

COLD
WATER
FISH

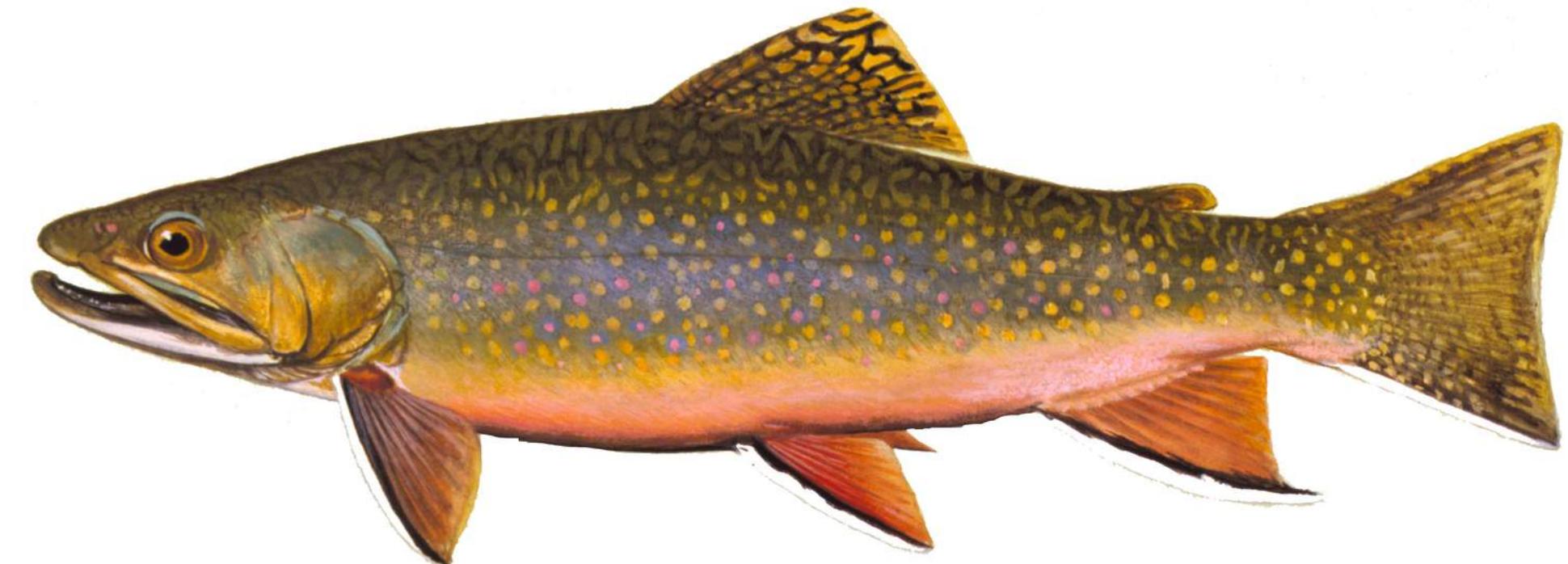


Atlantic salmon. This usually anadromous member of the genus *Salmo* is very similar to sea trout, but it reaches larger sizes. It's best distinguished from its cousin the brown trout by having no red spots and few large spots on the gill covers, rather than the many smaller spots on the gill covers of brown trout. Its migrations to fresh water occur from June through September, and fish fresh from the sea often eagerly strike flies presented to them by anglers. These habits have earned Atlantic salmon the title King of Game fish, and anglers expend huge sums to fish for them in Eastern Canada, Iceland, Norway, the British Isles, and Russia.

Unlike brown trout, Atlantic salmon seldom live outside their original range, except when they're farmed commercially for food. Young salmon in fresh water, called parr, remain in their natal streams for two or three years. When they've reached migratory size, they transform into silvery smolts (about two years old) and enter salt water where they remain for one or two years before returning to spawn. Salmon that return to rivers, after one year at sea, are generally less than 25 inches (63.5 centimeters) long and are called grilse.



Brook trout. Brook trout is the native inland salmonid of the North American eastern coast. Its distribution extends from the southern Appalachians in northern Georgia to the arctic watersheds of eastern and central Canada, and west to the Mississippi River. The brook trout is characterized by its small size and brilliant coloration. The back is marked in a green, wormlike pattern. Spots on the sides are pink, or red, with blue halos, and the lower fins are red with distinctive white edges. The tail is nearly square. Average sizes in Appalachian streams are not very large. The biggest Appalachian brook trout are around 6 or 7 inches (152 or 177 mm). Brook trout spawn in the fall, in streams or in still water.



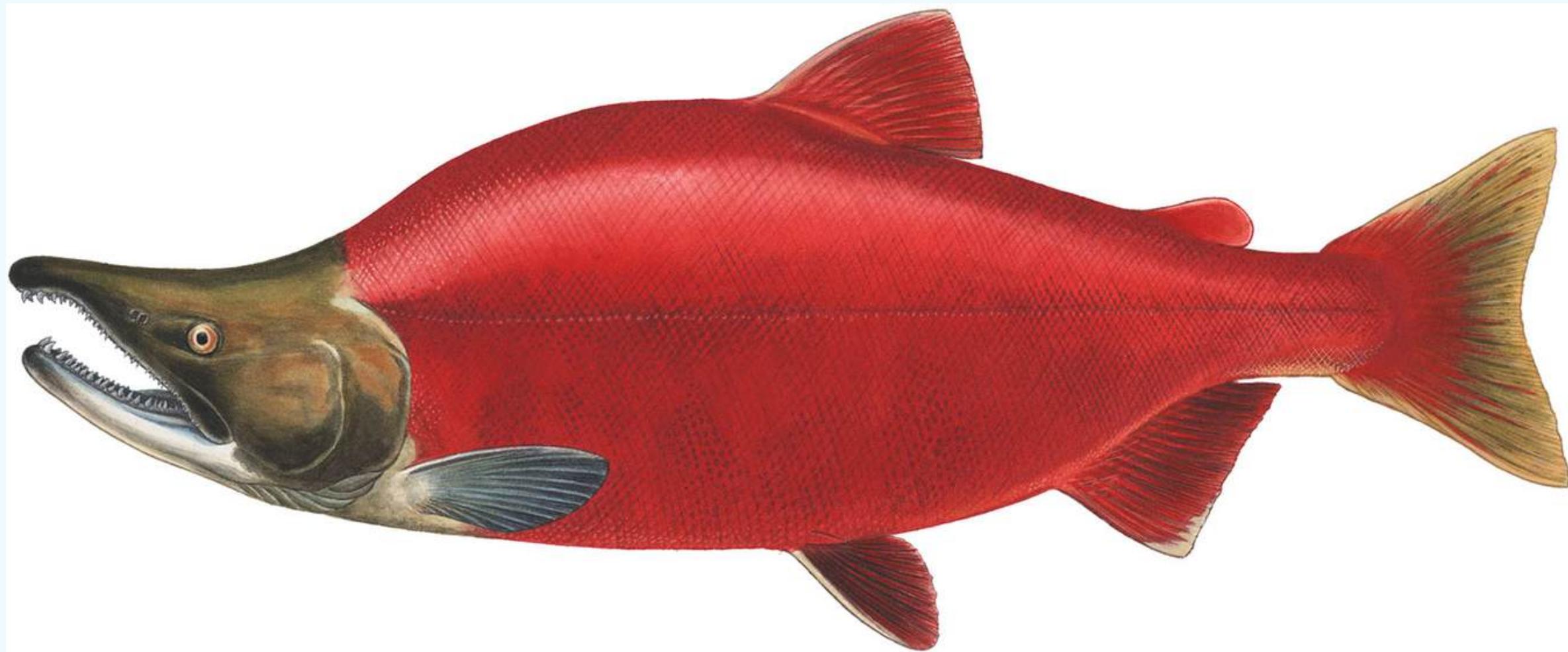
Lake trout. Lake trout, as their name implies, are lake-dwelling char, and are native to the Great Lakes, east to New England, and north as far as Alaska. They've been successfully introduced to the American West, New Zealand, South America, and Sweden. The tail is deeply forked, and the body color is green to gray, with small cream or yellow spots. Lake trout can attain very large sizes in remote Canadian lakes. Specimens as long as 50 inches (1270 mm) have been recorded. Overfishing and inadvertent introduction of the sea lamprey (an eel-shaped fish that latches onto other fish with its mouth and teeth) caused their extinction in all the Great Lakes except Lake Superior, where a remnant wild population survived. A cross between a brook trout and a lake trout, called a splake, is sometimes artificially produced in hatcheries, and used to stock lakes for sport fishing.



Other chars. Arctic char is the most northern-occurring of any freshwater fish in North America. It's found in the arctic drainages of the Atlantic, Pacific, and Arctic oceans from Newfoundland to Alaska. Populations may be inland or anadromous. Dolly varden are very similar to arctic char, but aren't found east of Alaska. Bull trout are nearly identical to dolly varden, but are seldom anadromous. They're native to cold rivers and lakes in mountainous areas of Alberta, British Columbia, Washington, Idaho, and Montana.



Sockeye salmon. Sockeye salmon, like all members of the genus, are silvery at sea . Soon after entry to freshwater the males develop distinctive green heads and red bodies. Sockeye runs occur only on river systems that contain lakes, because the newly hatched fry feed on lake-dwelling plankton (tiny plants and animals) before they migrate to sea. At sea, sockeye salmon continue to strain plankton as a food source, which may explain why they seldom strike anglers' flies and lures. Landlocked populations occur in some Western lakes, where they're called kokanee.



Chum salmon. Like sockeyes, chum salmon develop a distinctive coloration as they approach spawning time. They develop fused blotches along their sides, which are red or dark olive against a dull green background. The males develop more pronounced canine teeth than other salmon species, and the lower fins become white-tipped.

Chum salmon readily strike flies and lures in fresh water, but are seldom pursued by anglers because of their reported poor food quality.



Chinook salmon. Chinook salmon is the largest North American salmonid, occasionally reaching weights over 70 pounds (31 kilograms) in Alaska. Besides their large size, they can be identified by having black spots on the back and on both lobes of the tail (Figure 7). The gums are black at the base of the teeth. Spawning colors are olive-brown to purple. The males develop a dull red color on their sides. Chinook is Cold-Water Game Fish Management an important game fish in both fresh water and salt water. They've been introduced in the Missouri River reservoirs of the Dakotas, and in the Great Lakes, where they're part of some very popular sport fisheries. Annual stocking of hatchery-reared smolts is required to sustain these fisheries. They've also been successfully introduced in New Zealand.



Coho salmon. Coho salmon can be distinguished from chinook salmon by having dark spots only on the upper lobe of the tail, and white gums at the base of the teeth (Figure 8). Like chinook, coho salmon are an important game fish on the West Coast, and in the Great Lakes, where smolt stocking maintains a popular sport fishery. It's recognized as the most suitable for sport fishing among the five species of Pacific salmon.



Pink salmon. Pink salmon have large oval spots on the back, and on both lobes of the tail. The spawning male develops a distinct humped back and hooked upper jaw. Pink salmon were accidentally introduced to Lake Superior, and have become self-sustaining in the upper Great Lakes. They're not popular game fish in the Great Lakes, or in their native habitat. An interesting characteristic of pink salmon is that the runs are much stronger (more salmon return to their spawning waters) in alternate years because of their two-year life cycle.



Cutthroat trout. Cutthroat trout are easily identified by the bright red cutthroat mark under the lower jaw. Fish from inland populations are olive-yellow to golden colored, and coastal fish are more olive to green colored. All have many black spots on the body and median fins. Anadromous populations occur from south central Alaska to northern California, and inland populations are native to the Rocky Mountains from southern Alberta to New Mexico. Cutthroat trout are an important game fish. When cutthroat and rainbow trout are found together, they readily hybridize, producing cutbows, with characteristics common to both species.



Rainbow trout. Rainbow trout are identified by the distinctive red or pink rainbow stripes on their sides, which are obvious on all specimens, except anadromous forms while at sea. They have numerous small black spots on the back and on most fins. Rainbow trout are native to the Pacific coast from Alaska to Mexico, and are the most widely introduced of all salmonid species. Inland and anadromous forms, called steelhead, are very important game fish wherever they occur.

Rainbow trout are, by far, the most commonly stocked salmonid for sport fishing.



Other western trouts. The Gila trout is found only in the Gila River system in New Mexico and Arizona. It's protected as an endangered species. The Apache trout is native to a few drainages in Arizona, and is protected as a threatened species.

The golden trout is found in a few drainages at high elevations in the Sierra Nevada mountain range in California. It's generally a small fish in its native range, but fish stocked in suitable habitat in Wyoming sometimes reach more respectable sizes.

