FAQ on the Fishery of Flathead Lake

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What is the problem with the fishery at Flathead Lake and the upper Flathead River system?

Non-native and highly predacious lake trout dominate in the lake. They have eliminated a popular sport fishery for introduced kokanee salmon, and severely reduced numbers of native bull trout and cutthroat trout. Because bull trout in the upper Flathead River system also use the lake, as do many cutthroats, the abundance of lake trout also threatens the sportfishery in the Middle and North Forks. Further, lake trout have expanded from Flathead Lake into Glacier National Park, where they have contributed to the near extirpation of bull trout in 10 of 13 lakes. In addition, the once popular tourist attraction in which bears and hundreds of bald eagles gathered in Glacier National Park in the fall to feed on spawning kokanee from Flathead Lake has been eliminated by lake trout.

How did this happen?

In the late 1970s well-meaning state fishery managers introduced non-native Mysis shrimp into lakes in the upper Flathead basin, ostensibly to provide a food source for kokanee. But it backfired. Instead, mysis in Flathead Lake have become the primary food source for juvenile lake trout, dramatically increasing survival of these fish. Once lake trout grow larger, they switch to a diet of other fish: kokanee, bull trout and cutthroat trout, as well as other game fish such as introduced perch and Lake Superior whitefish. Today, lake trout predation has eliminated the once-popular kokanee fishery, and significantly reduced the number of bull trout and cutthroat trout in the lake and river system.

What do we know about Flathead Lake's fishery?

Scientists estimate there are fewer than 3,000 adult bull trout in the lake and in the North and Middle Forks Flathead River, and about 500,000 lake trout 14 inches-or-larger, in the lake only, from a total population of about 1.8 million fish. As recently as the mid-1980s, the bull trout population sustained recreational fishing and a harvest of thousands of fish. The overall population then was much higher than today, even with the current ban on harvest. Cutthroat trout numbers in the river system are estimated to be less than half of those from the pre-Mysis days. Lake whitefish also inhabit Flathead Lake, as do yellow perch, whose numbers fluctuate year-to-year. Biologists have calculated that illegally introduced northern pike are also eating thousands of native bull trout and cutthroats in the river and sloughs above the lake.

What are the results of this dramatic shift in the fishery at Flathead Lake?

Angling numbers have dropped dramatically, and Flathead Lake is no longer a primary angling destination for most anglers. Angling opportunities are now very limited, focused primarily on harder-to-catch species such as lake trout and lake whitefish, and occasionally, depending on conditions, yellow perch. Fishing for lake trout largely requires powerboats and specialized gear. Angling at Flathead Lake is therefore less kid-and family friendly than in the past. Lake trout predation and competition also contributes to the bull trout's status as a federally listed "threatened" species. It is now illegal to deliberately fish for them in the lake and in the Middle and North forks. In addition, because of dwindling populations, all cutthroat trout in the same waters must now be released.

What can be done to improve the fishery at Flathead Lake and in the river system?

The lake trout population is currently near or at its carrying capacity. The fish are so plentiful they have pioneered upstream into the river system as far as Canada and into Glacier National Park. A concerted effort to reduce the lake trout population to a lower level could reduce predation pressure enough to result in a rebound in the population of bull trout and cutthroat trout, while also benefitting other sport fish such as lake superior whitefish and yellow perch.

How can lake trout be suppressed?

The population could be reduced by combining today's liberal harvest regulations and twice-a-year Mack Days fishing tournaments with controlled, scientifically based netting using gillnets and traps. Future suppression techniques could include disturbing lake trout spawning, which would reduce the need to net yet maintain a more reasonable balance between lake trout and other species.

But isn't the idea of netting lake trout to benefit other fish a pie in the sky idea?

Hardly. It appears gillnetting coupled with liberal angling regulations at Lake Pend Oreille in Idaho is resulting in an increase in kokanee salmon, which is both a popular sport fish and an important food source for native bull trout. Netting efforts at Yellowstone Lake indicate it is possible to remove large numbers of lake trout using gillnets and trap nets. In 2011 alone, the Park Service removed around 230,000 lake trout, which could be approaching the number needed to benefit the lake's world famous but severely diminished population of native Yellowstone cutthroat.

But wouldn't increased suppression eliminate the lake trout sport fishery at Flathead Lake?

No, it is impractical to eliminate all lake trout in Flathead Lake. Scientists estimate a positive trend in bull trout and cutthroat trout numbers could result by reducing lake trout numbers by as little as 50 percent, still leaving lake trout anglers with hundreds of thousands of catchable-sized fish to target.

Lake trout charter operators and local FWP managers say that reducing lake trout numbers could have a huge effect on the Flathead recreation economy.

No data exist demonstrating that a reduced lake trout fishery equals a major hit on the Flathead recreation economy, which is based primarily on visitation to Glacier National Park, Whitefish Mountain ski resort and non-angling recreation at Flathead Lake. In fact, based on information

provided by the charter boat operators it appears the contribution of commercial angling on the lake to the recreational economy is less than one percent of the $232 million that nonresidents spent visiting just Flathead County in 2010. When visitation from residents is included, it appears the contribution of the nine charter boat operators on the lake is negligible. But again, no one is proposing eliminating all lake trout. It simply isn't feasible. It should be noted that today's high lake trout numbers result in fewer and smaller cutthroats in the river system, threatening valuable angling opportunities for noncommercial and commercial anglers there.

But charter boat operators say Mack Days, the annual tournaments sponsored by the Confederated Salish and Kootenai Tribes resulting in the removal of 25-40,000 lake trout a year from the lake, has already triggered plummeting catch rates for their clients, as little as 3 fish a day. They claim this is harmful to their businesses.

If catch rates are less, it isn't because there are that many fewer lake trout. Angler surveys and standardized net sampling performed by tribal and state biologists indicate that the lake trout population in Flathead Lake is still near carrying capacity. In addition, catch rates at Mack Days indicate high success, with some anglers catching as many as 100 fish a day. Further, the charter boat operators unverified catch data contradicts what they tell their clients. The website for the leading spokesman for this small group tells clients on his website they can expect to catch "6-12 lake trout and 10-20 whitefish" on a half-day trip. The website includes many testimonials from recent fishing trips indicating catch rates are high and that anglers are hooking into trophy fish. In fact, recent unverified data the charter boat operators provided to fishery managers purportedly indicating damage to the fishery indicates that even with the declining catch rates they claim client numbers have stayed steady or risen.

What is occurring now that might affect lake trout in the future, but benefit bull trout and cutthroat trout in Flathead Lake and in the upper Flathead River system?

The Confederated-Salish Kootenai Tribes, who are co-managers of the Flathead Lake fishery with Montana FWP, are preparing a draft environmental impact statement that examines potential options to reduce lake trout numbers. This document is being prepared as the next step beyond actions implemented from the last 10-year tribal-state co-management plan. Steps already taken include increasing legal harvest levels for lake trout, and the Mack Day tournaments, which in combination have not reduced lake trout numbers enough to benefit cutthroat and bull trout. The DEIS is evaluating how different levels of netting can affect both lake trout and the native sport fish. It incorporates the latest science from acknowledged experts who model trends in fishery populations, lake trout predation and the economics of sport fishing. Recently, Montana FWP inexplicably decided to drop out of the cooperative process for developing the document. The tribes who have been funding the study as well as the Mack Days events plan on completing the study, then submitting alternatives, with their potential biological and economic effects identified, to the public for its consideration.

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