

# AMBIKA KAMATH

Assistant Professor, Department of Ecology and Evolutionary Biology  
University of Colorado Boulder, Boulder CO, USA.

## EDUCATION

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- 2011-2017**    **Harvard University**  
Ph.D. in Organismic and Evolutionary Biology. Advisor: Dr. Jonathan Losos  
*Thesis Title: Phenotypic Variation and the Behavioral Ecology of Lizards*
- 2007-2011**    **Amherst College**  
B.A. *summa cum laude* in Biology. Advisor: Dr. Jill Miller  
*Thesis Title: The evolution of floral morphology accompanying the transition from cosexuality to gender dimorphism in Lycium californicum (Solanaceae)*
- 2012, 2009**    **Organization for Tropical Studies**  
Costa Rica Graduate Course in Tropical Biology  
South Africa Semester in Ecology and Conservation

## APPOINTMENTS

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- 2021-**            **University of Colorado Boulder**  
**Department of Ecology and Evolutionary Biology**  
Assistant Professor.
- 2018-2021**    **Miller Institute for Basic Research in Science,**  
**University of California Berkeley**  
Post-doctoral Fellow. Faculty Host: Dr. Damian Elias
- 2017-2018**    **University of California, Santa Barbara**  
Post-doctoral Researcher. Advisor: Dr. Jonathan Pruitt

## PUBLICATIONS

(\* indicates undergraduate mentee; § indicates equal contribution)

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1. **Kamath, A**, B Velocci, A Wesner, N Chen, V Formica, B Subramaniam, and M Rebolleda-Gómez. *In Revision*. Nature, Data, and Power: How Hegemonies Shaped this Special Section. *Invited Editorial in American Naturalist*.
2. Herrmann, NC, JB Losos, and **A Kamath**. *In Revision*. Ecological release analyzed among individuals, across two generations, and along multiple niche axes in *Anolis carolinensis*. *Breviora*.
3. Sun, Y\*, EE Brandt, DO Elias, M Rosenthal, and **A Kamath**. 2021. Jumping spiders (*Habronattus clypeatus*) exhibit substrate preferences that only partially maximize vibration transmission efficiency. *Journal of Insect Behavior*.

4. Stuart, YE, JW Sherwin, **A Kamath**, and T Veen. 2021. Together apart: male and female *Anolis carolinensis* maintain their dimorphism despite the novel presence of interspecific competition. *Evolution*.
5. Johnson, MA<sup>§</sup>, **A Kamath**<sup>§</sup>, R Kirby, CC Fresquez, S Wang, CM Stehle, AR Templeton, and JB Losos. 2021. What determines paternity in wild lizards? Analyses through territorial and non-territorial lenses. *Integrative and Comparative Biology*.
6. Perez-Martinez, CA\*, **A Kamath**, A Herrel, and JB Losos. 2021 The anoles of La Selva: Niche partitioning and ecomorphology in a mainland community of *Anolis* lizards. *Breviora* 570.
7. Duffy, MA, C Garcia-Robledo, S Gordon, NA Grant, DA Green II, **A Kamath**, RM Penczykowski, M Rebolleda Gomez, N Wale, and L Zaman. 2021. Model systems in ecology, evolutionary biology, and behavior: A call for diversity in our model systems and discipline. *American Naturalist* 198. doi: 10.1086/714574
8. **Kamath**, A<sup>§</sup>, NC Herrmann<sup>§</sup>, K Gotanda, KC Shim, J LaFond, G Cottone, H Falkner, TS Campbell, and YE Stuart. 2020. Character displacement in the midst of background evolution in island populations of *Anolis* lizards: A spatiotemporal perspective. *Evolution* 74: 2250-2264. doi:10.1111/evo.14079
9. **Kamath**, A, CE McDonough, JD Monk, MR Lambert, E Giglio. 2020. A. Kamath et al. reply [Considering ancestral evolutionary context lends new perspective to contemporary variation in sexual behaviour]. *Nature Ecology and Evolution* doi: 10.1038/s41559-020-1188-4.
10. **Kamath**, A. 2020. *Territoriality*. In *Oxford Bibliographies Online*. doi: 10.1093/OBO/9780199830060-0230
11. **Kamath** A, and AB Wesner. 2020. Animal territoriality, access, and property: A collaborative exchange between behavioral ecology and the social sciences. *Animal Behaviour* 164: 233-239. doi: 10.1016/j.anbehav.2019.12.009
12. Monk JM<sup>§</sup>, E Giglio<sup>§</sup>, **A Kamath**<sup>§</sup>, MR Lambert<sup>§</sup>, and CE McDonough<sup>§</sup>. 2019. An alternative hypothesis for the evolution of same-sex sexual behaviour in animals. *Nature Ecology and Evolution* doi: 10.1038/s41559-019-1019-7
13. Moon R\*, and **A Kamath**. 2019. Re-examining habitat use and escape behavior as correlates of dorsal pattern variation in female brown anole lizards, *Anolis sagrei* (Squamata: Dactyloidae). *Biological Journal of the Linnean Society* 126: 783-795.
14. **Kamath** A, S Primavera\*, CM Wright, GN Doering, KA Sheehy\*, N Pinter-Wollman, and JN Pruitt. 2018. Collective behavior and colony persistence of social spiders depends on their physical environment. *Behavioral Ecology* 30: 39-47.
15. Knowlton E, and **A Kamath**. 2018. Ants do not traverse the silk of adult female *Nephila clavipes* (Linnaeus) webs. *Neotropical Entomology*. doi.org/10.1007/s13744-018-0631-6
16. Doering GN, **A Kamath**, CM Wright, and JN Pruitt. 2018. Worker size is associated with foraging surface in the African ant *Anoplolepis custodiens*. *Insectes Sociaux* doi.org/10.1007/s00040-018-0645-4
17. Donihue CM, A Herrel, A-C Fabre, **A Kamath**, AJ Geneva, TW Schoener, JJ Kolbe, and JB Losos. 2018. Hurricane-induced adaptive shifts in the morphology of an island lizard. *Nature* 560: 88-91.

18. **Kamath A**, and JB Losos. 2018. Reconsidering territoriality is necessary for understanding *Anolis* mating systems. *Behavioral Ecology and Sociobiology* 72: 106.
19. **Kamath A**, and JB Losos. 2018. Estimating encounter rates as the first step of sexual selection in the lizard *Anolis sagrei*. *Proceedings of the Royal Society B* 285: 1873.
20. Lichtenstein JLL, GT Chism, **A Kamath**, and JN Pruitt. 2017. Higher intraindividual behavioral variability predicts foraging outcome in a beach-dwelling jumping spider. *Scientific Reports* 7: 18063.
21. **Kamath A**, and JB Losos. 2017. The erratic and contingent progression of research on territoriality: a case study. *Behavioral Ecology and Sociobiology* 71: 89.
22. **Kamath A**, and JB Losos. 2017. Does ecological specialization transcend scale? Habitat partitioning among individuals and species of *Anolis* lizards. *Evolution* 71: 541-549.
23. **Kamath A**, RA Levin, and JS Miller. 2017. Floral size and shape evolution following the transition to gender dimorphism. *American Journal of Botany* 104: 451-460.
24. Brown, H, **A Kamath**, and M Rubega. 2017. Facilitating discussions about privilege among future conservation practitioners. *Conservation Biology* 31: 727-730.
25. **Kamath A**. 2016. Ornament morphology varies with display behaviour and sexual size dimorphism, but not habitat, in the fan-throated lizard (*Sitana*, Agamidae). *Journal of Herpetology* 50 (3): 394-403.
26. **Kamath, A**, and R Sreekar. 2016. Morphology, ecology, and behavior of *Hylarana intermedia*, a Western Ghats frog. *Acta Herpetologica* 11 (1): 15-20.
27. Miller, JS, **A Kamath**, BC Husband, and RA Levin. 2016. Correlated polymorphism in cytotype and sexual system within a monophyletic species, *Lycium californicum*. *Annals of Botany* 117: 307-317.
28. **Kamath, A**. and YE Stuart. 2015. Movement rates of the lizard *Anolis carolinensis* in the presence and absence of *Anolis sagrei*. *Breviora* 546: 1-7.
29. **Kamath, A**, YE Stuart, and TS Campbell. 2013. Behavioral partitioning by the native lizard *Anolis carolinensis* in the presence and absence of the invasive *Anolis sagrei* in Florida. *Breviora* 535: 1-10.
30. Miller JS, **A Kamath**, J Damashek, and RA Levin. 2011. Out of America to Africa or Asia: Inference of dispersal histories using nuclear and plastid DNA and the *S-RNase* self-incompatibility locus. *Molecular Biology and Evolution* 28: 793-801.
31. Miller JS, **A Kamath**, and RA Levin. 2009. Do multiple tortoises equal a hare? The utility of nine noncoding plastid regions for species-level phylogenetics in Tribe Lycieae. *Systematic Botany* 34: 796-804.
32. **Kamath A**. 2009. What is the unit of natural selection? Is the gene's eye view of evolution unacceptably reductionist? *Resonance* 14: 1047-1059.

**Papers retracted or under investigation for irregularities in data collected by co-author Jonathan N. Pruitt.**

1. **Kamath A**<sup>§</sup>, JN Pruitt<sup>§</sup>, AJ Brooks, MC Ladd, DT Cook, JP Gallagher, ME Vickers, SJ Holbrook, and RJ Schmitt. 2019. Collective response by farmerfish to intruding

- corallivores contributes to coral recovery within farmerfish gardens. *Oikos* 128: 482-492. [data collated by JNP; currently being assessed for irregularities].
2. Pruitt JN, CM Wright, JLL Lichtenstein, GT Chism, BL McEwan, **A Kamath**, and N Pinter-Wollman. 2017. Selection on collective aggressiveness favors followership, not leadership. *Current Biology* 28: 100-105. [data collated and analyzed by JNP; currently being assessed for irregularities].
  3. ~~Lichtenstein JLL, **A Kamath**, SE Bengston, L Avilés, and JN Pruitt. 2018. Female-biased sex ratios increase colony survival and reproductive output in the spider *Anelosimus studiosus*. *American Naturalist* 192: 10.1086/699838 [retracted due to irregularities in data collected by JNP].~~

### GRANTS, FELLOWSHIPS & HONORS

2020	John Templeton Foundation Science of Purpose Ideas Challenge Prize (\$1000)
2019	American Society of Naturalists' Jasper Loftus-Hills Young Investigator Award
2018	Miller Institute for Basic Research in Science Postdoctoral Fellowship, University of California, Berkeley (\$225,000)
2018	Killam Postdoctoral Fellowship, University of British Columbia (\$104,000; <i>declined</i> )
2016	Semi-Finalist, Harvard Horizons Symposium Competition (\$1000)
2015	Animal Behavior Society Student Research Grant (\$2000) Robert A. Chapman Memorial Scholarship Fund, Harvard University (\$4000)
2014	National Geographic Young Explorer's Grant (\$5000) Madras Naturalists' Society M. Krishnan Memorial Nature Writing Award
2012	Rosemary Grant Research Award, Society for the Study of Evolution (\$2000)
2013, 2012	Kenneth Miyata Award for Research in Herpetology, Museum of Comparative Zoology, Harvard University (\$4285, \$1485) South Asia Initiative Research Award, Harvard University (\$2500, \$4500)
2012-2015	Rufus B. Kellogg Fellowship for Graduate Studies, awarded once every three years based on academic excellence, Amherst College (\$75,000)
2011-2012	Fellowship for Students from India, Harvard University
2011-2012	John Simpson Fellowship for Graduate Studies, Amherst College (\$2,300)
2011	Elected to Phi Beta Kappa, the academic honor society, Amherst College Chapter Elected to Sigma Xi, the scientific research society, Amherst College Chapter Oscar E. Schotté Prize, best honors thesis in biology, Amherst College (\$1,250) Oscar E. Schotté Scholarship, for research in biology, Amherst College (\$1,250)
2008-2011	Schupf Scholarship, funding independent research, Amherst College (\$28,645)
2010	Charles W. Cole Scholarship, awarded to the undergraduate with established financial need who stands highest in academic rank in the sophomore class, Amherst College

- 2009 Sawyer Prize, for promise as a student of biology, Amherst College (\$1,220)  
Walker Prize, awarded for proficiency in mathematics, Amherst College (\$1,124)
- 2008 Edward Hitchcock Fellowship, for summer research, Amherst College (\$4,800)

## TEACHING EXPERIENCE

(\* indicates Certificate for Teaching Excellence for overall evaluation score >4.5/5.0)

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- 2022 Instructor, EBIO4740/5740, Biology of Amphibians and Reptiles, CU Boulder
- 2022 Co-Instructor, EBIO5140, Diversity and Inclusion, CU Boulder
- 2021 Co-Instructor, EBIO3240, Animal Behavior, CU Boulder
- 2016\*, 2015\* Teaching Assistant for OEB210 *Writing Scientific Papers* at Harvard University
- 2016\* Teaching Assistant for OEB167 *Herpetology* at Harvard University
- 2016 Designed and led a 4-session workshop on writing style and editing for students in the School of Engineering and Applied Sciences, Harvard University
- 2014-2016 Designed and led a two-hour workshop for first-year graduate students in the Organismic and Evolutionary Biology department titled *Making Science More Welcoming of Underrepresented Groups*, Harvard University
- 2011, 2009 Laboratory Teaching Assistant for BIOL181 *Adaptation and the Organism* at Amherst College
- 2010 Laboratory Teaching Assistant for BIOL321 *Evolution* at Amherst College

## MENTORING & RESEARCH SUPERVISION

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### *Graduate Students*

- 2021-present Katie Williams, Masters Student, University of Colorado Boulder

### *Postdoctoral Researchers*

- 2021-present Jenna Pruett, NSF Postdoctoral Fellow, University of Colorado Boulder

### *Graduate Committee Mentoring*

- 2021-present Alec Chiono (1<sup>st</sup> Semester Committee Meeting)
- 2021-present Gladiana Spitz (1<sup>st</sup> Semester Committee Meeting)
- 2021-present Sara Garcia (1<sup>st</sup> Semester Committee Meeting)
- 2021-present Heather Kenny Duddela (3<sup>rd</sup> Semester Committee Meeting)
- 2021-present Mia Larrieu (3<sup>rd</sup> Semester Committee Meeting)

### *Previous Mentoring*

- 2019 Amanda Klingler, Visiting REU Researcher, University of California Berkeley

*Project: Relationship between exploration and prey capture behavior in a jumping spider varies across a thermal range.*

Advised on statistical analysis, presentation, and manuscript preparation.

- 2018-2019 Yuheng Sun, Undergraduate Visiting Student, University of California Berkeley  
*Thesis: Substrate choice in male and female jumping spiders.*
- 2018 Skylar Primavera, Undergraduate, University of California Santa Barbara
- 2018 Kirsten Sheehy, Lab Technician, University of California Santa Barbara
- 2017 Thomas Lenihan, Undergraduate, University of California Santa Barbara
- 2014-2017 Christian Perez, Undergraduate, Harvard University  
*Thesis: Niche Partitioning in Three Species of Mainland Costa Rican Anoles.*  
*Project: Transcontinental Convergence in Head Shape across Vine Snakes*
- 2014-2016 Rachel Moon, Undergraduate, Harvard University  
*Thesis: Examining the Ecological, Morphological, and Behavioral Correlates of Dorsal Pattern Variation in Female Brown Anole Lizards (Anolis sagrei).*
- 2015 Jonathan Suh, Undergraduate, Boston University  
*Project: Variation in Male Display Behavior with Social Context in Anolis sagrei.*
- 2013 Divyaraj Shah, Undergraduate, St. Xavier's College, Ahmedabad, India
- 2012 Chetan Kokatnur, Diploma Student, New Polytechnic College, Kolhapur, India

#### INVITED TALKS (X indicates that the invitation was declined)

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- 2022 University of Chicago, Ecology and Evolution Seminar Series
- 2022 Utah State University, Ecology Center <sup>X</sup>
- 2022 University of Notre Dame, Department of Biological Sciences <sup>X</sup>
- 2021 Society for Systematic Biology, *Diversifying Evolution* Symposium, speaker and panelist.
- 2021 Indiana University, Biology Department
- 2021 University of Calgary, Department of Biological Sciences
- 2021 University of Wisconsin Madison, Department of Forest and Wildlife Ecology<sup>X</sup>
- 2021 University of California Santa Barbara, Department of Ecology, Evolution, and Marine Biology <sup>X</sup>
- 2021 Stanislaus State University, Department of Biological Sciences <sup>X</sup>
- 2021 Georgetown University, Department of Biology <sup>X</sup>
- 2021 University of Bristol, Workshops in Ecology and Behaviour seminar series <sup>X</sup>
- 2020 Cornell University, Department of Neurobiology and Behavior
- 2020 Duke University, Program in Ecology
- 2020 University of Georgia, *Gender, the Body, and Fieldwork* Symposium, plenary speaker
- 2020 Loyola University at Chicago, Department of Biology
- 2020 American Society of Naturalists, *Merging Behavioral Ecology with Eco-evolutionary Dynamics* Symposium

- 2020 University of Miami, Department of Biology <sup>X</sup>
- 2020 University of Exeter, Centre for Research in Animal Behavior <sup>X</sup>
- 2020 University of Calgary, Department of Biological Sciences <sup>X</sup>
- 2020 University of Wyoming, Department of Zoology and Physiology <sup>X</sup>
- 2020 Queens University, Department of Biology <sup>X</sup>
- 2020 University of California Berkeley, Entomology Students Organization <sup>X</sup>
- 2020 University of Colorado Denver, Department of Integrative Biology <sup>X</sup>
- 2019 Rice University, Department of BioSciences
- 2019 University of Colorado Boulder, Department of Ecology and Evolutionary Biology
- 2019 San Jose State University, Department of Biological Sciences
- 2019 University of San Francisco, Department of Biology.
- 2019 American Society of Naturalists, *Young Investigator Prize Symposium*
- 2019 University of California Berkeley, Department of Integrative Biology and Department of Environmental Science, Policy and Management (joint seminar).
- 2019 University of Toronto Scarborough, Department of Biological Sciences <sup>X</sup>
- 2018 University of California Davis, Center for Population Biology
- 2018 American Society of Naturalists, *150 Years of The American Naturalist* Symposium
- 2018 Animal Behavior Society, *Animal Behavior in Historical Context: Novel Insights from Interdisciplinary Encounters Symposium*
- 2018 University of California Santa Barbara, Department of Ecology, Evolution and Marine Biology
- 2018 California State University Dominguez Hills, Department of Biology
- 2017 Trinity University, Department of Biology
- 2017 New England Herpetological Society
- 2015 Amherst College, Department of Biology

### CONTRIBUTED TALKS

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- 2018 Animal Behavior Society, Milwaukee, Wisconsin, USA
- 2018 International Society for Behavioral Ecology, Minneapolis, USA
- 2017 Evolution, Portland, Oregon, USA.
- 2016 International Society for Behavioural Ecology, Exeter, UK.
- 2016 American Society of Naturalists, Asilomar, California, USA.
- 2014 Animal Behavior Society, Princeton, New Jersey, USA.
- 2014 Society for Integrative and Comparative Biology, Austin, Texas, USA.

### EDITING & REVIEWING

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- Member, Editorial Committee for a Special Issue (Forthcoming in July 2022), *American Naturalist*

- Member, Editorial Board, *The Scientific Naturalist (Ecology)*
- Ad Hoc Peer Reviewer for *The American Naturalist*, *Animal Behaviour*, *Behavior*, *Behavioral Ecology*, *Behavioral Ecology and Sociobiology*, *Biological Journal of the Linnean Society*, *Caribbean Naturalist*, *Current Zoology*, *Ecology and Evolution*, *Ecology Letters*, *Evolution*, *Evolutionary Anthropology*, *Journal of Animal Ecology*, *Journal of Arid Ecology*, *Journal of Ethology*, *Journal of Evolutionary Biology*, *Journal of Herpetology*, *McGill Science Undergraduate Research Journal*, *Nature Ecology & Evolution*, *Oxford University Press*, *Phyllomedusa*, *PLoS One*, *The Science of Nature*, *Zoological Journal of the Linnean Society*, *Zoologischer Anzeiger*.
- Grant reviewer for *National Geographic*
- Conference abstract reviewer for *American Society of Naturalists*, *International Society for Behavioural Ecology*

## SELECTED PRESS CONTRIBUTIONS, RELEASES, AND COVERAGE

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### Featuring my research:

- New York Times, 26 November 2019. *Seeking a New Lens to Study Same-Sex Behavior in Animals*  
(<https://www.nytimes.com/2019/11/26/science/same-sex-behavior-animals.html>)
- Scientific American, 20 November 2019. *Why Is Same-Sex Sexual Behavior So Common in Animals?*  
(<https://blogs.scientificamerican.com/observations/why-is-same-sex-sexual-behavior-so-common-in-animals/>).
- Mercury News, 22 August 2019. *Lizards gone wild! UC Berkeley researcher's 'feminist science' bucks male-dominated inquiry.*  
(<https://www.mercurynews.com/2019/08/22/lizards-gone-wild-uc-berkeley-researchers-feminist-science-bucks-male-dominated-inquiry/>)
- The Anthropocene, 14 November 2018. *This fish could help corals recover rather than collapse.* (<http://www.anthropocenemagazine.org/2018/11/farmerfish-protect-reefs/>)
- The UCSB Current, 21 February 2018. *Lizard love.*  
(<https://www.news.ucsb.edu/2018/018736/lizard-love>)
- Eureka! Lab, 30 September 2016. *Women in ecology, from forests to the sea.*  
(<https://www.sciencenewsforstudents.org/blog/eureka-lab/women-ecology-forests-sea>)

### Featuring comments from me:

- The Atlantic, 26 August 2021. *Hummingbirds Have an Easy Way to Fool Harassers.*  
(<https://www.theatlantic.com/science/archive/2021/08/female-hummingbirds-look-like-males/619893/>)
- New York Times, 30 October 2020. *Scientific Journals Commit to Diversity but Lack the Data.*  
(<https://www.nytimes.com/2020/10/30/science/diversity-science-journals.html>)
- The Atlantic, 8 March 2018. *Hawaii: Where Evolution Can Be Surprisingly Predictable.*  
(<https://www.theatlantic.com/science/archive/2018/03/hawaii-stick-spider-evolution-predictability/555149/>)