

ANNUAL REPORT: June 1, 2009 – May 31, 2010
(i.e., Summer 2009, AY 2009-2010)
DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY
SUNY-ESF

NAME: Neil H. Ringler

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	Ecology of Adirondack Fishes	3	12	1
FALL:	FB 554	Aquatic Entomology	3	16	1
SPRING:	EFB 385	Comparative Vertebrate Anatomy	4	51	2

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>
EFB 899	Master's Thesis Research	11	4
EFB 999	Doctoral Dissertation Research	5	14
EFB 798	Graduate Independent Research	2	4
EFB 498	Undergraduate Independent Research	6	2
EFB 495	Undergraduate Teaching	5	3

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>
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II. STUDENT ADVISING

A. Number of undergraduates for whom you are the student's official advisor 0 and unofficial advisor 1

B. Graduate Students: (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

Steven Tyszko, M.S. May 2010 Assessment of black bass populations in a perturbed Lake, Onondaga Lake, New York.

Lucas Kirby, PhD Fall 2009

Stephanie Johnson, PhD Fall 2009

Andrew Miller, MS Fall 2009

Stephanie Kroll, PhD Spring 2010

Michael Connerton, Ph.D. January 1996 (NYDEC biologist)

Mary Penny, M.S. January 2003 (medical/family leave; returned Spring 2010)

Daniel Gefell, Ph.D. December 2003

CO-MAJOR PROFESSOR

Brandies Brown, M.S. January 2007 (With Dr. Kimberly Schulz)

MEMBER, STEERING COMMITTEE (other than those listed above)

Jason Hamadi MS

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

Chair, Ph.D. Candidacy Exam Ms. Tanushree Chowdhury

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)

U.S. Environmental Protection Agency \$1,500,000 Central New York District Cooling Project 1/1/07 – 12/30/09; extended to 06/30/10 (Neil Ringler as Co-PI; Kim Schulz Co-PI; Dr. James Hassett as PI) Supporting Tony Siniscal (as Instructional Specialist)

Honeywell, Inc. \$175,121 5/28/09 – 05/30/10. Onondaga Lake Biological Assessment and Monitoring. Supporting Lucas Kirby, Steve Tyszko, Stephanie Johnson, Ian Harding (undergraduate), Craig Thompkins (undergraduate)

2. Research Proposals pending (as in B.1., above)
 - a. \$1,757,801 ARRA Illick/TIBS: "Renovation of wet labs and cyber-infrastructure to enhance integrated research and teaching in aquatic science at SUNY ESF". ok'd for NSF funding with Project Execution plan underway
 - b. Honeywell, Inc. \$175,000 6/1/10 – 05/31/11. Onondaga Lake Biological Assessment and Monitoring; ok'd for next year

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

Murray, B. A., M. J. Connerton, R. O’Gorman, D. J. Stewart and N. H. Ringler. 2009. Lakewide estimates of alewife biomass and Chinook salmon abundance and consumption in Lake Ontario, 1989-2005: Implications for prey fish sustainability. *Trans. Am. Fish. Soc.* 139:223-240.

Connerton, M. J, B.A. Murry, N.H. Ringler and D.J. Stewart. 2009. Temporal changes in the contribution of wild Chinook salmon (*Oncorhynchus tshawytscha*) to the Lake Ontario sport fishery 1989-2995: Implications to stocking decisions. *Journal of Great Lakes Research* 35:419-429.

B. Non-refereed Publications

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

Tyszko, S. M. and N. H. Ringler. 2009. The feasibility of using electro-fishing to estimate population density of largemouth bass in a large lake. Oral presentation. 139th meeting of the American Fisheries Society. September 2, Nashville, TN.

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

V. PUBLIC SERVICE

A. Funded Service (include consulting activities)

1. Government Agencies (Federal, State, Local):
2. Industrial and Commercial Groups, etc.

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

NYDEC Onondaga Lake Technical Committee (Littoral Habitat); presentations to Onondaga County and Onondaga Lake Fisheries Advisory Committee

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)

2. Professional Society Membership

AAAS
Sigma Xi
American Fisheries Society
American Institute of Fishery Research Biologists

3. Other Professional Activities

a. Editorial activity

<u>Journal (s)</u>	<u>Responsibility</u>
Ecology of Freshwater Fish	Associate Editor
<u>Other (books, symposia, etc.)</u>	

b. Reviewer

<u>Journal(s)</u>	<u>No. of manuscripts</u>
<u>Aquatic Biology</u>	(1)
<u>Journal of Great Lakes Research</u>	(1)
<u>Ecology of Freshwater Fish</u>	(1)

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

c. Participation (workshops, symposia, etc.)

Name of workshop, etc.

Date

Place

C. Further Education/Re-training Undertaken, Leaves, Workshops, etc.

D. Foreign Travel (Where, When, Purpose)

Xalapa, Mexico; March 14-18, 2010. Development of MOU between ESF and INECOL and initiation of research proposal plans for cloud forest ecology with scientists of INECOL

VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)

A. Department Level

Advisor, Student Chapter, American Fisheries Society

B. College-level

Advisor, Alpha Xi Sigma Honor Society

Host/Coordinator: Faculty Mentoring Conference/Workshop: "Faculty Excellence and Maximum Impact" Drumhins
January 6, 2010

Coordinator of College-wide research proposals for instrumentation, infrastructure, and bio-energy programs, including
CNY Biotechnology Center and Syracuse Center of Excellence

C. University-wide, including Research Foundation

"Research at ESF: Diversity with Focus" Presentation to Syracuse University and Brookhaven National Laboratory
November 5, 2009

"Research at ESF" Presentation and participation, ESF visit to Institute of Ecology, Xalapa, Mexico March 14-18,
2010

"Research at ESF" Host and Presenter, for Entrepreneurs and Resource Managers from Russia, May 27, 2010

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. One paragraph on each of the following would be most helpful: this past year, what have you done for our students, department/college, and self professionally? NOTE: The information in this section (along with the supporting specific information

elsewhere in this report) should be your strongest case for being considered for a discretionary raise, which I'll continue to award based on your contributions to the department and college this reporting period.

I taught EFB courses in fish ecology, aquatic entomology and comparative anatomy. Steve Tyszko completed his Master's degree this year, and two Master's graduates from last year pursued doctorates on Onondaga Lake studies. A new student studying watersheds in Spain joined the doctoral group as well, with an additional student from NYDEC's Bio-monitoring unit, beginning in August, 2010 (co-major with Karin Limburg). Studies of Onondaga lake and its tributaries have flourished based on teamwork among ESF, Honeywell and consulting scientists and engineers. Two papers will be presented at the North American Benthological Society meetings in Salt Lake City in June, 2010. We are making important recommendations on the habitat enhancements of this perturbed ecosystem, and plan to publish significant scientific results of interest at the national level. I shared this work during May, 2010 at the University of Alaska, Anchorage and at the University of Louisiana, Lafayette. I worked with Chairman Leopold, Don Stewart and others to assist the Carpenter's Brook Fish Hatchery during its County budget crisis.

Contributions at the College level included the team search and successful capture of three fine scientists as part of the Empire Innovation Program. College-level activities that connect closely with EFB included development and hosting of the Faculty Mentoring Conference, "Faculty Excellence and Maximum Impact," at Drumlins January 6, 2010. We initiated a new "3rd party" program to commercialize intellectual property (Foresight, Inc.), including that developed by EFB scientists. The addition of a new Research Foundation Technology Transfer person (Patrick McCloskey) to work with Upstate Medical University and ESF will help all programs, including EFB. Working with the College-wide Committee on Research has proven very valuable as we further develop the Exemplary Researcher, Seed Grant and McIntire-Stennis programs, and we completed appropriate policy documentation including ORP Policy 10: "Data Ownership," and ORP Policy 11: "Guidelines and Procedures for Establishment of Centers and Institutes...." Work with the Syracuse Center of Excellence contributed to enhance research connectivity with the Brookhaven National laboratory, which will provide future opportunities in biology and ecology. Our visit to INECOL in Xalapa, Mexico was a highlight of our semester, and hopefully will be followed with significant long-term research in cloud forest communities.

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)

My graduate students and I are expanding research in the restoration of fish and invertebrate habitats in Onondaga Lake, and we are beginning to take a more comparative, synthetic approach. A new graduate student will undertake an assessment of predation on juvenile Pacific salmon in the lower Salmon River, eastern Lake Ontario, in conjunction with USGS. Teaching plans for the coming year include comparative anatomy and aquatic entomology. These subjects continue to interest our EFB students, and have provided excellent opportunities for teaching and mentoring of graduate students (and undergraduate TA's). An undergraduate supported on the new CLBS fellowship will spend the summer expanding an aquatic invertebrate data base on behalf of ESF and the NYDEC Bio-monitoring Unit.

B. PROJECTED ACTIVITIES FOR NEXT YEAR

1. Summer 2010

a. Course(s) to be offered:

b. Proposed research activity: Continued studies of Onondaga Lake: habitat analysis, invertebrate ecology, fish and trophic ecology, remediation prediction and success. Analysis of the role of predation on Pacific salmon in tributaries of Lake Ontario.

c. University, professional society, and public service

2. Fall Semester 2010

a. Course(s) to be offered: EFB 554 Aquatic Entomology

b. Proposed research activity: as above

c. University, Professional society, and public service: as in previous year

3. Spring Semester 2011

a. Course(s) to be offered: EFB 385 Comparative Vertebrate Anatomy

b. Proposed research activity: as above

c. University, professional society, and public service: as in previous year