

**ANNUAL REPORT: June 1, 2013 – May 31, 2014**  
**(i.e., Summer 2013, AY 2013-2014)**  
**DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY**  
**SUNY-ESF**

**NAME:** Stacy McNulty

**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:	EFB411	Research Methods: Understanding the Adirondack Ecosystem	3		3
SPRING:	EFB484	Winter Mammalian Ecology	3	13	0
	EFB684	Winter Mammalian Ecology	3	3	0

**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.

N/a

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>
EFB899	Master's Thesis Research	1-8	4
EFB498	Research Prob/EFB	5	2
EFB420	Prof Internship in Env Bio	10	1

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

N/a

4. Guest Lecture Activities

<u>Course No.</u>	<u>Title</u>	<u>No. of Lectures</u>
FTC105	Ranger School Summer Camp	1
EFB496	CLBS Wildlife Techniques	1

-----	ESF/College of Menominee Nation Field trip (7/12/13)	1
EFB345	Forest Pathology	1
FTC234	Wildlife Conservation	1
FOR232	Natural Resources Ecology	1
-----	Juniata College Wildlife Ecology	1

## II. STUDENT ADVISING

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

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

- Tim McCoy, MS, August 2011
- Samouel Begin, MS, August 2013
- Amanda Pachomski, MS, August 2013

### CO-MAJOR PROFESSOR

- Carissa Alza, MS, August 2012 (co-MP with Stella); May 2013. Impacts of Beaver Disturbance on Avian Species Richness and Community Composition in the Central Adirondack Mountains, NY, USA

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

- Ashley Simpson, MS Nyland
- Natasha Karniski, MS Lomolino (defended 2014)

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

## III. RESEARCH COMPLETED OR UNDERWAY

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

B.

1. Adirondack Long-Term Environmental Monitoring Program (ALTEMP) – a variety of ecological projects occurring at Huntington Wildlife Forest (ESF Newcomb Campus); 20% time
2. Adirondack Biodiversity Project (ATBI, All-taxa Biodiversity Inventory); 5% time  
Includes Pollinator Project (bee collecting) with ATBI and USGS
3. Climate change and phenology in the Adirondacks – lake ice and other signals of changing climate  
2% time
4. Amphibian population trends and habitat associations in a) vernal pools and b) forested uplands/seeps;  
5% time

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)

McNulty, S. and J. Stella. McIntire-Stennis program. Beaver Influence on Vegetation Structure and Avian Diversity at Local and Landscape Scales. \$52,027 5/1/13 – 9/30/15. Carissa Alza.

Germain, R., C. Nowak, S. McNulty and E. Bevilacqua. McIntire-Stennis program. Sustaining White Pine on High Quality Sites. \$66,220, 2/1/12-9/30/14. Sarah Schoenberg, Alida Mau, Quincey Oliver.

Rooks, M., S. McNulty, C. Beier, P. Hai, D. Patrick, and T. Howard. EPA Wetland Program Development Grant. Building a Monitoring Framework for Detecting Climate Change Effects on Wetlands in the Adirondack Park: Phase II. \$865,848, \$340,000 (ESF portion \$62,000). 1/1/12 – 12/31/15. Samouel Beguin.

Beier, C., S. McNulty, P. Hirsch and A. Parker. New York State Department of Environmental Conservation, Application of GIS to Resource Inventory for Unit Management Planning, \$1,095,000, \$204,000 6/1/03 – 8/5/14. Abigail Larkin, Dan Rockefeller, Erin Swallow.

McNulty, S., M. O'Brien, C. Foss, D. Hudnut and S. Flint. Northeastern States Research Cooperative. An Investigation of Rusty Blackbird Foraging Sites: Does Timber Harvesting Influence Site Selection? \$10,000, 5/1/13 – 5/31/14. Amanda Pachomski.

S. Beguin and S. McNulty. Northern New York Audubon 2014 Cullman Grant Program. Assessing Human Noise Effects on Adirondack Boreal Wetland Birds. \$2,190. Samouel Beguin.

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

Beier, C., S. McNulty, P. Hirsch and A. Parker. New York State Department of Environmental Conservation, Application of GIS to Resource Inventory for Unit Management Planning.

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

McNulty, S., C. Foss, D. Hudnut and S. Flint. NSRC. Foraging habitat characteristics, prey diversity and detectability of Rusty Blackbirds: implications for land and wildlife management in the Northern Forest. \$69,608. May 1, 2014-Sept. 30, 2015.

**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

n/a

B. Non-refereed Publications

Beguin, S. and S. McNulty. The Boreal Baker's Dozen: Northern Birds in Adirondack Wetlands. Adirondack Almanack, 17 March 2014. <http://www.adirondackalmanack.com/2014/03/boreal-bakers-dozen-northern-birds-adirondack-wetlands.html>

Beguin, S. and S. McNulty. 2014. Adirondack Wetlands: A New Citizen Science Monitoring Project. Adirondack Almanack, 26 February 2014. <http://www.adirondackalmanack.com/2014/02/phenological-detective-tracking-adirondack-biological-changes.html>

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

*How beavers influence habitat and species diversity of breeding birds in the central Adirondacks.* Alza, C.M., McNulty, S.M, and J.C. Stella. American Field Ornithologist/Wilson Ornithological Society, Newport, Rhode Island May 29-30, 2014. Presentation.

*A Multi-Scale Analysis of Rusty Blackbird Nest Survival in Northeastern Industrial Forests.* Shannon Buckley Luepold, Thomas Hodgman, Stacy McNulty, Jonathan Cohen, and Carol Foss. Northeast Natural History Conference, Springfield, MA April 7-9, 2014. Presentation.

*White pine management at ESF – Engaging a new century of research and education.* Nowak, C., R. Germain, S. McNulty, C. Demers, B. Breitmeyer, M. Gooden, P. Hai, Q. Oliver and J. Kindt. New York Society of American Foresters Annual Meeting, January 22-24, 2014, East Syracuse, NY. Poster.

*How beavers influence habitat and species diversity of breeding birds in the central Adirondacks.* Alza, C.M., McNulty, S.M, and J.C. Stella. Northeast Natural History Conference. Springfield, MA April 7-9, 2014.

*Ecosystem Engineering: How beavers influence habitat and species diversity of breeding birds in the central Adirondacks.* Alza, C.M., McNulty, S.M, and J.C. Stella. Millersville University Biology Department Colloquium. Millersville, PA April 2014.

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

- Native Plant Ecology Hike, Teddy Roosevelt Days, Sept. 8, HWF - 18
- Amphibian/vernal pool hike, April 28, HWF – 22
- Current Ecological Research at ESF’s Newcomb Campus, Newcomb Lion’s Club - 15
- Wetland Detective training (EPA project) – April 19, Adk Interpretive Center – 6
- Wetland Detective training (EPA project) – May 17, Adk Interpretive Center – 10

## 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.

- Canadian Ministry of Natural Resources field tour of Beech Bark Disease Ecology & Management (Sept.8)
- BioBlitz, July 21, Lake Placid, NY – surveyed Intervale Lowlands, Lake Placid, NY (private) as part of Adirondack Biodiversity Project (All-Taxa Biodiversity Project)
- Northeastern Partners in Amphibian and Reptile Conservation – co-led vernal pool working group
- Member, Adirondack Partnership/North Country Regional Economic Development Council – Recreation Strategy Planning team

- Facilitator, 5-Towns meeting (coordinating Adirondack public lands planning for Upper Hudson region)
- Mentor, High School research on white tailed deer (Ryon Bellamy, Scotia High School)
- Moderator, Adirondack Research Consortium Ecology/Humanities session

## 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)

Chair, Human Diversity Committee, Organization of Biological Field Stations  
 Board Member-at-Large, Organization of Biological Field Stations  
 Board Member, Adirondack Research Consortium

2. Professional Society Membership

Adirondack GIS User's Group  
 Ecological Society of America  
 Society of Conservation Biology  
 The Wildlife Society

3. Other Professional Activities

a. Editorial activity

Journal (s)

Responsibility

Other (books, symposia, etc.)

b. Reviewer

Journal(s)

No. of manuscripts

Animal Conservation

1

Journal of Wildlife Management

1

Agency

No. of proposals

Other

Black Bear Management Plan for New York State, 2014-2024

c. Participation (workshops, symposia, etc.)

Name of workshop, etc.

Date

Place

OBFS workshop

Sept. 19-22

Portal, AZ

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

Interim Director, Adirondack Ecological Center  
Associate Director, Adirondack Ecological Center  
Search Committee member, AEC Director  
Search Committee chair, AEC Cook  
Organizer, Huntington Lecture Series

### B. College-level

Council for Geospatial Modeling and Analysis (CGMA)

### 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 (**i.e., three paragraphs total**) 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 (when available), which I'll continue to award based on your contributions to the department and college this reporting period.

Students: I put significant effort into developing a new course (EFB411) as part of the [Adirondack Residential Semester](#) offered in Fall 2013 and based at the AEC. As every faculty member knows, it was a tremendous learning experience to launch a new course with weekly lab. I explored new ways to utilize resources on and near the Newcomb Campus' Huntington Wildlife Forest. Many of these labs and lessons are now transferable to other existing or potential EFB courses. I developed a Critical Literature Assessment to guide more effective student reading and analysis of journal articles. I also team-taught EST404, Using Past Experience to Inform Future Management: Synthesizing the Adirondack Park, focusing on new state lands just south of the Newcomb Campus. It was fascinating to take students through a land-use planning evaluative process that unfolded as we taught (the property gates literally opened during class). One summary of the students' final presentation to local leaders is here <http://www.adirondackalmanack.com/2013/12/esf-students-ideas-essex-chain.html>. It was rewarding to see the proud faces of our undergraduates complimented by Nature Conservancy and DEC officials for their thoughtful final presentation, or when students in Winter Mammalian Ecology write "this was my favorite class at ESF" in course evaluations. Finally but certainly not least, my advisees were all successful in advancing their programs, projects and internships and I am working with several to publish their research.

Department/College: This was a capacity-building year and I dedicated energy to two successful searches for the AEC director and head cook of the Newcomb Campus dining center. I additionally worked with main campus to broadcast the ESF presidential candidate interviews to the regional campuses to enable efficient participation in that very

important search. As Interim Director of AEC, I focused on linking academic, facilities and forest operations. I also coordinated research and other programming at the Newcomb Campus with university and agency colleagues. An AEC affiliate researcher meeting I helped organize on main campus encouraged dialog about collaborative projects between faculty; since spring planning on several fronts has progressed and will continue in 2014-15. Finally, I represented ESF in the Adirondack Recreation Strategy team raft in Governor Cuomo's Whitewater Challenge, recognition of the college's leadership assisting public land decision-making and a unique opportunity for regional visibility.

Self: I represent the college in the international Organization of Biological Field Stations and as a board member am responsible for helping coordinate the annual meeting and chairing an award. This past autumn I considered not traveling to the Smithsonian's Southwest Research Station for OBFS. There were so many challenges at home: launching the new Academic Residential Semester; searches for key positions; maintaining vibrant, funded lines of existing and new research. I did ultimately go to Arizona and was inspired by OBFS members' creative solutions to higher-education issues as well as ways to improve the operations of a field station used by many organizations (the Chiricahua Mountains' biodiversity and neighboring community engaged in science also inspired!). Teaching the ARS was an opportunity for me to learn how different stakeholders view the same land-use decision process; I can more effectively integrate those perspectives into the research realm in the future. Procedurally, from ARS I now have a solid understanding of departmental and college curriculum development and am familiar with how our undergraduate programs are structured to aid students in accomplishing academic goals.

#### **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)**

I am pursuing two lines of research. One is community ecology, both basic research and interactions of species and their environment (e.g., Rusty Blackbird and predation/landscape factors influencing nest success and lack of population recovery). The other is management-oriented (e.g., black bear food ecology, population trends, and human-bear conflicts).

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

##### 1. Summer 2014

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

###### b. Proposed research activity

- Beechnuts/Beech Bark Disease – complete modeling/manuscripts
- Boreal bird predation and habitat/land use association – focused on Rusty Blackbird
- Cycles in small mammal, climate, and food study at HWF
- APR-GIS – oversee web-based database, reporting to consortium and data needs assessment, North Country Regional Economic Development Council activity coordination, trail registry database development
- Support collaborative research including use of LiDAR, CFI forest change on HWF, geospatial and other datasets
- Data collection for ALTEMP projects (various, including: terrestrial salamanders, vernal pool amphibian reproduction and survival, songbird survey, phenology, seed survey)
- Summarize and report on several ongoing research projects, including Beech Bark Disease/beechnut production and Phenological data summary, including Northeast Regional Mast Survey and National Phenology Network coordination

- Human and ecological community sustainability in the Adirondacks – Hudson Watershed research coordination and identification of research avenues

c. University, professional society, and public service

- Coordinate linkages between research and education via AEC and Northern Forest Institute/Adirondack Interpretive Center
- Co-coordinate ATBI and Adirondack Biodiversity Project – 2014 BioBlitz
- Contribute to Org. of Biological Field Stations, National Phenology Network, Northeast Regional Mast Survey, Northeastern Vernal Pool Working Group, Adirondack Research Consortium among others

2. Fall Semester 2014

a. Course(s) to be offered

b. Proposed research activity

- Continue from summer
- ALTEMP projects (various, including phenology, terrestrial salamanders, beaver colony activity, seed survey)
- Eastern Wild Turkey radiotelemetry project with National Wild Turkey Federation

c. University, Professional society, and public service

3. Spring Semester 2015

a. Course(s) to be offered

Winter Mammalian Ecology EFB 484/684

b. Proposed research activity

Continue from Fall semester

c. University, professional society, and public service

Continue from Fall semester