# SILU WANG

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#### **CURRENT POSITION**

**Postdoc** Jan. 2020 - *present* University of California, Berkeley (UC Berkeley)

Mentor: Dr. Doris Bachtrog

Project: Speciation genomics in Drosophila hybrid swarms

## **EDUCATION**

PhD Zoology

University of British Columbia (UBC), defended in December 2019. Advisor: Darren Irwin

MA Ecology, Evolution & Behavior; Computer Science (minor)

University of Texas at Austin (UT Austin), 2014. Advisor: Molly Cummings

**BS** Behavior, Genetics & Neurobiology; Applied Statistics (minor)

University of Toronto (U of T), high distinction, 2011. Advisor: Marla Sokolowski

#### **PUBLICATIONS**

- **Wang S.** Rohwer S. Delmore K. Irwin DE. 2019. Cross-decades stability of an avian hybrid zone. *Journal of Evolutionary Biology*. 32: 1242-1251.
- **Wang S.** & Sokolowski M. B. 2017. Aggressive behaviours, food-deprivation and the *foraging* gene. *Royal Society Open Science*. 4:170042.
- **Wang S.** Cummings M. E. & Kirkpatrick M. A. 2015. Coevolution of male courtship and sexual conflict characters in mosquitofish. *Behavioral Ecology*. 26:1013-1020.
- **Wang S.** 2014. Mating evolution in *Gambusia* (Poeciliidae): an integration of behavior, molecules and morphology (Master's Thesis). University of Texas, Austin, TX.
- **Wang S.M.T.** Ramsey M. & Cummings M. E. 2014. Plasticity of the mate choice mind: courtship evokes choice-like brain responses in females from a coercive mating system. *Genes, Brain and Behavior*. 13:365-375.

## **MANUSCRIPTS**

- **Wang S.** Rohwer S., de Zwaan D. R. Mackenzie J. Irwin DE. Selection on a pleiotropic plumage gene region underpins early differentiation between two warbler species. *In review*.
- **Wang S.** Ore M. Mikklesen E. Lee-Yaw, J. Rohwer S. Irwin DE. Signatures of mito-nuclear climate adaptation in a warbler species complex. *In review*.
- Wang S. Coevolution of song and egg coloration: multimodal mating signals? <u>Submitted</u>.
- **Wang S.** de Zwaan D. R. Mackenzie J., Irwin DE. Badges of status fades in a *Setophaga* hybrid zone. *In prep*.
- MacPherson A. **Wang S.** P. Rieseberg L. Yamaguchi R. Otto S. Parental population isolation and range expansion before secondary contact leads to greater hybrid relative fitness. *In prep.*

## **ORAL PRESENTATIONS** (\*best talk)

- 2019 The Society for the Study of Evolution meeting, Providence, Rhode Island, USA.
- 2019\* Eco-Evo Retreat, Brackendale, BC, Canada.
- **2018** International Ornithological Congress meeting, Vancouver, BC, Canada.

- 2017 The Society for the Study of Evolution meeting, Portland, OR, USA.
- 2017 Canadian Society for Ecology and Evolution meeting, Victoria, BC, Canada.
- 2016 North American Ornithological Congress, Washington, DC, USA.
- 2015 American Ornithologists' Union & Cooper's Ornithological Society meeting, OK, USA.
- 2014 International Ornithological Congress, Tokyo, Japan.
- 2014 American Society of Naturalists meeting, Pacific Grove, CA, USA.
- 2014 Society for Integrative and Comparative Biology Meeting, Austin, TX, USA.
- **2012** The Society for the Study of Evolution, Ottawa, ON, Canada.
- 2012 Animal Behavior Society meeting, Albuquerque, NM, USA.
- 2011 American Ornithologists' Union, Jacksonville, FL, USA.

# **POSTERS** (\*best poster)

- 2019\* The Society for the Study of Evolution, Providence, RI, USA.
- 2018 Evo-Wibo Conference, Port Townsend, WA, USA.
- 2018 Evo-Eco Department Retreat, Blackendale, BC, Canada.
- 2018\* UBC Zoology Graduate Spring Symposium, Vancouver, BC, Canada.
- 2017 The Society for the Study of Evolution Meeting, Portland, OR, USA.
- 2017\* UBC Zoology Graduate Symposium, Vancouver, BC, Canada.
- **2010** Ontario Biology Day, Toronto, ON, Canada.
- **2010** Crime Prevention Conference, Missisauga, ON, Canada.

#### **INVITED PRESENTATION**

- **2019** Center of Theoretical Evolutionary Genomics seminar, UC Berkeley.
- 2013 Lunch seminar, School of Geological Science, UT Austin.
- 2013 Brain, Behavior & Evolution (BBE) Seminar, UT Austin.
- 2013 Department Seminar, University of Oklahoma.
- 2012 BBE Seminar, UT Austin.
- 2012 Integrative Biology Graduate Symposium, UT Austin.

#### **AWARDS GRANTS & HONORS**

Ruth Patrick Student Poster Award, American Society of Naturalists	\$1,000
Zoology Travel Award, Department of Zoology, UBC	\$500
Best Talk Award, Eco-Evo Retreat, Brackendale, BC	
Zoology Graduate Fellowship, UBC	\$16,000
Gibson's citation, Green College, UBC	
Best Poster Award, Zoology Graduate Spring Symposium	
Graduate Student Travel Fund, UBC	\$500
Best Poster Award, Zoology Graduate Spring Symposium	
Werner and Hildegard Hesse Research Award in Ornithology	\$2,500
Postgraduate Scholar ship D (PGS D)	
Natural Sciences and Engineering Research Council of Canada (NSERC)	\$63,000
Werner and Hildegard Hesse Research Award in Ornithology	\$3,500
Biodiversity Research: Integrative Training & Education Grant, UBC	\$4,000
R Howard Webster Foundation Fellowship, UBC	\$2,500
Four Year Doctoral Fellowship, UBC	\$18,000
	Zoology Travel Award, Department of Zoology, UBC Best Talk Award, Eco-Evo Retreat, Brackendale, BC Zoology Graduate Fellowship, UBC Gibson's citation, Green College, UBC Best Poster Award, Zoology Graduate Spring Symposium Graduate Student Travel Fund, UBC Best Poster Award, Zoology Graduate Spring Symposium Werner and Hildegard Hesse Research Award in Ornithology Postgraduate Scholar ship D (PGS D) Natural Sciences and Engineering Research Council of Canada (NSERC) Werner and Hildegard Hesse Research Award in Ornithology Biodiversity Research: Integrative Training & Education Grant, UBC R Howard Webster Foundation Fellowship, UBC

2014	Student Travel grant, International Ornithological Congress	\$500
2014	Travel grant, Ecology, Evolution and Behavior, UT Austin	\$1,000
2012-2013	Texas Ecolab Research Grant	\$3,000
2011	Student Travel Award, American Ornithologists' Union	\$600
2011	Ontario Graduate Scholarship, Ministry of Training,	
	Colleges and Universities of Ontario	\$6,000
2011	Excellence Award in the Natural Sciences and Engineering, U of T	\$5,600
2010-2011	Honor Roll in Department of Mathematical and Computational Sciences, U of T	
2010	Student Membership Award, American Ornithologists' Union	

## PROGRAMMING EXPERIENCE

•R: Population Genomics - admixture mapping, spatial genetics

Phylogenetics - ancestral reconstruction, trait coevolution

Network Modeling - subsampling vertices and quantifying features

Frequentist & Bayesian statistics

•UNIX: Regular expressions related to parsing sequences

SAS - Structural Equation Modeling

•Python: Sequence processing & alignment

Maximum likelihood estimates search

## TEACH-ASSISTANCE EXPERIENCE

• BIOL336:	Fundamentals of Evolution Biology, UBC	2018 Spring and Fall
• BIO321:	Introduction to Computational Biology, UT Austin	2014 Spring
• BIO370:	Evolution, UT Austin	2012 Spring, 2013 Fall
• BIO311:	Introductory Biology, UT Austin	2012 Fall
• BIO206:	Structure & Function of Organisms, UT Austin	2012 Summer
• BIO318:	Biostatistics, UT Austin	2011 Fall
• STA257:	Probability and Statistics I, U of T	2010 Fall
• BIO329:	Mammalian Biology field section, U of T	2009 Fall

## **MENTORING EXPERIENCE**

Korey Conley: Fall 2013; Ruth Midgley: Summer 2015; Else Mikklesen: Summer 2016-Summer 2017; Jacqueline Mackenzie: Summer 2017.

## **OUTREACH**

Community Service

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2020-present	Speciation & Introgression Genomics Discussion Group, coordinator, IB, UCB
2015-18	Biodiversity Birding Group Coordinator, Biodiversity Research Center, UBC
2015-16	Art Committee, Co-Chair, Green College, UBC
2017-18	Sustainability Committee, Co-Chair, Green College, UBC
2017-19	Biodiversity Seminar Committee, A/V coordinator, Biodiversity Research Center, UBC
2018	Dining Society Treasurer, Green College, UBC
2010	NA III A COLLO II A DI II A DI LO A LIDO

Nature Illustration Club Coordinator, Biodiversity Research Center, UBC
Girls in Science Technology Engineering and Math (STEM), mentor, Templeton

Secondary School, Vancouver

## Public lectures

• Sassy tastes or sexy traits: stories about coevolution of female preference and male traits.

- Darwin's 203rd Birthday, May11th 2012, Texas Memorial Museum.
- The Scales of Existence: A Journey from Population to Molecules (Collaborated with Isobel Mouat, Microbiology and Immunology; Kelsey Huus, Microbiology and Immunology; J. Andrew Alexander, Biochemistry and Molecular Biology), Nov. 16<sup>th</sup> 2015, UBC.
- The Hermits' Expeditions: Stories About The Habitat, Flora, Fauna And People In Northwest America, Sep. 26<sup>th</sup> 2016, Green College, UBC.
- On the Speciation of Species: the fantastic process underlying biodiversity, Mar. 26<sup>th</sup> 2018, Green College, UBC.