

Nora Lewin

CURRICULUM VITAE

Department of Integrative Biology
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EDUCATION

Michigan State University (MSU), East Lansing, MI August 2011-present
Ph.D. in Integrative Biology, and Ecology, Evolutionary Biology, & Behavior (EEBB)
Major advisor: Dr. Kay Holekamp, University Distinguished Professor of Integrative Biology

Vassar College, Poughkeepsie, NY May 2008
B.A. *cum laude* in Neuroscience & Behavior

AWARDS, GRANTS AND FELLOWSHIPS

Prize Bursary to attend and present at the Early Life Developmental Effects Workshop, 2015, \$1300
Animal Behavior Society Diversity Travel Award, 2015, \$125
MSU Future Academic Scholars in Teaching (FAST) Fellowship, 2015-2016, \$2000
MSU Council of Graduate Students Conference Grant, 2015, \$300
Society for Integrative and Comparative Biology, Grant-in-Aid of Research, 2015, \$1000
MSU EEBB Summer Research Fellowship, 2014, 2015, \$1800 each
MSU John R. Shaver Research Fellowship in Zoology, 2013, \$1800
MSU Graduate Research Enhancement Award, 2012, \$1000
National Science Foundation Graduate Research Fellowship, 2012-2015, \$96000
MSU EEBB Travel Fellowship, 2012, 2013, 2014, \$400 each
MSU College of Natural Science Recruiting Fellowship, 2011-2012, \$25000
MSU College of Natural Science Early Start Fellowship, 2011, \$6000
Critical Language Enhancement Award (Korean), U.S. Fulbright Commission, 2011
U.S. Fulbright Fellowship to South Korea, 2010-2011
National Institutes of Health (NIH) Post-Bacc Intramural Research Training Award, 2008-2010

PUBLICATIONS

Lewin N, Treidel LA, Holekamp KE, Place NJ, Hausmann MF. (2015) Sociological variables predict telomere length in free-living spotted hyenas. *Biology Letters* 11(2), 20140991
Covered online by Science and Science Daily

Lewin N, Swanson EM, Williams BL, Holekamp KE. Juvenile IGF-1 concentrations predict life-history trade-offs in a wild mammal. *in prep*

Lewin N, Swanson EM, Williams BL, Holekamp KE. Correlates of IGF-1 concentrations throughout the lifespan in wild spotted hyenas. *in prep*

EXPERIENCE

Dissertation Research (laboratory), 2011-present, MSU, East Lansing, MI

Employ various wet lab and statistical skills to investigate physiological and social mediation of life-history traits in wild spotted hyenas (*Crocuta crocuta*).

FAST Fellow, 2015-2016, MSU, East Lansing, MI

Working with Dr. Inge Steglitz, Director of MSU Office of Study Abroad to design and implement a scenario-based instrument assessing intercultural development during study abroad programs. Participating and presenting at monthly scholarly meetings, and on-campus workshops to discuss topics related to teaching-as-research, student learning practices, and assessment.

Graduate Research Assistant, Fall 2014, MSU, East Lansing, MI

Organized and maintained freezer inventories and biological sample repositories for the Mara Hyena Project, Dr. Holekamp's long-term field project on spotted hyenas.

Dissertation Research (field), Summer 2012, Masai Mara National Reserve, Kenya

Collected behavioral data and biological samples for the Mara Hyena Project. Assisted with daily camp maintenance and management.

Research Intern, Spring-Summer 2010, National Museum of Natural History, Washington, DC

Explored morphological trait evolution in a South-African fly under Dr. Shelah Morita. Studied cranial ontogeny of Southeast Asian pangolin species using museum specimens under Dr. Kristofer Helgen.

Intramural Research Training Fellow, Fall 2008-Summer 2010, NIH, Bethesda MD

Elucidated aspects of neuropathology of schizophrenia and gene expression across human brain development within the Clinical Brain Disorders Branch under the direction of Dr. Daniel Weinberger. Trained in sample collection, molecular biology techniques, and database and collections management.

Undergraduate Research Summer Fellow, Summer 2006, Vassar College, Poughkeepsie, NY

Explored the effects of prenatal excess testosterone exposure on the fetal insulin-like growth factor pathway in an ovine model.

PRESENTATIONS

Lewin N, Swanson EM, Williams BL, Holekamp KE. 2015. IGF-1 Concentrations During Early Life Predict Life-History Trade-offs in a Wild Mammal. Early Life Developmental Effects Workshop, Falmouth, Cornwall, UK. *Invited talk*

Hansen SK*, Lewin N, McCormick SK, Holekamp KE. 2015. Does psychological stress predict telomere length in wild spotted hyenas (*Crocuta crocuta*)?. Mid-Michigan Symposium for Undergraduate Research Experiences. East Lansing, MI. *Poster presentation* *Undergraduate coauthor

Lewin N, Yoshida KS, Holekamp KE. 2015. Early-life IGF-1 concentrations predict boldness in spotted hyenas (*Crocuta crocuta*). Animal Behavior Society Annual Meeting, Anchorage, AK. *Oral presentation*

MacLachlan SS, **Lewin N**, Lehmann KDS, Montgomery T, Holekamp KE. 2015. Recruitment of allies by spotted hyenas during interactions with lions. Animal Behavior Society Annual Meeting, Anchorage, AK. *Poster presentation. Covered online by New Scientist and IFLS.* *Undergraduate coauthor.

Lewin N, Treidel LA, Place NJ, Holekamp KE, Haussmann MF. 2014. Socioecological variables affect telomere length in spotted hyenas (*Crocuta crocuta*). Society for Integrative Comparative Biology Annual Meeting, Austin, TX. *Oral presentation*

Outten-Berríos D*, **Lewin N**, Holekamp KE. 2013. Sources of Oxidative Stress Among Wild spotted hyenas. Mid-Michigan Symposium for Undergraduate Research Experiences. East Lansing, MI. *Poster presentation* *Undergraduate coauthor

Lewin N, Hyde TM, Ye T, Ali T, Weinberger DR, Kleinman JE, Lipska BK. 2009. Cortical Expression of GABA Signaling Genes Across the Human Lifespan. Society of Biological Psychiatry, Annual Meeting. Vancouver, BC. *Poster presentation*

Lewin N, Padmanaban V, Crespi EJ. 2006. Effects of Maternal Testosterone on Fetal Growth Programming in Sheep. Undergraduate Research Summer Institute at Vassar College Symposium. *Poster presentation*

TEACHING/ MENTORING

Assistant Instructor, ZOL 490: Wild Borneo, MSU, Summer 2015

Co-led an intensive 3-week undergraduate study abroad course in Indonesia and Malaysia (13 students) centered on evolutionary biology and cross-cultural studies. Assisted in all aspects of the course including itinerary planning/booking, budget, instruction, and assessment.

Graduate Research Mentor, NSF Research Experience for Undergraduates, 2013, 2015

Served as a research mentor to Desireé Outten-Berríos ('13) and Sonja Hansen ('15) as part of the 10-week Integrative Biology of Social Behaviors REU Program at MSU.

Graduate Teaching Assistant, ZOL 483: Environmental Physiology, MSU, Spring 2015

Led discussions on primary literature and philosophy of science with strong emphasis on written and oral communication. Evaluated students using written assignments and presentations (39 students).

Co-Instructor, ZOL 490: Behavioral Ecology of African Mammals, MSU, Summer 2014

Co-led an intensive 3-week undergraduate study abroad course in Kenya on topics in behavior ecology, tropical ecology, and Kenyan culture (11 students). Took lead role in all aspects of the course including budget, itinerary/booking, instruction, and assessment.

Graduate Women in Science Undergraduate Mentor, MSU, 2012-2014

Mentor to multiple MSU undergraduates interested in applying to graduate school.

Guest Lecturer, ZOL 415: Ecological Aspects of Behavior, MSU, Fall 2013

Gave guest lecture on maternal effects to an upper-level undergraduate zoology course.

Graduate Program Instructor, NSF International Research Experience for Students, 2012-13

Managed and directed solicitation and selection of applicants, overseas transportation and health, and overall educational/cultural enrichment, safety, and satisfaction of 4 undergraduate students for this 8-week program with the Mara Hyena Project in Kenya.

English Teaching Assistant, U.S. Fulbright Commission, Mokpo, South Korea, 2010-11

Designed and taught lectures on conversational English to over 500 students at Yeongheung High School. Attended nation-wide teaching workshops. Coached advanced students in speech (2 gold medalists) and neuroscience (5 national certificate awardees). Won competitive award for intensive study of the Korean language.

Teaching Intern, BIOL 228: Animal Physiology, Vassar College, 2006-08

Assisted with weekly 4-hour labs and grading, and held independent office hours for student-led projects and scientific writing.

OUTREACH AND SERVICE

Professional

- Ad-hoc reviewer for *Biology Letters*
- EEBB Co-president, MSU, 2015
- Graduate Student Evaluator, University Undergraduate Research and Arts Forum, MSU, 2015
- Graduate Student Panelist, Zoological Students Association meeting, MSU, 2015
- Presenter, Interviewing for Graduate School, MSU, 2012
- Presenter, Darwin Discovery Day, MSU Museum of Natural History, 2012
- Volunteer, MSU Girls Scout STEM Visit Day, MSU, 2012
- Member, Graduate Women in Science Community Outreach Committee, MSU, 2012
- Member, Graduate Women in Science Undergraduate Mentoring Committee, MSU, 2012

Community

- Animal Behavior Society Outreach Fair, Alaska Museum of Science and Nature, Anchorage, AK, 2015
- Guest speaker, Ethology for Grades 9-12, Potter Park Zoo, Lansing, MI, 2013, 2015
- Presenter at Science Day at Sycamore Elementary School, Holt, MI, 2013, 2015
- Guest speaker, Summer Laureate program, Arlington Traditional School, Arlington, VA, 2014
- Guest speaker, World Culture (Kenya), Campbell Elementary School, Arlington, VA, 2012
- Certified HIV Prevention Counselor, Whitman Walker Clinic, Washington, DC, 2009
- Publicity Committee, Vassar Haiti Project, Poughkeepsie, NY, 2005-2008
- Administrative Liaison, Asian Student Alliance, Vassar College, 2005-2006
- ESL Tutor, Poughkeepsie High School, Vassar College, 2005-2006

SOCIETY MEMBERSHIPS

Animal Behavior Society (since 2013)
Graduate Women in Science (since 2012)
Society for Integrative and Comparative Biology (since 2012)
American Society of Mammalogists (since 2012)
Psi Chi Psychology Honors Society (since 2008)

REFERENCES

Dr. Kay Holekamp, Ph.D.
University Distinguished Professor of Integrative Biology
Director, Ecology, Evolutionary Biology, and Behavior Program
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517-432-3691

Dr. Thomas Getty, Ph.D.
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