

Bats Find a Home in Burned Timber

Eye on the Environment

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Bull Trout Still Thrive In Swan Valley Creeks

Picture a deep, turquoise blue pool in a cold, wild creek. Peer into the clear water and see thirty small logs, each about two-and-half-feet long and four inches thick. Notice that somehow all the small logs seem to be floating lengthwise in a steady current near the bottom of the pool.

Spot brilliant white streaks flashing from each log and realize you are seeing a school of bull trout pausing on their way upstream to spawn. The white flashes are the leading edges of the bull trout fins. The rosy glow you see is emanating from the fishes' flanks and tails.

I had this experience a few weeks ago and still feel blessed.

Bull trout seem much more colorful in the creek than when held above water. Of course bull trout are a protected native species. It is illegal to catch and keep them from the Swan River or any of its tributaries, though anglers can keep one bull trout caught in Swan Lake. Bull trout are listed as "threatened" by the US Fish and Wildlife Service and as a Species of Concern by the State of Montana.

Anna Stevenson, a 10-year-old Condon volunteer, recently helped me find information about the species. She went to the Montana Fish, Wildlife and Parks website and printed a map showing where bull trout live in Montana, several paragraphs describing bull trout habits and habitats, and an image of the fish to help with identification.

According to the website, bull trout (*salvelinus confluentus*) are native to rivers, streams and lakes in the Columbia River Basin, including the Kootenai, Clark Fork, Bitterroot, Blackfoot, Flathead and Swan drainages. Bull trout live long lives. They can grow to three feet in length and weigh 20 pounds. They first spawn around five years of age.

In the Swan Valley, resident bull trout have begun their annual journey up our coldest creeks to excavate nests (redds) in clean gravel and cobble streambeds where they will lay their eggs, which won't hatch until the following spring.

Fisheries biologists say the Swan Valley provides the most important bull trout habitat in the region. Three Swan River tributaries, Goat, Lion and Elk creeks, as well as Squeezer Creek, which is a tributary of Goat Creek, have been closed to fishing for many years to protect bull trout.

These protected creeks provide cold upwellings of ground water that bull trout need to aerate their buried eggs. As any Swan River wader knows, if you stand barelegged too long at the icy

mouths of Goat, Lion or Elk creeks you'll numb your feet. The cool Swan River is a warm relief.

This year during our hottest days in July the water temperature in the mouth of Elk Creek was 57 F, while in the mouth of Goat and Lion Creeks it was only 55 F. For comparison, the river temperature at Salmon Prairie Bridge and in the mouth of Glacier Creek registered 68 F, over ten degrees warmer than Elk, Goat and Lion. I imagine the bull trout nose their way upriver in late summer and early fall until they feel the cold flow coming from their home creek. But how they know which cold creek is their home stream, is apparently still a mystery.

In trying to learn more about bull trout I took the test provided on the Montana Fish, Wildlife and Parks website (fwp.mt.gov/bulltroutid/) and failed with a score of 73. I needed an 80 to pass.

Here's what I got right: bull trout have light colored spots on a dark body and a few red or orange spots on their sides. Young fish feed on aquatic invertebrates while older fish eat other fish. Young fish live in the stream where they hatched for up to three years before moving downstream. Some bull trout live their entire lives in rivers and swim to the tributary where they hatched to spawn, but others reside in lakes then spawn upriver.

One of my favorite bull trout memories happened in about 1983. Camping with fifth and sixth grade students at Glacier Slough, Joey Anderson cast into the outlet end and caught a monster fish on a lure. Back then it was still legal to keep a bull trout caught in Glacier Creek. The fish had swallowed the lure so if Joey had been willing to release the trout it might not have survived. (I've since learned if a fish swallows a hook you should cut the line and leave the hook inside the fish.)

We had been warned that a troublesome grizzly bear had just been released from a trap somewhere nearby. Not wanting to attract any bear to camp, especially one with a record, we cooked and ate the fish for dinner, then burned the bones, head and fins in the campfire and set up our tents a good distance from the cooking area.

I don't remember if we had a camera. But I can still see the mid-sized boy, the bent and straining rod, the heavy fish that took two hands to hold up and the huge grin. Later Joey's grandfather was sorry we hadn't packed the fish out so he could have it mounted to seal the memory. I hope Joey can still see it all as clearly as I can.

This brings up the question of whether there are still bull trout in Glacier Slough and I don't know the answer. The water at the mouth of Glacier Creek is relatively warm and the creek is home

to a fair population of brook trout, a non-native fish.

Bull trout populations are vulnerable because the fish have specific habitat needs. They require cold water, clean silt-free stream bottoms, cold upwellings to aerate eggs, and the overhead cover of logjams. Risks to bull trout include removing the shade from streambanks, restricting a stream's ability to reshape itself, poaching, accidental harvest and competition from other species like lake trout, pike and brook trout.

Nevertheless, bull trout can still be seen in several Swan Valley streams and, knowing their needs, we can keep it that way.