

WILD TIMES

FOR KIDS



Pumpkinseed (left), also called “kibbee” are a warmwater species that live in weedy waters. The lake trout (below) is a coldwater species. Preferring large, cold lakes, one Native American name, namaycush, means “dweller of the deep.”

FIN-TASTIC!

If you were a drop of water, no matter where you started in New Hampshire, you would end up in the ocean. On this journey through the watershed you might travel through streams, rivers, ponds, lakes and estuaries encountering all kinds of fish along the way. Each fish has its own habitat needs – food, shelter and space. Some kinds of fish are found only in one type of water while others can live just about anywhere. What all fish have in common is their need for clean water.

To make sure we have healthy populations of fish, biologists study fish to see how healthy they are, how much food they have, as well as work to improve their habitat and set fishing seasons.

Let’s take a look at some of the fish that live in New Hampshire.



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Brook Trout

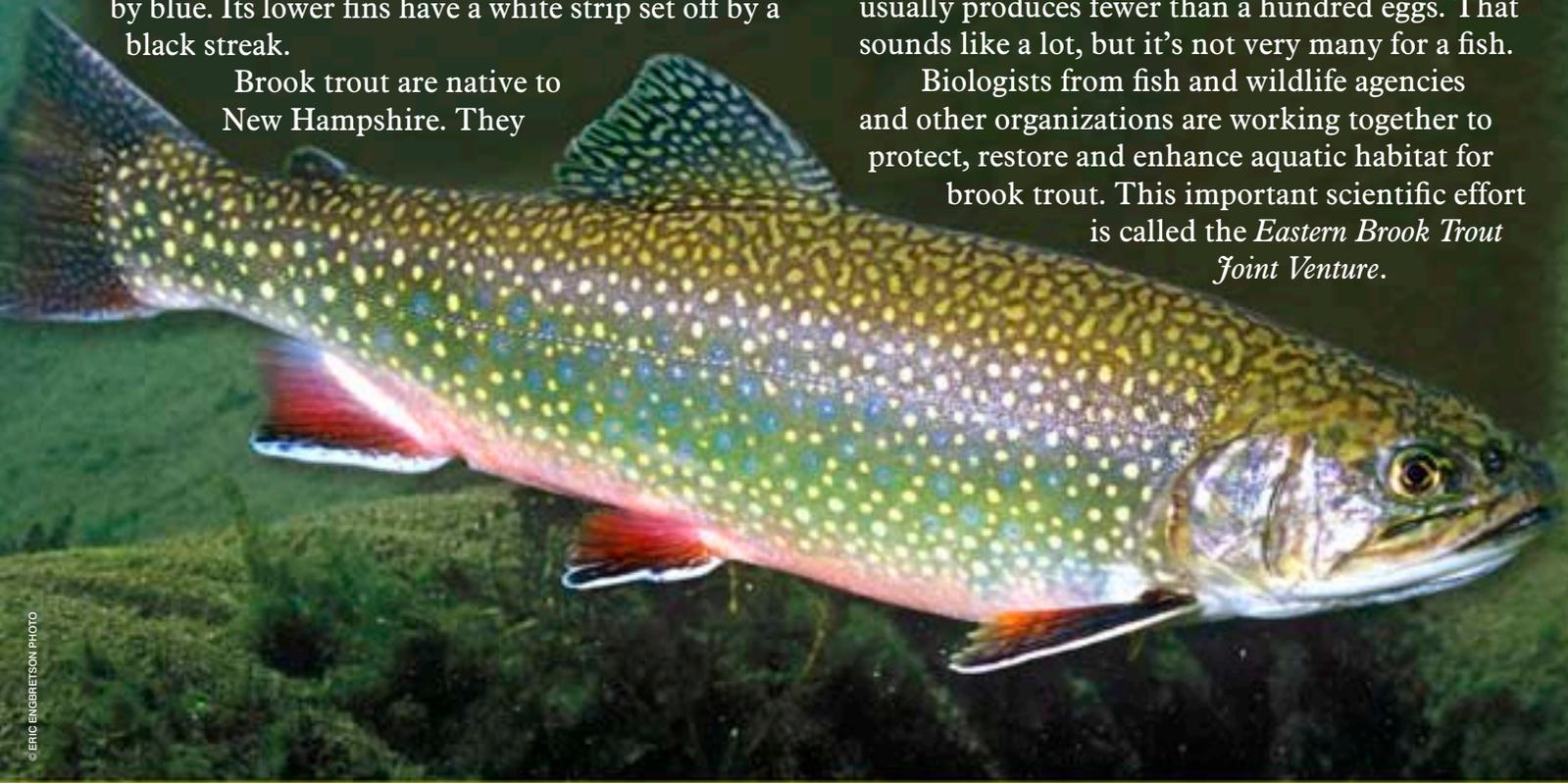
Quick – what is the state fish of New Hampshire? If you guessed Eastern brook trout, you would be right. This fish is probably one of the best known and easiest to identify. Its beautiful coloration in the fall shows off shimmery bluish-green sides, with lots of large yellow spots and red spots surrounded by blue. Its lower fins have a white strip set off by a black streak.

Brook trout are native to New Hampshire. They

prefer swift mountain streams, lakes, beaver ponds or slow-moving brooks. They need cold, clean water with lots of dissolved oxygen. Insects are their main food source.

Brook trout lay their eggs (spawn) on gravel stream bottoms in the fall. A four-inch brook trout usually produces fewer than a hundred eggs. That sounds like a lot, but it's not very many for a fish.

Biologists from fish and wildlife agencies and other organizations are working together to protect, restore and enhance aquatic habitat for brook trout. This important scientific effort is called the *Eastern Brook Trout Joint Venture*.



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Chain Pickerel

The chain pickerel is a member of the pike family. These long, slender fish are built for darting out from the weeds and grabbing their prey. They are green, with sides broken by dark, interconnecting lines that look like the links of a chain.

Pickerels are attracted to weedy, shallow water pools in streams, ponds, lakes and rivers. They like good cover. They can easily live in water as warm as 90 degrees.

Active during the day, pickerel hunt by sight. They strike with incredible speed, eating small fish, crayfish, frogs, newts and insects. Pickerel eggs are ribbon-like masses that are attached to plants under the water. Females lay up to 50,000 eggs, but don't stick around to guard them.

It's fun to fish for pickerel. They can move at explosive speeds and test your skills. In New Hampshire, they are often caught through the ice. Watch out for their sharp teeth!



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ANATOMY of a FISH

All fish are cold-blooded, and are wonderfully adapted to spending their entire lives in water.

Fish have eyes on the sides of their heads, so they can see both in front and to the sides. They see best at close range – including things that aren't in the water.

CARP

Fish can smell, too, helping them find food and warning them of danger.

Fish swallow their food whole, eating a variety of things from tiny (microscopic) plants and animals to insects and other fish.

Because they don't have lungs, fish breathe oxygen by filtering water through their gills.

Most fish have scales covering their body.

If you look closely you'll see a line along its side called the "lateral line." This allows fish to feel sound waves or vibrations in the water.

Fish move through the water by flexing their body and tail (called the "caudal fin"). They change direction or move backwards by moving their other fins.

Yellow Perch

Looking at their beautiful colors – from brassy green to golden yellow, with 5 to 8 darker bars – it's easy to see how yellow perch got their name. These fish live in schools in deep water and move into shallower areas to feed at dawn and dusk. They are found in and around weedy areas of ponds, lakes and rivers.

Young (larval) yellow perch eat very tiny animals like copepods, waterfleas and other small crustaceans. Perch grow quickly and soon begin to include bigger items in their diets. By the end of the first growing season, perch are

eating small fish, crayfish, leeches and snails. Adults continue to eat all of these things, but include more fish.

One of the most valuable things about yellow perch is that they are often food for larger fish, like bass, pickerel and lake trout. Fish-eating birds like mergansers, loons, kingfishers, eagles and herons eat perch of all sizes.

Yellow perch lay their eggs after the ice leaves the lakes and ponds. At night, females are escorted by two or more males as they move among the weeds. Females drape their eggs in an accordion-like strand over the vegetation. Once the eggs hatch in about two weeks, the young fish migrate to the open water. They stay in open water until they are about an inch long and then move into weedy areas near shore.

Yellow perch are good eating and are often caught through the ice.

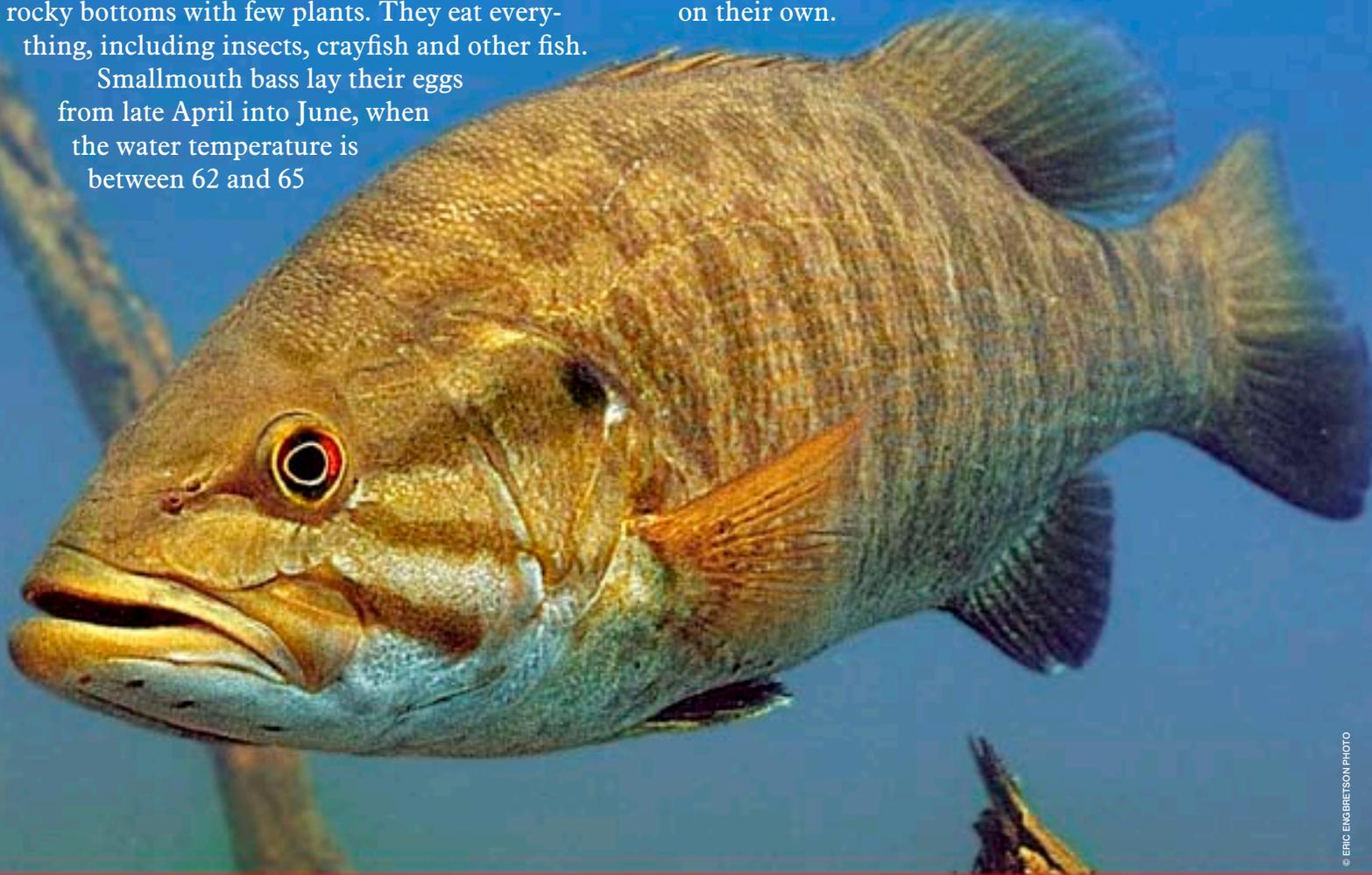
Smallmouth Bass

This is one of the best fish to get on a hook! They have lots of fight and taste really good, too. Smallmouth bass get their name from the fact that the back end of the lower jaw does not extend beyond the eye. Most adult smallmouths in New Hampshire weigh 2 to 3 pounds.

Smallmouth bass, also called *bronzebacks*, are members of the sunfish family, with a dorsal (back) fin that has a spiny and a soft section. These fish like lakes and flowing streams with cool, clear water and rocky bottoms with few plants. They eat everything, including insects, crayfish and other fish.

Smallmouth bass lay their eggs from late April into June, when the water temperature is between 62 and 65

degrees. The male builds the nest (called a “redd”) by sweeping away material from the bottom with its tail fin and removing the coarser material by pushing it with its snout. The nest looks like someone has created a cleared circle on the bottom. An 18-inch female can produce 10,000 eggs. Males defend the nests against predators and keep them free from silt by fanning the area with their tails. Once the eggs hatch, the males herd the young in groups (called “schools”) for about a week before they go off on their own.



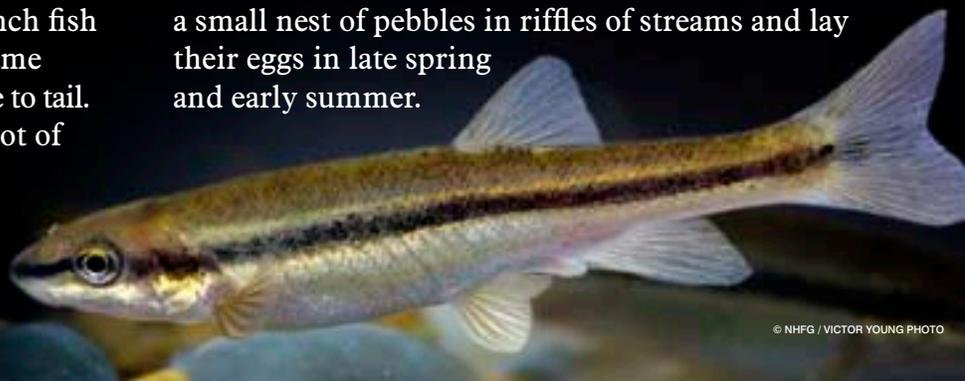
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Blacknose Dace

Big fish need little fish to eat, and that is what blacknose dace provide. This small, 2½-inch fish is a favorite food for brook trout. It gets its name from the black lateral line that extends from nose to tail.

Blacknose dace often get lumped with a lot of other fish when people refer to “minnows.” These fish are found in small, rapid streams with rocky or gravelly bottoms, feeding

on algae and aquatic insects. Blacknose dace build a small nest of pebbles in riffles of streams and lay their eggs in late spring and early summer.



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What is a

FISH HATCHERY?



Most fish in New Hampshire can produce enough young to maintain healthy numbers and allow for good fishing. That's not the case for brook trout, rainbow trout, brown trout and Atlantic salmon, though. To keep their numbers up, they need a little help. Fish and Game fish hatcheries maintain fishable populations of trout and salmon in New Hampshire waters by raising fish that are released (stocked) into lakes, ponds and streams.

The people who run the hatchery are called fish culturists. For trout, the hatchery provides a protected environment for spawning, egg incubation and a place for the fish to grow before they are released. In some cases, trout are released when they are very small, about the size of a finger (called fingerlings). Other fish grow one to three years before they are stocked in a waterbody.

Some hatcheries also provide habitat for eggs and fry (very young fish) for the Atlantic salmon restoration program. Before their yolk sac is fully used, they are stocked into streams and rivers. They hopefully will travel downstream to the ocean as smolt (young Atlantic salmon that are transforming from living in freshwater to saltwater) and come back again as adults to spawn in their native freshwater habitat.

Atlantic salmon begin their journey when they are released with their yolk sacs still attached. At this stage they are called sac-fry.



To learn more about New Hampshire Fish and Game's hatcheries and their locations, log onto www.fishNH.com

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LET'S GO FISHING!



Fishing is fun for everyone. It's as easy as 1, 2, 3... and kids under 16 don't need a license to fish in New Hampshire! Here's all you need to get started:

- 1.** Take a "Let's Go Fishing" class. These classes are a great way to learn how to fish or develop your fishing skills. Courses are offered throughout the state by trained volunteer instructors. Check out www.fishNH.com for class times and locations.
- 2.** Fishing rod and reel. If you don't have these, check your local department store. Most have starter kits that include fish hooks and lures for under \$10!
- 3.** A place to fish. Log onto www.fishNH.com to find a fishing spot in your area. With 975 lakes and ponds and 12,000 miles of rivers and streams in New Hampshire, there are lots of places to fish!

Remember, if an adult takes you fishing, remind them to buy a fishing license. Without a license they cannot fish. For a list of where to go to buy a license, or to purchase one online, go to www.fishNH.com

Let's Play **KNOW YOUR FISH!**

After reading the stories in this issue, draw a line to match the name of the fish with its picture and hint.

A



Watch out for my sharp teeth!

B



Some people call me "Kibbee"

C



"Dweller of the Deep"

PUMPKINSEED • SMALLMOUTH BASS • BROOK TROUT • PICKEREL • LAKE TROUT • YELLOW PERCH

D

I am the N.H. state fish.



I'm often food for other fish.

E



F

I'm also called "bronzeback"



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