

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

**NAME:** Gregory McGee

**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 202	Eco Monitoring Biodivers Assess	3	145	2
FALL:	EFB 102	General Biology I Laboratory	1	252	15
	EFB 132	Freshman Orientation Seminar	1	112	2
SPRING:	EFB 104	General Biology II Laboratory	1	166	10

**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>
EFB 495	Undergrad Exp. College Teaching	2	22

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>
	Human Sexuality	1

## **II. STUDENT ADVISING**

- A. Number of undergraduates for whom you are the student's official advisor \_21\_ and unofficial advisor \_3\_
- 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

### CO-MAJOR PROFESSOR

### MEMBER, STEERING COMMITTEE (other than those listed above)

Keith Bowman  
James Costello  
John Wiley  
Lindsay Nystrom  
Meredith Kane  
Mary Penney

### CHAIRMAN OR READER ON THESIS EXAMS, ETC.

Lee Davis – MS Thesis Examiner  
Portia Osborne, MS Thesis Examiner  
Frances More, MS Thesis Examiner  
Huiran Jin, Chair, PhD Candidacy Examination Committee

## **III. RESEARCH COMPLETED OR UNDERWAY**

- A. Departmental Research (unsupported, boot-legged; title - % time spent)  
I continued three unfunded, experimental trials to restore forest understory vegetation using volunteer labor. These trials are located at Heiberg Forest, a municipal forest in the Town of Skaneateles, and a forest preserve in Geneva that is owned and managed by the Finger Lakes Land Trust. A graduate student (Meredith Kane) is currently using two of the sites for her thesis research and one undergraduate student (Courtney Klunder) has begun an independent research project using the sites. I continue to use these sites for General Biology laboratory (EFB102) instruction, and enlist the General Biology students to carry out experimental seeding of several native forest wildflower species.
- 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)
2. Research Proposals pending (include information as in B.1., above).  
Abrams, N.A., McGee, G.G., Hogan, E., Luzadis, V., Leopold, D.J. and Boyer, G. "Integrated Knowledge-based Experiences for First-Year Biology and Chemistry Laboratories." NSF-TUES \$192,320

3. Research Proposals submitted, but rejected (include information as in B.1, above)  
Abrams, N.A., McGee, G.G., Hogan, E., Luzadis, V., Leopold, D.J. and Stipanovic, A. "Integrated Knowledge-based Experiences for First-Year Biology and Chemistry Laboratories." NSF-TUES \$192,444

**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

Keeton, W.S., A.A. Whitman, G.G. McGee and C.L. Goodale. **In Press**. Late-successional biomass development in northern hardwood-conifer forests of Northeastern United States. Forest Science.

Hough, M. and G.G. McGee. **In Review**. Forest herbaceous layer community recovery in post-cultivation woodlands of New York State, USA. Journal of Ecology.

B. Non-refereed Publications

McGee, G.G. and M.J. Mitchell. **In Press**. Assessment of nitrogen and acid deposition impacts to terrestrial and aquatic ecosystems of the Tug Hill. Prepared for the New York State Energy Research and Development Authority.

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

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.

Skaneateles Conservation Area Advisory Committee (member)

Finger Lakes Land Trust Preserve Management Committee (member)

## 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

Association for Biology Laboratory Education

3. Other Professional Activities

a. Editorial activity

Journal (s)

Responsibility

Other (books, symposia, etc.)

b. Reviewer

Journal(s)

No. of manuscripts

Agency

No. of proposals

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)

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

### A. Department-level

- EFB CCAC
- ENB assessment team
- Coordinator, Freshmen Pre-Orientation Adirondack Experience
- CLBS Fellows Selection Committee, w/ C. Whipps
- Burgess Award Selection Committee, w/ M. Dovciak
- Participated in Transfer Student Orientation/Registration in January
- Accepted Student Reception (3/5/11; 3/26/11)

### B. College-level

- Learning Community Management Team
- Freshman/Transfer Orientation Team
- Faculty Governance Committee on Instruction – Subcommittee on General Education.
- ESF Graduate Assistant Colloquium – facilitated workshops on Teaching Strategies for Laboratory and Field Experiences (w/ A. Stipanovich, 8/25); and Evaluating Written Work (8/26).
- Search Committee – Director of Student Activities
- Search Committee – General Chemistry Laboratory Coordinator
- Faculty Governance Committee on Student Affairs, Chair
- Middle States Commission on Higher Education, Self Study Draft Campus Review Focus Group Participant for Study Group 2 (Governance and Administration)
- McIntire-Stennis Proposal Review
- ESF/SU Commencement Marshal, May 15.

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

**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.

This year I continued to modify and improve aspects of the General Biology labs to better build student capabilities in scientific inquiry, communication and laboratory skills. With the help of a couple graduate student assistants, I continued modifying protocols and instruction on an introductory genetics lab, and a basic biochemistry lab. I continued to devote substantial effort to developing technical writing skills, and teaching laboratory techniques, including microscopy, sterile transfer methods, and molecular methods. As with past years, EFB102 students were examined on their laboratory proficiencies through a one-on-one exam with their instructors. This year 87% of students scored higher than 70 (compared to 95% last year), and 39% scored higher than 90 (compared to 55% last year). Even with the lower overall student performance (reflecting an increased level of difficulty in the exam) the exam demonstrates that the students are developing basic laboratory skills. This year I placed a greater emphasis on developing the instructional roles of undergraduate teaching assistants by increasing expectations for weekly participation in instruction, and having the undergraduates lead review sessions and facilitate writing and peer-review

workshops. I believe these measures enriched the learning experience for the undergraduate assistants and the students clearly benefited from their good work.

Throughout the year, Neal Abrams and I continued to coordinate our general chemistry and biology laboratory instruction in an effort to reinforce common concepts and develop meaningful context for student inquiry. For instance, we integrated our first two autumn chemistry and biology labs to link instruction on field and laboratory techniques, and obtain common datasets that can be applied to both courses in an effort to build student capabilities to synthesize information and skills across disciplines. In addition, Neal, Betsy Hogan and I recently resubmitted an NSF-TUES proposal to explore student learning gains of an integrated introductory chemistry/biology/writing experience.

This year I continued to develop continuity between the General Biology laboratories and EFB202 with regard to student command for the scientific method. General Biology students are instructed on aspects of hypothesis development, experimental design and data interpretation in manners that lay the groundwork for a more successful EFB202 experience. Through my involvement in EFB202 I continue to coordinate assessment of student learning outcomes for several departmental majors.

Last summer I worked to coordinate another iteration of the Adirondack Pre-Orientation Experience for the incoming freshman class. However I cancelled the program after only three students registered. I thought this program was successful in its first year (2009) and so I intend to continue developing it. I am working with the AEC staff to offer the experience this August and will try some different marketing approaches to develop more student interest.

My service to the college took a variety of forms this year. I continued to enjoy my participation on the ESF Learning Community Team. As a member of the COI Subcommittee on General Education, I reviewed numerous student petitions for General Education courses. I worked with a very productive departmental course and curriculum coordination committee to review course descriptions, establish the new two-semester course sequence in biodiversity and propose the new Environmental Biology Minor.

**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)**

Now that the biology lab activities are largely planned out and a system of administering the course is in place, I plan to take opportunities to increase contact with EFB students by regularly instructing more lab sections and to work on improving the preparedness and effectiveness of the graduate teaching assistants. Furthermore, I intend to make further strides in integrating the general biology and chemistry labs with Neal Abrams and to coordinate instruction on analytical and scientific writing with Dawnelle Jager (Writing Center Director) this coming autumn. Additionally, I am looking forward to chairing the new Faculty Governance Committee on Student Life. However, my priority this year will be to reestablish a research program in forest ecosystem management and restoration that supports both graduate and undergraduate research opportunities.

**B. PROJECTED ACTIVITIES FOR NEXT YEAR**

1. Summer 2011

- a. Course(s) to be offered: EFB 202 (two sections)
- b. Proposed research activity: monitor forest restoration plots; prepare manuscript for peer-review on NYSERDA-funded Tug Hill atmospheric deposition research.
- c. University, professional society, and public service: EFB Pre-Orientation Adirondack Experience (August); initiate work of the Faculty Governance Student Life committee; assist in coordination of the autumn learning community retreat.

2. Fall Semester 2011

- a. Course(s) to be offered: EFB 102, EFB 132
- b. Proposed research activity  
Reinitiate extramurally funded research program in forest ecosystem management.
- c. University, Professional society, and public service: EFB-CCAC, Learning Community, Public Affairs Committee

3. Spring Semester 2012

- a. Course(s) to be offered: EFB 104
- b. Proposed research activity: Reinitiate extramurally funded research program in forest ecosystem management.
- c. University, professional society, and public service: EFB-CCAC, Learning Community, Public Affairs Committee

