# Brian C. O’Meara

<http://www.brianomeara.info>

865-974-2804

[bomeara@utk.edu](mailto:bomeara@utk.edu)

Dept. of Ecology and Evolutionary Biology

University of Tennessee, Knoxville

## Research

I address questions in evolutionary biology through development, implementation, and application of new phylogenetic methods. These include approaches for examining the process of continuous trait evolution (rate, optimal values, and other factors), species delimitation, phylogeography, diversification analyses, biogeography, and more. I also collaborate extensively with empiricists, including some of my own students.

## Summary

|  |  |
| --- | --- |
| **Publications** | 38 journal articles, including *Science, Nature, Ann. Rev Ecology, Evolution & Systematics, Systematic Biology, Evolution*, etc. |
| **Teaching** | Approximately 3 courses per year on average, ranging from large introductory biology courses to small graduate seminars |
| **Mentoring** | 4 PhD students, 15 postdocs, 3 faculty, and served on 27 graduate student committees |
| **Service/Outreach** | Darwin Day TN advisor, co-organizer of women in science symposium, workshops, and other activities, co-organizer for scientific meetings, curator of R phylogenetics task view, instructor at workshops in Sweden, Switzerland, Brazil, and various US locations (Ohio, TN, NC) |
| **Leadership** | Associate Head for Dept. of Ecology & Evolutionary Biology, 2016-present; Associate Director for the National Institute for Mathematical and Biological Synthesis, 2016-present; Code of Conduct Committee for SSE/SSB/ASN, 2018-present; Communications Director for the Society of Systematic Biologists, 2016-2017; Society of Systematic Biologists Council, 2012-2014; iEvoBio co-organizer, 2014-2016. |
| **Funding** | $2.67M in external support, including 5 NSF grants (including a CAREER grant) plus funding from iPlant and Encyclopedia of Life |
| **Altmetrics** | Number of citations = 3299; h-index = 20; 107 public github repos; Erdős number = 4; papers have been tweeted about 933 times, and have been mentioned 30 times in the news |

## Education

University of California Davis: PhD (2008) in Population Biology

Harvard University: Bachelor (magna cum laude), with highest honors in Biology (2001)

## Employment

2016-Present: Associate Director, Dept. of National Institute for Mathematical and Biological Synthesis (NIMBioS), University of Tennessee, Knoxville, TN

2016-Present: Associate Head, Dept. of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, TN

2015-Present: Associate Professor, Dept. of Ecology & Evolutionary Biology, University of Tennessee, Knoxville, TN

2009-2015: Assistant Professor, Dept. of Ecology and Evolutionary Biology, University of Tennessee, Knoxville, TN

2007-2009: Postdoc, National Evolutionary Synthesis Center, Durham, NC

## Publications: Papers

According to Google Scholar, my work has been cited 3299 times, and my h-index is 20. (Google Scholar tends to overestimate citations, however). Also note that I work under a very stringent criterion for when I get authorship – I have to actively make a significant contribution to the research and writing to merit authorship. For example, in 2015-6, three lab members had papers in *Science* ([grad student Sam Borstein](http://science.sciencemag.org/content/350/6264/1077.long), [postdoc Nick Matzke](http://science.sciencemag.org/content/351/6268/28), and [postdoc Sandy Kawano](http://science.sciencemag.org/content/353/6295/154.full)) but I am, appropriately to my mind, not an author on any of these.

Beaulieu, J. M. and B. C. **O’Meara** (2018). “Can we build it? Yes we can, but should we use it? Assessing~the quality and value of a very large phylogeny of~campanulid angiosperms”. In: *American Journal of Botany* 105.3, pp. 417-432.

Jackson, N. D, A. E. Morales, B. C. Carstens and B. C. **O’Meara** (2017). “PHRAPL: Phylogeographic Inference Using Approximate Likelihoods”. In: *Systematic Biology* 66.6, pp. 1045-1053.

Carstens, B. C, A. E. Morales, N. D. Jackson and B. C. **O’Meara** (2017). “Objective choice of phylogeographic models”. In: *Molecular Phylogenetics and Evolution* 116, pp. 136-140.

Bosco, J. M, S. E. Riechert and B. C. **O’Meara** (2017). “The ontogeny of personality traits in the desert funnel-web spider, Agelenopsis lisa (Araneae: Agelenidae)”. In: *Ethology* 123.9. Ed. by E. Hebets, pp. 648-658.

Schwery, O. and B. C. **O’Meara** (2016). “MonoPhy: a simple R package to find and visualize monophyly issues”. In: *PeerJ Computer Science* 2, p. e56.

**O’Meara**, B. C, S. D. Smith, W. S. Armbruster, L. D. Harder, C. R. Hardy, L. C. Hileman, L. Hufford, A. Litt, S. Magallón, S. A. Smith, P. F. Stevens, C. B. Fenster and P. K. Diggle (2016). “Non-equilibrium dynamics and floral trait interactions shape extant angiosperm diversity”. In: *Proceedings of the Royal Society B: Biological Sciences* 283.1830, p. 20152304.

**O’Meara**, B. C. and J. M. Beaulieu (2016). “Past, future, and present of state-dependent models of diversification”. In: *American Journal of Botany* 103.5, pp. 792-795.

Morales, A. E, N. D. Jackson, T. A. Dewey, B. C. **O’Meara** and B. C. Carstens (2016). “Speciation with Gene Flow in North AmericanMyotisBats”. In: *Systematic Biology*, p. syw100.

Jackson, N. D, B. C. Carstens, A. E. Morales and B. C. **O’Meara** (2016). “Species Delimitation with Gene Flow”. In: *Systematic Biology*, p. syw117.

Beaulieu, J. M. and B. C. **O’Meara** (2016). “Detecting Hidden Diversification Shifts in Models of Trait-Dependent Speciation and Extinction”. In: *Systematic Biology* 65.4, pp. 583-601.

Zanne, A. E, D. C. Tank, W. K. Cornwell, J. M. Eastman, S. A. Smith, R. G. FitzJohn, D. J. McGlinn, B. C. **O’Meara**, A. T. Moles, P. B. Reich, D. L. Royer, D. E. Soltis, P. F. Stevens, M. Westoby, I. J. Wright, L. Aarssen, R. I. Bertin, A. Calaminus, R. Govaerts, F. Hemmings, M. R. Leishman, J. Oleksyn, P. S. Soltis, N. G. Swenson, L. Warman and J. M. Beaulieu (2015a). “Zanne et al. reply”. In: *Nature* 521.7552, pp. E6-E7.

Zanne, A. E, D. C. Tank, W. K. Cornwell, J. M. Eastman, S. A. Smith, R. G. FitzJohn, D. J. McGlinn, B. C. **O’Meara**, A. T. Moles, P. B. Reich, D. L. Royer, D. E. Soltis, P. F. Stevens, M. Westoby, I. J. Wright, L. Aarssen, R. I. Bertin, A. Calaminus, R. Govaerts, F. Hemmings, M. R. Leishman, J. Oleksyn, P. S. Soltis, N. G. Swenson, L. Warman and J. M. Beaulieu (2015b). “Corrigendum: Three keys to the radiation of angiosperms into freezing environments”. In: *Nature* 521.7552, pp. 380-380.

**O’Meara**, B. C, K. L. Graham, S. M. Pellis and G. M. Burghardt (2015a). “Evolutionary models for the retention of adultsocial play in primates: The roles of diet and other factors associated with resource acquisition”. In: *Adaptive Behavior* 23.6, pp. 381-391.

**O’Meara**, B. C, K. L. Graham, S. M. Pellis and G. M. Burghardt (2015b). “Evolutionary models for the retention of adultsocial play in primates: The roles of diet and other factors associated with resource acquisition”. In: *Adaptive Behavior* 23.6, pp. 381-391.

Beaulieu, J. M, B. C. **O’Meara**, P. Crane and M. J. Donoghue (2015). “Heterogeneous Rates of Molecular Evolution and Diversification Could Explain the Triassic Age Estimate for Angiosperms”. In: *Systematic Biology* 64.5, pp. 869-878.

Beaulieu, J. M. and B. C. **O’Meara** (2015). “Extinction can be estimated from moderately sized molecular phylogenies”. In: *Evolution* 69.4, pp. 1036-1043.

Aldrovandi, M. S. P, J. E. Johnson, B. OMeara, R. H. Petersen and K. W. Hughes (2015). “The Xeromphalina campanella/kauffmanii complex: species delineation and biogeographical patterns of speciation”. In: *Mycologia* 107.6, pp. 1270-1284.

Zanne, A. E, D. C. Tank, W. K. Cornwell, J. M. Eastman, S. A. Smith, R. G. FitzJohn, D. J. McGlinn, B. C. **O’Meara**, A. T. Moles, P. B. Reich, D. L. Royer, D. E. Soltis, P. F. Stevens, M. Westoby, I. J. Wright, L. Aarssen, R. I. Bertin, A. Calaminus, R. Govaerts, F. Hemmings, M. R. Leishman, J. Oleksyn, P. S. Soltis, N. G. Swenson, L. Warman and J. M. Beaulieu (2014). “Corrigendum: Three keys to the radiation of angiosperms into freezing environments”. In: *Nature* 514.7522, pp. 394-394.

Williams, J. H, M. L. Taylor and B. C. **O’Meara** (2014). “Repeated evolution of tricellular (and bicellular) pollen”. In: *American Journal of Botany* 101.4, pp. 559-571.

Jhwueng, D, S. Huzurbazar, B. C. **O’Meara** and L. Liu (2014). “Investigating the performance of AIC in selecting phylogenetic models”. In: *Statistical Applications in Genetics and Molecular Biology* 13.4.

Cornwell, W. K, M. Westoby, D. S. Falster, R. G. FitzJohn, B. C. **O’Meara**, M. W. Pennell, D. J. McGlinn, J. M. Eastman, A. T. Moles, P. B. Reich, D. C. Tank, I. J. Wright, L. Aarssen, J. M. Beaulieu, R. M. Kooyman, M. R. Leishman, E. T. Miller, Ü. Niinemets, J. Oleksyn, A. Ordonez, D. L. Royer, S. A. Smith, P. F. Stevens, L. Warman, P. Wilf and A. E. Zanne (2014). “Functional distinctiveness of major plant lineages”. In: *Journal of Ecology* 102.2. Ed. by A. Austin, pp. 345-356.

Banbury, B. L. and B. C. **O’Meara** (2014). “Reol: R interface to the Encyclopedia of Life”. In: *Ecology and Evolution* 4.12, pp. 2577-2583.

Zanne, A. E, D. C. Tank, W. K. Cornwell, J. M. Eastman, S. A. Smith, R. G. FitzJohn, D. J. McGlinn, B. C. **O’Meara**, A. T. Moles, P. B. Reich, D. L. Royer, D. E. Soltis, P. F. Stevens, M. Westoby, I. J. Wright, L. Aarssen, R. I. Bertin, A. Calaminus, R. Govaerts, F. Hemmings, M. R. Leishman, J. Oleksyn, P. S. Soltis, N. G. Swenson, L. Warman and J. M. Beaulieu (2013). “Three keys to the radiation of angiosperms into freezing environments”. In: *Nature* 506.7486, pp. 89-92.

Stoltzfus, A, H. Lapp, N. Matasci, H. Deus, B. Sidlauskas, C. M. Zmasek, G. Vaidya, E. Pontelli, K. Cranston, R. Vos, C. O. Webb, L. J. Harmon, M. Pirrung, B. **O’Meara**, M. W. Pennell, S. Mirarab, M. S. Rosenberg, J. P. Balhoff, H. M. Bik, T. A. Heath, P. E. Midford, J. W. Brown, E. J. McTavish, J. Sukumaran, M. Westneat, M. E. Alfaro, A. Steele and G. Jordan (2013). “Phylotastic! Making tree-of-life knowledge accessible, reusable and convenient”. In: *BMC Bioinformatics* 14.1, p. 158.

Soltis, D. E, M. E. Mort, M. Latvis, E. V. Mavrodiev, B. C. **O’Meara**, P. S. Soltis, J. G. Burleigh and R. R. de Casas (2013). “Phylogenetic relationships and character evolution analysis of Saxifragales using a supermatrix approach”. In: *American Journal of Botany* 100.5, pp. 916-929.

Hulsey, C. D, B. P. Keck, H. Alamillo and B. C. **O’Meara** (2013). “Mitochondrial genome primers for Lake Malawi cichlids”. In: *Molecular Ecology Resources* 13.3, pp. 347-353.

Beaulieu, J. M, B. C. **O’Meara** and M. J. Donoghue (2013). “Identifying Hidden Rate Changes in the Evolution of a Binary Morphological Character: The Evolution of Plant Habit in Campanulid Angiosperms”. In: *Systematic Biology* 62.5, pp. 725-737.

Stoltzfus, A, B. **O’Meara**, J. Whitacre, R. Mounce, E. L. Gillespie, S. Kumar, D. F. Rosauer and R. A. Vos (2012). “Sharing and re-use of phylogenetic trees (and associated data) to facilitate synthesis”. In: *BMC Research Notes* 5.1, p. 574.

Smith, S. A. and B. C. **O’Meara** (2012). “treePL: divergence time estimation using penalized likelihood for large phylogenies”. In: *Bioinformatics* 28.20, pp. 2689-2690.

**O’Meara**, B. C. (2012). “Evolutionary Inferences from Phylogenies: A Review of Methods”. In: *Annual Review of Ecology, Evolution, and Systematics* 43.1, pp. 267-285.

Beaulieu, J. M, D. Jhwueng, C. Boettiger and B. C. **O’Meara** (2012). “MODELING STABILIZING SELECTION: EXPANDING THE ORNSTEIN-UHLENBECK MODEL OF ADAPTIVE EVOLUTION”. In: *Evolution* 66.8, pp. 2369-2383.

Stack, J. C, L. J. Harmon and B. **O’Meara** (2011). “RBrownie: an R package for testing hypotheses about rates of evolutionary change”. In: *Methods in Ecology and Evolution* 2.6, pp. 660-662.

Goff, S. A, M. Vaughn, S. McKay, E. Lyons, A. E. Stapleton, D. Gessler, N. Matasci, L. Wang, M. Hanlon, A. Lenards, A. Muir, N. Merchant, S. Lowry, S. Mock, M. Helmke, A. Kubach, M. Narro, N. Hopkins, D. Micklos, U. Hilgert, M. Gonzales, C. Jordan, E. Skidmore, R. Dooley, J. Cazes, R. McLay, Z. Lu, S. Pasternak, L. Koesterke, W. H. Piel, R. Grene, C. Noutsos, K. Gendler, X. Feng, C. Tang, M. Lent, S. Kim, K. Kvilekval, B. S. Manjunath, V. Tannen, A. Stamatakis, M. Sanderson, S. M. Welch, K. A. Cranston, P. Soltis, D. Soltis, B. **O’Meara**, C. Ane, T. Brutnell, D. J. Kleibenstein, J. W. White, J. Leebens-Mack, M. J. Donoghue, E. P. Spalding, T. J. Vision, C. R. Myers, D. Lowenthal, B. J. Enquist, B. Boyle, A. Akoglu, G. Andrews, S. Ram, D. Ware, L. Stein and D. Stanzione (2011). “The iPlant Collaborative: Cyberinfrastructure for Plant Biology”. In: *Frontiers in Plant Science* 2.

Abercrombie, J. M, B. C. **O’Meara**, A. R. Moffatt and J. H. Williams (2011). “Developmental evolution of flowering plant pollen tube cell walls: callose synthase (CalS) gene expression patterns”. In: *EvoDevo* 2.1, p. 14.

COLLAR, D. C, J. A. SCHULTE, B. C. O’MEARA and J. B. LOSOS (2010). “Habitat use affects morphological diversification in dragon lizards”. In: *Journal of Evolutionary Biology* 23.5, pp. 1033-1049.

Smith, S. A. and B. C. **O’Meara** (2009). “Morphogenera, monophyly, and macroevolution”. In: *Proceedings of the National Academy of Sciences* 106.36, pp. E97-E98.

**O’Meara**, B. C. (2009). “New Heuristic Methods for Joint Species Delimitation and Species Tree Inference”. In: *Systematic Biology* 59.1, pp. 59-73.

Collar, D. C, B. C. **O’Meara**, P. C. Wainwright and T. J. Near (2009). “PISCIVORY LIMITS DIVERSIFICATION OF FEEDING MORPHOLOGY IN CENTRARCHID FISHES”. In: *Evolution* 63.6, pp. 1557-1573.

**O’Meara**, B. C, C. A. é, M. J. Sanderson and P. C. Wainwright (2006). “TESTING FOR DIFFERENT RATES OF CONTINUOUS TRAIT EVOLUTION USING LIKELIHOOD”. In: *Evolution* 60.5, p. 922.

Driskell, A. C. (2004). “Prospects for Building the Tree of Life from Large Sequence Databases”. In: *Science* 306.5699, pp. 1172-1174.

## Publications: Books or Book Chapters

Caetano, D, B. **O’Meara** and J. Beaulieu (2018). “Hidden state models improve the adequacy of state-dependent diversification approaches using empirical trees, including biogeographical models”. In: *bioRxiv*.

**O’Meara**, B. C. and J. M. Beaulieu (2014). “Modelling Stabilizing Selection: The Attraction of Ornstein-Uhlenbeck Models”. In: *Modern Phylogenetic Comparative Methods and Their Application in Evolutionary Biology: Concepts and Practice*. Ed. by L. Z. Garamszegi. Berlin, Heidelberg: Springer Berlin Heidelberg, pp. 381-393. ISBN: 978-3-662-43550-2.

Beaulieu, J. M. and B. C. **O’Meara** (2014). “Hidden Markov Models for Studying the Evolution of Binary Morphological Characters”. In: *Modern Phylogenetic Comparative Methods and Their Application in Evolutionary Biology: Concepts and Practice*. Ed. by L. Z. Garamszegi. Berlin, Heidelberg: Springer Berlin Heidelberg, pp. 395-408. ISBN: 978-3-662-43550-2.

**O’Meara**, B. C. (2012). “Phylogenetic Reconstruction”. In: *Encyclopedia of Theoretical Ecology*. Ed. by A. Hastings and L. Gross. 4. Univ of California Press. ISBN: 0520269659.

## Teaching

### University Courses

I created a course on macroevolution targeted at upper level undergraduate and graduate students: we cover diversification, symbiosis, game theory, and more. I have also taught large introductory courses and small discussion seminars. Note that the “HOFF joint lab group discussion” was a collaborative lab group meeting of the Hulsey-O’Meara-Fordyce-Fitzpatrick labs.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Year | Semester | Course Number | Topic | Enrollment | Percent Effort |  |
| 2018 | Spring | EEB603 | PhyloMeth | 2 | 100 |  |
| 2018 | Spring | EEB504 | PhyloMeth | 5 | 100 |  |
| 2017 | Fall | EEB464 | Macroevolution | 23 | 100 |  |
| 2017 | Spring | EEB603 | PhyloMeth | 6 | 100 |  |
| 2017 | Spring | EEB504 | PhyloMeth | 2 | 100 |  |
| 2016 | Fall | EEB464 | Macroevolution | 28 | 100 |  |
| 2016 | Spring | Biology150 | Introductory biology | 235 | 100 |  |
| 2016 | Spring | EEB603 | PhyloMeth | 9 enrolled, plus dozens online | 100 |  |
| 2015 | Fall | EEB464 | Macroevolution | 27 | 100 |  |
| 2015 | Fall | EEB607 | Phyloseminar discussion | 10 | 100 |  |
| 2015 | Spring | EEB602 | Phyloseminar discussion | 13 | 100 |  |
| 2015 | Spring | EEB607 | HOFF joint lab group discussion | 8 | 100 |  |
| 2014 | Fall | EEB464 | Macroevolution | 28 | 100 |  |
| 2014 | Fall | EEB504 | HOFF joint lab group discussion | 9 | 33 |  |
| 2014 | Fall | EEB511 | Graduate student core | 12 | 50 |  |
| 2014 | Fall | EEB607 | Phyloseminar discussion | 15 | 100 |  |
| 2014 | Spring | Biology130 | Introductory biology | 94 | 100 |  |
| 2014 | Spring | EEB602 | Phyloseminar discussion | 24 | 100 |  |
| 2014 | Spring | EEB607 | HOFF joint lab group discussion | 6 | 25 |  |
| 2013 | Fall | EEB464 | Macroevolution | 30 | 100 |  |
| 2013 | Fall | EEB504 | HOFF joint lab group discussion | 11 | 25 |  |
| 2013 | Fall | EEB511 | Graduate student core | 19 | 33 |  |
| 2013 | Spring | EEB607 | HOFF joint lab group discussion | 8 | 25 |  |
| 2012 | Fall | EEB464 | Macroevolution | 22 | 100 |  |
| 2012 | Fall | EEB504 | HOFF joint lab group discussion | 5 | 25 |  |
| 2012 | Fall | EEB511 | Graduate student core | 14 | 13 |  |
| 2012 | Spring | Biology130 | Introductory biology | 206 | 100 |  |
| 2011 | Fall | EEB464 | Macroevolution | 24 | 100 |  |
| 2011 | Fall | EEB504 | HOFF joint lab group discussion | 7 | 25 |  |
| 2011 | Fall | EEB503 | EEB departmental seminar | 44 | 100 |  |
| 2011 | Fall | EEB511 | Graduate student core | 12 | 13 |  |
| 2011 | Spring | EEB503 | EEB departmental seminar | 35 | 100 |  |
| 2011 | Spring | EEB607 | Speciation discussion | 9 | 100 |  |
| 2010 | Fall | EEB511 | Graduate student core | 8 | 13 |  |
| 2010 | Spring | EEB607 | Speciation discussion | 13 | 100 |  |
| 2010 | Spring | EEB409 | Macroevolution | 13 | 100 |  |

### Workshops

I organize and/or participate in numerous workshops or tutorials.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Year | Location | Topic | Role |  |
| 2018 | Friday Harbor, WA | Evolutionary Quantitative Genetics workshop | Instructor |  |
| 2017 | Friday Harbor, WA | Evolutionary Quantitative Genetics workshop | Instructor |  |
| 2017 | Baton Rouge, LA | PHRAPL | Organizer/instructor |  |
| 2016 | Knoxville, TN | Evolutionary Quantitative Genetics workshop at NIMBioS | Instructor |  |
| 2015 | Ann Arbor, MI | Comparative methods in R, SSB satellite meeting | Organizer/instructor |  |
| 2015 | Knoxville, TN | Evolutionary Quantitative Genetics workshop at NIMBioS | Instructor |  |
| 2015 | Guaruja, Brazil | SSB-sponsored phylogeography workshop at Evolution meetings | Instructor |  |
| 2014 | Knoxville, TN | Evolutionary Quantitative Genetics workshop at NIMBioS | Instructor |  |
| 2014 | Knoxville, TN | Computing in the Cloud NIMBioS Tutorial | Co-organizer/instructor |  |
| 2014 | Columbus, OH | PHRAPL workshop | Co-organizer/Instructor |  |
| 2013 | Lausanne, Switzerland | Markov processes in phylogenetics | Instructor |  |
| 2013 | Vienna, Austria | eFlower Summer School | Remote instructor |  |
| 2013 | Knoxville, TN | Evolutionary Quantitative Genetics workshop at NESCent | Instructor |  |
| 2010 | Knoxville, TN | Fast, Free Phylogenies: HPC for Phylogenetics NIMBioS Tutorial | Organizer/instructor |  |
| 2010 | Gothenberg, Sweden | Species delimitation | Remote instructor |  |
| 2008 | Durham, NC | Computational phyloinformatics at NESCent | Instructor |  |
| 2008 | Bodega Bay, CA | Bodega Bay Workshop in Applied Phylogenetics | Instructor |  |
| 2007 | Bodega Bay, CA | Bodega Bay Workshop in Applied Phylogenetics | Instructor |  |
| 2007 | Davis, CA | Paleontology and its relevance to neontologists | Instructor |  |
| 2006 | Bodega Bay, CA | Bodega Bay Workshop in Applied Phylogenetics | Instructor |  |
| 2006 | Davis, CA | Model selection workshop | Organizer |  |
| 2005 | Bodega Bay, CA | Bodega Bay Workshop in Applied Phylogenetics | Instructor |  |

## Funding

This is all in addition to other **funding my students have gotten** (NSF EAPSI grant, fellowships from NIMBioS and PEER (an NIH-funded program at UTK), Google Summer of Code funding), **funding for workshops or working groups** (from NIMBioS and the Society for Systematic Biologists), and **funding I got before my faculty position** (NESCent postdoctoral fellowship, NSF DDIG, NSF GRF, and various internal grants at UC Davis). Total external funding, so far, as a faculty member is $2,673,854.

|  |  |  |  |
| --- | --- | --- | --- |
| Year | Title | Funder | Amount |
| 2018 | Phylotastic subaward | University of Maryland | $165,492 |
| 2015 | CAREER: Reducing barriers for comparative methods (PI) | NSF | $738,000 |
| 2015 | Collaborative Research: ABI Development: An open infrastructure to disseminate phylogenetic knowledge | NSF | $148,101 |
| 2014 | Population genetics-based codon models | NSF | $470,000 |
| 2013 | R interface to Encyclopedia of Life (Rubenstein Fellowship) | Encyclopedia of Life | $50,000 |
| 2013 | Collaborative Research: Phylogeographic Inference Using Approximated Likelihoods | NSF | $340,000 |
| 2012 | rPlant | iPlant | $98,252 |
| 2012 | Historical naming traditions and cryptic speciation bias biodiversity estimates in transatlantic agaric fungi | NSF | $393,074 |
| 2011 | iPlant: Trait evolution group, year 2 | iPlant | $138,590 |
| 2010 | iPlant: Trait evolution group, year 1 | iPlant | $132,345 |

##Presentations

**Bold** indicates presentation was delivered by me; otherwise, I was a coauthor. Also see various workshops under teaching.

June 2018: Talk on DateLife project for getting chronograms for the tree of life. Presented at the Society of Systematic Biologists meeting in Columbus, OH. Luna Sanchez Garcia & Brian O’Meara.

June 2017: Poster on inference of amino acid functionality from DNA sequences using a novel phylogenetic approach at the Society for Molecular Biology and Evolution meeting in Austin, TX. Cedric Landerer, Jeremy Beaulieu, Brian O’Meara, Mike Gilchrist.

**June 2017**: Symposium talk on phylogenetic networks at Evolution 2017 meeting: co-lead author was Tony Jhwueng.

**March 2017**: Invited talk on three projects at U. of Idaho, Moscow.

**September 2016**: Symposium talk on Approximate Bayesian computation for trait evolution on phylogenies at Geological Society of America annual meeting.

August 2016: Talk on linking leaf spectra to phylogenies at Ecological Society of America 2016 annual meeting. Jose Eduardo Meireles, Brian O’Meara, Anna Schweiger, Aditya Singh, Phil Townsend, Susan Ustin, Michael Schaepman, Franziska Schrodt, John Gamon and Jeannine Cavender-Bares.

**September 2015**: Talk on heterogeneity at Texas A&M

**June 2014**: Talk on floral evolution at Evolution 2014 meeting; co-lead author was Stacey Smith, coauthors were W SArmbruster, L Harder, C Hardy, L Hileman, L Hufford, A Litt, S Magallon, S Smith, P Stevens, C Fenster, P Diggle.

June 2014: Talk on phylogeography at Evolution 2014 meeting; lead author and speaker was Nathan Jackson, other authors were A. Garcia, B. Carstens, and B. O’Meara.

June 2014: Talk on biogeography at Evolution 2014; lead author and speaker was Katie Massana (grad student), coauthors were J. Beaulieu, B. O’Meara, and N. Matzke.

June 2014: Talk on Hawaiian island plant immigration at Evolution 2014; lead author and speaker was Jeremy Beaulieu, coauthor was Brian O’Meara.

**May 2014**: Smithsonian Phylopizza

**June, 2013**: Symposium talk on species delimitation, Evolution meetings

**Aug. 2012**: Invited talk on comparative methods, Institute of Bioinformatics, U. of Georgia

**June, 2012**: Symposium talk on ABC and comparative methods, Evolution meetings

**March, 2011**: Phyloseminar talk on ABC and comparative methods. Apple Keynote and PDF.

**May, 2010**: Talk on phylogenetics and iPToL at iPlant meeting in Las Vegas

**April, 2010**: Invited talk on species delimitation at Louisiana State University

**Nov., 2009**: Talk at NIMBios about species delimitation and species tree inference

**Mar., 2009**: Talk to UT Knoxville EEB

**June, 2008**: Talk at Evolution 2008 in Minnesota

**June, 2008**: Poster at Evolution 2008 in Minnesota

**June, 2008**: Invited Joel Keizer Prize in Theoretical Biology lecture at University of California, Davis

**May, 2008**: Invited symposium talk at Interface 2008 [statistics conference] in NC

**April, 2008**: Invited talk to the Organismic and Evolutionary Biology department at Harvard U.

**Jan., 2008**: Invited symposium talk at Society for Integrative and Comparative Biology meeting in TX

**Oct., 2007**: Invited talk at Duke Systematics Discussion Group

**Oct., 2007**: Talk at NESCent brown bag lunch series

**June, 2007**: Exit seminar

**June, 2006**: Talk at Evolution 2006 in NY

**Feb., 2006**: Poster at CIPRES all hands meeting in TX

**July, 2005**: Talk at CIPRES-funded graduate student meeting in NM

**June, 2005**: Talk on Brownie at Evolution meetings in Alaska.

**Dec, 2004**: Presentation at the Bay Area Biosystematists meeting

**Dec., 2001**: Talk at Entomology Society of America national meeting in CA

**June, 2001**: Poster at Evolution 2001 in TN

**Dec., 2000**: Poster at the Entomology Society of America national meeting in Canada

## Mentoring, Faculty

Our department now has faculty mentored by a committee of later career faculty. I have served on committees for folks hired after me.

|  |  |
| --- | --- |
| Name | Department |
| Liz Derryberry | EEB |
| Stephanie Kivlin | EEB |
| Kimberly Sheldon | EEB |

## Mentoring, Postdocs

I have mentored numerous postdocs off of my own grants and/or as one of their chosen NIMBioS mentors. Note that NIMBioS postdocs pursue independent research projects but choose one faculty member to mentor them in math and another to mentor them in biology (I have served in both roles).

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Duration | NIMBioS | Current Position |
| Hugo Alamillo | 2011-2012 | N | Assistant Professor North Seattle College |
| [Barb Banbury](https://www.linkedin.com/in/bbanbury) | 2010-2012 | N | Statistical Analyst at Fred Hutch |
| David Bapst | 2017-present | N |  |
| [Jeremy Beaulieu](http://www.jeremybeaulieu.org/) | 2012-2016 | Both | Assistant Professor at U. of Arkansas |
| [Juanjuan (JJ) Crosskey (formerly Chai)](https://www.linkedin.com/in/jjcrosskey) | 2011-2013 | Y | Quantitative Analyst at Quantamental Technologies LLC |
| [Dominic Evangelista](https://www.roachbrain.com) | 2018-present | Y |  |
| [Nathan Jackson](http://nathandjackson.com/) | 2013-2016 | N | Researcher at National Jewish Health |
| [Tony Jhwueng](http://www.tonyjhwueng.info/) | 2009-2011 | Y | Assistant Professor Feng-Chia U., Taiwan |
| Sandy Kawano | 2014-2016 | Y | Starting as Assistant Professor at CSU Long Beach in Aug. 2017 |
| [Michelle Lawing](http://people.tamu.edu/~alawing/) | 2012-2014 | Y | Assistant Professor Texas A&M |
| [Ryan Martin](http://www.martinevolutionaryecologylab.com) | 2012-2013 | Y | Assistant Professor Case Western U |
| [Nick Matzke](http://nickmatzke.weebly.com) | 2013-2015 | Y | DECRA Fellow at The Australian National University in Canberra |
| Megan Rua | 2015-2016 | Y | Assistant Professor Wright State U |
| Luna Sanchez Reyes | 2017-present | N |  |
| Sergei Tarasov | 2016-present | Y | NIMBioS postdoc |

## Mentoring, Grad students in my lab

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Stage | Time in Lab | Note |
| [Sam Borstein](https://fish4thought.wordpress.com/) | PhD student | 2014-present |  |
| [Jenn Bosco](https://sites.google.com/site/jenniferboscoinfo/home) | PhD student | 2012-2017 | Co-advised with Susan Riechert |
| [Katie Massana](https://sites.google.com/site/kathrynamassana/home) | PhD student | 2012-2017 |  |
| [Orlando Schwery](https://sites.google.com/site/orlandoschwery/home) | PhD student | 2014-present |  |

## Mentoring, Undergrad students in my lab

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Stage | Time in Lab | Note |
| [Christian Yarber](https://www.researchgate.net/profile/Christian_Yarber) | Undergrad | 2015-2016 |  |

## Mentoring, Grad student committees

In addition to my own students, of course.

|  |  |
| --- | --- |
| Name | Department |
| Will Atwood | Geology |
| Jen Bauer | Geology |
| Sharon Clemmensen | EEB |
| Troy Fadiga | Geology |
| Aaron Floden | EEB |
| Nicholas Gladstone | Geology |
| Mauricio Gonzalez-Forero | EEB |
| Alannie-Grace Grant | EEB |
| Phillip Hollingsworth | EEB |
| Whitaker Hoskins | EEB |
| Will Howell | EEB |
| Ivan Juric | EEB |
| Cedric Landerer | EEB |
| Jasper Lee | Microbiology |
| Bryan Looney | EEB |
| Liam Mueller | EEB |
| Tyson Paulson | EEB |
| Todd Pierson | EEB |
| Ryan Rooney | Geology |
| Max Rupp | EEB |
| Geetha Saarunya S | GST |
| Leonidas Salichos | Vanderbilt |
| Marisol Sanchez-Garcia | EEB |
| Sarah Sheffield | Geology |
| Jordan Utley | GST |
| Jess Welch | EEB |
| Rachel Wooliver | EEB |

## Service

* Joint Code of Conduct committee for Society for the Study of Evolution, Society of Systematic Biologists, and American Society of Naturalists, 2018-present
* Communications Director for the Society of Systematic Biologists (SSB), 2016-2017
* Co-organizer of iEvoBio meeting, 2016
* Co-organizer of SSB symposium on Breaking Barriers: Empirical, Theoretical, and Gender Issues in Phylogenetics for Evolution meetings in Brazil, 2015
* Co-organizer of SSB satellite meeting in May, 2015
* Co-organizer of iEvoBio meeting (met with SSB) May 2015
* Co-organizer of Evolution meetings, 2014, including sole organizer for lightning talks
* Co-organizer of iEvoBio meeting, 2014
* Member of Phylotastic leadership team (group arranging hackathons for making trees more reusable), 2012-present
* Organizer of lighting talks for Evolution meetings, 2013
* UTK Faculty advisor for Darwin Day Tennessee, 2012-present
* UTK Department representative on Dean’s advisory council, 2012-2014
* UTK EEB Undergraduate affairs committee, 2012-2013
* UTK EEB Graduate admissions committee, 2013-present
* Chair, UTK EEB Web committee, 2011-present
* Co-organizer of Comparative Methods in R hackathon, 2007
* Bay Area Biosystematists Steering Committee: 2004-2007
* Secretary Cambridge Entomological Club, 2001-2002
* Reviewer for *Science, Heredity, Molecular Phylogenetics and Evolution, Systematic Biology, Evolution, Systematic Entomology, Proceedings of the Royal Society: Biological Sciences*, US National Science Foundation, and others.