



My first memory of Brook Trout takes me back to being a boy and having a spring fed river and pond right behind my home. We would catch and release or catch and eat all we wanted. Later in life when I heard others talking about these handsome and feisty fish, and how often they struggled to find and catch them, I thought how fortunate I was to have had a great resource at my fingertips.

Well today I still have such a resource but it is so much bigger than a “backyard” I am speaking of the Albany River Watershed, with its fast cold waters and abundant supply of Brookies. Many of our guests, especially those who have angled only for Walleye and Pike, may still think of the Brook Trout as illusive. So I have prepared this document as an introductory to the first time Brook Trout angler, and as a refresher course for those who have chased these “Specks” before. Thanks to NativeBrookTrout.com and Trout Unlimited information, here’s the scoop:

Biology & Habitat Needs

Brook trout are part of the trout and salmon family and the Char genus that include Bull Trout, Lake Trout and Artic Char. The Brook trout is named for the habitat in which it is found *Salvelinus* (sal-veh-lynn'-uss) taken from a word meaning "little salmon" *fontinalis* (fon-ten-al'-iss) means "living in springs" in Latin. Key distinguishing markings are cream-colored spots on a dark background. The spots along the back (dorsal) are elongated and appear worm-like while the spots below the lateral line are round, red and each is surrounded by a bluish halo.

Brook trout are native to Eastern North America, from Labrador and Newfoundland south to the southern Appalachian mountains of Georgia and South Carolina, west to Iowa and Minnesota and north to eastern Manitoba. The world record came from Lake Nipigon, just north of Thunder Bay, and many believe that Northwestern Ontario’s Albany River watershed offers the best brook trout angling in North America.

Brook Trout need lots of oxygen and a water temperature of 53 degrees or colder. Because of this, Brook Trout actively migrate up and down the rivers all year looking for the right conditions. In the spring, the Brook Trout are easy to find. Any river section with a rapids or strong current will hold the trout. In summer, odds are you will have to travel down stream until the water is cool. The exact opposite can be true. If the headwater for a creek is a cold spring-fed lake, then the Brook Trout will travel farther up stream to the cooler temperatures.

You have to look at the water source to determine where they will be. Brook trout, like other salmonids, have evolved in their capacity to take advantage of a variety of aquatic environments. Brook trout can live in river and stream systems, tiny first order tributaries, small ponds, large lakes and estuaries. Like other trout and salmon, brook trout can migrate from fresh to salt water where they live in estuaries or in the ocean close to shore. These trout are often referred to as "salters." As a char, brook trout spawn in the fall among loose gravel in streams and rivers, or on groundwater upwellings in ponds and lakes.

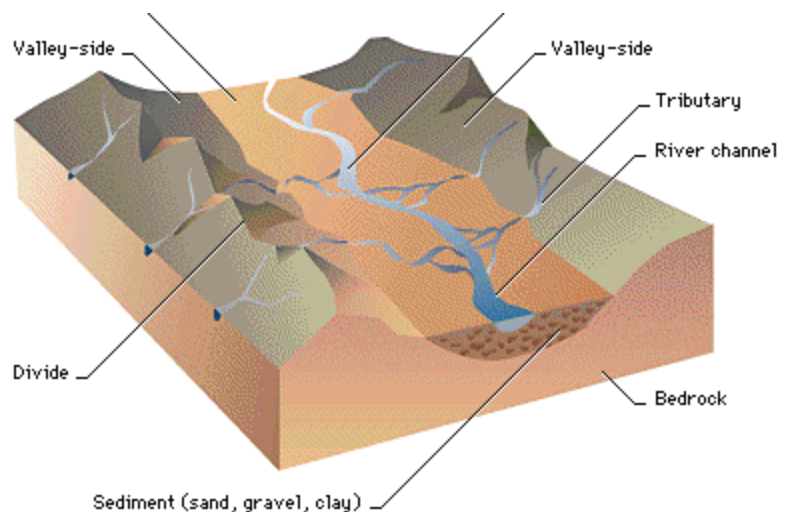
Brook trout spawn in the fall with the peak of the spawn occurring in late October to early November. Using their tail fins, a female constructs a shallow Brook trout young of year from the Savage River. Depression in clean stream gravel, called a redd, where she deposits her eggs. After a male fertilizes them, the female covers the eggs with gravel. There they incubate through the winter months and hatch out in the early spring.

Because brook trout are so sensitive to water quality and water temperature, they serve as a classic "indicator" species of the larger aquatic ecosystem and the watershed draining into the water body where they live. The reason that brook trout serve as such good "indicators" of aquatic health is that they have very specific water chemistry requirements.

Temperature - Studies have determined that brook trout cannot tolerate sustained water temperatures exceeding 77 and prefer water temperatures less than 68, with 53 being the ideal temperature. Brook trout are less tolerant of warmer water temperatures than brown or rainbow trout. Research has documented that brook trout can migrate many miles for spawning or to find thermal refuge.

Brook trout also require relatively high concentrations of oxygen compared to other fish and even other trout species. Water temperature is inversely related to oxygen concentrations. During the day, photosynthesis produces high concentrations of oxygen, but at night photosynthesis stops and plant, algae and bacteria respiration continues to use oxygen, causing oxygen levels to drop to dangerously low levels.

Nutrients in Aquatic Systems and Photosynthesis



Just as the stream transports energy upstream and down in the form of organisms and organic matter, it also transports nutrients.

To an ecologist, nutrients are the elements, such as carbon or nitrogen, out of which organisms are built. Among the most important for aquatic ecosystems are nitrogen and phosphorous.

While there are many chemical constituents that are potentially important to freshwater ecosystems, nitrogen and phosphorus are particularly critical to rates of photosynthesis.

Let's go fishing for Brook Trout:

First let's discuss handling these fragile fish. Please always wet your hands before touching a Brook Trout. They have very sensitive skin and if you hold one with dry hands you will rub the protective layer of slim off their skin and the trout will die of infection. We require our guests to use only barb-less hooks and to release all Brook Trout they catch.

Brook trout are opportunistic feeders and will eat whatever they can find. In small streams they prefer aquatic insects (nymphs) that live under the rocks and along the stream bottom. They are also known to feed heavily on the adult stage of aquatic insects as they hatch and take flight during their brief courtship and egg laying cycle. Land insects, like ants and beetles, that fall into the water are readily eaten, as are small crayfish. They will eat other small fish and minnows but only when they are easy to catch.

Fishing for Brook Trout is similar to river fishing for Rainbow Trout. Small spinners like #0 Mepps or #0 Blue Foxes work best. They will also hit worms and natural bugs like Grasshoppers or May Flies. Fly fishing with artificial flies is an excellent method. The most convenient bait for river fishing is the Berkley Trout Bait. It's a smelly doe that molds like Silly Putty. If you purchase a bottle, make sure it's the floating. A small jar will last all day and it fits into your pocket. Just roll up a small bit into a round ball the size of a salmon egg and put it on your hook. When Brook Trout fishing you should use 6 or 4-pound test line with really small hooks. The most popular hooks for trout are the Eagle Claw Laser Sharp trout hooks. If you are an experienced river fisher-person, then you would just use what you like best.

A great way to fish the slow moving pools or deep rapids is with a Saugeen River Trout Float Rig. You still use light line with trout bait but the setup is a little different. You have to estimate the depth of the water. Let say it's three feet deep. Put a trout float on your line about 2.75 feet up from your hook. Every 6 inches you would want to put a very tiny sinker on the line. Use the smallest you can find. The purpose of the sinkers is to control the way your bait floats down stream. With this method, your bait will be almost straight down from your float as it

moves down stream. So what's the purpose? When a fish hits your line your float reacts at once. It also keeps your bait just off bottom and it prevents your line from floating sideways, which causes snags.

In a larger river, the Brook Trout will stay at the base of a rapids or waterfalls. You may find them in deep pools but generally they like bubbles in the water. The most important aspect of Brook Trout fishing is how to approach the area you want to fish. Brook Trout spook very easily.

If you see a part of the river that looks like a good spot, walk through the bush until you are below the spot and approach it from down-stream. Cast up stream of the area you want to fish and let your bait float over the selected area.

The 3-way swivel technique is better than using steel line or bait-walkers. First, you can use light equipment, second, it's a lot more fun and last, you will catch tens times as many trout.

You need a light action rod with 4 or 6-pound test line. You also need three-way swivels and a 1 or 2-oz weight depending how deep you want to fish. Brook Trout generally are shallower than Lake Trout so a 1-oz weight is good to start with. Go to 2-oz if your boat trolls a little fast.

By using light line, the line has less friction with the water and slices through so that your line goes down to the bottom without having lots of line out. Tie two 3-foot pieces of line to your three-way swivel. Use a 1 or 2-oz. weight on one line and a light lure on the other. Brook Trout like small lures. Use #1 or #0 Mepps, Panther Martins or Blue Foxes. Small Cleos or a small Mepps Cyclopes are also good.

Trolling Slow:

Move the boat just fast enough for your lure to work and no faster. If your boat is moving too fast, it will be very hard to find the bottom of the lake. If you are using a boat with a bigger motor and it's hard to keep slow, try back trolling. Finding the bottom:

The most important aspect of deep-water trout fishing is letting out line to get to the bottom. **DO NOT JUST LET YOUR LINE OUT UNTIL IT HITS BOTTOM.** Hold the rod in one hand with the bail open. Let the line run through the palm of your other hand and grip the line. Once the boat starts moving and you have a good straight troll going, open your hand with the line then close it again. This way you can let out a foot or two of line at a time. Get a rhythm going. Open, close, open, close. Your rod tip will bounce up and down as you release little bits of line at a time.

The rhythm of your rod tip bouncing will be disrupted when your weight hits the bottom of the lake. When this happens, reel up a foot or two. The purpose of this procedure is to keep your 3-way swivel setup from getting tangled.

In the summer time, Brook Trout hit best in the morning between first light and 10:30 AM. They will hit better if the surface of the water is dead calm and it's a clear sky with high pressure. Any other conditions will cause them to slow down. If it's early spring, the trout seem to feed in other parts of the day. In some lakes the trout feed aggressively before dark.

Structure and wind:

Take a close look at the structure of the shoreline and try to extend the elevation patterns into the lake. If you see a cliff, odds are the water is deep at its face. If you see a string of islands, odds are there is a shallow shoal that runs between them. Trout like drop-offs so you would want to troll parallel to the string of shoals and not over them.

When you drop your line to the bottom, count how many times you let out line. You can get a good estimate of the depth. For Brook Trout, try to stay in not more than 20 to 35 feet of water and close to shore. If you come across a spot and catch a trout, odds are there are more of them there.

The wind is very important when trout fishing. Traditionally for warm water fish like Walleye or Pike, you would fish on the side of the lake where the wind is blowing. The logic being that the fish follow the surface food that is being blown in. With trout it's the exact opposite. The wind also blows the warm surface water, which does not hold enough oxygen for the trout. Thus fish the side of the lake where the wind is coming from.

In the Spring, the Brook Trout will be right up to the surface. As the water starts to warm up with the changing weather, the trout start to go deeper. Here is the approximate depth for different times of year. While not true for all lakes, remember smaller spring fed lakes will have trout shallow all year.

- Just after ice-out -- Between 10 feet and the surface
- Mid Spring -- About 10 to 20 feet deep
- Late Spring -- About 20 to 30 feet deep
- Summer -- Summer is the tricky part. Many believe that the Brook Trout go to the deepest part of the lake and stay dormant. In actual fact, the Brook Trout stay suspended in 53° thermal layers but can come right up to the warm surface water for short periods of time. Why are they there? That's where all the insects are.

- Brook Trout also feed on bait-fish, which they find suspended in deeper schools. There will be trout on the bottom but they are not feeding. When they do feed, they come shallower.

In really cold lakes like Lake Nipigon, the Brook Trout may swim right along the shore in the shallow water all year round. Many people call them Coasters.

FAQ's

How big do they get?

How big a brook trout gets is dependent on what stream it comes from. The common size that many anglers catch from heavily fished streams or lakes in the U.S. is 150 to 250 mm (6 to 10 in), but in areas of little fishing, they can get as large as 400 mm (15 in). Heading north makes a difference. Those that live along the shores of Lake Superior reach 600 mm (24 in). The Minnesota state angling record is 3 kg (6 lbs. 5oz). This fish was caught from the Pigeon River, the most common US/Canadian Customs office for those driving to Canada through Minnesota. The world record is 6.6 kg (14.5 lbs). Brook trout from Lake Nipigon here in Ontario

How Long Do They Live?

Commonly live for 3-4 years. A few make it to the age of 5 or 6 years.

What Do They Eat?

The food of the young brook trout is mostly small insects. Older fish eat larger invertebrates including many types of aquatic (water) insects, sideswimmers, snails, and worms. They also feed on minnows and other small fishes.

What Eats Them?

Brook trout have few aquatic predators because few piscivorous ("fish-eating") fish live where they do. Larger trout, especially brown trout, eat smaller brook trout. They are more likely to be eaten by such fish-eating birds as herons, and kingfishers. Otters and snapping turtles also prey upon them.

How Do They Reproduce?

Many brook trout females and some males reach sexual maturity in their first year of life. Unlike Pacific coast salmon, brook trout do not die after spawning. They spawn each year of their adult life. In Northwestern Ontario, the spawning season for the brook trout is normally in the autumn months, roughly mid September through early November. During these spawning times the water temperatures are usually 4.5- 9.5° C (40-49° F).

In streams, brook trout move to riffles where spring water passes through the gravel. Here the female constructs a nest by swimming hard into the gravel and

vibrating her body and sweeping her tail. She repeats this action many times over a period of a day or two.

A male may defend this area while the female builds the nest. After the nest is ready, the female lies in it and is briefly courted by the male. Eventually, the male lies along side of the female and arches his body over hers. The two vibrate and release their eggs and sperm at the same time. The female then uses her tail to cover the eggs with gravel. Flow from the spring seeps into the gravel keeps the eggs oxygenated and clear of silt. The eggs hatch after 50-150 days depending on water temperatures. The colder the water temperature is the longer the development period.

When you are ready to add Brook Trout Fishing to your Canadian Fly In Fishing adventure, so are we. Our trip planners can describe the two American Plan Lodges and four outpost cabin destinations we offer in the Albany River Watershed...and good fishing.

Alan Cheeseman
Owner-Wilderness North
888-465-3474
Alan@WildernessNorth.com



This document has been brought to you by the fly-in fishing experts
at Wilderness North – Canada's premiere destination for
walleye and pike trophy fishing.

Wilderness North

Thunder Bay, Ontario, Canada

Phone toll free: 888-465-3474

www.wildernessnorth.com