

The Blackstone River Watershed Council/Friends of the Blackstone
River Rat Environmental Program
FINAL REPORT
June 30, 2015

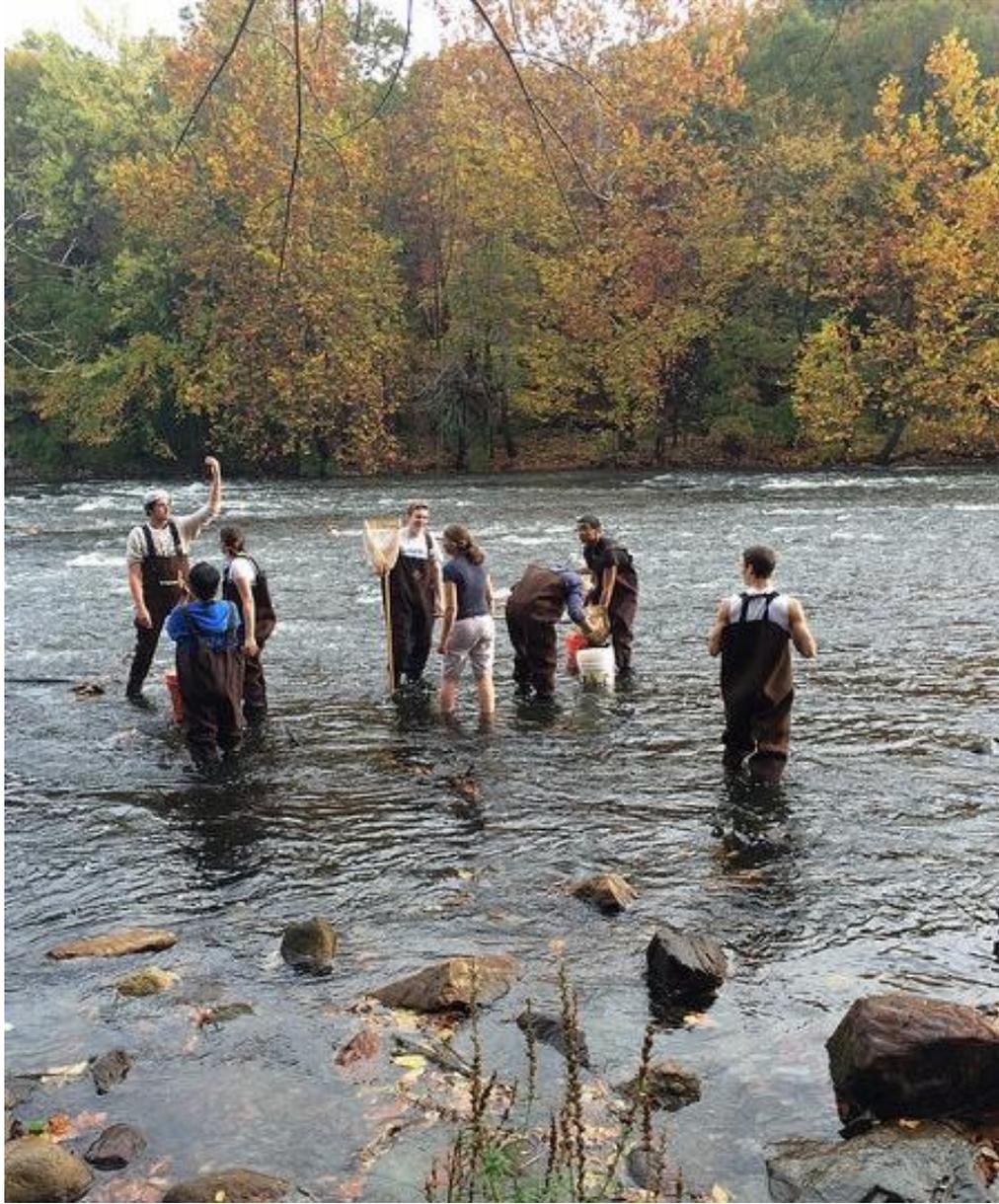


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Designed to bring the classroom to the river and provide hands on science opportunities. On Thursday, October 13, 2014, 48 students, and Friday October 17th, 28 students and their science teachers Mr. Michael Pariseau and Ms. Amy O'Donnell came to the Friends of the Blackstone River Environmental Center at "Sycamore Landing", in Lincoln to take part in the River Rat Environmental Program sponsored by the Blackstone River Watershed Council/Friends of the Blackstone (BRWC/FOB).

The start of the class consisted of Mr. Frank Geary giving an oral history of the Blackstone River, dating back before the arrival of Europeans, when the river was considered a sacred place that provided sustenance for the indigenous people of the land. This history also included the American Industrial Revolution, and the demise of the river from chemicals, waste and other pollutants from industrial production and indifference. Mr. Geary also talked about the 1972 EPA Clean Water Act that sparked the drive to clean up rivers in our country, and became the genesis for the environmental movement as we know it today. Included in this topic was the tireless work of our members and volunteers who changed the river from a place to be avoided to what it is today, a vibrant habitat that supports many species of plants, animals and aquatic life.

This was followed by a video presentation of "The Blackstone River Fish Ladder/Fish Passage Project", a seven minute video directed and produced by Chris Ratcliffe. Hannah Ratcliffe, Chris's daughter is a student in Ms. O'Donnell's class. After the video, Mr. Geary, along with the teachers, led the students in a thoughtful discussion of the Fish Ladder Project and the economic and environmental benefits of the return of migratory fish to the river. The next part of the class was greeted with great enthusiasm, as the teachers and students armed with nets, waders, and water testing equipment got into the river and dug in. It was exciting for the group to find life forms that they never would have guessed could live in the Blackstone, like: crayfish, caddisfly's, dragonfly larvae, leaches, fresh water clams and a wide variety of other wildlife.



The classes then returned to base and used the tables equipped with microscopes, petri dishes and comparative charts that allowed the students to identify and categorize the discoveries they found. At the end of each day the teachers and students spoke of the great day they had at the environmental classroom on the Blackstone River.



As part of the continued involvement and relationship with Cumberland High School, a pre Earth Day community outreach and student involvement event was held at Cumberland High School on April 13th. Board members of the BRWC/FOB set up an informational display in the cafeteria during the lunch hours and spoke to the students about our organization, the river, our clean-ups and volunteer opportunities. Forty students signed up that day to express an interest in the River Rat program! Out of those forty students, ten of them participated in an Earth Day clean-up event at the Kelly House. These young people will be the next stewards of the river, the next generation of active and contributing members. That is just one of the many goals of the River Rat Program.

The funding provided by the RI Rivers Council allowed us to purchase many supplies for the high school class, all of which were used directly to enhance the River Rat program. Supplies such as fish dissecting kits were used along with appropriate fresh water fish species commonly found in the Blackstone. With supplied information regarding toxins

and pollutants, students learned, among other things, how to identify what a healthy fish looks like and how to detect for the presence of toxins and the potential effects they could have on a fish's body and tissues.



This information and exercise tied in with and complemented the literature and community updates that had been published by the EPA. The two documents titled: "Concerns Identified for Eating Fish from the Blackstone River" and "Human Health Implications for Native (Resident) Fish Consumption in the Blackstone River" were required reading for the students. Potential future activities and goals of the program, include developing a brochure, handout, or type of public service announcement that could be adapted to the different international communities in the state who regularly catch and consume fish that

may have dangerous levels of toxins in them. Collaborations for the fish advisory portion of the project have been sought with Brown University Superfund Research Program's Community Advisory Board and also with the Rhode Island Department of Health.

On May 12th 2015, 50 Cumberland High School students enjoyed a morning tour of the Slater Mill in Pawtucket, where they learned about the mill's textile history and the story of its long term impacts on the health and quality of the Blackstone River. They were told about the BRWC/FOB's efforts in bringing back the presence of anadromous fish through the construction of fish ladders planned for the Main Street dam and the Slater Mill dam. A special viewing window is planned at the Slater Mill, where people will be able to view the fish as they progress through a portion of the ladder.



After the tour of the mill, students boarded the school busses and headed to our environmental center for another wonderful day in the river. Here students donned their waders, two pairs of which were purchased with RIRC funds, and used a seine net and poles, and 5 sample collecting nets, all purchased with RIRC funds. The students used the seine net in the river to collect samples of invertebrates and macroinvertebrates.

Excitement abounded when the students were able to catch samples and place them in containers with water. They used their charts to identify what they had caught and document how many of each species they found. This was used to determine a biotic index for that portion of the river that they sampled. A biotic index is a quantifiable scale that measures the health or quality of an environment, in this case, the Blackstone River, and assigns a numerical rating based on the sample size. The number that Ms. O'Donnell's class came up with was a 6, which rated as fair. Based on this, and as is common knowledge, the river still has a way to go in regaining its health and diversity. Bringing back the species of anadromous fish through the installation of fish ladders will be of great benefit to the river. The trip and buses to the Slater Mill were paid for by BRWC/FOB through the RIRC grant.



The last component of the grant and program involves production of a video of some sort, which, at the time of this writing, is being worked on by one of the students, and is forthcoming. The video will contain scenes from the May trip to the river along with student featured vignettes and thoughts on the whole experience. It is hoped that the "video" will be able to be featured on our website and Facebook page, as well as used to further promote the River Rat Environmental Program, and fish ladders.

In closing, the BRWC/FOB wishes to thank the Rhode Island Rivers Council for the grant funding for this collaborative project. We also want to thank the Cumberland School District, Principal Alan Tenreiro and teachers Ms. Amy O'Donnell and Mr. Michael Pariseau for their expertise and cooperation. Thank you to the Slater Mill and Durham Bus Company.

The financial accounting for the RIRC grant will be supplied in a separate document.

With reports by: Mr. Frank Geary, Director, Fish Passage/Fish Ladder Project Coordinator, BRWC/FOB and Judy Hadley.

Respectfully submitted by: John Marsland, Alice Clemente, Frank Geary, Judy Hadley, and Joe Pailthorpe. River Rat Environmental Team. June 30, 2015