

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: Jacqueline L. Frair

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>
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SUMMER:

FALL: *Note: taught graduate level course that is yet to be listed (see next section)*

SPRING: *Note: hired Mike Schummer to teach my regular course, EFB 491, to focus on RWLS fundraising.*

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>
EFB 796 / FOR 796	Quantitative Methods and Models in R	3	9
EFB 496	Maymester: Wildlife Field Techniques	3	14

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>
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II. STUDENT ADVISING

- A. Number of undergraduates for whom you are the student's official advisor 25 and unofficial advisor 10
- 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

Silvia Saldivar Bellasai, M.S. (Fulbright), Aug 2011 start, June 2014 completion
Saldivar Bellessai, S.S. (2014) "Status and threats to persistence of the chacoan peccary (*Catagonus wagneri*) in the Defensores del Chaco National Park, Paraguay," M.S. Thesis, SUNY ESF.

Lisanne Petrecca, Ph.D., Jan 2015 start
Allison Devlin, Ph.D., Aug 2010 start, May 2013 passed prelim
Michelle Peach, Ph.D., Aug 2009 start, Apr 2011 passed prelim, withdrew in 2012 but reinstated in 2014.
Robin Holevinski, Ph.D., Aug 2007 start, Apr 2010 passed prelim

Chee Pheng Low, M.S., Jan 2015 start
Terra Rentz, M.S., Jan 2014 start
Andrew MacDuff, M.S., Aug 2009 start

CO-MAJOR PROFESSOR

Rebecca Fuda, M.S., Aug 2012 start, May 2015 completion
Fuda, R.K. (2015) A park under pressure: the impacts of human disturbance in Murchison Falls Conservation Area, Uganda. M.S. Thesis, SUNY ESF.

MEMBER, STEERING COMMITTEE (other than those listed above)

Leanna Matthews (Parks, Syracuse University), Ph.D.
Hannah Blair (Parks, Syracuse University), M.S., defended May 2015
Paltsyn, Mikhail (Gibbs), Ph.D., candidacy exam Aug 2014
Elaina Burns (Underwood), M.S., defended Oct 2014
Joe Folta (Underwood), Ph.D.
Maureen Durkin (Cohen), M.S.
Mike Fishman (Gibbs), M.S.

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

Lucia Salamanca-Cardona, Chair of Ph.D. defense exam, December 2014
Thomas Taggart, Chair of prelim exam committee, August 2014

III. RESEARCH COMPLETED OR UNDERWAY

- A. Departmental Research (unsupported, boot-legged; title - % time spent)
- Central East Slopes Elk and Wolf Study (ongoing collaboration, unsupported, 2% AY)

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)

Grants as Lead PI

- NY State Department of Environmental Conservation, “Wildlife research and management support”, \$3,359,864 total 2013-2018, \$832,761 for 2014-15. PI: J. Frair. Provides support to 8 different research projects (PI’s Dovciak, Cohen, Whipps and Frair), and I manage each as a sub-award under the main grant.

Grants directly supporting J. Frair listed below:

- “Monitoring and modeling moose populations in NY”, PI: J. Frair. \$627,107 total (2014-18), \$104,243 for 2014-15. Supports Dr. Paul Schuette, Roosevelt Post-Doctoral Scholar.
 - “Indices to track ecological impact of white-tailed deer”, PIs: M. Dovciak, J. Frair. \$311,500 total (2013-2015), \$141,387 for 2014-15. Supports Dr. Mark Lesser, post-doctoral researcher.
 - “Statistical support for wildlife management and research”, PI: J. Frair. \$713,509 total (2014-2018), \$125,923 for 2014-15. Supports two professional positions located at Albany DEC office – Daniel Quinn and James Kelly.
 - “Other program support for wildlife management and research”, PI: J. Frair. \$150,003 total (2014-2018), \$37,048 for 2014-15. Provides salary for graduate student Terra Rentz.
- US Army Corps of Engineers, “Research for carnivore management on Fort Drum”, \$59,000 total 2013-2015, \$21,862 for 2014-15. PIs: J. Frair, M. Teece.
 - US Forest Service (Joint Venture Research Agreement), “Identifying wolf movement corridors in the Great Lakes region using a landscape genetics approach”, now \$229,299 total (2012-2017) following modification of agreement in June 2014. \$1,175 for 2014-15. PI: J. Frair.

Grants as co-PI

- National Science Foundation, “How environment, physiology and life history interact to determine pattern in animal migration”, \$600,000 total 2012-2015, \$169,728 for 2014-15. PIs: J. Gibbs. S. Blake, S. Deem, J. Frair. Supports post-doctoral researcher Guillaume Bastille-Rousseau.
- USDA Northern States Research Cooperative, “Resistance to white-nosed syndrome in bat populations of the Northern Forest: exploring the critical disease-genotype-microbiome link”, \$103,746 total (2014-2016), \$92,879 for 2014-15. PIs: P. Marquardt, L. Berkman, J. Frair, D. Donner, and D. Linder. Supports post-doctoral researcher Leah Berkman and 2 lab technicians (Ben Prom and Matt Meisenheimer).

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

- US Army Corps of Engineers, “Research for carnivore management on Fort Drum”, continuation of the original grant for another 2 years, \$87,288 total 2015-2017. PI: J. Frair
- Safari Club International, “Strengthening the public trust: Management effectiveness of state fish and wildlife agencies”. \$42,174 total 2015-2017. PIs: T. Rentz, J. Frair

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

- USDA Northern States Research Cooperative, “Identifying an optimal strategy to monitor moose viability across public and private lands in the Adirondack Park,” \$99,683 total 2015-2017. PIs: P. Schuette, J. Frair, T. Millette.

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

Hansen, S.K., Frair, J.L., Underwood, H.B., and Gibbs, J.P. (2015) Pairing call-response surveys and distance sampling for a mammalian carnivore. *Journal of Wildlife Management*, 79(4):662-671.

Campbell, S.P., Frair, J.L., Gibbs, J.P. and Rundell, R. (2015) Coexistence of the endangered, endemic Chittenango Ovate Amber Snail (*Novisuccinea chittenangoensis*) and a non-native competitor. *Biological Invasions*, 17(2):711-723.

B. Non-refereed Publications

LeGrande, C.L. and Frair, J.L. (2014) The power of GIS: useful tips on using spatial analysis tools. *The Wildlife Professional*, 8(4):50-53.

Schuette, P. and Frair, J.L. (2015) Managing uncertainties associated with global declines of apex predators. *The Applied Ecologists Blog*, <https://jappliedecologyblog.wordpress.com/2015/03/20/managing-uncertainties-associated-with-global-declines-of-apex-predators/>.

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

Top Dog? The ecological role of coyotes in the Northeastern US, Oct 2014, The Wildlife Society Annual Conference, Pittsburgh, PA – *invited presentation*

Shale energy technology and spatial distribution in North America (delivered by coauthor Shannon Farrell), Oct 2014, The Wildlife Society Annual Conference, Pittsburgh, PA – *invited presentation*

Documenting moose population size and distribution across public and private lands in the Adirondacks (delivered by coauthor Paul Schuette)

—Apr 2015, The North American Moose Conference and Workshop, Granby, Colorado.

—Apr 2015, The Northeast Fish & Wildlife Conference, Newport, Rhode Island.

Deer impacts on forest regeneration at spatial scales relevant to management decisions (delivered by coauthor Mark Lesser), Apr 2015, The Northeast Fish & Wildlife Conference, Newport, Rhode Island.

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

Top Dog? The ecological role of coyotes in the Northeastern US

—The NYS DEC Indian Nations meeting, Syracuse, NY (Apr 2015; ~15 people)

—Safari Club International, Central NY chapter, Oneonta, NY (Apr 2015, ~15 people)

—Cayuga County Federation of Conservation Clubs, Auburn, NY (Mar 15, ~70 people)

—New York State Fish and Wildlife Management Advisory Board, Pulaski, NY (Sep 2014, ~45 people)

—American Wildlife Conservation Foundation, Smyrna, NY (Sep 2014, ~15 people)

—New York State Conservation Council, Utica, NY (Sep 2014, ~50 people)

Monitoring moose populations in New York State

—New York State Fish and Wildlife Management Advisory Board, Pulaski, NY (Mar 2015, ~45 people)

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.

- NY State Fish and Wildlife Management Advisory Board, SUNY ESF Science Advisor
- o Two-day meetings Sep 2014 and Mar 2015.

VI. PROFESSIONAL DEVELOPMENT

A. Professional Honors and Awards (for teaching, research, outreach, etc.)

Inducted as “Fellow” to The Wildlife Society recognizing my professional service to the society.

B. 1. Activities in Professional Organizations (offices held, service as chairman, member, participant or consultant)

The Wildlife Society
— College and University Wildlife Education Working Group (member, 2011-present)

2. Professional Society Membership

The Wildlife Society (2004 – present)
Ecological Society of America (2006 – present)
Society for Conservation Biology (2006 – present)

3. Other Professional Activities

a. Editorial activity

<u>Journal (s)</u>	<u>Responsibility</u>
Journal of Applied Ecology	Associate Editor
<u>Other (books, symposia, etc.)</u>	

b. Reviewer

<u>Journal(s)</u>	<u>No. of manuscripts</u>
Journal of Applied Ecology	12
Wildlife Society Bulletin	1
Mammal Review	1

Agency No. of proposals

Minnesota State Legislature

1

Other

c. Participation (workshops, symposia, etc.)

Name of workshop, etc.

Date

Place

USGS scenario planning for moose in the northeastern United States – Science Workshop

4-5 Feb 2015

Westborough, MA

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

Completed CITI training (recertification), October 2014

Completed Wildlife Research CITI training, October 2014

D. Foreign Travel (Where, When, Purpose)

University of Alberta, Edmonton, Alberta, 21-29 November 2014, collaboration with research colleagues on elk study.

VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)

A. Department-level

- Associate Director, Roosevelt Wild Life Station
 - Led development of strategic plan for the station during fall semester, coordinated outside and internal input, helped organize strategic planning meeting with the Honorary Advisory Council, and was lead author on the plan.
 - Organized monthly meetings in the spring semester with Scientists-in-Residence to put the strategic plan into motion, and helped present the plan to ESF administration.
 - Worked with the ESF College Foundation to raise funds for Boone and Crockett Club endowment, \$376,000 secured to date.
 - Delivered first externally-sponsored RWLS field course at the Lucky Star Ranch.
 - Assisted with other fundraising and outreach efforts.
- Roosevelt Wildlife Collection
 - Supervised curator, Ron Giegerich.
- Curriculum Coordinator for Wildlife Science major
 - Worked with Jonathan Cohen and Shannon Farrell to complete the first-ever full assessment of the wildlife major and to devise and deliver an exit exam to graduating seniors.

B. College-level

- Science Advisor to NY State Fish and Wildlife Management Advisory Board (President's representative)

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.

For our students, this year I offered a wildlife field techniques course during the Maymester, which I think is the perfect time to offer such a course, coming as it does before most summer field jobs occur. In fact, one student in the course was hired this summer on a telemetry study and received in my class a comprehensive introduction to the process of triangulating and homing into the source of a radio signal. The course also provided students with certification in hunter education and trapper education, exposing them to critical constituencies they would serve as wildlife professionals, and helping to frame the context of wildlife management in North America. The course was completed by 14 students – from all across NY State and other states, from a diversity of ethnic backgrounds, and from both rural and urban environments. The venue was the Lucky Star Ranch, and ranch owners Jody and Doreen Garrett underwrote the course, providing funding for tents, food, and field supplies which greatly reduced the cost of this intensive field course for students. The course was co-taught by Paul Schuette, Roosevelt Post-Doctoral Scholar, helping him to develop desired teaching skills in a field course setting.

For the department and college, this year I focused on helping the Roosevelt Wild Life Station define itself and fund its initiatives. With tremendous help and support from Terra Rentz, James Gibbs, and Don Leopold, I led the first ever strategic planning effort for the Roosevelt Station. In so doing we defined who we are, what our mission is, and focused our efforts for the next 5 years on key areas that will help to elevate our brand and ensure our long-term success. I coordinated monthly meeting this spring with the Station's Scientists-in-Residence to finalize the strategic plan and begin acting on it – together we worked on what kind of communications the station wants to deliver (print – maybe, online – certainly, blog form – probably), what a branded scholars program might look like for both students and post-docs, and what form our first ever annual report would take, something I'll be working on assembling yet this summer. I also worked very closely this year with the ESF College Foundation, and specifically with Nora Heaphy, to secure the fundraising contract for the endowed professorship with the Boone and Crockett Foundation (signed December 2014) and begin fundraising in earnest (we've raised \$376,000 since January).

For myself professionally, I focused on managing the omnibus MOU with the NYS DEC, which went into full force in 2014. That involved setting up 8 project budgets – some that I manage for other PIs and several that I oversee directly. The ones I directly oversee included one new research project (monitoring moose in the Adirondacks), one project that provides some general administrative support to the Roosevelt Wild Life Station, and a third that provides statistical support to the DEC (hiring statistician and database administrator positions for the DEC central office). In addition, I am co-PI on another DEC research project (monitoring deer impacts on forest regeneration in NY State). Both the moose and deer projects are large collaborations among multiple institutions, and even involve managing subcontracts to these other institutions. Hiring Terra Rentz to help manage this large MOU was probably the best thing I did for myself professionally this past year – she has been instrumental in keeping track of the ever-changing budgets, in cross-walking ESF's reporting with DEC's reporting requirements, and in managing quarterly reports and time sheets for all the various projects and peoples. I would also mention as a major professional accomplishment having been inducted as a "Fellow" to The Wildlife Society, an honor that I am truly humbled by.

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)

My focus in the coming year will be on mentoring – from students to professionals. I plan to work with my wildlife colleagues to help improve how we assess the success of the wildlife program, and to frame educational and professional standards for advanced degrees in wildlife at ESF. I also have a new research project coming online to assess the status of reintroduced river otter populations across New York State – a project that I will develop in close collaboration with my post-doc Paul Schuette, helping him develop critical project management skills for a career in academia. I plan to begin bringing students with me for various professional settings, such as my regular meetings with the DEC and the NY State Fish and Wildlife Management Advisory Board – enabling them to interact with the professionals they aspire to be and with the constituencies they will serve as wildlife managers.

B. PROJECTED ACTIVITIES FOR NEXT YEAR

1. Summer 2015

a. Course(s) to be offered

I included my Maymester course in my academic year offerings as it technically was completed before the academic year obligation was over.

b. Proposed research activity

Design sampling plan for winter river otter and moose surveys. Conduct field work on fox and coyote on Fort Drum. Work on manuscripts from existing and past research projects.

c. University, professional society, and public service

Fundraising for the B&CC professorship, writing annual report for the RWLS.

2. Fall Semester 2015

a. Course(s) to be offered

Quantitative Methods and Models in R – graduate offering
Also in discussions about co-teaching Landscape Ecology

b. Proposed research activity

Design sampling plan for winter river otter and moose surveys. Conduct field work on fox and coyote on Fort Drum. Work on manuscripts from existing and past research projects.

c. University, Professional society, and public service

Fundraising for the B&CC professorship, continuing to deliver RWLS strategic plan.

3. Spring Semester 2016

a. Course(s) to be offered

Applied Wildlife Science (EFB 491)

b. Proposed research activity

Undertaking moose and river otter population surveys. Writing manuscripts.

c. University, professional society, and public service

Fundraising for the B&CC professorship, continuing to deliver RWLS strategic plan.