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Professional Preparation:

Hastings College	Physics	A.B.	1963
University of Wyoming	Physics	M.S.	1965
U. of Northern Colorado	Mathematics	Dr. of Arts	1974

Position: 1980-Present, Prof. of Mathematics; Coordinator., Environ. Systems Grad. Prog. , Humboldt State University

Visiting Positions: University of Copenhagen (Nordic Research Academy) 2002, Colorado State University (Fish & Wildlife) 1998-99 & 2003; University of Natal, South Africa 1993; Univ. of British Columbia 1979-80 & 87; University of Montana 1984; University of Perugia, Italy 1982.

Recent Editing:

- **Lamberson, R.H.**, 2000 - 2003, Editor of the journal *Natural Resource Modeling*, published by the Rocky Mountain Mathematics Consortium (a refereed journal with international distribution).
- Ianelli, J and **R.H. Lamberson**, editors, 2003, History and Future of Models in Fisheries Science, a special issue of *Natural Resource Modeling*, vol. 16 # 4.
- **Lamberson, R.H.**, 2002, *Individual-Based Models*, a special issue of *Natural Resource Modeling*, vol. 15 #1.
- **Lamberson, R.H.**, 1999, *Mathematical Models for Structured Populations*, a special issue of *Natural Resource Modeling*, vol. 12 #1.
- **Lamberson, R.H.**, 1994, *Mathematical Models for Conservation and Resource Management* two special issues of *Natural Resource Modeling* published in honor of Robert McKelvey's retirement, vol. 8 #1 and vol. 8 #2.

Selected Publications:

- **Lamberson, R.H.**, D. Allen, S. Nicodemus, and C. Zabel, 2005, Developing an Index for Population Distribution of a Territorial Species in a Fragmented Landscape, to appear in *Natural Resource Modeling*.
- **Lamberson, R.H.** , 2005, Territorial Dynamics: Persistence in Territorial Species, to appear in *Mathematics Magazine*.
- Carroll, J.E., T. Lauck, and **R.H. Lamberson**, 2005, A Perron Theorem for Positive Componentwise Bilinear Maps, *Linear Algebra and Applications*.
- Ianelli, J and **R.H. Lamberson**, 2003, History and Future of Models in Fisheries Science, *Natural Resource Modeling*, vol. 16 # 4 pp 1-5.
- **Lamberson, R.H.**, 2002, What Does It Take to Make Individual-based Models Realize Their Potential?, *Natural Resource Modeling*, vol. 15 # 1, pp 1-5.
- Railsback, S., B. Harvey, **R.H. Lamberson**, D. Lee, N. Claasen, and S. Yoshihara, 2002, Population-Level Analysis and Validation of an Individual-based Cutthroat Trout Model, *Natural Resource Modeling*, vol. 15 # 1, pp. 83-110.

- Donovan, T. and **R.H. Lamberson**, 2001, Area-sensitive distributions counteract negative effects of habitat fragmentation on breeding birds, *Ecology*, Vol. 82, pp.1170-79.
- Noon, B.R., **R.H. Lamberson**, M. Boyce, and L. Irwin, 1999, Population Viability Analysis: A Primer on its Principal Technical Concepts. In: *Ecological Stewardship: a common reference for ecosystem management*. Vol. 2 pp. 87-134.
- **Lamberson, R.H.** 1999, Persistence of Structured Populations, *Natural Resource Modeling*, vol. 12, pp. 1-4.
- DeLong, A.K. and **R.H. Lamberson**, 1999, A Habitat Based Model for the Distribution of Forest Interior Nesting Birds in a Fragmented Forest Landscape, *Natural Resource Modeling*, vol. 12, pp. 129-46.
- Railsback, S.F., **R.H. Lamberson**, B. Harvey, and W. Duffy, 1999, Movement Rules for Individual-Based Model of Stream Fish, *Ecological Modeling*, vol. 123, pp. 73-89.
- Carroll, J.E. and **R.H. Lamberson**, 1999, Sources, Sinks, and Selectivity, *Natural Resource Modeling*, vol. 12, pp.5-36.
- Hearne, J., **R.H. Lamberson**, and P. Goodman, 1996, Optimising the Offtake of Large Herbivores from a Multispecies Community, *Ecological Modelling*, vol. 92, pp. 225-33.
- Dunning, J., B. Danielson, B. Noon, T. Root, **R.H. Lamberson**, and E. Stevens, 1995, Spatially-Explicit Population Models: Current Forms and Future Uses, *Ecological Applications*, vol. 5, pp 3-11.
- Carroll, J.E. and **R.H. Lamberson**, 1995, Sources Sinks and Spotted Owls, *Mathematical Biosciences*, vol. 129, pp 169-88.
- T. Donovan, **R.H. Lamberson**, A. Kimber, F. Thompson III, and John Faaborg, 1995, Modeling the Effects of Habitat Fragmentation on Source and Sink Demography of Neotropical Migrant Birds, *Conservation Biology* vol. 9, pp 1396-1407.
- **Lamberson, R.H.**, B.R. Noon, C. Voss, and K. McKelvey, 1994, Reserve Design for Territorial Species: The Effects of Patch Size and Spacing on the Viability of the Northern Spotted Owl, *Conservation Biology*, vol. 8, pp 185-95.
Selected as a “classic paper” from *Conservation Biology* and republished in *Genes, Populations, and Species: readings from Conservation Biology*, D. Ehrenfeld, editor, Society for Conservation Biology and Blackwell Science, Inc. pp. 246
- McKelvey, K. and **R. H. Lamberson**, 1994, Random Entry Forestry: Timber Management in a Time of Species Conservation, *Natural Resource Modeling*, vol. 8 #1
- Lauck, T., **R.H. Lamberson**, and T.E. Lisle, 1993, A Simulation Model for the Infiltration of Heterogeneous Sediment in a Stream Bed, in *Advances in Hydrosience and Engineering*, Center for Computational Hydrosience and Engineering, S.Y. Wang editor, vol. 1, pp. 229-37.
- **Lamberson, R.H.** and Joseph Carroll, 1993, Thresholds for Persistence in Territorial Species, *Topics on Biomathematics*, I. Varbieri, E. Grassi, G. Pallotti, and P. Pettazzoni, editors. World Scientific Publishing Co., Singapore, pp. 55-62.
- McKelvey, K., B. Noon, and **R.H. Lamberson**, 1993, Conservation Planning for Species Occupying Fragmented Landscapes: The Case of the Northern Spotted Owl, in press *Biotic Interactions and Global Change*, J. Kingsolver, P. Karieva, and R. Huey, eds., Sinauer Associates, Sunderland, MA, pp. 424-50.

- Carroll, J.E. and **R.H. Lamberson**, 1993, The Owl's Odessey, A Continuous Model for the Dispersal of a Territorial Species, *SIAM Journal of Applied Mathematics*, vol. 53, pp. 205-218.
- **Lamberson, R.H.**, R. McKelvey, B.R. Noon, and C. Voss, 1992, A Dynamic Analysis of Northern Spotted Owl Viability in a Fragmented Forest Landscape, *Conservation Biology*, pp, 505-512.
- **Lamberson, R.H.** 1990 A Preliminary Look at Killer Whale Population Dynamics, which is a chapter in *Natural Resource Modelling and Analysis* edited by Anthony Charles and George White, Centre for Resource Systems Analysis, Halifax, Nova Scotia.
- Clark, C.W. and **R.H. Lamberson**, Evolutionarily Dominant Strategies in Fluctuating Environments, *Mathematical Biology*, edited by Chen Lansu et al., Xi'an Jiaotong University Press, 1988.
- **Lamberson, R.H.**, 1987, The Conservation and Maintenance of Valuable Resources: Optimal Expenditure Strategies, *Mathematical Ecology*, edited by T.G. Hallam, L.J. Gross, S.A. Levin, World Scientific Publishing Co.
- Kelsey, H., **R.H. Lamberson**, and Mary Ann Madej, 1987, Stochastic Model for the Long-Term Transport of Stored Sediment in a River Channel, *Water Resources Research*, 23 1738-1750.
- Kelsey, H., and **R.H. Lamberson**, 1985, Modeling the Transport of Stored Sediment in a Gravel Bed River, published in symposium proceedings, International Assoc. of Scientific Hydrology.
- Clark, C.W. and **R.H. Lamberson**, Pelagic Whaling an Economic History and Analysis, *Marine Policy*, 6 (1982), 103-108.

Recent Grants and Contracts:

- Proposal title: *Application of Individual-based Fish Models to Regional Decision Making*
Source of support: EPA STAR Grant
Total award amount: \$418,000 Award period: 2003-2006
- Project title: *Spatially Explicit, Individual Based, Instream Fish Population Model*
Source of support: Pacific Gas & Electric Co.
Total award amount: \$60,000 Award period: 1998-2003
- Project title: *Southwestern Willow Flycatcher Viability Analysis* (with Barry Noon)
Source of support: Bureau of Reclamation.
Total award amount: \$140,000 Award period: 1998-1999
- Northern Spotted Owl Habitat Relationships
Source of Support: US Forest Service
Total award amount: \$41,000 Award period: 1998-2001
- Co-PI on a NSF REU Grant proposal
Total award amount: \$200,000 Award period: 2005-2007

Synergistic Activities:

- Editor of the journal *Natural Resource Modeling*, published by the Rocky Mountain

Mathematics Consortium (a refereed journal with international distribution), 2000-2003.

- Managing Editor of the journal *Natural Resource Modeling*, 1985-1991.
- Editor of books and special issues of journals on *Models in Fisheries Science* (2003), *Individual-based Models* (2002), *Structured Population Models* (1999), and several others.
- Developed the models for the conservation plan for the northern spotted owl and population viability studies for Menzies wallflower, ovenbirds, and southwestern willow flycatchers.

Recent Awards:

- Outstanding Scholar at Humboldt State University for 1993.
- Humboldt Medal (awarded by Humboldt State University for research in mathematical modeling of renewable resources) 1994.
- Named by Governor Robert Kerry to the rank of Admiral in the Great Navy of the State of Nebraska.
- Award for Distinguished Service from the Resource Modeling Association, 1991.
- Award for Distinguished service from the Interagency Task Force for the Conservation of the Northern Spotted Owl, 1991.

Professional and Scholarly Organizations (most notable offices):

- *Mountain Mathematics Consortium Rocky*
Chairman 1996 & 1997, Vice Chairman 1995, Secretary/Treasurer 1994
- *Resource Modeling Association*
Founder of the organization, Executive Secretary 1990 - Present, President 1986-88, Chairman of Board of Directors 1982-86
- *Mathematical Association of America*
National Program Committee 1980, Committee on Two Year Colleges 1988-92, Committee on Math Contests 1979, Committee Mathematics and the Environment, 1993-2001.

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