

**ANNUAL REPORT: June 1, 2012 – May 31, 2013**  
**(i.e., Summer 2012, AY 2012-2013)**  
**DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY**  
**SUNY-ESF**

NAME: John M. Farrell

**I. INSTRUCTIONAL ACTIVITIES**

1. Regular Course Offerings

	<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>No. Students</u>	<u>No. of Lab. Sections</u>
SUMMER:	EFB 388	Adirondack Fish Ecology	3	13	
FALL:	EFB 681	Aquatic Restoration Ecology	2	13	
SPRING:	EFB 496	Senior Synthesis AFS	1	17	

**NOTE: PLEASE INDICATE WHICH COURSE(S) HAD A SERVICE-LEARNING COMPONENT AND BRIEFLY EXPLAIN THE NATURE OF THIS COMPONENT.** For examples of service-learning in courses, see: <http://www.esf.edu/students/service/courses.htm>. Service-learning is a form of structured experiential education in which students engage with the community to be active learners, to enrich their sense of civic responsibility, and to explore practical application for course content. Faculty oversight, reflective thinking, and reciprocity are key components of service-learning.

EFB 388 Adirondack Fish Ecology had a service learning component in participating with NYSDEC in assistance of their survey work in assessing Brook Trout waters in the Adirondack Park in a two-day experience.

2. Non-Scheduled Course Offerings (e.g., 496, 899, 999)

	<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>No. Students</u>
SUMMER:	EFB 899	Master's Research	3	3
	EFB 999	Doctoral Research	1	1
FALL:	EFB 420	Internship EFB	2	6
	EFB 498	Research Problems	4	9
	EFB 798	Research Problems	1	3
	EFB 899	Master's Research	4	4
	EFB 999	Doctoral Research	2	2
SPRING:	EFB 498	Research Problems	3	11
	EFB 899	Master's Research	2	2
	EFB 999	Doctoral Research	1	1

3. Continuing Education and Extension (short courses, workshops, etc.)

4. Guest Lecture Activities

<u>Course No.</u>	<u>Title</u>	<u>No. of Lectures</u>
EFB 525	Limnology Practicum	1 weekend field trip/lecture
EFB 487	Fisheries Science and Management	1 weekend field trip/lecture
EFB797	Graduate seminar Cohen/Stewart	1 panel discussion
EFB 210	Diversity of Life	1 lecture

## II. STUDENT ADVISING

A. Number of undergraduates for whom you are the student's official advisor 17 and unofficial advisor 2

B. Graduate Students: (list name, degree sought, starting date, month & year; if a degree was completed, please give date and full citation for the thesis or dissertation).

### MAJOR PROFESSOR

1. Geof Eckerlin, PhD (began Jan 2009), Viral haemorrhagic Septicaemia Virus Type: Evaluation of fish hosts as a viral reservoir, a community perspective.
2. Scott Schlueter, MS (current, EBT), 1/07, Lake sturgeon restoration in the Oswegatchie River: movement and habitat use following reintroduction.
3. Derek Crane, PhD (graduated 5/12) Crane, D. P. 2013. REPRODUCTIVE ECOLOGY OF NATIVE PREDATORY FISHES AND BODY CONDITION RESPONSES TO INVASIVE ROUND GOBY IN THE LOWER GREAT LAKES AND CONNECTING CHANNELS. Doctoral Dissertation. SUNY College of Environmental and Forest Biology, Syracuse NY. (Won Burgess Award 2013)
4. Katherine DeVilbiss, MS (graduated 5/12) DeVilbiss, K. 2013. RESPONSES OF ESOCID FISHES TO WARMING TEMPERATURES: LABORATORY EXPERIMENTATION ON SPECIES METABOLIC RATES Master's Thesis. SUNY College of Environmental and Forest Biology, Syracuse NY.
5. Christina Killourhy, MS (graduated 5/12) Killourhy, C. 2013. PREDATION ON CENTRARCHID NESTS IN THE ST. LAWRENCE RIVER FOLLOWING INTRODUCTION OF THE ROUND GOBY (NEOGOBIUS MELANOSTOMUS) Master's Thesis. SUNY College of Environmental and Forest Biology, Syracuse NY.
6. Mark Leopold, MS (began August 2010) Possible causes of skewed sex ratios of northern pike (*Esox lucius* L.) on the St. Lawrence River
7. Ben Amos, MS (began May 2013) TBA.
8. Andrew Miano (began May 2013) Larval walleye ecology in Eastern Lake Ontario and the St. Lawrence River

### CO-MAJOR PROFESSOR

1. Alison Halpern, PhD (EBT, Co-advised with Dr. Donald Leopold) 5/00, Aquatic nuisance species: ecology and control of the invasive plant *Hydrocharis Morsus-ranae* in Eastern Lake Ontario and St. Lawrence River wetlands.
2. Stewart LaPan, MS (Co-advised with Dr. James Gibbs) starting fall 2012, Avifauna and Herpetofauna Response to Coastal Wetland Enhancement in the Upper St. Lawrence River.

MEMBER, STEERING COMMITTEE (other than those listed above)

1. Kapil Mandraker, EFB, (Stewart)
2. Errol Sheid, EFB, MS (McGrath)
3. Ceili Bachman, EFB (Mitchell and Schulz)
4. Matt Regan, EFB (Leopold)
5. James Costello, EFB (Kimmerer)
6. Eric Bauer, EFB (Whipps)
7. Alex Looi, EFB (Schulz)
8. Matt Gunderson (Kapusinski)

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

MS Defense Chair, Alison Mills, ERE Construction Mgmt. and Wood Products Engineering (Tiss)

**III. RESEARCH COMPLETED OR UNDERWAY**

A. Departmental Research (unsupported, boot-legged; title - % time spent)

B. 1. Grant-supported Research (source, subject, amount - total award and current year, award period starting and ending dates; list graduate research assistants supported by each grant)

Farrell, J. M. 6/2009-6/2012. Development of the Fish Habitat Conservation Strategy: An Evaluation of Toolkit Implementation, National Fish and Wildlife Foundation, Two Years, \$563,836.

Derek Crane

Also Senior Research Support Specialists Gillian Avruskin and Brandy Brown

Farrell, J. M. 4/1/2011-6/30/2013. Development and Management of St. Lawrence River Fisheries. Federal Aid in Sportfish Restoration, NYS Department of Environmental Conservation. \$640,963

Katherine DeVilbiss  
Mark Leopold  
Derek Crane

Also Senior Research Support Specialist Chris Barry and Jacob Runner (since 4/1/13)

Farrell, J. M. and B. Henning. 3/18/11-12/31/12. Evaluating the Near-Shore Fish Community Response to Restored Habitat Connectivity in a Robust Cattail marsh. National Fish and Wildlife Foundation \$16,275.

Farrell, J. M. and K. Kapuscinski. 3/1/11 – 2/28/12. Evaluation of Nearshore Fish Assemblages, Habitat, and the Effects of Herbivorous Rudd (*Scardinius erythrophthalmus*): Determining the Efficacy of Fish Habitat Restoration

Efforts in the Buffalo Harbor and Niagara River. Niagara River Greenway Fund, Greenway Ecological Fund Standing Committee \$188,881

Derek Crane  
Post-Doctoral Associate, Kevin Kapuscinski

Farrell, J. M, D. J. Leopold, M. Mitchell, J. Gibbs, K. Schulz. 9/2011-8/2013, Recovery Act – Coastal Fisheries Habitat Restoration in the St. Lawrence River. NOAA/Ducks Unlimited Coastal and Marine Habitat Restoration Project, Great Lakes Restoration Initiative \$274,722.

Ceili Bachman (MP Mitchell, Schulz)  
Matt Regan (MP Leopold)  
Stewart LaPan (MP Gibbs, Farrell)  
Alex Looi (MP Schulz)

Technicians Brian Henning, Mariah Taylor

Ringler, N. H., K. A. Schulz, J. M. Farrell, M. A. Teece, and J. Brunner. 1/1/10-12/31/12. Renovation of Wet Labs and Cyber-Infrastructure to Enhance Integrated Research and Teaching. National Science Foundation \$1,470,000

KL Kapuscinski and J. M. Farrell., 1/1/12-12/31/13. Evaluation of Nearshore Fish Assemblages, Habitat, and the Effects of Herbivorous Rudd (*Scardinius erythrophthalmus*): Determining the Efficacy of Fish Habitat Restoration Efforts in the Buffalo Harbor and Niagara River. Niagara River Greenway Fund, Greenway Ecological Fund Standing Committee \$254,944

Derek Crane (Post-Doctoral Associate)  
Gunderson (MP, Kapuscinski)

Leopold, D. J. and J. M. Farrell. 7/1/10-6/30/13. Review of Honeywell Onondaga Lake Shoreline Restoration Projects \$23,580

Hanchin, P., B.L. Sloss, L. Miller, C. Wilson, K. L. Kapuscinski, K. Schribner, and J. M. Farrell. Delineation of natural boundaries of muskellunge in the Great Lakes and the effects of supplementation on genetic integrity of native stocks. Great Lakes Fisheries Commission (\$42,721; ESF share \$4,705)

Farrell, J. M., 8/1/12-9/30/15. The St. Lawrence River Fish Habitat Conservation Strategy: Evaluation of Habitat Enhancements and Development of Novel Restoration Approaches. National Fish and Wildlife Foundation Special Project administered by the US Fish and Wildlife Service (\$610,073).

Farrell, J. M., C. Whipps and K. L. Kapuscinski. 4/1/2013-6/30/2016. Development and Management of St. Lawrence River Fisheries. Federal Aid in Sportfish Restoration, NYS Department of Environmental Conservation. (\$715,001 – \$65K current At-risk).

Jacob Runner

Ben Amos (MS Student)

2. Research Proposals pending (include information as in B.1., above).

Wilcox, D.A., and J. M. Farrell. 1/1/14-12/31/15. Research Foundation of SUNY, Faunal Community Response to Hydrology and Vegetation Changes in Restored Lake Ontario Wetlands (\$99,844)

Getchell, R., and J. M. Farrell. 2/1/14-1/31/16. The Impact of VHSV on the Population Dynamics of St. Lawrence Muskellunge. Cornell University/NY Sea Grant (\$5,000 to ESF).

3. Research Proposals submitted, but rejected (include information as in B.1, above)

Teece, M. A., and J. M. Farrell, 2/1/14-1/31/16. Development of biomonitors for pharmaceuticals in New York waters and their uptake into Sportfish. \$188,274 NY Sea Grant

**IV. PUBLICATIONS** (Full bibliographic citation, i.e., do not use "with Jones," or "Jones, et al."; please list only publications published, in press, or actually submitted during this reporting period --- **do not list manuscripts in preparation**).

A. Refereed Publications

Crane, D.C., and J. M. Farrell. 2013. Spawning substrate size, shape, and siltation influence walleye egg retention. North American Journal of Fisheries Management 33:329–337.

Kapuscinski, K. L., J. M. Farrell, and M. A. Wilkinson. 2013. Trends in the muskellunge (*Esox masquinongy*) population and fishery of the Buffalo Harbor (Lake Erie) and upper Niagara River. Journal of Great Lakes Research <http://dx.doi.org/10.1016/j.jglr.2012.11.006>

Kapuscinski, K. L., and J. M. Farrell. 2013. Habitat factors influencing fish assemblages at muskellunge nursery sites. Journal of Great Lakes Research <http://dx.doi.org/10.1016/j.jglr.2012.11.007>.

Kapuscinski, K. L., J. M. Farrell, and B. A. Murry. 2012. Feeding strategies and diets of young-of-the-year muskellunge from two large river ecosystems. North American Journal of Fisheries Management 32:635-647.

Kapuscinski, K. L., J. M. Farrell, and M. A. Wilkinson. 2012. Feeding patterns and population structure of an invasive cyprinid, the rudd *Scardinius erythrophthalmus* (Cypriniformes, Cyprinidae), in Buffalo Harbor (Lake Erie) and the upper Niagara River. Hydrobiologia 693(1):169-181.

Kapuscinski, K. L., B. L. Sloss and J. M. Farrell. (in press) Genetic population structure of Great Lakes muskellunge (*Esox masquinongy*). Transactions of the American Fisheries Society

Farrell, J. M., H. Brian Underwood, and K. L. Kapuscinski. (in revision) Fine scale habitat use by sub-adult muskellunge in a St. Lawrence River Bay. Journal of Great Lakes Research

Henning, B., Kapuscinski, K. L., and J. M. Farrell. (in revision) Nearshore Fish Assemblage Structure and Habitat Relationships in Protected and Open Habitats in the Upper St. Lawrence River. Journal of Great Lakes Research

Murry, B. A. and J. M. Farrell (in revision) Resistance of fish community size-structure to ecological perturbations in a large river ecosystem. Journal of Freshwater Biology

B. Non-refereed Publications

Farrell, J. M., and C. C. Barry 2013. Muskellunge Monitoring and Management in the Thousand Islands section of the St. Lawrence River. NYS Department of Environmental Conservation 2012 Great Lakes Fishery Commission Lake Ontario Committee Annual Report.

Farrell, J. M, and C. C. Barry. 2013. Northern Pike Monitoring in the Thousand Islands Section of the St. Lawrence River. NYS Department of Environmental Conservation 2012 Great Lakes Fishery Commission Lake Ontario Committee Annual Report.

C. Papers Presented at Science Meetings (give title, date, occasion, and location)

Crane, D. P., J. M. Farrell, and K. L. Kapuscinski. 2012. Spatially explicit modeling of upper Niagara River muskellunge spawning habitat. Meeting of the St. Lawrence River Esocid Working Group, Clayton, NY

Crane, D. P. and J. M. Farrell. 2012. Fine sediment deposition decreases walleye egg adhesion to spawning substrates. 142nd Annual Meeting of the American Fisheries Society, Minneapolis – St. Paul, MN

DeVilbiss, K. and J. M. Farrell. 2012. Responses of esocid fishes to warming temperatures: laboratory experimentation on species metabolic rates. St. Lawrence River Esocid Working Group Meeting, Clayton NY.

DeVilbiss, K. and J. M. Farrell. 2012. Responses of esocids to warming temperatures: laboratory experimentation on species metabolic rates. 142nd Annual Meeting of the American Fisheries Society, Minneapolis – St. Paul, MN

Farrell, J. M. and B. Brown. 2012. Restoring Connectivity in Coastal Wetland Habitats via Channel Creation in a Large Regulated River. 1st International conference Integrative Sciences and Sustainable Development of Rivers. June 26-28, 2012 GRAIE – IS.Rivers Secretariat, Lyon – France (invited).

Farrell, J. M. 2012. Status of the St. Lawrence River Muskellunge Population. St. Lawrence River Esocid Working Group Meeting, Clayton NY.

Farrell, J. M. 2012. Northern pike program status. St. Lawrence River Esocid Working Group Meeting, Clayton NY.

Kapuscinski, K. L., J. M. Farrell, and B. L. Sloss. 2012. Genetic population structure of muskellunge in the Great Lakes. St. Lawrence River Esocid Working Group Meeting, Clayton NY.

Kapuscinski, K. L., J. M. Farrell, and M. A. Wilkinson. 2012. Trends in the muskellunge populations and fisheries of Buffalo Harbor and the Niagara River. Lake Erie – upper Niagara River Fish Management Workshop. Sponsored by the Lake Erie Fisheries Unit and Region 9 Fisheries, New York State Department of Environmental Conservation

Kapuscinski, K. L. J. M. Farrell, and B. L. Sloss. 2012. Genetic population structure of muskellunge in the Great Lakes. American Fisheries Society Annual Meeting, St. Paul MN.

Killourhy, C. C., J. M. Farrell and H. B. Underwood. 2013. Does Nest Site Selection and Habitat Affinity Mediate Egg Predation risk for Sympatric Sunfishes? American Fisheries Society Annual Meeting, St. Paul MN. (one of top 20 nominated for AFS Best Student Paper Award)

Killourhy, C. C., John M. Farrell and H. Brian Underwood. 2013. Centrarchid Nest Predation on the St. Lawrence River Following Introduction of the Round Goby NY Chapter of American Fisheries Society Annual Meeting, Watertown NY

Leopold, M. A. and J. M. Farrell. 2012. Comparing sex ratios of northern pike between the St. Lawrence River and inland New York waters. American Fisheries Society Annual Meeting, St. Paul MN.

Barry, C. and J. M. Farrell. 2013. Anglers Giving Back: Development and Management of St. Lawrence River Fisheries Angler-funded, Long Term Research and Monitoring Poster Presentation NY Chapter of American Fisheries Society Annual Meeting, Watertown NY

Farrell, J. M., B. L. Brown, and G. Avruskin. 2013. The St. Lawrence River Fish Habitat Conservation Strategy: Evaluation of Habitat Enhancements and Development of Novel Restoration Approaches. Poster Presentation NY Chapter of American Fisheries Society Annual Meeting, Watertown NY

Farrell, J. M., B. L. Brown, and G. Avruskin. 2013. The St. Lawrence River Fish Habitat Conservation Strategy: Evaluation of Habitat Enhancements and Development of Novel Restoration Approaches. Cross-Disciplinary Seminar in Hydrological and Biogeochemical Processes, SUNY-ESF (invited).

Farrell, J. M., B. Brown and G. Avruskin. 2013. The St. Lawrence River Fish Habitat Conservation Strategy: Evaluation of Habitat Enhancements and Development of Novel Restoration Approaches. US Army Corps of Engineers Buffalo District (invited)

Farrell, J. M., B. Brown and G. Avruskin. 2013. The St. Lawrence River Fish Habitat Conservation Strategy: Evaluation of Habitat Enhancements and Development of Novel Restoration Approaches. Great Lakes Fisheries Commission Section Meeting. Canandaigua NY (invited).

Taylor, M., J. M. Farrell and M. A. Teece. 2013. Unwanted Neighbors: Using Diet and Isotope Analysis to Determine Food Web Integration of the Invasive Round Goby in Coastal Bays of the Upper St. Lawrence River. Spotlight on Student Research - Undergraduate Student Poster Session, Syracuse NY (Won Best UG Poster Award)

D. Public Service Presentations (lectures, seminars, etc. to and for the public; give group or occasion, date(s), and attendance)

Farrell, J. M. 2012. Status of the St. Lawrence River Muskellunge Population. Muskies Canada, Gananoque, Ontario (20 participants)

Crane, D. P., J. M. Farrell, and K. L. Kapuscinski. 2012. Spatially explicit modeling of upper Niagara River muskellunge spawning habitat. New York Chapter of Muskies Inc. Canandaigua, NY.

Farrell, J. M., Brandeis L. Brown, and Gillian Avruskin. 2013. The St. Lawrence River Fish Habitat Conservation Strategy: Evaluation of Habitat Enhancements and Development of Novel Restoration Approaches. Save the River Winter Environmental Weekend (80 participants).

Crane, D. P., J. M. Farrell, and K. L. Kapuscinski. 2013. Muskellunge spawning habitat in the upper Niagara River. Niagara Musky Association monthly meeting. Tonawanda, NY.

Thousand Islands Land Trust, Board of Directors Presentation on Habitat Restoration Programs at TIBS (15 participants)

American Ecological Engineering Society Meeting - 12th Annual Meeting – provided tour to meeting participants (10 participants)

Jefferson County Soil and Water Conservation District – provided tour of TIBS programs for annual retreat (14 participants)

Tour of restoration sites for the Braddock Bay Interagency Technical Committee May 2013 (eight participants)

Ichthyologist for a Day, Thousand Islands Land Trust, Kids Trek Program (20 participants)

Save The River, In the Schools Program – research experience for 6<sup>th</sup> grade students in North Country regional districts held at Wellesley Island State Park (60 participants)

## **V. PUBLIC SERVICE**

A. Funded Service (include consulting activities)

1. Government Agencies (Federal, State, Local):

NYSDEC, Esocid Workgroup Meeting, Organizer 9/16-17/2012

USFWS, Fisheries Advisory Group, Research Progress updates presentation (Cortland, NY)

Saint Regis Mohawk Tribe Environmental Division, onsite visit to Snye Marsh to consult on restoration effort

2. Industrial and Commercial Groups, etc.

Honeywell, Onondaga Lake Restoration

B. Unfunded Service to Governmental Agencies, Public Interest Groups, etc.

Cornell University – member of the Cornell Biological Station Advisory Board – attended CBFS Advisory Committee Meeting and provided recommendations on CBFS development.

NYSDEC – water levels research and policy – service to inform managers of research outcomes regarding water levels management influences on habitat and fauna

International Joint Commission– expert consulting on water levels issues

Thousand Islands Land Trust Zenda Farms Picnic, Provided live fish and poster displays as part of community event (June 2012; ~250 attendees)

Save The River, Clayton, NY, 2012 Board of Directors, advisory roles on environmental issues, development of teacher training initiative for North Country districts.

Ontario Ministry of Natural Resources – assisted with development of muskrat monitoring program.

International Joint Commission, participated as expert on 3 day Web dialogue to address questions online regarding Lake Ontario/St. Lawrence River water level regulation

Tour of culture facility – Chippewa Fish and Game Club

USFWS Partners for Fish and Wildlife Program – guidance on restoration project preliminary designs

Ducks Unlimited – restoration site tour to NOAA staff and Department of State staff.

## **VI. PROFESSIONAL DEVELOPMENT**

A. Professional Honors and Awards (for teaching, research, outreach, etc.)

B. 1. Activities in Professional Organizations (offices held, service as chairman, member, participant or consultant)

American Fisheries Society, Hutton Scholar Mentor for 2012 - applied to serve as mentor, sought applicants and an individual was awarded an 8 week scholarship to assist with research at TIBS (co-mentor with Chris Barry).

Board of Directors, Save The River Inc. – 1200 member Environmental Advocacy organization on the St. Lawrence River.

2. Professional Society Membership



American Fisheries Society (AFS), NY Chapter AFS, International Association of Great Lakes Researchers, Great Lakes Research Consortium, Society of Wetland Scientists

3. Other Professional Activities

a. Editorial activity

<u>Journal (s)</u>	<u>Responsibility</u>
J. of Great Lakes Research	Guest Editor for special issue on GL Connecting Channels

Other (books, symposia, etc.)

b. Reviewer

<u>Journal(s)</u>	<u>No. of manuscripts</u>
Journal of Great Lakes Research	6

<u>Agency</u>	<u>No. of proposals</u>
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Other

c. Participation (workshops, symposia, etc.)

<u>Name of workshop, etc.</u>	<u>Date</u>	<u>Place</u>
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C. Further Education/Re-training Undertaken, Leaves, Workshops, etc.

ESF Laboratory Safety Training  
Resilience of the Great Lakes GLRC ESF  
Esocid Workgroup Meeting TIBS

D. Foreign Travel (Where, When, Purpose)

France, Lyon June 2012 Service on Scientific Committee for International Sustainable Development of Rivers Conference. Serve as Session Chair and present at conference

**VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)**

A. Department-level

Served on Promotion and Tenure Committee

Mentored an Assistant Professor in EFB

Supervised two EFB funded Federal Work-study assistants at TIBS

Served with team with Kim Schulz, Neil Ringler, Brian Boothroyd and Don Leopold on execution of a \$1.4M NSF award to enhance EFB's aquatics program via improvements at CIRTAS and TIBS laboratory facilities and cyber infrastructure. Participated in numerous meetings and site visits and reporting and served as lead for TIBS component of project leading to renovation of laboratory. Now serving as lead for cyber infrastructure upgrades for TIBS.

Served as mentor to TIBS undergraduate intern (funded by EFB) who is completed research and presented and won 1<sup>st</sup> place for poster in Spotlight on Student Research Conference. Now working on publication.

Advised Undergraduate Honors Thesis Project for student examining zooplankton community structure and quality in lakes of eastern NY.

Served as supervisor for 22 employees working at TIBS over the summer including 5 staff, 9 undergraduates, 7 graduate students, and 1 High School student. Also supervised 5 undergraduates working in lab during academic year.

Taught the Senior Synthesis in Aquatic and Fisheries Science and developed new curriculum for this offering

Participated in the Accepted Student Reception held at EFB

#### B. College-level

Helped plan and organize all arrangements for the ESF Board of Trustees Meeting held at TIBS in September 2012. Organize a group of undergraduate and graduate student presentations to showcase research at TIBS and served as dinner speaker.

#### C. University-wide, including Research Foundation

Managed large research program with staff of RF. Submitted grant to RF for SUNY Collaboration.

### **VIII. SUMMARY OF SIGNIFICANT ACTIVITIES AND ACCOMPLISHMENTS DURING THIS REPORTING PERIOD, ESPECIALLY THOSE MOST NOTEWORTHY AND RELATIVE TO THE COLLEGE'S AND DEPARTMENT'S MISSION.**

#### Students

Providing quality research experience to students in my program was especially significant this reporting segment. During summer I supervised 22 students working at TIBS on the St. Lawrence River and nearly that many were working in our broader research group during the academic year. These students ranged from our own ESF grads and undergraduates and one student from Lemoyne College and one from Boston University and a Clayton area High School student who was mentored as an American Fisheries Society Hutton Scholar. One of the ESF summer students was awarded a TIBS undergraduate research fellowship through EFB and conducted independent research on the diet and food web integration of invasive round goby. The research was presented at the Spotlight on Student Research symposium and won Best Poster out of 94 entries and we are now publishing the work. I advised several other undergraduates on independent research including two honors students and had many working in my lab with staff and other students. For graduate students I advised or co-advised 10 students including two MS and one PhD that finished this past spring semester and I brought on three new MS students (one co-advised with Dr. Whipps) following a search process. These graduates are all employed in their field and one has a permanent position with the NJ Department of Environmental Protection and another is working with USGS. I published papers with students and sent them to conferences (~20 talks this period at science meetings and in the community) and involved them in several significant outreach and community interpretive events including a field research experience with a large group of 6<sup>th</sup> graders from area districts at the Wellesley Island Nature Center.

## Department/College

The facility improvements at TIBS are being realized and improving the quality of this campus. Following 8 years of fund raising in the community and elsewhere (that is continuing) the construction of the Frank Cean Researcher Building has started this past April at TIBS. This facility will provide student, faculty, and staff residence spaces, common areas, office and meeting spaces. During summer 2012 the boathouse was fully renovated with funding that stems from an NSF grant. We now have an advanced fish culture and holding capability and new laboratory and shop spaces to support faculty and student research. Other renovations include new roofs on all buildings and a well and updated septic system will be installed in summer 2013. At TIBS I hosted the ESF Board of Trustees Annual Meeting in September 2012. I We provided a series of scientific presentations to inform the board of active research and were involved with all the preparations for this enjoyable 2-day meeting. I taught one offering each semester this year. I also developed a new Senior Synthesis course for the Aquatic and Fisheries Society major offered this past spring. The course focused on professional development and also integration of concepts learned at ESF through a series of modules based on current issues in AFS. My service on the Promotion and Tenure Committee was demanding this year including three class evaluations and evaluation of three candidates. I also served with the renovation of the aquatics facility at the Center for Integrative Teaching and Research with numerous meetings and events related to the NSF grant. I also am leading an effort to provide cyber infrastructure to TIBS at part of that effort.

## Self/professional

I continued to have a significant research presence and led the Esocid Working Group and the St. Lawrence River Fish Habitat Conservation Strategy working with the major agencies, community groups and individuals. I remained active in collaboration with many scientific colleagues at ESF and beyond. I am serving as a Guest Editor for the Journal of Great Lakes Research helping to publish a special issue on the connecting channels of the Great Lakes with a group of colleagues. This is a significant collaboration bringing attention to these understudied habitats and has a focus on fish populations and habitat. During June 2012 I served on an International Scientific Committee for the International Sustainable Development of Rivers Conference at the University of Lyon in France. I also served as a session chair for the conference on Ecological Responses of River Restoration and Management and as a presenter. This was a rewarding experience meeting scientists from around the world who engage in river restoration, science and management.

## **IX. A. FUTURE PLANS, AMBITIONS, AND POTENTIAL CONTRIBUTIONS FOR YOUR OWN PROFESSIONAL DEVELOPMENT AND THE ENHANCEMENT OF THE PROGRAM IN ENVIRONMENTAL AND FOREST BIOLOGY (brief summary)**

For 2013 I will be engaged with three major research grants on the St. Lawrence. I will supervise a group of 20 students and staff in meeting research goals during summer, engage in development activities at the TIBS facility and work with collaborative research and outreach activities. I will teach a class each semester and serve on the P&T committee. I will be working with students on their independent research efforts and engaged in EFB and College activities and events.

## **B. PROJECTED ACTIVITIES FOR NEXT YEAR**

### 1. Summer 2013

#### a. Course(s) to be offered

EFB 388 Adirondack Fish Ecology

#### b. Proposed research activity

Completing field and laboratory study obligations for three major grants.

c. University, professional society, and public service

Service as director of TIBS

2. Fall Semester 2013

a. Course(s) to be offered

EFB 681 Aquatic Restoration and Management

b. Proposed research activity

Completing field and laboratory study obligations for three major grants.

c. University, Professional society, and public service

3. Spring Semester 2014

a. Course(s) to be offered

EFB 486 Senior Synthesis in AFS

b. Proposed research activity

c. University, professional society, and public service