

Curriculum Vitae

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Citizenship: Canadian

UNIVERSITY EDUCATION

- Ph.D.** **University of Ottawa**, Ottawa, ON, Canada
Biology Sept. 2006 – Feb. 2013
- Supervisor: Dr. Jeremy Kerr
 - Thesis title: Ecological responses to threats in an evolutionary context: bacterial responses to antibiotics and butterfly species' responses to climate change
- M.Sc.** **Memorial University of Newfoundland**, St. John's, NL, Canada
Biology Sept. 2002 – Dec. 2005
- Supervisor: Dr. David Innes
 - Thesis title: Strategies of reproduction in the zooplankton *Daphnia pulex*: evolutionary insight from experimental design
- B.Sc.Hon.** **Queen's University**, Kingston, ON, Canada
Biology Sept. 1996 – April 2000
- Honours Supervisor: Dr. Virginia Walker
 - Thesis title: Thermal hysteresis protein gene transcription in post-diapause larvae of the Eastern Spruce Budworm *Choristoneura fumiferana* is low-level and is not responsive to temperature

PROFESSIONAL EMPLOYMENT

Species at Risk Biologist (Ontario Ministry of Natural Resources and Forestry, Peterborough, ON). Feb 2014-present.

- Coordinate reviews by MNRF biologists of recovery strategies for Ontario's species at risk.
- Develop materials about insects at risk in Ontario and presented at entomological meeting.
- Branch representative on federal Monarch team and Ontario's Pollinator Health plan.

Fisheries Biologist Assistant (OMNRF, Peterborough, ON). Oct 2013-Feb 2014.

- Assisted in Fisheries Policy tasks including development of aquaculture policies, writing reports, data analysis, and coordinating document management.

Journal Manager (The Canadian Field-Naturalist, Ottawa, ON). 2010-Dec 2014.

- Led team of fellow volunteers revitalizing a scientific journal about Canadian wildlife.
- Created journal website (canadianfieldnaturalist.ca), subscription management system, blog, and Twitter stream (@CanFieldNat) to improve dissemination of published material.
- Received Member of the Year award from the Ottawa Field-Naturalists' Club recognizing my success in revitalizing the journal (April 2013).

Science Advisor (Canadian Wildlife Service, Gatineau, QC). Oct 2012-May 2013.

- Developed positions and materials on species whose international trade is controlled by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- Special focus on polar bears.
- Received award from Assistant Deputy Minister recognizing my CITES work (April 2013).

Lab Coordinator (Carleton University, Ottawa, ON). Jan-March 2012.

- Organized tutorials for hundreds of students in introductory biology courses.
- Created YouTube video tutorials for students on statistical analyses in Excel, with more than 200,000 views (www.youtube.com/user/jayfitzsimmons1).

Lab Demonstrator (Universities of Ottawa, Windsor, and Newfoundland). 2005-2011.

- Numerous courses including ecology, evolution, genetics, entomology, and anatomy.
- Average student rating of my teaching: 9.2 / 10

English Teacher (Uwa Junior High School, Ehime, Japan). 2000-2001.

- Taught English at a rural town's elementary and junior high schools.
- Edited book of English lessons published by provincial Ministry of Education.

Numerous other jobs including bartending, administrative work, and door-to-door sales.

PUBLICATIONS**Peer-reviewed journal articles**

Fitzsimmons, J. M. 2013. How consistent are trait data between sources? A quantitative assessment. *Oikos* 122: 1350-1356. DOI: 10.1111/j.1600-0706.2013.00207.x

Fitzsimmons, J. M. 2012. Local species trading cards: an activity to encourage scientific creativity and ecological predictions from species' traits. *Journal of Natural History Education and Experience* 6: 10-15.

Bertram, S. M., V. L. M. Rook, **J. M. Fitzsimmons**, and L. P. Fitzsimmons. 2011. Fine- and broad-scale approaches to understanding the evolution of aggression in crickets. *Ethology* 117: 1067-1080.

Burke, R. J., **J. M. Fitzsimmons**, and J. T. Kerr. 2011. A mobility index for Canadian butterfly species based on naturalists' knowledge. *Biodiversity and Conservation* 20: 2273-2295.

Fitzsimmons, J. M., S. E. Schoustra, J. T. Kerr, and R. Kassen. 2010. Population consequences of mutational events: effects of antibiotic resistance on the *r/K* trade-off. *Evolutionary Ecology* 24: 227-236.

Fitzsimmons, J. M. and L. P. Fitzsimmons. 2010. Pre-copulatory behavior of the wheel bug *Arilus gallus* (Hemiptera: Reduviidae). *Entomological News* 121: 304-307.

Fitzsimmons, J. M. and D. J. Innes. 2006. Inter-genotype variation in reproductive response to crowding among *Daphnia pulex*. *Hydrobiologia* 568: 187-205.

Fitzsimmons, J. M. and D. J. Innes. 2005. No evidence of *Wolbachia* among Great Lakes area populations of *Daphnia pulex* (Crustacea: Cladocera). *Journal of Plankton Research* 27: 121-124.

Non-peer-reviewed journal articles

Fitzsimmons, J. M. 2013. "Dinosaur Train" [TV series review]. *Canadian Field-Naturalist* 127: 91-93.

Fitzsimmons, J. M. 2011. Online publication: a natural progression for The Canadian Field-Naturalist. *Canadian Field-Naturalist* 125: 5-6.

Fitzsimmons, J. M. and J. H. Skevington. 2010. Metrics: don't dismiss journals with a low impact factor. *Nature* 466: 179.

Fitzsimmons, J. M. 2005. Book review: For Love of Insects by T. Eisner. *Journal of the Entomological Society of Ontario* 136: 89-90.

Non-journal publications

Fitzsimmons, J. M. 2015. How to get a non-academic insect conservation job in Ontario (based on my sample size of me). *Entomological Society of Ontario Newsletter* 20(1): 24-25.

Cartwright, C. and **J. M. Fitzsimmons**. 2012. Software review: SWIFT birding software. *Ontario Field Ornithologists News* 30: 5.

Fitzsimmons, J. M. 2007. “Maggot: CSI.” Article published on www.genomicseducation.ca, solicited by GenomeBC. www.genomebc.ca/education/articles/maggot-csi/

Fitzsimmons, J. M. 2006. Science and Environment articles in the monthly newspaper *The Windsor Scoop*

- “How bird flu spreads” on 2006-published research on H5N1 transmission
- “How green was Brian Mulroney?” on the former Prime Minister’s environmentalism

Fitzsimmons, J. M. (Editor). 2001. Ehime-ken ALTs’ English Ideas - 2001. Ehime Monbusho (Ministry of Education), Matsuyama, Japan.

- Conceived of, organized, and edited this book of successful English lesson plans submitted by English teachers throughout the prefecture (province) of Ehime.
- Published by the Ehime Ministry of Education and distributed to over 100 schools.

Fitzsimmons, J. M. 1999 – 2000. Science section contributions in *The Journal*, the main student newspaper at Queen’s University.

- Topics ranged from genetically modified potatoes to the mating habits of peacocks.

INVITED LECTURES and CONFERENCE PRESENTATIONS**Invited lectures**

Fitzsimmons, J. M. 2014. Accept with major revision: a behind-the-scenes look at the challenges facing scientific journals, from the perspective of *The Canadian Field-Naturalist*. Trent University Life Sciences Speaker Series.

Fitzsimmons, J. M. 2011. How to participate in scientific research online, from the comfort of your desk chair. Ottawa Field-Naturalists’ Club monthly meeting.

Fitzsimmons, J. M. and M. W. Coulson. 2006. Of maggots, men, and molecules: using DNA to identify the critters on bodies. Forensics Winter Wonderland Gala and Information Fair, University of Windsor.

Fitzsimmons, J. M. 2003. Heredity and human cannibalism. Second lecture of Genetics (Biol 2250). Memorial University of Newfoundland. Invited by Dr. David Innes – course professor.

Fitzsimmons, J. M. 2003. How genetics influences our lives. First lecture of Genetics (Biol 2250). Memorial University of Newfoundland. Invited by Dr. David Innes – course professor.

Conference presentations

Fitzsimmons, J. M. Oct 2014. Insects at risk in Ontario – how to get involved. Entomological Society of Ontario, Toronto, Ontario.

Fitzsimmons, J. M. July 2012. Are trait data consistent between sources? An evaluation with the butterflies of Canada. Evolution Ottawa (joint meeting of several societies), Ottawa, Ontario.

Fitzsimmons, J. M. and J. T. Kerr. July 2010. Trends in species' northward range shifts over the 1900's in Canada. International Conference on the Biology of Butterflies, Edmonton, Alberta.

Fitzsimmons, J. M. and J. T. Kerr. May 2010. Who's moving north? Trends in Canadian butterfly species range shifts over the 1900's. Annual Conference of the Canadian Society for Ecology and Evolution, Québec City, Québec.

Burke, R. J., **Fitzsimmons, J. M.**, and J. T. Kerr. Oct 2009 (*I presented*). A mobility index of Canadian butterfly species: tapping into naturalists' experience. Annual Meeting of the Entomological Society of Canada, Winnipeg, Manitoba.

Fitzsimmons, J. M., Algar, A. C., Szabo, N. D., Young, E. R., Gibbs, J., Gibbs, K. E., Nadeau, J. L., Kharouba, H. M., MacDonald, A. L., and J. T. Kerr. May 2009. Patterns of range shifts with modern climate change: have related butterfly species responded similarly in Canada? Annual Conference of the Canadian Society for Ecology and Evolution, Halifax, Nova Scotia.

Fitzsimmons, J. M., Algar, A. C., Szabo, N. D., Young, E. R., Gibbs, J., Gibbs, K. E., Nadeau, J. L., Kharouba, H. M., MacDonald, A. L., and J. T. Kerr. Feb 2009. Canadian biodiversity in the 21st century: can we predict where species will move with climate change? University of Ottawa Graduate Students' Association Conference, Ottawa, Ontario.

Fitzsimmons, J. M., Algar, A. C., Szabo, N. D., Young, E. R., Gibbs, J., Gibbs, K. E., Nadeau, J. L., Kharouba, H. M., MacDonald, A. L., and J. T. Kerr. Oct 2008. Range shifts of Canadian butterfly species: have related species responded similarly to climate change? Joint Meeting of the Entomological Societies of Canada and Ontario, Ottawa, Ontario.

Fitzsimmons, J. M. and M. W. Coulson. Aug 2006. There's a fly in my sequencer! Using DNA to identify species of insect on bodies. Annual Meeting of the Canadian Society of Forensic Science, Windsor, Ontario.

Fitzsimmons, J. M. and M. W. Coulson. July 2006. DNA-based species identification: constructing an online database for forensic entomology. Annual Meeting of the North American Forensic Entomology Association, Lafayette, Indiana, U.S.A.

Fitzsimmons, J. M. and D. J. Innes. May 2006 (*poster*). Vive la différence! Genotypes of *Daphnia pulex* respond differently to the same crowding stimulus. Annual Conference of the International Association for Great Lakes Research, Windsor, Ontario.

Fitzsimmons, J. M. and M. W. Coulson. Oct 2005. A global review of the arthropod species associated with carrion, and the genes useful in their identification. Annual Meeting of the Entomological Society of Ontario, Toronto, Ontario.

Fitzsimmons, J. M. and D. J. Innes. May 2005. Effects of crowding on reproduction in clones of the zooplankton *Daphnia pulex* (Crustacea: Cladocera). Annual Conference of the Canadian Society of Zoologists, Kingston, Ontario.

Fitzsimmons, J. M. Feb 2005. A rose by any other name ... how will taxonomy change in the near future? Aldrich Interdisciplinary Conference, Memorial University, St. John's, Newfoundland and Labrador.

Fitzsimmons, J. M. Feb 2004. Outwit, outplay, outlast – *Wolbachia* and other evolutionarily selfish survivors. Aldrich Interdisciplinary Conference, Memorial University, St. John's, Newfoundland and Labrador.

Fitzsimmons, J. M. Feb 2003. Sex: Why bother? Aldrich Interdisciplinary Conference, Memorial University, St. John's, Newfoundland and Labrador.

FIELD EXPERIENCE

Cricket collection, Ontario. May – July 2008. Assisted Lauren Fitzsimmons finding populations of *Gryllus veletis* crickets and collecting individuals to establish a laboratory colony.

La Selva Biological Station, Costa Rica. Feb 2008. With Lauren Fitzsimmons, studied acoustic communication among white collared manakin birds, *Manicus candei*.

Entomological recreation of murder case, Ontario. Apr – June 2006. Member of small team of forensic entomology researchers who re-created a murder case (using pigs) for testimony.

SCIENTIFIC COMMUNITY INVOLVEMENT

COMMITTEE INVOLVEMENT:

Entomological Society of Ontario

- Co-organizer of Annual Meeting in Elgin. Sept 2015.

Canadian Society of Zoologists

- Volunteer for Annual Meeting in Ottawa. May 2011.

Ottawa-Carleton Institute of Biology (OCIB)

- Member of organizing committee for 2009 and 2010 OCIB symposia. Jan – May 2009, 2010.

University of Windsor

- Department of Biology Graduate Student Association (DBGSA)
 - a) Co-Chair-Elect. Feb 2006 – Aug 2006.
 - b) Communications Representative. Sept 2005 – Aug 2006.

Memorial University of Newfoundland

- Graduate Students' Union (GSU)
 - a) Biology Representative. Sept 2004 – May 2005.
Spearheaded successful campaign to reform union electoral system.
 - b) GSU Awards Committee Chair. Oct 2004 – Apr 2005.
Created Memorial's first university-wide award for graduate student teaching.
- Senate Advisory Committee on the Library
Graduate Student Representative. Oct 2003 – Apr 2005.
- Project Green.
Voluntary webmaster of campus environmental group. Jan 2003 – Jan 2005.

Queen's University

- Biology Department personnel (TRAPT) and hiring committees
Undergraduate Representative. May 1999 – Apr 2000.

SCIENTIFIC SOCIETY MEMBERSHIP

- Canadian Society for Ecology and Evolution (CSEE)
- Entomological Society of Canada (ESC)
- Entomological Society of Ontario (ESO)
- Natural History Network (NHN)
- Ottawa Field-Naturalists' Club (OFNC)
- Peterborough Field Naturalists (PFN)

AWARDS AND SCHOLARSHIPS

- April 2013 Member of the Year Award – Ottawa Field-Naturalists' Club
No monetary value (awarded for work on The Canadian Field-Naturalist)
- April 2013 Performance Award – Environment Canada
Choice of prizes (awarded for polar bear CITES work)
- Nov 2011 Dr. Pearl Weinberger Memorial Scholarship – University of Ottawa Biology Dept.
\$1000 (awarded for academic excellence and environmental concern)
- May 2008 Ontario Graduate Scholarship (OGS)
- Apr 2011 \$15,000 / yr
- May 2007 Excellence Scholarship – University of Ottawa Graduate Studies
- Apr 2011 Full value of tuition (> \$5000 / yr)
- Oct 2009 Ph.D. Postgraduate Award – Entomological Society of Canada
\$2000
- May 2007 Tito Scaiano Ontario Graduate Scholarship in Science and Technology (OGSST)
- Apr 2008 \$15,000
- Sept 2005 Doctoral Tuition Scholarship – University of Windsor
- Aug 2006 Full value of tuition (> \$5000)
- May 2006 Best Student Poster – International Association of Great Lakes Research & Hydrolab
\$250
- Oct 2005 Fellow of the School of Graduate Studies – Memorial University of Newfoundland
No monetary value
- May 2005 Student Travel Award – Canadian Society of Zoologists Conference
\$100
- Sept 2002 School of Graduate Studies Fellowship – Memorial University of Newfoundland
- Aug 2004 \$6500 annually

ADDITIONAL EDUCATION AND INTERESTS

Additional Education

- Toronto Civilian Police College diploma (2002)

Interests

- Enjoy biking, kayaking, curling, and playing hockey
- Looking for arthropods under rocks with my children
- Reading science fiction, Canadian politics, and anything by Richard Dawkins