

Christopher L. Hoving

517-488-3929 | hovingc@michigan.gov | hovingch@msu.edu

Primary Research Interests

Wildlife Ecology and Management, Complex Adaptive Systems, Adaptation of Management to Climate Change, Historical Ecology

Current Positions

- 2011 – present Adaptation Specialist (full time)
Michigan Department of Natural Resources, Wildlife Division
- 2015 – present Ph.D. Student
Boone and Crockett Fellow
Department of Fisheries and Wildlife, Michigan State University
Expected completion date: May 2020

Education

- 2015 – 2020 Graduate School (ongoing)
Michigan State University, East Lansing, Michigan
Research Advisor: Dr. William F. Porter
Dissertation: *Adaptation and Resilience in Habitat Planning: Coupled Human and Natural System Models of Oak Management in a Changing Climate*
- 1998 – 2001 Master of Science in Wildlife Ecology
University of Maine, Orono, Maine
Research Advisors: Dr. Daniel Harrison and Dr. William Krohn
Thesis: *Historical Occurrence and Habitat Ecology of Canada Lynx (Lynx canadensis) in Eastern North America*
- 1992 – 1996 Bachelor of Science in Fisheries and Wildlife *cum laude*
Michigan State University, East Lansing, Michigan

Employment

2012 – present	Adaptation Specialist
2008 – 2012	Endangered Species Coordinator – Michigan Department of Natural Resources
2003 – 2008	Wildlife Biologist – Michigan Department of Natural Resources
1998 – 2002	Research Assistant – University of Maine
1996 – 1997	Intern – Missouri Coalition for the Environment

Book

W.B. Krohn and **Hoving, C.L.** 2012. Early Maine Wildlife: Quotes from Writings on Selected Species, 1614 – 1930. University of Maine Press. 523 pp.

Peer-reviewed Publications

Hellmann, J. R. Grundel, **C.L. Hoving**, and G.W. Schuurman. 2016. A call to insect scientists: challenges and opportunities of managing insect communities under climate change. *Current Opinion in Insect Science* 17: 92-97.

Notaro, M., M. Schummer, Y. Zhong, S. Vavrus, L. Van Den Elsen, J. Coluccy, and **C.L. Hoving**. 2016. Projected influences of changes in weather severity on autumn-winter distributions of dabbling ducks in the Mississippi and Atlantic flyways during the twenty-first century. *PLOS ONE* 11(12): e0167506. doi:10.1371/journal.pone.0167506

Hoving, C.L. and M. Notaro. 2015. Ice, snow, and swamp: managing deer in Michigan's changing climate. *Michigan Journal of Sustainability* 3: 101-110.

Notaro, M., D. Lorenz, **C. Hoving**, and M. Schummer, 2014: Twenty-first century projections of snowfall and winter severity across central-eastern North America. *Journal of Climate* 27: 6526-6550.

Hoving, C.L., D.J. Harrison, W.B. Krohn, R.A. Joseph, and M. O'Brien. 2005. Broad-scale predictors of Canada lynx occurrence in eastern North America. *Journal of Wildlife Management* 69(2): 739-751

Hoving, C.L., D.J. Harrison, W.B. Krohn, and W.J. Jakubas. 2004. Canada lynx habitat and forest succession in northern Maine, United States. *Wildlife Biology* 10: 285-294

Krohn, W.B., **C.L. Hoving**, D.J. Harrison, D.M. Phillips, and H.C. Frost. 2004. *Martes* foot-loading and snowfall patterns in eastern North America: implications to broad-scale distributions and interactions of mesocarnivores. In D. J. Harrison and A. K. Fuller, editors. *Martes* in human altered landscapes – Proceedings of the Third International *Martes* Symposium. Columbia University Press, New York.

Hoving, C.L., R.A. Joseph, and W.B. Krohn. 2003. Recent and historical distributions of Canada lynx in Maine and the Northeast. *Northeastern Naturalist* 10: 363-382

Reports

Hoving, C.L., Y. Lee, P.J. Badra, and B.J. Klatt. 2013. Changing Climate, Changing Wildlife: a Vulnerability Assessment of 400 Species of Greatest Conservation Need and Game Species in Michigan. Wildlife Division Report No. 3564. Lansing, MI. 82 pp.

Hoving, C.L. 2001. Historical Occurrence and Habitat Ecology of Canada Lynx (*Lynx canadensis*) in Eastern North America. M.S. Thesis. University of Maine, Orono, Maine. 226 pp.

Selected Presentations

Hoving, C.L. 2016. Conserving Deer Wintering Complexes in a Changing Climate. Upper Peninsula Habitat Workgroup meeting. 30 August 2016, Ishpeming, MI.

Hoving, C.L. 2016. A Poor Climate for Recovery: Using Structured Decision Making to Explore Adaptation Alternatives. Innovations in Collaborative Modeling, East Lansing, MI.

Hoving, C.L. 2016. Uncertainty in Landscape Conservation. Upper Midwest and Great Lakes Landscape Conservation Cooperatives Coastal Conservation Workshops, Saginaw, MI and St. Clair, MI.

Hoving, C.L. 2015. Climate Adaptation in the Savanna: Michigan Climate Contest and Adaptation Applications. The Stewardship Network conference, East Lansing, MI.

Hoving, C.L., M. Notaro, M. Schummer, J. Coluccy, and K. Martin. 2015. Projections of Snow Cover, Winter Severity, and Lake Ice Cover for the Great Lakes Basin With Implications to Regional Wildlife. Midwest Fish and Wildlife Conference, Indianapolis, IN.

Hoving, C.L. 2015. Implementing Adaptation: Examples, Barriers, and Opportunities from Michigan. Michigan Chapter meeting of The Wildlife Society, Clare, MI.

Hoving, C.L. 2015. Natural Resources Climate Impacts: with a Focus on Kalamazoo and Calhoun Counties. Michigan Reserve and National Guard/Department of Defense Charrette, Ft. Custer, MI.

Hoving, C.L. 2015. The Playing Field is Shifting: Agriculture and Climate in Northern Michigan. Michigan DNR Wildlife Division Annual Meeting, Roscommon, MI.

Sargent, L., A. Stewart, and **C.L. Hoving**. 2015. A History of the Wildlife Division. Michigan DNR Wildlife Division Annual Meeting, Roscommon, MI.

Hoving, C.L. 2014. A Sight Confusing to the Mind. The Passenger Pigeon in Conservation History. Invited talk at Seven Ponds Nature Center, Dryden, MI.

Hoving, C.L. 2014. Climate Change and Prescribed Fire in the Lakes States. Invited talk at the Burning Issues Symposium, Augusta, MI.

Hoving, C.L. 2013. Singing the Karner Blues in a Rapidly Changing Climate. Workshop on Coping with Extreme Weather and Climate Change: Management Strategies for the Upper Midwest. La Crosse, WI.

Hoving, C.L. and A. Pairis. 2013. State Perspectives in Managed Relocation. National Adaptation Forum. Denver, CO.

Hoving, C.L. 2013. Hope and Identity: Keys to Effective Climate Change Communication. Invited Keynote at the Michigan Bird Conservation Initiative Annual Meeting, Tustin, MI.

Hoving, C.L. 2011. Climate Change: Can Michigan Wildlife Adapt? Invited Talk at the Michigan Bird Conservation Initiative Annual Meeting, Petoskey, MI.

Hoving, C.L. 2011. Climate Change Implications for Michigan and Sleeping Bear Dunes National Lakeshore. Invited talk at Climate Smart Parks Training, Empire, MI.

Hobbies and Interests

Restoring prairie and savannas on my 8 acre property through prescribed burning, invasive species control, and planting native grasses and wildflowers

Repairing and restoring a 100+ year old farmhouse

Special Skills

Meeting and Workshop Facilitation

Strategic Planning

Agent-based Modeling in python

Microsoft Office products, especially Word, Outlook, and Powerpoint

Google Drive and Google Documents

Affiliations and Leadership

Association of Fish and Wildlife Agencies Threatened and Endangered Species Committee

Member 2008-2012

Association of Fish and Wildlife Agencies Climate Change Committee

Member 2012-present

Midwest Association of Fish and Wildlife Agencies Climate Change Committee

Chair 2013-2014

Member 2012-present

The Wildlife Society Climate Change and Wildlife Working Group

Chair 2014-2015

Member 2013-present

Karner Blue Butterfly Recovery Working Group

Member 2008-present