

**ANNUAL REPORT: June 1, 2015 – May 31, 2016**  
**(i.e., Summer 2015, AY 2015-2016)**  
**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

	<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>No. Students</u>	<u>No. of Lab. Sections</u>
SUMMER:					
FALL:					
SPRING:	EFB484	Winter Mammalian Ecology	3	9	0
	EFB684	Winter Mammalian Ecology	3	5	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)

	<u>Course No.</u>	<u>Title</u>	<u>Credit Hrs.</u>	<u>No. Students</u>
	EFB899	Master's Thesis Research	1-9	3
	EFB420	Internship in Environmental and Forest Biol.	3	1

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

- EPA-funded wetland phenology project workshop series (see public lectures), spring 2016

#### 4. Guest Lecture Activities

<u>Course No.</u>	<u>Title</u>	<u>No. of Lectures</u>
EFB345	Forest Pathology	1
EFB500	Interpretive Field Biology	2
-----	Wildlife Class, McGill University, QC	1
-----	Biology, St. Lawrence University	1
-----	Wildlife Ecology, Juniata College, PA	2
FOR232	Natural Resources Ecology	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

- Amanda Pachomski, MS, August 2013.
- Robinson, C.J. MS, August 2014.

### CO-MAJOR PROFESSOR

- Oelschlager, Patrick. MS, August 2015 (with Stella; withdrew)

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

- Ashley Simpson, MS
- Leah Nagel, MS

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

- Briana Rosamilia, MS (Reader)

## **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)

Schlesinger, M., J. P. Gibbs and S. McNulty. Determining the importance of vernal pools across geophysical and urbanization gradients to inform regulation, conservation, and management. EPA Wetland Program Development Grant. \$324,515. 1/1/16 - 12/31/18. Leah Nagel.

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. Patrick Oelschlager.

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 \$73,527). 1/1/12 – 12/31/16. 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 – 8/31/16. 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.

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

N/a

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

McNulty, S., M. Glennon and M. McCormack. 2015. Rusty Blackbirds in New York State: ecology, current status and future. *Adirondack Journal of Environmental Studies* 20:87-99.

Luepold, S. B., T. Hodgman, S. McNulty, J. Cohen, and C. Foss. 2015. Habitat selection, nest survival and nest predators of Rusty Blackbirds in northern New England. *The Condor: Ornithological Applications* 117(4):609-623.

Beguín, S.J., K.E. Limburg, and S.A. McNulty. 2016. Protecting an Upper Hudson Heritage Lake: Assessing the Need for Fish Barrier Installation at Wolf Lake, Newcomb, NY. Section VI: 1-35 pp. In S.H. Fernald, D.J. Yozzo and H. Andreyko (eds.), *Final Reports of the Tibor T. Polgar Fellowship Program, 2015*. Hudson River Foundation.

#### B. Non-refereed Publications

McNulty, S. Protect the Rusty. *Adirondack Explorer* Nov/Dec 2015.

Guest editorial. *Northern New York Audubon newsletter*, Spring 2016.

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

*Importance of beechnuts to wildlife and impact of Beech Bark Disease*. Beech Bark Disease Workshop, Huntsville, Ontario, Sept. 28-30, 2015.

Rozanski, C. A., S. A. McNulty and G. G. McGee. 2016. Beavers as ecosystem engineers: Influence of wetland class and vegetation structure on avian species richness. *SUNY ESF Spotlight on Research*, Syracuse NY.

*Foraging habitat use and detectability of breeding Rusty Blackbirds in Maine and New Hampshire*. Amanda Pachomski and Stacy McNulty. The Wildlife Society Annual Conference, Winnipeg, Manitoba 19 October 2015. Presentation.

*Recreation, Distribution and Prevalence of the Pathogenic Fungus *Batrachochytrium dendrobatidis* in the Adirondack Park, NY*. C.J. Robinson, Stacy McNulty and Valorie Titus. Northeastern Partners in Amphibian and Reptile Conservation, Greenwich, RI, August 2015. Poster.

*Outdoor recreation enhancement in the Adirondack Park: the Great South Woods project update*. Larkin, A., C. Beier, B. Houseal, S. McNulty, P. Hirsch and A. Parker. Adirondack Park Local Government Conference, Lake Placid, 2015. Presentation.

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

- Master Gardener hike – July 10, Huntington Wildlife Forest – 8
- Newcomb Youth Program nature field trip – July 23, Huntington Wildlife Forest - 9
- Wetland Detective training (EPA project) – April 23, Adk Interpretive Center – 9
- Wetland Detective training (EPA project) – May 7, Adk Interpretive Center – 5

## V. PUBLIC SERVICE

A. Funded Service (include consulting activities)

1. Government Agencies (Federal, State, Local):

Great South Woods public participation meetings, multiple locations

NSF-funded Organization of Biological Field Stations Site Review for University of Vermont Mount Mansfield Science Center

2. Industrial and Commercial Groups, etc.

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

**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

Associate Editor, *Adirondack Journal of Environmental Studies*, 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

*Adirondack Journal of Environmental Studies*

*Associate Editor*

Other (books, symposia, etc.)

b. Reviewer

Journal(s)

No. of manuscripts

Ecosphere

1

Journal of Wildlife Management

1

Southeast Naturalist

1

Agency

No. of proposals

Other

Rusty Blackbird habitat guidelines, US Fish and Wildlife Service

c. Participation (workshops, symposia, etc.)

Name of workshop, etc.

Date

Place

Beech Bark Disease Workshop, Huntsville, Ontario, Sept. 28-30, 2015.

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

Completed EST705, Environmental and Public Policy, Fall 2016

Completed EST797, Complex Adaptive Systems Seminar, Fall 2016

Completed EST609, Collaborative Governance, Spring 2016

D. Foreign Travel (Where, When, Purpose)

Beech Bark Disease Workshop, Huntsville, Ontario, Sept. 28-30, 2015. Invited speaker.

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

A. Department-level

Associate Director, Adirondack Ecological Center

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 year I modified a major lab/field portion of Mammalian Winter Ecology to accommodate the lack of snow and challenging weather. I developed a new module involving observational skills/hypothesis testing focused on mammal energetics, behavior, and activity budgets. The students worked through the entire development process together, from crafting initial research questions to designing the study methods, determining site selection and logistics and carrying out data collection and evaluation (including potential improvements for future labs). Students again rated the course very highly, with an average response of 9 on a 10-point scale.

**Department/College:** Over the past year I solicited and edited manuscripts for and assisted with managing publication of a special volume of *Adirondack Journal of Environmental Studies*. AJES Vol. 20 (2016) contains over a dozen peer-reviewed articles about ornithological topics; the issue collates current research on loons, songbirds and mercury, conservation status of rare montane and lowland boreal species, and related subjects, including Teddy Roosevelt's 1877 checklist of birds compiled when he roamed the Adirondack region as a young conservationist (a connection to the Roosevelt Wild Life Station). The special issue of AJES has brought visibility to ESF and the college has received positive feedback from other academic institutions, non-profit organizations and agencies, and bird enthusiasts.

**Self:** I've been taking classes as part of the Graduate Program in Environmental Science and developing a doctoral dissertation proposal. Over the last twelve months, many diverse conversations with peers and colleagues have been rewarding and I am finding ways to integrate new material and ideas into my academic and outreach programs. The opportunity to spend more time physically on main campus connecting with students and faculty on research, teaching and institutional planning initiatives has been highly productive as well.

## **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)**

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

#### 1. Summer 2016

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

##### b. Proposed research activity

- Beech, nuts, Beech Bark Disease – develop collaborative forest ecology/management research
- Publish boreal bird habitat/land use association – including Adirondack soundscapes
- Great South Woods – summarize project results
- Final 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 – 2016 BioBlitz
- Contribute to Org. of Biological Field Stations, National Phenology Network, Northeastern Vernal Pool Working Group among others

2. Fall Semester 2016

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)
- Beaver influence on avian biodiversity

c. University, Professional society, and public service

- Continue from summer

3. Spring Semester 2017

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

a. Course(s) to be offered

b. Proposed research activity

c. University, professional society, and public service