

ANNUAL REPORT: June 1, 2016 – May 31, 2017
(i.e., Summer 2016, AY 2016-2017)
DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY
SUNY-ESF

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

NAME: _____

I. INSTRUCTIONAL ACTIVITIES

1. Regular Course Offerings

	Course No.	Title	Credit Hrs.	No. Students	No. Sections	No. of Lab.
SUMMER:						
FALL 2016:	EFB 390	Wildlife Ecology & Management	4	86	5	
	EFB 797	Adaptive Peaks Grad Seminar	1	5	N/A	
	EFB 797	EFB Core course (team taught with Fierke)	1	9	N/A	
SPRING 2017	EFB 482	Ornithology	4	49	3	
	EFB 796	Ornithology (graduate student level)	4	1	NA	
	EFB 797	Adaptive Peaks Grad Seminar	1	6	N/A	

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
FALL				
	EFB420 02	Prof Internship/Envrn Biology	variable	3
	EFB899 03	Masters Thesis Research	variable	4
	EFB999 03	Doctoral Thesis Research	variable	1
SPRING				
	EFB420	Prof Internship/Envrn Biology	variable	3
	EFB495	Undergrad Exp/Coll Teach	3	5

EFB796	Grad level ornithology	4	1
EFB899	Masters Thesis Research	variable	4

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

4. Guest Lecture Activities

EFB 211 Div of Life- 2 bird guest lectures

EFB 132 freshman orientation seminar Wildlife Major guest lecture

<u>Course No.</u>	<u>Title</u>	<u>No. of Lectures</u>
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II. STUDENT ADVISING

A. Number of undergraduates for whom you are the student's official advisor 24 and unofficial advisor 4

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

- R. Bronson Curry, M. S. EFB Ecology. Start Date January 2015.
- Jessica Fletcher, M. S., EFB Wildlife Ecology & Management. Start Date Aug 2015. * has defended, delaying official completion for eligibility for USFWS fellowship program.
- Kurt Gielow M. S. EFB Ecology. Start Date Aug 2016
- Megan Gallagher M. S. EFB Ecology. Start Date Aug 2016

CO-MAJOR PROFESSOR

- Michael R. Whalen, PhD EFB Conservation Biology, Start date May 2015. Co-Advisor M. Dovciak.

MEMBER, STEERING COMMITTEE (other than those listed above)

Maureen Durkin, PhD EFB Wildlife Ecology & Management

Alison Kocek, PhD EFB Wildlife Ecology & Management

Michele Stantial, PhD EFB Wildlife Ecology & Management

Amanda L. Pachomski, MS EFB Fish & Wildlife Biology & Management

Chellby Rae Kilheffer, PhD EFB Wildlife Ecology & Management

Sahila Kudalkar, MS EFB Con Bio

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

Wendy Leuenberger, MS, EFB, .Wildlife Biology and Management

III. RESEARCH COMPLETED OR UNDERWAY

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

- Pilot research on American robin and other ground foraging birds: population status, trends, distributions, and potential role as reservoir and vector of Lyme disease and ticks. 3%
- Assessing potential causes and identifying geographic locations of woodland loss for conservation planning of the endangered Golden-cheeked Warbler. <1%
- Modelling species co-occurrence for 2 endangered songbirds in Texas. <1%
- Investigating/quantifying impacts of noise disturbance on endangered golden-cheeked warbler. <1%

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)

U.S. National Park Service Continuing Assessment of populations and white-nosed syndrome at Cape Cod National Seashore. Dates: Jan 2016- Jan 2017. PI: S. Farrell. Funds: \$76,200. Partial support for Bronson Curry & Jessica Fletcher.

U.S. National Park Service. White Nose Syndrome Funding 2016. Fall Migration, Swarming, and Hibernation Ecology of Northern Long-eared Bats at Cape Cod National Seashore, and Implication for Ameliorating Impacts of White-nose Syndrome. *Awarded: \$199,600*. Dates: 1/1/2017-12/31/2018. PI: S. Farrell. Will support incoming international PhD grad student Sarah-Jayne Collins starting Aug 2017.

NSRC Theme Four: Biodiversity and protected area management. Imperiled Bats in Northeastern Forests: balancing bat conservation with forest management. PI: S. Farrell. Co-PI R. Germain. *Awarded: \$121,029*. Dates: 9/1/2017-12/31/2018. Supports MS student Megan Gallagher.

McIntire-Stennis Research Program. 2015-16. Mapping the distributions of forest mammals across NY State: Phase 1. Dates: Aug 2017- Dec 2019. PI: S. Farrell Co-PI: J. Frair, A. Fuller (Cornell). *Awarded: \$57806*. Will support incoming PhD student starting Aug 2017. Student to be determined (initial accepted student has bowed out).

McIntire-Stennis Research Program. 2015-16. The Sky is Falling: Invasive-induced Forest Biodiversity Loss and Evaluation of Stand Rehabilitation. Dates Aug 2017-Aug 2019. PI- Stacy McNulty. Co-PI: R. Germain, G. McGee, S. Farrell. *Awarded: \$65,568*. Will support my incoming MS student Ravyn Neville starting Aug 2017.

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

NYDEC. Establishing statewide distribution information and mapping for small and meso-mammals. Dates Apr 2018-Apr 2023. PI: S. Farrell. Co-PI J. Gibbs, Co-PI C. Whipps. *Requested: \$1,293,878*. Anticipated to support: 1 Postdoc in years 1-4, 1 graduate student in years 1-3 to oversee location, compiling, and preliminary analysis of bat detection data, 4 undergraduate technicians annually for years 2-4.

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

Marshall, M., A. M. Long, M. L. Morrison, K. B. Hays, and **S. L. Farrell**. 2017. Responses of a federally endangered songbird to understory thinning in oak-juniper woodlands *Environmental Management* 59:684-692.

Campomizzi, A. J., **S. L. Farrell**, K. Smith, and J. E. Groce. Assessing Potential Causes and Identifying Geographic Locations of Woodland Loss for Conservation Planning of the Endangered Golden-cheeked Warbler. *New submission to Condor in review*.

B. Non-refereed Publications

Farrell, S., and R. J. Cooper. Assemblages and Communities. 2018. In Morrison, M.L., A.D. Rodewald, G. Voelker, M.R. Colón, and J.F. Prather, eds. *Ornithology: Foundation, Critique, and Application*. Johns Hopkins University Press, Baltimore, Maryland.

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)

WCNY TV Panel discussion on the topic of the Montezuma Wildlife Refuge eagle statue raising. 10/7/2016

V. PUBLIC SERVICE

A. Funded Service (include consulting activities)

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

Lesser Prairie Chicken conservation planning: Review of Relist Petition. Multiple stakeholders including USFWS, Environmental Defense Fund, and Oil and Gas Industry partners.

Freshwater mussels in Texas: evaluating available science to identify needs, risks, and opportunities for conservation planning. River Authorities in conjunction with multiple stakeholders including USFWS, Environmental Defense Fund, and Oil and Gas Industry partners.

2. Industrial and Commercial Groups, etc.

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

NY Fish and Wildlife Management Board. SUNY-ESF representative.

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)

The Wildlife Society

- Elected Eastern Region Rep for the University Education Working Group
- Early Career Professionals working group team
- Special Recognition and Honorary Membership committee

2. Professional Society Membership

The Wildlife Society

AOU/COS

3. Other Professional Activities

a. Editorial activity

Journal (s)

Responsibility

Other (books, symposia, etc.)

b. Reviewer

Journal(s)

No. of manuscripts

Journal of Avian Biology

2

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.

Attendance at week-long Summer Institute on Scientific Teaching summer 2016.

D. Foreign Travel (Where, When, Purpose)

VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)

A. Department-level

- GPAC committee
- Dept awards:
 - Baldassarre Award, coordinator 2014-present
 - Chamberlain Award, coordinator 2014-present
 - Dence award, coordinator Fall 2015- present
- Open House/ Accepted Student Reception: one in Fall 2016 and 1 in Spring 2017
- Undergrad independent project (EFB 498) advising: Makayla McCormick.

B. College-level

- Featured faculty speaker at convocation Aug 2016
- IQAS committee Fall 2013-present
- Fink Fellowship Committee Fall 2013-present.
- Birding Club faculty advisor
- CSTEP Mentor:
- Coordinated birding for 2nd annual Field Days event

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 attended the Scientific Teaching Institute in summer 2016 with the goal of further working to bring my teaching to the next level; in particular, this institute focuses on using what science has found about how students learn to inform our teaching approaches and it seems we at ESF are well-placed to emphasize using approaches based on sound science. I have been able to implement many of the skills and tools I learned to create more dynamic and effective classes and class activities even in my largest classes. Outside of the classroom, one of my primary focusses continues to be helping students get exposure to wildlife professionals and to help them find and prepare for internships, seasonal jobs, and grad school opportunities. This includes everything from sitting down with official and many unofficial advisees confused about graduate school to reviewing dozens of resumes to running a project in EFB 390 that requires students to reach out to interview wildlife professionals. I continue to hear from current and previous students that this activity has in fact created connections and opened up real opportunities for them in jobs, internships, and new mentors. I finally built the bones of a website that will contain information, links, and a student-focused blog that collects and shares all things bird-related going on at ESF and in our area. Teaching the Philosophy of Science portion of the Fall grad Core Course for the second time, I continued to get enthusiastic feedback from students and I'm working to develop Philosophy of Science

seminar course. Lastly, this year I and my grad students made an extra effort to focus on ESF students as we were filling summer research technician positions and 4 of the 4 technicians we just hired are ESF students. This was my first year as ESF's representative on the NY State Fish and Wildlife Management Board and I've done my best to link my experience working with the other board members to the classroom, to better help students understand the interesting and complex issues and opportunities in the world of wildlife management. Lastly, to start the year off I had the special opportunity as faculty speaker at student convocation. I can only hope that this was in some way of service to the students, department, or college; in sharing my experiences and my not-so-straight path to becoming a wildlife professional I hoped for students to feel encouraged that there is no one right way to find your passion and profession.

Department/College:

As a member of IQAS, a very active committee, we have been focusing on continued work to design the framework, budget, and proposal for establishing a Center for Teaching and Learning. In addition, we have been working hard to research alternate teaching & learning evaluation systems and approaches to help move ESF into a system that works better for students and faculty, to better use the feedback to effectively improve teaching and learning outcomes. I've served as advisor to a very active and engaged Birding Club. As a member of the Fink Fellowship committee I've had the privilege of helping distribute funds to support deserving, amazing student proposals and experiences. As a CSTEP mentor I've had the privilege of working with some really ambitious, driven CSTEP students and with this motivation it has been easy to help them develop research and professional development opportunities. Working with student birding enthusiasts we had another highly successful set of birding walk for the fall Field Day. Lastly, Working with J. Frair, J. Gibbs, and others, along with the NYNHP, I have been working to secure funding from DEC to make ESF the hub of a large mammal distribution-mapping project. In securing some pilot funding to kick-off the work, the DEC is supportive of our proposal and we hope to be able to kick-off the project in Fall 2017. This will continue to support and augment ESF's position as a key collaborator with NYDEC.

Self:

I have now completed almost 4 years in this position and I feel I've started to really feel I've found my footing and how to make the most of my teaching, research, and mentorship opportunities. I've graduated my first MS student this spring, and another anticipated to finish this summer. Working on building the lab, I will start next Fall with 2 continuing MS students, 1 continuing PhD student, and 3 new MS and 2 PhD students beginning Fall 2017. I've been working to build a team that can help support each other through the process as well. We've completed our first funded research project with NPS on bat ecology and the research has provided some really new and valuable information to help inform management and has given us our first credential as a lab in our ability to do important bat work. This has opened the door to our newest NPS- funded that will support an incoming international PhD student to investigate Fall bat habitat use and movement and potentially locate hibernacula. Though it has been a challenging year for me to juggle all of the demands of this position, I have worked to learn from and collaborate with talented colleagues and as a result have had good successes with several new grants that will support several of the incoming grad students.

My continued work on lesser prairie chicken conservation planning has allowed me to continue to develop connections with partners. The tortuous path of prairie chicken conservation planning has provided me with huge learning opportunities. As a result, these experience and connections have led to new opportunities beginning to open up to work with entities such as river authorities to provide expertise and guidance on planning for conservation and management with the anticipated listing of several freshwater mussels as threatened or endangered. I've completed the near final stages of writing a book chapter, my first, for a new Ornithology textbook slated for production next Fall. This was an enormous challenge but also a selfish effort to fill my own need for a new and improved textbook for my ornithology class. Lastly, I ran for and secured a post as the Eastern Region Rep for the University Education Working Group of The Wildlife Society, allowing me to become more involved and connected to this professional society.

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 2017

a. Course(s) to be offered

b. Proposed research activity

- Implementation of yr 1 of sampling for summer bat habitat use in the Adirondacks as part of an NSRC funded project (Co-PI R. Germain).
- Working with Co-PIs to begin pilot work for McIntire-Stennis funded project on forest and wildlife response to beech management.
- Planning (learning how to build nanotowers, etc) for Fall implementation of new fall bat ecology and migration project Cape Cod.
- Sampling for year 1 of work on an unfunded project exploring the abundance of common ground foraging birds in urban environments and investigating tick presence, prevalence, and Lyme disease on these birds.
- Working with Guy Lanza on prospective collaboration with University of Tyumen on bat research.
- Continue ongoing work:
 - Analysis of BBS and Lyme incidence data for manuscript on spatial and temporal patterns. Working with undergraduate student (EFB 498) to conduct literature review and compile existing data for analysis..

c. University, professional society, and public service

- Attending meetings in Amarillo, TX and other location TBD to work with agricultural stakeholders and others on planning the next stage for lesser prairie-chicken conservation planning.
- Identify prospective speakers for Adaptive Peaks Fall 2016 and initiate planning for first several speaker dates.
- Working to develop Possibly a Philosophy of Science seminar

2. Fall Semester 2017

a. Course(s) to be offered

- EFB 797 Adaptive Peaks Grad Seminar (as a co-instructor with another faculty member TBD)
- EFB 390 Wildlife Ecology and Management
- EFB 797 EFB Core course (team taught with Fierke)
- Possibly a Philosophy of Science seminar

b. Proposed research activity

- Starting Fall migration bat sampling at Cape Cod
- Pilot work for statewide mammal project.
- Starting project development working with John Stella on Adirondack mammal responses to beaver effects

- Project planning for wildlife response to beech management project.
- Continued work on Adirondack bat project
- Continued work on Lyme disease and birds project.

c. University, Professional society, and public service

- IQAS Committee
- Advisor ESF birding club
- Fink Fellowship Committee review of applicants
- GPAC
- Dept Awards
- Working with the University Education Working Group of The Wildlife Society on symposium development and implementation at Annual meeting of The Wildlife Society

3. Spring Semester 2018

a. Course(s) to be offered

- EFB 482 Ornithology
- EFB 796 Ornithology (graduate student level)
- EFB 495 Undergrad Exper. in College Teaching

b. Proposed research activity

- Analysis and planning phase 2 of Fall migration bat sampling at Cape Cod
- Planning and implementation for statewide mammal project.
- Continue project development working with John Stella on Adirondack mammal responses to beaver effects
- Continue project planning for wildlife response to beech management project.
- Continued work on Adirondack bat project
- Continued work on Lyme disease and birds project.

c. University, professional society, and public service

- IQAS Committee
- Advisor ESF birding club
- Fink Fellowship Committee review of applicants
- GPAC
- Dept Awards