

Kerry Cobb

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Education

2016–Present PhD in Biological Sciences, Auburn University

Advisor: Jamie Oaks

Committee: Jamie Oaks, Laurie Stevison, Tonia Schwartz, & Rita Graze

2014–2016 MSc in Ecology & Evolutionary Biology, University of Kansas

Advisor: Rafe Brown

Committee: Rafe Brown, Rob Moyle, & Leo Smith

Thesis: Geographic basis of genetic variation in *Platymantis corrugatus*

2008–2012 BSc in Ecology & Evolutionary Biology, University of Kansas

Publications

- Oaks, J. R., L'Bahy, N., & **Cobb, K. A.** (2020). Insights from a general, full-likelihood bayesian approach to inferring shared evolutionary events from genomic data: Inferring shared demographic events is challenging. *Evolution*. <https://doi.org/10.1111/evo.14052>
- Hutter, C. R., **Cobb, K. A.**, Portik, D., Travers, S. L., Wood, P. L., & Brown, R. M. (2019). Frogcap: A modular sequence capture probe set for phylogenomics and population genetics for all frogs, assessed across multiple phylogenetic scales. *bioRxiv*, 825307. <https://doi.org/10.1101/825307v1>
- R Oaks, J., **A Cobb, K.**, N Minin, V., & D Leaché, A. (2019). Marginal likelihoods in phylogenetics: A review of methods and applications. *Systematic biology*, 68(5), 681–697. <https://doi.org/10.1093/sysbio/syz003>
- Prötzel, D., Lambert, S. M., Andrianasolo, G. T., Hutter, C. R., **Cobb, K. A.**, Scherz, M. D., & Glaw, F. (2018). The smallest 'true chameleon' from madagascar: A new, distinctly colored species of the *calumma boettgeri* complex (squamata, chamaeleonidae). *Zoosystematics and Evolution*, 94, 409–423. <https://doi.org/10.3897/ZSE.94.27305>
- Sanguila, M. B., **Cobb, K. A.**, Siler, C. D., Diesmos, A. C., Alcala, A. C., & Brown, R. M. (2016). The amphibians and reptiles of mindanao island, southern philippines, ii: The herpetofauna of northeast mindanao and adjacent islands. *ZooKeys*, (624), 1–132. <https://doi.org/10.3897/zookeys.624.9814>
- Hutter, C. R., Lambert, S. M., **Cobb, K. A.**, Andriampemanana, Z. F., & Vences, M. (2015). A new species of bright-eyed treefrog (mantellidae) from madagascar, with comments on call evolution and patterns of syntopy in the *boophis ankaratra* complex. *Zootaxa*, 4034(3), 531–555. <https://doi.org/10.11646/zootaxa.4034.3.6>
- Siler, C. D., Linkem, C. W., **Cobb, K.**, Watters, J. L., Cummings, S. T., Diesmos, A. C., & Brown, R. M. (2014). Taxonomic revision of the semi-aquatic skink *parvoscincus leucospilos* (reptilia: Squamata: Scincidae), with description of three new species. *Zootaxa*, 3847(3), 388–412. <https://doi.org/10.11646/zootaxa.3847.3.4>
- Siler, C. D., Oaks, J. R., **Cobb, K.**, Ota, H., & Brown, R. M. (2014). Critically endangered island endemic or peripheral population of a widespread species? conservation genetics of kikuchi's gecko and the global challenge of protecting peripheral oceanic island endemic vertebrates. *Diversity and distributions*, 20(7), 756–772. <https://doi.org/10.1111/ddi.12169>

Presentations

- Cobb, K.A. and Oaks, J.R. Comparing linked versus unlinked character models for species-tree inference. Standalone Meeting of the Society of Systematic Biologists, Gainesville, Florida, January 2020. Poster Presentation.
- Cobb, K.A. and Oaks, J.R. Insights from a general full-likelihood Bayesian approach to inferring shared evolutionary events from genomic data. Society for Study of Evolution Meeting, Providence, Rhode Island, June 2019. Poster Presentation.
- Cobb, K. A., Su, Y. C., Anamza, T., Siler, C. D., Diesmos, A., Brown, R. M. Rad-seq data reveal patterns of diversification in the widespread Southeast Asian puddle frogs (genus *Occidozyga*). Meeting of the Society for the Study of Amphibians and Reptiles, Lawrence, KS. August 2015. Oral Presentation.

Cobb, K. A., Hutter, C. R., Siler, C. D., Brown, R. M. Cryptic Diversity in a Widespread Island Archipelago Forest Frog. Joint Meeting of Ichthyologists and Herpetologists, Chattanooga, TN. August 2014. Oral Presentation.

Teaching Assistantships

Spring 2019 Herpetology Lab
Spring 2018

Fall 2018 Vertebrate Diversity Lab
Fall 2017

Spring 2017 Biomedical Physiology Lab

Fall 2016 Principles of Biology Lab

Spring 2016 Principles of Organismal Biology Lab
Spring 2015

Fall 2015 History & Diversity of Organisms Lab
Fall 2014

Outreach

Oct 2019 Auburn University STEM High School Visitation Day

Apr 2018 Event Supervisor at Alabama State Science Olympiad

Oct 2016 Presentation on bizarre aspects reptile and amphibian biology at "Science of the Macabre."
A public outreach event at the University of Kansas Natural History Museum

Feb 2015 & Feb 2016 Presentation on reptile and amphibian reproductive biology at "Sexy Science: the suggestive side to natural history." A public outreach event at the University of Kansas Natural History Museum

Programming & Software

Languages:

Proficient with: Python, R, Nim, Bash, SQL, Javascript, HTML, CSS, & LaTeX

Software Projects:

[PhylogeNi](#) - A Nim library for phylogenetics

[Subsample](#) - A python package for computing or approximating the most uniformly distributed subset of a given set of points

[Beta Binomial Web Demo](#) - An web based interactive demonstration of Bayesian Inference

[Publications-js](#) - Javascript code for displaying contents of a bibtex file on a webpage

[GPS-Utills](#) - A python package for quickly extracting data from a gps into a csv or onto a map

[Memorize.js](#) - A flexible web based teaching and studying tool built on reveal.js

[phy2nex](#) - A Nim package for converting a Phylip alignment file into Nexus format

[centroid-lookup](#) - A python package for computing and looking up centroids for Global Administrative Areas

Field Research

Dec 2015–Jan 2016	Vohidrazana, Madagascar	One month expedition to conduct herpetological surveys and collections
Jun 2014–Jul 2014	Samar, Philippines	Two month expedition to conduct herpetological surveys and collections
Jun 2013	Ajo, Arizona	One month field season collecting non-invasive genetic samples for Sonoran Pronghorn population monitoring
May 2013	Sante Fe N.F., New Mexico	One month field season collecting non-invasive genetic samples for black bear population monitoring
Jan 2013–Feb 2013	Tooele Co, Utah	Two month field season collecting non-invasive genetic samples for kit fox population monitoring
Jun 2012–Jul 2012	Mindanao, Philippines	Two month expedition to conduct herpetological surveys and collections
May 2011–Aug 2013	McCall, Idaho	Three month field season performing creel and snorkel surveys for salmon population monitoring