

CONTACT INFORMATION	<p>Department of Zoology The University of British Columbia 6270 University Boulevard Vancouver, BC V6T 1Z4, Canada</p>	<p>E-mail: <a href="mailto:kgilbert@zoology.ubc.ca">kgilbert@zoology.ubc.ca</a> Website: <a href="http://kjgilbert.github.io/">http://kjgilbert.github.io/</a></p>
EDUCATION	<p>Ph.D. Zoology, University of British Columbia <i>Advisor: Dr. Michael C. Whitlock</i></p> <p>B.Sc. Biology, University of Virginia Graduated with Distinction Specialization in environmental &amp; biological conservation</p>	<p>2011 – Present</p> <p>2006 – 2010</p>
AWARDS & FUNDING	<p>Affiliated Fellowships, UBC</p> <p><i>Declined</i>; Zoology Graduate Fellowship, UBC</p> <p>Ann and William Messenger Graduate Fellowship, UBC</p> <p>Zoology Graduate Fellowship, UBC</p> <p>Zoology Graduate Student Travel Award, UBC</p> <p>Frieda Granot Graduate Scholarship in Interdisciplinary Research</p> <p>Theodore E Arnold Fellowship</p> <p>Patrick David Campbell Graduate Fellowship</p> <p><i>Declined</i>; Zoology Graduate Fellowship, UBC</p> <p>Zoology Graduate Student Travel Award, UBC</p> <p>CIEE Synthesis Meeting Travel Grant, Landscape Genetics Graduate Seminar</p> <p>BRITE Fellowship, UBC</p>	<p>2015 – 2016</p> <p>2015 – 2016</p> <p>2015</p> <p>2014 – 2015</p> <p>2014</p> <p>2013 – 2014</p> <p>2013 – 2014</p> <p>2013 – 2014</p> <p>2013 – 2014</p> <p>2013</p> <p>2012</p> <p>2011 – 2013</p>
PUBLICATIONS	<p>[1] <b>Gilbert KJ</b>, MC Whitlock (<i>In Press</i>) Evaluating methods for estimating local effective population size with and without migration. <i>Evolution</i>.</p> <p>[2] Santiso X, L Lopez, <b>KJ Gilbert</b>, R Barreiro, MC Whitlock, R Retuerto (<i>In Press</i>) Patterns of genetic variation within and among populations in <i>Arbutus unedo</i> and its relation with selection and evolvability. <i>Perspectives in Plant Ecology, Evolution and Systematics</i>, doi: 10.1016/j.ppees.2015.02.006.</p> <p>[3] <b>Gilbert KJ</b>, MC Whitlock (2015) <i>Q<sub>ST</sub>-F<sub>ST</sub> comparisons with unbalanced half-sib designs</i>. <i>Molecular Ecology Resources</i>, 15(2), 262-267.</p> <p>[4] Caplins SA, <b>KJ Gilbert</b>, C Ciotir, J Roland, SF Matter, N Keyghobadi (2014) Landscape structure and the genetic effects of a population collapse. <i>Proceedings of the Royal Society B</i>. 281: 20141798; doi: 10.1098/rspb.2014.1798</p> <p>[5] Vines TH, AYK Albert, RL Andrew, F Débarre, DG Bock, MT Franklin, <b>KJ Gilbert</b>, J-S Moore, S Renaut, DJ Rennison (2014) The availability of research data declines rapidly with age. <i>Current Biology</i>, 24, 94-97.</p> <p>[6] Vines TH, RL Andrew, DG Bock, MT Franklin, <b>KJ Gilbert</b>, NC Kane, EJ Kleynhans, J-S Moore, BT Moyers, S Renaut, DJ Rennison, T Veen, S Yeaman (2013) Mandated archiving greatly improves access to research data. <i>FASEB Journal</i>, 27(4), 1304-1308.</p>	

- [7] **Gilbert KJ**, RL Andrew, DG Bock, MT Franklin, NC Kane, J-S Moore, BT Moyers, S Renaut, DJ Rennison, T Veen, TH Vines (2012) Recommendations for utilizing and reporting population genetic analyses: The reproducibility of genetic clustering using the program STRUCTURE. *Molecular Ecology*, 21(20), 4925-4930.
- [8] Keller SR, **KJ Gilbert**, PD Fields, DR Taylor (2012) Bayesian inference of a complex invasion history revealed by nuclear and chloroplast genetic diversity in the colonizing plant, *Silene latifolia*. *Molecular Ecology*, 21(19), 4721-4734.
- [9] Whitlock MC, **KJ Gilbert** (2012)  $Q_{ST}$  in a hierarchically structured population. *Molecular Ecology Resources*, 12(3), 481-483.

INVITED  
SEMINARS &  
WORKSHOPS

*Invited Seminar:* Population genetic inference in the face of demographic history

University of Bern - Bern, Switzerland

August 2015

*Invited Seminar:* Estimating effective population size and the reproducibility of science

Monash University - Melbourne, VIC, Australia

February 2015

Duke University Pop Bio Seminar Series - Durham, NC, USA

December 2014

Reproducible Science Hackathon, NESCent

December 2014

21-member working group aiming to develop a curriculum and workflow for teaching reproducible science

SimBank, NESCent Catalysis Meeting

November 2014

25-member working group aiming to create a collection of openly available simulation results to facilitate testing of statistical population genetic and phylogeographic methods

PRESENTATIONS

Validating SNP loci underlying local adaptation in lodgepole pine – KJ Gilbert, S Yeaman, KE Lotterhos, KA Hodgins, H Suren, JA Holliday, S Nadeau, SN Aitken, MC Whitlock

2015 *Poster:* 15<sup>th</sup> Congress of the European Society for Evolutionary Biology, Lausanne, Switzerland

Evaluating methods for estimating effective population size in the presence of migration – KJ Gilbert & MC Whitlock

2014 *Talk:* Evolution 2014 Meeting, Raleigh, NC, USA

2014 *Talk:* Evo-WIBO Conference (Evolutionary Biology in the Pacific Northwest)

Estimating effective population size in natural populations: Are we making assumptions we should not be making? – KJ Gilbert, PD Fields, DR Taylor

2013 *Talk:* Evolution 2013 Meeting, Snowbird, Utah, USA

2013 *Talk:* Canadian Society for Ecology and Evolution (CSEE), Kelowna, BC

Local adaptation in the lodgepole pine (*Pinus contorta*). – KJ Gilbert & MC Whitlock

2012 *Talk:* SFU-UBC-UVic Ecology and Evolution Retreat, Brackendale, BC

Effective population size estimates in a demographically and genetically monitored metapopulation of *Silene latifolia*. – KJ Gilbert, PD Fields, DR Taylor

2012 *Poster:* Evolution Ottawa, 1<sup>st</sup> Joint Congress on Evolutionary Biology

Range expansion and adaptation across heterogeneous environments.

– KJ Gilbert & MC Whitlock

2012 *Talk*: Landscape Genetics Symposium, CIEE Graduate Mini-Course, Toronto

2012 *Poster*: Evo-WIBO Conference (Evolutionary Biology in the Pacific Northwest)

Inferred invasion history of *Silene latifolia* into North America utilizing population genetic data and approximate Bayesian computation.

– KJ Gilbert, SR Keller, PD Fields, DR Taylor

2011 *Poster*: 13<sup>th</sup> Congress of the European Society for Evolutionary Biology, Tübingen, Germany

2011 *Poster*: SFU-UBC-UVic Ecology and Evolution Retreat, Brackendale, BC

#### TEACHING EXPERIENCE

*Fundamentals of Evolutionary Biology*, BIOL 336

Fall 2012, Spring 2013

- Discussion-based tutorial covers natural selection, population genetics, quantitative genetics, systematics, and classical and molecular approaches to the study of evolution.
- Three discussion sections of 45 students total per semester

*Fundamentals of Biostatistics*, BIOL 300

Fall 2013, 2014, 2015

- Statistical procedures for biological research; estimation, hypothesis testing, goodness of fit, analysis of variance and regression; use of computers for statistical analysis.
- Two sections of 70 students total in 2013, one section of 36 students and served as lab coordinator for 254 students enrolled in course in 2014, and one section of 36 students and served as lab coordinator for 250 students enrolled in course in 2015.

#### VOLUNTEER & OUTREACH

Reviewer for *Molecular Ecology Resources*, *Ecology and Evolution*, *Tree Genetics & Genomes*

Society member: American Society of Naturalists, Society for the Study of Evolution

*Graduate Student Council Member*, *American Society of Naturalists*

2013 – 2016

- Organized the student-mentor mixer at the 2014 Evolution Meeting in Raleigh, NC
- Serve on the workshops committee for ASN-sponsored workshops

*Faculty Search Committee: Graduate Student Representative*

2014

- Evolutionary biology CRC2 job search for the Department of Zoology, University of British Columbia

*Volunteer mist-netting and bird banding with Wild Research*

2013 – Present

- Participate in winter, spring migration, and fall migration bird monitoring at Iona Island Bird Observatory, Vancouver, BC
- Teach proper bird handling, aging, data collection, and mist net extraction techniques to new volunteers
- Assist in teaching other volunteers and visitors to the station about the species conservation and monitoring, and the general tasks of running a banding station

#### PREVIOUS RESEARCH EXPERIENCE

*Independent Study & Research Technician*

September 2009 – June 2011

- Evolution and Population Genetics Laboratory, University of Virginia
  - Genetic analysis of metapopulation processes in the *Silene-Micobotryum* host-pathogen system
- Supervisors:
- Dr. Douglas R. Taylor, Professor, Dept. of Biology, Univ. of Virginia
  - Peter D. Fields, Ph.D. Candidate, Dept. of Biology, Univ. of Virginia
  - Dr. Janis Antonovics, Lewis and Clark Professor of Biology, Dept. of Biology, Univ. of Virginia

*Field Technician & Research Assistant*

May 2009 – August 2009

- Blandy Experimental Farm – The University of Virginia
- Field research on effects of tropospheric ozone on native vs. invasive tree species

Supervisors:

- [Dr. David E. Carr](#), Research Associate Professor, Dept. of Environmental Sciences; Director, Blandy Experimental Farm, Univ. of Virginia
- Eric E. Elton, Ph.D. Candidate, Dept. of Environmental Sciences, Univ. of Virginia

*Bird Banding Intern*

May 2008 – August 2008

- Monitoring Avian Productivity and Survivorship (MAPS) – [The Institute for Bird Populations](#)
- Extracted, banded, and processed passerines and near-passerines during summer breeding season to monitor populations of local species

Supervisory Biologist:

- James Junda