

ANNUAL REPORT: June 1, 2011 – May 31, 2012
(i.e., Summer 2011, AY 2011-2012)
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:					
FALL:	EFB 554	Aquatic Entomology	3	14	1
SPRING:	EFB 385	Comparative Vertebrate Anatomy	4	38	2

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 courses currently listed with service-learning components include: 416/6/1, 486, 518, 521, 532, 446/646.

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>
FALL:	EFB 899	Master's Thesis Research	6	4
	EFB 999	Doctoral Dissertation Research	6	6
	EFB 495	Undergraduate Teaching	3	3
	EFB 498	Undergraduate Research	6	3
SPRING:	EFB 899	Master's Thesis Research	14	3
	EFB 999	Doctor Dissertation Research	6	6
	EFB 495	Undergraduate Teaching	5	11
	EFB 498	Undergraduate Research	1	4

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>
	Adirondack Ecological Center/Nature Center Seminar Series- Fly Fishing workshop (fish, aquatic insects, equipment and casting) June 2011	

II. STUDENT ADVISING

- A. Number of undergraduates for whom you are the student's official advisor 0 and unofficial advisor 2
- 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

Lucas Kirby, PhD August 2009

Stephanie Johnson, PhD August 2009

Stefanie Kroll, PhD December 2009 Degree completed Spring 2012.

Kroll, S.A. 2012. The influence of climate and flow regulation on aquatic macroinvertebrate communities. Ph.D. Dissertation. SUNY College of Environmental Science and Forestry, Syracuse, NY. 134 p.

Daniel Gefell, PhD December 2003; restarted December 2011

Michael Connerton, PhD December 1996 (NYDEC Biologist)

Andrew Miller, MS August 2009

Mary Penny MS/MPS August 2003 (Medical and family leave). Degree completed (MPS) Spring 2012

Curtis Karboski, MS December 2010

CO-MAJOR PROFESSOR

Christopher Legard, MS August 2011 with Karin Limburg

Alexander Smith, PhD December 2010 with Karin Limburg

MEMBER, STEERING COMMITTEE (other than those listed above)

Jason Hamadi, MS

Eric Bauer, MS

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

Examiner, Ian Gereg, MS Spring 2012

Examiner, Rita S. Oliveira Monteiro, PhD December 2011

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)

PI/Co-PI	Sponsor	Amount	Dates	Title
PI	Honeywell, Inc.	\$703,535	1/15/08 – 6/30/13	Onondaga Lake Biological Assessment and Monitoring (~ \$ 175,000 Fisheries 2011-12)
Co-PI	NYS DEC	\$115,888	6/1/09 – 5/31/12	Assessment of Lake Sturgeon Stocking in the Oswego Basin
Co-PI	NSF	\$275,335	1/1/10 – 12/31/14	Collaborative Research: Impacts of In-Stream Restoration on Hydrological, Chemical and Biological Heterogeneity in the Hyporheic Zone
PI	NSF	\$1,470,000	10/1/10 – 9/30/13	Renovation of Wet Labs and Cyber-Infrastructure to Enhance Integrated Research and Teaching in Aquatic Science at SUNY ESF
PI	USDA McIntire Stennis Program	\$544,532	10/1/11 – 9/30/12	McIntire Stennis Program
PI	USDA FS	\$13,500	9/22/11 – 12/31/13	Enhanced Effectiveness of Planning and Managing Urban Forest Ecosystems
PI	Cornell	\$10,000	5/18/12 – 8/31/12	Relative Abundance of Blueback Herring (<i>Alosa aestivalis</i>) in Relation to Permanent and Removable Dams on the Mohawk River

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

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

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

B. Non-refereed Publications

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

Johnson, S. L., L. Kirby, N H. Ringler and M. M. Murphy. Using passive sonic receivers to understand habitat utilization of walleye in the tributaries and outlet of Onondaga Lake, Syracuse, NY. 141st Annual Meeting, American Fisheries Society, Seattle, WA. September 2011.

Kirby, L. S. L. Johnson and N. H. Ringler. Using sonic telemetry to track walleye movement within Onondaga Lake in Syracuse, NY during biweekly 24-hour surveys. 141st Annual Meeting, American Fisheries Society, Seattle, WA. September 2011.

Legard, C. D., N. H. Ringler, J. H. Johnson and H. G. Ketola. Estimating the embryonic survival of brown trout in the Salmon River, NY. Northeast Natural History Conference, Syracuse NY. April 2012.

Miller, A. D. , J. H. Johnson, and N.H. Ringler. Predation on naturally-produced Chinook salmon parr in the Lower Salmon River, New York. Annual Meeting, American Fisheries Society, 141st Annual Meeting, Seattle WA. September 2011.

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.

SUNY Maritime College, Throgs Neck, NY: Program Review: Biological Sciences November 11, 2011

Onondaga Lake Habitat committees: Assistance tied to graduate mentoring program

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 Scientists

3. Other Professional Activities

a. Editorial activity

<u>Journal (s)</u>	<u>Responsibility</u>
Ecology of Freshwater Fish	Associate Editor

b. Reviewer

<u>Journal(s)</u>	<u>No. of manuscripts</u>
J. Freshwater Ecology	1
N. A. J. Fisheries Management	1
Ecology of Freshwater Fish	1
J. Fish Biology	1

<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>
SUNY Distinguished Teaching Professors	May 22, 2012	Albany, NY

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

D. Foreign Travel (Where, When, Purpose)

VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)

A. Department-level

B. College-level

Ex-Officio Committee on Research
Mentoring Conference January 2012

C. University-wide, including Research Foundation

SUNY/RF: Research Council
SUNY/RF: Research, Innovation and Entrepreneurship Committee
SUNY/RF: Research Officers

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.

I taught EFB courses in Aquatic Entomology and Comparative Vertebrate Anatomy, which featured strong students as well as capable teaching assistants at graduate and undergraduate levels. One doctoral student (Stefanie Kroll, now at Cornell U. for Post-doc) and one MPS student (Mary Penney, NY Sea Grant) completed their degree requirements, with three more scheduled for completion before the end of the year. Onondaga Lake, Salmon River and Mohawk River projects have proved valuable not only to seven graduate students, but to the team of interns as well. USGS funding handled by the Great Lakes Research Consortium continues to be productive seed funding on Salmon River studies. Helping to facilitate a new agreement with NYDEC to bring the New York National Heritage Program under the ESF/RF umbrella should prove of long-term value to EFB, ESF and the natural resources that the program supports. Construction has actually begun on the NSF \$1.47 M grant to modernize the aquatic labs at the Thousand Islands Biological Station and Illick Hall. The Center for Teaching and Research in Aquatic Sciences is coming to fruition through teamwork by Kim Schulz (future Director), Brian Boothroyd, John Farrell, Don Leopold, Chris Whipps and the Office of Research Programs. Clearing of the old laboratory facility (232 Illick Hall) proved intriguing, including recovery of valuable samples of aquatic insects and fish.

College-level events of importance to EFB include the \$22 M Biotechnology Research Center, scheduled for completion in December, 2012. Although recently advertised as a "Biotechnology Accelerator" to attract startup companies, the new facility should provide opportunities for collaborative EFB research, for example, in microbiology. A biofuels research and development laboratory earlier targeted for the Center of Excellence Building is also intended for the new facility. The Hill Collaboration in Environmental Medicine (ESF, Upstate Medical University, Veterans Administration Hospital, Syracuse University, with support from SUNY-RF) successfully secured \$60,000 as seed funding for collaborative studies of cancer, diabetes and disorders of the nervous system. An initiative in Warrior Research is especially encouraging. The new arrangement with SUNY Binghamton serving ESF's needs and opportunities in Technology Transfer has greatly accelerated new technology disclosures and the patent process. Our College-wide Mentoring Symposium hopefully provided all of the faculty attending (and some graduate students!) an opportunity to think more about mentoring opportunities and challenges. The marvelous presentation and planting of blight-resistant chestnut trees by Bill Powell and Chuck Maynard (@ NY Botanical Garden) was a highlight for EFB and the entire College.

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)

Two manuscripts are virtually ready to send, and my research group is pushing to bring several others to fruition this year. We have support for another season of habitat and fisheries analysis on Onondaga Lake. Two high school-level audiences will participate in fisheries surveys this June and July, and perhaps some of those students will matriculate to ESF. A goal made last year to create more opportunity for ESF centers and institutes was partially recognized, particularly with the opening of the Institute for Sustainable Materials and Manufacturing, now highly supported through NYSERDA. In addition, a new entity was created known as Trinity Institute for Sustainable Energy and Water Systems, which uniquely joins the Village of Minoa, ESF and a private firm to solve water management issues. Meetings with existing Center/Institute Directors continue, and a Symposium that highlights the diverse opportunities of these units is planned. The Biotechnology Research Center (“Biotechnology Accelerator”) will come on line in December 2012, providing a new set of spaces for biological research. We anticipate synergy between the BRC and the nearby Center of Excellence, particularly since one of the biofuels research labs is to be located in the new building. Both of these facilities will play a role as ESF contributes to as many as three \$5 M proposals that address NYSERDA Proof-of-Concept Centers.

B. PROJECTED ACTIVITIES FOR NEXT YEAR

1. Summer 2012

a. Course(s) to be offered

b. Proposed research activity

Salmon River brown trout: constraints on reproduction; Mohawk River herring; Onondaga Lake habitat and fisheries; NSF/CIRTAS; seven graduate programs

c. University, professional society, and public service

2. Fall Semester 2012

a. Course(s) to be offered

EFB 554 Aquatic Entomology

b. Proposed research activity

Salmon River brown trout: constraints on reproduction; Mohawk River herring; Onondaga Lake habitat and fisheries; NSF/CIRTAS; seven graduate programs

c. University, Professional society, and public service

SUNY/RF: Research Council

SUNY/RF: Research, Innovation and Entrepreneurship Committee

SUNY/RF: Research Officers

3. Spring Semester 20113

- a. Course(s) to be offered

EFB 385 Comparative Vertebrate Anatomy

- b. Proposed research activity

Salmon River brown trout: constraints on reproduction; Mohawk River herring; Onondaga Lake habitat and fisheries; NSF/CIRTAS; seven graduate programs

- c. University, professional society, and public service

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