Curriculum vitae
Mark Alun Lewis

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Birth Date: December 7, 1962

Nationality: Canadian

Degrees: *University of Oxford*
D.Phil. in Mathematics (Mathematical Biology), November 1990. Thesis entitled "Analysis of Dynamic and Stationary Biological Pattern Formation." Supervised by Professor J. D. Murray, FRS.

University of Victoria, Canada
B.Sc., Double Major in Biology and Combined Mathematics/Computer Science, May 1987, First Class.

Positions:

7/01–now   *Professor and Senior Canada Research Chair in Mathematical Biology*
Department of Mathematical Sciences and Department of Biological Sciences, University of Alberta.

1/02-now   *Director, Centre for Mathematical Biology*
University of Alberta

7/12-6/14   *Killam Research Fellow*
University of Alberta

9/11-12/11   *Research Fellow*
Oxford Centre for Collaborative Applied Mathematics

10/11-12/11   *Visiting Fellow*
Saint Catherine's College, Oxford

7/00–2/02   *Professor*
Department of Mathematics, University of Utah.

7/95–7/00   *Associate Professor*
Department of Mathematics, University of Utah.

5/95–6/02	*Adjunct Faculty*	
	Department of Biology, University of Utah.	
7/93–now	*Affiliate Faculty*	
	Department of Applied Mathematics, University of Washington, Seattle.	

4/99–7/99   *Senior Visitor*
             Institute for Industrial and Applied Mathematics, University of Minnesota.

9/98–12/98   *Research Fellow*
             Centre for Population Biology at Silwood Park, Imperial College, University of London.

95 winter   *Visiting Fellow*
             Department of Ecology and Evolution, Princeton University (Sloan Research Fellow).

8/92-6/95   *Assistant Professor*
             Department of Mathematics, University of Utah.

1/91–7/92   *Research Associate*
             Mathematical Biology, jointly with the departments of Applied Mathematics and Zoology, University of Washington, working with Professors J.D. Murray and P. Kareiva, and supported by an NSERC of Canada Postdoctoral Fellowship Award.

Awards:
- Alfred P. Sloan Research Fellowship, June 1994–September 1996;
- National Young Investigator Award (NSF), October 1994–September 1999;
- University of Utah Faculty Fellowship, April 1998–June 1998;
- Senior Canada Research Chair in Mathematical Biology, July 2001–2008;
- Killam Annual Professorship (Alberta), 2006–7;
- American Society of Naturalists Presidential Award, 2006;
- McCalla Professorship (Alberta), 2007–8;
- Senior Canada Research Chair in Mathematical Biology (renewed), July 2008–present;
- Lee Segel Prize for Best Original Research Paper, 2008;
- Canadian Applied and Industrial Mathematics Society Research Prize, 2009;
- CRM-Fields-PIMS Prize for Exceptional Research in Mathematics, 2011;
- Fields Institute Fellow, 2011;
- University of Victoria Distinguish Alumni Award, 2012;
- Killam Research Fellowship, July 2012–June 2014.

Distinguished Lectures:
- 22nd Annual Ostrum Lecture, Washington State University (2003);
- Lansdowne Lecture, University of Victoria (2006);
- Plenary Speaker, 7th International Congress on Industrial and Applied Mathematics (2011);
- Ireland Lecture, University of New Brunswick (2012);

- Howard Rowlee Lecture, University of Nebraska (2012).

Major Grants:

Alberta Innovates Bio Solutions, Value Chain Sustainability program, Translating Mountain Pine Beetle Outputs into Genomics-Enhanced Environmental and Economic Risk Models. 2012-2015 (Janice Cooke PI). Award amount: $398,000 ($199,000 from Genome Alberta and $199,000 from Alberta Innovates Bio Solutions).

Killam Research Fellowship (Canada Council for the Arts), Research Supplement, Office of the Vice President of Research, University of Alberta 2012-2014. Award amount: $50,000 ($25,000 per annum).

Natural Science and Engineering Research Council of Canada, Discovery Accelerator 2011–2014. Award amount: $120,000 ($40,000 per annum).

Natural Science and Engineering Research Council of Canada, Spatial Dynamics in Ecology 2011–2016. Award amount: $395,000 ($79,000 per annum).

Natural Sciences and Engineering Research Council of Canada and Partners, Canadian Aquatic Invasive Species Network II, 2011-2015 (Hugh MacIsaac PI). Award amount $6,557,500.

Alberta Advanced Education and Technology, Pacific Institute for Mathematical Sciences 2010-2013 (Alejandro Adem PI) Award amount: $1,200,000.

Natural Sciences and Engineering Research Council of Canada (RTI), University of Alberta PIMS Collaborative Research Environment 2010-2011 (Charles Doran PI), Award Amount $23,630.

Alberta Prion Research Institute, Decision support tools for Chronic Wasting Diseases 2009-2011 (Evelyn Merrill PI). Award Amount $117,878.

Alberta Heritage Foundation for Science and Engineering, Alberta Water Research Institute 2009-2011 (Ed McCauley PI) Amount: $1,623,000.

Alberta Sustainable Resource Development, Instream flow needs: an ecologically dynamic approach 2008-2010. Award amount $60,000.

Natural Science and Engineering Research Council of Canada, Major Resources Support, Pacific Institute for Mathematical Sciences 2008–2013 (PI Ivar Ekeland). Award amount: $5,500,000.

Mathematics of Information Technology and Complex Systems, MITACS NCE Accelerated BC Grad Res Internship (coPI Martin Krkosek) May, 2008 – November, 2008. Award amount: $15,000.

BC Pacific Salmon Forum, Estimating sea lice transmission from farm to wild juvenile salmon 2007-2008 (coPI Martin Krkosek). Award amount $20,000.

BC Pacific Salmon Forum, Survival and predation field experiments 2007-2008 (coPI Martin Krkosek). Award amount $19,900.

Natural Science and Engineering Council of Canada, NSERC-MITACS Industry, Joint IPS Internship (PhD Student Andria Dawson) 2007-2010. Award Amount: $67,500.

Alberta Heritage Foundation for Science and Engineering Research, Alberta Ingenuity Fund, AIF Studentship (postdoc, Frank Hilker) 2006-2008. Award Amount: $110,000.

University of Alberta, Centre for Mathematical Biology 2006-2011. Award Amount: $352,100.

Natural Science and Engineering Research Council of Canada, Spatial Dynamics in Ecology 2006–2011. Award amount: $259,000 ($51,800 per annum).

Natural Science and Engineering Research Council of Canada, Canadian Aquatic Invasive Species Network 2006–2011 (Hugh MacIsaac PI). Award amount: $3,781,944.

Alberta Heritage Foundation for Science and Engineering, Alberta Ingenuity Fund, Ingenuity PhD Student Scholarship (Hannah McKenzie). 2005-2009. Award amount: $52,419.

Mathematics of Information Technology and Complex Systems, MITACS Industry, 2004-2009. Award amount: $120,837.

Natural Resources Canada Mountain Pine Beetle Initiative, Modeling Spatiotemporal patterns of MPB infestation 2004–2007 (CoPI Fangliang He).   Award amount: $394,090.

MITACS - Networks of Centres of Excellence, Network for Biological Invasions and Dispersal Research 2003–2010 (J. Watmough PI). Award amount from NCE (not including matching from nonacademic participants). Award amount: $690,000.

Natural Sciences and Engineering Research Council of Canada, Collaborative Research Opportunities Grant: Ecological Forecasting and Risk Analysis of Nonindigenous Species. April 2003–April 2007 (CoPI Hugh MacIsaac). Award amount: $685,292.

National Science Foundation, University of Notre Dame subcontract, Ecological Forecasting and Risk Analysis of Nonindenous Species. September 2002–September 2007.
Award amount: $75,000.

Natural Sciences and Engineering Research Council of Canada, Models for dispersal in spatial ecology. April 2002–April 2006. Award amount: $180,000 ($45,000 per annum).

Endowment Fund for the Future, University of Alberta, Distinguished visitor fund.
February 2002–April 2002 (CoPI Thomas Hillen). Total Award amount: $8,836.

University of Alberta, Faculty of Science, New appointment supplement, 2001-2005. Award amount: $310,000.

Canada Research Chair in Mathematical Biology, Chair's Fund for Research. University of Alberta, July 2001–July 2008. Award amount: $483,000.

Innovation and Science Research Investments Program, Research Program in Mathematical Biology and Centre for Mathematical Biology at the University of Alberta, July 2001. Total Award amount: $95,000.

Canadian Foundation for Innovation, Research Program in Mathematical Biology and Centre for Mathematical Biology at the University of Alberta, July 2001.
Total Award amount: $95,000.

National Science Foundation, Mathematical Sciences: International Conference on Mathematics in Biology at the University of Utah, August 2000.   Total Award amount: US$13,000.00.

National Science Foundation, Mathematical Sciences: Discrete-time models for biological invasions, August 1999 — July 2002. Award is joint with M. Neubert, M. Kot and B. Fagan. Total Award amount: $380,000.00. Utah portion: US$127,500.

National Science Foundation, Mathematical Sciences: Gordon Research Conference on Theoretical Biology and Biomathematics, June 1998. Award is joint with J. Milton. Award amount: US$19,296.

Funding Incentive Seed Grant Program, University of Utah, Fluid flow model for optimizing high-frequency ventilation of the lung, April 1997 – September 1998. CoPIs D. Eyre, A. Fogelson, and S. Kern. Award amount: US$35,000.

National Science Foundation, Mathematical Sciences: Special Year in Mathematical Biology 1995-1996. Award is joint with H. Othmer and F. Adler.   Award amount: US$309,124.

Alfred P. Sloan Research Fellowship, Mathematics: June 1994–September 1996.
Award amount: US$30,000.

National Science Foundation National Young Investigator Award: October 1994 – July 2000.
Award amount: US$187,802.

National Science Foundation, Mathematical Sciences: Modelling Territorial Patterns and Stability of Wolf-Deer Interactions, September 1992 – August 1995.
Award amount: US$124,380.

Environmental Protection Agency: Developing Guidelines for the Assessment of "Spread Risk" Using Microbe Field Trial Data: A Model Based Approach, September 1992 – August 1994. Award is joint with P. Kareiva (project manager) and J.D. Murray.
Award amount: US$163,858.

Selected Invited Lectures (since 1995):

1995   Dept. Mathematics and Statistics, University of Victoria;   Dept. Applied Mathematics, University of Washington, Seattle;   Dept. Mathematics, University of British Columbia, Vancouver;   Woods Hole Oceanographic Institute, Woods Hole;   SWRIMS Conference on Mathematical Modeling in Population Biology, Logan, Utah.

1996   Spatial Ecology Working Group, NCEAS, Santa Barbara; International Conference on Dynamical Systems and Differential Equations, Missouri; Kyoto Conference on Mathematical Biology, Kyoto, Japan;   NCEAS workshop on the role of dispersal in the Holocene expansion of trees, Santa Barbara;   Society for Mathematical Biology Annual Meeting, Seattle;   3rd European Conference on Mathematics Applied to Biology and Medicine, Heidelberg, Germany.

1997   International Conference on Differential Equations with Applications to Biology, Halifax; Society for Mathematical Biology Annual Meeting, Raleigh; Species Range Working Group, NCEAS, Santa Barbara.

1998   Dept. Math, University of Minnesota;   Dept. Applied Math, University of Washington; Institute for Theoretical Dynamics, University of Davis;   Dept. Math, Duke University; Biostatistics, North Carolina State University;   AMS Western Division Meeting, Davis; Dept. Biology, Arizona State University;   Science at Breakfast Lecture, U Utah; Dept.Math, Bath University;   Dept. Biology, Imperial College, University of London; Dept. Math, Heriot Watt University;   Dept. Math, Dundee University; Kings College, Cambridge University;   Dept. Math, University of Heidelberg; Institute for Theoretical Biology, Leiden University;   Dept. Math Utrecht University; AMS Western Division Meeting, Tucson.

1999   Institute for Mathematics and its Applications Minneapolis; Theory and Mathematics in Biology and Medicine, Amsterdam;   Ecological Society of America, Spokane; Oberwolfach, Germany.

2000   Dept. Math, University of Alberta;   Dept. Biology, University of Alberta; Dept. Math, University of British Columbia;   Dept. Biology, University of Santa Barbara, California;   UC San Diego Supercomputer Institute;   Alberta Entomological Society; Max Planck Institute, Leipzig.

2001   NCEAS workshop on a New Synthesis of Demography and Dispersal (group participant), Santa Barbara, California;   Dept. Math, UC Irvine;   Dept. Math, University of Utah; Canadian Applied Mathematics Society, University of Victoria, Canada;   Society for Mathematical Biology Meeting, Hawaii;   2001 Canada-China Mathematics Congress, Vancouver, Canada;   Newton Institute, Cambridge.

2002   Department of Biological Sciences, University of Miami;   Department of Mathematical Sciences, University of Miami;   SIAM Life-Sciences Conference, Boston;   Bio-X EFF Distinguished Lecture Series, Edmonton, Alberta;   Gordon Research Conference on Theoretical Biology and Biomathematics, Tilton, New Hampshire;   5th Americas

Conference of Differential Equations and Dynamical Systems, Edmonton, Alberta; International Conference on Modeling Pattern in Biology, Chubu, Japan; Woods Hole Annual Retreat in Mathematical Biology, Nantucket

2003   22nd Annual Ostrum Lecturer, Washington State University; Topical Lecturer SIAM/CAIMS annual meeting, Montreal; Mini-symposium Speaker at Canadian Mathematical Society Annual General Meeting, Edmonton; Society for Mathematical Biology meeting, Dundee, Banff International Research Station, Fields Mathematics Institute workshop on Pattern Formation in Physics, Toronto.

2004   Plenary Speaker, Mathematics in Technology and Complex Systems 5th Annual Conference, Halifax; Plenary Speaker, joint annual meeting of the Canadian Applied Math Society and Canadian Mathematical Society, Halifax; Plenary Speaker, American Institute for Mathematical Sciences meeting, Pomona; Plenary Speaker, Annual Meeting of Japan Society for Mathematical Biology; Invited Speaker, DIVERSITAS workshop on Integrated modelling of economies and ecosystems, Paris; Invited Speaker, Banff International Research Station.

2005   Dept. Zoology, University of British Columbia; Dept. Organismal and Evolutionary Biology, Harvard University; Principal speaker, Sixth Mississippi State–UAB Conference on Differential Equations and Computational Simulations; Graduate summer school lecturer, Park City Math Institute (Institute for Advanced Study); Canadian Mathematical Society Winter Meeting, Victoria.

2006   Lansdowne Lecturer, University of Victoria; Invited speaker, American Association for the Advancement of Science; Keynote speaker, Western Conference on Linear Algebra; Dept. Biology, University of Toledo; Plenary speaker, Mexican Biomathematics Autumn School (Xalapa); PIMS Distinguished Lecturer, University of British Columbia.

2007   Invited Participant, Summit of Scientists on Aquaculture and the Protection of Wild Salmon; Colloquium Speaker, Dept. Biology, University of Calgary; Interdisciplinary Mathematical Biology Speaker, Iowa State University; Plenary Speaker, New Zealand Institute of Mathematics and its Applications programme on Modelling Invasive Species and Weed Impact; Plenary Speaker, 2007 Alberta North-South Dialogue on Mathematics; Invited Speaker, Canadian Applied and Industrial Mathematics Society Annual Meeting; Invited Speaker, Jim Keener 60th Birthday Conference; Invited Speaker, Ecological Society of America Meeting; Plenary Speaker, Mathematical Biosciences Institute Workshop for Young Researchers in Mathematical Biology; Plenary Speaker, PIMS International Graduate Training Centre in Mathematical Biology (First Graduate Research Summit); Invited Speaker, Mathematical Biology Conference on the Occasion of Jim Cushing's 65th Birthday.

2008   Distinguished Lecturer in the Program for Interdisciplinary Mathematics, Ecology, and Statistics, Colorado State University; Invited Speaker, Banff International Research Station; Plenary Speaker, Society for Mathematical Biology Meeting, Toronto; Plenary Speaker, Western Section of the American Mathematical Society Meeting, Vancouver; Invited Speaker, PIMS Pacific Northwest meeting on Partial Differential Equations;

Principal Speaker, Hans Weinbergers 80th Birthday Conference; Invited Speaker, University of Washington Boeing Distinguished Colloquium; Invited Speaker, Institute for Theoretical and Mathematical Ecology, University of Miami.

2009   Invited Speaker, Center for Infectious Disease Dynamics, Penn State University; CRM Distinguished Visitor, University of Ottawa; Speaker, Distinguished Lecture Series, Centre for Scientific Computation, Simon Fraser University; Invited Speaker, Workshop on Statistical Methods for Dynamic System Models, Simon Fraser University; Canadian Applied and Industrial Mathematics Society Research Prize Lecture; Invited Public Lecture at York U50 Colloquium Series on Mathematics and Interdisciplinary Science; Canadian Aquatic Invasive Species Network Annual General Meeting, Halifax; Invited Speaker, Workshop on Analysis of Self-Organization in Biology, Banff International Research Station; Invited Speaker, Workshop on Adaptive Movement of Interacting Species, Fields Institute; Public Speaker at the University of Maryland's Bioscience Day.

2010   Speaker, Canadian Aquatic Invasive Species Annual General Meeting; Invited Storer Lecturer, University of California Davis, Plenary Speaker, Sea Lice 2010 Modelling Workshop, Victoria; Guest Lecturer, Mathematics for Biological Networks Summer School Course, University of Victoria; Plenary Speaker, Third Conference on Computational and Mathematical Population Dynamics, Bordeaux; Departmental Seminar Speaker, Rennes Agrocampus, France; American Geophhysical Union AGM, San Francisco.

2011   CRM-Fields-PIMS Prize lecture, delivered at Centre de Recherches Mathematiques, Fields Institute, and Pacific Institute for Mathematical Sciences; Invited Speaker, Banff International Research Station; Invited Speaker, Mathematical Biology Workshop and IGTC Summit, Victoria; Plenary Speaker, 7th International Congress on Industrial and Applied Mathematics; Keynote Speaker, Mathematical and Theoretical Ecology 2011: linking models with ecological processes, Essex; Invited Seminar Speaker, Oxford Centre for Collaborative and Applied Mathematics; Invited Seminar Speaker, Oxford Centre for Mathematical Biology; Invited Speaker, Applied Mathematics Seminar Series, Department of Mathematics at the University of Leicester; Invited Speaker, Mathematics in Medicine and Biology Seminar Series, Department of Mathematics at the University of Nottingham; Keynote Speaker, Workshop on Ecological Modelling, Heriot Watt University; Invited Colloquium Speaker (Landscapes in Mathematics), Bath University, Invited Speaker, Bristol Centre for Complexity Sciences.

2012   Invited Ireland Lectureship, University of New Brunswick; Invited Howard Rowlee Lecturer, University of Nebraska; Invited Speaker, Conference on Mathematical Ecology, University of Nebraska; Invited Speaker, PIMS Lunchbox Series, Calgary; Distinguished Guest Speaker, Center for Complex Biological Systems, University of California Irvine; Applied Mathematics Colloquium Speaker, University of California Los Angeles; Invited Workshop Speaker, Mathematical Biosciences Institute, Columbus; Invited Applied Analysis Minisymposium Speaker, Annual Meeting of the Canadian Applied and Industrial Mathematics Society; Plenary Speaker, Harbin Institute of Technology Workshop on Mathematical Modeling of Biological Processes, Harbin, China; Plenary Speaker, Models in Population Dynamics and Ecology (MPDE-12), Santa Maria, Brazil; Invited Speaker, Everything Disperses to Miami: The Role of Movement and Dispersal in

Ecology, Epidemiology and Environmental Science, Miami.

Meetings Organized (since 1995):

1995   Special Year in Mathematical Biology (1995/96) at University of Utah.

1998   Co-chair of Gordon Conference on Theoretical Biology and Biomathematics.

1999   Co-organizer of a workshop: 'From Individuals to Aggregations' at the Institute for Mathematics and its Applications.

2000   Main Organizer of the International Conference on Mathematics in Biology and Society for Mathematical Biology Annual Meeting.

2001   Scientific Organizing Committee member, SIAM Life Sciences Conference, Boston; Mini-symposium organizer, SIAM Life Sciences Conference, Boston;   Scientific Organizing Committee member, International Conference on Mathematics in Biology and Society for Mathematical Biology Annual Meeting in Hawaii.

2002   Organizer of PIMS Mathematical Biology Undergraduate Workshop;
Scientific Organizing Committee member, International Conference on Mathematics in Biology and Society for Mathematical Biology Annual Meeting in Knoxville;
Session organizer on Global Change at the Gordon Conference on Theoretical Biology and Biomathematics.

2003   Scientific Organizing Committee member, Fourth Geoffrey J. Butler International Conference in Differential Equations and Mathematical Biology (Alberta), Scientific Committee for Applications of Mathematics in Medicine workshop at the Fields Institute; Co-organizer of BIRS workshop: From molecules to ecosystems; The legacy of Lee Segel; Co-organizer of a BIRS Focused Research Group on Mathematical Models for Plant Dispersal;   Scientific Organizing Committee member and Mini-symposium organizer, International Conference on Mathematics in Biology and Society for Mathematical Biology Annual Meeting in Dundee, Scotland; Co-organizer of Pacific Institute for the Mathematical Sciences, Period of Concentration in Mathematical Ecology and Evolution (2003–5).

2004   Scientific committee for Differential Equations and Applications in Mathematical Biology, Malaspina University College, Nanaimo;   Co-organizer of MITACS/PIMS Summer School and Workshop: Infectious Diseases, Banff.

2005   Co-organizer of BIRS workshop, Mathematical Models for Biological Invasions, Banff; Scientific Committee member of European Society for Mathematical and Theoretical Biology Meeting; Co-organizer of IPAM Cells and Materials program in Los Angeles; Graduate Program Organizer for Park City Math Institute Summer Program in Mathematical Biology (Institute for Advanced Study); Scientific Organizing Committee member for Mathematics Institutes and NRC Workshop in Computational Biology.

2007   Organizer of PIMS Mathematical Biology Undergraduate Workshop; Scientific Program Committee Member and Mini-symposium Organizer for Canadian Applied and Industrial Mathematics Society Annual Meeting;   Symposium Organizer for Ecological Society of America Meeting.

2008   Scientific Committee member for European Society for Mathematical Biology Meeting in Edinburgh; Scientific Advisory Committee member, Society for Mathematical Biology Meeting in Toronto.

2009   Scientific Committee for joint Society for Mathematical Biology/Chinese Society for Mathematical Biology Meeting in Hangzhou, China; Minisymposium Organizer at the Society for Mathematical Biology Meeting in Vancouver; Scientific Committee for Conference on Computational and Mathematical Population Dynamics, Bordeaux,

2010   Scientific Committee for Models in Population Dynamics & Ecology 2010: Animal Movement, Dispersal and Spatial Ecology, Leicester; Working Group Organizer, National Institute for Mathematical and Biological Synthesis, Conference Organizer, Modeling Understanding and Managing River Ecosystems, University of Ottawa, Scientific Committee Member for Canada-China International Conference on Dynamics of Climate Impact and Infectious Diseases.

2011   Organizer for MBI Workshop on Biological Invasions; Organizer for Workshop at Banff International Research Station; Co-organizer for Mathematical Biology and IGTC Summit, Victoria.

Editorial:
Chief Editor:
- *Journal of Mathematical Biology* (since 08)

Editorial Boards:
- *SIAM Review (Survey and Review Section)* (since 08);
- *Theoretical Ecology* (since 07);
- *Journal of Biological Dynamics* (since 06);
- *Bulletin of Mathematical Biology* (since 06);
- *Applied Math Research eXpress* (05-08);
- *Academic Press Theoretical Ecology Series Editorial Advisory Board,* (since 02);
- *Journal of Theoretical Biology* (97-01);
- *Journal of Mathematical Biology* (00-08);
- *SIAM Journal on Applied Math,* (05-08);
- *IMA Journal of Mathematics Applied to Biology and Medicine* (96-06);
- *Ecology* and *Ecological Monographs* (01-04);
- *Springer Lecture Notes in Mathematical Modelling in the Life Sciences* (since 11)

Advisory:
- Mathematics of Information Technology and Complex Systems (MITACS) Board of Directors (July 2009-June 2010)

- Canadian Aquatic Invasive Species Network Scientific Committee, 2006-7, 2009-present
- Society for Industrial and Applied Math Program Committee, 2008-2011
- Mathematical Biosciences Institute Board of Trustees, September 2007-2011
- Mathematical Biosciences Institute Scientific Advisory Committee October 2007-2011 (Chair May 2009-2011)
- Canadian Institute of Ecology and Evolution, Scientific Advisory Committee November 2009-present
- Mathematical Biosciences Institute Board of Scientific Governors, October 2006-September 2007
- Pacific Institute for Mathematical Sciences Board of Directors, January 2004-June 2005 and July 2006-June 2009
- NSERC Grant Selection Committee in Ecology and Evolution, 2004-5 and 2006-8
- National Science Foundation (NSF) Review Committee for Mathematical Biosciences Institute, 2004
- *Journal of Theoretical Biology* Advisory Board, May 2001–May 2003
- Banff International Research Station for Mathematical Innovation and Discovery Scientific Advisory Board, March 2001-June 2004; Steering Committee March 2001-June 2002
- Panel member for the NSF/NIH joint NIGMS grant committee in mathematical biology, February 2002
- Alberta Ingenuity Fund Associateship Panel, April 2002

Service:
- Director, Centre for Mathematical Biology, University of Alberta, 2002-present
- Program Director, PIMS International Graduate Training Centre in Mathematical Biology, 2007-present
- President, Society for Mathematical Biology, 2001-3
- President Elect, Society for Mathematical Biology, 2000
- Board of Directors, Society for Mathematical Biology, 1996-1999
- External examiner, Department of Mathematics, Arizona State University, 2001; University of Melbourne, 2008; Dalhousie University, 2009; University of British Columbia 2009; Simon Fraser University, 2010; University of Oslo, 2010.
- Okubo Prize Committee Member, 2001
- Bellman Prize Committee Member, 2002
- Canada Research Chairs College of Reviewers, 2002
- Society for Industrial and Applied Math Program Committee 2008-present
- Lord Robert May Prize Committee Member, 2010
- CAIMS/PIMS Early Career Award Prize Committee Member, 2010-12

Supervised:
Masters Supervision:

Greg Schmitz (1993);	Hannah McKenzie (2006, 2010);
Steve Parrish (1998);	Justin Marleau (2009);
Lora Ballinger (1999);	Jaime Ashander (2010);
Brenlyn Thiroit (MStat project, 2000);	Jeanette Wheeler (2010);
Amy Hurford (2005);	Stephanie Peacock (current).

Doctoral Supervision:

Robert van Kirk (1995, Associate Professor of Mathematics, Humboldt State University);
Tom Robbins (2004, Research Scientist, Idaho Technology);
Jungmin Lee (2006, National Institute for Mathematical Sciences, Korea);
Tomas de Camino-Beck (2006, Assistant Professor, Universidad Nacional, Costa Rica);
Marty Krkosek (2008, Assistant Professor, University of Otago);
Chris Jerde (2007, Postdoctoral Research, Notre Dame);
Raluca Eftimie (2008, Lecturer Dundee University);
Peter Molnar (2009, Postdoctoral Researcher, Princeton University);
Ulrike Schlaegel (current);
Andrea Dawson (current);
Harshana Rajankaruna (current);
Marie Auger-Méthé (current).

Postdoctoral Supervision:
Markus Owen (1997-99, Reader, Nottingham);
Bingtuan Li (1999-2001, Associate Professor Louiville);
Christina Cobbold (2001-3, Lecturer, Glasgow);
AnneMarie Pielaat (2001-3, RIVM, The Netherlands),
Leeza Pachepsky (visiting postdoc 2002-4, Microsoft);
Joanna Renclawowicz (2003-4, Polish Academy of Sciences),
Marjorie Wonham (2002-6, Faculty, Quest University);
Frithjof Lutscher (2001-5, Associate Professor, University of Ottawa);
Erik Noonburg (2003-5, Assistant Professor, Florida Atlantic University);
Tom Robbins (2004-5, Research Scientist, Idaho Technology);
Bill Nelson (2005-7, Assistant Professor, Queen's University);
Jungmin Lee (2006-7, National Institute for Mathematical Sciences, Korea);
Alex Potapov (Research Associate, 2003-current);
Caroline Bampfylde (2004-8, Research Scientist, Government of Alberta);
Frank Hilker (2006-8, Lecturer, University of Bath);
Tomas de Camino Beck (2006-8, Assistant Professor, Universidad Nacional, Costa Rica);
Frederic Hamelin (2007-8, Junior Faculty, Agrocampus Rennes, France);
Martin Krkosek (2008, Assistant Professor, University of Otago);
Mario Pineda-Krch (2008-current);
Jim Muirhead (2007-10, Postdoc, Smithsonian Institute);
Carly Strasser (2009-10, Postdoc, National Centre for Ecological Analysis and Synthesis);
Peter Molnar (2009-10, Postdoc, Princeton);
Yu Jin (2009-current);

Societies:
- Ecological Society of America (ESA),
- Society for Industrial and Applied Mathematics (SIAM),
- Canadian Applied and Industrial Mathematics Society (CAIMS),
- Society for Mathematical Biology (SMB)

Journal Publications
(student, postdoc and research associate names are in **bold**):

1. **Potapov, A**., Merrill, E., Lewis, M.A.: Wildlife disease elimination and density dependence (in press at *Proceedings of the Royal Society B*).
2. **Mckenzie, H.W.,** Merrill, E.H., Spiteri, R., Lewis, M.A. (2012) Linear features affect predator search time: implications for the functional response *Royal Society Interface Focus* 2:205-216.
3. Krkošek, M., Connors, B.M., Lewis, M.A., Poulin, R. (2012) Allee effects may slow the spread of parasites in a coastal marine ecosystem (in press at *American Naturalist*).
4. **Rajakaruna, H., Strasser, C.**, Lewis, M.A. (2011) A novel approach to indentify non-invasible habitats for marine copepods using temperature-dependent R_0 as a metric. *Biological Invasions*, DOI: 10.1007/s10530-011-0104-x.
5. **Jin, Y.,** Lewis, M.A. (2011) Seasonal influences on population spread and persistence in streams: Spreading speeds. *Journal of Mathematical Biology* DOI:10.1007/s00285-011-0465-x.
6. Yan, N.D, Leung, B., Lewis, M.A., Peacor, S.D. (2011) The spread, establishment and impacts of the spiny water flea, *Bythotrephes longimanus*, in temperate North America: a synopsis of the special issue. *Biological Invasions*, DOI: 10.1007s10530-011-0069-9.
7. Krkošek, M, Connors, B.M., Morton A., Lewis, M.A. Dill L.M. Hilborn R. (2011) Effects of parasites from salmon farms on productivity of wild salmon. *Proceedings of the National Academy of Sciences,* DOI/10.1073/pnas.1101845108.
8. **McKenzie, H.W., Jin, Y.** Jacobsen, J.T., Lewis, M.A. (2011) R_0 analysis of a spatiotemporal model for a stream population *SIAM J. on Applied Dynamical Systems*, DOI: 10.1137/100802189.
9. **Strasser, C.A,** Dibacco, C, Lewis, M.A. (2011). A mechanistic model for understanding invasions with environment as a predictor of population success. *Diversity and Distributions,* DOI: 10.1111/j.1472-4642.2011.00791.x.
10. **Auger-Méthé, M.**, Cassidy St. Clair, C., Lewis, M.A., Derocher, A.E. (2011). Sampling rate and misidentification of Lévy and non-Lévy movement paths: Comment. *Ecology* doi:10.1890/10-1704.1.
11. **Muirhead, J**., Lewis, M.A., MacIsaac, H.J. (2011). Prediction and error in multi-stage models for spread of aquatic invasive species. *Diversity and Distributions* DOI: 10.1111/j.1472-4642.2011.00745.x.
12. **Potapov, A., Muirhead, J.M,** Yan, N, Lele, S., Lewis, M.A**. (**2011**).** Models of lake invasibility by *Bythotrephes longimanus*, a nonindigenous zooplankton. *Biological Invasions*, DOI: 10.1007/s10530-011-0075-y.
13. **Ashander, J., Krkošek, M.**, Lewis, M.A. (2011). Aquaculture-induced changed to dynamics of migratory hosts and specialist parasite: A case study of pink salmon and sea lice. *Theoretical Ecology*, doi:10.1007/s12080-011-0122-4.
14. **Wittmann, M.J**, Lewis, M.A., Young, J.D., Yan, N.D. (2011) Temperature-dependent Allee effects in a stage-structured model for *Bythotrephes* establishment. *Biological Invasions*, DOI: 10.1007/s10530-011-0074-z.
15. **Jin, Y.,** Lewis, M.A. (2011). Seasonal influences on population spread and persistence in streams: Critical domain size *SIAM J. Appl. Math*. 71:1241-1262.
16. **Krkošek, M.,** Connors, B.M., Ford, H. Peacock, S., Mages, P. Ford, J.S., Morton, A., Volpe, J.P., Hilborn, R., Dill, L.M., Lewis, M.A. (2011). Parasitism, predation, and pink salmon population dynamics (in press *Ecological Monographs*).
17. **Potapov, A**, **Muirhead, J.M**., Lele, S.R., Lewis, M.A. (2011). Stochastic gravity models for modeling lake invasions. *Ecological Modelling,* 222: 964–972.

18. **Molnar, P.K.**, Derocher, A.E., Klanjscek, T., Lewis, M.A. (2011). Predicting climate change impacts on polar bear litter size. *Nature Communications*, 2:186.

19. **Marleau, J.N., Jin, Y.**, Bishop, J., Fagan, W.F., Lewis, M.A. (2011). A Stoichiometric model of early plant primary succession on Mount St. Helens. *American Naturalist*, 177(2): 233-245.

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