

Alison Pischedda

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 Department of Biology
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EDUCATION

Ph.D. – Ecology, Evolution and Marine Biology <i>NSERC Postgraduate Scholar</i> University of California, Santa Barbara Advisor: William Rice	2010
M.Sc. – Biology Queen’s University, Kingston, Ontario, Canada Advisor: Adam Chippindale	2005
B.Sc. (Honours) – Biology First Class Standing Queen’s University, Kingston, Ontario, Canada Advisor: Adam Chippindale	2003
B.Sc. – Mathematics Queen’s University, Kingston, Ontario, Canada	2002

ACADEMIC AND RESEARCH APPOINTMENTS

Assistant Professor Department of Biology Barnard College, Columbia University	2017 – present
Visiting Scientist Department of Biological Sciences Mississippi State University	2016 – 2017
Postdoctoral Scholar Department of Ecology, Evolution & Marine Biology (EEMB) University of California, Santa Barbara Advisor: Thomas Turner	2010 – 2016
Research Assistant Department of Biology, Queen’s University Advisor: Adam Chippindale	2005 – 2006

PUBLICATIONS

Google Scholar Profile (562 citations, h-index = 9):

<https://scholar.google.com/citations?user=IlxmDREAAAJ&hl=en&oi=ao>

- Shahandeh MP, **Pischedda A** & Turner TL (2018) Male mate choice via cuticular hydrocarbon pheromones drives reproductive isolation between *Drosophila* species. Evolution 72: 123-135
- Pischedda A** & Chippindale AK (2017) Direct benefits of choosing a high fitness mate can offset the indirect costs associated with intralocus sexual conflict. Evolution 71: 1710-1718.
- Pischedda A**, Friberg U, Stewart AD, Miller PM & Rice WR (2015) Sexual selection has minimal impact on effective population sizes in species with high rates of random offspring mortality: an empirical demonstration using fitness distributions. Evolution 69: 2638-2647.
- Pischedda A**, Shahandeh MP, Cochrane WG, Cochrane VA[†] & Turner TL (2014) Natural variation in the strength and direction of male mating preferences for female pheromones in *Drosophila melanogaster*. PLoS ONE 9(1): e87509.
- Pischedda A** & Rice WR (2012) Partitioning sexual selection into its mating success and fertilization success components. PNAS 109: 2049-2053.
- Pischedda A**, Stewart AD & Little MK[†] (2012) Male x female interaction for a pre-copulatory trait, but not a post-copulatory trait, among cosmopolitan populations of *Drosophila melanogaster*. PLoS ONE 7(3): e31683.
- Pischedda A**, Stewart AD, Little MK[†] & Rice WR (2011) Male genotype influences female reproductive investment in *Drosophila melanogaster*. Proceedings of the Royal Society B 278: 2165-2172.
- Long TAF, **Pischedda A** & Rice WR (2010) Remating in *Drosophila melanogaster*: Are indirect benefits condition-dependent? Evolution 64: 2767-2774.
- Stewart AD*, **Pischedda A*** & Rice WR (2010) Resolving intralocus sexual conflict: Genetic mechanisms and time frame. Journal of Heredity 101: S94-S99.
*Co-first authors
- Long TAF, **Pischedda A**, Nichols RV[†] & Rice WR (2010) The timing of mating influences reproductive success in *Drosophila melanogaster*: implications for sexual conflict. Journal of Evolutionary Biology 23: 1024-1032.
- Long TAF, **Pischedda A**, Stewart AD & Rice WR (2009) A cost of sexual attractiveness to high-fitness females. PLoS Biology 7(12): e1000254.
- Pischedda A** & Chippindale AK (2006) Intralocus sexual conflict diminishes the benefits of sexual selection. PLoS Biology 4(11): e356.
- Long TAF & **Pischedda A** (2005) Do female *Drosophila melanogaster* adaptively bias offspring sex ratios in relation to the age of their mate? Proceedings of the Royal Society B 272: 1781-1787.

Pischedda A & Chippindale A (2005) Sex, mutation and fitness: asymmetric costs and routes to recovery through compensatory evolution. Journal of Evolutionary Biology 18: 1115-1122.

†Undergraduate co-author

NON PEER-REVIEWED PUBLICATIONS

Pischedda A, Cochrane VA, Cochrane WG & Turner TL. Genetic dissection of courtship song variation using the *Drosophila* Synthetic Population Resource. bioRxiv: <http://dx.doi.org/10.1101/006643>

FORTHCOMING MANUSCRIPTS

Pischedda A*, Shahandeh MP* & Turner TL. The loci of evolution: *Fas2* and *tilB* underlie differences in pupation site choice behavior between *Drosophila melanogaster* and *D. simulans*. *Under review*. bioRxiv preprint: <https://doi.org/10.1101/494013>

*Co-first authors

Shahandeh MP, **Pischedda A** & Turner TL. The genetic architecture of male pheromone preference difference between *Drosophila melanogaster* and *D. simulans*. *In revision*.

INVITED BOOK CHAPTERS

Pischedda A* & Stewart AD (2016) Sexual Conflict. In Kliman RM (ed.), Encyclopedia of Evolutionary Biology. vol 4. pp. 98-104. Oxford: Academic Press.

Stewart AD* & **Pischedda A** (2016) Intraspecific Coevolutionary Arms Races. In Kliman RM (ed.), Encyclopedia of Evolutionary Biology. vol 2. pp. 270-276. Oxford: Academic Press.

*Invited author

INVITED RESEARCH TALKS

Conference Presentations

2013 “Battle of the Sexes”. Indo-American Kavli Frontiers of Science Symposium (US National Academy of Sciences). Agra, India.

Invited Talks

2018 Barnard College, Summer Research Institute Faculty Seminar
2018 Columbia University, Integrative Animal Behavior Seminar
2017 Mississippi State University, Department of Biological Sciences Seminar
2017 Texas A&M University, Department of Biology Seminar
2016 University of Missouri, Division of Biological Sciences Seminar
2016 Central Florida University, Department of Biology Seminar
2015 California State University Fresno, Department of Biology Seminar
2014 Cornell University, Department of Neurobiology and Behavior Seminar
2013 IISER Mohali (India), Department of Biological Sciences Seminar

CONFERENCE PRESENTATIONS

Contributed Talks:

- 2011 Evolution (Society for the Study of Evolution Annual Meeting). Norman, OK.
- 2010 Western Evolutionary Biologists Annual Meeting. Irvine, CA.
- 2009 Western Evolutionary Biologists Annual Meeting. Berkeley, CA.
- 2006 Evolution (Society for the Study of Evolution Annual Meeting). Stony Brook, NY.
- 2006 Ontario Ecology and Ethology Colloquium. St. Catharines, Ontario, Canada.
- 2004 Evolution (Society for the Study of Evolution Annual Meeting). Fort Collins, CO.
- 2004 Ontario Ecology and Ethology Colloquium. Mississauga, Ontario, Canada.

Contributed Posters:

- 2016 Evolution (Society for the Study of Evolution Annual Meeting). Austin, TX.
- 2014 Drosophila Research Conference (Genetics Society of America). San Diego, CA.
- 2012 Evolution (Society for the Study of Evolution Annual Meeting). Ottawa, Canada.
- 2006 Canadian Society for Ecology and Evolution Annual Meeting. Montreal, Canada.

TEACHING EXPERIENCE

Barnard College: Course Instruction

Senior Thesis Research	2017-2019
Guided Research and Seminar	2017-2019
Animal Behavior	2018
Laboratory in Animal Behavior	2018

University of California, Santa Barbara: Course Instruction

Research Immersion in Molecular Biosciences	2013, 2014
Introduction to Research in the Life Sciences	2010

Guest Lectures and Teaching Assistantships

University of California, Santa Barbara

Guest Lecturer: Molecular Evolution	2012 – 2014
Guest Lecturer: Introduction to Research in the Life Sciences	2007 – 2009, 2013
Teaching Assistant: Principles of Evolution	2008 – 2010
Teaching Assistant: Advanced Biostatistics (graduate-level course)	2008, 2009

Queen's University, Canada:

Teaching Assistant: Evolutionary and Population Genetics	2004 – 2006
Teaching Assistant: Biology of Sex	2005
Teaching Assistant: Data Management & Analysis	2003 – 2004

GRANTS, FELLOWSHIPS AND RECOGNITION

For convenience in this section, I treat Canadian and American dollars as equivalent.

Small Research Grants

UCSB EEMB Research Grant (\$450)	2010
Sigma Xi Grant-in-Aid of Research (\$1,000)	2008
UCSB Science and Engineering Research Grant (\$1,000)	2008
UCSB Undergrad Research & Creative Activities Grant (with R. Nichols; \$420)	2008
UCSB EEMB Research Grant (\$477)	2008

Fellowships*External:*

Genetics Society of America DeLill Nasser Award (\$1,000)	2012
NSERC (Natural Sciences and Engineering Research Council of Canada) Postgraduate Scholarship – Doctoral – International (\$63,000)	2006
NSERC Canadian Graduate Scholarship – Doctoral (Valid for Canadian tenure only; \$105,000 – Declined)	2006

Internal:

UCSB Doreen J. Putrah Conference Fellowship (\$1,000)	2012
UCSB Rosati Dissertation Fellowship in Science & Engineering (\$10,025)	2010
UCSB Faculty Women’s Club Broida-Hirschfelder Fellowship (\$8,000)	2009
UCSB EEMB Fee Fellowship (\$7,060)	2009
UCSB Worster Award for Undergraduate Mentoring (with R. Nichols; \$6,000)	2008
UCSB EEMB Block Grant (\$24,313)	2006
UCSB EEMB Regents Graduate Fellowship (\$1,825)	2006
Queen’s University Graduate Student Conference Award (\$1,000)	2004
Queen’s University Graduate Award (\$8,000)	2003, 2004

Awards and Honors

U.S. National Academy of Sciences Kavli Frontiers of Science Fellow <i>Awarded to “outstanding young scientists” by the US NAS</i>	2013, 2015
UCSB Lancaster Dissertation Award in Biological/Life Sciences <i>Best Ph.D. dissertation in the life sciences from 2009-2011</i>	2011
Queen’s University Department of Biology M.Sc. Thesis Prize <i>Best M.Sc. thesis in Biology for 2005-2006</i>	2006
Queen’s University Dean’s Honour List	2003

MEDIA COVERAGE

“Sperm Wars and Sexual Conflict: The evolutionary consequences of promiscuity”. Outreach talk presented at Santa Barbara Museum of Natural History Science Pub, Santa Barbara, CA.

“Fruit fly walks into a bar...” [The Last Word on Nothing](#)

“Beer science: Santa Barbara Museum of Natural History hosts monthly Science Pub at Dargan’s” [Santa Barbara News Press](#)

Pischedda A & Rice WR (2012) Partitioning sexual selection into its mating success and fertilization success components. [Proceedings of the National Academy of Sciences](#) 109: 2049-2053.

“The key to reproductive success: Coming last” [J. Experimental Biology: Outside JEB](#)

“The relative importance of pre and postcopulatory sexual selection” [PNAS In This Issue](#)

“Pischedda A & Rice WR. How much sexual selection occurs after mating?” Contributed conference talk presented at Evolution 2011, University of Oklahoma, Norman, OK.

“Why the best male doesn’t always win” [ScientificAmerican.com](#)

Long TAF, Pischedda A, Stewart AD & Rice WR (2009) A cost of sexual attractiveness to high fitness females. [PLoS Biology](#) 7(12): e1000254.

“Feminine beauty can be a curse” [Australian Broadcasting Corporation Science News](#)

“Some females too sexy for own good, fly study says” [National Geographic News](#)
 “I’m too sexy for my species” [ScienceNOW](#)

Pischedda A & Chippindale AK (2006) Intralocus sexual conflict diminishes the benefits of sexual selection. PLoS Biology 4(11): e356.

“Do beautiful people always have beautiful babies?” [Popular Science](#) February 2007.

“Good mothers have bad sons” [Nature Reviews Genetics](#) December 2006.

“Most desirable mates may not sire prolific offspring” [ScientificAmerican.com](#)

“Sexiest parents deliver average offspring” [New Scientist](#)

“Sexual conflict opposes sexual selection” [The Scientist](#)

“Sexual selection comes at a cost” [PLoS Biology](#) (Synopsis)

Long TAF & Pischedda A (2005) Do female Drosophila melanogaster adaptively bias offspring sex ratios in relation to the age of their mate? Proc. of the Royal Society B 272: 1781-1787.”

“Why young lovers have sons” [ScienceNOW](#)

MENTORSHIP, SERVICE AND OUTREACH

Barnard College Undergraduate Mentorship & Supervision

<i>Student</i>	<i>Years</i>
Ana-Maria Rodriguez Cuadrado	2018 – present
Abigail Gutierrez	2018 – present
Taylor Leong	2018 – present
Suriya Lisa	2018 – present
Nushrat Chowdhury	2018
Stacy Kanellopoulos	2018
Veronica Kovalcik	2018

Independent Project Supervision

Suriya Lisa (Neuroscience and Behavior Senior Thesis, 2018-2019)

UCSB Undergraduate Mentorship & Supervision

<i>Student</i>	<i>Years</i>	<i>Current position</i>
Sayeh Akhavan	2015 – 2016	Clinical Researcher, Valley Children’s Hospital
Alexandra Lamoureux	2014 – 2016	Lab Operations, Invitae Genetic Testing
Nastaran Hosseinipour	2014 – 2015	Ophthalmology Scribe, Los Angeles
Susanne Tilk	2013 – 2014	PhD Student, Stanford University
Lauren Leahy	2011 – 2012	Researcher, Monterey Bay Aquarium
Taylor James	2011 – 2012	Resident Physician, Georgetown University
Jaime Guzman	2011 – 2012	Research Assistant, Univ. of California Riverside
Melissa Maher	2011 – 2012	Analytical Chemist, Simbol Materials
Veronica Cochrane	2010 – 2011	PhD Student, Oregon Health & Science University
Monica Little	2008 – 2011	Senior Regulatory Affairs Associate, Amgen
Jenna Castle	2008 – 2009	Adjunct Faculty, MiraCosta College & Mesa CC
Selkat deJong	2008 – 2009	Sheriff’s Fingerprint Examiner, San Diego Sheriff
Stephanie Roy	2008 – 2010	Master’s Student, Loyola Marymount University
Juliet Oshiro	2008	PhD Student, University of California Santa Cruz
Ruth Nichols	2008	Senior Scientist, Sirona DX

Journal Peer Review

American Naturalist	Molecular Ecology
Animal Behaviour	Nature Communications
BMC Evolutionary Biology	Nature Ecology & Evolution
Ecology and Evolution	Oikos
Evolution	PLoS Genetics
Journal of Ethology	PLoS ONE
Journal of Evolutionary Biology	Proceedings of the Royal Society B
Journal of Experimental Biology	Scientific Reports

Grant Review

National Science Foundation
 Division of Environmental Biology – Evolutionary Ecology (full proposal)

Service and Outreach*Barnard College Service*

Cellular and Molecular Lecturer Search Committee (Biology Department)	2019
Organismal and Physiology Lecturer Search Committee (Biology Department)	2019
Computational Biology Search Committee (Biology Department)	2018
Microbiology Search Committee (Biology Department)	2018
Faculty Teller	2017 – 2018

Broader Service

Indo-American Kavli Frontiers of Science Symposium (US NAS) Organizing Committee. Irvine, CA	2015
UCSB EEMB Departmental Seminar Coordinator	2007 – 2009

Outreach

Invited Speaker, Barnard College From the Faculty Lounge Series	2018
Invited Speaker: UCSB SACNAS (Society for Advancement of Hispanics/Chicanos and Native Americans in Science)	2014
Invited Guest: “Tech Talk”. KZSB-AM 1290, Santa Barbara News Press Radio	2012
Invited Speaker: Santa Barbara Museum of Natural History Science Pub	2012
Volunteer Scientist: Let’s Talk Science Partnership Program	2004 – 2005