

Benjamin R. Karin

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EDUCATION

PhD Candidate, University of California Berkeley

Advisor: Prof. Jimmy A. McGuire

M.S. Biology, Villanova University

Advisor: Prof. Aaron M. Bauer

B.A. Integrative Biology, University of California Berkeley

Highest Honors and Distinction

Berkeley, CA

2016–Present

Villanova, PA

2013–2016

Berkeley, CA

2008–2012

PUBLICATIONS

1. **Karin B.R.**, Gamble T., Jackman T. **2020**. Rapidly Evolving Long Exon Capture: A new sequence capture dataset for phylogenomics in amniotes. *Molecular Biology and Evolution*. 37(3):904–922.
2. Blom M.P.K., Matzke N.J., Bragg J.G., Arida E., Austin C.C., Backlin A., Carretero M.A., Fisher R.N., Glaw F., Hathaway S., Iskandar D.T., McGuire J.A., **Karin B.R.**, Reilly S.B., Rittmeyer E.N., Rocha S., Sanchez M., Stubbs A.L., Vences M., Moritz C. **2019**. Habitat preference modulates trans-oceanic dispersal in a terrestrial vertebrate. *Proceedings of the Royal Society B: Biological Sciences* 286(1904):20182575.
3. Reilly S.B., Stubbs A.L., **Karin B.R.**, Arida A., Iskandar D.T., McGuire J.A. **2019**. Recent and rapid colonization of the Lesser Sundas Archipelago from adjacent Sundaland by seven amphibian and reptile species. *Zoologica Scripta* 46(4):757–769.
4. Grismer L.L., Dzukaflly Z., Muin M.A., Quah E.S.H., **Karin B.R.**, Anuar S., Freitas E.S. **2019**. A new skink of the genus *Subdoluseps* (Hardwicke & Gray, 1828) from Peninsular Malaysia. *Zootaxa* 4609(2):358–372.
5. Reilly S.B., Stubbs A.L., **Karin B.R.**, Bi K., Arida A., Iskandar D.T., McGuire J.A. **2019**. Leap-frog dispersal and mitochondrial introgression: Phylogenomics and biogeography of *Limnonectes* fanged frogs in the Lesser Sundas Archipelago of Wallacea. *Journal of Biogeography* 46:757–769.
6. **Karin B.R.***, Stubbs A.L.*, Arifin U., Bloch M., Ramadhan G., Iskandar D.T., Arida E., Reilly S.B., Kusnadi A., McGuire J.A. **2018**. The herpetofauna of the Kei Islands (Maluku, Indonesia): Comprehensive report on new and historical collections, biogeographic patterns, conservation concerns, and an annotated checklist of species from Kei Kecil, Kei Besar, Tam, and Kur. *Raffles Bulletin of Zoology* 66:704–738.
7. **Karin B.R.**, Cicero C.C., Koo M.S., Bowie R.C.K. **2018**. The role of history and ecology as drivers of song divergence in Bell's and Sagebrush sparrows (*Artemisiospiza*, Aves: Passerellidae). *Biological Journal of the Linnean Society* bly090.
8. **Karin B.R.**, Freitas E.S., Shonleben S., Grismer L.L., Bauer A.M., Das I. **2018**. Undescribed diversity in an urban rainforest: A new species of *Lygosoma* (Squamata: Scincidae) from western Sarawak, Malaysia (Borneo). *Zootaxa* 4370(4):345–362.
9. Stubbs, A.L.*, **Karin B.R.***, Arifin U., Iskandar D.T., Arida E., Reilly S.B., Block L.M., McGuire J.A. **2017**. A new species of *Lepidodactylus* (Squamata: Gekkonidae) from the Kei Islands, Maluku, Indonesia. *Zootaxa* 4350(1):91–105.
10. **Karin B.R.**, Das I., Jackman T., Bauer A.M. **2017**. Ancient divergence time estimates in *Eutropis rugifera* support the existence of Pleistocene barriers on the exposed Sunda Shelf. *PeerJ* 5:e3762.
11. Das I., Pui Y.M., Shabrani A., **Karin B.R.**, Breuer H. **2017**. Reptiles. In: *Gunung Penrissen: The roof of western Borneo*. Mohd-Azlan J., Tuen A.A. & Das I. (Eds.) Natural History Publications (Borneo) Sdn Bhd, Kota Kinabalu, pp. 109–119.

12. Pui Y.M., **Karin B.R.**, Bauer A.M., Das I. **2017**. A new species of *Tropidophorus* Duméril & Bibron, 1839 (Squamata: Sauria: Scincidae) from Sarawak, East Malaysia (Borneo). *Zootaxa* 4258(6):539–550.
13. **Karin B.R.**, Metallinou M., Weinell J.L., Jackman T.R., Bauer A.M. **2016**. Resolving the higher-order phylogenetic relationships of the circumtropical *Mabuya* group (Squamata: Scincidae): An out-of-Asia diversification. *Molecular Phylogenetics and Evolution* 102:220–232.
14. Metallinou M., Weinell J.L., **Karin B.R.**, Conradie W., Wagner P., Schmitz A., Jackman T.R., Bauer A.M. **2016**. A single origin of extreme matrotrophy in African mabuyine skinks. *Biology Letters* 12: 20160430
15. **Karin B.R.**, Das I., Bauer A.M. **2016**. Two new species of diminutive leaf-litter skinks (Squamata: Scincidae: *Tytthoscincus*) from Gunung Penrissen, Sarawak, Malaysia (northern Borneo). *Zootaxa* 4093(3):407–423.
16. **Karin B.R.**, Stubbs A.L., Arifin U. **2013**. *Limnonectes grunniens*. Saline Water Tolerance. *Herpetological Review* 44(4):656.

* **Co-First Author**

PUBLICATIONS (IN REVIEW OR REVISION)

17. Davis H.R., Chan K.O., Das I., Brennan G., **Karin B.R.**, Jackman T.R., Brown R.M., Iskandar D.T., Nashriq I., Grismer L.L., Bauer A.M. Multilocus phylogeny of Bornean Bent-Toed Geckos (Gekkonidae: *Cyrtodactylus*) reveals hidden diversity, taxonomic disarray, and novel biogeographic patterns. *Molecular Phylogenetics and Evolution*. **Accepted**.
18. **Karin B.R.**, Stubbs A.L., Arifin U., Iskandar D.T., Arida E., Austin C.C., McGuire J.A. Crossing Lydekker's Line: Northern Water Dragons (*Tropicagama temporalis*) colonized the Mollucan Islands of Indonesia from New Guinea. *Journal of Biogeography*. **Accepted**.
19. Oliver P., Brown R.M., **Karin B.R.**, Grismer L.L. Mountain endemism in Malesian geckos: are biotic interactions driving lizards up hills? *Israel Journal of Ecology and Evolution*. **In Press**.

CONFERENCE PRESENTATIONS

Southeast Asia Gateway of Evolution - Bogor, Indonesia **2017**

- Karin B.R., Das I., Jackman T.R., Bauer A.M. Comparative phylogeography of three lizards of the genus *Eutropis* (Squamata: Scincidae) on Borneo.

Evolution - Portland, OR **2017**

- Karin B.R. Gamble T., Jackman T.R. Rapidly Evolving Long Exon Capture: A new sequence capture dataset for phylogenomics in amniotes.

Society for the Study of Amphibians and Reptiles - Lawrence, KS **2015**

- Karin B.R., Stubbs A.L., and McGuire J.A. Comparative phylogeography of three species of *Eutropis* (Squamata: Scincidae) on Borneo.

World Congress of Herpetology - Vancouver, BC **2012**

- Karin B.R., Stubbs A.L., and McGuire J.A. Comparative biogeography of three lizard genera in Indonesia: *Lophognathus*, *Lamprolepis*, and *Cyrtodactylus*.

North American Ornithological Conference - Vancouver, BC **2012**

- Cicero, C.C., Karin B.R., Bowie, R.C.K. Phylogeny vs. Ecology in the Evolution of Songs in Sage Sparrows

INVITED RESEARCH SEMINARS

Herpetology Group Seminar, Museum of Vertebrate Zoology - UC Berkeley **2018**

- Karin B.R., Stubbs A.L., Arifin U., Bloch M., Ramadhan G., Iskandar D.T., Arida E., Reilly S.B., Kusnadi A., McGuire J.A. Herps of the Kei Islands: 150 years of collections and still more to find.

Herpetology Group Seminar, Museum of Vertebrate Zoology - UC Berkeley **2012**

- Karin B.R., Stubbs A.L. Biogeography of Maluku Province, Indonesia

INVITED PUBLIC SEMINARS

- **Honors Biology Class** - Los Gatos High School, Los Gatos, CA 2013
- Lecture to high school biology class on science, herpetology, and genetics.
- **Panel for majors in Biological Sciences - L&S1** - UC Berkeley 2012
- Chosen to represent the Integrative Biology major.

FELLOWSHIPS

- **Annie M. Alexander Fellowship** - Museum of Vertebrate Zoology 2019
- **Berkeley Fellowship** - UC Berkeley 2016–2019
- **Biology Department Academic Year Graduate Fellowship** - Villanova University 2015
- **Biology Department Summer Research Fellowship** - Villanova University 2015
- **Biology Department Summer Research Fellowship** - Villanova University 2014
- **Summer Undergraduate Research Fellowship** - UC Berkeley 2011

GRANTS

- **Summer Research Funds** - Museum of Vertebrate Zoology 2019
- **Summer Research Funds** - Museum of Vertebrate Zoology 2018
- **Summer Research Funds** - Department of Integrative Biology 2018
- **GRAC Research Funds** - Department of Integrative Biology 2018
- **Summer Research Funds** - Museum of Vertebrate Zoology 2017
- **Young Explorers Grant** - National Geographic Society 2016
- **Graduate Summer Research Award** - Villanova University 2014

HONORS AND AWARDS

- **Certificate of Merit** - Plumas National Forest 2012
- **Highest Honors in Integrative Biology** - UC Berkeley 2012
- **Distinction in General Scholarship** - UC Berkeley 2012

PEER REVIEWS

- **Molecular Biology and Evolution** — 1 review 2020–present
- **Herpetological Monographs** — 1 review 2019–present
- **PLoS One** — 2 reviews 2018–present
- **Molecular Phylogenetics and Evolution** — 1 review 2017–present
- **PeerJ** — 1 review 2017–present
- **Herpetologica** — 3 reviews 2016–present
- **Zootaxa** — 8 reviews 2014–present

SERVICE

- **IUCN Skink Specialist Group** 2019–present

SOCIETY MEMBERSHIP

- **Society for the Study of Evolution** 2016–present
- **Society for the Study of Amphibians and Reptiles** 2014–present

WORKSHOPS TAUGHT

- **Field Genomics** - 10 day course taking undergrads through field collections, Oxford Nanopore sequencing, and bioinformatics with the goal of preparing them for research lab positions. Summer 2019

R Workshop - 1 week introductory course for Integrative Biology graduate students. **Spring 2017**

WORKSHOPS AND TRAINING

Trees in the Desert - University of Arizona **Tucson, AZ**
 • NSF-funded workshop on building ultra-large phylogenetic trees **12-14 April, 2019**
Python Workshop - Computational Genomics Resource Laboratory - UC Berkeley **Berkeley, CA**
 • Introduction to programming with Python. **2015**
Lizard Thermal Physiology Training - UC Santa Cruz **Santa Cruz, CA**
 • 1 week learning thermal physiology methods and protocols using *Uta stansburiana*. **2014**

MENTORING

Selene Arellano - UC Berkeley undergrad **2019–Present**
Laura Wang - UC Berkeley undergrad **2019–Present**
Collin Bos - UC Berkeley undergrad **2019–Present**
Andrew Cho - UC Berkeley undergrad **2017–2018**
Zheng Oong - UC Berkeley undergrad **2016–2017**

VOLUNTEERING

Preparation Lab - Museum of Vertebrate Zoology - UC Berkeley **2009–2012**
Cal Day Panel for Integrative Biology - UC Berkeley **2012**

GRADUATE STUDENT INSTRUCTOR COURSES

IB175L Herpetology - UC Berkeley **Spring 2020**
IB140 Human Reproduction - UC Berkeley **Spring 2017**
IB144 Animal Behavior - UC Berkeley **Fall 2016**
BIO4305 Evolution - Villanova University **Spring 2015**
BIO3455 Histology - Villanova University **Spring 2015**
BIO2106 General Biology II - Villanova University **Fall 2013 – Spring 2014**

EMPLOYMENT HISTORY

Amphibian Field Technician - UC Santa Barbara **Sierra Nevada Mountains, CA**
 • Assisted Dr. Roland Knapp with study of *Bd* in *Rana sierrae*. **2016**
Tutor - TutorSync **Oakland, CA**
 • Tutoring High School students in Science and Math. **2015**
Biological Sciences Technician - Plumas National Forest **Oroville, CA**
 • Amphibian Surveys, Stream Condition Inventory protocol, fish electroshocking surveys. **2012**
Biological Sciences Technician - United States Department of Agriculture **Albany, CA**
 • Assisted Dr. William Vensel in lab research. Effects of environment on wheat flour quality. **2010–2011**

OTHER TRAINING

Level I Avalanche, Level 2 Avalanche - College of the Siskiyous **Weed, CA**
 • Training in snow travel and avalanche recognition and safety. Level I: 24 hours; Level II: 32 hours. **2012**
National Outdoor Leadership School (NOLS) **Wind River Range, WY**
 • 6 Credit Hours: Environmental Ethics, Skills Practicum, Risk Assessment. **2009**