

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 – Walleye

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

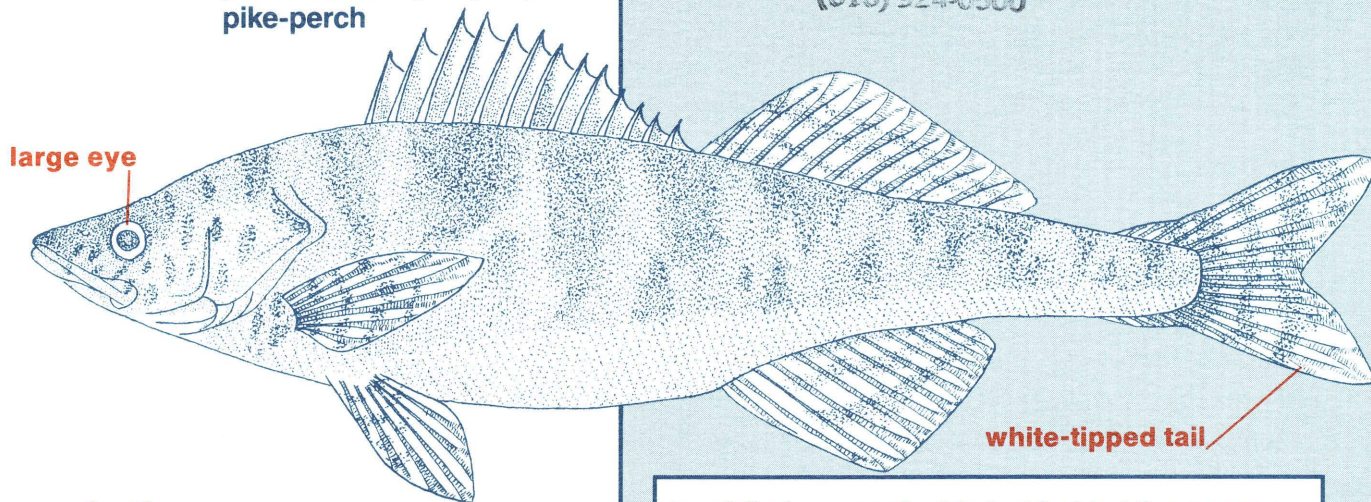
The PDF file was provided courtesy of the Michigan State University Library

Scroll down to view the publication.

Walleye

Scientific name: *Stizostedion vitreum*
Common names: Walleye, glass-eye,
pickerel, walleyed pike,
pike-perch

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



Description

The walleye is a close relative of the perch and shares a few of the same characteristics. The walleye is a medium-sized fish, 13 to 20 inches long and weighing 1 to 3 pounds. The largest walleye caught on hook and line may weigh up to 25 pounds.

Walleye are members of the perch family, Percidae. This family includes the walleye, sauger, perch and darters. All members of this family have a **dorsal fin** (back fin) which is completely divided into a spiny portion and a soft-rayed portion. This is a characteristic found only in the family Percidae. In addition, all members of this family are **predators**, feeding on insects and on other fishes. Walleye are easily told apart from other perches by their many fanglike teeth, which they use to capture their prey.

Adult walleye vary greatly in color, depending on their environment. In **turbid** (cloudy) water, walleye take on a pale color. In clear water the fish are more brightly marked, usually with an olive brown, golden brown or yellow background with a darker back and milk white belly. The **caudal fin** (tail) is forked and has a large white spot on the lower tip of the fin. A dark olive **pec-**

toral fin is on each side just behind the **operculum** (gill cover). The two yellow or orange-yellow **pelvic fins** stem from the belly just behind the pectoral fins. The single **anal fin** located on the belly near the tail is edged with white. Walleye have two large eyes. Their eyes appear silver due to reflection from an eye layer called the **tapetum lucidum**. This eye layer helps a fish see in low light levels.

To tell the walleye from other large predatory game fish such as the pike, look for the walleye's large, completely divided dorsal fin. To tell the walleye from other members of the perch family, note the walleye's white-tipped lower tail fin lobe. To tell a walleye from its closest relative, the sauger, look for dark, crescent-shaped spots on the sauger's front **dorsal fin**. The sauger also has a dark spot at the base of each pectoral fin.

Life History

Walleye spawn (breed) in the spring. Spawning movements begin as soon as ice breaks up in the **tributaries** (rivers or streams draining into lakes). Spawning begins while the lakes are still ice-covered. Males move to the spawning grounds first. Walleye spawn in

the rocky, fast-water areas below dams or on shoals consisting of boulders or coarse gravel in lakes. Males do not defend a territory or build a nest. Before spawning, walleye go through a set of instinctive behaviors called a **courtship**. This courtship includes pushing, chasing, swimming in circles and displaying fins. After this courtship, the walleye swim into shallow water, roll on their sides and spawn. Walleye do not die after spawning.

Most of the eggs hatch in 12 to 18 days, depending on water temperatures. The young fish absorbs its yolk sac quickly and begins to feed before the yolk is completely absorbed. In 10 to 15 days the young walleye move into the upper levels of open water. Here they feed on **zooplankton**, (microscopic free-floating animals). Walleye begin to eat fish as soon as they are large enough. If other foods are not available, walleye will eat other walleye, a habit called **cannibalism**. Adult walleye will eat a wide variety of foods, including fish, crayfish, snails, frogs, insects and leeches.

Male walleye mature in 2 to 4 years. Female walleye are not mature until they are 3 to 6 years old. Walleye live for 10 to 12 years in the southern part of their range, but have been known to live up to 20 years in northern states.

Fishery

Walleye are widespread throughout northern and central North America. They are found throughout the Great Lakes region. They are a popular sport and food fish, as well as a valuable commercial fish in the United States and Canada. Walleye are the most sought after fish by Canadian **anglers**.

Walleye are very active predators in the shallow areas of lakes and rivers. Their light-sensitive eyes allow them to be **crepuscular** (active at dawn and dusk) feeders. As a result walleye are seldom caught from shallow waters during the daylight hours, unless the shallows are turbid and dark. The best walleye fishing action, however, will occur at dawn and dusk, regardless of whether the water is turbid or clear.

Since the walleye is a predator, anglers use baits that imitate fish. Drifting or trolling near the bottom with live bait or artificial lures (jigs, spoons, plugs or spinners) is usually the best fishing method until a **school**, or large group, of walleye is located. Once a school is found, still-fishing with live or artificial baits is very produc-

tive. One of the most popular techniques is to fish with a jig tipped with a minnow, worm, leech, fish eye or cut bait (piece of fish) on the bottom. Once hooked, walleye swim quickly toward the bottom. They are not spectacular fighters, but are prized by anglers for their delicious flesh.

Written by:

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

Illustration by:

Maureen Kay Hein

Glossary

Anal fin—the fin on the underside, between the anus and the tail

Angler—one who fishes

Cannibalism—when an animal eats members of its own species

Caudal fin—tail fin

Courtship—a set of instinctive behaviors before breeding

Crepuscular—active at dawn and dusk

Dorsal fin—a fin on the back, usually central in position, which on walleye, is divided into spiny and soft portions

Operculum—gill cover

Pectoral fins—paired fins, one on each side of the fish

Pelvic fins—paired fins located on the belly below the pectoral fins, or between the pectoral and anal fins

Predator—an animal which feeds on other animals

School—a large number of fish swimming or feeding together

Tapetum lucidum—a light-reflecting layer in a walleye's eye

Tributary—a stream or river which drains into a larger main stream or river, or into a lake

Turbid—cloudy water due to the presence of small soil particles and other materials

Zooplankton—microscopic free-floating animals

GMSU 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.

1P-5M-3:88-UP-RM Price 15 cents

O-17425