



Bull Trout

(Salvelinus confluentus)

Federal Status: Bull trout were listed as threatened in June 1998. Critical habitat was designated in 2005. A recovery plan was drafted in 2005 and has not been finalized. In September 2010, the USFWS designated critical habitat.

Species Description: Bull trout are members of the salmon family known as char. Bull trout, Dolly Varden and lake trout are all species of char native to the northwest. Char are distributed farther north than any other group of freshwater fish except Alaskan black-

fish and are well adapted for life in very cold water.

Historical Information: Bull trout are native throughout the Pacific Northwest. In Oregon, bull trout were historically found in the Willamette River and major tributaries on the west side of the Oregon Cascades; the Columbia and Snake Rivers and major tributaries east of the Cascades; and in streams of the Klamath basin. Currently, most bull trout populations are confined to headwater areas of tributaries to the Columbia, Snake, and Klamath Rivers.

Bull trout are vulnerable to many of the same threats that have reduced salmon populations. Due to their need for very cold waters and a long incubation time, bull trout are more sensitive to increased water temperatures, poor water quality and degraded stream habitat than many other salmonids.

Further threats to bull trout include hybridization and competition with non-native brook trout, brown trout and lake trout, overfishing, poaching, and man-made structures that block migration.



Photo by Bart Gamett

Description and Life History:

Adult bull trout are usually small, but can grow to 36 inches in length and weigh up to 32 pounds.

Bull trout reach sexual maturity at between four and seven years of age and are known to live as long as 12 years. They spawn in the fall after temperatures drop below 48 ° F, in streams with abundant and cobble substrate, and gentle stream slopes.

Many spawning areas are associated with cold water springs or areas where stream flow is influenced by groundwater. Bull trout eggs require a long incubation period compared to other salmon and trout, hatching in late winter or early spring. Fry may remain in the stream gravels for up to three weeks before emerging.

Bull trout may be either resident or migratory. Resident fish live for their

entire life near areas where they were spawned. Migratory fish are usually spawned in small headwater streams, and then migrate to larger streams, rivers, lakes, reservoirs or salt water where they grow to maturity. Smaller resident fish remain near the areas where they were spawned while larger, migratory, fish will move considerable distances to spawn when habitat conditions allow.

Reasons for Decline: In many areas, continued survival of the species is threatened by a combination of factors rather than one major problem. For example, past and continuing land management activities have degraded stream habitat, especially along larger river systems and streams located in valley bottoms. Degraded conditions have severely reduced or eliminated migratory bull trout as water temperature, stream flow and other water quality parameters fall below the range of conditions which these fish can tolerate.

In many watersheds, remaining bull trout are smaller, resident fish isolated in headwater streams. Brook trout, introduced throughout much of the range of bull trout, easily hybridize with them, producing sterile offspring. Brook trout reproduce earlier and at a higher rate than bull trout so bull trout populations are often supplanted by these non-natives.

Dams and other in-stream structures also affect bull trout by blocking migration routes, altering water temperatures and killing fish as they pass through and over dams or are trapped in irrigation and other diversion structures.

Diet: Small bull trout eat terrestrial and aquatic insects but shift to preying on other fish as they grow larger. Large bull trout are primarily fish predators. Bull trout evolved with whitefish, sculpins and other trout and use all of them as food sources.



Conservation Measures: Many of the same management actions that are being done to protect other declining salmonids may also help bull trout. Stream and habitat protection and restoration, reduction of siltation from roads and other erosion sites and modification of land use practices to improve water quality and temperature are all important. Several state agencies have also enacted regulations reducing or prohibiting bull trout harvest. States have also adopted conservation plans to help bull trout populations recover.

Distribution:

Bull trout are seldom found in waters where temperatures are warmer than 59° to 64° F. Besides very cold water, bull trout require stable stream channels, clean spawning gravel, complex and diverse cover, and unblocked migration routes.

Bull trout potentially occur in these Oregon counties: **Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Lane, Linn, Malheur, Multnomah, Umatilla, Union, Wallowa, Wasco, Wheeler**

Map may reflect historical as well as recent sightings

