ALLISON T. MOODY

UNIVERSITY OF WISCONSIN, CENTER FOR LIMNOLOGY
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EDUCATION

Ph.D. Wildlife Sciences

2012

School of Forestry and Wildlife Sciences, Auburn University

Supervisor: Dr. Barry Grand, USGS Cooperative Fish and Wildlife Research Unit

Dissertation: Designing landscapes for sustainable bird populations in the southeastern United States

- Determined areas of high conservation priority for multiple habitats and species
- Used expert knowledge to select focal species for conservation planning
- Modeled changes to conservation priorities due to projected climate change and urbanization
- Worked with a team of researchers from several universities and governmental organizations

M.Sc. Biology

Department of Biology, University of Saskatchewan

Supervisor: Dr. Keith Hobson, Western University (previously: Environment Canada)

Thesis: Arctic seabird trophic levels and foraging locations using stable isotopes

B.Sc. (Honours) Biology

2001

Department of Biology, Memorial University of Newfoundland

RESEARCH EXPERIENCE

Post-doctoral Research Associate

September 2014–present

Center for Limnology, University of Wisconsin, Madison, Wisconsin

- Evaluating spatial patterns in aquatic barrier removal using ArcGIS and R to determine rules of thumb for removal that extend beyond the Great Lakes basin
- Working with colleagues on a decision support tool for optimized barrier removal across the Great Lakes basin (greatlakesconnectivity.org) including leading the review of the website by stakeholders
- Contributed to aquatic barriers database including incorporating new data sources,
 QA/QC of existing data, and coordinating metadata for recent update
- Worked with a team of academics, natural resource managers, and conservation organization personnel

Post-doctoral Research Associate

2012-2014

Department of Wildlife, Fisheries, and Conservation Biology, University of Maine, Orono, Maine

- Created database of over 10,000 reptile and amphibian occurrence data points from 13 states
- Modelled species distributions for over 70 reptiles and amphibians using ArcGIS and Maxent, and informed by elicited expert knowledge
- Supervised undergraduate honors project on amphibian range shifts due to climate change
- Worked with a team of herpetologists from several universities, the state of Maine, and a national herpetology conservation organization

Research Technician 2005–2007

University of California – Berkeley, Berkeley, California

- Ran stable isotope laboratory including sample collection from natural history museums, sample preparation, and analysis of results
- Supervised undergraduate research assistant

Contracted Researcher 2005

Canadian Wildlife Service, Redberry Lake, Saskatchewan

- Organized and conducted summer field research for long-term White-winged Scoter study including boat-based surveys for scoters and other aquatic birds; nest monitoring and banding adults and chicks
- Responsible for hiring and supervising technician

Contracted Researcher 2001

Canadian Wildlife Service, Prince Leopold Island, Nunavut

- Conducted field research for long-term seabird study at remote Arctic field site
- Assisted with preparing for field season
- Worked with team to collect observations and blood samples from seabirds

PEER-REVIEWED PUBLICATIONS

Moody, A.T., T.M. Neeson, S. Wangen, J. Dischler, M.W. Diebel, M. Herbert, M. Khoury, E. Yacobson, P.J. Doran, M.C. Ferris, J.R. O'Hanley and P.B. McIntyre. Pet project or best project? Online decision support tools for prioritizing barrier removals in the Great Lakes and beyond. *accepted* Fisheries

Sutton, W.B., K. Barrett, **A.T. Moody**, C.S. Loftin, P.G. DeMaynadier, and P. Nanjappa. 2015. Predicted changes in climatic niche and climate refugia of conservation priority salamander species in the northeastern United States. Forests 6: 1-26.

Moody, A.T., K.A. Hobson and A.J. Gaston. 2012. High-Arctic seabird trophic response to an anomalous year revealed through long-term isotopic monitoring. Journal of Ornithology 153: 1067-1078.

Moody, A.T. and J.B. Grand. 2012. Incorporating expert knowledge in decision support models for bird conservation. In: Expert Knowledge and Its Application in Landscape Ecology, Ajith H. Perera, C.Ashton Drew and Chris J. Johnson (eds.). Springer, New York, pp. 109-129.

Moody, A.T. and K.A. Hobson. 2007. Alcid winter diet in the northwest Atlantic determined by stable isotope analysis. Marine Ornithology 35: 39-46.

Moody, A.T., S.I. Wilhelm, M.L. Cameron-MacMillan, C.J. Walsh, and A.E. Storey. 2005. Divorce in common murres (*Uria aalge*): relationship to parental quality. Behavioural Ecology and Sociobiology 57: 224-230.

ORAL PRESENTATIONS – selected, first author only

Moody, A.T., T. Neeson, A.W. Milt, M. Diebel, M. Ferris, J. O'Hanley, P.J. Doran, L.B. Johnson, and P. McIntyre. 2016. Unpacking large-scale optimization of barrier removal to benefit small-scale decision makers and Great Lakes migratory fish. Ecological Society of America, Fort Lauderdale, FL.

Moody, A.T., A.W. Milt, T. Neeson, M. Diebel, P.J. Doran, J. Dischler, S. Wangen, M. Ferris, J O'Hanley, and P. McIntyre. 2016. Great Lakes barrier removal optimization to improve aquatic connectivity. North American Congress on Conservation Biology, Madison, WI.

Moody, A.T., T. Neeson, M. Diebel, P.J. Doran, M. Ferris, J. O'Hanley, and P. McIntyre. 2016. Optimizing barrier removals in the Great Lakes Basin: accounting for native and invasive species. Midwest Fish and Wildlife Conference, Grand Rapids, MI.

Moody, A.T., T. Neeson, M. Guyette, M. Diebel, M. Herbert, M. Khoury, E. Yacobson, P.J. Doran, M. Ferris, J. O'Hanley, and P. McIntyre. 2015. Rules of thumb for prioritizing barrier removals emerging from comprehensive analysis of Great Lakes tributaries. Ecological Society of America, Baltimore, MD.

Moody, A.T. and J.B. Grand, 2015. Large-scale conservation prioritization for terrestrial bird communities. Association of Field Ornithologists, Society of Canadian Ornithologists, and Wilson Ornithological Society joint meeting, Wolfville, NS.

Moody, A.T., T. Neeson, M. Guyette, M. Diebel, M. Herbert, M. Khoury, E. Yacobson, P.J. Doran, M. Ferris, J. O'Hanley, and P. McIntyre. 2015. Rules of thumb for prioritizing barrier removals emerging from comprehensive analysis of Great Lakes tributaries. Society for Freshwater Science Annual Meeting, Milwaukee, WI.

Moody, A.T., C. Loftin, and P. deMaynadier. 2013. Assessing priority amphibian and reptile conservation areas (PARCAs) in the NA-LCC and determining vulnerability of these areas to climate change. Northeast Region Science Seminar Series, U.S. Fish and Wildlife Service, Hadley, Massachusetts.

Moody, A.T. and J.B. Grand. 2011. Large-scale conservation planning: Trading meadowlarks for woodpeckers. Ecological Society of America, Austin, Texas.

Moody, A.T., J.B. Grand, J. Collazo, T. Jones, and C. Watson. 2009. Designing landscapes for sustainable bird populations in the Southeastern United States. American Ornithologists' Union, Philadelphia, Pennsylvania.

Moody, A.T. and J.B. Grand. 2009. Incorporating expert opinion in decision support models for birds in the Eastern United States. Special Symposium: Expert knowledge and landscape ecological applications. US-International Association for Landscape Ecology, Snowbird, Utah.

Moody, A.T. and K.A. Hobson. 2005. Winter ecology of Common and Thick-billed Murres (*Uria aalge* and *U. lomvia*). Pacific Seabird Group and Waterbirds Conference, Portland, Oregon.

COMPUTER SKILLS

Statistics: R, Matlab, SPSS, MARK, WinBugs

GIS: ArcGIS 10, 9 Graphics: SigmaPlot

Other: Word, Excel, Access, Linux, LaTeX

REPORTS

Contributed to annual and quarterly reports for the following funded grants:

2016 Informing Great Lakes connectivity decisions: An enhanced online portal for high-resolution barrier data and species-specific benefit analyses; Great Lakes Fishery Trust Grant

- 2014-2016 Restoring native fish migrations while controlling invasive species: an optimization approach to support decision-making; University of Michigan Water Center, Great Lakes Large Grant
- 2012-2014 Assessing priority amphibian and reptile conservation areas (PARCAs) and vulnerability to climate change in the North Atlantic Landscape; North Atlantic Conservation Cooperative Grant
- 2008-2012 Designing Sustainable Landscapes for Bird Populations in the Eastern United States; Association for Fish and Wildlife Agencies Multistate Conservation Grant

TEACHING and MENTORING EXPERIENCE

- 2014-2016 Lectures at University of Wisconsin
 - Fish Ecology Connectivity in the Great Lakes

2012-2013 Lectures at University of Maine

- Applications of Remote Sensing and GIS in Natural Resource Management
- Biology of Behavior

Mentored E. McCarthy (BS 2016), student, in independent project, "The effects of climate change and urbanization on core habitat for common Maine herpetofauna"

2011-2013 Lectures at Auburn University

- Structured Decision Making for Natural Resource Management
- Wildlife Population Analysis

2003-2005 Laboratory Instructor, University of Saskatchewan

First Year Biology

SERVICE, OUTREACH and PROFESSIONAL SOCIETIES

Member of the following professional societies: Ecological Society of America, Society for Conservation Biology, Society of Freshwater Science, Society of Canadian Ornithologists-Société des ornithologistes du Canada.

Reviewer for: Animal Behaviour, Ecological Applications, Inland Waters, and Journal of Ornithology.

Lead organizer of North American Congress for Conservation Biology symposium "Conservation of aquatic ecosystem connectivity: from planning to practice"

Outreach:

- 2016 Revitalizing Our Ravines: Community Workshop, Glencoe, IL
 - World Fish Migration Day, Shedd Aquarium, Chicago, IL
 - CurrentCast Podcast (http://www.currentcast.org/development/fish-barriers-great-lakes/)
- 2015 Healing Our Waters Great Lakes Restoration Conference, Chicago, IL

OTHER

Certified in Wilderness First Aid

Experience with snowmobiling, small boats, and bear safety.