

**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:     Martin Dovciak    

**I. INSTRUCTIONAL ACTIVITIES**

1. Regular Course Offerings

	Course No.	Title	Credit Hrs.	No. Students	No. of Lab. Sections
FALL:	EFB 435	Flowering Plts: Div, Evol, Syst.	3	19	1
	EFB 635 (grad)	Flowering Plts: Div, Evol, Syst.	3	9	1
SPRING:	EFB 445	Plant Ecology & Global Change	3	29	-
	EFB 645 (grad)	Plant Ecology & Global Change	3	7	-

**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
EFB 420	Prof. Internship/Env. Biol.	17	5
EFB 498	Research Problems/EFB	2	1
EFB 798	Research Problems/EFB	2	1
EFB 999	Doctoral Thesis Research	22	5

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

- Cornell University, Ithaca. “The spread and impact of invasive plant species in forested landscapes under changing climate”. Cornell Cooperative Extension Inservice event, Climate Change & Invasive Species session (Nov. 3, 2015, ~50 attendees)
- SUNY ESF, Syracuse. “Ecological impacts of white-tailed deer on New York forests”. Wildlife Research and Management Support Networking Conference, SUNY ESF Roosevelt Wild Life Station and NYS Department of Environmental Conservation (Jan. 27, 2016, ~50 attendees)

4. Guest Lecture Activities

Course No.	Title	No. of Lectures
EFB 210	Diversity of Life I	3
EFB 326	Diversity of Plants	1

## II. STUDENT ADVISING

A. Number of undergraduates for whom you are the student's official advisor \_\_24\_\_

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

Completed:

- Jay Ward Wason, III., Ph.D., May 2016  
(Thesis title: Environmental controls on forest tree species growth and distributions along elevation gradients in the northeastern United States.)

In Progress:

- Margaret Roberts, Ph.D. Student (since September 2015)
- Mariano Arias, Ph.D. Student (since September 2015)

### CO-MAJOR PROFESSOR

In Progress:

- Monica B. Berdugo Moreno, Ph.D., since August 2012 (Ph.D. Candidate since April 2015; with R. Kimmerer)
- Michael Whalen, Ph.D. Student (since April 2015; with S. Farrell)

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

Completed:

- Eugene Law (M.S., S. Diemont)
- Quincey Blanchard Oliver (M.S., FNRM, C. Nowak)
- James Johnson (M.P.S., D. Leopold)

In Progress:

- Alex Petzke (Ph.D., D. Leopold)
- Kelsey Martinez (Ph.D., J. Fridley, Syracuse University)
- Sam Peterson (M.S., J. Frair)
- Liza Iegorova (M.S., J. Gibbs)
- Eli Arnow (M.S., S. Diemont)
- Ella Grey (M.S., E. Bevilacqua, FNRM)

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

- Narayana Raju Jampana (Ph.D. Candidacy Exam, PBE, Chair)

### III. RESEARCH COMPLETED OR UNDERWAY

A. Departmental Research (unsupported, boot-legged; title - % time spent)—None.

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)

- NYSERDA. “Effects of acidic deposition and soil acidification on forest understory plant biodiversity in the Adirondack Mountains”. T. Sullivan (PI), M. Dovčiak, G. Lawrence, T. McDonnell; \$200,000; 3/2015-10/2016. (\$87,001 to M. Dovčiak; M. Whalen-supported PhD student, Matt Glaub & Tim Callahan-student field crew members).
- NYS DEC. “Evaluating deer impacts on forests of New York State”. M. Dovčiak (PI), J. Frair, J. Hurst, P. Curtis, P. Smallidge. \$312,213. 4/2014-3/2017 (M. Lesser-supported post-doctoral associate; M. Roberts and J. Wason- partially supported PhD students).
- Electric Power Research Institute. “Cost effectiveness of cleaning techniques for controlling human-based transport of invasive exotic plants on electric transmission line rights-of-way across New York”. C. Nowak (PI) and M. Dovčiak (Co-PI). \$414,551 (award to M. Dovčiak: \$176,184), 8/2012-5/2016 (J. Quant-supported MS-level research staff).
- Northeastern States Research Cooperative. “Global change fingerprints in montane boreal forests: Implications for biodiversity and management of the northeastern protected areas”. M. Dovčiak (PI), C. Beier, G. Lawrence, J. Battles. \$89,497. 8/2012-8/2015 (J. Wason-supported PhD student).
- SUNY ESF Seed Grant Program. “Effects of mosses on the chemistry of tree seedlings and their impacts on forest regeneration” M. Dovčiak (PI), R. Kimmerer, C. Driscoll. \$6,800. 4/2014-12/2015 (M. Berdugo-PhD student with supported field/lab work).

2. Research Proposals pending (include information as in B.1., above)—None.

3. Research Proposals submitted, but rejected (include information as in B.1., above)—None.

### 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

Published:

- Alvarez-Yepiz JC, Dovciak M. 2015. Enhancing ecosystem function through conservation: threatened plants increase local carbon storage in tropical dry forests. *Tropical Conservation Science* 8, 999-1008.
- Wiezik M, Svitok M, Wiezikova A, Dovciak M. 2015. Identifying shifts in leaf-litter ant assemblages (Hymenoptera: Formicidae) across ecosystem boundaries using multiple sampling methods. *PLoS ONE* 10(7): e0134502. DOI:10.1371/journal.pone.0134502
- Lawrence GB, Sullivan TJ, Burns DA, Bailey SA, Cosby BJ, Dovciak M, Ewing HA, McDonnell TC, Minocha R, Riemann R, Quant J, Rice KC, Siemion J, Weathers K. 2015. Acidic Deposition along the Appalachian Trail Corridor and its Effects on Acid-Sensitive Terrestrial and Aquatic Resources. Results of the Appalachian Trail MegaTransect Study. Natural Resource Report (refereed). NPS/NRSS/ARD/NRR—2015/996. Fort Collins, Colorado. Published Report-2223220. 349 pp.

Submitted:

- Wason J, Dovciak M, Beier C, Battles J. Range shifts lag tree growth responses to recent changes in climate and acidic deposition. *Journal of Applied Ecology* (submitted).
- Álvarez-Yépez JC, Burquez A, Martínez-Yrizar A, Teece M, Yépez EA, Dovciak M. Resource partitioning by evergreen and deciduous species in a tropical dry forest. *Oecologia* (submitted).

- Raney PA, Leopold DJ, Dovciak M, Beier C. Hydrologic position mediates sensitivity of tree growth to recent climate change: wetlands as refugia in a warmer world. *Forest Ecology and Management* (submitted).
- Langdon SF, Dovciak M, Leopold DJ. Forest succession lowers vascular plant diversity and conservation value in boreal peatlands near their southern range limits. *Botany* (submitted).

#### B. Non-refereed Publications

- Monitoring Changing Forests in Mountain Regions. Roosevelt Wild Life Station. SUNY ESF Office of Communications. Informational pamphlet.
- Nowak C, Quant J, and Dovciak M. 2015. Understanding human-based transport of invasive exotic plants on electric transmission line rights-of-way: Developing an empirical basis for deciding when to clean people and vehicles to minimize inadvertent transport of invasive exotic plants from powerline corridors. Technical Update, Report No. 3002006331. Electric Power Research Institute, Palo Alto, CA.
- Quant J, Nowak C, and Dovciak M. 2015. Literature syntheses of select invasive exotic plants common on electric transmission rights-of-way: Biology and ecology. Technical Report, Report No. 300200746, Electric Power Research Institute, Palo Alto, CA.

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

- Dovčiak M<sup>‡</sup>, Whalen M<sup>\*‡</sup>, McDonnell T, Lawrence G, Sullivan T. 2016. Patterns of acidic deposition, soil acidification, and forest understory plant biodiversity in the Adirondack Mountains. Adirondack Research Forum, Old Forge, New York, March 2.
- Langdon S<sup>‡\*</sup>, Dovciak M, Leopold DJ. 2016. Adirondack boreal peatland community tree demographics: Implications for biodiversity conservation management. Adirondack Research Consortium 23<sup>rd</sup> Annual Conference on the Adirondacks, May 25-26, Lake Placid, NY.
- Quant J, Nowak C<sup>‡</sup>, Dovciak M. 2016. Human-based spread of invasive plants from powerline corridors in New York State. Workshop and co-joined webinar presented for Environmental Energy Alliance of New York, April 7, 2016, Albany, NY (workshop participants from the electric utility industry, New York State Department of Environmental Conservation, and the New York State Public Service Commission).
- Wason J<sup>\*‡</sup>, Dovciak M, Bevilacqua E. 2015. Mountain climates on the move: Implications for past and future vegetation shifts in the northeastern United States. American Geophysical Union Fall Meeting, San Francisco, December 14-18.
- Lawrence G<sup>‡</sup>, Sullivan T, Burns D, Bailey S, Cosby B, Dovciak M, Ewing H, McDonnell T, Riemann R, Quant J, Rice K, Siemion J, Weathers K. 2015. Acidic deposition along the Appalachian Trail corridor and its effects on acid-sensitive terrestrial and aquatic resources. American Geophysical Union Fall Meeting, San Francisco, December 14-18.
- Quant JM<sup>‡</sup>, Nowak CA, Dovciak M. 2015. Human-based spread of invasive plants from powerline corridors in New York state. Environmental Concerns in Rights-of-Way, 11<sup>th</sup> International ROW Symposium, Halifax, Nova Scotia, Canada, September 20-23, 2015.
- Lesser MR<sup>‡</sup>, Curtis P, Hurst J, Frair J, Dovciak M. 2015. Oh deer, what can the matter be? Evaluating deer impacts on forest regeneration in New York State. Ecological Society of America, Annual Meeting, Baltimore, MD, Aug. 9-14.
- Quant JM<sup>‡</sup>, Nowak CA, Dovciak M. 2015. Quantifying inadvertent invasive plant transport from powerline rights-of-way in New York State. Ecological Society of America, Annual Meeting, Baltimore, MD, Aug. 9-14.
- Wason J<sup>\*‡</sup>, Dovciak M. 2015. Demographic responses of tree communities relative to recent environmental change in northeastern mountain forests. Ecological Society of America, Annual Meeting, Baltimore, MD, Aug. 9-14.

\* graduate student; ‡ presenter

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

- Cornell University, Ithaca. “The spread and impact of invasive plant species in forested landscapes under changing climate”. Cornell Cooperative Extension Inservice event, Climate Change & Invasive Species session (Nov. 3, 2015, ~50 attendees)
- SUNY ESF, Syracuse. “Ecological impacts of white-tailed deer on New York forests”. Wildlife Research and Management Support Networking Conference, SUNY ESF Roosevelt Wild Life Station and NYS Department of Environmental Conservation (Jan. 27, 2016, ~50 attendees)

## V. PUBLIC SERVICE

A. Funded Service (include consulting activities)

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

- New York State DEC, Cornell Cooperative Extension. Contributing to the development of public outreach and citizen science component of the project on the impacts of deer on forests of New York State (ongoing).
- New York Power Authority. Contributing to the development of guidelines on the effectiveness of cleaning techniques for controlling transport of invasive exotic plants on power line rights-of-way in New York by vegetation management crews (ongoing).

2. Industrial and Commercial Groups, etc.—None.

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

- U.S. National Park Service. Environmental monitoring and modeling support for science-based conservation of forest vegetation along the Appalachian Trail from Georgia to Maine (Vegetation team PI).
- Sierra de Alamos-Rio Cuchujaqui Biosphere Reserve, Mexico. Ecological monitoring and conservation of an endangered forest cycad, *Dioon sonorensis* (informal advisor).
- Shingle Shanty Preserve and Research Station, Adirondacks, NY. Vegetation monitoring (informal advisor).
- Regular interaction with the public/answering of inquiries on plant ecology, taxonomy, global change, and sustainability.

## VI. PROFESSIONAL DEVELOPMENT

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

- Invited Speaker: Mountain Research Initiative Mixer, AGU Annual Meeting, San Francisco, CA. “Monitoring Changing Forests in Mountain Regions” (2015).

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

- International Association for Vegetation Science (IAVS)- Editorial Board Member
- New York Climate Change Science Clearinghouse (NYCCSC)- Sector Expert: Agriculture and Forestry
- Mountain Research Initiative- Expert Database Member
- New York Invasive Species Research Institute- Expert Database Member

2. Professional Society Membership

- Ecological Society of America
- Botanical Society of America
- International Association for Vegetation Science
- Society of American Foresters

### 3. Other Professional Activities

#### a. Editorial activity

<u>Journal (s)</u>	<u>Responsibility</u>
• Journal of Vegetation Science	Editorial Board Member
• Applied Vegetation Science	Editorial Board Member

#### b. Reviewer

<u>Journal(s)</u>	<u>No. of manuscripts</u>
• Ecological Monographs	1
• Forest Science	2
• Global Change Biology	1
• Journal of Applied Ecology	1
• Journal of Vegetation Science	3
• PLOS One	1

  

<u>Agency</u>	<u>No. of proposals</u>
• NSF DEB-Population & Community Ecology	1

#### c. Participation (workshops, symposia, etc.)

<u>Name of workshop, etc.</u>	<u>Date</u>	<u>Place</u>
• Invited Panelist: Cornell University Agriculture and Food Systems In-Service, Ithaca, NY. Climate Change and Invasive Species (Nov. 3, 2015).		
• Periodical conferences with Cornell Cooperative Extension and NYS DEC to discuss research and the development of outreach component related to the ESF study of deer effects on forests across New York State (June 1, 2015 to May 30, 2016, held in Ithaca or Syracuse)		

C. Further Education/Re-training Undertaken, Leaves, Workshops, etc.—None.

#### D. Foreign Travel (Where, When, Purpose)

- Western Carpathians and Technical University in Zvolen, Slovakia (Aug. 5-15, 2015). Collaborative Research: Forest and forest-grassland ecotone dynamics (1 paper published, 1 manuscript in preparation).

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

### A. Department-level

- Robert Burgess Graduate Scholarship in Ecology, Chair
- Graduate Program Advisory Committee, member
- Scientist-in-Residence and Roosevelt Forest Ecologist, Roosevelt Wild Life Station
- Mentored and supervised post-doctoral and post-M.Sc. research staff (Dr. M. Lesser- co-advised by J. Frair; and J. Quant, co-advised with C. Nowak).

### B. College-level

- CSTEP program mentor
- Graduate Program in Environmental Science–Ecosystem Restoration Program, member
- Graduate Program in Environmental Science–Environmental Monitoring and Modeling Program, member
- Young Forest-Wildlife working group, member
- Beech Working Group, member
- Center for Urban Environment, member

C. University-wide, including Research Foundation.—None.

## 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.

Students: Once again, I taught Flowering Plants: Diversity, Evolution, and Systematics (EFB 435/635) to the highest enrollment in this class since I started to teach it at ESF (28 students this year)—the number of students in this class progressively grows from year to year which I take to mean that this non-required class is progressively building a positive reputation among students. I also taught Plant Ecology and Global Change (EFB 445/645) to an average enrolment for that class (36 students) and flowering plants' lectures in our large departmental course Diversity of Life I (EFB 210) and Diversity of Plants (EFB 326). I continued implementing elements of Team-Based Learning™ (TBL) in EFB 435/635 given the positive response from students to it in the past and I started to incorporate TBL elements also in my larger class, EFB 445/645, and liked the positive effects of that approach on the class dynamics in that class too. I graduated my 12<sup>th</sup> graduate student (2<sup>nd</sup> Ph.D. student), Jay Wason, and I am happy to report that he is continuing his academic career as a post-doctoral associate at the Yale University School of Forestry and Environmental Studies. I also worked over this past year with my three new PhD students (Whalen, Roberts, Arias) to help them develop their thesis proposals and with my advanced PhD student (Berdugo-Moreno) who is writing her dissertation and planning to defend this coming year. In addition, I provided a significant lab internship to an undergraduate student (James Molloy) interested in building his flowering plants identification skills focusing on grasses and sedges. Most of my previously completed graduate students and several undergraduate researchers continue to be successful, with professional positions at universities or in environmental consulting firms such as Yale University, Jones Ecological Research Center, UC Berkley, Texas Tech University, University of Miami, or O'Brian & Gere. I helped several current or former graduate students to publish or submit papers as first authors or co-authors (6 refereed, 2 non-refereed) this year.

Department/College: I continued to represent College/Department in my broader professional service including (1) serving as an editorial board member in two flagship journals of the International Association for Vegetation Science (*Journal of Vegetation Science*, *Applied Vegetation Science*), and (2) serving as a PI, co-PI, or collaborator in larger collaborative research teams including several institutions and projects (i) NYS DEC and Cornell Cooperative Extension project "Evaluating deer impacts on forests of New York State" (supporting Dr. Mark Lesser, partial support for two doctoral students), (ii) New York Power Authority project "Cost effectiveness of cleaning techniques for controlling human-based transport of invasive exotic plants on electric transmission line rights-of-way across New York" (supporting one of my recent graduates, J. Quant, as a full-time Research Analyst), (iii) US Geological Survey, US Forest Service, and Carry Institute project "Appalachian Trail Mega-Transect Atmospheric Deposition Study", and (iv) NYSERDA project on acid deposition effects on plant diversity in the Adirondacks (supporting M. Whalen, M. Glaub, T. Callahan). In addition, I completed NSRC project on tree responses to changing environment in Northern Forest (supporting J. Wason) and continued to serve as the Chair for the Selection Committee for the Burgess Graduate Scholarship in Ecology, and as a member of the Graduate Program Advisory Committee. At the college level, I served as a faculty mentor in the CSTEP program, a member in two of the GPES Areas (Ecosystem Restoration, Environmental Monitoring and Modeling), a faculty member in the Center for Urban Environment, ESF Beech working group, and I became involved with the new departmental initiative on Young Forests and Wildlife.

Self/Professional Development: A significant accomplishment this past year for me was to be invited as a speaker to the Mountain Research Initiative (MRI) mixer held in conjunction with the American Geosciences Union Fall Meeting in San Francisco to present research in my group on "Monitoring Changing Forests in Mountain Regions". This was an excellent opportunity to highlight our research to a group of researchers working in mountain regions across the U.S. and globally. To complement my talk I produced a short informational leaflet with ESF Communications Office which since proved useful as a nice outreach document in general. Another significant accomplishment was that I developed the program for my first sabbatical (approved by the college) which will include an integrated mix of work on research papers, funding proposals, and travel to conferences and collaborating institutions focused on the use of bioinformatics in plant/biodiversity conservation under global change. My research output continued to be productive with three new refereed and two non-refereed publications and four additional manuscript submissions. Importantly, I worked on a relatively large number of additional manuscripts (10) now in advanced stages of preparation and planned for submissions within the next few weeks to months, including some for high profile journals (*Global Change Biology*). My summer travel to Europe and communication with colleagues there continued to enhance my research on forest and forest-grassland ecotone dynamics (a paper published in *PLOS One*, and new manuscript for submission this summer).

**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

None in person, but two of my PhD students (Whalen, Roberts) are contributing to teaching plant ecology and taxonomy sections in EFB 202 taught at the Cranberry Lake Biological Station.

b. Proposed research activity

- Develop and present a talk on invasive species in forests under changing climate and deer pressure at the ESA Annual Meeting at Ft. Lauderdale, Florida.
- Finalize and submit two manuscripts from the NSRC study of forest growth, changing climate, and ecotone dynamics across elevational ecotones in the northeastern US.
- Finalize the final report and manuscript(s) related from the Deer Impacts on Forests in NYS, and continue to develop public outreach component in collaboration with Cornell University.
- Develop manuscript(s) related to the NYSERDA grant on plant diversity in the Adirondacks.
- Contribute to developing the final manuscript for the ERPI study of the cleaning techniques impacts on plant invasions in New York power-line corridors.
- Work with co-authors/students to finalize and submit several advanced manuscripts (the AT Mega-Transect Study, tree invasions into boreal peatlands, bryophyte manuscript).
- Feedback for a new submission and potential revisions of *Dioon sonorensense* manuscripts (2).
- Complete/submit the manuscript on seven decades of forest succession in western Carpathians.
- Travel to Technical University in Zvolen, Slovakia, to discuss current and future collaborations.

c. University, professional society, and public service

- Departmental/College service as appropriate.
- Continuing to serve as an Editorial Board member for *Journal of Vegetation Science* and *Applied Vegetation Science* (additional editorial service as appropriate)

2. Fall Semester 2016

a. Course(s) to be offered—None (Sabbatical leave).

b. Proposed research activity—Sabbatical leave

- Conservation monitoring and analytical training in bioinformatics tools (FIA or I&M programs and databases and associated analytical methods) accomplished via webinars, online and other training materials, and short-term visits/consultations at collaborating institutions (e.g., USFS Research Stations, NPS, NYS NHP, NatureServe in Arlington/Boston, UC Berkley).
- Develop at least three new funding proposal(s) in the area of bioinformatics and plant/biodiversity conservation for one of the major competitions (e.g., NSF MacroSystems Biology, Coupled Natural and Human Systems, DEB Population & Community Ecology, Dimensions of Biodiversity, PIRE, USDA, or DoE).
- Initiate at least one new data paper and one conceptual/review paper in bioinformatics and plant/biodiversity conservation targeted for well-regarded journals in conservation biology such as *Conservation Biology*, *Frontiers in Ecology and Environment*, or *Conservation Letters*.
- Conference travel to present the new work above-pending funding (AGU and SAF meetings).
- Revise my NSF GSS proposal for resubmission to expand the current work on elevational/latitudinal climate-vegetation gradients.



- Revise my NSF DEB (Pop. & Comm. Ecology) preproposal for resubmission to study how interacting global change drivers may effect plant invasions.
  - Continue to work on current manuscript revisions/submissions as needed.
- c. University, Professional society, and public service–None (Sabbatical leave).

### 3. Spring Semester 2017

- a. Course(s) to be offered
- EFB 445/645 *Plant Ecology & Global Change*, with added modules using student-centered and active learning approaches, especially TBL methods.
  - Offer new graduate seminar in *Plant Conservation Science*, or related
  - Guest lecture in *Diversity of Plants*, and potentially other guest lectures as appropriate.
- b. Proposed research activity
- Completing/submitting the two new manuscripts initiated during the sabbatical semester.
  - Complete and submit proposals with Spring deadlines prepared during the Sabbatical leave (e.g., NSF DEB, NSF Dimensions of Biodiversity).
  - Completions/revisions of other manuscripts/proposals from summer and fall as appropriate.
- c. University, professional society, and public service
- Departmental/College service as appropriate.
  - Continuing to serve as an Editorial Board member for *Journal of Vegetation Science* and *Applied Vegetation Science* (additional editorial service as appropriate)