

CURRICULUM VITAE

David W. Kikuchi

April 2020

Wissenschaftskolleg zu Berlin
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EDUCATION AND TRAINING

University of Arizona • Tucson, AZ

2016 – 2019 Postdoctoral Researcher
Mentor: Anna Dornhaus

Carleton University • Ottawa, ON | University of Jyväskylä • Jyväskylä, Finland

2014 – 2015 NSF Postdoctoral Fellowship
Mentor: Thomas Sherratt
Mentor: Johanna Mappes

University of North Carolina • Chapel Hill, NC

2013 Ph. D. in Biology
Mentor: David Pfennig

University of Illinois • Urbana, IL

2006 BSc *cum laude* in Biology, Chemistry and Creative Writing
Thesis: High Distinction
Mentor: Patrick Weatherhead

EMPLOYMENT

2019-2020 Fellowship at the Wissenschaftskolleg zu Berlin (Institute for Advanced Study). International award typically offered to senior researchers. In collaboration with Johanna Mappes, Marie Herberstein, and Robert Holt.

RESEARCH AWARDS

2019-2020 Focus group fellowship at the Wissenschaftskolleg zu Berlin

2016-2019 PERT Postdoctoral Fellowship funded through NIH

2017 Center for Insect Science (University of Arizona) Seed Grant for "Integrative Education Mentoring in Higher Education" (\$10,000; Mays Imad as co-PI)

2014-15 NSF Postdoctoral Fellowship (\$140,000)

2011-13 NSF Doctoral Dissertation Improvement Grant (\$15,000)

2010-13 NSF Graduate Research Fellowship

2008-13 Caroline H. and Thomas S. Royster, Jr. Fellowship

2011	SSE Outreach Award (\$800; with Segundo Crespo as co-PI)
2010	Sigma Xi Grant-in-Aid-of-Research (\$800)
2009	Theodore Roosevelt Memorial Grant (\$1,000)
2007-08	US Student Fulbright Grant – Peru (\$14,013.20)
2006	High Distinction for thesis
2006	Integrative Biology Distinction Award (\$400)
2004-05	Undergraduate Mentoring in Environmental Biology Fellow

PUBLICATIONS (* *undergraduate co-author*, † *graduate student co-author*, ‡ *equal contribution*, OA = *in Open Access journal or repository*)

PEER-REVIEWED

27. **Kikuchi, D. W.** ‡, S. J. Waldron‡, J. K. Valkonen, S. Dobler, J. Mappes. *in press*. Biased predation promotes convergence yet maintains diversity within Müllerian mimicry rings. *Journal of Evolutionary Biology* [OA]
26. Russell, A. L., **D. W. Kikuchi**, N. W. Giebink†, D. R. Papaj. *in press*. Keeping them honest: constraints on signal detection limit cheating in a system of intersexual floral mimicry. *Philosophical Transactions of the Royal Society B*
25. McLean, J. D. †, G. Cassis, G. Giribet, **D. W. Kikuchi**, M. E. Herberstein. 2019. Insincere flattery? Understanding the evolution of imperfect mimicry. *Quarterly Review of Biology*. 94:395-415
24. Akcali, C. K. †, H. A. Pérez Mendoza, **D. W. Kikuchi**, D. W. Pfennig. 2019. The role of multiple models in the evolution of imprecise mimicry: an experimental test. *Proceedings of the Royal Society B*: 298:20191519
23. **Kikuchi, D. W.**, A. Dornhaus, V. Gopeechund*, and T. N. Sherratt. 2019. Signal categorization by foraging animals depends on ecological diversity. *eLife* 8:e43965 [OA]
22. Akcali, C. K. †, H. A. Pérez Mendoza, D. Salazar-Valenzuela, **D. W. Kikuchi**, J. M. Guayasamin, D. W. Pfennig. 2019. Evaluating the utility of camera traps in field studies of predation. *PeerJ* 7:e6487 [OA]
21. **Kikuchi, D. W.**, G. H. Kattan, and K. C. Navarro-Vélez*. 2019. A continent-scale test of multiple hypotheses on the abundances of Neotropical birds. *Oikos* 128:235-244
20. **Kikuchi, D. W.** and A. Dornhaus. 2018. How cognitive biases select for imperfect mimicry: a study of asymmetry in learning with bumblebees. *Animal Behaviour* 144:125-134
19. Akcali, C. K. †, **D. W. Kikuchi**, and D. W. Pfennig. 2018. Coevolutionary arms races in Batesian mimicry? A test of the chase-away hypothesis. *Biological Journal of the Linnean Society* 124:668-676 [OA]

18. Archis, J. *, C. K. Akcali†, B. L. Stuart, **D. W. Kikuchi**, and A. C. Chunco. 2018. Is the future already here? The impact of climate change on the distribution of the eastern coral snake (*Micrurus fulvius*). *PeerJ* 6:e4647 [OA]
 17. **Kikuchi, D. W.**, G. H. Kattan, C. Murcia, and F. Montealegre. 2017. Endless forms most camouflaged: katydid that masquerade as moss. *Ecology* 98:2479-2481 [OA]
 16. **Kikuchi, D. W.**, J. Mappes, T. N. Sherratt, and J. K. Valkonen. 2016. Selection for multicomponent mimicry: equal feature salience and variation in preferred traits. *Behavioral Ecology* 27:1515-1521 [OA]
 15. Kattan, G. H., M. C. Muñoz†, and **D. W. Kikuchi**. 2016. Population densities of curassows, guans, and chachalacas (Cracidae): effects of body size, habitat, season, and hunting. *The Condor: Ornithological Applications* 118:24-32
 14. Sherratt, T. N., E. Whissell*, R. J. Webster, and **D. W. Kikuchi**. 2015. Hierarchical overshadowing of stimuli and its role in mimicry evolution. *Animal Behavior* 108:73-79
 13. **Kikuchi, D. W.** and T. N. Sherratt. 2015. Costs of learning and the evolution of mimetic signals. *American Naturalist* 186:321-332
 12. **Kikuchi, D. W.**, G. Malick*, R. J. Webster, E. Whissell*, and T. N. Sherratt. 2015. An empirical test of two-dimensional signal detection theory applied to Batesian mimicry. *Behavioral Ecology* 26:1226-1235
 11. Pfennig, D. W., C. K. Akcali†, and **D. W. Kikuchi**. 2015. Mimicry promotes pre- and post-mating isolation in a snake mimicry complex. *Evolution* 69:1085-1090
 10. **Kikuchi, D. W.**, B. W. Seymoure†, and D. W. Pfennig. 2014. Mimicry's palette: widespread use of conserved pigments in the aposematic signals of snakes. *Evolution & Development* 16:61-67
- Cover article**
9. Titcomb, G. C.* , **D. W. Kikuchi**, D. W. Pfennig. 2014. More than mimicry? Evaluating scope for flicker-fusion as a defensive strategy in coral snake mimics. *Current Zoology* 60:123-130 [OA]
 8. **Kikuchi, D. W.** and D. W. Pfennig. 2013. Imperfect mimicry and the limits of natural selection. *Quarterly Review of Biology* 88:297-315
 7. Pfennig, D. W. and **D. W. Kikuchi**. 2012. Competition and the evolution of imperfect mimicry. *Current Zoology* 58:608-619 [OA]
 6. **Kikuchi, D. W.** and D. W. Pfennig. 2012. A Batesian model and its mimic share color production mechanisms. *Current Zoology* 58:658-667 [OA]
 5. **Kikuchi, D. W.** and D. W. Pfennig. 2012. Mimicry. In Oxford Bibliographies Online: Ecology. Ed. David Gibson. New York: Oxford University Press.
 4. **Kikuchi, D. W.** and D. W. Pfennig. 2010. Predator cognition permits imperfect coral snake mimicry. *American Naturalist* 176:830-834
- Subject of an article in ScienceNow ("Snakes lie to save their skin")**

Subject of an article in *La Recherche* (“Mentir mais pas trop”)

3. **Kikuchi, D. W.** and D. W. Pfennig. 2010. High model abundance may permit the gradual evolution of Batesian mimicry: an experimental test. *Proceedings of the Royal Society B* 277:1041-1048 [OA]
2. **Kikuchi, D. W.** 2009. Terrestrial and understorey insectivorous birds of a Peruvian cloud forest: species richness, abundance, density, territory size and biomass. *Journal of Tropical Ecology* 25:523-529
1. **Kikuchi, D. W.**, E. Lasso, J. W. Dalling, and N. Nur. 2007. Pollinators and pollen dispersal of *Piper dilatatum* (Piperaceae) on Barro Colorado Island, Panama. *Journal of Tropical Ecology* 23:603-606

OTHER PUBLICATIONS

Pfennig, D. W. and **D. W. Kikuchi**. 2012. Life imperfectly imitates life. *Nature* 483:410-411
Invited News & Views article

Kikuchi, D. W. 2007. Population trends from counts of migrating raptors at Bake Oven Knob, Pennsylvania, 1992-2005. *American Hawkwatcher* 32:8-15

TEACHING AND MENTORSHIP

GRADUATE STUDENT COMMITTEES

Christopher Akcali (Ph. D. from UNC-Chapel Hill 2019)

THESES EXAMINED

Donald James McLean (MSc. from Macquarie University, Australia 2018)

UNDERGRADUATE STUDENTS (PRIMARY MENTOR)

§ denotes Honors student

University of Arizona

Jak Kearsley	2018-current
Andrea Mason	2016-19
Mohammad Safdar	2019
Tristan Meyer Owens	2019
Steven Hsu	2016-17
Maddie Birr	2016
Shannon McGlaughlin	2016

Carleton University

Sofia Jain-Schlaepfer §	2015 – Now a graduate student at James Cook University
Yinmin Ou §	2015

University of North Carolina at Chapel Hill

Bradley Allf §	2012-2013 – Now a graduate student at NCSU
Georgia Titcomb §	2012-2013 – Now a graduate student at UC Santa Barbara
Townsend Haynes	2012
Antonio Serrato	2011 – Now a postdoc at Harvard
Saige Clark	2009-2010
Allison Bailey	2010
Wendell Juliantius	2010
Elizabeth Christenson	2009
Yong Choi	2009
Rebecca Searles	2009
Ge Zhang	2009

TEACHING

Instructor of Record

2017 Bio 100: Introductory Biology for Non-majors (Pima Community College)

Guest Lectures

2016 Ecol 487/587: Animal Behavior (University of Arizona)

2014 BIOL 3612: Computational Methods in Ecology & Evolution (Carleton University)

BIOL 3609: Evolutionary Concepts (Carleton University)

2013 BIOL 514: Evolution and Development (UNC-Chapel Hill)

Teaching Assistantships

2010 BIO 471: Evolutionary mechanisms (UNC-Chapel Hill)

2009 BIO 201: Introduction to evolution and ecology (UNC-Chapel Hill)

TALKS AND PRESENTATIONS

INVITED TALKS

2020 Research Seminar. Universität Hamburg, Hamburg, Germany

2019 Research Seminar. Cornell University, Ithaca, New York
Research Seminar. University of California-Santa Barbara, Santa Barbara, California

2017 Research Seminar. Universidad Javeriana, Cali, Colombia
Introductory Statistics. Universidad Javeriana, Cali, Colombia (in Spanish)

2013 North Carolina Congress of Herpetology, Asheboro, North Carolina

- 2011 UNC Biology Department Symposium, Chapel Hill, North Carolina
Speaker elected by the graduate student body to represent the department.
- 2010 Behavioral, Population, and Community Ecology Seminar, Duke University, Durham, North Carolina
Research in Progress Seminar, East Carolina University, Greenville, North Carolina

TALKS AT MAJOR MEETINGS

* indicates an international society meeting, other meetings are national-level

- 2019 ABS 2019, Chicago, IL
* ESEB 2019, Turku, Finland
- 2018 * ISBE 2018, Minneapolis, MN
ABS 2018, Milwaukee, WI
- 2017 Evolution 2017, Portland, OR
- 2016 Evolution 2016, Austin, TX
ABS 2016, Columbia, MO
- 2015 * Evolution 2015, Guarujá, Brazil
- 2014 ABS 2014, Princeton, New Jersey
Evolution 2014, Raleigh, North Carolina
- 2013 * IEC 2013, Newcastle, England
- 2012 * Evolution 2012, Ottawa, Canada
SICB 2012, Charleston, South Carolina
- 2011 * ESEB 2011, Tübingen, Germany
- 2010 Evolution 2010, Portland, Oregon
- 2008 VII Congreso Nacional de Ornitología, Piura, Peru

OUTREACH, PROFESSIONAL DEVELOPMENT, AND TRAINING IN EDUCATION

- 2018 “Designing Classroom Environments that Facilitate Student Learning and the Development of Discipline Fluency” workshop (University of Arizona)
“Addressing Implicit Bias in the Academy” workshop (University of Arizona)
Tour for Arizona Science, Engineering, and Math Scholars (a program for underrepresented minority undergraduates at University of Arizona)
Volunteer at Science Night, Desert Shadows Middle School, Nogales, AZ
- 2017 PERT Pedagogy Workshop on Active Learning in the Classroom
IRACDA Conference 2017, Birmingham, AL
- 2016 Ecology and Evolutionary Biology Dept. Wikipedia Edit-a-thon, 2nd Place Prize for

editing pages in the category “Evolutionary Biology” (\$50)
Volunteer for University of Arizona “Insect Fest” outreach event
Attended IRACDA Conference 2016, Tucson, AZ

- 2014 “Experiencing Evolution” professional development workshop
- 2012 Completed course, “Entering Mentoring Curriculum”, by WPST and HHMI
Outreach presentation at North Carolina State Museum for Darwin Day
Poster contributed to UNC “Life as Art” festival
- 2011 Developed and implemented the outreach workshop, “Biodiversity and the Dry Forest,” for secondary school students in Peru (with Segundo Israel Crespo More)

PROFESSIONAL SERVICE

SOCIETY MEMBERSHIP

- American Society of Naturalists (ASN; member since 2018)
- Animal Behavior Society – member (ABS; since 2009)
Reviewer for ABS Student Research Grants (2015, 2016, 2017, 2018)
- International Society for Behavioral Ecology (ISBE; member since 2020)
- Society for the Study of Evolution – member (SSE; since 2010)
- Society for Integrative and Comparative Biology – member (SICB; since 2009)

REVIEWING

Reviewer for *The American Naturalist*, *Animal Behavior*, *Behavioral Ecology*, *Behavioral Ecology and Sociobiology*, *Biological Journal of the Linnean Society*, *Biotropica*, *BMC Zoology*, *Current Zoology*, *Ecology*, *Ecology Letters*, *Ecology and Evolution*, *eLife*, *Ethology*, *Evolution*, *Evolutionary Ecology*, *Functional Ecology*, *Global Ecology and Biogeography*, *Journal of Evolutionary Biology*, *Journal of Experimental Biology*, *Journal of Animal Ecology*, *Journal of Herpetology*, *Journal of Zoology*, *Marine Ecology Progress Series*, *Nature Communications*, *Oecologia*, *Organisms Diversity and Evolution*, *PeerJ*, *PLoS Computational Biology*, *PLoS One*, *Proceedings of the Royal Society-B*, *Scientific Reports*, *The Southwestern Naturalist*, *Tropical Conservation Science*

LANGUAGES

- Spanish (advanced spoken and written)
- German (intermediate spoken and written)