



ERNST KEELEY

# Alberta's Bull Trout

(*Salvelinus confluentus*)

## special concern

## status

**Alberta:** Recommended by the Endangered Species Conservation Committee (ESCC) as a Species of Special Concern

**British Columbia:**  
Sensitive

**Yukon:** Sensitive

**Northwest Territories:**  
May Be At Risk

**Canada (COSEWIC):** Not assessed by COSEWIC; National General Status is Sensitive

**USA:** Vulnerable to extirpation or extinction (N3)

## Description

The bull trout, not really a true trout, is actually a char species with a relatively large head and jaw from which the term "bull" originated. This species has a slightly forked tail and is typically olive-green to blue-grey in colour, although lake-dwelling bull trout can have silvery sides. Along its sides and back are pale yellow, orange, pink or red spots. The bull trout can reach lengths of 30 to 80 cm, and weights of up to 10 kg.

The bull trout can be distinguished from other char and trout in Alberta by the absence of black spots or markings on its dorsal fin. Especially as a juvenile, this species is often misidentified, so the bull trout angling slogan "No black, put it back!" is very helpful.

## Population and Distribution

Before the early 1900s, the bull trout was found throughout the mountains and foothills of western North America. Today, the bull trout remains (in lower numbers) in Alberta, southeastern Yukon, throughout much of British Columbia except the coast, and south into Washington, Oregon, Idaho and eastern Montana.

Bull trout were once common in all of Alberta's major river systems flowing from the Eastern Slopes of the Rocky Mountains, including parkland and prairie regions. Over the past 50 years, a number of populations have declined or have been extirpated, especially in southern Alberta. Today, the bull trout is

found in the upper reaches of Alberta's Eastern Slopes, occupying about 20 000 km of stream habitat, and 12 000 ha of lake habitat in 24 lakes. Many of the province's bull trout subpopulations are isolated and susceptible to local extirpation.

## Habitat

Adult bull trout can be migratory or nonmigratory. Some adults remain in small streams near their spawning grounds for their entire lives. Others move into larger streams and rivers, or can be found in lakes and reservoirs. The bull trout is a cold water species that generally prefers well-connected mountain lakes and streams and is often found in deeper pools and slower backwaters. For spawning, the bull trout needs small rivers or groundwater-fed streams with steady winter flows, flushing springtime flows, and clean gravel areas. Differences in habitat components such as water temperature and groundwater input affect bull trout growth and maturation rates as well as migration, spawning, and incubation periods.

## Threats

Illegal harvest resulting from misidentification and poaching may be preventing the recovery of some of Alberta's bull trout populations. The bull trout eagerly takes baits and lures and is much more vulnerable to capture and overfishing than other species, even at low levels of angling effort. Bull trout



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recovery from a population decline can take many years because this species is slow to reach sexual maturity, produces relatively few eggs and may spawn only every second year.

Other threats to the bull trout include migratory barriers that prevent spawning or reduce genetic exchange between populations (e.g., dams, weirs and hanging road culverts), habitat degradation, fragmentation by human activities, and competition and hybridization with introduced species (mostly another char—the brook trout).

## Management

Information and education programs, strict enforcement of fishing and environmental regulations, and the protection and conservation of the bull trout's habitat will help Alberta's bull trout populations recover. In 1994, *Alberta's Bull Trout Management and Recovery Plan* was produced. Zero bag limits, implemented in 1995, and closures of spawning grounds have led to increases in some bull trout populations. Knowledge of the bull trout's biology is still limited, and population surveys, long-term monitoring programs, and genetic studies are required.

In response to a recommendation from the ESCC, the Minister directed that a revised conservation and management plan for the bull trout should be prepared. The committee advised that this plan should identify programs and resources needed for the documentation of population size and trends, as well as the current extent of habitat fragmentation. Other recommendations were to identify programs and resources necessary to assess the efficacy of current management strategies, and to develop and implement programs that restore habitat, resolve current bull trout conservation issues and prevent future negative impacts to the species. The ESCC also recommended that the conservation needs of natural bull trout stocks be addressed in government land use decisions and approvals.

## What You Can Do To Help

**As a member of the public, a landowner, an industrial developer or an angler:**

- Learn to correctly identify bull trout in order to prevent accidental illegal harvest. Check out Alberta's Fish Identification Website online at <http://www3.gov.ab.ca/srd/fw/fishing/FishID/index.html>, or borrow a copy of Alberta's Salmonid Identification Course from Alberta Sustainable Resource Development's (SRD) Fish and Wildlife offices throughout the province to learn more about fish identification in Alberta.
- Limit your access to spawning areas in Alberta between mid-August and mid-October.
- Avoid activities that negatively affect fish habitat, especially those that cause silt to enter rivers and streams. Ensure that you have proper permits and authorizations in place before starting any work that may affect bull trout habitat or populations. This may mean obtaining approvals from both the Alberta government (Alberta Environment, SRD) and the Government of Canada (Department of Fisheries and Oceans).
- Contact the nearest office of the Fish and Wildlife Division, Alberta Sustainable Resource Development, to learn how to minimize impacts on the bull trout and its habitat, and to assist in monitoring the status of the bull trout.

