

nglers have given the northern pike many nicknames—jackfish, hammer handle, slough shark, northern, and slimer (for the mucus covering its scales). Some also call it water wolf. As is the case with the terrestrial wolf, *Esox lucius* often inspires strong feelings—anglers either love the fish or hate it. Also like its furry namesake, this large predator is surrounded by myths and controversy.

Northern pike exist in Russia, Europe, North America, and elsewhere across the Northern Hemisphere. The ancient species dates back 80 million years to the reign of dinosaurs. Superbly adapted to their environment, modern pike show little change from early fossils.

Their distinctive elongated shape and mottled olive green-and-white coloration are ideal for waiting in vegetation to ambush prey fish. Their elongated flat head gives them a sinister look. Large specimens are often called "gators" for their resemblance to the large reptiles and a reputation for ferocity.

In North America, northern pike are found in 26 states and six Canadian provinces. The species belongs to the Esocidae family, which also includes muskellunge and three species of pickerel. The tiger muskie is a sterile hybrid of a female muskie and male northern pike.

Pike spawn when water temperature reaches 48 degrees, shortly after ice-out. Several males and a female thrash in the shallows while she expels sticky eggs over submerged vegetation. A female produces an average of 30,000 eggs—

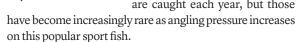
a prodigious output necessary because only a tiny fraction of eggs and larval fish survive. Pike fry first eat microscopic zooplankton, then aquatic insects. When the young reach three to four inches long, they start to eat small minnows. By the time a pike is a foot long, its diet consists almost entirely of fish.

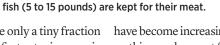
for their white, flaky meat before reaching advanced age.

A northern pike is an extremely effective predator. The camouflaged fish rests motionless for hours in vegetation waiting for a smaller fish to pass within striking distance. Its dorsal fin, which on most fish species is in the middle of the body, sits back near the deeply forked tail. When prey nears, the pike bends its body into an S shape. Then it launches at 10 to 15 feet per second, propelled by its large fins. At the last moment its massive jaws and gills flare open, creating a vacuum that sucks the hapless victim into rows of several

hundred razor-sharp, backwardpointing teeth. The pike strikes the side of its prey, then maneuvers the smaller fish head-first to swallow whole.

Pike are a coolwater species, preferring temperatures between 60 and 70 degrees. They usually swim in shallow, weedy water, though larger pike seek out cooler, deeper holes as water warms in summer. The largest pike caught in Montana was a 37.5-pounder from Tongue River Reservoir in 1972. A few pike over 30 pounds are caught each year, but those





**ARMFUL** Lance Moyer with the 37.5-pound

state record northern pike he caught in 1972

at Tongue River Reservoir. Pike rarely top 30

pounds these days because so many mid-sized

## **ESOX FABLE**

Like predator species of all types, pike have long inspired fables and myths. The so-called "Emperor's Pike," a skeleton that appeared in Germany in 1497, was 19 feet long and reputedly belonged to a fish weighing 550 pounds when alive. An engraved copper ring encircling its ribs indicated it had been caught and released by Emperor Frederick II 267 years earlier. The pike skeleton hung in the Mannheim Cathedral for decades until skeptics proved it was actually made from the bones of several fish glued together.

tirely of fish.

Pike grow fairly rapidly, reaching 20 inches by age three or four and 30 inches by age seven or eight. They can live more than 10 years. But because they so willingly take lures, under even moderate fishing pressure most are harvested

Jim Vashro retired as FWP regional fisheries manager in Kalispell in 2011.



Pike do get big, but nowhere near that size. The world record is a 55-pound, 1-ounce pike caught in Germany in 1986.

A more modern myth is that pike stop biting in midsummer because they "lose their teeth." Some years ago I spoke with Rod Ramsell, then a fisheries biologist with the Minnesota Department of Natural Resources. He noted that pike constantly lose and replace teeth. But losing all their teeth at one time wouldn't help a fish that lives by chomping other fish. Ramsell told me he had handled about 30,000 northern pike during his career and had never seen one that was toothless.

It's true that pike are tough to catch in summer. That's because young-of-the-year prey fish have grown to ideal eating size, and pike find them far more appealing than anglers' lures. Another reason is that large pike head to deeper, cooler water in midsummer, while anglers often continue fishing the shallows, where they found fish in spring.

One long-enduring myth is that northern pike attack anything that swims, including small dogs and children. Ramsell said he had

never been bitten while handling tens of thousands of pike. He knew of only a dozen or so documented cases of a northern pike—or, more likely, the closely related muskellunge—biting someone. In almost every case, the fish grabbed someone's hand or foot as it dangled in the water from a boat or dock or moved in murky water. But those handful of stories have been inflated and persist in newspapers, TV, and social media.

Pike do have dangerous teeth, and wise anglers handle them carefully with jaw spreaders and long-nose pliers.

Yet another pike misconception is that they are "voracious" and will attack lures—and small animals—with wild abandon. I first fished for the species 35 years ago on the Flathead River near Dixon. After hearing about pike in a slough, I hiked downstream to a likely backwater. While watching swallows skimming the surface for insects, I wondered if this was the spot. Suddenly, the water exploded right behind a swallow. I quickly tied on a topwater plug and the pike were...well, in this case they actually were voracious. Over the next several hours I had

some of the best fishing of my life, with numerous spectacular hits. I landed about 15 pike that night. Yet after repeatedly fishing for pike over the next 35 years, I've experienced that kind of feeding frenzy only one other time. Usually pike ignore my offering or lazily follow the lure to the boat, then glare at me before drifting away.

Biologists have found that pike occasionally consume small waterfowl and mice (see "Do pike eat ducklings?" on page 39). And they do sometimes aggressively strike prey and fishing lures. I remember one 10-pounder that launched from 10 feet away and hit my surface plug on its downward arc.

But a consistently "voracious" predator? That's rarely been my experience.

A commonly held notion is that pike are gluttonous, eating enormous amounts of prey. Pike have a food conversion rate of 3.5 to 1. That means a 10-pound pike will have eaten about 35 pounds of prey to reach that size. That sounds like a lot, but other piscivores such as walleye or brown trout actually have higher conversion rates of 4.5 to 1. So a 10-pound walleye would have eaten about

45 pounds of prey. That makes sense when you consider that a constantly roaming brown trout or walleye needs far more calories than a lie-in-wait pike.

## HARMFUL INTRODUCTIONS

Despite being a tasty and sporting species, pike that are illegally introduced often harm existing fish populations, especially trout and other salmonids. In Montana, pike are native only to several miles of the St. Mary River northeast of Glacier National Park in the South Saskatchewan River drainage. Though FWP stocked pike in some eastern Montana waters several decades ago, the agency has long since discontinued the practice and denounces illegal plantings. To dispel another myth, pike are not spread by their eggs sticking to duck's feet or an osprey dropping a small pike into another water.

Pike are the number one illegally planted fish in Montana, accounting for more than 100 of the nearly 600 documented unauthorized plants statewide. An unauthorized plant in 1953 moved pike from Lake Sher-

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burne in Glacier National Park to Lone Pine Reservoir in western Montana. Some of those pike drifted down the Little Bitterroot River to the Lower Flathead River and Clark Fork drainage. In the late 1960s, some of those pike were illegally put into Echo Lake near Bigfork, from which they rapidly spread to nearly 70 waters in northwestern Montana. Pike now swim in more than 80 waters

west of the Continental Divide; all of them are there illegally.

Years ago, pike were illegally planted in a private pond near Gallatin Gateway, then escaped into the Gallatin River and made their way down into the Missouri River. A 34-pound northern pike caught at Canyon Ferry Reservoir in 2017 was likely the result of that illegal planting many miles upstream.

Introduced pike can degrade existing fisheries and take a bite out of important native species. On the Upper and Lower Stillwater Lakes northwest of Whitefish, pike caused declines in westslope cutthroat and bull trout populations. Pike unlawfully dumped into Salmon and Seeley Lakes in the early 1990s spread downstream into the Blackfoot and Clark Fork Rivers, where they feed on brown, rainbow, bull, and cutthroat trout. Before Milltown Dam was removed, biologists would regularly find the stomachs of northern pike in Milltown Reservoir filled with various trout species.

The idea of moving fish is not new. Reportedly, monks were responsible for

introducing pike into Ireland in the 14th century, potentially making them the first recorded bucket biologists.

## **RISKY AFFAIR**

Anglers who illegally introduce new species believe they are providing additional recreation. Yet the wrong fish can actually decrease angling opportunities by eating or competing with existing game species. Fisheries managers strive for a natural balance between predator and prey fish, and moving fish is always a risky affair. Legal introductions are done only after thorough environmental review and risk analysis show that potential problems

will be minor. Scofflaws just dump fish and hope for the best. But that almost always upsets the balance of the fishery.

That's why Montana Trout Unlimited, Fishing Outfitters Association of Montana, Invasive Species Action Network, Montana B.A.S.S. Federation Nation, Montana Wildlife Federation, Montana Catfish Association, Walleyes Forever of Montana,



## Do pike eat ducklings?

One of the most enduring northern pike legends is that the predator fish commonly target vulnerable ducklings swimming around lake shallows. It can happen. In the early 1940s, researchers in northern Canada estimated that northern pike consumed 10 percent of the ducklings in two major duck-producing river deltas.

Yet in 1942, two Michigan biologists watched ducklings swim in a marsh containing northern pike at the Seney National Wildlife Refuge for a total of 5,535 minutes, but saw no attacks. Unconvinced, one biologist captured a duckling and tethered it to a pole to splash around. Still no attacks. So he towed it back and forth across the pool, and yet not a single northern pike went after it. (Needless to say, biologists don't conduct experiments like that anymore.)

When Jack Tipping, of the Washington Department of Fish and Wildlife, compiled a list of the stomach contents of 50,000 pike, muskies, and tiger muskies sampled across North America, he found only a few dozen ducklings. In addition to the countless small fish in the 50,000 stomachs, Tipping found one young red-winged blackbird; one snake; one baby muskrat; 22 mice or voles; six unidentified small mammals; 44 frogs, tadpoles, or mudpuppies; and 45 waterfowl (mostly ducklings and coots, and one wood duck).

Montana Walleyes Unlimited, and Montana Pikemasters have denounced illegal stocking of all species.

It's unlikely that Montana will ever be able to eradicate its illegally introduced northern pike populations. And most suitable waters already have had pike legally introduced. So it makes sense for anglers to pursue these fish in those locations and enjoy doing so. But pike absolutely should not be spread elsewhere. Though I love fishing for water wolves, I don't want to see them anywhere in Montana except where they currently swim.

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