

## **Moosehead Lake Region Fishing Report – 8/4/17**

If you were a retailer, knowing the inventory on your shelves would be one of the most important pieces of information you would need to run your business. As a fisheries manager, our inventory is fish and knowing how many fish are in a body of water would be ideal, but we rarely have the ability to measure this. Fish won't hold still long enough for us to count them! So, we have a variety of tools to estimate fish numbers depending on the situation. For example, we use electrofishing to capture fish, mainly young salmon and trout, in small streams. We use trapnets to capture fish traveling the shoreline in the spring and fall in ponds and lakes. In both these cases, we can give the fish a temporary fin clip and by using a little math, we can determine a population estimate based on the number of recaptures. But these methods will not work on larger rivers. Our fish weir has been a great new tool and we've used it on the Roach River, Socatean Stream, Williams Brook, and Tomhegan Stream. We are able to capture nearly all the adult fish moving upstream in small and large rivers. But the weir will not capture small fish. When we want to assess wild salmon production on the East Outlet, we operate a trap in the fishway. We've found that most of the young salmon reared in the river move upstream into the lake in mid-June through July. The Moose River is a very important source for wild salmon to Moosehead Lake, but we have never been able to accurately assess how many young salmon are produced each year in the river. When Roger AuClair wrote his book, "Moosehead Lake Fishery Management" he provided a ballpark estimate of salmon production in the Moose River using the next best data, an estimate from electrofishing on the Roach River. This was a very reasonable approach. We often have to use data from a nearby site or from a similar water to fill in gaps in our information. Roger's estimates were good and we still use them as a rough guide, but I'm certain there have been changes in the number of wild salmon in the lake since that work was completed. We would like to fill in that knowledge gap especially since the Moose River is so important to the salmon fishery in Maine's largest lake.

This spring I took a road trip down to the Narraguagus River to observe the staff from the Dept of Marine Resources during their installation of several Rotary Screw Traps. The traps look like a jet engine on floats and are used to live-capture Atlantic salmon smolts moving downstream to the ocean. The river flow slowly spins the trap and small fish get gently passed through the baffles to a holding tank in the rear. A simple mark and recapture study can determine trapping efficiency and estimate the total number of fish dropping downstream. We were fortunate enough to be able to borrow one of the unused traps and bring it back to the Moosehead Lake Region. We plan to use it next June/July in the Moose River to capture wild salmon smolts dropping out of the river. We will have a brief trial run sometime in the next few weeks just to determine a trap location and give it a good shakedown. The single trap will be located somewhere near Scott Pool. Anglers will still be able to fish there and boats will be able to pass around the trap. I'm sure it will be a little inconvenient, but please bear with us as we try to collect information important to the management of the lake.

Submitted by: Tim Obrey, Regional Fisheries Biologist

