

ANNUAL REPORT: June 1, 2015 – May 31, 2016
(i.e., Summer 2015, AY 2015-2016)
DEPARTMENT OF ENVIRONMENTAL AND FOREST BIOLOGY
SUNY-ESF

NAME: Mark V. Lomolino

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:	EFB 483	MAMMAL DIVERSITY	4	34	4

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	Professional Internship	3	1
EFB 797	Classic Readings in Biog, Ecol. Evol	1	17

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 211	Diversity of Life	2

II. STUDENT ADVISING

- A. Number of undergraduates for whom you are the student's official advisor 15 and unofficial advisor _____
- 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

Katherina Bendz, Ph.D., August, 2005 to present

CO-MAJOR PROFESSOR

MEMBER, STEERING COMMITTEE (other than those listed above)

Tim McCoy
Chelby Killeffer
Lucas Negoita – SU
Jessica McCordic – SU

CHAIRMAN OR READER ON THESIS EXAMS, ETC.

Chair Exam Committee for - Ying Guo, Department of Paper and Bioprocess Engineering

III. RESEARCH COMPLETED OR UNDERWAY

- A. Departmental Research (unsupported, boot-legged; title - % time spent)
Island Biogeography Theory and Practice – 25%
Soundscape Ecology – 15%
- 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)
- PI - NSF – Of Mice and Mammoths: Toward a General Theory of Body Size Across Space and Time
requested \$420,681, received partial funding \$100,000 for initial period of grant; August 2010 to 2016.
2. Research Proposals pending (include information as in B.1., above).
3. Research Proposals submitted, but rejected (include information as in B.1., above)
- NSF - CyberSoundscapes: Big Data Tools for Sustainable Ecosystems; Total Award Amount: \$102,128
Total Award Period Covered: 10/1/15-9/30/19
- NSF - Collaborative Research: Dimensions-Sonorous Biodiversity: Spatial Variation and Covariation of Biodiversity and Soundscape Complexity; Total Award Amount: \$171,398; Total Award Period Covered: 1/1/16-12/31/19

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

- Lomolino, M. V., B. C. Pijanowski and A. Gasc. 2015. The silence of biogeography. *Journal of Biogeography* 42: 1187–1196.
- Negoita, L., J. D. Fridley, M. V. Lomolino, G. Mittelhauser, J. M. Craine, and E. Weiher. 2016. Isolation-driven functional assembly of plant communities on islands. *Ecography* (in press)
- Lomolino, M. V. 2016. The fundamental, unifying principles of biogeography. *Frontiers of Biogeography* (in press)
- van der Geer, A. A., M. V. Lomolino and G. Lyras. 2016. Island life before man. *Journal of Biogeography* (in press)

B. Non-refereed Publications

- Lomolino, M. V. 2016. Wallace at the foundations of biogeography and the frontiers of conservation biology. Chapter in *The Alfred Russel Wallace Companion Project*. University of Chicago Press.
- Lomolino, M. V. (2016) Biogeography, History of. In: Kliman, R.M. (ed.), *Encyclopedia of Evolutionary Biology*. vol. 1, pp. 155–159. Oxford: Academic Press.

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)

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.

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
American Society of Mammalogists
The International Society of Biogeography
International Union for the Conservation of Nature

3. Other Professional Activities

a. Editorial activity

<u>Journal (s)</u>	<u>Responsibility</u>
Journal of Biogeography	Editor of Monographs, Reviews and Syntheses
<u>Other (books, symposia, etc.)</u>	

b. Reviewer

<u>Journal(s)</u>	<u>No. of manuscripts</u>
Journal Tropical Ecology	1
Ecography	2
Journal of Biogeography	2

<u>Agency</u>	<u>No. of proposals</u>
Danish Science Agency	1

Other

c. Participation (workshops, symposia, etc.)

<u>Name of workshop, etc.</u>	<u>Date</u>	<u>Place</u>
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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

B. College-level

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 have continued to teach courses that emphasize fundamental biological, geological and geographic factors that influence biodiversity, and challenge students to develop an integrative understanding of relevant patterns and to articulate this in writing (essay form exams that I grade myself). The mammal diversity course has now grown to approximately 80 students (Fall 2016 enrollment). This course continues to receive excellent reviews from students. I also continue to offer a series of graduate seminars and courses on various topics in conservation biology and biogeography, including a new seminar in Biogeography of Humanity, which I hope to develop into an upper division and graduate course in the near future. This spring semester, I offered a seminar/semi-lecture course in Classic Readings in Biogeography, Ecology and Evolution which included an enrollment of 18 graduate students (including one audit) from ESF and SU. The course emphasized group learning and how each of the classic papers contributed to the development of these three disciplines. The biogeography course I teach (EFB 444/644) is now offered every year, in the fall, along with my course in mammal diversity (EFB 483).

Department/College My service to the department and college should continue to develop following my return from sabbatical leave and should as deemed appropriate include increasing service on departmental and other committees.

Professional Development I have developed my international network of colleagues and research programs in the areas of biogeography, ecology and macroecology. As a result, I have begun to publish with new collaborators, develop new proposal and received invitations to give guest lectures, keynote addresses and serve as external evaluator of faculty and research programs. I have begun new lines of research on Soundscape Ecology and on Palaeo-biogeography, which are emerging disciplines focusing on -- the spatial and temporal variation in the sounds of nature, and patterns in geographic variation of life before the impacts of human activities. We have published our first papers on these new lines of research.

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)

In teaching, I will continue to develop my current course offerings, including continuing to teach courses in Mammal Diversity and in Biogeography, along with courses on a variety of topics related to conservation biology and biogeography, including a new seminar, course in Classic Readings in Science.

In research, I am continuing to develop collaborations with soundscape ecologists from Purdue, and with paleobiologists from Italy, Greece and the Netherlands; the latter studies focus on evolutionary and geographic variation of vertebrates prior to the impacts of humans. Ultimately, we plan to combine these research activities with development of an international course on the ecology, evolution and conservation of island life to be taught in alternate summers at sites in the Mediterranean and Caribbean or Northeastern North America.

New research collaborations also includes that with soundscape ecologist Bryan Pijanowski from Purdue University, where he has assembled a diverse team of biologists, acoustic ecologists and others to explore the ecological and geographic aspects of sounds in nature – an emerging field called Soundscape Ecology.

In service, I will continue advising undergraduate and graduate students and contribute to development of the majors in Conservation Biology and Wildlife Sciences, and increase my contributions to departmental and college-wide service.

In service to professional societies, I continue to contribute as a member of the editorial board, founder and past-president of the International Biogeography Society, and have now with my colleagues established a new series of monographs and expanded reviews in biogeography.

B. PROJECTED ACTIVITIES FOR NEXT YEAR

1. Summer 2016

a. Course(s) to be offered

b. Proposed research activity

Continue research on biogeography prior to human impact, and on the geography of sound.

Complete revision of our Biogeography text for its 5th edition.

c. University, professional society, and public service– see previous page

2. Fall Semester 2016

a. Course(s) to be offered

EFB 483 (enrollment 76)

EFB 444/644 (enrollment 46)

b. Proposed research activity

c. University, Professional society, and public service– see previous page

3. Spring Semester 2017

a. Course(s) to be offered

b. Proposed research activity

Continue research on biogeography prior to human impact, and on the geography of sound.

c. University, professional society, and public service– see previous page