

**EVELYN LISE JENSEN**

Department of Biology, Queen's University  
116 Barrie St., Kingston, ON, K7L3N6  
evelyn.jensen@queensu.ca

**CURRENT APPOINTMENT**

2017- NSERC Postdoctoral Fellow, Genome Canada Postdoctoral Fellow  
Department of Biology, Queen's University  
PI: Dr. Stephen Lougheed

**EDUCATION**

2017 Ph.D. in Biology  
Department of Biology, University of British Columbia Okanagan  
Advisor: Dr. Michael Russello  
Thesis: Learning from the past, examining the present and planning for the future:  
Genetic approaches to the conservation of giant Galapagos tortoises

2013 M.Sc. in Biology  
Department of Biology, University of British Columbia Okanagan  
Advisor: Dr. Michael Russello  
Thesis: Genetic assessment of taxonomic uncertainty and conservation units in  
painted turtles, with a focus on the at-risk *Chrysemys picta bellii* in British  
Columbia

2011 B.Sc. with Honors in Evolutionary Biology  
Department of Biological Sciences, University of Alberta  
Advisors: Drs. Sally Leys and David Coltman  
Thesis: Studying the genetic structure of sponge populations

**PUBLICATIONS**

**Peer Reviewed Articles**

15. Jensen, E. L., D. L. Edwards, Ryan. C. Garrick, J. M. Miller, J. P. Gibbs, Linda J. Cayot, W. Tapia, A. Caccone, and M. A. Russello. In Press. Population genomics through time provides insights into the consequences of decline and rapid demographic recovery through head-starting in a Galapagos giant tortoise. *Evolutionary Applications*, accepted July 16, 2018
14. Reid, B., J. Kass, S. Wollney, E. L. Jensen, M. A. Russello, E. Viola, J. Pantophlet, J. Iverson, Peery, C. Raxworthy, and E. Naro-Maciel. In Press. Disentangling the genetic effects of refugial isolation and range expansion in a trans-continently distributed species. *Heredity*, accepted June 27, 2018
13. Jensen, E. L., J. M. Miller, D. L. Edwards, R. C. Garrick, W. Tapia, A. Caccone, and M. A. Russello. 2018. Temporal mitogenomics of the Galapagos giant tortoise from Pinzón

- reveals potential biases in population genetic inference. *Journal of Heredity*, 109: 631-640. **(COVER)**
12. Miller, J. M., M. C. Quinzin, D. L. Edwards, D. A. R. Eaton, **E. L. Jensen**, M. A. Russello, J. P. Gibbs, W. Tapia, D. Rueda, and A. Caccone. 2018. Genome-wide assessment of diversity and divergence among extant Galápagos giant tortoise species. *Journal of Heredity* 109: 611-619.
  11. **Jensen, E. L.**, A. Mooers, G. Caccone, and M. A. Russello. 2016. I-HEDGE: Determining the optimum complementary sets of taxa for conservation using evolutionary isolation. *Peer J* 4:e2350.
  10. Milián-García, Y., **E. L. Jensen**, S. Ribalta Mena, E. Perez Felitas, G. Sosa Rodriguez, L. Guerra Manchena, G. Espinosa Lopez, and M. A. Russello. 2016. Genetic evidence for multiple paternity in the Critically Endangered Cuban crocodile (*Crocodylus rhombifer*). *Amphibia-Reptilia* 37: 273-281.
  9. Shafer, A. B., J. B. W. Wolf, P. C. Alves, L. Bergström, G. Colling, L. Dalén, L. De Meester, R. Ekblom, S. Fior, M. Hajibabaei, A. R. Hoesel, J. Höglund, **E. L. Jensen**, M. Krützen, A. J. Norman, E. M. Österling, N. J. Ouborg, J. Piccolo, C. R. Primmer, F. A. Reed, M. Roumet, J. Salmons, M. K. Schwartz, J. Thaulow, M. Valtonen, M. Weissensteiner, C. W. Wheat, and P. Zieliński. 2016. Reply to Garner et al. *Trends in Ecology and Evolution* 31:83-84.
  8. **Jensen, E. L.**, W. Tapia, A. Caccone, and M. A. Russello. 2015. Genetics of a head-start program to guide conservation of an endangered Galápagos tortoise (*Chelonoidis ephippium*). *Conservation Genetics* 16: 823-832.
  7. Milián-García, Y., **E. L. Jensen**, J. Madsen, S. Alvarez Alonso, A. Serrano Rodriguez, G. Espinosa Lopez, and M. A. Russello. 2015. Founded: genetics reconstruct lineage diversity and kinship within on-island captive populations of Cuban Amazon parrots to inform *ex situ* conservation. *Journal of Heredity* 106: 575-579. **(COVER)**
  6. Shafer, A. B., J. B. W. Wolf, P. C. Alves, L. Bergström, M. W. Bruford, I. Brännström, G. Colling, L. Dalén, L. De Meester, R. Ekblom, K. D. Fawcett, S. Fior, M. Hajibabaei, J. A. Hill, A. R. Hoesel, J. Höglund, **E. L. Jensen**, J. Krause, T. N. Kristensen, M. Krützen, J. K. McKay, A. J. Norman, R. Ogden, E. M. Österling, N. J. Ouborg, J. Piccolo, D. Popović, C. R. Primmer, F. A. Reed, M. Roumet, J. Salmons, T. Schenekar, M. K. Schwartz, G. Segelbacher, H. Senn, J. Thaulow, M. Valtonen, A. Veale, P. Vergeer, N. Vijay, C. Vilà, M. Weissensteiner, L. Wennerström, C. W. Wheat, and P. Zieliński. 2015. Genomics and the challenging translation into conservation practice. *Trends in Ecology & Evolution* 30:78-87.
  5. **Jensen, E. L.**, P. Govindarajulu, and M. A. Russello. 2015. Genetic assessment of taxonomic uncertainty in Painted Turtles. *Journal of Herpetology* 49: 314-324.
  4. Morbey, Y., **E. L. Jensen**, and M. A. Russello. 2014. Time scale matters: genetic analysis does not support adaptation-by-time as the mechanism for adaptive seasonal declines in kokanee reproductive lifespan. *Ecology and Evolution* 4:3714-3722.
  3. **Jensen, E. L.**, P. Govindarajulu, and M. A. Russello. 2014. When the shoe doesn't fit: applying conservation unit concepts to western painted turtles at their northern periphery. *Conservation Genetics* 15:261-274.
  2. **Jensen, E. L.**, P. Govindarajulu, J. Madsen, and M. A. Russello. 2014. Extirpation by introgression?: Genetic evidence reveals hybridization between introduced *Chrysemys*

*picta* and endangered Western Painted Turtles (*C. p. bellii*) in British Columbia. *Herpetological Conservation and Biology* 9:342-353.

1. **Jensen, E. L.**, L. M. Dill, and J. F. Cahill. 2011. Applying behavioral-ecological theory to plant defense: light-dependent movement in *Mimosa pudica* suggests a trade-off between predation risk and energetic reward. *American Naturalist* 177:377-381.

### **Book Chapter**

Russello, M. A. and **E. L. Jensen**. (In press) *Ex situ* conservation genetics in the age of genomics. In: Population Genomics: Wildlife (ed. Hohenlohe, P.). Springer Publishing, New York

### **Other Publications**

**Jensen, E. L.** 2014. Additional analysis on the genetic aspects of Coastal Western Painted Turtle populations and draft guidance for conservation. Document commissioned by the British Columbia Ministry of Environment

## **GRANTS, AWARDS AND HONORS**

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|------------|---|
| 2018       | Governor General's Academic Gold Medal, award for the highest academic standing for a graduate student, University of British Columbia Okanagan |
| 2017       | Ph.D. Excellence and Diversity Award, Canadian Society for Ecology and Evolution (\$500)  |
| 2016       | Graduate Student Researcher of the Year, University of British Columbia Okanagan (\$1,500)  |
| 2012, 2016 | Graduate Student Travel Award, University of British Columbia Okanagan (\$2,000 total)  |
| 2015       | American Genetic Association, Ecological, Evolutionary and Conservation Genomics Award (\$10,000)   |
| 2015       | Biodiversity Research: Integrative Training and Education Travel Award, University of British Columbia (\$500)                                  |

## **FELLOWSHIPS AND SCHOLARSHIPS**

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| 2018-2020  | Postdoctoral Fellowship, Natural Sciences and Engineering Research Council of Canada (\$90,000 over 2 years)  |
| 2012-2017  | University Graduate Fellowship, University of British Columbia Okanagan (\$22,500 total)                      |
| 2016       | Graduate Dean's Thesis Fellowship, University of British Columbia Okanagan (\$6,000)                          |
| 2013-2016  | Postgraduate Scholarship, Natural Sciences and Engineering Research Council of Canada (\$63,000 over 3 years) |
| 2011, 2013 | Graduate Entrance Scholarship, University of British Columbia Okanagan (\$9,500 total)                        |

- 2012-2013 Alexander Graham Bell Canada Graduate Scholarship, Natural Sciences and Engineering Research Council of Canada (\$17,500)
- 2012 University of British Columbia Okanagan Graduate Scholarship (\$700)
- 2011 Undergraduate Research Award, University of Alberta (\$100)
- 2009, 2010 Jason Lang Scholarship, Alberta Scholarship Programs (\$2,000 total)

## TEACHING EXPERIENCE

- 2017 Guest Lecture, Queen's University  
Speciation and Macroevolution (1 lecture)
- 2011-2016 Teaching Assistant, University of British Columbia Okanagan  
Evolutionary Principles and Methods (2014, 2015, 2016)  
Population Genetics (2016)  
Classical Genetics (2013)  
Physiology of Multicellular Organisms (2012)  
Biology for Science Majors (2011)
- 2011-2016 Guest Lectures, University of British Columbia Okanagan  
Evolutionary Principles and Method (3 lectures), Behavioural Ecology (1 lecture),  
Molecular Approaches in Ecology and Evolution (1 lecture)

## MENTORING

- 2018-2019 Co-supervising Sean Vanderluit, Undergraduate Honors student, Queen's University
- 2018-2019 Supervising Kristin Hayward, Research Mentorship student, Queen's University
- 2018 Supervised Kristin Hayward and Tristan Frappier-Brinton, NSERC Undergraduate Summer Research Award students, Queen's University
- 2017-2018 Co-supervised Michelle Harwood, Undergraduate Honors student, Queen's University
- 2017 Supervised Ashlyn Ketterer, Danya Cook and Nicholas Phillipow, Directed Studies students, University of British Columbia Okanagan
- 2012 Supervised Anna Hall, Work-Study student in the lab and field, University of British Columbia Okanagan
- 2011-2012 Mentored Jeanette Madsen, Undergraduate Honours student, University of British Columbia Okanagan

## PRESENTATIONS

### Contributed Oral Presentations at Scientific Meetings [\*Presenter]

**Evelyn L. Jensen\***, Michelle P. Harwood, Peter V. C. de Groot, Markus Dyck, Marsha Branigan, and Stephen C. Loughheed. Temporal analysis of polar bear population genetic structure in the Canadian Arctic. North American Congress for Conservation Biology; July 23-25, 2018; Toronto, ON.

**Evelyn L. Jensen\***, Adalgisa Caccone, and Michael A. Russello. Genome-wide historical DNA analysis reveals insights into population genetic theory and conservation practice. *Evolution* 2017; June 23-27, 2017; Portland, OR.

**Evelyn L. Jensen\***. Learning from the past, examining the present and planning for the future: Genetic approaches to the conservation of giant Galápagos tortoises. PhD Diversity and Excellence Research Award Symposium at the Canadian Society for Ecology and Evolution Meeting; May 8-10, 2017; Victoria, BC.

**Evelyn L. Jensen\***, Adalgisa Caccone, and Michael A. Russello. Genomic consequences of population decline and recovery in the Pinzón Island Galápagos Tortoise. *Evolution* 2016; June 17-21, 2016; Austin, TX.

**Evelyn L. Jensen\***, Purnima Govindarajulu and Michael A. Russello. When the shoe doesn't fit: applying conservation unit concepts to the Western Painted Turtle in British Columbia. Canadian Society for Ecology and Evolution Meeting; May 12-15, 2013; Kelowna, BC.

### **Poster Presentations at Scientific Meetings [\*Presenter]**

**Evelyn L. Jensen\***, Peter V. C. de Groot, Markus Dyck, Marsha Branigan, and Stephen C. Lougheed. BEARWATCH: Genomic tools to enable non-invasive, community-based monitoring of polar bears in Canada. Poster presented at the Canadian Society of Ecology and Evolution meeting; 2018 July 18-20; Guelph, ON.

**Evelyn L. Jensen\***, Washington Tapia, Adalgisa Caccone, and Michael A. Russello. Genetics of a head-start program to guide conservation of an endangered Galápagos tortoise (*Chelonoidis ephippium*). Poster presented at the American Genetic Association meeting; 2014 June, 27-29; Seattle, WA.

**Evelyn L. Jensen\***, Jeanette Madsen, Purnima Govindarajulu and Michael A. Russello. Extirpation by Introgression?: Investigating the genetic consequences of released *Chrysemys picta* on endangered *C. p. bellii* in British Columbia. Poster presented at the First Joint Congress on Evolution; 2012 July 6-12; Ottawa, ON.

### **Invited Talks**

**Evelyn L. Jensen**. Queen's University Biological Station Seminar Series; The past, present and future of the Giant Galápagos Tortoises on Pinzón Island; May 30, 2018; Lake Opinicon, ON.

**Evelyn L. Jensen\***, Adalgisa Caccone, and Michael A. Russello. Symposium on Genomics of Agriculture & the Environment; Genomic consequences of population decline and recovery in the Pinzón Island Galápagos Tortoise; November 16, 2016; Kelowna, BC.

**Evelyn L. Jensen**. Central Okanagan Naturalists Club; Learning from the past, examining the present and planning for the future: Genetic approaches to the conservation of giant Galápagos tortoises; January 12, 2016; Kelowna, BC.

Michael A. Russello\*, **Evelyn L. Jensen\***, and Matthew Lemay\*. Okanagan Water and Biodiversity Forum; How DNA Can Inform Biodiversity Conservation: Case Studies from the Okanagan; September 16-17, 2014; Kelowna, BC.

### **Institutional Presentations**

**Evelyn L. Jensen\***. Using genetics to understand the past, present and future of the Giant Galápagos Tortoises on Pinzón Island. Talk given at the FAB\* Lab, Simon Fraser University; April 1, 2016, Burnaby, BC.

- Evelyn L. Jensen\***, Adalgisa Caccone, and Michael A. Russello. Genomic consequences of population decline and recovery in the Pinzón Island Galápagos Tortoise. Poster presented at the British Columbia EcoEvo retreat; 2016, November 4-6; Brackendale, BC and at the UBC Okanagan Biology Graduate Symposium; 2016, September 6; Kelowna, BC.
- Evelyn L. Jensen\***. Using genetics to understand the past, present and future of the Giant Galápagos Tortoises on Pinzón Island. Talk given at the Biology Graduate Student Society Seminar Series; February 4, 2016, Kelowna, BC.
- Evelyn L. Jensen\***, Arne Mooers, Adalgisa Caccone, and Michael A. Russello. Incorporating evolutionary isolation and complementarity in ranking giant Galápagos tortoises for conservation using genetic networks. Poster presented at the British Columbia EcoEvo retreat; 2015, November 13-15; Brackendale, BC and at the UBC Okanagan Biology Graduate Symposium; 2015, September 11; Kelowna, BC.
- Evelyn L. Jensen\***, Washington Tapia, Adalgisa Caccone, and Michael A. Russello. Genetics of a head-start program to guide conservation of an endangered Galápagos tortoise (*Chelonoidis ephippium*). Poster presented at the British Columbia EcoEvo Retreat; 2014 November, 7-9; Brackendale, BC.
- Evelyn L. Jensen\***. Genetics of a head-start program: Conserving the Giant Galápagos tortoises. Talk given at the Biology Graduate Student Society Seminar Series; February 12, 2014, Kelowna, BC.
- Evelyn L. Jensen\***. Conservation genetics of the western painted turtle in British Columbia. Talk given at the Biology Graduate Student Society Seminar Series; October 10, 2012, Kelowna, BC.

## RESEARCH EXPERIENCE

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|------|---|
| 2013 | Contract, British Columbia Ministry of Environment<br>Commissioned to write a guidance document outlining recommendations for conserving western painted turtles based on genetic evidence.   |
| 2012 | Research Assistant, Ecological and Conservation Genomics Lab, University of British Columbia Okanagan<br>Performed genotyping of trawl samples of Kokanee salmon to assign ecotype.   |
| 2010 | Research Technician, Carcass and Meat Science Lab, University of Alberta<br>Conducted fat analysis of pork tissue and tested prototype equipment for the spectral analysis of beef tissue in collaboration with the Faculty of Engineering. |

## SERVICE TO PROFESSION

### Invited Reviewer

*Amphibia-Reptilia, Conservation Genetics, Conservation Genetics Resources, Global Ecology and Conservation, PLoS One, Molecular Ecology, Molecular Ecology Resources, Proceedings of the Royal Society B: Biological Sciences, The European Zoological Journal.*

### **Committee Memberships**

- 2016 Member of a working group on Conservation and Phylogenies, funded by the Canadian Institute for Ecology and Evolution
- 2011-2014 Advisor to the Western Painted Turtle Recovery Team, British Columbia Ministry of Environment
- 2013 Volunteer Coordinator and Public Outreach Committee Member for the Canadian Society for Ecology and Evolution Meeting 2013

### **UNIVERSITY SERVICE**

- 2012-2016 Mentee Liaison on the Women in Science and Engineering Mentoring Program planning committee, University of British Columbia Okanagan
- 2014-2015 Member of the hiring committee for the position of Assistant Professor, Department of Biology, University of British Columbia Okanagan
- 2011-2014 Executive Member of the Biology Graduate Students Society, University of British Columbia Okanagan
- 2012-2013 Member of the Dean of Graduate Studies Student Advisory Committee, University of British Columbia Okanagan

### **PROFESSIONAL SOCIETY MEMBERSHIPS**

American Genetic Association  
American Naturalists Society  
Canadian Society for Ecology and Evolution  
Society for the Study of Evolution