

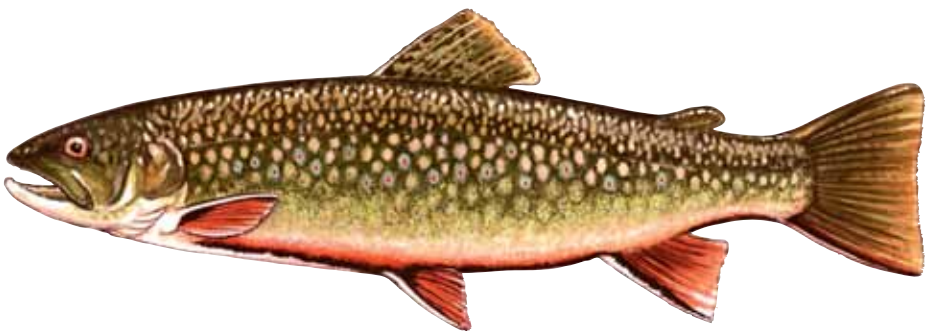


Brook Trout *Salvelinus fontinalis*

Species overview: The brook trout is Pennsylvania's official state fish. It is technically a char. It is related to the Arctic char of the Far North, the Dolly Varden and bull trouts of the West, and the lake trout. The chars live farther north than most other trout and salmon family members. The brook trout's original home was northeastern North America, through the Great Lakes, and south along the Appalachian Mountains to Georgia. It is the only stream trout that is native to Pennsylvania. The genus name "*Salvelinus*" is derived from an old name for char. The species name "*fontinalis*" means "of springs." Brook trout are sometimes called speckled trout, squaretails or just "brookies."



Identification: The brook trout's general body color is dark-green. Looking closer, its back is dark olive-green or gray-green, mottled with dark, squiggly or wormlike markings from head to tail. The sides and belly shade lighter, sometimes with green, gray or even lavender tones, and additional irregular marks. The sides also have scattered red dots, surrounded by bright-blue halos. The belly is usually pale yellow-orange, with a blackish or gray streak down the middle. The pectoral, pelvic and anal fins are pale to bright-orange with a white leading edge followed by a black stripe. There are dark blotches on the dorsal and caudal fins. The brook trout's tail fin is less forked than that of most trout and salmon. It's even squarish. In spawning males, colors become more intense and the belly becomes deep-orange. At maturity, wild brook trout may be from five inches to 18 inches long, according to the availability of food in the home stream.



Habitat: The brook trout lives naturally in small, cold, clean streams. It also adapts to ponds and lakes, as well as instream beaver ponds. Brook trout are found in Pennsylvania as wild populations in the Ohio, Susquehanna, Genesee, Potomac and Delaware River watersheds. Brook

trout are also found throughout the state as hatchery-raised, stocked fish. The habitat of wild brook trout has been greatly reduced in Pennsylvania since European settlers arrived, with land-use changes, mining, and warming and silting of streams, and with other pollution and stream habitat degradation. Naturally self-sustaining populations can still be found in limestone spring-fed streams and cold, mountain creeks. Brook trout can tolerate relatively acidic waters, but not temperatures much over 65 degrees.

Life history: Brook trout spawn in the fall, from mid-September through November and may travel to upstream headwaters to find the right spawning spot. Similar to other trout, with violent motion of the body and tail, the female digs a shallow nest depression in the bottom gravel where there is good water flow to bring oxygen to the eggs. The males become aggressive on the spawning grounds, chasing one another, but several males may accompany the female in the spawning act. After fertilization, the eggs receive a small additional covering of gravel, often from females digging new areas just upstream. The eggs are given no further parental care. Eggs develop over the winter and hatch in late winter or early spring. In small streams, sexually mature fish may be only four or five inches long, and produce only a few hundred eggs. A brook trout over 18 inches might produce around 4,000 eggs. In headwater, infertile streams, few brook trout may reach “legal” keeping size for anglers. Large brook trout caught by anglers in Pennsylvania are mostly hatchery-stocked fish. But they may have spent some time in the stream since their planting, grown bigger, and become wary of anglers. Brook trout feed on aquatic and terrestrial insects, both under and on the water’s surface, crustaceans and small fish. They can be caught on a variety of artificial flies, lures and natural baits. Brook trout are relatively short-lived. Few survive in the wild longer than five years.

Lake Trout *Salvelinus namaycush*

Species overview: The lake trout is a char that lives mostly farther north than Pennsylvania. Besides the brook trout, the lake trout is the only trout and salmon family member that is native to the state. It is found naturally in Lake Erie and in Silver Lake, Susquehanna County. Elsewhere the limits of its original range follow the southern boundary of the glacial advances across North America. The genus name “*Salvelinus*” is an old name for “char,” and the species name “*namaycush*” is an American Indian name for the lake trout.

Identification: The lake trout’s body has a background gray color, often with an bronze-olive overtone. It shades to silvery-white on the belly. The back and sides have many large light-colored, irregularly shaped markings, some of which are wavy or wormlike, like the brook trout’s markings. There