



## Monthly Hatchery Report

May, 2016



Report by: Kyle Winslow

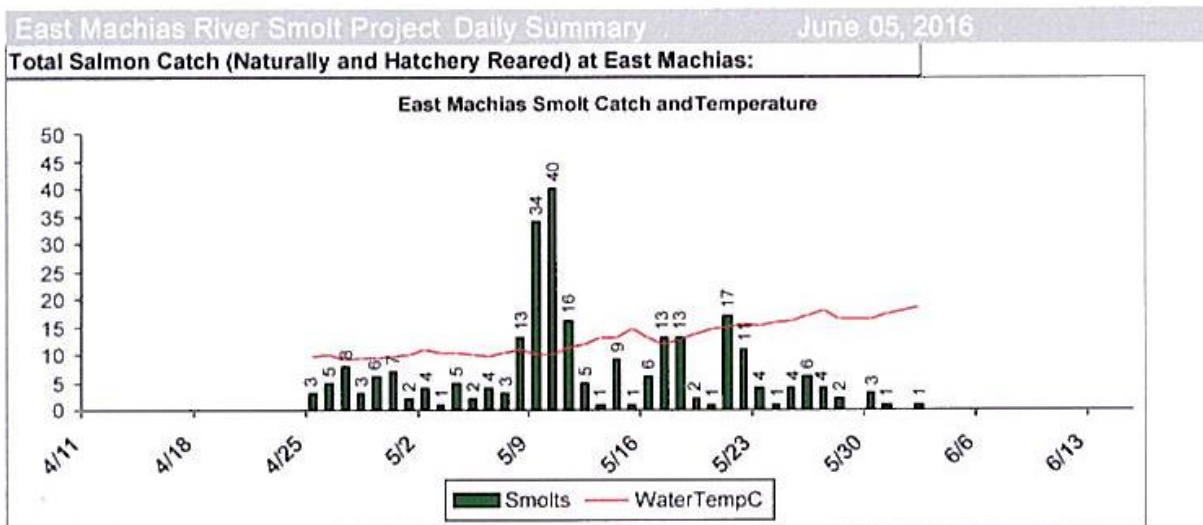
A report of monthly activities and events

A Report on activities from the *Peter Gray Hatchery*, East Machias, ME.



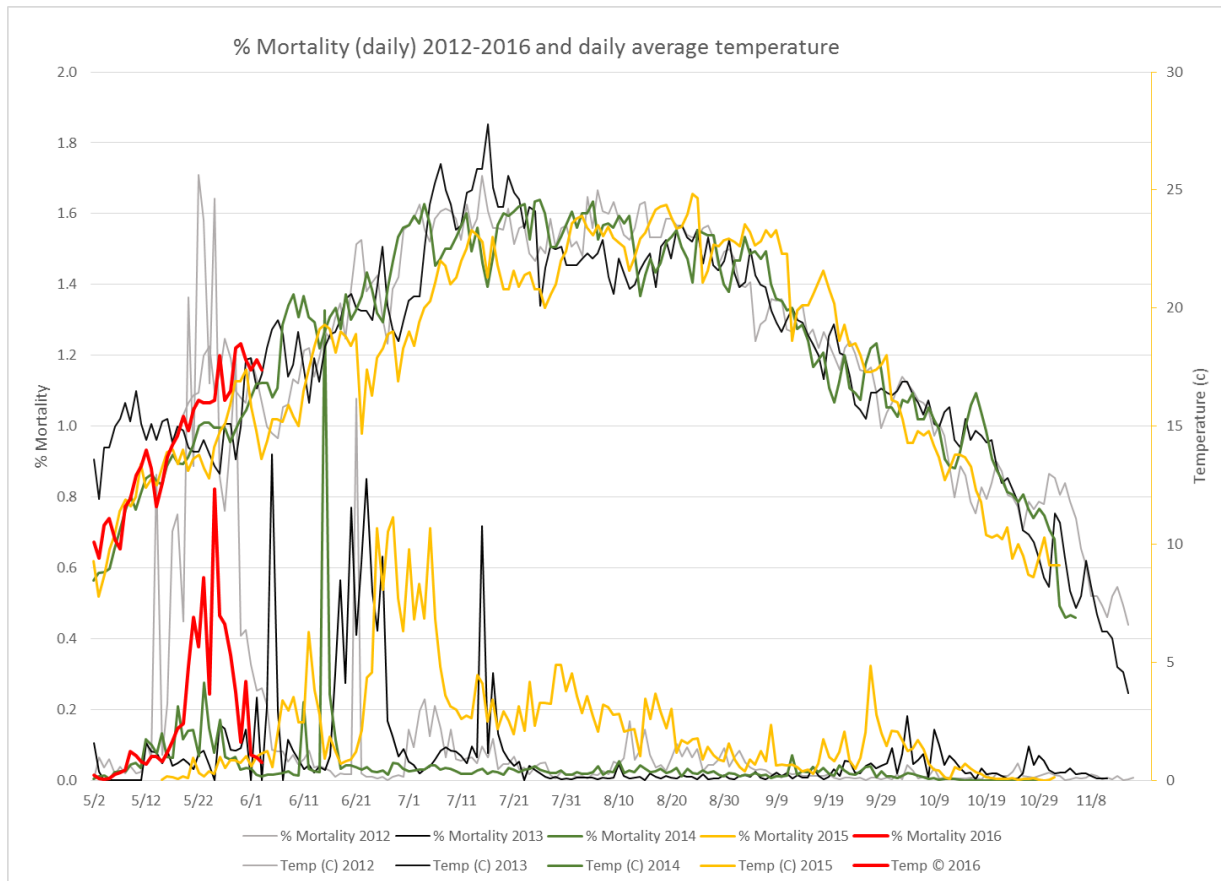
The spring here at EMARC has been very busy, but exciting! We have over 300,000 fry in our tanks, the fry have taken well to food, and smolt numbers have been looking good.

We began smolt trapping on April 4<sup>th</sup>. To date we have captured 174 hatchery smolt and 32 naturally reared smolt. Naturally reared means they had no mark and were either stocked as fry, or are from natural spawning. Given our trapping efficiency we will be looking at around 800 total smolt migrating from the East Machias River this year, though a final estimate will be calculated once the trapping season has ended and all of the data is collected. This is compared to an estimate of ~263 last year. These numbers are encouraging to see, especially given the extremely dry spring we have had this year. Below is a graph showing the trap numbers through the past two months. We captured more smolt this year than any year previous.

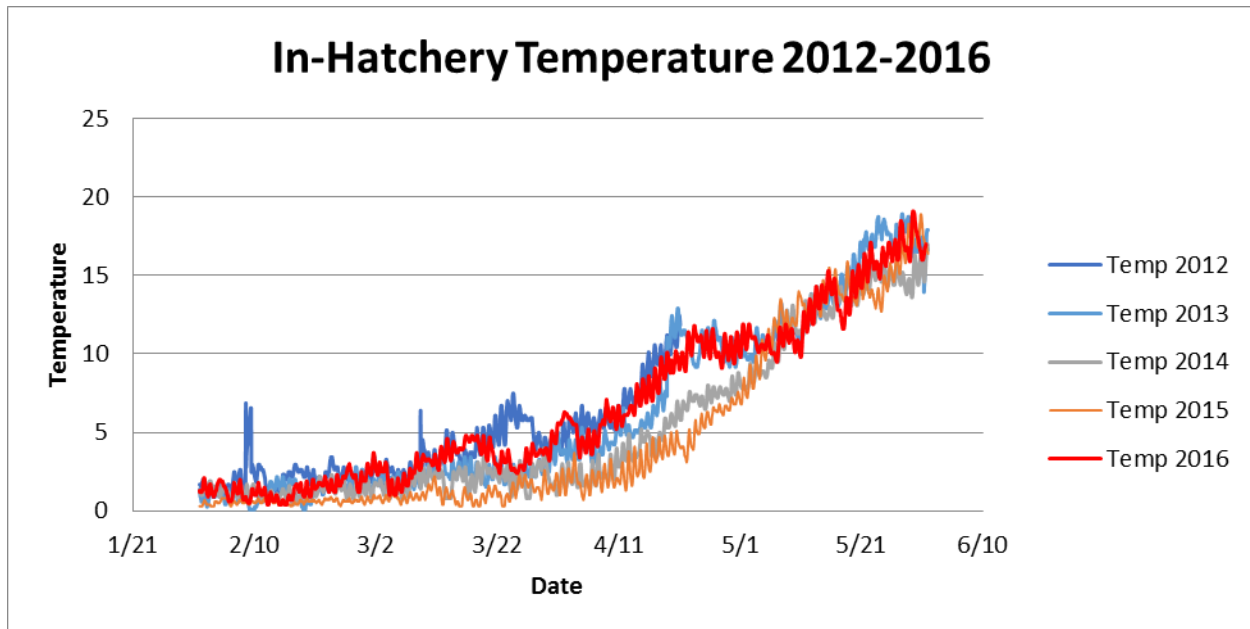


The fry in the hatchery are doing quite well. We had a period of increased mortality just after emergence, but that is as expected. There is generally a percentage of fish that never take to food, and we see those fish die off in the first couple weeks. Mortality is typically about 3-5% during this time period. As of now, we have seen right about 5% mortality this initial month and a half or so.

Below is a graph showing mortality in the hatchery over the past 4 years, plus 2016.



Temperatures this spring started out very warm. They have pretty well moderated at this point and are at around 18°C in the hatchery. See the temperature graph below for a comparison of temperature in hatchery over the past 5 years. The warmer spring temperatures resulted in fish emerging earlier than they have the past 3 years. With the earlier emergence, they will likely put on a little more mass before the summer temperatures get warm and the fish stop feeding. As of now, the fish are right in line with previous years in terms of weight, though they are growing fast. I expect they will certainly be larger than last year as we make our way into the warmer summer months.



We stocked a little over 10,000 fry this spring from the East Machias hatchery as part of the US Fish and Wildlife Service’s requirements. These fry were stocked in Harmon Stream and Creamer Brook, two small tributaries in the East Machias River watershed that respond well to fry stocking. We also stocked about 58,000 fry from our Pleasant River Hatchery this May. A small portion of those fry were un-fed fry, stocked in the early spring. The majority we kept in the hatchery for a few more weeks and fed, in hopes that stocking the larger fed fry would result in better survival. We do not have the capacity, in terms of staff, space or equipment, to raise the fish at our Pleasant River Hatchery to the parr lifestage, though we would like to in the future.

We held our annual Smolt Bolt and Bloater Bash this year on May 21<sup>st</sup>, which was also World Fish Migration Day. This year’s event went very well. We had 48 people run the road race and had over 60 people at the facility to check out the hatchery, and sample some whole smoked alewives (bloaters) after the race. Jill Brookbanks, Peter Gray’s daughter, and her husband Bud joined us for the event, which was a wonderful addition to a great day. Jill has remained very involved with this project and has been a great supporter of our efforts; we can’t thank her enough for her dedication!



We finished up with the Salmon in the Schools program this May. We had eight schools participate and all but one stocked their fry in the East Machias River at EMARC. It was a successful year and we are hopeful that we will be able to interact with more local schools next year.

Dwayne Shaw, our Executive Director, is on tap to speak at the Falmouth Public Library on July 7<sup>th</sup>. He will be speaking about the Downeast Salmon Federation's efforts in rebuilding and maintaining fisheries in eastern Maine. Dwayne has also been awarded the Gulf of Maine Council 2016 Visionary Award for Maine. This honor was awarded by the Gulf of Maine Council on the Marine Environment to Dwayne for his "innovation, creativity and commitment to marine protection". This award to Dwayne is well deserved!