

MAUREEN LEONARD

Mount Mary College
Sciences Department
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EDUCATION

- University of New Mexico, Albuquerque, NM 1998-2003
Ph.D. Biology 2003
Dissertation: *Singing on the nest: a review and an experimental study examining this seemingly paradoxical behavior*
Advisor: Astrid Kodric-Brown, Ph.D.
- University of Central Florida, Orlando, FL 1995-1998
M.S. Biology 1998
Thesis: *The Florida Scrub-Jay at the Disney Wilderness Preserve*
Advisor: I. Jack Stout, Ph.D.
- State University of New York, Binghamton, NY 1991-1995
B.S. Biology 1995
Cum Laude

EMPLOYMENT

- Assistant Professor 2009-present
Mount Mary College, Milwaukee, WI
- Visiting Assistant Professor 2007-2009
Bucknell University, Lewisburg, PA
- Assistant Professor (temporary) 2004-2007
Kutztown University, Kutztown, PA

PUBLICATIONS

- Leonard M. 2008. An overview and analysis of singing on the nest in North American birds. *Canadian Journal of Zoology* 86(10):1101-1110. Fall 2008
- Leonard M. In prep (*Wilson Journal of Ornithology*). Singing on the nest in the Black-headed Grosbeak.
- Leonard M. In prep Song structure of the Black-headed Grosbeak.

TEACHING EXPERIENCE

Mount Mary College

BIO 256: Development Biology Spring 2010

Majors course focusing on the development of organisms from fertilization to adulthood. Lab portion included

BIO 325 Microbiology Fall 2009

Majors course focusing on the diversity of microorganisms. Lab portion included. Spring 2010

BIO 442 Advanced Microbiology Fall 2009

Majors upper division course focusing on independent research in microbiology. Lab portion included

Bucknell University

BIOL 111/111L Controversies in Biology Fall 2007

Non-majors course focusing on controversial topics in biology intended to provide background science, social and historical context and scientific literacy. Lab portion included.

BIOL 122/122L General Biology Spring 2009

Non-majors course focusing on evolution, physiology, and ecology. Lab portion included.

BIOL 208/208L Population and community ecology Spring 2008

Majors course included in core curriculum to accompany coursework in genetics and cell biology introducing major ecological concepts. Lab portion included.

ANBE/BIOL/PSYCH 266 Animal Behavior Fall 2008

Cross-listed course available to all majors, but required by the Animal Behavior major examining the principles of animal behavior.

ANBE/PSYC 296 Applied Research in Animal Behavior Fall 2008

Cross-listed course for Animal Behavior and Psychology majors teaching practical techniques for animal behavior research.

ANBE/BIOL 321/621 Behavioral Ecology Spring 2009

Majors upper division elective cross-listed in Animal Behavior and Biology and as a graduate course examining the theoretical framework of behavioral ecology.

BIOL 353/653 Ecosystem Ecology Fall 2007

Majors upper division elective cross-listed as a graduate course examining in-depth ecological relationships between biota and the physical environment in a processes approach.

Kutztown University

BIO 010/011 Introduction to Biology and lab 2004-2007

Non-majors course providing an introduction to biology with emphasis on current issues in American society.

BIO 130 – Environmental issues: global perspectives 2005-2007

Non-majors elective course providing an overview of current environmental issues with emphasis on controversies and sustainability.

BIO 140 – Biology and Society 2004-2005

Non-majors elective applying biology to the human as a social organism. The paradigm for the course is the integration of science, technology, and society.

BIO 242/243 – Ecosystem Ecology and lab Fall 2005

Majors course introducing general ecological concepts at all levels of ecological complexity, with some focus on ecosystems.

RESEARCH EXPERIENCE

Bucknell University

Gray Catbird: SOTN and acoustic signaling 2008-2009

Observation of singing on the nest in Rose-breasted Grosbeaks to determine the function and costs of this rare behavior. Recording and analysis of acoustic signals will examine selective pressures that may have shaped signal design.

Undergraduate researcher: Erica S. Dunayer

Kutztown University

Ecosystem Ecology laboratories Fall 2005

Development and execution of a series of undergraduate labs using a permanent transect through a protected University reserve to establish baseline data. These labs will be continued by the Ecosystem Ecology Labs to observe long-term trends in this area. GPS and GIS incorporation via collaboration with Department of Geography.

University of New Mexico

Dissertation Research: Black-headed Grosbeak 1998-2003

Examination of SOTN (Singing on the nest), a rare and potentially costly behavior. Acoustic analysis of songs examined selective pressures on signal design. This project involved several undergraduate research assistants.

Contractor: Southwestern bird population monitoring 1999

Monitoring of population distribution and abundance of several southwestern bird species located in extreme southern New Mexico.

University of Central Florida

Thesis research: Florida Scrub-Jay 1996-1998

Demography of a federally threatened species in a newly acquired property. Research included development of a simulation model to manage plant community to maximize amount of ideal habitat for the scrub-jay and studying a fire-climax community. This project included hiring an undergraduate assistant to aid in field data collection.

Contractor: Cape Canaveral Beach Mouse Relocation Project 1998

Hazardous waste management of PCB contaminated soil required the capture and relocation of all endangered *Peromyscus polionotus* from the vicinity of several launch pads. This is a first of its kind project to move a population from an endangered habitat.

PRESENTATIONS

Ohio Northern University Spring 2008
Evolution by natural selection

Missouri Western State University Spring 2008
Adaptations of organisms to extreme environments

Coker College Spring 2008
Singing on the nest

West Liberty State College Spring 2008
Energy flow in trophic systems

Mount Mary College Spring 2008
Afraid to go swimming? Bacteria in Lake Michigan

Bucknell University Animal Behavior Program Fall 2007
Singing on the nest

Bucknell University Spring 2007
Singing on the nest as a teaching tool

Westminster College Spring 2007
Alternative fuels: what happens when the oil runs out?

Animal Behavior Society – Allee Award Symposium Summer
Singing on the nest: evolution of exploited signals – Honorable Mention 2003

Cooper Ornithological Society Spring 2003
The effects of eavesdropping on animal signal design and evolution.

<i>UNM Research Day</i> Poster: Singing on the nest	Spring 2003
<i>Animal Behavior Society</i> The effects of eavesdropping on animal signal design and evolution.	2002
<i>Southwestern Association of Biologists</i> The effects of eavesdropping on signal evolution and design in Black-headed Grosbeak	2001
<i>Four Corners Bird Club – Invited speaker</i> Acoustic communication in birds	2001
<i>American Society of Limnology and Oceanography</i> Gastropod shell distribution and factors affecting their utilization by marine hermit crabs in Bahia Kino, Sonora, Mexico.	2001
<i>Florida Ecological and Evolutionary Symposium</i> Using a simulation model to manage Florida Scrub-Jay habitat.	1998

GRANTS AND AWARDS

Animal Behavior Society Warder Clyde Allee Honorable Mention	2003
American Ornithologist's Union Graduate Research Award	2002
UNM GPSA Student Resources Allocations Committee Grant	2002
UNM GPSA Graduate Research Development Grant	2002
UNM Office of Graduate Studies Research, Travel, and Project Grant	2001
UNM Dept. Biology Graduate Resources Allocations Committee Grant	1998, 1999, 2002
Florida Ornithological Society Alan G. and Helen C. Cruickshank Award	1995

PROFESSIONAL DEVELOPMENT

Blackboard Workshop	Fall 2008
New Faculty Learning Series – Bucknell University	2007-2008
Writing Workshop – Bucknell University	Fall 2007
Center for Enhancement of Teaching Workshop: Blackboard	Fall 2006
Kutztown University Grant Writing Workshop	Fall 2006
Personal Response System Training Workshop	Spring 2006

PROFESSIONAL SERVICE

Faculty development committee – Mount Mary College	2009-present
Admissions Fair – Bucknell University	Fall 2008
Representative of the Animal Behavior division Association of Pennsylvania State College and University Faculties (APSCUF) Temporary Faculty Committee – secretary	2006-2007
KU BIO 010-011 committee	2004-2007

KU Commonwealth of Pennsylvania University Biologists Annual meeting Committee	2005-2006
UNM Biology Department Graduate Resources Allocation Committee Chair	2002-2003
UNM Biology Department Graduate Resources Allocation Committee Grant Reader	2001-2003
UNM Biology Graduate Student Association co-president	2000-2001
UNM Biology Graduate Policy Committee	2001-2002

PUBLIC SERVICE

Pennsylvania Renewable Energy and Sustainable Living Festival volunteer	2005
Museum of the Hudson Highlands volunteer: Bird program presenter	2004

PROFESSIONAL SOCIETIES

National Science Teachers' Association	2009-present
Microbiology Society of America	2009-present
Milwaukee Microbiology Society	2009-present
Wisconsin Society for Ornithology	2009-present
American Ornithologists' Union	2003-present
Animal Behavior Society	2001-present
American Field Ornithologists	2007-present

OTHER EXPERIENCE

Curatorial experience – Museum of Southwestern biology Preparation of ornithological museum specimens, management of database and information requests, and management of loans.	2001-2003
Wildlands firefighter The Nature Conservancy	1999-2000