

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 – Grayling

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

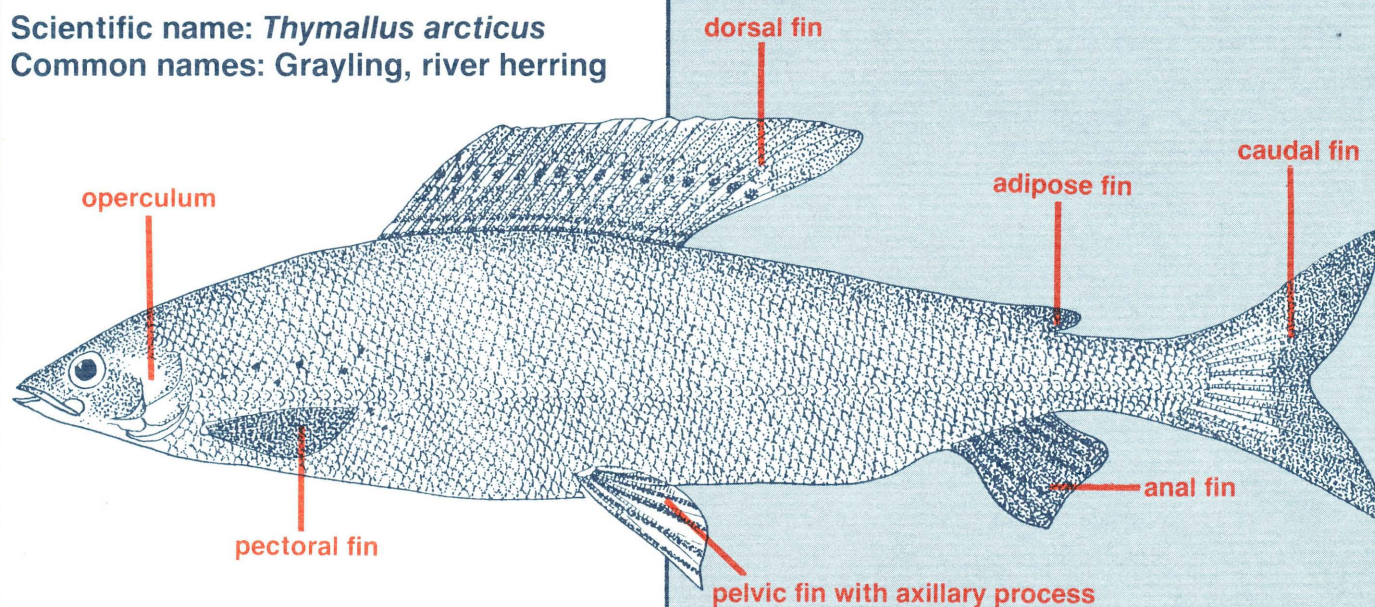
The PDF file was provided courtesy of the Michigan State University Library

Scroll down to view the publication.

M.S.U. EXTENSION
NEWAYGO COUNTY
617 S. Stewart
Fremont, MI 49412
(616) 924-0600

Grayling

Scientific name: *Thymallus arcticus*
Common names: Grayling, river herring



Description

Grayling are closely related to trout and share many of the same characteristics. The grayling is a small fish which averages only 10 to 12 inches in length and 1 pound in weight. The largest grayling on record weighed 5 pounds, 15 ounces, was almost 30 inches long, and was caught in Canada's Northwest Territory.

Grayling are quite easy to identify. The grayling is a member of the Family Salmonidae. This family includes the salmon, trout, whitefish, and grayling. All members of this family have an **adipose fin**, a small fleshy fin on the back just in front of the tail. They also have an **axillary process**, a dagger-like projection from each **pelvic fin** (belly fin). These two characteristics are found only in the Family Salmonidae. Once the fish is identified as a member of the salmon family, a grayling can be identified by its large sail-like **dorsal fin** (back fin).

Adult grayling have an **iridescent** (rainbow-colored) body which is mostly purplish gray and silver. The body is covered with large scales and small dark spots. The dorsal fin has rows of blue spots with rose or orange margins. The underside of the throat has two short black stripes or

slashes. The **caudal fin** (tail) is forked. Two **pectoral fins** protrude from the belly and are just behind the **operculum** (gill cover). The two pelvic fins also protrude from the belly; however, these are located near the anus. The single **anal fin** is between the anus and the caudal fin. All of the grayling's fins have soft rays.

Life History

During the spring, grayling spawn (breed). Spawning begins when the ice starts to break up in the small streams, called **tributaries**, which flow into larger streams or rivers. At this time, adult grayling migrate from larger rivers to smaller tributaries with gravelly or rocky bottoms. Unlike salmon and trout, grayling do not prepare a nest. Male grayling, however, defend territories when they are on the spawning grounds, much like salmon do. All spawning takes place during the day. After spawning, both the male and female return to the larger rivers or lakes.

Most eggs hatch in 13 to 18 days, depending on water temperature. The young fish, called **sac fry**, absorb nutrients from their yolk sacs for 8 days after hatching. The sac fry begin to feed

on other foods 3 days after hatching. Young grayling feed mainly on **zooplankton** (microscopic free-floating animals). As they grow, they begin to feed on immature insects (mayflies, caddisflies, and midges). Adult grayling feed mainly on terrestrial (land) and aquatic insects. They also may eat young fish, fish eggs, and **crustaceans** (hard-shelled, joint-legged animals such as crayfish).

Grayling are mature at 4 years of age, but most grayling spawn when they are 6 to 9 years old. Adults spawn several times, although some adults may not spawn each year. Grayling reach a maximum age of 11 to 12 years.

Fishery

Grayling were once found throughout Michigan streams. They were once the most common salmonid in Michigan's Lower Peninsula streams. The Otter River was the only stream in the Upper Peninsula of Michigan known to contain grayling, and it was also the last stream in Michigan to contain grayling. In 1934, the Michigan grayling became extinct. There were many reasons for its extinction. Grayling were illegally fished by lumberjacks and anglers. During logging days, there was damage to eggs and habitat by floating logs; logging also increased the amount of silt in streams and raised water temperatures. Trout brought into Michigan waters may have competed with grayling for food or habitat. The Michigan Department of Natural Resources is currently trying to establish the grayling in the Miner's River in the Upper Peninsula.

Grayling are found today in the arctic regions of Canada, in Alaska, and in isolated areas of Montana. Many **anglers** are willing to pay large amounts of money to fly into these areas to catch this prized gamefish. Grayling are found in **schools** (groups) in rivers and lakes. Anglers easily take grayling on wet and dry flies, natural bait (fish eggs, minnows, insects, and worms), small spinning lures (spinners, spoons, and plugs), and jigs.

Written by:

Mark DuCharme, Graduate Assistant
Donald Garling, Fisheries Specialist
Shari 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

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

Angler—one who fishes

Axillary process—a dagger-like projection at the base of the pelvic fin on the grayling

Caudal fin—tail fin

Crustacean—a hard-shelled, joint-legged animal which breathes with gills (such as crayfish)

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

Iridescent—shifting rainbow-like color

Operculum—gill cover

Pectoral fins—paired fins, found on the grayling on the belly just below and behind the gill cover

Pelvic fins—paired fins, found on the grayling on the belly near the anus

Sac fry—a newly hatched fish that still has a yolk sac from which it draws its nutrients

School—a large number of fish swimming or feeding together

Tributaries—small streams that flow into larger streams or rivers

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.