

Brown Trout – *Salmo trutta*

Range - The brown trout is native to Europe and Asia. They are found in the lakes and streams from Norway to Morocco, and from Pakistan to Iceland. Izaak Walton mused about trout, brown trout. Brown trout were first brought to the United States in the mid 1860's. Brown trout eggs were transported across the Atlantic and incubated in New York in 1864 but the success of this effort was not good. In February 1883 the ship Wera arrived in New York City from Germany, carrying 80,000 brown trout eggs. The eggs were sent to hatcheries in Northville, Michigan, and Caledonia, New York. In the spring of 1884 the U.S. Fish Commission released fry hatched from these eggs into the Baldwin River.

Today, brown trout are found in almost every state in the United States. They have replaced native brook, rainbow, and cutthroat trout throughout the United States in the process and are one of the most sought after game fishes in the US.

Food Habits - Brown trout feed when water temperatures range from 50 to 74 degrees. The species consumes terrestrial and aquatic insects, which probably makes up most of its diet across its range, but is also highly piscivorous. An average size brown trout (14 inches) is able to consume small minnows, suckers, and other trout, including their own offspring.

Brown trout have an affinity for cover such as undercut banks and instream woody debris. This is not necessarily due to innate cunning. Brown trout eye function is best in low light conditions therefore they seek darker habitats than some other trouts. Predatory fish have the upper hand lurking in shade for prey drifting in sunlit waters. But the eye structure of the brown trout gives it added advantage. The retina's structure also may go a long way in explaining why this species is more apt to strike a fly at night. Fish that are associated with cover are just harder to get to, unlike rainbows that feed in the middle of the day in the middle of the stream in open water. In streams where browns dominate rainbow trout, rainbows dominate the catch. Even in western waters afflicted with another European immigrant, whirling disease, browns often make a lesser amount of the catch where rainbows have succumbed to the disease. Browns are resistant to whirling disease, having co-evolved with the parasite that causes the affliction.

Life History - Brown trout spawn in fall from October to December depending on latitude and elevation. The eggs are deposited in small to medium gravel at the heads of riffles and tails of pools. In March, the young fish emerge and begin feeding on small aquatic and terrestrial insects. It is this early hatching that gives brown trout a competitive advantage over spring spawning native rainbow and cutthroat trout. By the time the native trout young hatch and emerge in fall, that year's young browns have a size advantage. In addition, the brown trout has a wider tolerance of water temperature than most native trouts, the exception here are some of the native cutthroat trout of the Great Basin and American Southwest. These natives are thought to have some advantage in warm water situations over the brown trout. So as waters across the United States

degrade and become warmer, the brown trout may have the ability to survive where native trout can no longer persist.

Life Span – Brown trout can live up to 13 years.