

SILU WANG

Department of Zoology, UBC
6270 University Blvd.
Vancouver BC,
V6T 1Z4, Canada
<http://siluwang.weebly.com>

EDUCATION

PhD Zoology

University of British Columbia (UBC), expected 2019. Advisor: Darren Irwin

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

University of Texas at Austin (UT Austin), 2014

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

University of Toronto, *high distinction*, 2011

PUBLICATION

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. Delmore K. Irwin D. E. Cross-decades stability of an avian hybrid zone. *In review*.

Wang S. Rohwer S., de Zwaan D. R. Mackenzie J. Irwin D. E. Stable selection on a pleiotropic locus maintaining plumage variation in a warbler hybrid zone. [*Approved by advisor waiting to submit*].

Wang S. Ore M. Mikkelsen E. Rohwer S. Irwin D. E. Isolation, ancient hybridization, mitochondrial-nuclear concordance in coastal warbler populations. [*2nd round of editing*].

Wang S. de Zwaan D. R. Mackenzie J., Irwin D. E. Badges of status fades in a *Setophaga* hybrid zone. [*3rd round of editing*].

Wang S.* MacPherson A.* Otto S. P. Rieseberg L. Yamaguchi R. Irwin D. E. Parental population isolation and range expansion before secondary contact leads to greater hybrid relative fitness. (*these authors contributed equally to the project). [*outline completed*].

CONFERENCE PRESENTATIONS

Wang S. Mitochondrial-nuclear genetic concordance explains coastal-inland Townsend's Warbler population differentiation. 2019. *Eco-Evo Retreat*, Brackendale, BC, Canada. [Best Talk]

Wang S. Rohwer S. MacPherson A. Irwin D. E. 2018. Admixture mapping identifies a candidate gene, RALY, for warbler plumage. *International Ornithological Congress*, Vancouver, BC, Canada.

Wang S. & Irwin, D. E. 2017. The footprints of a moving *Setophaga* warbler hybrid zone. *The Society for the Study of Evolution*. Portland, OR. USA.

Wang S. & Irwin, D. E. 2017. Tracing the footprints of a moving *Setophaga* warbler hybrid zone. *Canadian Society for Ecology and Evolution*, Victoria, BC. Canada.

Wang S. & Irwin, D. E. 2016. The footprints of a moving *Setophaga* warbler hybrid zone: an analysis of

plumage and behavior over space and time. *North American Ornithological Congress*. Washington, DC, USA.

- Wang S.** Kenyon H. Alcaide M. Delmore K. Toews D. & Irwin D. E. 2015. Comparative population genomics in three *Setophaga* species: A revisit of ice-age speciation hypothesis. *American Ornithologists' Union & Cooper's Ornithological Society*, Norman, Oklahoma, USA.
- Wang S.** 2014. Breeding habitats and song structures shed light on evolutionary mechanisms of tinamou (Tinamidae, Tinamiformes) sexual dimorphisms. *International Ornithological Congress*. Tokyo, Japan.
- Wang S.** Cummings M. E. & Kirkpatrick M. 2014. Coevolution of male courtship and sexual conflict characters in mosquitofish. *American Society of Naturalists*. Pacific Grove, California, USA.
- Wang S.** Ramsey M. & Cummings M. E. 2014. Plasticity of the mate choice: a courter male evokes choice-like brain response in a coercive female. *Society for Integrative and Comparative Biology*, Austin, Texas, USA.
- Schumer M. E. **Wang S.** & Cummings M. E. 2014. Influences of mate preference behavior on patterns of brain gene expression in the sailfin molly *Poecilia latipinna*. *Society for Integrative and Comparative Biology*, Austin, Texas, USA.
- Wang S.** Peden A. & Cummings M. E. 2012. On coevolution of male courtship sequence and female mating characters in "coercive" *Gambusia*. *The Society for the Study of Evolution*, Ottawa, Ontario, Canada.
- Wang S.** & Cummings M. E. 2012. Evoking preference in female mosquito fish (*Gambusia Affinis*) by a novel male stimuli. *Animal Behavior Society*, Albuquerque, New Mexico, USA.
- Wang S.** 2011. Investigating Habitat Selection Hypothesis with three *Dendroica* warbler species. *American Ornithologists' Union*, Jacksonville, Florida, USA.

POSTERS

- Wang S.** Wang A. & Havelka M. 2010. *Ontario Biology Day*, Toronto, ON, Canada.
- Dionyssiou S. **Wang S.** & Weir A. 2010. *Crime Prevention Conference*, Mississauga, ON, Canada.
- Mikkelsen E. **Wang S.** & Irwin D. E. 2017. *Zoology Graduate Symposium*. Vancouver, BC, Canada.
- Matthey-Doret R. & **Wang S.** 2017. *Evolution Meeting*. Portland, OR, USA.
- Wang S.** Macpherson A., & Yamaguchi R. 2018. *Evo-Eco Retreat*. Blackendale, BC, Canada.
- Wang S.** Rohwer S. McPherson A. Mikkelsen E. Delmore K. & Irwin D.E. 2018. *Zoology Graduate Spring Symposium*. Vancouver, BC, Canada. [Best Poster]
- Wang S.** Rohwer S. McPherson A. Mikkelsen E. Delmore K. & Irwin D.E. 2018. *Evo-Wibo*. Port Townsend, WA, USA.

INVITED PRESENTATION

- Wang S.** 2013. Detecting coevolution between sexually-conflicting morphologies and courtship display in livebearer fish. Lunch seminar, School of Geological Science, UT Austin.
- Wang S.** Ramsey, M. & Cummings M. E. 2013. Plasticity of female mating bias. Brain, Behavior & Evolution (BBE) Seminar, UT Austin.
- Wang S.** 2013. Coercion, courtship and preference in livebearer fishes: two evolutionary secrets under neurogenetics and reproductive morphologies. Department Seminar, Oklahoma University.
- Wang S.** Cummings M. E. & Kirkpatrick M. 2012. The potential behavior byproduct of Sexually Antagonistic Coevolution (SAC): a case study in *Gambusia*. BBE Seminar, UT Austin.

Wang S. 2012. Food & “Ritual”: Aggressive Behavioral Transition Network in Fruit Flies. Integrative Biology Graduate Symposium, UT Austin.

AWARDS, GRANTS AND HONORS

- 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 (\$2500)
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 (\$3500)
2014 Biodiversity Research: Integrative Training & Education Grant, UBC (\$4000)
2014 R Howard Webster Foundation Fellowship, UBC (\$2500)
2014-2018 Four Year Doctoral Fellowship, UBC (\$18000)
2014 Student Travel grant, International Ornithological Congress (\$500)
2014 Travel grant, Ecology, Evolution and Behavior, University of Texas, Austin (\$1000)
2012-2013 Texas Ecolab Research Grant (\$3000)
2011 Student Travel Award, American Ornithologists’ Union (\$600)
2011 Ontario Graduate Scholarship, Ministry of Training,
Colleges and Universities of Ontario (\$6000)
2011 University of Toronto Excellence Award in the Natural Sciences and Engineering (\$5600)
2010-2011 Honor Roll in Department of Mathematical and Computational Sciences,
University of Toronto
2010 Student Membership Award, American Ornithologists’ Union (\$28)

PROGRAMMING EXPERIENCE

- R**: Population Genomics, Phylogenetics, Network Modeling, Frequentist & Bayesian statistics.
- UNIX**: Structural Equation Modeling with SAS; Genomic Analysis.
- Python**: Frequentist & Bayesian statistics related to bioinformatics.

TEACH-ASSISTANCE EXPERIENCE

- **BIOL336: Fundamentals of Evolution Biology**, UBC (Jan. - May 2018; Sep. - Dec. 2018).
- **BIO321: Introduction to Computational Biology**, UT Austin (Jan. - May 2014)
- **BIO370: Evolution**, UT Austin (Jan. - May 2012; June - Dec. 2013).
- **BIO311: Introductory Biology**, UT Austin (Sept. - Dec. 2012).
- **BIO206: Structure & Function of Organisms**, UT Austin (July - Sept. 2012).
- **BIO318: Biostatistics**, UT Austin (Sept. - Dec. 2011).
- **STA257: Probability and Statistics I**, University of Toronto (Sept. - Dec. 2010).
- **BIO329: Mammalian Biology (BIO329) field section**, University of Toronto (Sept. - Dec. 2009).

MENTORING EXPERIENCE

- | | |
|----------------------|-------------------------|
| Korey Conley | Fall 2013 |
| Ruth Midgley | Summer 2015 |
| Else Mikklesen | Summer 2016-Summer 2017 |
| Jacqueline Mackenzie | Summer 2017 |

OUTREACH

Community Service

2015-18	Biodiversity Birding Group, Group Coordinator, Biodiversity Research Center, UBC
2015-16	Art Committee, Co-chairing, 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
2019	Nature Illustration Club, Coordinator, Biodiversity Research Center, UBC
2019	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, **May 11th 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. 16th 2015**. UBC.
- The Hermits' Expeditions: Stories About The Habitat, Flora, Fauna And People In Northwest America. **Sep 26th 2016**. Green College. UBC.
- On the Speciation of Species: the fantastic process underlying biodiversity, **Mar. 26th 2018**. Green College, UBC.