

ANNE C. AXEL

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EDUCATION

MICHIGAN STATE UNIVERSITY, Fisheries and Wildlife, East Lansing, MI
Ph.D., 2011 Dual-major in Fisheries and Wildlife AND Ecology, Evolutionary Biology and Behavior; Certification in College Teaching, Specialization in African Studies

YALE UNIVERSITY, School of Forestry & Env. Studies, New Haven, CT
MFS, 1999, Wildlife Ecology

UNIVERSITY OF DELAWARE, Dean's Scholar, Newark, DE
BALS with Distinction, 1991, Liberal Studies, *Cum Laude*

WORK EXPERIENCE

MARSHALL UNIVERSITY
Department of Biological Sciences
Assistant Professor, Ecology and Remote Sensing *August 2012-present*

UNIVERSITY OF MICHIGAN
Program in the Environment and English Department
Lecturer III, Ecology and Environmental Humanities *September 2009-June 2012*

MICHIGAN STATE UNIVERSITY
Department of Fisheries & Wildlife and Center for Integrative Studies in Biology
Instructor, Ecology and Environmental Studies *September 2005-May 2009*

Michigan State University Writing Center
Graduate Writing Group Facilitator *Fall 2008-Spring 2009*
Graduate Writing Consultant *Fall 2008-Spring 2009*
Faculty Workshop Assistant, Teaching Writing in the Life Sciences *Summer 2008*

UTAH DEPARTMENT OF NATURAL RESOURCES, WILDLIFE RESOURCES
Utah Natural Heritage Program, Salt Lake City, Utah
Information Manager *October 2000-August 2003*
Zoological Technician *June 1999 - September 2000*

GRANTS

Quinlan Endowment Fund for Faculty Travel, 2013 (\$500)
Marshall University Summer Research Award, 2013 (\$2000)
University of Michigan Travel Award, 2012 (\$1000)
Fulbright-Hays Doctoral Dissertation Research (Madagascar), 2007 (\$16,000)
Fulbright Institute of International Education (Madagascar), 2007 (\$24,000), declined
Wildlife Conservation Society, Research Fellowship Program, 2007 (\$13,000)
Primate Conservation, Incorporated, Field Research Grant, 2007 (\$2450)
Primate Conservation, Incorporated, Field Research Grant, 1997 (\$3500)
American Society of Primatologists, Small Grant, 2006 (\$1380)
Explorer's Club, Exploration Fund, 2006 (\$1200)
Michigan State University, Intl. Studies Predissertation Travel Award, 2006 (\$3500)

AWARDS AND FELLOWSHIPS

Pickens-Queen Excellence in Teaching Award, Marshall University, 2014
Future Academic Scholars in Teaching (FAST) Fellowship, 2008-2009, 2006-07
MSU Graduate School Dissertation Completion Fellowship, 2008
Ecology, Evolutionary Biology and Behavior Program Summer Fellowship, 2008
Foreign Language and Area Studies (FLAS) Fellowship, 2004-2006

PUBLICATIONS

Gage, S. H. and **Axel, A. C.**, 2013. Visualization of temporal change in soundscape power of a Michigan lake habitat over a 4 year period. *Ecological Informatics*. Available online 18 November 2013. <http://dx.doi.org/10.1016/j.ecoinf.2013.11.004>

Axel, A. C. and Maurer B. 2011. Lemurs in a complex landscape: mapping species density in subtropical dry forests of southwestern Madagascar using data at multiple levels. *American Journal of Primatology*, 73:38-52.

Axel, A. 2006. Could lemur conservation depend on ensuring their grazing rights? *FW Spotlight* (of Michigan State University), pp. 8-9, 22-23.

Britt, A., **Axel, A. C.**, and R. F. Young. 1999. Brief surveys of two classified forests in Toamasina Province, Eastern Madagascar. *Lemur News*. 4: 25-27.

Axel, A. C. 1999. Chronic environmental disturbance in a high elevation forest in Oaxaca, Mexico: Implications for natural regeneration in a sub-tropical dry forest. *Tropical Resources Institute News* (of Yale School of Forestry and Environmental Studies) 18:16-21.

PRESENTATIONS

Axel, A. C. and Rankin, L. Soundscapes as a measure of ecological condition of grazed tropical dry forests in Madagascar, *Ecology and Acoustics: Emergent Properties from Community to Landscape*, Paris, France, June 2014.

Axel, A. and Rankin, L. Soundscapes as a measure of ecological integrity of grazed tropical dry forests in Madagascar, *International Association of Landscape Ecology (US-IALE)*, Anchorage, AK, May 2014.

Axel, A., Cragle, J., Davis, R., Edwards, E., Fulcher, R., Rankin, L., Stout, J., Tuggle, T., Wick, S., Oberly, R., Lewis, R., and Andriamampandrisoa, M. (in preparation). Collaborative remote sensing for conservation: identifying and mapping tropical dry forest fire damage in Kirindy Mitea National Park, Madagascar. *American Society for Photogrammetry and Remote Sensing (ASPRS) Annual Conference*, Louisville, KY, March 2014.

Rankin, L. and **Axel, A. C.**, Soundscapes as a measure of ecological integrity of grazed forests in Madagascar, *XXIV International Bioacoustics Congress*, Pirenópolis, Brazil, September 2013.

Axel, A. C., The complexity of livestock in lemur landscapes: implications for the conservation of biodiversity in Madagascar's tropical dry forests, *International Prosimian Congress*, Ranomafana, Madagascar, August 2013.

Rankin, L. and **Axel, A. C.**, Soundscapes as a measure of ecological integrity, *International Prosimian Congress*, Ranomafana, Madagascar, August 2013.

Rankin, L. and **Axel, A. C.**, Assessing ecological integrity of grazed and ungrazed tropical dry forests through soundscape analysis, Association of Southeastern Biologists, Charleston, WV, April 2013.

Rankin, L., and **Axel, A. C.**, Assessment of landscape degradation using Landsat images and vegetation sampling in Southern Madagascar, Annual Meeting of the West Virginia Academy of Science, Davis, WV, April 2013.

Parsons-White, A. and **Axel, A. C.** Modeling surface water flow and sediment transport in the Twelve Pole Creek watershed, Annual Meeting of the West Virginia Academy of Science, Davis, WV, April 2013.

Axel, A. C. Incorporating film, television, and photographs into the natural resources curriculum: using visual texts to create virtual field trips, provide historical perspective, and construct case studies that underscore the “voices” of stakeholders. University Education in Natural Resources Conference, Ft. Collins, CO, March 2012.

Axel, A. Dry forest lemurs located in new habitats in Madagascar: Implications for species modeling. US International Association of Landscape Ecology, April 2009.

Axel, A. and Maurer, B. Spatial variance in abundance of two lemur species along environmental and disturbance gradients in two tropical dry forest landscapes. Annual Meeting of the Ecological Society of America, Milwaukee, WI, August 2008.

Axel, A. and L. Rankin, Lemurs and livestock: comparing lemur abundance and vegetation structure between tropical dry forest sites. Society for Conservation Biology Annual Meeting, Chattanooga, TN, July 2008.

Axel, A. Writing activities to hone field observation skills and elicit higher-order thinking during a Madagascar study abroad experience. (Poster). Center for the Integration of Research, Teaching, and Learning Forum, Madison, WI, June 2008.

Axel, A. Lemur-habitat relationships along an ecological gradient in a tropical dry forest in southern Madagascar. The Annual Meeting of the Association of Tropical Biology and Conservation, Paramaribo, Suriname, June 2008.

Young, B. and **Axel, A.** Predicting Lemur Species Distributions in the Eastern Rain Forest Region of Madagascar. (Poster, First Place) ESRI Southwest User Group, Moab, UT, November 2000.

Young, B. and **Axel, A.** Predicting Lemur Species Distributions in the Eastern Rain Forest Region of Madagascar. (Poster). Annual Conference of The Wildlife Society, Nashville, TN, September 2000.

Young, B. and **Axel, A.** Predicting Lemur Species Distributions in the Eastern Rain Forest Region of Madagascar. Society for Conservation GIS Conference, Borrego Springs, CA, June 2000.

Young, B. and **Axel, A.** Predicting Lemur Species Distributions in the Eastern Rain Forest Region of Madagascar. (Poster) ESRI International User Conference, San Diego, CA, June 2000.

TEACHING
EXPERIENCE

MARSHALL UNIVERSITY, Department of Biological Sciences

Digital Image Processing and GIS Modeling, BSC 411/511 *Spring 2013, 2014*
Principles of Biology, BSC 121 *2012-2014*
Physical Principles of Remote Sensing with Applications, BSC 410/510 *Fall 2012, 2013*

UNIVERSITY OF MICHIGAN, Program in the Environment

Tropical Conservation Biology, ENV 303 *Winter 2011, 2012*
Restoration Ecology, ENV 421 *Fall 2010, 2011*
Academic Foundations for Environmental Internships, ENV 302 *Fall 2011*
Ecological Issues, ENV 201 *Winter 2010*
Conservation Biology, ENV 317 *Fall 2009*

UNIVERSITY OF MICHIGAN BIOLOGICAL STATION, Pellston, MI

General Ecology, EEB 381 *Spring 2010-2012*

UNIVERSITY OF MICHIGAN, English Department

Literature and the Environment, ENG 320/ENV 377) *Winter 2012*
First-Year English Literature Seminar, ENG 140 *Winter 2011, 2012*
Writing and the Environment, ENG 328/ENV 304 *Winter 2010, Fall 2010, 2011*
Literature and Culture, ENG 317/ENV 377 *Winter 2011*
Literature and the Environment ENG 398/ENV 304 *Winter 2010*
College Writing, ENG 125 *Fall 2009*

MICHIGAN STATE UNIVERSITY, Dept. of Fisheries and Wildlife

Restoration Ecology, FW 443 *Spring 2007-2009*
Madagascar Study Abroad, FW 480 *Summer 2006-2007*

MICHIGAN STATE UNIVERSITY, Integrative Studies in Biological Science

Applied Environmental Science, ISB 202 *Spring 2009, Fall 2005*

LANSING COMMUNITY COLLEGE, Department of Biology

Natural Resource Conservation, BIOL 210 *Spring 2007*

INVITED
LECTURES

MICHIGAN STATE UNIVERSITY

Axel, A. Extractive Economies and Globalization in Madagascar. FW 481,
Global Issues in Fisheries and Wildlife Resources. February 2009.

Axel, A. Lemurs, Spice, and Whitewash: Globalization in Madagascar. FW 481
Global Issues in Fisheries and Wildlife Resources. February 2008 and March 2007.

Axel, A. Covariance in abundance between two lemur species along an
environmental gradient. Fisheries and Wildlife Seminar Series. 4 November 2005.

PROFESSIONAL
DEVELOPMENT
IN METHODS

- Remote Data Acquisition Sensor Training Workshop, UNM Sevilleta Field Station, 16 June – 22 June 2013
- USFWS Workshop, Modeling Occupancy for Conservation, National Conservation Training Center, 21-24 April 2008
- USIALE Workshop on Land Surface Phenology, Madison, WI, 8 April 2008
- Introduction to Distance Sampling, CREEM, 31 March – 2 April 2004
- Advanced Techniques & Recent Developments in Distance Sampling, CREEM 5-7, April 2004
- ArcGIS Training Course, ESRI Learning Center, July 2000

PROFESSIONAL
DEVELOPMENT
IN TEACHING

- iPED: Inquiring Pedagogies, Marshall University, August 2012
- Designing and Managing Student Presentations, CRLT Seminar Series, Feb. 2012
- Evaluating Student Writing, CRLT Seminar Series, Feb. 2010
- Teaching First-Year Writing Workshop, Fall 2009
- Teaching and Learning Science: Changing Student Misconceptions, Fall 2008
- Pathways to Scientific Teaching in Biology, Fall 2008
- Writing Center Theory and Practice, Fall 2008
- From Graduate Student to Professor: Stages of Professional Dev., 26 Jan. 2008
- Making Classroom Lectures Interactive and Effective: Engaging Students in Course Content through Interactive Lecturing, Lilly Seminar, Sept. 2006

LANGUAGES

Malagasy, Competent; French, Competent

PROFESSIONAL
AFFILIATIONS

International Association of Landscape Ecology
International Working Group on Forest Landscape Ecology
American Society for Photogrammetry and Remote Sensing