

# Brant C. Faircloth

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## Research interests

Population and evolutionary genomics of non-model organisms; community genomics; genotype-phenotype interactions; (immuno-)genetic basis of mate choice; mating behavior; social behavior; radio-telemetry; natural history

## Current affiliations

2011- *Assistant Research Scientist*, Ecology & Evolutionary Biology, UCLA, Los Angeles, CA  
2010- *Visiting Scientist*, Tall Timbers Research Station, Tallahassee, FL  
2010- *Scientist*, Polistes Foundation, Belmont, MA

## Prior affiliations

2010-2011 *Post-doctoral Scholar*, Ecology & Evolutionary Biology, University of California, Los Angeles  
Mentor: Stephen P. Hubbell  
2008-2010 *Post-doctoral Scholar*, Ecology & Evolutionary Biology, University of California, Los Angeles  
Mentor: Patricia Adair Gowaty  
2000-2008 *Research Assistant*, Warnell School of Forestry & Natural Resources, University of Georgia  
Major professor: John P. Carroll

## Education

2000-2008 Doctor of Philosophy, University of Georgia  
1998-2000 Bachelor of Science in Forest Resources, University of Georgia, *Magna Cum Laude*  
1995-1997 Bachelor of Arts (candidate), Middlebury College

## Honors & awards

2010 Robert C. Anderson Memorial Award for Excellence in Research (Univ. of Georgia)  
2007 Stoddard-Burleigh-Sutton Award in Ornithology (Univ. of Georgia)  
2006 Blue Key Honor Society (Univ. of Georgia)  
2006 E. L. Cheatum Award (Forestry & Natural Resources)  
2003 Archie E. Patterson Scholarship (Forestry & Natural Resources)

2000 Outstanding Senior in Forest Resources (Forestry & Natural Resources)  
 2000 Faculty Award (Forestry & Natural Resources)  
 2000 Outstanding Senior in Wildlife (Forestry & Natural Resources)  
 2000 *Xi Sigma Pi* inductee  
 1998-2000 Presidential Scholar (Univ. of Georgia)  
 1998-2000 HOPE Scholarship (State of Georgia)  
 1998-2000 Alumni-fund Scholarship (Forestry & Natural Resources)

Grants & contracts (<sup>‡</sup>NSF-DEB limited co-PI status to 2 proposals)

2012-2013 National Science Foundation. DEB-1242267. EAGER - Collaborative Research: Using ultraconserved elements (UCEs) as genomic markers to study shallow levels of evolutionary divergence. K Winker, **BC Faircloth** (co-PI; co-author), TC Glenn. \$42,740.

2012-2013 National Science Foundation. DEB-1221196. EAGER - RUI: The genomic architecture of speciation in a classic avian hybrid zone. JE McCormack, C Cicero, **BC Faircloth** (senior personnel<sup>‡</sup>; co-author). \$50,000.

2012-2015 National Science Foundation. DEB-1146440. Collaborative Research: Genealogical reconstruction, foliar chemistry, and community dynamics in a Neotropical rain forest landscape. JP Kellner, **BC Faircloth** (co-PI; co-author), SP Hubbell, GP Asner. \$400,000.

2012-2017 National Science Foundation. DEB-1136626. Dimensions: Testing the potential of pathogenic fungi to control the diversity, distribution, and abundance of tree species in a Neotropical forest community. SP Hubbell, **BC Faircloth** (co-PI; co-author), GS Gilbert, TC Glenn, MA Saunders. \$1,941,923.

2012-2013 Smithsonian Institution. Consortium for Understanding and Sustaining a Biodiverse Planet. Building the framework of biodiversity science: Next generation phylogenetics. MJ Braun, K Wurdack, W Wcislo, J Maldonado, K Helgen, S Brady, M Cummings, TC Glenn, **BC Faircloth** (senior personnel; co-author), RT Brumfield, E Braun, JC McCormack, NG Crawford, N White. \$100,000.

2011-2013 Amazon Web Services in Education Research Grant. The utility of conserved exons as genetic markers. **BC Faircloth** (PI; author), NG Crawford, JE McCormack. \$10,000.

2011 Smithsonian Institution. Next-generation Sequencing Small Grant. Phylogenetic utility of ultra-conserved elements for the avian tree of life. MJ Braun, ND White, TC Glenn, **BC Faircloth** (senior personnel; co-author), RT Brumfield, EL Braun, JE McCormack, NG Crawford. \$10,000.

2010 Amazon Web Services in Education Research Grant. Species tree prediction in the cloud. NG Crawford, **BC Faircloth** (co-PI; co-author), TC Glenn. \$7,500.

- 2009 Smithsonian Institution. Scholarly Studies Program. Distribution, abundance, and species composition of fine roots in relation to soil nutrients in a neotropical tree community. SP Hubbell, **BC Faircloth** (equivalent to co-PI; co-author). \$57,900.
- 2009 UC MEXUS-CONACYT. Collaborative Research Grant. Mhc variation in Blue-footed Boobies, *Sula nebouxii*. PA Gowaty, HM Drummond, **BC Faircloth** (equivalent to co-PI; co-author). \$25,000.
- 2006 University of Georgia. Dissertation Completion Grant. An integrative study of social and reproductive systems in Northern Bobwhite (*Colinus virginianus*): a non-migratory, avian species bearing precocial young. **BC Faircloth**. \$15,600.
- 2006 Georgia Ornithological Society. Bill Terrell Grant. Effects of translocation on avian population genetics and demographics within a fragmented landscape. TM Terhune and **BC Faircloth** (author). \$2,980.
- 2005 Development of microsatellite loci for black bears (*Ursus americanus*). **BC Faircloth** and JP Carroll. \$2,000. [Contract with MJ Conroy]
- 2005 Development of microsatellite loci for Eastern Bluebirds (*Sialia sialis*). **BC Faircloth** and JP Carroll. \$3,000. [Contract with PA Gowaty]
- 2005 Florida Fish and Wildlife Conservation Commission. Ecology of the snake community of the Red Hills Region relative to management for northern bobwhite: assessing the diet choices of snakes using stable isotopes. A Fisk, JP Carroll, WE Palmer, **BC Faircloth** (co-author), KJ Sash. \$9,660.
- 2004 Apple Computer Company. Worldwide Developers Conference (WWDC), Student Attendance Grant. Conference costs for Apple's WWDC, 28 June-2 July. **BC Faircloth**.

Publications (trainees underlined; <sup>eq</sup>denotes equal authorship)

*Peer-refereed manuscripts (25 total; 515 citations; h-index: 10)*

- 2013 **BC Faircloth**, L Sorenson, F Santini, ME Alfaro<sup>eq</sup>. A phylogenomic perspective on the radiation of ray-finned fishes based upon targeted sequencing of ultraconserved elements. PLoS ONE 8:e65923. doi: [10.1371/journal.pone.0065923](https://doi.org/10.1371/journal.pone.0065923) arXiv: [1210.0120](https://arxiv.org/abs/1210.0120).
- 2013 JE McCormack, MG Harvey, **BC Faircloth**, NG Crawford, TC Glenn, RT Brumfield. A phylogeny of birds based on over 1,500 loci collected by target enrichment and high-throughput sequencing. PLoS ONE 8:e54848. pmid: [23382987](https://pubmed.ncbi.nlm.nih.gov/23382987/) doi: [10.1371/journal.pone.0054848](https://doi.org/10.1371/journal.pone.0054848) arXiv: [1210.1604](https://arxiv.org/abs/1210.1604).

- 2013 JE McCormack, **BC Faircloth**. Next-generation phylogenetics takes root. *Mol Ecol* 22:19-21. pmid: [23383410](#) doi: [10.1111/mec.12050](#).
- 2012 **BC Faircloth**, TC Glenn. Not all sequence tags are created equal: Designing and validating sequence identification tags robust to indels. *PLoS ONE* 7:e42543. pmid: [22900027](#) doi: [10.1371/journal.pone.0042543](#).
- 2012 A Untergasser, I Cutcutache, T Koressaar, J Ye, **BC Faircloth**, M Remm, S Rozen. Primer3 - New capabilities and interfaces. *Nucleic Acids Res.* 40:e115. pmid: [22730293](#) doi: [10.1093/nar/gks596](#). [Nucleic Acids Res. Featured Article]
- 2012 NG Crawford, **BC Faircloth**, JE McCormack, RT Brumfield, K Winker, TC Glenn. More than 1000 ultraconserved elements provide evidence that turtles are the sister group of archosaurs. *Biol Lett* 8:783-786. pmid: [22593086](#) doi: [10.1098/rsbl.2012.0331](#). [Biology Letters Top 10 Downloaded/Cited of 2012]
- 2012 JA St. John, EL Braun, SR Isberg, LG Miles, AY Chong, J Gongora, P Dalzell, C Moran, T Iguchi, B Bed'Hom, SC Burgess, AM Cooksey, TA Castoe, A Abzhanov, LD Densmore, M Venegas-Anyia, MJ Greenwold, RH Sawyer, FG Hoffmann, NG Crawford, JC Drew, SV Edwards, MK Fujita, JM Howard, **BC Faircloth**, DE Janes, S Yar Khan, Si Kohno, APJ de Koning, SL Lance, FM McCarthy, JE McCormack, ME Merchant, DG Peterson, DD Pollock, N Pourmand, BJ Raney, KA Roessler, JR Sanford, CJ Schmidt, EW Triplett, TD Tuberville, ED Jarvis, LJ Guillette Jr, TC Glenn, RE Green, DA Ray. Sequencing three crocodilian genomes to illuminate the evolution of archosaurs and amniotes. *Genome Biol* 13:415-427. pmid: [22293439](#) doi: [10.1186/gb-2012-13-1-415](#). [Genome Biology Editor's Pick]
- 2012 **BC Faircloth**, JE McCormack, NG Crawford, MG Harvey, RT Brumfield, TC Glenn. Ultraconserved elements anchor thousands of genetic markers for target enrichment spanning multiple evolutionary timescales. *Syst Biol* 61:717-726. pmid: [22232343](#) doi: [10.1093/sysbio/SYS004](#).
- 2012 JE McCormack, **BC Faircloth**<sup>eq</sup>, NG Crawford, PA Gowaty, RT Brumfield, TC Glenn. Ultraconserved elements are novel phylogenomic markers that resolve placental mammal phylogeny when combined with species tree analysis. *Genome Res* 26:746-754. pmid: [22207614](#) doi: [10.1101/gr.125864.111](#). [F1000 Recommended]
- 2011 K Kusumi, RJ Kulathinal, A Abzhanov, S Boissinot, NG Crawford, **BC Faircloth**, TC Glenn, DE Janes, JB Losos, DB Menke, S Poe, TJ Sanger, C Schneider, J Stapley, J Wade, J Wilson-Rawls. Developing a community-based genetic nomenclature for anole lizards. *BMC Genomics* 12:554-567. pmid: [22077994](#) doi: [10.1186/1471-2164-12-554](#).
- 2010 **BC Faircloth**, A Title, K Tan, J Welty, JR Belthoff, PA Gowaty. Eighteen microsatellite loci developed from western burrowing owls (*Athene cunicularia hypugaea*). *Conserv Genet Res* 2:167-171. doi: [10.1007/s12686-010-9214-5](#).

- 2010 TM Terhune, DC Sisson, WE Palmer, **BC Faircloth**, HL Stribling, JP Carroll. Translocation to a fragmented landscape: survival, movement and site fidelity of Northern Bobwhites. *Ecol Appl* 20:1040-1052. pmid: [20597288](#) doi: [10.1890/09-1106.1](#).
- 2009 **BC Faircloth**, A Ramos, H Drummond, PA Gowaty. Isolation and characterization of microsatellite loci from blue-footed boobies (*Sula nebouxii*). *Conserv Genet Res* 1:159-162. doi: [10.1007/s12686-009-9038-3](#).
- 2009 JS Skvarla, **BC Faircloth**, BM Shamblin, MJ Conroy. Microsatellite loci from the black bear (*Ursus americanus*). *Mol Ecol Resour* 9:288-291. pmid: [21564629](#) doi: [10.1111/j.1755-0998.2008.02234.x](#).
- 2009 KO Evans, LW Burger Jr., **BC Faircloth**, WE Palmer, JP Carroll. Effects of tissue collection methods on morphometrics and survival of captive neonatal Northern Bobwhite. *J Wildl Manage* 73:1241-1244. doi: [10.2193/2008-011](#).
- 2009 BM Shamblin, **BC Faircloth**, MG Dodd, DA Bagley, LM Erhart, PH Dutton, A Frey, CJ Nairn. Tetranucleotide markers from the loggerhead sea turtle (*Caretta caretta*) and their cross-amplification in other marine turtle species. *Conserv Genet* 10:577-580. doi: [10.1007/s10592-008-9573-6](#).
- 2009 **BC Faircloth**, TM Terhune, NA Schable, TC Glenn, WE Palmer, JP Carroll. Ten microsatellite loci from Northern Bobwhite (*Colinus virginianus*). *Conserv Genet* 10:535-538. doi: [10.1007/s10592-008-9559-4](#).
- 2008 BM Shamblin, **BC Faircloth**, SA Josserand, CD Nelson, CJ Nairn. 2008. Microsatellite loci from the eastern hemlock (*Tsuga canadensis*). *Mol Ecol Resour* 8:1354-1356. pmid: [21586044](#) doi: [10.1111/j.1755-0998.2008.02274.x](#).
- 2008 **BC Faircloth**. MSATCOMMANDER: detection of microsatellite repeat arrays and automated, locus-specific primer design. *Mol Ecol Resour* 8:92-94. pmid: [21585724](#) doi: [10.1111/j.1471-8286.2007.01884.x](#).
- 2007 BM Shamblin, **BC Faircloth**, M Dodd, A Wood-Jones, SB Castleberry, JP Carroll, CJ Nairn. Tetranucleotide microsatellites from the loggerhead sea turtle (*Caretta caretta*). *Mol Ecol Notes* 7:784-787. doi: [10.1111/j.1471-8286.2007.01701.x](#).
- 2006 **BC Faircloth**. GMCONVERT: file conversion for GeneMapper™ output files. *Mol Ecol Notes* 6:968-970. doi: [10.1111/j.1471-8286.2006.01419.x](#).
- 2006 **BC Faircloth**, GP Keller, CJ Nairn, WE Palmer, JP Carroll, PA Gowaty. Microsatellite loci from the Eastern Bluebird (*Sialia sialis*). *Mol Ecol Notes* 6:646-649. doi: [10.1111/j.1471-8286.2006.01408.x](#).

2005 **BC Faircloth**, A Reid, T Valentine, SH Eo, TM Terhune, TC Glenn, WE Palmer, CJ Nairn, JP Carroll. Tetranucleotide, trinucleotide, and dinucleotide microsatellite loci from the bobcat (*Lynx rufus*). Mol Ecol Notes 5:387-389. doi: [10.1111/j.1471-8286.2005.00936.x](https://doi.org/10.1111/j.1471-8286.2005.00936.x).

2005 **BC Faircloth**, WE Palmer, JP Carroll. Post-hatching brood amalgamation in Northern Bobwhites. J Field Ornithol 76:175-182. [pdf](#).

2004 NA Schable, **BC Faircloth**, WE Palmer, JP Carroll, LW Burger, LA Brennan, C Hagen, TC Glenn. Tetranucleotide and dinucleotide loci from northern bobwhite (*Colinus virginianus*). Molecular Ecology Notes 4:415-419. doi: [10.1111/j.1471-8286.2004.00670.x](https://doi.org/10.1111/j.1471-8286.2004.00670.x).

#### *Other/Pre-print manuscripts*

2012 **BC Faircloth**, J Chang, ME Alfaro. TAPIR enables high-throughput estimation and comparison of phylogenetic informativeness using locus-specific substitution models. arXiv: [1202.1215](https://arxiv.org/abs/1202.1215)

2010 S Castrezana, **BC Faircloth**, PA Gowaty. Drosophila collection in Los Angeles, California. Drosophila Information Service 93:91-93. [pdf](#).

#### *Edited volumes*

2009 Proceedings of Gamebird 2006: A Joint Conference of Quail VI and Perdix XII. SB Cederbaum, **BC Faircloth**, TM Terhune, JP Carroll (eds). ISBN 0-9703886-2-4. <http://gamebird.forestry.uga.edu/quailvi/>

#### *Dissertation*

2008 An integrative study of social and reproductive systems in Northern Bobwhite. Univ. of Georgia. Committee: JP Carroll (Chair), WE Palmer, PA Gowaty, TC Glenn, PD Schliekelman, JFD Dean.

#### *Unpublished manuscripts*

2004 **BC Faircloth**. Sexually transmitted parasites and reproductive behavior.

#### *Magazine articles*

2007 **BC Faircloth**, TM Terhune. Genetics in wildlife research and management, part II. Wildlife Trends 7(3):25-31.

2007 **BC Faircloth**, TM Terhune. Genetics in wildlife research and management, part I. Wildlife Trends 7(2):1-7.

- 2007 JG Paramore, TM Terhune, **BC Faircloth**. Changing predator dynamics and implications for bobwhites, part IV: putting knowledge to practice & “lessons learned the hard way!”. *Wildlife Trends* 7(1):7-16.
- 2007 **BC Faircloth**, TM Terhune, JG. Paramore. Changing predator dynamics and implications for bobwhites, part III: factors affecting predator management success and bobwhite abundance. *Wildlife Trends* 6(6):7-15.
- 2007 TM Terhune, **BC Faircloth**, JG Paramore. Changing predator dynamics and implications for bobwhites, part II: life history traits of bobwhite predators: fact or fiction. *Wildlife Trends* 6(5):10-20.
- 2007 TM Terhune, **BC Faircloth**, JG Paramore. Changing predator dynamics and implications for bobwhites, part I: changing times and changing paradigms: a brief history of bobwhite predator populations. *Wildlife Trends* 6(4):1-7.
- 2007 TM Terhune, **BC Faircloth**, JP Carroll. 2006. Avian Influenza: a synopsis and implications for wild gamebirds. *Wildlife Trends* 6(1):10-15.
- 2006 JP Carroll, **BC Faircloth**, K Spear. 2006. Pheasant origins. *Pheasants Forever, Summer*: 90-92.

#### Presentations

##### *Invited*

- 2013 **BC Faircloth**. Using next-generation molecular techniques to achieve phylogenomic nirvana. 21 June. Society of Systematic Biologists Phylogenetics Workshop (at Evolution 2013), Snowbird, UT, USA.
- 2013 **BC Faircloth**. Achieving phylogenomic nirvana: ultraconserved elements (UCEs) capture history at the species, population, and individual levels. 20 May. Frontiers in Phylogenetics Spring Symposium, National Museum of Natural History, Smithsonian Institution, Washington D.C., USA.
- 2013 **BC Faircloth**. UCE capture from DNA libraries with complex tagging designs. 8 April. UGA Institute of Bioinformatics Spring Symposium, Athens, GA, USA.
- 2012 **BC Faircloth**. Next-generation phylogenetics and barcoding. 19 January. National Museum of Natural History, Smithsonian Institution, Washington D.C., USA.
- 2008 **BC Faircloth**. Genetics and bobwhites... from quail sex to their genetic health. Stoddard Lecture, 23 October, Tall Timbers Research Station, Tallahassee, FL, USA.

- 2006 **BC Faircloth**, TM Terhune, SH Eo, JP Carroll. Genetic techniques and the study of neotropical quails: from sample collection to data analysis. 8 October. Neotropical Quail: Status, Conservation, and Research, Veracruz, Mexico.

### *Conference*

- 2013 P Chakrabarty, C McMahan, B Fink, J Albert, J Arroyave, M Stiassny, **BC Faircloth**, ME Alfaro. Phylogenetic insights into the evolution of Ostariophysi using ultraconserved elements. 9th Indo-Pacific Fish Conference, 24-28 June, Okinawa, Japan.
- 2013 ME Alfaro, **BC Faircloth**, L Sorenson. UCEs for fish phylogenomics and phylogeography. 9th Indo-Pacific Fish Conference, 24-28 June, Okinawa, Japan.
- 2013 BT Smith, JE McCormack, AM Cuervo, M Hickerson, A Aleixo, CD Cadena, J Pérez-Éman, X Xie, MG Harvey, **BC Faircloth**, TC Glenn, E Derryberry, J Prejean, S Fields S, CW Burney, RT Brumfield. Speciation by dispersal through a structured tropical landscape. Evolution 2013, 21-25 June, Snowbird, UT, USA.
- 2013 JE McCormack, **BC Faircloth**, CC Austin, RT Brumfield, TC Glenn. The deep history of tetrapods explored via target enrichment and high-throughput sequencing. Evolution 2013, 21-25 June, Snowbird, UT, USA.
- 2013 EL Braun, KA Meiklejohn, RT Kimball, **BC Faircloth**, TC Glenn. Comparison of the utility of mitochondrial DNA, nuclear introns, and ultraconserved element (UCE) data for the resolution of a recent but difficult avian radiation. Evolution 2013, 21-25 June, Snowbird, UT, USA.
- 2013 KA Meiklejohn, M Danielson, EL Braun, **BC Faircloth**, TC Glenn, RT Kimball. Conflicting phylogenetic signal among mitochondrial regions: Effects of taxon sampling and model choice. Evolution 2013, 21-25 June, Snowbird, UT, USA.
- 2013 MG Harvey, BT Smith, **BC Faircloth**, TC Glenn, RT Brumfield. SNPs versus sequences for phylogeography - an exploration using simulations and massively parallel sequencing in a non-model bird. Evolution 2013, 21-25 June, Snowbird, UT, USA.
- 2013 ND White, **BC Faircloth**, EL Braun, JE McCormack, ME Braun. Unraveling the evolutionary history of nocturnality in the nightbirds. Evolution 2013, 21-25 June, Snowbird, UT, USA [Abstract].
- 2013 M Venzon, **BC Faircloth**, ME Alfaro. Using targeted sequencing of DNA ultraconserved elements for the phylogenomic analysis of coral reef fishes. Evolution 2013, 21-25 June, Snowbird, UT, USA.
- 2013 TC Glenn, **BC Faircloth**. BadDNA.org: An Online Field Guide to Transitional & Transformative NGS Tools. Evolution 2013, 21-25 June, Snowbird, UT, USA.



- 2013 MG Harvey, BT Smith, **BC Faircloth**, TC Glenn, RT Brumfield. Genomic ultraconserved elements resolve the comparative phylogeography of five Neotropical birds. 6th Biennial Meeting of the International Biogeography Society, 9-13 January, Miami, FL, USA [Abstract].
- 2013 ME Alfaro, **BC Faircloth**. Using sequence capture of UCEs and flanking regions to resolve phylogenetic relationships within actinopterygian fishes. Society for Integrative and Comparative Biology, 3-7 January, San Francisco, CA, USA [Abstract].
- 2013 **BC Faircloth**, PA Gowaty, H Drummond, K Winker, TC Glenn. Ultraconserved elements are abundant, universal markers for population genetic and behavioral studies. Society for Integrative and Comparative Biology, 3-7 January, San Francisco, CA, USA [Abstract].
- 2012 JE McCormack, MG Harvey, **BC Faircloth**, NG Crawford, TC Glenn, RT Brumfield. Sequence capture of 416 ultraconserved elements provides phylogenomic resolution to the bird tree of life. *Evolution*, 6-10 July, Ottawa, Canada [Abstract].
- 2012 BT Smith, MG Harvey, **BC Faircloth**, TC Glenn, RT Brumfield. Estimating divergence times for comparative phylogeography using ultra conserved elements (UCEs). *Evolution*, 6-10 July, Ottawa, Canada [Abstract].
- 2012 MG Harvey, BT Smith, **BC Faircloth**, TC Glenn, JE McCormack, RT Brumfield. Genomic ultraconserved elements (UCEs) – information content for phylogenetics and phylogeography in birds. *Evolution*, 6-10 July, Ottawa, Canada [Abstract].
- 2012 A Untergasser, I Cutcutache, T Koressaar, J Ye, **BC Faircloth**, M Remm, S Rozen. Primer3 - New Capabilities and Interfaces. RECOMB 2012, 21-24 April, Barcelona, Spain [Abstract].
- 2012 TC Glenn, SL Lance, AM McKee, BL Webster, AM Emery, A Zerlotini, G Oliveira, D Rollinson, **BC Faircloth**. Microsatellite DNA loci from a genome-wide database show significant variance in genetic diversity among populations of *Schistosoma haematobium*. International Conference on Emerging Infectious Diseases, 11-14 March, Atlanta, GA, USA [Abstract].
- 2012 TC Glenn, R Nilsen, M Belanger, MG Harvey, J McCormack, K Winker, C Locklear, R Brumfield, **BC Faircloth**. Direct comparison of adapters and in-solution sequence capture methods. Advances in Genome Biology and Technology (AGBT), 15-18 February, Marco Island, FL, USA [Abstract].
- 2012 **BC Faircloth**, WE Palmer, TM Terhune, PA Gowaty, JP Carroll. The sexual proclivities of Northern Bobwhites. Quail VII: National Quail Symposium, 9-12 January, Tucson, AZ, USA [Extended Abstract].

- 2012 ME Alfaro, **BC Faircloth**, L Sorenson, J Chang, F Santini. A 500-locus phylogenomic study of ray-finned fishes. Society for Integrative and Comparative Biology, 3-7 January, Charleston, SC, USA [Abstract].
- 2012 PS Gilbert, J Chang, **BC Faircloth**, ME Alfaro. Genome-wide ultraconserved elements exhibit higher phylogenetic informativeness than traditional fish markers. Society for Integrative and Comparative Biology, 3-7 January, Charleston, SC, USA [Abstract].
- 2011 JE McCormack, **BC Faircloth**, NG Crawford, MG Harvey, PA Gowaty, RT Brumfield, TC Glenn. DNA regions flanking ultraconserved elements are novel phylogenomic markers that facilitate species-tree analysis of the mammal and bird tree of life. Evolution, 17-21 June, Norman, OK, USA.
- 2010 **BC Faircloth**, WE Palmer, TM Terhune, PA Gowaty, JP Carroll. Extreme flexibility in reproductive behavior: Tests of alternative mating hypotheses. International Ornithological Congress, 22-28 August, Campos de Jordao, Brazil [Abstract].
- 2010 PA Gowaty, **BC Faircloth**, SP Hubbell. Ecological constraints on encounters and survival predict individual variation in reproductive decisions, the distribution of extra-pair offspring in socially monogamous birds, and sex differences in fitness variances. International Ornithological Congress, 22-28 August, Campos de Jordao, Brazil [Abstract].
- 2007 **BC Faircloth**, PA Gowaty. Parentage inference using nuclear DNA loci in Eastern Bluebirds (*Sialia Sialis*). North American Bluebird Society Conference, 20-23 September, Athens, GA [Abstract].
- 2007 **BC Faircloth**, TM Terhune, WE Palmer, JP Carroll. Relatedness within and among Northern Bobwhite coveys measured using nuclear DNA loci: a preliminary assessment. International Galliformes Symposium, 14-21 October, Chengdu, China [Abstract].
- 2007 JP Carroll, **BC Faircloth**, R Machaidze. Observations on the Common Pheasant *Phasianus colchicus* in the Alazani River Valley, Republic of Georgia. International Galliformes Symposium, 14-21 October, Chengdu, China [Abstract].
- 2007 TM Terhune, **BC Faircloth**, DC Sisson, WE Palmer, HL Stribling, and JP Carroll. Introgression, allele frequency, and gene flow following translocation of northern bobwhites in an isolated, fragmented habitat: a preliminary assessment. International Galliformes Symposium, 14-21 October, Chengdu, China [Abstract].
- 2006 **BC Faircloth**, TM Terhune, MJ Conroy, DC Sisson, WE Palmer, HL Stribling, JP Carroll. Censor periods in survival analyses. The Wildlife Society Annual Conference, 23-27 September, Anchorage, AK [Abstract].

- 2006 BM Shamblin, **BC Faircloth**, M Dodd, D Bagley, A Tucker, D Addison, K Williams, M Frick, AB Meylan, MH Godfrey, S Hopkins-Murphy, JP Carroll, CJ Nairn. Development of 15 novel primers amplifying tetranucleotide microsatellite loci in loggerhead sea turtles (*Caretta caretta*). 27th International Sea Turtle Society Symposium, 22-28 February, Myrtle Beach, SC [Abstract].
- 2006 JP Carroll, TM Terhune, DC Sisson, WE Palmer, HL Stribling, **BC Faircloth**. Northern Bobwhite translocation and genetics. The Wildlife Society Annual Conference, 23-27 September, Anchorage, AK [Abstract].
- 2006 PA Gowaty, **BC Faircloth**. Fire ants and extra-pair paternity in Eastern Bluebirds. IV North American Ornithological Congress, 3-7 October, Veracruz, Mexico.
- 2006 TL Valentine, **BC Faircloth**, CJ Nairn, WE Palmer, JP Carroll. Assessment of gene flow between and introgression of pen-raised stock into Northern Bobwhite (*Colinus virginianus*) populations in the Southeast using microsatellite markers. Gamebird 2006, 31 May - 4 June, Athens, GA, USA [Abstract].
- 2006 TM Terhune, DC Sisson, WE Palmer, HL Stribling, **BC Faircloth**, JP Carroll. Northern Bobwhite translocation and genetics. Gamebird 2006, 31 May - 4 June, Athens, GA, USA [Abstract].
- 2005 AE Reid, **BC Faircloth**, GS Lynch, J Doughty, JC Cochrane, IG Jones, RJ Warren, LM Conner, CJ Nairn. Relationship between genetic relatedness and spatial distribution of bobcats (*Lynx rufus*) in southwestern Georgia. The Wildlife Society Annual Conference, 25-29 September, Madison, WI, USA [Abstract].
- 2005 **BC Faircloth**, WE Palmer, JP Carroll. Variation in survival within and among Northern Bobwhite (*Colinus virginianus*) coveys. Pages 80-81 in K. Pohlmeier (ed.): Extended Abstracts of the XXVIIth Congress of the International Union of Game Biologists, Hannover 2005. DSV-Verlag, Hamburg, Germany [Extended Abstract].
- 2005 AE Reid, **BC Faircloth**, GS Lynch, J Doughty, JC Cochrane, IG Jones, RJ Warren, LM Conner, CJ Nairn. Preliminary analysis of the relationship between relatedness and spatial distribution for the bobcat (*Lynx rufus*). American Society of Mammalogists, 15-19 June, Springfield, MO, USA [Abstract].
- 2004 KA Oswald, LW Burger Jr., **BC Faircloth**, WE Palmer. Effects of three sampling methods on growth and survival of neonatal Northern Bobwhite, and the utility of these methods for genetic analysis. The Wildlife Society Annual Conference, 18-22 September, Calgary, Alberta, Canada [Abstract].
- 2004 **BC Faircloth**, T Valentine, TM Terhune, SH Eo, JP Carroll, WE Palmer. Use of Genetic Information in Conservation: Applying Results to Management. International Galliformes Symposium, 4-11 April, Dehra Dun, Uttar Pradesh, India [Abstract].

- 2003 **BC Faircloth**. Use of microsatellite DNA in Galliformes: implications for research and management. American Zoological Association Regional Conference, 26-28 March, Columbia, SC [Abstract].
- 2003 **BC Faircloth**, WE Palmer, SD Wellendorf, JP Carroll. Variation of survival within and among Northern Bobwhite coveys. Southeast Quail Study Group, August 25-28, Potosi, MO.
- 2003 WE Palmer, SD Wellendorf, **BC Faircloth**, JP Carroll. Effects of supplemental feeding on Northern Bobwhite. Southeast Quail Study Group, August 25-28, Potosi, MO.
- 2002 **BC Faircloth**, K Oswald, JP Carroll, WE Palmer, LW Burger Jr., KW Fok, SD Wellendorf. Using microsatellite DNA to understand Northern Bobwhite mating systems and population structure. The Wildlife Society Annual Conference, 24-28 September, Bismarck, ND [Abstract].
- 2002 **BC Faircloth**, K Oswald, WE Palmer, JP Carroll, LW Burger Jr., KW Fok, SD Wellendorf. Using microsatellite DNA to understand bobwhite behavior and population structure. Page 229 in Stephen J. DeMaso, William P. Kuvlesky, Jr., and Fidel Hernandez, eds. Quail V: Proceedings of the Fifth National Quail Symposium, Texas Parks and Wildlife Department, Austin, TX [Extended Abstract].

## Teaching

### *Courses*

- 2006 FORS 1100 Natural Resource Conservation, Instructor, 40%, fall semester
- 2005 FORS 8300 Open-source Computing, Instructor, 20%, fall semester
- 2005 FORS 5250/7250 Intl. Wildlife Conservation, Instructor, 30%, spring semester
- 2004 FORS 3000 Field Measurements, Instructor, 15%, spring semester
- 2004 FORS 5770/7770 Wildlife Population Dynamics, Teaching Asst., spring semester

### *Workshops*

- 2013 Next-generation DNA sequencing. 15-17 May. University of Alaska, Fairbanks, AK, USA.
- 2013 Demuxipy, Splitaake, & Phyluce. 8 April. UGA Institute of Bioinformatics Spring Symposium, Athens, GA, USA.
- 2013 UCLA La Kretz Workshop in Conservation Genomics, 23-28 March, UCLA La Kretz Field Station, Santa Monica Mountains National Recreation Area, Malibu, CA, USA
- 2012 Sequence Capture for Next-generation Phylogenomics, 16-20 January, Smithsonian Institution, Washington D.C., USA

- 2011 Next-Generation DNA Sequencing Workshop, 20-21 July, Smithsonian Institution, Washington D.C., USA
- 2007 Scientist Training Workshop, World Pheasant Association, 14-21 October, Baishuihe Reserve, Sichuan Province, China
- 2004 Scientist Training Workshop, World Pheasant Association, 12-15 April, Mukteswar, Uttar Pradesh, India

#### Trainees/Mentoring

##### *Graduate Committee Member*

Jeff Wolf (UCLA)

##### *Post-graduate Trainees*

Gwen Keller (Univ. of Georgia), Vincent Wu (UCLA/UC Berkeley)

##### *Graduate Trainees*

Jonathan Chang (UCLA), Jonathan Drury (UCLA), Jennifer Linehan (Univ. of Georgia), Alejandra Ramos (UNAM, México), Allison Reid (Univ. of Georgia), Jamie Skvarla-Sanderlin (Univ. of Georgia), Brian Shamblin (Univ. of Georgia), Laurie Sorenson (UCLA), Theron Terhune (Univ. of Georgia)

##### *Undergraduate Trainees*

Justin Brooks (Univ. of Georgia), Adam Butler (MS State Univ.), Gereme Gaffney (UCLA), John Gruchy (MS State Univ.), Lindsay Kirkman (Univ. of Georgia), Andrew Nguyen (UCLA), Kevin Tan (UCLA), Alexandra Title (UC Berkeley)

##### *High School Trainees*

Elana Fruchtmann (Harvard-Westlake High, CA), Zack Herbst (Chadwick School, CA)

#### Service to the profession

- 2013- Editorial Board, Systematic Biology
- 2007- Editorial Board, International Journal of Galliformes Conservation
- 2006-2009 Editorial Board, Proceedings, [Gamebird 2006](#) (Quail VI and Perdix XII)
- 2001-2003 Chair, Student Affairs Committee, The Wildlife Society

#### *Refereeing*

Am Nat, Bird Conserv Int, Bull Br Ornithol Club, Conserv Genet, Divers Distrib, Ethology, Ibis, J Avian Biol, J Hered, J Wildl Manage, Mol Ecol, Mol Ecol Res, Syst Biol, Wildl Soc Bull, Wilson Bull, Zool Stud

### Service to the university

2009	Member, Ecology and Evolutionary Biology ( <i>ad hoc</i> ) Lab Safety Committee (UCLA)
2006-2008	Member, Forestry & Natural Resources Safety Committee (Univ. of Georgia)
2003	Member, Intercollegiate Athletics Committee (Univ. of Georgia)
2003	Member, University Council (Univ. of Georgia)
2001-2003	Vice-president, Forestry & Natural Resources Grad Student Association (Univ. of Georgia)
1999-2000	President, Student Chapter, The Wildlife Society (Univ. of Georgia)

### Additional professional service

2011-	Member of development team for packages in <a href="#">faircloth-lab</a> software repository @github
2007-	Member of the development team for <a href="#">Primer3</a> , a popular program for primer design
2006-	Developer of <a href="#">msatcommander</a> automated microsatellite primer design program
2010-2012	Contributor to <a href="#">The Molecular Ecologist</a>

### Scientific affiliations

2011-	Society of Systematic Biologists
2009-	IUCN-SSC Galliformes Specialist Group
2006-	Association of Field Ornithologists
2001-	American Ornithologist's Union
2006-2010	<i>Sigma Xi</i>
2001-2008	IUCN-SSC Partridge, Quail, and Francolin Specialist Group
1999-2003	The Wildlife Society

### Computer skills

Computer programming (Python, R, SAS)  
Document markup languages (CSS,  $\text{\LaTeX}$ , HTML)  
Server administration (Linux/Unix)  
Database administration (MySQL, PostgreSQL)

## Miscellaneous

Speak basic, conversational French

Former firefighter (Middlebury, VT; Savannah, GA)

Former National Registry EMT-Intermediate and technician, Memorial Trauma Center (Savannah, GA)

Hobbies: cooking, fly-fishing, hiking, mountain- & road-biking, running, reading, swimming, travel

Countries visited: Australia, Brazil, Canada, China, Germany, Guatemala, India, Mexico, The Netherlands, New Zealand, Republic of Georgia