

THE HEAT IS ON

Species feeling the effects of climate change



Bull Trout

Salvelinus confluentus

Region:

Northwest

Area affected:

Central Idaho

Climatic change:

Stream warming

Impact:

Habitat loss

ABOUT THIS SPECIES

Bull trout are found in mountain streams in Montana, Idaho, Washington and Oregon. They are listed as “threatened” under the Endangered Species Act due to ongoing threats from dams, activities that pollute and add sediment to streams, and competition from and hybridization with introduced fish species like lake trout and brook trout. Bull trout spawn in autumn in clean, gravel-bottomed, spring- or groundwater-fed headwater streams that tend to be quite cold but rarely freeze due to continuous flow. The eggs incubate over winter and the young emerge the following spring. Some bull trout remain in these high mountain streams for their whole lives; others migrate after a year or so to lower elevation rivers or lakes that may be up to 150 miles from their spawning streams. They reach maturity between four and seven years of age. Unlike salmon, bull trout can spawn multiple times and can live up to 12 years. Juveniles eat plankton and small insects, and adults prey on other fish.

DESCRIPTION OF IMPACT

Bull trout require the coldest water of any of our native riverine fish, with most spawning and juvenile habitat waters ranging from 48 degrees to 52 degrees F. Even fish that migrate to lower elevations are rarely found at temperatures above 60 degrees F. Consequently, these trout are particularly vulnerable to climate change. A study of streams in central Idaho found that from 1993 to 2006, water temperatures warmed by about one degree due to warmer air temperatures, changes in streamflow and the effect of wildfires. **Just this small increase in water temperature led to the loss of 11 to 20 percent of stream length that is cold enough for spawning and rearing of juvenile bull trout.** Additional warming threatens to cause loss and fragmentation of remaining bull trout habitat.

References

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