

**William Mark Roberts**  
**4860 Hingston Avenue**  
**Montreal QC, H3X 3R2, Canada**  
wroberts@alumni.princeton.edu

+1 (514) 939-3302

<http://wmarkroberts.com>

**DATE OF BIRTH** 18 February 1966

**CITIZENSHIP** Canada, U.K.

## **EDUCATION**

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Princeton University	Ph.D. in Ecology and Evolutionary Biology	2000
Princeton University	M.A. in Ecology and Evolutionary Biology	1995
University of British Columbia	M.Sc. in Zoology	1992
University of British Columbia	B.Sc. (Honours) in Zoology	1987

## **EMPLOYMENT HISTORY**

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### **ENVIRONMENTAL CONSULTING**

**The H. John Heinz III Center for Science, Economics and the Environment** **2001**

- Used advanced statistical methods to extract a measure of ecosystem stability from a multi-decade, continent-wide database, for the Heinz Center's *Report on the Status of the Nation's Ecosystems*.

**New Jersey Department of Environmental Protection** **2000 - 2001**

- Integrated published and Internet-based information to evaluate the risks of habitat loss and habitat fragmentation to biodiversity and ecosystem health for the State of New Jersey's Comparative Risk Project.

**Environmental Defense** **1999 - 2000**

- Applied GIS and statistical software to conduct a population viability analysis of Utah prairie dogs, federally listed in the United States as a threatened species..

**British Columbia Ministry of Agriculture, Fisheries and Foods** **1992**

**B.C. Blueberry Industry Development Council**  
**Corporation of the District of Pitt Meadows**

- Designed and implemented research into critical aspects of the problem of bird damage to blueberry crops, in consultation with provincial and municipal government, industry leaders, growers and public.

**British Broadcasting Corporation's Natural History Film Unit** **1990**

- Provided technical advice and assistance for special effects to communicate information about animal migration in David Attenborough's broadcast documentary series *The Trials of Life*.

**University of California, Irvine, Department of Ecology and Evolutionary Biology** **1987**

- Created software programs and strategies to analyse complex data sets of animal behaviour.

**BIOMEDICAL COMMUNICATIONS**

**Senior Research Application Associate**      **BioMedCom Consultants** **2002 – present**

- Manage biomedical communications projects for clients in pharmaceutical industry, academia
- Research and writing of peer-reviewed publications, articles for physician-oriented media, and formulary submissions to Canadian provincial and US managed care pharmacy review bodies
- Literature review using online search tools
- Graphical data presentation
- Pharmacoeconomic data analysis and computer modelling

**UNIVERSITY TEACHING**

**Lecturer**      **McGill University** **2001 – present**  
**Methods in Biology**

- Prepare and deliver lectures for ca. 150 students in 2 of 8 modules in a team-taught course, Fall semester
- Design and supervise labs on statistics and experimental design
- Direct ca. 9 teaching assistants

**Lecturer**      **McGill University** **2001**  
**Biostatistical Analysis**

- Planned course syllabus
- Prepared and delivered lectures and exams for 130 students
- Developed computer labs
- Supervised 4 teaching assistants
- Designed and maintained course website

**Lecturer** **Yale University** **2000**  
**Population Ecology**

- Planned course syllabus
- Prepared and delivered lectures and exams for 25 students
- Developed discussion groups and computer labs
- Supervised 2 teaching assistants
- Designed and maintained course website

**Lecturer** **Princeton University** **1999 – 2000**  
**Comparative Animal Physiology; Conservation and Biodiversity**

- Prepared and delivered selected lectures
- Managed discussion groups
- Graded assignments and exams

**Sessional Lecturer** **University of British Columbia** **1993**  
**Comparative Vertebrate Zoology**

- Prepared and delivered in-laboratory lectures
- Planned and directed labs

#### **MANAGEMENT**

**Programme Manager** **1993**  
**Canadian Centre for Creative Technology, Shad Valley UBC Summer Programme**

- Managed summer residency course providing intensive exploration of science, technology and business for gifted high school students from across Canada.
- Accurately carried out all accounting for programme, managing a budget of \$110,000.
- Negotiated contracts for accommodation, catering, and transportation, conducted staff hiring interviews, set up office, located and organized guest speakers, suppliers and service providers, and planned daily schedules for all programme participants.

#### **PUBLIC RELATIONS**

**Visitor Services Naturalist** **1988 - 1989**  
**Vancouver Public Aquarium**

- Developed interactive programmes at Vancouver's top tourist attraction to convey key concepts about marine and conservation biology to visitors from around the world.

## PUBLISHING

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### Recordings Editor, *DSCH Journal*

1997 – present

- Develop and coordinate press support (new-release updates, promotional copies of music CDs) from all major classical music recording companies/distributors
- Schedule and assign reviews to an international team of contributors
- Edit and format reviews for publishing
- Design and manage online CD Review facility

### Ad hoc reviewer for the following scientific journals:

- *BioScience*
- *Conservation Biology*
- *Biological Conservation*
- *Animal Behaviour*
- *The Auk*
- *The Condor*

## ADDITIONAL SKILLS

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Expert in:

- SYSTAT, STATISTICA (statistical software)
- MS Office: Word, Excel, PowerPoint, Access
- DreamWeaver (website design)
- Online search utilities (citation indices, search engines, etc.)
- Custom programming

## AUTHORED PUBLICATIONS

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### PAPERS

- Fitzner, K., K. Fox, J. Schmidt, M. Roberts, D Rindress, J Hay. 2005. Implementation and outcomes of commercial disease management programs in the United States: the Disease Management Outcomes Consolidation Survey. *Disease Management* 8: 253-64.
- Dobson, A. P., J. P. Rodríguez, and W. M. Roberts. 2001. Synoptic tinkering: integrating strategies for large-scale conservation. *Ecological Applications* 11: 1019-1026.
- Dobson, A. P., J. P. Rodríguez, W. M. Roberts and D. S. Wilcove. 1997. Geographical distribution of endangered species in the United States. *Science* 275: 550-553.
- Roberts, W. M. 1996. Hummingbirds' concentration preferences at low volume: the importance of time scale. *Animal Behaviour* 52: 361-370.

- Roberts, W. M. 1995. Hummingbird licking behaviour and the energetics of nectar feeding. *The Auk* 112: 456-463.
- Temeles, E. J. and W. M. Roberts. 1993. Effect of sexual dimorphism in bill length on foraging behavior: an empirical analysis of hummingbirds. *Oecologia* 94: 87-94.
- Gass, C. L. and W. M. Roberts. 1992. The problem of temporal scale in optimization: three contrasting views of hummingbird visits to flowers. *The American Naturalist* 140: 829-853.

#### **PUBLISHED CORRESPONDENCE**

- Dobson, A. P., J. P. Rodríguez, W. M. Roberts and D. S. Wilcove. 1997. Response to Czech, B. and P. R. Krausman (1997. Distribution and causation of species endangerment in the United States. *Science* 277:1116-1117). *Science* 277:1117.
- Dobson, A. P., J. P. Rodríguez, W. M. Roberts and D. S. Wilcove. 1997. Response to Dunn, C. P. *et al.* (1997. Endangered species "hot spots". *Science* 276:513-515) and Ehrenfeld, D. *et al.* (*ibid*:515-516). *Science* 276:516-517.

#### **CONFERENCE ABSTRACTS**

- W. M. Roberts and D. Rindress. 2005. Trends in pharmaceutical spending growth in the United States, 1998-2002. Presented at the International Society for Pharmacoeconomics & Outcomes Research 10th Annual International Meeting, Washington DC, May 15-18, 2005.
- Dobson, A., W. M. Roberts, J. P. Rodríguez and D. Wilcove. 1999. Conservation strategies at a demi-continental scale: reconciling problems of scale, perspective and geographical distribution. Presented at Ecological Society of America Annual Meeting, Spokane, WA, 8 - 12 August 1999.
- Dobson, A. P., J. P. Rodríguez, W. M. Roberts and D. S. Wilcove. 1996. The geographical distribution of endangered species in the United States. *Supplement to the Bulletin of the Ecological Society of America* 77:115. Presented at ESA 1996 Annual Combined Meeting, Providence, RI, 10 - 14 August 1996.
- Roberts, W. M. 1994. Hummingbirds' concentration preferences and the energetics of nectar feeding: time scale and optimality. *Journal für Ornithologie* 135:151. Presented at XXI International Ornithological Congress, Vienna, Austria, 20 - 25 August 1994.
- Roberts, W. M. 1993. Controlling bird damage to blueberry crops: bird behaviour and crop protection. *Proceedings of the 35th Annual Lower Mainland Horticultural Improvement Association Grower's Short Course (Abbotsford, British Columbia, Canada)*: 101-103.

#### **REPORTS**

- Roberts, W. M. 2001. Draft Technical Note: Grassland Birds - Native/Non-Native Indicator; and Materials and Methods: Grassland Birds - Native/Non-Native Indicator. Reports prepared for The H. John Heinz III Center for Science, Economics and the Environment. Pp. 2 & 6.

- Roberts, W. M. 2001. New Jersey Comparative Risk Project, Ecological Technical Work Group, Stressor-Specific Risk Assessment: Habitat Loss and Habitat Fragmentation. Reports prepared for New Jersey Department of Environmental Protection. Pp. 32.
- Roberts, W. M., J. P. Rodríguez, and A. P. Dobson. 2000. Review of the Habitat Conservation Plan for Utah Prairie Dogs in Iron County, Utah. Report prepared for Environmental Defense (formerly Environmental Defense Fund). Pp. 30.
- Roberts, W. M., J. P. Rodríguez, T. C. Good and A. P. Dobson. 2000. Population Viability Analysis of the Utah Prairie Dog. Report prepared for Environmental Defense. Pp. 51.
- Roberts, W. M., J. P. Rodríguez, and A. P. Dobson. 1999. Review of Utah Prairie Dog Recovery Plan (U.S. Fish and Wildlife Service 1991). Report prepared for Environmental Defense Fund. Pp. 9.
- Rodríguez, J. P., W. M. Roberts and A. Dobson. 1997. Where are endangered species found in the United States? *Endangered Species Update* 14:1-4.
- Roberts, W. M. 1992. Controlling bird damage to blueberry crops in Pitt Meadows: a study of bird behaviour and crop protection devices. Report prepared for British Columbia Provincial Ministry of Agriculture, Fisheries and Food, B.C. Blueberry Industry Development Council and Corporation of the District of Pitt Meadows. Pp. 37.

#### **THESES**

- Roberts, W. M. 2000. Dimorphism for silvering in Mormon fritillary butterflies (*Speyeria mormonia*) Boisduval (Lepidoptera: Nymphalidae: Argynnini). Ph.D. Thesis. Princeton University, Princeton. Pp. ix + 104.
- Roberts, W. M. 1992. Hummingbirds' concentration preferences and the energetics of nectar feeding: predictions, tests, and implications for optimal foraging theory and pollination biology. M.Sc. Thesis. University of British Columbia, Vancouver. Pp. viii + 96.
- Roberts, W. M. 1987. Temporal patterns of feeding regulation in the rufous hummingbird. B.Sc. Honours Thesis. University of British Columbia, Vancouver. Pp. vi + 50.