

**ANNUAL REPORT: June 1, 2010 – May 31, 2011**  
**(i.e., Summer 2010, AY 2010-2011)**  
**DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY**  
**SUNY-ESF**

**NAME:** NEIL H. RINGLER \_\_\_\_\_

**I. INSTRUCTIONAL ACTIVITIES**

1. Regular Course Offerings

Course No.	Title	Credit Hrs.	No. Students	No. of Lab. Sections
SUMMER:				
FALL: EFB 554	Aquatic Entomology	3	14	1
SPRING: EFB 385	Comparative Vert. Anatomy	4	47	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)

Course No.	Title	Credit Hrs.	No. Students
EFB 899	Master's Thesis Research	9	3
EFB 999	Doctoral Dissertation Research	16	5
EFB 498	Undergraduate Independent Research	12	7
EFB 495	Undergraduate Teaching	7	3

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

4. Guest Lecture Activities

Course No.	Title	No. of Lectures
	Field Laboratory in Aquatic Entomology for Multicultural Students August 2010 Chittenango Creek NY	

**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 Fall 2009

Stephanie Johnson, PhD Fall 2009

Stephanie Kroll, PhD Spring 2010

Daniel Gefell, PhD December 2003; restarted Spring 2011

Michael Connerton, PhD January 1996 (NYDEC Biologist)

Andrew Miller, MS Fall 2009

Mary Penny MS 2003 medical/family leave; returned 2010)

CO-MAJOR PROFESSOR

Alexander Smith, PhD Spring 2011 with Karin Limburg

MEMBER, STEERING COMMITTEE (other than those listed above)

Jason Hamadi MS

Lydia Bilodeau MS

Phil Barber MS

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

DeAnn Barnhart (Chairman)

Binglei Gong (Chairman)

**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	NSF	\$1,470,000	10/1/10 – 9/30/13	ARRA Renovation of Wet Labs and Cyber-Infrastructure to Enhance Integrated Research and Teaching in Aquatic Science at SUNY ESF
PI	USDA McIntire-Stennis	\$584,532	10/1/10 – 9/30/11	McIntire Stennis FY 10-11 <u>Supporting</u> ESF Graduate Students in several Departments
Co-PI	NSF	\$125,897	1/1/10 – 12/31/11	Collaborative Research: Impacts of In-Stream Restoration on Hydrological, Chemical, and Biological Heterogeneity in the Hyporheic Zone. <u>Supporting</u> Jason Hamadi (Kathy McGrath, MP)
PI	Honeywell, Inc.	\$528,194	1/15/08 – 6/30/11	Onondaga Lake Biological Assessment and Monitoring: <u>Supporting</u> Lucas Kirby, Stephanie Johnson, Stephanie Kroll, Andrew Miller
Co-PI	US EPA	\$1,488,000	1/1/06 – 6/30/11	Central New York District Cooling Project. <u>Supporting</u> (in part) Dan Gefell, Tony Siniscal, Stephanie Johnson, Lucas Kirby
PI	USDA Forest Service	\$78,000	8/29/06 – 8/29/11	Enhanced Effectiveness of Planning and Managing Urban Forest Ecosystems

**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

Nack, C.C., B. A. Murray, M. J. Connerton and N. H. Ringler 2011. Contribution of wild-origin Chinook salmon (*Oncorhynchus kisutch*) to the spawning run in the Salmon River, NY. *J. Freshwater Ecology* 26(1): 25-31

B. Non-refereed Publications

B. Papers Presented at Science Meetings (give title, date, occasion, and location) (Student Presentations):

Kirby, Lucas, Stephanie L. Johnson, Neil H. Ringler, and Margaret H. Murphy. Analysis of Substrate Utilization by Fish, Macro-invertebrates and Aquatic Macrophytes in Onondaga Lake, NY. Presented at American Fisheries Society National Meeting, Pittsburg PA.12-16 September 2010.

Tyszko, Stephen M., Neil H. Ringler, and Karin E. Limburg. Modeling Largemouth Bass Growth Following Improvements in Wastewater Treatment in a Recovering Urban Lake. Presented at the 140<sup>th</sup> annual meeting of the American Fisheries Society, Pittsburgh, PA, 12–16 September 2010.

Griffin, Nicholas and Neil H. Ringler. Aquatic Macroinvertebrate Drift Dynamics in Two Streams in the Adirondack Park, NY Presented at the Finger Lakes Institute Research Conference, September 10 2010.

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.

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

Assistance to Onondaga Lake Habitat committees as part of 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>
<u>Ecology of Freshwater Fish</u>	Associate Editor

b. Reviewer

<u>Journal(s)</u>	<u>No. of manuscripts</u>
<u>Transactions of the American Fisheries Society</u>	1
<u>Aquatic Biology</u>	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>
ESF Faculty Mentoring Symposium	January 2011	Drumlins, Syracuse 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

a. Ex-officio IACUC

- B. College-level
  - a. Ex-Officio Committee on Research
  - b. Mentoring Conference January 2011 Drumlins
  
- C. University-wide, including Research Foundation
  - a. Research Committee SUNY Research Foundation
  - b. Budget Committee SUNY

**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 Aquatic Entomology and Comparative Anatomy this year and the students were among the strongest that I have worked with for many years, including the undergraduate TA's. Of the seven graduate students in my group, three completed their doctoral candidacy exams, and one is preparing for early fall. Karin Limburg and I brought in a doctoral student this spring, and another master's student will matriculate in the fall to work on apparent failure of brown trout reproduction in the Salmon River. Our Onondaga Lake and Salmon River studies included five undergraduate interns. We submitted four manuscripts, with one accepted and two in revision. With team Schulz, Boothroyd, Farrell, Leopold, Whipps, and ORP, we landed and began to execute the NSF \$1.47 M project to rebuild aquatic labs in Illick Hall, and to provide the facilities for a new Center for Integrated Research and Teaching in Aquatic Sciences (Schulz, Director). We plan to bring this Center to Academic Council for formal approval in the next few months.

With regard to College-level activities of importance to EFB, policies on Data Ownership and Data Management were completed, in cooperation with the very active Committee on Research (J. Frair, Chair). That College-wide committee also provided recommendations with regard to McIntire Stennis awards, Seed Grants, Exemplary Researcher Award and (fall only this year!) Travel Awards. I coordinated the Mentoring Symposium in which EFB played a prominent role side-by-side with other Departments, and presented many EFB programs to the NY Academy of Sciences in March in NYC, to representatives of Anaturk University (Turkey), and to Honorary Doctorate recipient Dr. Roger Sedjo. I contributed to the planning of the Biotechnology Symposium scheduled for June 2-3, and helped initiate a new NIH-based research theme with the Vice Provosts/Presidents at UMU, SU, ESF and the VA Hospital. A long-term commitment to the Biofuels "foot print" in the Center of Excellence building will hopefully provide new venues for several EFB research endeavors, and has already given us new opportunities for collaboration among Departments. The final report on the \$1.49M Coolwater Project was completed, which supported several graduate students and created new potential solutions to energy savings for the CNY region. A new Technology Transfer initiative at ESF that links with Binghamton University should ultimately provide swifter, cost-effective pathways to patents and commercial licensing opportunities.

**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)**

We will work to publish our work on Onondaga Lake habitat analysis and fish population dynamics, as well as continue an integrated program of studies on this unique system. Our work on salmon predation in the Salmon River 'estuary' will complement that of a long-term data base on the upper river; a new project is planned to understand the remarkable lack of natural reproduction by brown trout. These studies are supported, in part, through a USGS grant administered by the Great Lakes Research Consortium. Work planned at the College level that supports EFB programs includes increased energies devoted to courses in Aquatic Entomology and Comparative Anatomy, a Symposium for College Centers, a set of interactive meetings with Center/Institute Directors to stimulate research, and assistance with a Biotechnology Retreat. ORP will actually focus its retreat theme this year on ways to stimulate and highlight the work of our ESF Centers, many of which reside or contribute to the EFB missions. A recent initiative to bring Upstate Freshwater Institute and the Onondaga Environmental Institute as affiliates of ESF, expanding its research footprint, should also contribute to EFB.

**B. PROJECTED ACTIVITIES FOR NEXT YEAR**

1. Summer 2009

a. Course(s) to be offered

c. Proposed research activity

Onondaga Lake; Salmon River; NSF/CIRTAS; eight Graduate Programs

c. University, professional society, and public service  
SUNY RF Research, Innovation and Entrepreneurship Committee

2. Fall Semester 2009

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

d. Proposed research activity

Onondaga Lake; Salmon River; NSF/CIRTAS; nine graduate programs

c. University, Professional society, and public service  
SUNY RF Research, Innovation and Entrepreneurship Committee

3. Spring Semester 2010

a. Course(s) to be offered

EFB 385 Comparative Vertebrate Anatomy

b. Proposed research activity

Onondaga Lake; Salmon River; NSF/CIRTAS eight graduate programs

- c. University, professional society, and public service

SUNY RF Research, Innovation and Entrepreneurship Committee