

KATE CROSBY

Postdoctoral Fellow, Dept. of Plant
Sciences, University of California,
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EDUCATION

PhD

Department of Biology
Dalhousie University (Halifax, NS)
Sept. 2009 – Oct. 2014 (Completed)
Advisor: Dr. Robert G. Latta

Master of Science (2004-2006)

Department of Integrative Biology
University of Guelph (Guelph, ON)
Advisor: Dr. Jinzhong Fu

Bachelor of Science – Honours (1999-2003)

Environmental Science and Biology
Queen's University (Kingston, ON)

WORK EXPERIENCE

June 2013 – June 2014

Canadian Healthy Oceans Network (CHONe)

Data Manager (Part-time)
Dalhousie University/MUN

January 2013 – May 2013

Sessional faculty member

Department of Biology
Saint Mary's University, Halifax, NS

January 2007 - May 2008

Research Technician

International Barcode of Life Initiative (iBOL)
Biodiversity Institute of Ontario (Guelph, ON)

PROGRAMMING

Programming Languages (in order of proficiency):

R, git version-control, bash/unix shell, SQL, perl, Python, Javascript, some familiarity with Google Apps script (mostly JS) and some google APIs, Ruby (beginner), Julia (beginner).

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PUBLICATIONS

Published Papers:

Crosby K, Stokes TO, Latta RG. Evolving California ecotypes of *Avena barbata* are derived from multiple introductions that show spatial mixing, but still substantial clinal structure. *PeerJ* Vol 2 e633

Crosby K, Latta RG. 2013. A test of the reproductive economy hypothesis in plants: more offspring per capita come from large (not small) parents in *Avena barbata*. *Evolutionary Ecology* 27: 193-203

Crosby K, Smith DR. 2012. Does the mode of plastid genome inheritance influence plastid genome architecture? *PLoS ONE* 7(5) e46260

Smith, A., Bertrand, C., **Crosby, K.**, Eveleigh, E., Fernandez-Triana, J., Fisher, B., Gibbs, J., Hajibabaei, M., Hallwachs, W., Hebert, P., Hind, K., Hreck, J., Huang, D-W., Janda, M., Janzen, D., Li, Y., Longino, J., Miller, S., Packer, L., Quicke, D., Ratnasingham, S., Rodriguez, J., Rougerie, R., Shaw, M., Sheffield, C., Stahlhut, J., Stienke, D., Whitfield, J., Wood, M., Zhou, X. 2012. Wolbachia and DNA Barcoding Insects: Patterns, Potential, and Problems. *PLoS ONE* 7(5) e36514

Mora C, Tremblay E. A, Roberts J, **Crosby K**, Roy D, Tittensor DP. 2012 High connectivity among habitats precludes the relationships between dispersal and range size in tropical reef fishes. *Ecography* 35: 89–96

Smith DR, **Crosby K**, Lee RW. 2011. Correlation between Nuclear Plastid DNA Abundance and Plastid Number Supports the Limited Transfer Window Hypothesis. *Genome Biology and Evolution*. 3:365–371.

Bi K, Deng D, **MKA Crosby**, Fu J. 2010. Characterization of microsatellite DNA markers in the Emei moustache toads (*Leptobrachium boringii*). *Conservation Genetics* 11: 1135-1137.

Crosby MKA, Licht LE, Fu J. 2009. The effect of habitat fragmentation on finescale population structure of wood frogs (*Rana sylvatica*). *Conservation Genetics*. 10:1707–1718.

Publications submitted or in prep:

Crosby K, Lloyd M, Lawton P. Outreach impacts of open data and open access of three strategic research networks in Canada. *In prep*.

Crosby K, Latta RG. Ecological niche modeling of *Avena barbata* in native vs. invaded ranges reveals considerable niche shifts and evolutionary change in the Californian invaded range. *In prep*.

Crosby K, Latta RG. Recombination and change in two heritable characters in *Avena barbata* over 40 years. *In prep*.

CONFERENCE PRESENTATIONS

Crosby K, Stokes TO, and RG Latta. Wild oats in a brave new world: different mixtures of maternal haplotypes within populations in California demonstrate more polymorphism than expected in this classic system of ecotypic divergence. **Oral presentation** at the First Joint Congress on Evolutionary Biology, Ottawa, ON, July 6 – 10, 2012.

Crosby K and RG Latta. Phylogeography and colonization history of the invasive Mediterranean annual grass *Avena barbata* in California. **Oral presentation** at the Meeting of the Society for the Study of Evolution (SSE), Norman, Oklahoma, USA, June 20, 2011.

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C R O S B Y

Crosby MKA and J Fu. Different landscape features and spatial distance do not limit gene flow between populations of wood frogs. **Oral presentation** at the Meeting of the Society for the Study of Evolution (SSE), Stony Brook, NY, USA, June 24, 2006.

Crosby MKA and J Fu. Incorporating population genetics with ecological modeling: methods for obtaining resistance values in suburban populations of wood frogs. **Oral presentation** at the Midwest Ecology and Evolution Conference, Carbondale, Illinois, USA, March 12, 2005.

AWARDS

- Dalhousie University Graduate Scholarship (2008-13, \$19,000 CDN/year)
- University of Guelph Graduate Scholarship (2004-06, \$17,000 CDN/year)
- University of Guelph tuition waiver (2004, \$2,000 CDN)
- Young Professionals International placement at the University of Genoa (2003-04, \$11,000 CDN)

OTHER TEACHING EXPERIENCE

Dalhousie University (Halifax, NS)

Department of Biology

Teaching assistant (45 hrs/semester) and lecturer

Fall semesters 2010 & 2011

Course: Analysis of Biological Data (**Multivariate statistics** in biology BIOL 4062/5062)

Laboratory Teaching Assistant (65 hrs/semester)

Full academic year (**2008-09, 2009-10**)

Course: Evolution

2nd-year undergraduate course, lab TA

University of Guelph (Guelph, ON)

Department of Integrative Biology

Teaching Assistant for the following courses (laboratory and lecture components):

- Humans in the Natural World (Fall 2004, Winter 2005, Fall 2006)
- Conservation Biology (Winter 2006)
- Ecological Lab and Field Methods (Fall 2005)
- Mammalogy (Winter 2005)

LANGUAGES

English: Read, write, speak (fluent – native speaker)

French: Read, write, speak (fluent)

German: Read, write, speak (intermediate)

Italian: Read, write, speak (basic)

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VOLUNTEERING / ORGANIZATION

Volunteer

- Reviewer for journal *Molecular Ecology* (2), G3 (1)
- Off the Hook (Promotion and sales of shares) – Community Share Fishery: 2013
- Seacology by Kayak (Naturalist) – East Coast Outfitters: 2013
- Meeting of the Society for the Study of Evolution (SSE) in Norman, OK, USA June 2011
- Biology Organization of Graduate Students at Dalhousie University (BOGS):
 - Secretary, and member of social committee 2009-2011
 - Annual Patrick Lett Conference of Biology Graduate Students: 2011 - 2013
- Dalhousie Women's Centre: 2008-2009

Organizer

Symposium for Women Entering Ecology and Evolution Today (SWEET)
Annual Meeting of the Canadian Society for Ecology & Evolution
2009, Halifax, NS

REFERENCES

- Dr. Robert Latta (Associate professor, Dalhousie University): robert.latta@dal.ca
- Dr. Jinzhong Fu (Associate Professor, University of Guelph): jfu@uoguelph.ca
- Dr. M. Alex Smith (Assistant Professor, University of Guelph): salex@uoguelph.ca
- Dr. David R. Smith (Assistant Professor, University of Western Ontario): dsmit242@uwo.ca

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