

INTRODUCTION

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Internships:

Sophia Ottley and Owen Coyle from Old Bridge High School (N.J.) and Allendale Colombia High School, Penfield (N.Y.), respectively, were supported via FHV Mecklenburg Conservation Fellowships and by the Village of Cooperstown. Sophia analyzed chlorophyll_a concentrations in Otsego Lake while Owen collected water quality information from the upper Susquehanna.

College undergraduate intern Caitlin Snyder, from Cazenovia College, held a Madison County sponsored internship to work on Moraine Lake aquatic plant management. She was also involved in work at Highland, Sullivan County (N.Y.), in a wetland disturbance mitigation study for the Upper Susquehanna Coalition. In addition, she surveyed adult Odonata (dragon flies and damselflies) in several locations in Madison and Otsego counties.

Dan Stitch and Joe Lydon, from SUNY Cobleskill, held Robert C. MacWatters Internships in the Aquatic Sciences. They both worked with a diversity of fisheries oriented research projects including investigations into habitat utilization by walleye in Otsego Lake. In addition, Dan conducted the annual warm water fisheries surveys at Brookwood Point and Rat Cove in Otsego Lake and Joe did a diet analysis of piscivorous fish preying on walleye during stocking activities in Otsego Lake.

Karan Mummigatti from SUNY Oneonta received a Peterson Family Trust internship. He worked with the impacts of Japanese knotweed on stream bank stabilization and helped with the research at Highland. Loretta Crane received the BFS's SUNY Oneonta Biology Department internship. She did a laboratory study of the effects of hydrodynamic forces on zebra mussel veligers. Emily Underwood, from Paul Smiths College, continued monitoring the impacts of an earlier black bass introduction into Moe Pond on the BFS Upper Site. She also was deeply involved in habitat mapping and a survey of pearly fresh-water mussels in the Susquehanna River near Oneonta. Charles Beuche, SUNY Geneseo, analyzed fecal coliform bacteria concentrations in Otsego Lake and water quality in its tributaries.

Graduate students:

Four graduate students in the Biology MA program have been involved with BFS faculty in 2007. Karen Tietlebaum and Kathy Suozzo have not yet defined their graduate research. Connie Tedesco and Willow Eyres are tying up their work with wetland vascular plants. Wesley Tibbits has finished his work, was awarded his degree, and has been employed by Washington State DEP monitoring salmon migration on the Columbia River.

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:

In September “The Rufus J. Thayer Chair for Otsego Lake Research” became the first SUNY Oneonta endowed chair. Bill Harman was appointed the first faculty member to hold the position. The chair institutionalizes applied scientific research and the management of Otsego Lake as BFS missions. Administrators from SUNY Oneonta and SUNY Delhi have been meeting with engineers and trainers from New York’s “Onsite Wastewater Treatment Training Network” (OTN) to determine if the Upland Interpretive Center and adjacent lands on the Thayer Farm are a desirable venue to house new technologies to demonstrate to contractors and homeowners installing septic systems around the Lake. Talks continue.

Tom Brooking, from the Cornell BFS, and Mark Cornwell, SUNY Cobleskill, were 2007 BFS visiting researchers and continued to utilize acoustic monitoring to document alewife population dynamics in Otsego Lake. Bill Butts has been the most active biology faculty from SUNY Oneonta working at the BFS this 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. Tom Horvath was involved in projects with Karan Mummigatti and Loretta Crane.

For the 8th year, we stocked Otsego Lake with walleye fingerlings. Monitoring was continued by BFS visiting researchers Brooking and Cornwell, with advice and help from Lars Rudstam (Cornell BFS) 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. Support for the purchase of walleye pond fingerlings now comes from Lou Hager, Jr., on behalf of the Gronewaldt Foundation, now matched by the NYSDEC Region 4 Fisheries Managers. This year, because of the threat by Viral Hemorrhagic Septicemia (VHS) only 40,000 pond fingerlings were stocked provided by NYSDEC. Several SUNY Cobleskill students worked with John Foster (Chair, SUNY Cobleskill Fisheries and Wildlife Technology) on the tele-monitoring of several mature walleye in Otsego Lake over the year.

The BFS provided personnel and boats for Otsego Lake Cleanup and Water Chestnut Days. One immature water chestnut was found, the first in the 7 years since water chestnuts (*Trapa natans*) were originally found in Otsego Lake. Despite several days of intensive searching by BFS interns and graduate students no more were encountered. Early recognition of the problem and removal of plants in 1999 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 Millennium Pipeline, Inc., and with help with citizen volunteers organized by the OCCA, and with the OCCA and the Goodyear Lake Association controlling a population in Goodyear Lake. The NYSDEC has provided about \$29,000 to the BFS for continuing the water chestnut eradication in Oneonta and more to the OCCA’s Goodyear Lake project.

Adult zebra mussels (*Dreissena polymorpha*) were found for the first time in the Otsego Lake this last summer. 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 clear. That 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, student study spaces in the chicken coop and corn crib. Hop House renovations are underway supported by a \$125,000 grant from the National Science Foundation. The latter will provide year around facilities, a reception area, two laboratories, conference space and two faculty or graduate student offices. It will become the Administrative Center at the Thayer Farm.

We have received \$106,000 from NSF to provide equipment for continuing acoustic analyses of alewife and walleye populations in the lake and for remote water quality monitoring equipment. We also have 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. Work characterizing the plant community in a sedge-tussock wetland near Highland in Sullivan County, N.Y., that will sustain damage by the construction of a natural gas pipeline through it, was supported by a \$20,000 grant from the Upper Susquehanna Coalition. The Coalition constructed 8 vernal ponds in an old field on Rum Hill with monies from the US Fish & Wild Service for amphibian habitat improvement. We will take advantage of the ponds to conduct other wetland research at the site.

Jeane Bennett-O'Dea continues to work part-time in the office assisting with administrative tasks. Dale Webster continues to work part-time improving and maintaining all facilities at the Thayer Farm. Holly Waterfield has been working part-time involved in the Highland project as well as Otsego Lake septic system monitoring and associated NYS Onsite Wastewater Treatment Training Network (OTN) activities. 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 2006 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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