

Sebec Lake – Lake trout evaluation

One of the earliest reports compiled by the Department of Inland Fisheries and Wildlife on the Sebec Lake fishery was authored by Carl Fenderson and published in 1955. The author had conducted a summer creel survey on the lake, primarily around the Earley's Falls area. At that time, the fishery was predominantly native landlocked salmon, but a few large lake trout were caught. This pre-dated any lake trout stocking program. The general consensus at the time was a few lake trout would drop down from upstream waters (Big Benson Pd, Big Greenwood Pd) and set up shop in Sebec Lake. There was no evidence that lake trout were spawning in Sebec Lake and few, if any, smaller lake trout were reported.

A lake trout stocking program was initiated in Sebec Lake in 1961, and soon after, the lake developed a reputation for producing some very large trophy lake trout. I've seen several pushing 25 lbs. The salmon population is still strong. Sebec has never been known for trophy salmon, but instead good numbers of smaller to medium sized fish. Our data indicate that hasn't changed. Up until the past few years, most of the lake trout caught on Sebec Lake originated from the stocking program but recently we've seen a higher percent of wild lake trout in the winter fishery, indicating spawning is now occurring in the lake.

We were collecting a sample of white perch for tissue analysis in the fall of 2022 and happened to see a large group of lake trout cruising over an area that is very typical of lake trout spawning habitat. We planned to return the next week with some nets, but the weather turned foul, and we lost our window of opportunity. Over the course of the winter, we made plans for a more comprehensive study on Sebec Lake. The Natural Resource Education Center at Moosehead (NREC) purchased PIT (also known as RFID) tags and a special trapnet for us to use during this evaluation. The trapnet stands six feet tall and is perfect for sampling lake trout on the spawning area.



Fisheries Biologist Tim Obrey with a nice 6 lb lake trout from Sebec Lake – 2023.

On Oct 13th, I traveled down to Sebec Lake with our underwater drone to locate a netting site. On that trip, I saw several lake trout already milling around the site. We returned the following week with our gear, and we tended the nets every few days for the next four weeks. We implanted PIT tags into the left cheek of 59 lake trout that were all 18 inches or greater (legal size). The largest fish taken was 7 ½ lbs. We also recorded the length, weight, and the sex of the fish. We gave them a quick hole punch in the tail for identification before releasing them back to the lake. These PIT tags have individual codes, so if we encounter them at some point in the future, we will be able to determine how much they've grown since the time of tagging.

We plan to interview anglers this winter and perhaps next summer on the lake. We hope to see a few tagged fish in our routine census. We will have very good insights into the population and exploitation of lake trout in Sebec Lake based on the proportion of recaptures, the number of wild vs hatchery fish, and an estimate of total harvest. We'll see you on the lake!

You can check out some of the underwater drone footage from Sebec Lake here:

https://youtu.be/GN6GompE7b8?si=pChn5ig-hj2_Qpd5

Submitted by: Tim Obrey, Regional Fisheries Supervisor



Implanting a small PIT tag into the left cheek of a lake trout.