### Education

- Postdoc The University of Michigan, July 2015 Current
  - Ph.D. Committee on Evolutionary Biology, The University of Chicago, June 2015
    - B.S. Geology magna cum laude Appalachian State University, 2010

### **Publications**

- In press Johnson, A.E, **Mitchell, J.S.**, and Brown, M.B. Convergent evolution in social swallows (Aves: Hirundinidae). *Ecology & Evolution* 
  - 2016 Bernardi, M, Angielczyk, K.D., **Mitchell, J.S.**, and Ruta, M. Phylogenetic stability, tree shape, and character compatibility: A case study using early Tetrapods. *Systematic Biology*, doi: 10.1093/sysbio/syw049
  - 2016 **Mitchell, J.S.** and Rabosky, D.L. Bayesian model selection with BAMM: effects of the model prior on the inferred number of diversification shifts. *Methods in Ecology and Evolution* 65(5) 737-758 doi: 10.1111/2041-210X.12626.
  - 2015 **Mitchell, J.S.** Extant only comparative methods fail to recover the disparity preserved in the bird fossil record. *Evolution* 69(9) 2414-2424.
  - 2015 **Mitchell, J.S.** Preservation is predictable: Quantifying the impact of taphonomic biases on ecological disparity in birds. *Paleobiology* 41(2) 353-367 doi: http://dx.doi.org/10.1017/pab.2014.23
  - 2014 **Mitchell, J.S.** and Makovicky, P.J. Low ecological disparity in Early Cretaceous birds. *Proceedings of the Royal Society B.* 281(1787), doi:10.1098/rspb.2014.0608
  - 2012 **Mitchell, J.S.**, Roopnarine, P.D., Angielczyk K.D. Late Cretaceous restructuring of dinosaur-bearing communities facilitated the End-Cretaceous mass extinction. *Proceedings of the National Academy of Sciences* 109(46):18857-61. doi: 10.1073/pnas.1202196109
  - Heckert, A.B., **Mitchell, J.S.**, Schneider, V., and Olsen, P.E. Diverse new microvertebrate assemblage from the Upper Triassic (Norian) Cumnock Formation, Sanford Subbasin, North Carolina, USA. *Journal of Paleontology*, 86(2):368-390, doi: http://dx.doi.org/10.1666/11-098.1
  - 2010 **Mitchell, J.S.**, Heckert A. B., and Sues, H-D. Grooves to tubes: Evolution of the venom delivery system in a Late Triassic "reptile". *Naturwissenchaften* 97:1117-1121.
  - 2010 **Mitchell, J.S.** and A. B. Heckert. The setup, use and efficacy of sodium polytungstate separation methodology with respect to microvertebrate remains. *Journal of Paleontological Techniques*, 7: 1-12

#### In review

Zelditch M.L., Ye J., **Mitchell J.S.**, and Swiderski D. L. Rare ecomorphological convergence on a complex adaptive landscape: Body size and diet mediate evolution of jaw shape in squirrels (Sciuridae). In review at *Evolution*.

Rabosky D.L., Mitchell J.S., and Chang, J. Is BAMM flawed? Theoretical and practical concerns in inference of multi-rate models. In review.

Mitchell, J.S., Koeller, K and Tomiya S.. A new species of *Elaphrocnemus*-like bird from the Washakie Formation of Wyoming (middle Eocene). In review at *Journal of Vertebrate Paleontology*.

| In prep. |  |
|----------|--|
|          | Mitchell, J.S., Etienne, R and Rabosky D.L fossilBAMM: A General Mul-    |
|          | tiprocess Diversification Model for Paleontological and Molecular Phylo- |
|          | genetic Data. In preparation for submission to Systematic Biology.       |
|          | Smith, N.A., Boyd, C., Stidham, T. and Mitchell, J.S Body mass in prey   |
|          | size in owls, including a description of a new species of fossil owl. In |
|          | preparation for submission to <i>Biology Letters</i> .                   |
|          | Koeller, K. and Mitchell, J.S Paleoecology of the Cedar Mountain For-    |
|          | mation (Early Cretaceous, Utah). In preparation, intended for Journal of |
|          | Vertebrate Paleontology.   |
| Book     |  |

Book reviews

2015 **Mitchell, J.S.**. Issues in Palaeobiology: a Global View. *Quarterly Review of Biology*. 90:424-429

# **Teaching Experience**

|                | Teaching assistantships               | Institution                  |
|----------------|---------------------------------------|------------------------------|
| Winter<br>2015 | Environmental Ecology (non-majors)    | The University of Chicago    |
| Summer<br>2014 | Stones and Bones (high school)        | The University of Chicago    |
| Spring<br>2013 | Scientific Ethics & Integrity (grad.) | The University of Chicago    |
| Spring<br>2013 | Biodiversity (undergrad.)             | The University of Chicago    |
| Fall 2012      | Biological Evolution (non-majors)     | The University of Chicago    |
| Fall 2009 -    | Introduction to Geology (undergrad.)  | Appalachian State University |
| Spring         |                                       |                              |
| 2010           |                                       |                              |

## Outreach

| 2014-2015 | Advisor to undergraduate intern, Krista Kroeller, Field Museum          |
|-----------|---|
| 2013-2015 | Presenter for Geology Badge, Boy Scouts of America, Field Museum        |
| 2012-2015 | Dozin' with the Dinos, Field Museum Public Outreach Program             |
| 2010-2015 | Ask-a-paleontologist outreach to Chicago Public Schools Kindergarten    |
|           | classes   |
| 2009-2015 | Over 20 presentations to middle-high school classrooms in rural North   |
|           | Carolina and Chicago Public Schools                                     |
| 2014      | "Wild Wednesday" Presenter, Garfield Park Conservatory, Chicago         |
| 2013      | Educator Open House, Field Museum                                       |
| 2012      | Presentation to undergraduate Geology Club, The University of Chicago   |
| 2011      | Proof-reader for Chicago Public Schools science materials, Field Museum |
| 2010      | Public Lecture hosted by the New Mexico Friends of Paleontology         |
|           |   |

| 2012 | Doctoral Dissertation Improvement Grant \$1  | 14, 960 (DEB-1311389) NSF   |
|------|--|-----------------------------|
| 2012 | Hinds Fund \$500                             | The University of Chicago   |
| 2011 | Hinds Fund \$1,520                           | The University of Chicago   |
| 2011 | Paleontological Society Student Grant \$850  | The Paleontological Society |
| 2010 | East Asia and Pacific Summer Institute Grant | \$5,700 (OISE-1107676) NSF  |

# Presentations

|      | Conference presentations   |
|------|--|
| 2016 | Evolution (15 minute Talk)   |
| 2014 | Society of Vertebrate Paleontology (15 minute Talk)                      |
| 2014 | Geological Society of America (15 minute Talk)                           |
| 2014 | Evolution (20 minute Talk) (link to video)                               |
| 2013 | Society of Vertebrate Paleontology Meeting (Poster)                      |
| 2013 | American Ornithologist's Union (20 minute Talk)                          |
| 2013 | Society of Integrative and Comparative Biology Meeting (20 minute Talk)  |
| 2012 | Society of Vertebrate Paleontology Meeting (15 minute Talk)              |
| 2012 | Society of Vertebrate Paleontology Meeting (Poster, co-author)           |
| 2012 | Geological Society of America Meeting (Poster, co-author)                |
| 2011 | Society of Vertebrate Paleontology Meeting (Poster)                      |
| 2011 | Geological Society of America Meeting: Phylogenetic Methods & the Fos-   |
|      | sil Record (15 minute Talk)  |
| 2010 | Geological Society of America Meeting (15 minute Talk)                   |
| 2010 | Society of Vertebrate Paleontology Meeting (Poster in Colbert Prize Ses- |
|      | sion)  |
| 2009 | Society of Vertebrate Paleontology Meeting (Poster)                      |
| 2009 | Appalachian State University Student Research Symposium (15 minute Talk) |
| 2008 | Society of Vertebrate Paleontology Meeting (Poster)                      |
| 2008 | Society of Vertebrate Paleontology Meeting Prepator's Session (Poster)   |
| 2008 | Southeastern Geological Society of America Meeting 2008 (Poster)         |
| 2008 | Appalachian State University Student Research Symposium (Poster)         |
|      | Other presentations  |
| 2014 | Field Museum Science & Education Interchange Seminar Series (30          |
|      | minute Talk)   |
| 2008 | Appalachian State University, Geology Department Seminar Series (45      |
|      | minute Talk)   |
| 2008 | Smithsonian Research Training Program Symposium (Poster)                 |
| 2008 | Appalachian State University Student Research Symposium (Poster)         |
|      |  |

# Professional training

| 2014 | Human Anatomy                      | Prtizker School of Medicine     |
|------|------------------------------------|---------------------------------|
| 2013 | K-Pg Food Web Workshop             | UC Berkeley                     |
| 2011 | Pedagogy in Evolutionary Biology   | The University of Chicago       |
| 2010 | Analytical Methods in Paleobiology | Workshop, Paleobiology Database |
|      | Macquarie University               |                                 |

### Professional service

| Peer       | Paleobiology, Proceedings of the Royal Society B, Palaeontology, Ecology  |  |
|------------|---|--|
| Review     | Letters, Current Biology, Naturwissenchaften, Fieldiana and Journal of    |  |
|            | Geophysical Research - Biogeosciences                                     |  |
| Workshops  | shops Presenter at K-Pg food web workshop at UC Berkeley, supported by th |  |
|            | Welles Fund; Organized and ran a graduate student programming work-       |  |
|            | shop series at the University of Chicago                                  |  |
| Session    | Society of Vertebrate Paleontology (2012), Society of Integrative Biology |  |
| Moderator  | (2013), Evolution (2014)  |  |
| Grant      | UChicago Dean's Council Travel Grant Review Panel (2012-2015)             |  |
| reviewer   |   |  |
| Committees | Dean's Council, Biological Sciences, The University of Chicago (2011-     |  |
|            | 2015)   |  |

## Professional societies

Society for the Study of Evolution, Society of Integrative and Comparative Biology, Geological Society of America, Society of Vertebrate Paleontology

## Select media coverage

| University of Chicago, early birds (link)        |
|--|
| University of Chicago, food webs (link)          |
| Nature News, <i>Uatchitodon</i> (link)           |
| National Geographic, <i>Uatchitodon</i> (link)   |
| University of Chicago, <i>Uatchitodon</i> (link) |

## Field work

| 2012-2013,  | Utah, Cedar Mountain Fm., Early Cretaceous                |
|-------------|---|
| 2015        |   |
| 2013-2014   | Wyoming, Green River Fm., Eocene                          |
| 2013-2014   | Argentina, Huincul Fm., Early Cretaceous                  |
| 2007, 2008, | Arizona, New Mexico & Colorado, Chinle Fm., Late Triassic |
| 2010        |   |
| 2008        | Wyoming, Cloverly Fm., Early Cretaceous                   |
| 2008        | North Carolina, Newark Group, Pekin Fm., Late Triassic    |