

STREAM ORDER

Moving waters are placed into categories called **stream order**. It is a way of grouping streams and rivers based on their size and location within a watershed. All streams start from a single source such as a spring, pond, lake, snowmelt or rainwater high on a ridge, hill or mountaintop. The water drains down through its watershed to meet and merge with many different streams. The small starter streams are called **first-order streams**. These small first-order streams create **second-order streams**. Two different second-order streams combine to form a **third-order stream** and that flows into rivers until it eventually reaches an ocean.

FIRST-ORDER STREAMS

These waterways are the smallest streams because they have no tributaries. They may originate from springs, or just many trickles of groundwater running together. Many times they are small enough to jump across! Many first-order streams are clean, clear and cold. Often they run through forested areas. First-order streams are sometimes very rocky because they are often found high on mountains or because they flow down steep slopes.



Focus on Fishing

Brook trout are the gamefish most often found in first-order streams. There they eat other fish, like daces and sculpins. Brook trout are Pennsylvania's state fish and the only trout native to inland waters. Brookies require the cold, clean water in first-order streams to thrive. Anglers fish for them with fly-fishing tackle or ultralight spinning gear. Brook trout in these waters spook easily. A flash from a rod or careless steps send them running for cover. Stay low and sneak along the stream bank when fishing these waters. Natural baits like worms, crickets, waxworms and mealworms are great for brook trout. Dry flies and small spinners work on some of the larger ones.

SECOND-ORDER STREAMS

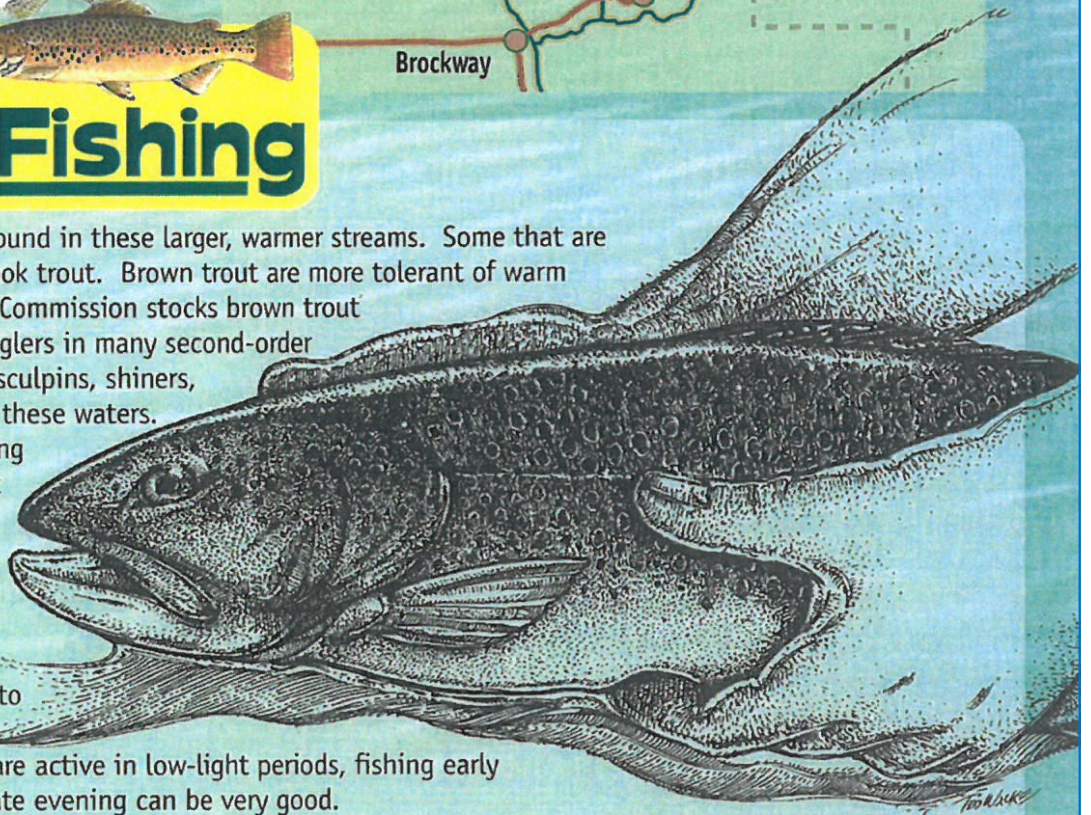
Second-order streams form when two first-order streams join. Second-order streams are wider than first-order streams. They have more water than first-order streams. Some are still small enough to jump across. Most are bigger, but you could still easily throw a stone across them. The number of fish species increases in these small streams as they grow in size and the water warms.



Focus on Fishing

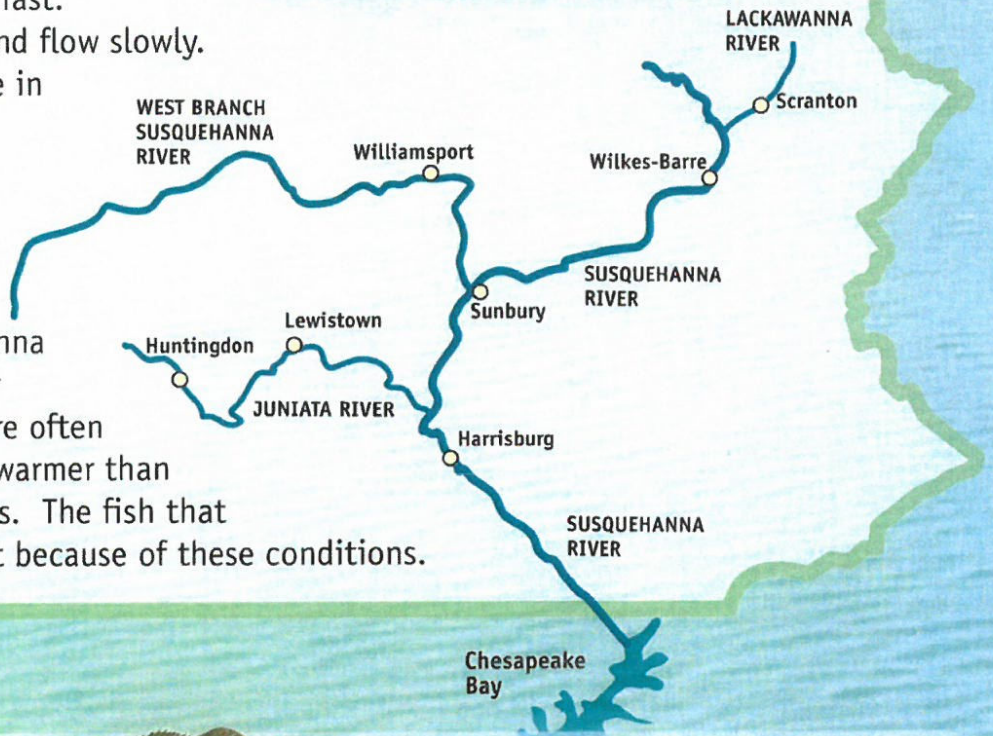
Brown trout are often found in these larger, warmer streams. Some that are colder may also have brook trout. Brown trout are more tolerant of warm water. The Fish & Boat Commission stocks brown trout and rainbow trout for anglers in many second-order streams. Other fish like sculpins, shiners, daces and fallfish live in these waters. Anglers fish for trout using fly-fishing tackle or light spinning gear. These larger streams may have more insects, and fly-fishing can be a great way to catch trout.

Since brown trout are active in low-light periods, fishing early in the morning or late evening can be very good.



RIVERS

Rivers come in all shapes and sizes. Some are small and flow fast. Others are much larger and flow slowly. One thing that they have in common is that many lower-order tributaries eventually feed them. Some well-known rivers in Pennsylvania include the Allegheny, Susquehanna and Delaware. The lower reaches of these rivers are often much wider, deeper and warmer than their upstream tributaries. The fish that live in them are different because of these conditions.



Focus on Fishing

Smallmouth bass are a great fish to focus on when fishing in rivers. They are more tolerant of warmer waters than are other fish like trout. They also like living around large rocks, downed trees and debris that can be found in the river environment. You can fish for smallmouth bass from the shore or from a boat. You'll want a fast-action spinning or baitcasting outfit.

Use hellgrammites, minnows and crayfish if you prefer live bait. No smallmouth can resist those tasty treats. Try a crayfish plug, jointed minnow or large spinner if you prefer tossing lures.

