

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

NAME: Donald J. Leopold

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:	EFB 327	Adirondack Flora	3.0	13	0
FALL:	EFB 336	Dendrology I	3.0	142	6
	EFB 495	Undergrad Exp./College Teach.	3.0	7	

SPRING:

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 420	Internship	3.0	1
EFB 498	Research Problems	1 - 3	1
EFB 899	Master's Thesis Research	1 - 9.	7
EFB 999	Doctoral Thesis Research	1 - 9	5

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>
EFB 210	Diversity of Life I	3
ESF 797	Grad Seminar on Information Resources	1
FOR 481	Introduction to Arboriculture	1
LSA 433/633	Planting Design & Practice	1
LSA 321	Ecol. Applications in Planning and Design	1
SU SoA	Design Studio	1

II. STUDENT ADVISING

- A. Number of undergraduates for whom you are the student's official advisor 8 and unofficial advisor _____
- B. Graduate Students: (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

Sveiven, Scott J. 2014. Linking environmental correlates to floristic assemblages: Discerning patterns across a mosaic of wetlands in Great Sand Dunes National Park & Preserve, Colorado. M.S. Thesis, 88 p.

Hajek, Karyn L. 2014. Conserving biological diversity in agrarian landscapes: A multiscale analysis of fen plant diversity patterns and investigation of livestock grazing in fen plant communities. Ph.D. Dissertation, 108 p.

Brown, Laura. 2014. Promoting conservation in rural Jamaica: A Peace Corps volunteer experience. MPS report, 83 p.

1. Catherine Landis, Ph.D., January 2009
2. James Johnson, M.S., August 2010
3. Matthew Regan, M.S., August 2011
4. Samantha Wason, M.P.S., August 2012
5. Jessica Saville, Ph.D., August 2012
6. Justine Weber, Ph.D., August 2012
7. Kali Mattingly, M.S., June 2014
8. Kristen Haynes, Ph.D., August 2014
9. Alex Petzke, Ph.D., August 2014
10. Robert Smith, M.S., August 2014

CO-MAJOR PROFESSOR

1. Alison Halpern, Ph.D. (with John Farrell)

MEMBER, STEERING COMMITTEE (other than those listed above)

1. Kathleen Buckler (SUNY-Brockport, M.S.)
2. Eli Polzer (SUNY-Brockport, M.S.)
3. Stephen Langdon (EFB, M.S.)
4. Jay Wason (EFB, Ph.D.)
5. Camille Warner (EFB, Ph.D.)
6. Elise Hinman (SYR, Ph.D.)
7. Michael Serviss (EFB, M.S.)
8. Frances Knickmeyer (GPES, M.S.)

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

1. Alex Levine (FCH, Ph.D., chair of defense)

III. RESEARCH COMPLETED OR UNDERWAY

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

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)

Honeywell International Inc., Onondaga Lake watershed 1-8: Plant studies; \$37,966; August 2014 to August 2015; D.J. Leopold.

Honeywell International Inc., Onondaga Lake and adjacent lands: Habitat assessment and restoration, vegetation issues; \$14,956; January 2014 to December 2015; D.J. Leopold.

Anchor QEA, LLC, Grass River Habitat Assessment and Reconstruction – Vegetation Issues; \$9,956; February to December 2014; D.J. Leopold.

Environmental Protection Agency, Improving vegetation indicators of wetland condition; \$172,070; Oct. 2013 to September 2015; D.J. Evans and D.J. Leopold.

NYS-DEC, New York Natural Heritage Program; \$3,273,393; July 2012 to June 2017; D.J. Leopold.

Environmental Protection Agency; Development of wetland assessment protocols; \$499,847; Oct. 2012 to March 2015, D.J. Leopold, D.J. Evans, and A. Feldmann.

NYS Consolidated Funding, SUNY-ESF Gateway Building green roof; \$413,000; January 2011 to December 2014; T. Toland, M. Kelleher, D. Daley, and D.J. Leopold.

Honeywell, Inc., Restoration of inland salt marsh, marl fen, and select woody species: Short-term goals of the native species component of the SWRS demonstration plan; \$908,754; January 2008 to August 2014; D.J. Leopold.

National Science Foundation, Environmental scholars: A scholarship program in Environmental Chemistry, Biology, and Engineering; \$600,000; March 2009 to February 2014; K. Donaghy, D.J. Leopold, J.P. Hassett, J.M. Hassett, and J.E. Turbeville.

NYS-DEC, Invasive plants program coordinator; \$213,608; January 2010 to June 2016; D.J. Leopold.

USFWS (GLRI), Production of genetically diverse American hart's-tongue fern for introduction or reintroduction in the Great Lakes Region, \$99,682; July 2011 to September 2014; D.D. Fernando and D.J. Leopold.

USFWS (GLRI), Control of Japanese knotweed (*Fallopia japonica* var. *japonica*) on Leedy's roseroot (*Rhodiola integrifolia* subsp. *leedyi*), a federally-threatened plant; \$69,902; September 2011 to August 2015; D.J. Leopold

USFWS (GLRI), Restoring critical habitat, mitigating multiple threats, and evaluating population statuses for bog turtle, eastern massasauga rattlesnake, and Houghton's goldenrod co-occurring in a single..., August 2012 to May 2015, D.J. Leopold and J.P. Gibbs.

USDA Forest Service-NSRC, Genetic diversity, morphometrics, and habitat analysis of a rare fern in the Northern Forests: Implications for management and long-term survival; \$82,876; September 2011 to August 2013, with one year extension. D.D. Fernando, D.J. Leopold and S.W. Bailey.

Ducks Unlimited Inc., Coastal fisheries habitat restoration in the St. Lawrence River; \$274,722; July 1, 2010 to June 30, 2014; J.M. Farrell, D.J. Leopold, J.P. Gibbs, K.L. Schulz, and M.J. Mitchell.

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

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

Distler, M.T. and D.J. Leopold. Influence of landscape setting on peatland development in New York State: Can paleoecological methods inform conservation choices? *Journal of Great Lakes Research* (in review).

Landis, C. and D.J. Leopold. 2014. Natural plant establishment along an urban stream, Onondaga Creek, New York. *Northeastern Naturalist* 21:303-322.

Riddle, J., N. Pederson, J.C. Stella, and D.J. Leopold. 2014. Shifting climate sensitivity and contrasting growth trends in *Juniperus* species growing together at opposite range margins. *Tree-Ring Research* 70:101-111.

Fernando D.D., J.J. Discenza, J.R. Bouchard, and D.J. Leopold. Genetic analysis of the threatened American hart's-tongue fern (*Asplenium scolopendrium* var. *americanum*) and insights into its rarity and persistence. *Biochemical Systematics and Ecology* (in review).

B. Non-refereed Publications

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

Design and performance of an intensive green roof system using native plant communities in upstate NY, paper presented at Water Environment Federation Technical Exhibition and Conference, Sept. 2014, and published in conference proceedings, Daley, D., T. Toland, and D.J. Leopold.

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

Tree identification, ecology, and natural history, Cornell Cooperative Extension of Onondaga County, Syracuse, June 2014, about 30 people in attendance (Onondaga Park, Syracuse).

Father's Day nature walk, Clark Reservation State Park, June, about 40 people in attendance

Terrestrial orchids of NYS, Syracuse Men's Garden Club, Syracuse, September, about 50 people in attendance.

Best trees for the home landscape, Skaneateles Garden Club, September, Skaneateles, about 80 people in attendance.

Native plants for gardens in New York State, VI District FGCNYS fall meeting, Binghamton, NY, October, about 150 people in attendance.

Restoration projects around Onondaga Lake, Syracuse Botanical Club, Syracuse, December, about 20 people in attendance.

Native plants for sustainable landscapes, Habitat Gardening Club of CNY, Liverpool, NY, January 2015, about 125 people in attendance.

Native plants alternatives to species on the NYS prohibited and regulated list of plants, Capital/Mohawk PRISM, Halfmoon, NY, January, about 125 people in attendance.

Native plants for difficult sites, STNLA Region 8 Education Day, Owego, NY, about 125 people in attendance.

Restoration projects on Onondaga Lake and adjacent wastebeds, SU's Institute for Retired People, Syracuse, March, about 100 people in attendance.

Terrestrial orchids of the Northeast, Hardy Plant Symposium, Hartford, CT, March, about 80 people in attendance.

Native plants for difficult garden and landscape settings, Brockway Farms Garden Club, Fayetteville, NY, April, about 20 people in attendance.

Truly rare and other protected plant species of NYS with an emphasis on orchids, Niagara Frontier Botanical Society annual meeting, Buffalo, NY, April, about 50 people in attendance.

E. Miscellaneous Products of Scholarship

V. PUBLIC SERVICE

A. Funded Service (include consulting activities)

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

2. Industrial and Commercial Groups, etc.

In June 2014, Dr. James Gibbs and I led a bioblitz on a private estate near Pawling, NY, which generated funds for the RWLS, and gave a group of EFB graduate students and alumni an unusual, paid, professional opportunity.

Project (with Dr. James Gibbs) on Long Island for Janice Parker Landscape Architects, on restoring a degraded parcel of land after we made a biological assessment.

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

Co-tour leader of potential Onondaga Lake NRD projects, to NRD board of trustees, May 2015

Member, Board of Trustees, The Wetland Trust, Inc.

National Technical Committee for Wetland Vegetation, northeastern U.S. representative from academia to this US

Army Corp of Engineers advisory committee, January 2007 to present.

Upper Susquehanna Coalition, consulting on various wetland issues

Frequent contributor, upon request, to the Syracuse Post-Standard

Frequently answer questions from city of Syracuse employees regarding city trees, park plantings, and green infrastructure projects

Numerous local and national TV and radio interviews including interviews on fall color, Gateway Building green roof, drought, invasive species, allergy season, and native plant species.

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)

2. Professional Society Membership

Society of Wetland Scientists

Ecological Society of America

Society of Conservation Biologists

New York Flora Association

3. Other Professional Activities

a. Editorial activity

Journal (s)

Responsibility

Other (books, symposia, etc.)

b. Reviewer

Journal(s)

No. of manuscripts

Wetlands

2

Ecohydrology

1

Agency

No. of proposals

Other

Review for 5-year reappointment of scientist at the Cary Institute of Ecosystem Studies.

c. Participation (workshops, symposia, etc.)

<u>Name of workshop, etc.</u>	<u>Date</u>	<u>Place</u>
USACE National Technical Committee meeting	Oct. 22-24	Galveston, TX

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

D. Foreign Travel (Where, When, Purpose)

VII. ADMINISTRATIVE AND SERVICE RESPONSIBILITIES (include committee participation)

A. Department-level

Chair, Department of Environmental and Forest Biology

General Summary of Regular Duties

Supervisor for about 35 faculty, two Secretary 1 positions (incl. my administrative assistant), two Instructional Support Specialists and other staff

Related: promoting faculty and staff within and outside of the department and facilitating the many good ideas that regularly emanate from faculty and staff

Manage allocation of state, Research Foundation (research incentives), and College Foundation accounts

Manage allocation of 40 state graduate teaching assistantships

Convene regular department meetings

Represent department at biweekly Academic Council meetings

Work with Development Office for fundraising

Responsible for making sure that all regular and new undergraduate and graduate courses are offered as listed in the College Catalog or webpage; main contact with Registrar for any course changes.

Work with Physical Plant on all planned renovations and emergency repairs

Assist Provost with special projects as needed

Represent department at all college open houses and other department events

Prepare annual department report

SEFA Coordinator, Fall 2014

B. College-level

Organizer and Host, Dale L. Travis lectures, twice each year.

Participant in the Environmental Health undergraduate level curriculum group.

Presenter, Graduate Colloquium August 2014, "A Vision of Excellence in Teaching and Scholarship"

Presenter (twice, on campus trees and shrubs) for annual Alumni, Family, and Friends BBQ, October 2014

Member, Presidential Inaugural Committee; responsible for inaugural bioblitz

Member, Core Team for Academic Research Building

Member, ESF Executive Committee + 2 for College Strategic Planning

Roosevelt Field Ecologist, Roosevelt Wild Life Station, SUNY-ESF

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 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, which I'll continue to award based on your contributions to the department and college this reporting period.

With the assistance of many faculty, students, and off campus partners I organized the Onondaga Lake bioblitz held in September as part of the President's inauguration, and found the funds to pay for the majority of costs (drinks, food, including final picnic, t-shirts). The event was very successful for the College and received significant media attention. Hundreds of students and many faculty and staff were involved in the event. I finished three graduate students this past year, bringing the total of Ph.D., M.S., and M.P.S. students I have finished the past 30 years at ESF to 65.

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 2015

- a. Course(s) to be offered
- b. Proposed research activity
- c. University, professional society, and public service

2. Fall Semester 2015

- a. Course(s) to be offered
- b. Proposed research activity
- c. University, Professional society, and public service

3. Spring Semester 2016

- a. Course(s) to be offered
- b. Proposed research activity
- c. University, professional society, and public service