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## Malcolm L. Hunter Jr., Ph.D.

*Professor of Wildlife Ecology, Department of Wildlife Ecology, University of Maine*

*Libra Professor of Conservation Biology, University of Maine*

### Profile:

Dr. Hunter's research experience covers a variety of ecosystems and organisms – birds, amphibians, insects, vascular plants, mammals, reptiles, lakes, peatlands, grasslands, and more – but his major focus is on forest ecosystems and the maintenance of their biological diversity. He is a member of two teams that study the interactions among vascular plants, amphibians, birds, and small mammals and their changes through time. He also works with forest ecosystems at a landscape scale studying the effects of forest management on amphibians, birds, and insects, and the implications of natural disturbance regimes, spatial distribution patterns, and other large-scale phenomena for forest management and reserve design. Dr. Hunter's interests are geographically broad too: he has worked in 25 countries, mainly in Africa and the Himalayas. As a researcher and advisor he interacts with a broad spectrum of organizations such as the Society for Conservation Biology (serving as President from 2001-2003), the Nature Conservancy, and the U.S. Forest Service.

Dr. Hunter's work with SSI involved looking at how to maintain biodiversity and ecological integrity while using landscapes for human activities such as timber harvest and residential development. His research to date is creating a growing understanding of the habitat needs of certain sensitive species, that allows for creative thinking about how to accommodate those needs while still managing ecosystems for human welfare. Dr. Hunter expects this specific research to lead to the development of broader principles that have wide application to sustainable ecosystem management.

### Degrees:

Oxford University, Edward Grey Institute of Field Ornithology, D.Phil. (Zoology)

University of Maine, B.S. (Wildlife Science)

### Courses:

Advanced Conservation Biology

Conservation Biology

Conservation Planning

Tropical Ecology

Introduction to Wildlife Conservation

## SSI Projects:

Protecting Natural Resources  
at the Community Scale  
(Vernal Pools)

## Selected Publications:

- K.A. Capps, R. Rancatti, N. Tomczyk, T. Parr, A. Calhoun, and M.L. Hunter, "Biogeochemical Hotspots in Forested Landscapes: The Role of Vernal Pools in Dentrification and Organic Matter Processing," *Ecosystems* (in press).
- M.L. Hunter, Jr., K.H. Redford, and D.B. Lindenmayer, "The Complementary Niches of Anthropocentric and Biocentric Conservationists," *Conservation Biology* 28 (2014): 641-645.
- B.B. Cline and M.L. Hunter, "Juvenile Amphibians Discriminate Among Open-Canopy Habitats: An Experimental Investigation of Habitat Permeability," *Journal of Applied Ecology* 51 (2014): 319-329.
- C. Colgan, M.L. Hunter, B. McGill, and A. Weiskittel, "Managing the Middle Ground: Forests in the Transition Zone Between Cities and Remote Areas," *Landscape Ecology* 29 (2014): 1133-1143.
- A. Calhoun, J. Jansujwicz, M. Hunter, and K. Bell, "Improving Management of Small Natural Features on Private Lands by Negotiating the Science-Policy Boundary of Maine Vernal Pools," *Proceedings of the National Academy of Science* (2014).
- A.J.K. Calhoun, J. Arrigoni, R.P. Brooks, M.L. Hunter, and S.C. Richter, "Creating Successful Vernal Pools: A Literature Review and Advice for Practitioners," *Wetlands* (2014).
- N. Politi, L. Rivera, L. Lizárraga, M. Hunter, Jr., and G.E. DeFosse, "The Dichotomy Between Protection and Logging of an Endangered and Valuable Timber Species – Conservation of *Amburana caerensis* in Northwestern Argentina," *Oryx* (2014).
- G. Wang, N.T. Hobbs, N.A. Slade, J.F. Merritt, L.L. Getz, M.L. Hunter, Jr., S.H. Vessey, J.W. Witham, and A. Guillaumet, "Comparative Population Dynamics of Large and Small Mammals in the Northern Hemisphere: Deterministic and Stochastic Forces," *Ecography* 36 (2013): 439-446.
- N. Politi, M.L. Hunter, Jr., and L. Rivera, "Assessing the Effects of Selective Logging on Birds in Neotropical Piedmont and Cloud Montane Forest," *Biodiversity and Conservation* 21 (2012): 3131-3155.
- S.P. Campbell, J.W. Witham, and M.L. Hunter, "Long-Term Changes in Spatial Distribution of Birds Responding to a Group-Selection Timber Harvest," *Wildlife Society Bulletin* 36 (2012): 313-327.
- V.D. Popescu, B.S. Brodie, M.L. Hunter, and J. Zydlewski, "Use of Olfactory Cues by Newly Metamorphosed Wood Frogs (*Lithobates sylvaticus*) During Emigration," *Copeia* 3 (2012): 424-431.
- V.D. Popescu, D.A. Patrick, M.L. Hunter, and A.J.K. Calhoun, "The Role of Forest Harvesting and Subsequent Vegetative Regrowth in Determining Patterns of Amphibian Habitat Use," *Forest Ecology and Management* 270 (2012): 163-174.
- V.D. Popescu and M.L. Hunter, "Clearcutting Affects Habitat Connectivity for a Forest Amphibian by Decreasing Permeability to Juvenile Movements," *Ecological Applications* 21 (2011): 1283-1295.
- D.B. Lindenmayer and M.L. Hunter, Jr., "Some Guiding Concepts for Conservation Biology," *Conservation Biology* 24 (2010): 1459-1468.

Senator George J. Mitchell  
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