

Benjamin R. Karin

Email: benkarin@berkeley.edu

Website: <http://benkarin.com/>

[Google Scholar Profile](#)

EDUCATION

PhD Candidate, University of California Berkeley

Advisor: Prof. Jimmy A. McGuire

Berkeley, CA

2016–Present

M.S. Biology, Villanova University

Advisor: Prof. Aaron M. Bauer

Villanova, PA

2013–2016

B.A. Integrative Biology, University of California Berkeley

Highest Honors and Distinction

Berkeley, CA

2008–2012

PUBLICATIONS

1. Reilly S. B., **Karin B.R.**, Stubbs A.L., Arida E., Arifin U., Kaiser H., Bi K., Hamidy A., Iskandar D.T., McGuire J.A. The “spin-cycle species pump”: Geodynamic processes drive a cryptic radiation in Southern Wallacean forest skinks (Genus *Sphenomorphus*). *Evolution (In Press)*.
2. Reilly S. B., Arifin U., Stubbs A.L., **Karin B.R.**, Kaiser H., Frederick J., Arida E., Iskandar D.T., McGuire J.A (2022) Phylogenetic relationships of southern Wallacean ranid frogs (Anura: Ranidae: Hylarana) *Zootaxa* 5150(4):591–599.
3. McDonald P.J., Brown R.M., Kraus F., Bowles P., Arifin U., Eliades S.J., Fisher R.N., Gaulke M., Grismer L.L., Ineich I., **Karin B.R.**, Menses C.G., Richards S.J., Sanguila M.B., Siler C.D., Oliver P.M. Cryptic extinction risk in a western Pacific lizard radiation. *Biodiversity and Conservation (In Press)*.
4. Das I. Pui Y.M., Shabrani A., **Karin B.R.**, Wahab M.P. **2021**. Reptiles. In: *Life from Headwater to the Coast: Pelagus National Park: Biodiversity Above the Rapids*. Tuen A.A., Das I., Ping K.L.S., & Mohd-Azlan J. (Eds.) Natural History Publications (Borneo) Sdn Bhd, Kota Kinabalu, pp. 51–56. (*In Press*).
5. Reilly S.B., Stubbs A.L., Arida A., **Karin B.R.**, Arifin U., Kaiser H., Bi K., Iskandar D.T., McGuire J.A. Phylogenomic analysis reveals dispersal-driven speciation and divergence with gene flow in Lesser Sunda flying lizards (genus *Draco*). *Systematic Biology (In Press)*.
6. **Karin B.R.**, Oliver P.M., Stubbs A.L., Arifin U., Iskandar D.T., Arida E., Oong Z., McGuire J., Kraus F., Fujita M., Ineich I., Ota H., Hathaway S. A., Fisher R.N. **2021**. Who’s your daddy? On the identity and distribution of the paternal hybrid ancestor of the parthenogenetic gecko *Lepidodactylus lugubris* (Reptilia: Squamata: Gekkonidae). *Zootaxa* 4999(1):87–100
7. Davis H.R., Das I., Leaché A.D., **Karin B.R.**, Brennan I.G., Jackman T.R., Nashriq I., Chan K.O., Bauer M. **2021**. Genetically diverse yet morphologically conserved: Hidden diversity revealed among Bornean geckos (Gekkonidae: *Cyrtodactylus*). *Journal of Zoological Systematics and Evolutionary Research* 59(5):1113–1135.
8. Chapple D.G., Roll U., Böhm M., et al. **2021**. Conservation status of the world’s skinks (Scincidae): taxonomic and geographic patterns in extinction risk. *Biological Conservation* 257(2021):109101.
9. Reilly S.B., Stubbs A.L., **Karin B.R.**, Arifin U., Arida E., Iskandar D.T., McGuire J.A. **2021**. Genetic divergence of the Sunda ratsnake (*Coelognathus subradiatus*) across the Lesser Sunda Islands (Squamata:Colubridae). *Amphibia-Reptilia* 42(2), 269-273.
10. Das I., Pui Y.M., Shabrani A., **Karin B.R.**, Wahab M.P. Reptiles of Pelagus National Park (Book Chapter). *In Press (Natural History Publications (Borneo) Sdn Bhd, Kota Kinabalu)*.
11. Reilly S.B., Stubbs A.L., Arida E., Arifin U., Bloch L., Hamidy A., Harmon K., Hykin S., **Karin B.R.**, Ramadan G., Iskandar D.T., McGuire J.A. **2020**. New island records for anurans and squamates from the Lesser Sundas Archipelago. *Herpetological Review* 51(4): 785–789.

12. **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.
13. **Karin B.R.**, Stubbs A.L., Arifin U., Iskandar D.T., Arida E., Austin C.C., McGuire J.A. **2020**. Crossing Lydekker's Line: Northern Water Dragons (*Tropicagama temporalis*) colonized the Mollucan Islands of Indonesia from New Guinea. *Herpetologica* 76(3):344–350.
14. Oliver P., Brown R.M., **Karin B.R.**, Grismer L.L. **2020**. Mountain endemism in Malesian geckos: Are biotic interactions driving lizards up hills? *Israel Journal of Ecology and Evolution* 20191089.
15. 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. **2020**. Multilocus phylogeny of Bornean Bent-Toed Geckos (Gekkonidae: *Cyrtodactylus*) reveals hidden diversity, taxonomic disarray, and novel biogeographic patterns. *Molecular Phylogenetics and Evolution* 106785.
16. 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.
17. 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.
18. 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.
19. 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.
20. **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.
21. **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.
22. **Karin B.R.***, Stubbs A.L.*, Arifin U., Bloch M., Ramadhan G., Iskandar D.T., Arida E., Reilly S.B., Kusrudi 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.
23. 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.
24. **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.
25. 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.
26. 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.
27. **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.

28. 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
29. **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.
30. **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)

31. Davis H.R., Nashriq I., Woytek K.S., Wikramanayake S.A., Bauer A.M., **Karin B.R.**, Brennan I.G., Iskandar D.T., Das I. Genomic investigation into Bornean geckos (Gekkonidae: *Cyrtodactylus*) highlights need for taxonomic reevaluation. In Review.
32. **Karin B.R.**, Arellano S., Wang L., Walzer K., Pomerantz A., Vasquez J.M., Chatla K., Sudmant P.H., Bach B.H., Smith L.L., McGuire J.A. MtGenome for the cost of a gene: Long-amplicon PacBio and Nanopore sequencing of hundreds of full mitochondrial genomes (In Review)
33. Karin B.R., Lough-Stevens M., Lin T.E., Reilly S.B., Barley A.J., Das I., Iskandar D.T., Arida E., Jackman T.R., McGuire J.A., Bauer A.M. The natural and human-mediated expansion of a human-commensal lizard into the fringes of Southeast Asia (In Review)

CONTRIBUTED ORAL PRESENTATIONS

- Joint Meeting of Ichthyologists and Herpetologists** - Spokane, WA **July 2022**
- Karin B.R., McGuire J.M. Cost-effective Long Amplicon Sequencing of Hundreds of Full Mitochondrial Genomes Reveals an Incredible Radiation of Sulawesi Skinks (*Sphenomorphus* and *Tytthoscincus*)
- Genomic Social Hour** - California Academy of Sciences virtual series **April 2020**
- Karin B.R., Gamble T., Jackman T.R. Rapidly Evolving Long Exon Capture: A new sequence capture dataset for phylogenomics in amniotes.
- 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

- Biogeography and Field Work in the Kei Islands, Indonesia** - NCB Leiden **March 2021**
- Karin B.R., Stubbs A.L.
- 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

Black Pine Circle School - Berkeley, CA 2017

- Career Day talk to elementary school students on science and animals.

Los Gatos High School - Los Gatos, CA 2013

- Lecture to high school biology class on research, herpetology, and genetics.

Panel for majors in Biological Sciences - L&S1 - UC Berkeley 2012

- Chosen to represent the Integrative Biology major.

RESEARCH ASSISTANTSHIPS

• **Avian Phylogenomics - Prof. Rauri Bowie** Summer and Fall, 2020

FELLOWSHIPS

• **Philomathia Fellowship - UC Berkeley** 2021

• **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** 2022

• **Summer Research Funds - Department of Integrative Biology** 2022

• **SMRT sequencing grant - Pacific Biosciences** 2021

• **Summer Research Funds - Museum of Vertebrate Zoology** 2020

• **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

• **Outstanding GSI Award - UC Berkeley** 2021

• **Certificate of Merit - Plumas National Forest** 2012

• **Highest Honors in Integrative Biology - UC Berkeley** 2012

• **Distinction in General Scholarship - UC Berkeley** 2012

PEER REVIEWS

- **Journal of Herpetology** — 1 review 2021–present
- **Molecular Biology and Evolution** — 1 review 2020–present
- **Herpetological Monographs** — 1 review 2019–present
- **PLoS One** — 2 reviews 2018–present
- **Molecular Phylogenetics and Evolution** — 3 reviews 2017–present
- **PeerJ** — 1 review 2017–present
- **Herpetologica** — 3 reviews 2016–present
- **Zootaxa** — 8 reviews 2014–present

SERVICE

- **MVZ DEI Working Group – Affiliated Students** 2020–Present
- **MVZ DEI Working Group – Workshops and Training** 2020–Present
- **IUCN Skink Specialist Group** 2019–present
- **IUCN *Lepidodactylus* assessment** December 2020

SOCIETY MEMBERSHIP

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

WORKSHOPS TAUGHT

- Field Genomics** - Short course for primarily first generation undergrads. Field collections, Oxford Nanopore sequencing, and bioinformatics with the goal of preparing them for research lab positions. 2019 and 2021
- R Workshop** - 1 week introductory course for Integrative Biology graduate students. Spring 2017

WORKSHOPS AND TRAINING

- Bring out the Best in your Undergraduate Researchers** - UC Berkeley Tucson, AZ
• NSF-funded workshop on undergrad research mentorship 12-14 April, 2019
- 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

- Allisun Whitshire** - UC Berkeley undergrad 2021–Present
- Kayla Walzer** - UC Berkeley undergrad 2020–Present
- Anya Prasad** - UC Berkeley undergrad 2020–Present
- 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 2022
IB104LF Natural History of the Vertebrates - UC Berkeley Spring 2021
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