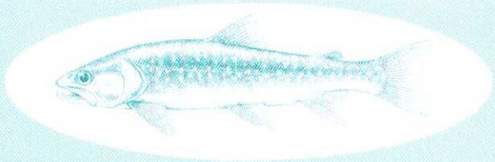


A Species of Special Concern

What are we doing?

Mature male

Since British Columbia contains the core area of the bull trout's range we have a global responsibility for the conservation of this species.

Research is focusing on developing an understanding of the biological diversity of the species, migration and movement patterns, and factors controlling species distribution. Our goal is to conserve the natural diversity of bull trout in their habitat.

As more research projects are completed on bull trout we realize how sensitive they are to over fishing and habitat change. For example, we now know how important large females are to the survival of a population. Larger females carry the most eggs and are able to move larger stones and dig deeper redds than smaller fish. This ability improves the survival of their eggs.

Mature female

Inventory to determine the distribution and range of bull trout has been assisted by funds from Forest Renewal BC and other sources. Areas never surveyed before are part of this inventory.

Regulations are changing to reflect our new understanding of bull trout needs. You will see reduced quotas with new size limits, catch and release fisheries and stream closures. Habitat protection efforts focus on limiting road access as well as maintaining migration routes, natural temperatures and flows, channel stability and in stream cover.

Forest practices are changing to recognize the sensitivity of bull trout to habitat disturbance.

How you can help.

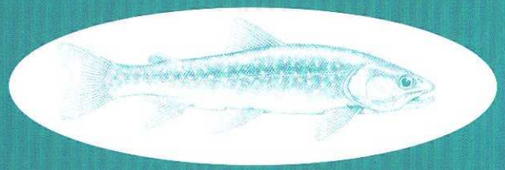
- Read the freshwater fishing regulations and obey them.
- Reduce your harvest voluntarily and practice catch and release.
- Increase your awareness of conservation issues and the value of native species.
- Protect fish habitat and aquatic ecosystems.
- Observe, Record, Report violations of the regulations by phoning 1-800-663-9453.
- Contributions to the Habitat Conservation Trust Fund through license surcharges and tax deductible donations help fund projects on species of special concern.

Habitat Conservation Trust Fund

British Columbia

Photo Credits: James Baxter, Ted Down, and Ernest Keeley.
QP#22391

Bull Trout in British Columbia

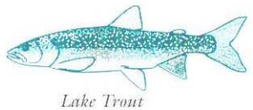


A SPECIES OF SPECIAL CONCERN

Bull Trout in British Columbia

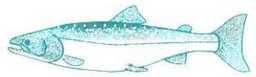
Did you know that bull trout are a species of special concern throughout their range in western North America? In the United States, bull trout qualify for listing under the Endangered Species Act. Although not in immediate danger of extinction in British Columbia, they will continue to disappear from many of our lakes and streams unless we prevent habitat loss and over-fishing. This brochure describes bull trout and the steps undertaken by the Fisheries Program to ensure their survival in British Columbia.

Brook Trout



Lake Trout

Dolly Varden

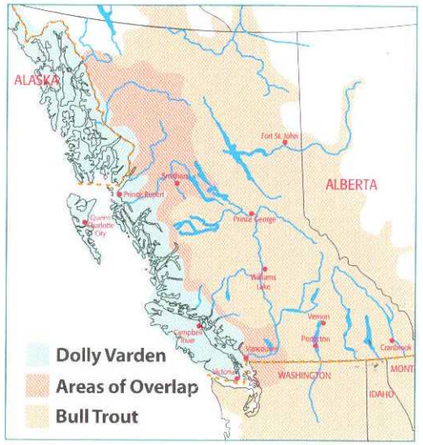


Bull Trout

DESCRIPTION Bull trout, *Salvelinus confluentus*, are actually a member of the char family rather than a true trout. Their closest relatives are Dolly Varden, Arctic char, lake trout, and brook trout. When viewed from the side, char have light speckles on a dark background. True trout have dark speckles on a light background. (Because of their similarities, bull trout and Dolly Varden were thought to be the same species until 1980. Recreational anglers are not required to be able to tell them apart.)

Bull trout and Dolly Varden are easy to distinguish from other family members. Bull trout never have spots or lines on their dorsal fin, and the dots on their sides are pale yellow, orange, or red. Lake trout have light-coloured spots on their dorsal fin and tail and grey-to-pale yellow dots on their sides. The tail of a lake trout also has a deep fork. Brook trout have dark markings on their dorsal fin and red dots surrounded by blue rings on their sides.

If you have caught a fish that looks like a trout but has light speckles on a dark background and no spots or markings on the dorsal fin, you have a bull trout or a Dolly Varden.



British Columbia contains the core area of the bull trout's range.

DISTRIBUTION *(see range map)*

Regulations protect populations by limiting the harvest to sustainable numbers.

HABITAT Bull trout live in a wide variety of habitats, small streams, large rivers, lakes, and reservoirs. Cold, clean water is an important requirement. Typical bull trout systems are relatively undisturbed and contain natural flows, stable channels, clean gravels, deep pools, lots of cover, and clear access to spawning, rearing, and over-wintering sites. A supply of groundwater at spawning sites benefits the eggs by providing oxygen and preventing freezing during severe winters.

LIFE HISTORY Four life history patterns are believed to occur in British Columbia. The stream resident type spends its entire life in small streams, often in headwater areas above migration barriers. These are small fish, less than 0.5 kg. The large river type spends its adult life in large rivers but moves to smaller tributary streams to spawn. The young fish remain in these streams until they grow large enough to survive in the river. Adults can reach 10 kg in size. The lake type spends most of its adult life in large lakes or reservoirs. It also uses tributaries for spawning and rearing. It can grow up to 15 kg. The sea-running type is the least common; and appears to occur in the Squamish and lower Fraser rivers. Several bull trout types can occur in the same river system.

Bull trout are the top predator in the aquatic ecosystem and prey primarily on other fish. They are able to reach a large size even in relatively cold, unproductive systems where true trout, such as rainbow and cutthroat, do not prosper.

Bull trout tend to grow slowly, live a long time, and mature late in life. A 10-year life span is common, but they can live twice as long. Once they reach about 20 cm in length, growth depends on the type of food available. (It takes a steady diet of fish and many years to reach a large size.) The larger types do not spawn until they are 5 to 7 years of age. Bull trout are fall spawners. Their eggs remain in the gravel through the winter months, then hatch in the spring. Unlike salmon, bull trout can survive to spawn more than once but may skip a year before returning to the spawning grounds.

THREATS Human activities are the major causes of declines in bull trout .

Typical bull trout systems are relatively undisturbed.

Dams, logging, pipelines, oil exploration, over-fishing, the introduction of non-native fish species, and road construction all play harmful roles. Road access is a major cause of over-fishing and poaching. The removal of streamside vegetation is especially damaging to fish habitat: the amount of large woody debris that provides cover from predators and shelter from high flows is reduced; less shade leads to higher water temperatures; the amount of food falling into the stream decreases. Extensive vegetation removal on valley bottoms and hill slopes alters natural stream flow patterns and degrades habitat.

MANAGEMENT Removal of too many fish decreases the population. Slow growth and late maturity can mean a recovery period as long as 20 years. Because bull trout live where food is scarce, they are keen hunters. This makes them easy for anglers to catch and over-harvest. Regulations protect populations by limiting the harvest to sustainable numbers.

Because bull trout are extremely sensitive to habitat disturbance, habitat protection is a key component of conservation. Our goal is to conserve the natural diversity of bull trout in their