



FISH

Status: Common Native East River,  
Introduced Statewide

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## NORTHERN PIKE

(*Esox lucius*)

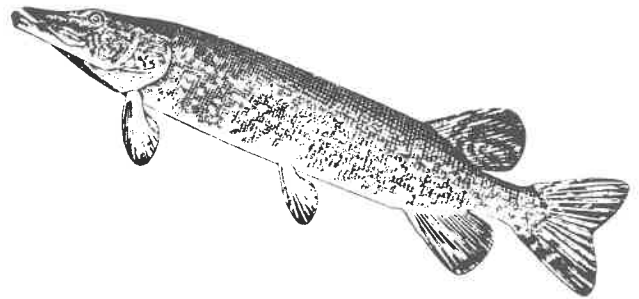
### Description

Northern pike, which are often simply called "northern," have a very long, slender body. They are most readily distinguished by the long head and snout, which is filled with many long, sharp teeth, and placement of the *dorsal* fin back near the tail. Color of the fish is usually green with many lighter spots on the sides and a whitish belly. The eyes are a bright yellow.

In South Dakota, northern pike can grow larger than 40 inches (101.6 cm) and 30 pounds (13.6 kg). The state record fish, as of 1993, weighed 36 pounds 3 ounces (16.4 kg). Northern pike can live past ten years of age, but most will average only five years.

### Distribution

In North America, the native range for northern pike includes almost all of Canada, Alaska, and the upper midwestern United States. Northern pike are also native to much of northern Europe and the former Soviet Union. In South Dakota, they were native only to the lakes and rivers in the eastern one-fourth of the state. They have since been introduced into many rivers, reservoirs, lakes and ponds throughout the state. Northern pike generally prefer coolwater habitats and do best in deeper bodies of water. They have also adapted well to many of the shallower (warmer) prairie lakes of South Dakota.



### Natural History

Northern pike spawn immediately after the ice leaves the water in spring, typically when water temperature is around 40°F. In South Dakota, northern pike are the first gamefish to spawn, usually during late March or early April. Male northern pike typically mature at age two, and females at age three. A single large female may produce up to 600,000 eggs. Northern pike lay their eggs on submerged vegetation in shallow water in the bays of large lakes, or at the mouth of a tributary or creek. They do not create a nest for the eggs, nor do they provide any care for the eggs once they are laid. The eggs adhere to the vegetation and will hatch in less than two weeks. Most of the eggs will not hatch successfully, falling prey to fungus, invertebrates, or other fishes. The newly hatched fish (or fry), which are about one-quarter of an inch (7 mm) in length, use their attached

yolk sac for food during the first 7 to 10 days, and later feed on *zooplankton* in the water. Between feedings, they return to some vegetation, attaching to it via a sticky patch on their heads. Eventually, they begin to feed on small fishes and their sticky patch will disappear. Young northern pike, under ideal conditions, may reach 10 or 12 inches (25.4 - 30.5 cm) in length by fall.

## Significance

Northern pike are a popular gamefish because they put up a terrific fight when caught, and because their white, flaky meat is tasty when cooked. Usually northern pike are active and can be caught by anglers when other fish are hard to catch, which makes them even more popular during winter ice fishing. Sportfishing for northern pike attracts a large number of anglers from other states, during spring, and produces a noticeable, positive economic impact on the state. Northern pike are *carnivores*, usually eating other fishes, and are often the top predator in a lake. In this way, they help balance fish populations by preventing smaller fish species from becoming overabundant.

Limited archaeological investigations indicate that northern pike were occasionally a part of the diet of American Indians in eastern South Dakota.

## Conservation Measures

Because northern pike are important as predators and are highly sought after as gamefish by anglers, they are actively managed in South Dakota by the state Game, Fish and Parks Department. Northern pike are the third most popular fish in the state. To protect northern pike populations, the harvest of adult fish is regulated through a *creel limit*. Each spring, the Department collects 10 to 20 million northern pike eggs to be hatched and raised in the state's fish hatchery system. The fish from these eggs are then used to re-establish northern pike in lakes where they have died-out, or to supplement natural reproduction in lakes where good spawning habitat is lacking. In a few cases, such as in reservoirs, the water level can be managed so that some vegetation is flooded temporarily during the spring to improve natural reproduction.

## Glossary

**Carnivore** - a meat eater.

**Creel limit** - the maximum number of fish that can be kept by an angler.

**Dorsal** - back or top side.

**Zooplankton** - very small animals that live in the water, and usually eat even smaller plants.

## References

Scott, W.B. and E.J. Crossman, 1973. Freshwater Fishes of Canada. Fisheries Research Board of Canada, Bulletin 184, Ottawa.

### Selected Resources For Teachers

Sportfishing and Aquatic Resources Handbook, Instruction and Activities. Minnesota Department of Natural Resources, 1991. Grades 4 - 12.

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