

Bull Trout

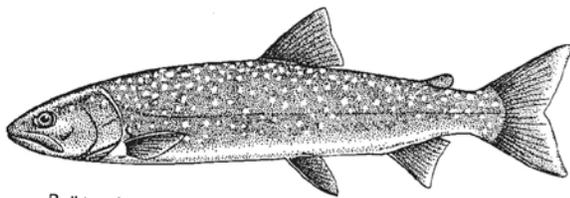
Salvelinus

confluentus

Natural Resources
Conservation Service

Fact Sheet

April 2011



Bull trout,
resident (stream) type

Official Status: Threatened:

Threatened species are species that are likely to become endangered species within the foreseeable future throughout all or a significant portion of their range.

Listed

63 Federal Register; No. III; June 10, 1998

Historical Status

Bull trout were once common throughout the Pacific Northwest, ranging from northern California to the Bering Sea. They have traveled one of the longest migration routes of any trout in North America for thousands of years.

Present Status

Bull trout are extinct in California and inhabit only one river system in Nevada. Oregon and Washington populations are at a high risk of extinction, as well as some Idaho populations. Montana bull trout are considered secure in only 2 percent of the stream segments they inhabit. Fish biologists consider bull trout at moderate risk of extinction in 65 percent of their Montana range and at high risk of extinction in 33 percent of their range.

Habitat

Bull trout live in clean, cold rivers west of the Continental Divide in Montana. Unlike the introduced

rainbow and brown trout, bull trout inhabit the entire river system from the mainstream to the highest elevation tributaries. Clean gravel with upwelling ground water is critical for spawning. Cover, in the form of undercut banks, overhanging vegetation and instream woody material is needed to protect bull trout from predators. Complex habitat, characterized by a variety of pools, riffles and water depths and velocities, is important to meet the seasonal needs of all age classes of bull trout. Long spawning migrations make habitat connectivity important. Fish passage barriers, such as irrigation developments, may interrupt bull trout movements.



Present range of the Bull Trout

Life History

Non-migratory forms of the bull trout spend their entire lives in relatively small tributary streams. Some migratory forms live in lakes as adults and move up to small tributaries to spawn. Young trout stay in the tributaries from one to four years before moving downstream to lakes. Other migratory forms live in rivers as adults and move into tributaries to spawn. Bull trout reach sexual maturity at age five. Spawning occurs in fall, although they begin the upstream spawning migration during spring high water. This may be an adaptation to the presence of beaver dams, which would impede fish movements



at low water. Adult bull trout move back downstream soon after spawning.

Aid to Identification

Bull trout have pale yellow spots along the back and red or orange spots along the sides. The general appearance is that of light spots on a darker background, as is the case with all of the chars (true trout have dark spots on a lighter background). The leading edge of the fins is white and the dorsal fin is translucent.

Reasons for Decline

Competition with exotic fish species and hybridization with brook trout are partly to blame. Habitat degradation is also a significant part of the problem. Uncontrolled livestock grazing and poorly designed logging road construction elevate water temperatures and cause sedimentation of spawning gravels as well as loss of stream habitat structure and overhead vegetative cover. Dewatering of streams during the irrigation season prevents bull trout movements to and from spawning habitat. Irrigation diversion structures often act as fish passage barriers and cause bull trout to enter irrigation ditches where they are lost to the population. Improper placement of road culverts also impedes bull trout movements.

Recommendations

Immediately release any bull trout incidentally caught while fishing (it is illegal to deliberately fish for bull trout). Assure that any activities initiated in bull trout habitat will not adversely affect this species or its habitat.

Comments

Bull trout, because of their dependence on high quality habitat, are an indicator of stream health. Introduced species, such as rainbow and brown trout, are able to survive in a broader range of habitat conditions.

References

The Relationship Between Land Management Activities and Habitat Requirements of Bull Trout, by the Montana Bull Trout Scientific Group, 1998, available from MT Dept. of Fish, Wildlife and Parks.

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