

## Moosehead Lake Region Fishing Report – 10/2/17

This probably will not surprise you, but having worked as a fish biologist for around 30 years, I've heard a lot of fish stories. Sometimes I say, "Wow, that's unbelievable!" when my inner monologue is really saying: "Ok, now this is just not believable...but I'll keep smiling." It's easy to exaggerate when it comes to fishing stories, I may partake in that sport from time to time myself. But when it comes to evaluating and managing a fishery, we cannot rely on fish tales or anecdotal information. We need the numbers or as Joe Friday would say, "Just the facts, Ma'am".

It has always frustrated me that we could never put a number on our smelt run evaluations. It was very subjective. We would wait until 10 or 11pm and go to a brook and observe the smelts and say: "Yup, that looks like a good run" or "Nope, that's not much of a run". We really could not make a valid comparison from year-to-year based on this type of information. So, the past few years we have been working on a new study that would allow us to estimate the total number of smelt fry that hatch from a stream so we can track their abundance over the years.

This spring we selected North Brook in Lily Bay as our study water. We've checked this small tributary to Moosehead Lake many times in the past and we know it has a smelt run almost every year. In 2017, we estimated that the smelt run on North Brook peaked around May 3<sup>rd</sup> and it looked like a "good" run...for whatever that is worth. The real science started two weeks later when we returned with our plankton net to capture the newly hatched fry as they emerged from their eggs and drifted downstream. A previous study on Lake Huron documented that smelt fry hatch primarily at night and the peak of the hatching occurs near midnight. So, that's when the collection had to take place. My assistant, Steve Seeback, ventured up to the stream every few nights for about 3 weeks while the smelt hatch was underway. He made multiple net sets each night and brought the booty back to the office for enumeration. We were able to take that information and expand it to estimate the total number of smelt that hatched from this 40' wide brook each day for three weeks. It was truly eye opening. The hatching peaked on May 24<sup>th</sup> with an estimated 2 million smelt fry entering Moosehead Lake. That's just one day! Our estimate was 9.6 million for the entire hatching period from this one small tributary. Now think of all the other tributaries to Moosehead Lake and think about the sheer size of the Moose River compared to North Brook. The number of smelts that hatched into Moosehead Lake this spring must be...unbelievable!



Photo: Newly hatched smelt fry under the microscope.

Submitted by: Tim Obrey, Regional Fisheries Biologist