name: *Salvelinus namaycush*

Common names: Great Lakes trout,  
Mackinac trout, salmon  
trout, Great Lakes char,  
laker



## Description

**T**he lake trout is one of the best known Great Lakes fishes. Lake trout have been known to weigh 50 pounds or more. Most lakers, however, weigh about 10 pounds and are 15 to 20 inches long.

The lake trout has a long body with the typical trout shape. The head is broad and stout and ends with a large mouth. The upper jaw usually sticks out slightly beyond the lower jaw. In older fish, the snout becomes large at the tip, making the fish look like it has a beak. A small, fleshy **adipose fin** (on the back in front of the tail) is present as it is with all **salmonids** (salmon and trout). The lake trout's **caudal fin** (tail) is deeply forked, distinguishing it from all other Michigan salmon and trout.

Another key to identifying the lake trout is its color. This trout has a dark background color with numerous scattered light spots. The background color may be grayish, light or dark green, or almost black. All fins (except the **dorsal fin** on the back) may have a slight orange or reddish hue and may have a distinct white margin on the front edges.

The lake trout is most similar to the brook trout. In fact, these two fishes are both members of a fish group called **char**. To distinguish a lake trout, look for its deeply forked tail. Also, the lake trout lacks the black border stripe near the white edge of the fins on the brook trout's lower body.

## Life History

**I**n general, lake trout are deep water fish because they prefer cool water temperatures of about 50 °F. In the summer, these fish are usually found at depths of 60 to 175 feet. The lake trout is typically a Great Lakes fish, but it is found in some deep inland lakes in Michigan.

Lake trout move into shallow water only in the fall when spawning (reproduction) occurs. Spawning usually takes place in October. The exact spawning date depends on the weather and the location, shape, and depth of the lake. The adult male trout first cleans the spawning area of silt by brushing the rocks with its snout, body, and tail. Eggs are then deposited by the female and fertilized by the male over a reef-like solid rock lake bottom. The eggs, which are larger than some other species' eggs, become

lodged in cracks between the rocks. The young fish hatch 4 to 5 months later.

The diet of adult lake trout mainly consists of small fishes such as ciscoes, lake whitefish, smelt, sculpins, and alewives. Other foods include freshwater sponges, **plankton** (microscopic floating animals), **crustaceans** (hard-shelled animals such as crayfish), and aquatic and terrestrial (land) insects.

## Fishery

**T**he lake trout is highly prized in the United States as a sport fish and in Canada as a commercial fish. Deep **trotling** (using a boat to slowly pull the lure) and ice fishing are popular with anglers fishing for lake trout. Commercial fishermen historically have used **gill nets**, so-called because the fish's gill covers, fins, and body become tangled in the mesh of the net.

Lake trout numbers, especially in the Great Lakes, have greatly declined since the 1940's. This has occurred because of habitat loss due to pollution and pesticides, overfishing of lake trout, and the effects of the sea lamprey. Sea lampreys invaded the Great Lakes from the Atlantic Ocean after the completion in 1829 of the Welland Canal which bypasses Niagara Falls. The sea lamprey attaches itself to its prey by its round, sucker-like mouth which has rasping teeth. Once attached, it feeds on the blood, body fluids, and tissues of the fish. Sea lampreys caused extensive damage to sport fishes which resulted in the decline of their numbers.

In an attempt to stop the decline of the magnificent lake trout, fishery managers have worked at reducing the number of sea lampreys in the Great Lakes using chemicals and small dams. The chemicals kill lampreys but do not harm other fish. Special low dams (about 18 inches

high) prevent sea lampreys from reaching their spawning grounds but do not prevent other stream-spawning fishes from passing the barrier.

Commercial fishermen in the U.S. Great Lakes are no longer allowed to catch lake trout. In addition, sport fishing has been regulated to help the population build. Lake trout have also been raised in hatcheries and released into the wild. In some places, lake trout exist only because of these releases.

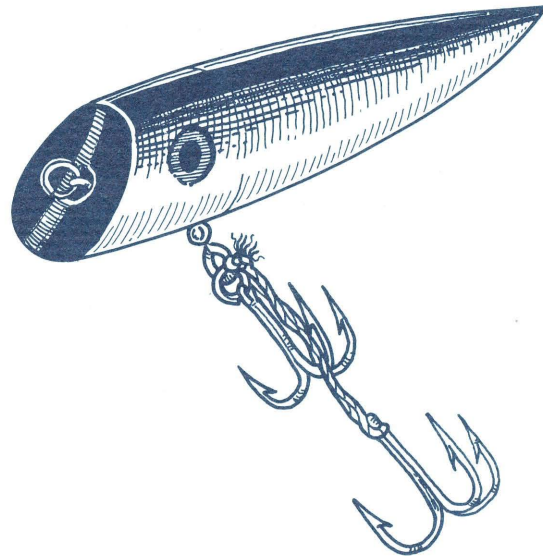
### Written by:

Douglas Sweet, Graduate Assistant  
Donald L. Garling, Fisheries Specialist  
Shari L. McCarty, 4-H Youth Specialist  
Department of Fisheries and Wildlife

### Illustration by:

Maureen Kay Hein

Partial funding for this project was provided by the U.S. Fish and Wildlife Service, U.S. Department of Interior.



## Glossary

**Adipose fin**—small fatty fin between dorsal and tail fins

**Caudal fin**—tail fin

**Char**—a group of fish species which includes both lake trout and brook trout

**Crustaceans**—hard-shelled, joint-legged animals which breathe with gills (crayfish, shrimp, crab)

**Dorsal fin**—a fin on the back, usually central in position, with rays or spines

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

**Plankton**—microscopic free-floating aquatic plants and animals

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

**Trotling**—slowly pulling a fishing lure behind a boat

**G**MSU is an Affirmative Action/Equal Opportunity Institution. Michigan 4-H — Youth educational programs and all other Cooperative Extension programs are available to all without regard to race, color, national origin, sex, or handicap.

Issued in furtherance of Cooperative Extension work, acts of May 8, and June 30, 1914, in cooperation with the U.S. Department of Agriculture. W.J. Moline, Director, Cooperative Extension Service, Michigan State University, E. Lansing, MI 48824.

This information is for educational purposes only. Reference to commercial products or trade names does not imply endorsement by the Cooperative Extension Service or bias against those not mentioned. This bulletin becomes public property upon publication and may be reprinted verbatim as a separate or within another publication with credit to MSU. Reprinting cannot be used to endorse or advertise a commercial product or company.