

Curriculum Vitae

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School Address: Department of Biology
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Citizenship: Canadian

UNIVERSITY EDUCATION

- Ph.D. *in progress*** **University of Ottawa**, Ottawa, ON, Canada
Biology Sept. 2006 – present (expected completion date: Aug 2012)
- Supervisor: Dr. Jeremy Kerr
 - Thesis title: Insect responses to modern climate change in Canada
- 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

PUBLICATIONS**Manuscripts in preparation**

Fitzsimmons, J. M., Szabo, N. D., Young, E. R., Gibbs, J., Gibbs, K. E., Nadeau, J. L., Algar, A. C., Kharouba, H. M., MacDonald, A. L., and J. T. Kerr. Range shifts of Canadian butterfly species: have closely-related species responded similarly to climate change?

Fitzsimmons, J. M. Double-clicking for science: how online volunteers can transform ecology.

Submitted manuscripts

Fitzsimmons, J. M. In review. Butterfly trading cards: an activity to engage youth in trait-based ecological predictions. *Journal of Natural History Education and Outreach*.

Peer-reviewed journal articles

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. 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. 2007. “Maggot: CSI.” Article published on www.genomicseducation.ca, solicited by GenomeBC.
www.genomicseducation.ca/informationArticles/technology/maggot_csi.asp

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. 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. 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.

MENTORSHIP EXPERIENCE

Ryan Burke – Honours student. May – Dec 2009. University of Ottawa. Ryan did novel research on butterfly mobility for his undergraduate Honours thesis. Dr. Jeremy Kerr was his supervisor, and I worked one-on-one with Ryan. I conceived of the research project and assisted Ryan with his work, which was published in *Biodiversity & Conservation*.

TEACHING

Student rating of my teaching given whenever available (average \pm sd)

Lab Coordinator (Carleton University, Ottawa, ON)

- Lab Coordinator for Foundations of Biology II (Biol 1004 & 1104) Winter 2012. Full time.
Teaching assistants' rating of my coordinating: 8.7 / 10 (\pm 0.83)

Lab Demonstrator (University of Ottawa)

- Introduction to Organismal Biology (Bio 1130) Fall 2007-2011.
Student rating of my teaching: 9.47 / 10 (\pm 0.76)
- Introduction to Cell Biology (Bio 1140) Winter 2009, 2010, 2011.
Student rating of my teaching: 9.12 / 10 (\pm 1.20)
- Ecology (Bio 2129) Fall 2006, 2011.
- Animal Form & Function (Bio 2135) Winter 2007.
- Entomology (Bio 3333) Winter 2007.

Lab Demonstrator (University of Windsor)

- Biotechnology (Bio 380) Winter 2006.
- Genetics (Bio 211) Fall 2005.
Student rating of my teaching: 4.59 / 5

Lab Demonstrator (Memorial University of Newfoundland)

- Evolution (Biol 2900) Winters 2003, 2004.
- Genetics (Biol 2250) Fall 2002.

English Teacher (Uwa Junior High School, Ehime-ken, Japan)

- Assistant English Teacher, July 2000 – July 2001.
Planned lessons and taught English to town's junior high and elementary schools.

SCIENTIFIC COMMUNITY INVOLVEMENT

JOURNAL EXPERIENCE:

- Journal Manager of The Canadian Field-Naturalist. Dec 2010 – present.
I am in charge of steering this journal, one of the longest-running peer-reviewed ecological journals in North America, through a period of transition. I created a website for the journal, I am in charge of subscription management and author charges, and I am designing a manuscript management portal. Our journal is published by the Ottawa Field-Naturalists' Club.

REVIEWING EXPERIENCE:

- Global Change Biology

COMMITTEE INVOLVEMENT:

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)
- North American Forensic Entomology Association (NAFEA)
- Ottawa Field-Naturalists' Club (OFNC)

AWARDS AND SCHOLARSHIPS

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|------------------------|--|
| Nov 2011 | Dr. Pearl Weinberger Memorial Scholarship – University of Ottawa Biology Dept.
\$1000 (awarded for academic excellence and environmental concern) |
| May 2008
- Apr 2011 | Ontario Graduate Scholarship (OGS)
\$15,000 / yr |
| May 2007
- Apr 2011 | Excellence Scholarship – University of Ottawa Graduate Studies
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
- April 2005 Birks Graduate Medal (*nominated only*) – Memorial University of Newfoundland
- Medal recognizes leadership in student affairs
- 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 playing hockey, squash, badminton, and soccer
- My computer contributes to www.climateprediction.net (and so can yours!)
- Looking for invertebrates under rocks with my son
- Reading science fiction, Canadian politics, and anything by Richard Dawkins