



Pure beauty of the brook trout

ONLY PRISTINE STREAMS CAN SUPPORT
THIS SPECIAL SPECIES.

Story and photos by Don Blegen

In a few spring-fed headwaters of our Wisconsin streams, there still exists a fish that symbolizes cold, pure water. In fact, that is the only place it can survive. This fish is the only native stream trout east of the Rockies, and it goes by a variety of names in different places: speckled trout, squaretail, native trout or brook trout.

Rainbow trout were imported from the West Coast. Brown trout were imported from Europe. Both can tolerate greater pollution and higher water temperatures than brook trout and have largely taken the place of the native brookies.

The brook trout can only survive in unpolluted streams whose summer temperatures do not rise above 65 degrees Fahrenheit even on the hottest days. In whatever stream it is still found, you can be sure that waterway is cold and pure. That is perhaps why its scientific name is *Salvelinus fontinalis*, which loosely trans-

lated from the Latin means “the little salmon of the springs.”

Kaleidoscope of colors

Brook trout run small. They rarely reach the size of mature rainbows or browns. This is partly because their natural habitat is small streams with limited food, but it is also because they don't live as long.

A lucky and wary rainbow or brown trout can live 10 or 11 years before old age ends its life, while a brook trout's full life span is about half that. A 16-inch rainbow or brown is a nice catch; a 16-inch

brookie is a trophy, pushing its ultimate life span.

Nevertheless, the brook trout remains special to many anglers. They are delicious. Many consider them the tastiest of all trout and salmon, and that is high praise indeed. They are special, too, because they are found in wild and unspoiled places, places that remind us of a pristine Wisconsin. And most of all, they are special because they are stunning.

Brook trout are arguably the most beautiful of North American game fish. Painters and photographers try in vain to capture their colors — especially the colors of a male brookie in full fall spawning colors.

Its back is the color of forest moss, covered with worm-like markings of lighter green. The flanks are covered with pale golden spots and brilliant scarlet speckles surrounded by haloes of sky blue. There is a scarlet and black band separating these spots from a snow-white belly. The lower fins and tail are a deep scarlet, edged by a striking charcoal and ivory trim. You have to hold such a fish in your hands to believe it.

That such a spectacular fish can be hard to spot in a stream seems beyond belief. But many a fisherman has looked

right at a brook trout without seeing it — until it spooks and heads for cover, disappearing in the blink of an eye.

Those worm-like markings on its back and all those multicolored spots break up a brookie's fishy shape. They help it blend into the stream's bottom of dappled sunlight and shadows filtered through alders and willows, making the fish virtually invisible.

Fall is spawning season

Brook trout have survived in pristine Wisconsin streams since the glaciers receded many thousands of years ago, spawning every fall. The spawning season begins in September and reaches full force in October, tapering off into November.

The fish pair off and begin preparing a spawning bed, or "redd," in a shallow gravel area. The female does most of the digging with her tail and fins, while the male spends most of his time driving off other competing males. The shallow depression escapes most of the current and is easily spotted from the surrounding darker stream bottom.

When the redd is finished, both fish simultaneously and repeatedly "shiver" into the depression, the female releasing a spurt of orange eggs into the redd, while the male releases a white cloud of milt containing thousands of swimming sperm cells. This happens again and again, until the female no longer has any eggs.

Fertilization is external, the tiny sperm cells penetrating and fertilizing most of the eggs in the redd. Before hatching, the little embryo "breathes" dissolved

oxygen from the surrounding water and gives off carbon dioxide. The embryo becomes more and more fishlike, with a large belly sac disfiguring its body. This sac contains a yolk with reserve food to keep the embryo alive and growing.

If there is a flood or high water during the late fall, the eggs may be swept downstream to their deaths. Silt may settle on the eggs in the redd, cutting off oxygen and suffocating the embryos, wiping out an entire year's class of fish.

A fragile existence

In a normal year, the embryos hatch from the eggs over the winter, still with large belly sacs, staying within the protection of the redd until the belly sac food is used up. When the food is gone, the tiny and now streamlined fish must leave the redd and catch their own food. They consume tiny crustaceans and insect larvae, while trying to avoid predators such as kingfishers, herons and larger trout. The mortality rate is high.

It may take survivors a year to reach a length of 3 or 4 inches and four years to reach 12 inches. Only one fish out of 1,000 in its annual class reaches 15 or 16 inches and that is only if it has a rich food supply.

So when a fisherman spots a 12-inch brookie holding in the current waiting for food to be swept its way — those gorgeous scarlet and ivory fins making tiny adjustments to keep it in position, its powerful tail ready to sweep after prey — he is looking at what might be the sole survivor of hundreds of eggs. That particular fish has eluded every predator that wanted to make it a meal: mink,



Those lucky enough to hook a trophy-size brookie are in the company of a rare survivor.

otters, herons, even anglers.

If he succeeds in not spooking the fish, not snagging a branch on his back cast but placing his fly just so, deceiving the fish into accepting his imitation insect as the real thing — if he manages all that and brings that living jewel to hand, the angler has a decision to make.

Keep it for dinner tonight or release this rare survivor to continue the ancient cycle of survival and reproduction that coming fall? It's his choice. 🍷

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The green, gold and scarlet-speckled coloring of the brook trout makes it difficult to see against the stream bottom.

