

SILU WANG

Email: siluwang.evo@gmail.com
Website: <https://www.silurianwang.net>

ACADEMIC POSITIONS

- Postdoc** + Jan. 2022 - Dec. 2022 University of California, Davis (UC Davis)
Mentor: Graham Coop, Center for Population Biology
- Postdoc** + Jan. 2020 - Dec. 2021 University of California, Berkeley (UC Berkeley)
Mentor: Doris Bachtrog, Center of Theoretical and Evolutionary Biology

EDUCATION

- PhD Zoology**, 2020. University of British Columbia (UBC)
Thesis: **Genomic architecture of speciation in a warbler species complex**
Committee: Darren Irwin (advisor), Sarah Otto, Loren Rieseberg, Dolph Schluter
- MA Ecology, Evolution & Behavior**; Computer Science (minor), 2014.
University of Texas, Austin (UT Austin)
Thesis: **Behavior, morphology, and genetic signatures of sexual selection in poeciliid fish**
Committee: Molly Cummings (advisor), Mike Ryan, Hans Hofmann
- BS Behavior, Genetics & Neurobiology**; Applied Statistics (minor), *high distinction*, 2011.
University of Toronto (U of T)
Thesis: **Aggressive behaviors, food-deprivation, and the foraging gene**
Advisor: Marla Sokolowski

PUBLICATIONS (*corresponding author; +equal contribution; ^ mentee)

- (10) Li Q., **Wang S.*** Tinamou egg color displacement at ecoregion co-partitioning. [BioRxiv](#). *In review*.
- (9) de Zwaan D. R., Mackenzie J. ^, Mikkelsen E. ^, Wood, C., **Wang S.*** Opposing dominance within a color gene block is associated with maladaptive hybrid signal discordance. [BioRxiv](#). **Accepted**. *PNAS nexus*.
- (8) **Wang S.**, Nalley M.J., Chatla K., Aldaimalani R. ^, MacPherson A., Wei KH-C., Corbett R., Mai D., Bachtrog D.* Neo-sex chromosome evolution shapes sex-dependent asymmetrical introgression barrier. [BioRxiv](#). **Accepted**. *PNAS*.
- (7) +MacPherson A.*, +**Wang S.** Rieseberg L., Yamaguchi R., Otto S. Parental population isolation and range expansion before secondary contact leads to greater hybrid relative fitness. [BioRxiv](#). **Accepted**. *American Naturalist*.
- (6) **Wang S.***, Ore M., Mikkelsen E. ^, Lee-Yaw, J., Rohwer S., Irwin DE. **2021**. Signatures of mito-nuclear climate adaptation in a warbler species complex. *Nature Communications*.
- (5) **Wang S.***, Rohwer S., de Zwaan D. R., Toews D.P.L., Lovette I.J., Mackenzie J. ^, Irwin DE. **2020**. Selection on a small genomic region underpins differentiation in multiple color traits between two warbler species. *Evolution Letters*.
- (4) **Wang S.***, Rohwer S., Delmore K., Irwin DE. **2019**. Cross-decades stability of an avian hybrid zone. *Journal of Evolutionary Biology*.
- (3) **Wang S.**, Sokolowski M. B.* **2017**. Aggressive behaviors, food-deprivation and the *foraging* gene.

- (2) **Wang S.***, Cummings M. E., Kirkpatrick M. A. **2015**. Coevolution of male courtship and sexual conflict characters in mosquitofish. *Behavioral Ecology*.
- (1) **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*.

Manuscripts in progress

Price S., Schumer M., **Wang S.**, Young R., Cummings M.* Individual variation in preference and affiliative behavior in sailfin fish refines the neurotranscriptomic pathway for mate preference. *Submitted*.

Wang S., Aldaimalani R.^, Nalley M.J., Chatla K., Bachtrog D. Parsing out snowball effect, large X effect, and inversion effect in introgression with comparative multi-generations hybrid swarms.

Wang S., Coop G., Stepwise divergence of genomic contributors of speciation.

ACADEMIC SERVICES

Leadership

- 2020-22 [Speciation & Introgression Webinar Series](#), organizer
i.e. **weekly** international zoom seminar-discussion group with over 470 researchers. Between **Jan. 2020 to Dec. 2021**, over 100 speakers were hosted to discuss scientific progress in speciation and/or introgression research.
- 2017-19 Biodiversity Seminar Committee, A/V coordinator, Biodiversity Research Center, UBC

Reviewer service

Auk, American Naturalist, Biology Letters, Genome Biology and Evolution, Integrative and Comparative Biology, Molecular Ecology, Scientific Reports, National Science Foundation Grant Proposal, Poland National Science Center Grant Proposal.

INVITED PRESENTATIONS

- 2021** Center of Theoretical Evolutionary Genomics seminar, UC Berkeley
- 2021** Museum Seminar Series, Museum of Natural Sciences, Louisiana State University
- 2021** Advances in the Study of Reproductive Isolation in birds Symposium (AOS meeting).
- 2021** Barton Group, Institute of Science and Technology Austria.
- 2021** Evolution, Genomics, Behavioral Ecology, French National Centre for Scientific Research.
- 2021** Evolution, Ecology, Genetics, and Genomics, University of Rochester.
- 2021** Center of Population Biology, UC Davis
- 2020** Population Genetics seminar, Duke University.
- 2020** Ornithology Discussion, University of New Mexico.
- 2019** Center of Theoretical Evolutionary Genomics seminar, UC Berkeley.
- 2019** Les Ecologistes seminar, Simon Fraser University.
- 2018** BLISS seminar, University of British Columbia.
- 2013** Lunch seminar, School of Geological Science, UT Austin.
- 2013** Brain, Behavior & Evolution (BBE) Seminar, UT Austin.
- 2013** Biology Department Seminar, University of Oklahoma.
- 2012** BBE Seminar, UT Austin.

ORAL PRESENTATIONS

- 2021 Speciation Introgression Discussion Group, Virtual
- 2021 American Ornithological Society (AOS) meeting, Virtual
- 2021 The Society for the Study of Evolution meeting, Virtual
- 2021 Population Genomics Journal Club, UC Berkeley, Virtual
- 2021 Annual Drosophila Research Conference, The Genetics Society of America, Virtual
- 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.
- 2012 Integrative Biology Graduate Symposium, UT Austin.
- 2011 American Ornithologists' Union, Jacksonville, FL, USA.

POSTERS (*best poster award)

- 2019* The Society for the Study of Evolution, Providence, RI, USA.
- 2018 Evo-Wibo Conference, Port Townsend, WA, USA.
- 2018 Evo-Eco Department Retreat, Brackendale, 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, Mississauga, ON, Canada.

AWARDS GRANTS & HONORS

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| 2019 | Ruth Patrick Student Poster Award, American Society of Naturalists | \$1,000 |
| 2019 | Zoology Travel Award, Department of Zoology, UBC | \$500 |
| 2019 | Best Talk Award, Eco-Evo Retreat, Brackendale, BC | |
| 2018-2019 | Zoology Graduate Fellowship, UBC | \$16,000 |
| 2018 | Gibson's citation, Green College, UBC | |
| 2018 | Best Poster Award, Zoology Graduate Spring Symposium | |
| 2018 | Graduate Student Travel Fund, UBC | \$500 |
| 2017 | Best Poster Award, Zoology Graduate Spring Symposium | |
| 2016 | Werner and Hildegard Hesse Research Award in Ornithology | \$2,500 |
| 2015-2018 | Postgraduate Scholarship D (PGS D) Natural Sciences and Engineering Research Council of Canada (NSERC) | \$63,000 |
| 2015 | Werner and Hildegard Hesse Research Award in Ornithology | \$3,500 |
| 2014 | Biodiversity Research: Integrative Training & Education Grant, UBC | \$4,000 |
| 2014 | R Howard Webster Foundation Fellowship, UBC | \$2,500 |
| 2014-2018 | Four Year Doctoral Fellowship, UBC | \$18,000 |
| 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, | |

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| | 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 | |

TEACHING/MENTORING EXPERIENCE

Teach assistance

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| • 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 |

Guest lecture

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| BIOL427: | Ornithology and Herpetology | 2019 Fall, 2021 Spring |
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Mentoring

Anton Pederson: 2012; Arvind Pillai: 2013; Korey Conley: 2013-14;
Ruth Midgley: 2015; Else Mikkelsen: 2016-17; Jacqueline Mackenzie: 2017; Reema Aldaimalani 2021

TEACHING SKILLS

Field ornithology: banding, mist-netting, measurements, blood and feather sampling, song recording and analyses, plumage pigment study, field behavioral experiments

Computational biology: coding and statistical analyses in R, spatial genomics, bioinformatics in Unix

Molecular lab: DNA or RNA extraction, library preparation

Scientific Illustration: data visualization, vector illustration, watercolor and pencil drawing poster and infographics

OUTREACH & SERVICES

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| 2021 | Breaking Language Barriers in Biodiversity Science, guest mentor, UC Berkeley |
| 2019 | Girls in Science Technology Engineering and Math (STEM), mentor, Templeton Secondary School, Vancouver |
| 2019 | Nature Illustration Club Coordinator, UBC |
| 2015-19 | Biodiversity Birding Group Coordinator, UBC |
| 2018 | Dining Society Treasurer, Green College, UBC |
| 2017-18 | Sustainability Committee, Chair, Green College, UBC |
| 2015-16 | Art Committee, Chair, Green College, UBC |

Public lectures

- On the Speciation of Species: the Fantastic Process Underlying Biodiversity, **Mar. 26th 2018**, Green College, UBC.
- The Hermit Expedition: Stories about the Habitat, Flora, Fauna and People in Northwest America, **Sep. 26th 2016**, Green College, UBC.
- 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. 16th 2015**, UBC.
- Sassy Tastes or Sexy Traits: Stories about Coevolution of Female Preference and Male Traits. Darwin's 203rd Birthday, **May 11th 2012**, Texas Memorial Museum

