

ANNUAL REPORT: June 1, 2014 – May 31, 2015
(i.e., Summer 2014, AY 2014-2015)
DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY
SUNY-ESF

*****PLEASE DO NOT INSERT TABLES FOR ANY CATEGORIES*****

NAME: Stacy McNulty

I. INSTRUCTIONAL ACTIVITIES

1. Regular Course Offerings

Course No.	Title	Credit Hrs.	No. Students	No. of Lab. Sections
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SUMMER:

FALL:

SPRING:	EFB484	Winter Mammalian Ecology	3	12	0
	EFB684	Winter Mammalian Ecology	3	2	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.

2. Non-Scheduled Course Offerings (e.g., 496, 899, 999)

Course No.	Title	Credit Hrs.	No. Students
EFB899	Master's Thesis Research	1-9	4

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

- White Pine Workshop, AEC, August 19, 2014
- EPA-funded wetland phenology project workshop series (see public lectures), spring 2015

4. Guest Lecture Activities

<u>Course No.</u>	<u>Title</u>	<u>No. of Lectures</u>
FTC105	Ranger School Summer Camp	1
-----	ESF/College of Menominee Nation	1
-----	Sterling College, VT	1
-----	Wildlife Class, McGill University, QC	1
-----	Biology, St. Lawrence University	1
FTC210	Wildlife Techniques	1
FOR232	Natural Resources Ecology	1
EFB500	Hudson River Watershed	1

II. STUDENT ADVISING

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

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, MPS, August 2011, Diet of the American marten (*Martes americana*) and relationship to small mammal population fluctuations in the Adirondack Mountains of New York. 2014.
- Samouel Begin, MS, August 2013, Adirondack soundscapes: Land use and noise effects on boreal wetland avian communities. 2015.
- Amanda Pachomski, MS, August 2013.
- Robinson, C.J. MS, August 2014.

CO-MAJOR PROFESSOR

MEMBER, STEERING COMMITTEE (other than those listed above)

- Ashley Simpson, MS

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

III. RESEARCH COMPLETED OR UNDERWAY

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

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); 2% time
Public BioBlitz and pollinator-focused survey of Adirondack region

3. Climate change and phenology in the Adirondacks – lake ice; signals of changing climate; 2% time
4. Amphibian population trends and habitat associations in a) vernal pools and b) forested uplands/seeps; 5% time
5. Forest Management/Beech Ecology research – 3% 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, \$1,300,000, \$125,313, 6/1/03 – 8/31/15. Abigail Larkin, Dan Rockefeller, Erin Swallow, Becky Walker.

Robinson, C.J. and S. McNulty. Assessment of the Role of Recreation in the Distribution and Prevalence of Amphibian Chytrid Fungus in the Adirondack Park and northern New York. \$4,810. 4/1/15 – 3/31/16. C.J. Robinson.

Robinson, C.J. and S. McNulty. Northern New York Audubon 2015 Cullman Grant Program. Relationship of native amphibians to the distribution and prevalence of the amphibian chytrid fungus (*Batrachochytrium dendrobatidis*) and recreation in Adirondack Park. \$1,915. 4/24/15 – 9/1/16. C.J. Robinson.

Beguin, S., S. McNulty and K. Limburg. Protecting an Upper Hudson Heritage Lake: Assessing the need for fish barrier installation at Wolf Lake, Newcomb, New York. \$5,000. Hudson River Foundation Polgar Fellowship. 5/19/2015-9/30/2015. Samouel. Beguin (just post-degree).

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. 8/1/2015 – 8/1/2016.

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

McNulty, S. and G.G. McGee. Incubator Workshops for Forest Ecology, Management and Economics in the Northern Forest. McIntire-Stennis Program preproposal.

Schwartzberg, E., S. McNulty and J. Mihuc. Adirondack pollinator phenology research network. Northeastern States Research Cooperative. \$69,467. 4/1/2015-3/31/2017.

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

Buckley Luepold, S. T. Hodgman, S. McNulty, J. Cohen, and C. Foss. Habitat selection, nest survival and nest predators of Rusty Blackbirds in northern New England. *The Condor: Ornithological Applications*. In Review.

B. Non-refereed Publications

n/a

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

A Multi-Scale Analysis of Rusty Blackbird Nest Survival and Nest Predators in New England. Shannon Buckley Luepold, Thomas Hodgman, Stacy McNulty, Jonathan Cohen, and Carol Foss. American Ornithologists' Union/Cooper Ornithological Society/Society of Canadian Ornithologists 2014 Joint Meeting, Estes Park, CO, 23-28 September 2014. Presentation.

Staying off the chopping block: strategies for field stations. Stacy McNulty, Sarah Oktay, and Philippe Cohen. Organization of Biological Field Stations. Sept. 20, 2014, Woods Hole, MA. Panel.

Citizen Science in the Adironnacks. Ezra Schwartzberg, Stacy A. McNulty, Jennifer Dean and Stephen Langdon. Adirondack Research Consortium, May 13, 2015, Lake Placid, NY. Panel.

Adirondack boreal wetland soundscapes: birds, land use, roads, and noise. Samouel J. Beguin and Stacy A. McNulty. Adirondack Research Consortium, May 13, 2015, Lake Placid, NY. Presentation.

The soundscape ecology of Adirondack boreal wetlands: birds, land use, roads, and noise. Samouel J. Beguin, Stacy McNulty, Shannon Farrell and Mark Lomolino. Northeast Natural History Conference. Springfield, MA April 18-20, 2015.

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. 7, HWF - 11
- Wetland Detective training (EPA project) – February 28, Adk Interpretive Center – 6
- Wetland Detective training (EPA project) – March 21, Adk Interpretive Center – 10
- Wetland Detective training (EPA project) – May 30, Adk Interpretive Center – 12

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.

- BioBlitz – facilitated USGS (Patuxent, MD) survey of regional pollinators via the Adirondack Biodiversity Project (All-Taxa Biodiversity Project)
- Northeastern Partners in Amphibian and Reptile Conservation – co-led vernal pool working group
- Mentor, High School research on white tailed deer (Ryon Bellamy, Scotia High School)

- Began developing a special avian issue of *Adirondack Journal of Environmental Studies* which includes approximately 20 articles by ornithological scholars in the region
- Helped organize *OBFS in Science Today* program, 22 July 2014 - Nantucket, MA (PBS Science Correspondent Miles O’Brien, special guest)

- Hudson River Foundation fall meeting organization and presentation

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)

Secretary, Organization of Biological Field Stations
Board Member, Adirondack Research Consortium
Board Member, Northern New York Audubon

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

Agency

No. of proposals

Other

c. Participation (workshops, symposia, etc.)

Name of workshop, etc.

Date

Place

OBFS Staying off the chopping block: strategies for field stations. Sept. 20-24 Woods Hole, MA

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

Completed FOR770, Ecological Economics, Spring 2015

D. Foreign Travel (Where, When, Purpose)

VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)

A. Department-level

Associate Director, Adirondack Ecological Center
Search Committee member, Guest Services Manager
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 – This past year I revamped Winter Mammalian Ecology (EFB484/684) toward a more equitable distribution of small, meso and large species and restored a field lab in the High Peaks region; the course was highly-regarded by students (mean rating 9.1 on a 1-10 scale). I also created numerous opportunities for ESF students to participate in scientific endeavors, most notably a pollinator-focused bioblitz where bee experts from across the Northeast convened to sample and identify over 100 Adirondack species. Students helped collect data and teamed up with naturalists and scientists to experience first-hand a modern collection and taxonomic organization effort. Finally, I initiated a new Early-Career Representative board position for the Organization of Biological Field Stations; the first holder is an incoming EFB graduate student and he has already begun providing the perspective of a recent field station user and

potential career field ecologist. While this position will likely be held by students of other schools in the future, it gives ESF students an internationally-visible position of leadership.

Department/College – A great deal of my energy went into participating in ESF and AEC strategic planning for improvement of future academic programs and facilities. I spent significant time on the Syracuse campus this past year to build intra-college partnerships including the AEC faculty membership that began in 2014. As a co-PI on the [Great South Woods project](#), I worked closely with an interdisciplinary team of ESF faculty and students and regional agency and non-profit partners to execute a series of public meetings and planning activities. GSW is a collaborative, community-based planning initiative to enhance and diversify public access to the Forest Preserve and Conservation Easement lands in the southern Adirondack Park. Our team received hundreds of suggestions for creating or connecting public recreational opportunities with amenities in Adirondack towns; it has been satisfying to see the maturation of the APR-GIS geospatial/technical project, started over a decade ago, which has evolved to a comprehensive, landscape-scale, inclusive process for natural resource protection and promotion of recreation in Adirondack Park.

Self – I applied and was accepted into a doctoral program in GPES. I am enthusiastic about the directions my research will take and how this work may be integrated into college scholarship, academic programming and other ventures.

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 foraging ecology and lack of population recovery, amphibian disease ecology). The other is management-oriented (e.g., Great South Woods recreation/natural resource management; wildlife management/food ecology).

B. PROJECTED ACTIVITIES FOR NEXT YEAR

1. Summer 2015

a. Course(s) to be offered

b. Proposed research activity

- Beech, nuts, Beech Bark Disease – develop collaborative forest ecology/management research
- Boreal bird predation and habitat/land use association – including Adirondack soundscapes
- Beaver influence on avian biodiversity study – begin second phase of research
- GSW – draft recommendations to land managers and report back to participants; plan next phase
- Second phase of amphibian disease ecology – Bd/recreation study
- Data collection for ALTEMP projects (various, including: terrestrial salamanders, vernal pool amphibian reproduction and survival, songbird survey, phenology, seed survey)
- 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 – 2015 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 2015

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

- Continue from summer

3. Spring Semester 2016

a. Course(s) to be offered

Winter Mammalian Ecology EFB 484/684

b. Proposed research activity

- Continue from summer

c. University, professional society, and public service

- Continue from summer