

INTRODUCTION

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Internships and research assistants:

College undergraduate intern Lisa Zach, from SUNY Oneonta, held a Madison County sponsored internship to work on Moraine Lake aquatic plant management. There she compared two methods for estimating plant abundance. John Byrne, from SUNY Cobleskill, held Robert C. MacWatters Internships in the Aquatic Sciences. He investigated habitat utilization by walleye in Otsego Lake by tracking 14 acoustically tagged fish. In addition, John conducted the annual warm water fisheries surveys at Brookwood Point and Rat Cove in Otsego Lake. Molly Reed from SUNY Oneonta received support from OCCA to work with Devin Castendyk monitoring water quality in the Susquehanna River throughout Otsego County. Charlie Bueche from SUNY Geneseo held a Rufus J. Thayer Otsego Lake Research internship. He investigated predation on newly-stocked walleye, comparing survival rates with walleye stocked at night as opposed to those stocked during the day. Kristen Finger from SUNY Binghamton received a BFS internship and she continued work on trophic interactions at Moe Pond following the introduction of black bass. Rebekah Searles received a Peterson Family Trust internship. She worked with Adam Ryburn doing vegetative inventories at Greenwoods in anticipation of experimental field maintenance (mowing vs. burning) at Big Meadow. Sarah Kessler also held a BFS internship (funded by OCCA). She worked with Holly Waterfield on monitoring the effectiveness of newly-installed septic systems around the lake, mainly focusing on phosphorus removal technologies. John Denby, from SUNY Oneonta, was given the SUNY Oneonta Biology Department internship He monitored sites across Otsego Lake's watershed in ongoing efforts to access efforts to reduce nutrient inputs related to the installation of agricultural BMPs. Carter Bailey from SUNY ESF received a Canadarago Lake Improvement Association internship. He did pilot monitoring on that lake in anticipation of BFS' involvement in working towards a State of the Lake Report for Canadarago Lake.

Jessie Matus, a high school student from Oneonta received a FHV Mecklenburg Conservation Fellowship and worked on several research projects including Susquehanna River water quality monitoring. She was supported by the OCCA and by the Village of Cooperstown. Nate Kishbaugh worked with Paul Lord as a research assistant helping with Susquehanna River unionid habitat mapping. He is a student from Niskayuna High School.

Graduate students:

Willow Eyres completed her work on water chestnut control in a wetland near Oneonta. Roland Wang, a Cornell University graduate student working under Lars Rudstam, worked with staff and visiting researchers on the acoustic monitoring of Otsego Lake alewife populations.

Intensive offerings:

About 200 students enrolled in several SUNY Oneonta and SUNY Cobleskill on-campus courses and attended field exercises on site. More than 1,200 K-12 students visited the BFS and

received hands-on experiences on Otsego Lake and BFS woodlands over the year enrolled in the to the pre-college “Learning Adventures” and “Agricultural Environmental Quality” programs. David Alfred, Holly Waterfield and Charles Beuche served as interpreters in the latter programs with BFS staff and faculty.

Faculty and staff activities:

Lars Rudstam and Tom Brooking, from the Cornell BFS, and Mark Cornwell, SUNY Cobleskill, were 2008 BFS visiting researchers and continued to utilize acoustic monitoring to document alewife population dynamics in Otsego Lake. Holly Waterfield was also deeply involved in that as well as Otsego Lake septic system monitoring and associated NYS Onsite Wastewater Treatment Training Network (OTN) activities. She and Matt Albright are working on a project, supported by a DEC grant, on phosphorus control strategies related to onsite systems. For the 9th year, we stocked Otsego Lake with walleye fingerlings. Monitoring was continued by Tom Brooking and Mark Cornwell, with advice and help from Lars Rudstam and Dave Warner (USGS Great Lakes Research Center, Ann Arbor) evaluating the impacts on both the fishery, and with Matt Albright, impacts on water quality and trophic cascades. Walleye from the first year of stocking are now approaching 30 inches in length. Bill Butts has been the most active biology faculty from SUNY Oneonta working at the BFS this year. Devin Castendyk, SUNY Oneonta Earth Sciences, did hydrological based water quality work on the Susquehanna River, sponsored by the OCCA. Mark Cornwell and John Foster, SUNY Cobleskill, were involved in fisheries research related to the walleye/alewife acoustic work including tracking of several mature walleye in Otsego Lake over the year. Renee Walker, SUNY Oneonta Anthropology Department, and David Staley, Archeologist and Project Manager, Cultural Resource Survey Program, New York State Museum, continued work on the cultural resources at the Thayer Farm. Matt Albright, in fulfilling his responsibilities as laboratory supervisor and coordinator of staff and intern activities was deeply involved in all BFS activities.

The BFS provided personnel and boats for Otsego Lake Cleanup and Water Chestnut Days. No water chestnuts were found. Early recognition of the problem and removal of plants in 1999, then again of a single plant in 2007, apparently contributed to its eradication. We will continue to keep an eye on the situation. Thanks to Otsego 2000 and the OCCA for their far-sighted support. We are now actively involved in water chestnut control in a wetland near Oneonta, supported by a DEC Exotic Species Eradication grant of \$29,000. We are also assisting the OCCA and their citizen volunteers in the control of water chestnut in Goodyear Lake, also supported by the DEC. We are in the first year of a contract for \$225,000 with the NYSDEC to map unionid mussel habitats in the Susquehanna Drainage Basin in New York and determine the status of State and federally listed species occurring there. Paul Lord has been conducting the field work and data analysis with the help of Lee Fererra, Tim Pocorny and interns.

We have secured funding to begin monitoring and conducting work on Canadarago Lake. This effort, driven by committed members of the Canadarago Lake Improvement Association and coordinated by Scott Fickbohm of OCSWCD, is intended to provide the basis for a management for that water body. Following the completion of that document, the local communities can begin work on a lake and watershed management plan.

We started monitoring zebra mussels (*Dreissena polymorpha*), first found in the Otsego Lake in 2007. Those populations are increasing as expected. For several years active boat inspections and cleaning by the Village of Cooperstown, as well as boat registration at the Town of Springfield landing, have kept the lake zebra mussel free, despite large populations in all the surrounding lentic waters as well as the Erie/Barge Canal System, the Mohawk/Hudson drainage and the nearby Susquehanna River below the confluence of Oaks Creek draining infested Canadarago Lake. We commend the Village for continuing its inspection program and their recognition of the fact that many more habitat-degrading, potential aggressive exotic organisms are poised to invade the Otsego Lake drainage.

Cleanup, building stabilization and renovation at the Thayer Farm continues. Upgrades at the boathouse are complete, as are renovations at the boathouse apartment for short term visiting researchers and student study spaces in the chicken coop and corn crib. Hop House renovations are essentially complete. The latter work was supported by the National Science Foundation with extensive matching by the College administration. The building will provide year around facilities, a reception area, three laboratories, conference space and two faculty or staff offices. It will be developed as the Administrative Center at the Thayer Farm. All BFS faculty and staff will be moving there at the end of the spring 2009 semester when extensive renovations begin in the Main Laboratory at Cooperstown. Much of Matt Albright's and Holly Waterfield's time this year, as well as that of Tim Toth, Dale Webster and Jeane O'Dea, was consumed in removing equipment, supplies and furniture from the Main Laboratory and installing it at the Thayer Farm in preparation for our move to those newly renovated facilities in 2009. Dale worked diligently to complete work at the Hop House in a timely manner. Support from the College administration, MOC, Telecommunications and Facilities Planning has been greatly appreciated. The Main Laboratory is scheduled to reopen late in 2010.

Jeane Bennett-O'Dea continues to work part-time in the office assisting with administrative tasks. Because of recent changes processing finances in the Oneonta Foundation, the SUNY Research Foundation and funding associated with Thayer Farm renovations, her workload has greatly increased. In addition to renovations at the Hop House, Dale Webster continues to work improving and maintaining all facilities at the Thayer Farm. Several talented citizen volunteers again helped at the BFS during the year. They included Kathy Ernst and the following SCUBA divers: Paul Lord, Dale Webster, Jeff Back, Jeff Opar, Lee Ferrara, Andrew Lachut, Jennifer Szarek and Brian Sydow.

Public support makes our work possible. Funding for BFS research and educational programs was procured in 2008 from many citizens and organizations. Special thanks go to the Clark Foundation who generously supports our annual needs. The Peterson Family Conservation Trust, the OCCA, Otsego 2000, the Otsego Lake Association, the Village of Cooperstown, SUNY Oneonta, and the SUNY Graduate Research Initiative have also supported our endeavors.

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