

## KAYCE C. BELL

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Department of Invertebrate Zoology  
National Museum of Natural History  
Washington D.C. 20560

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### EDUCATION

- 2016 Ph.D. Biology with Distinction, University of New Mexico  
*Advisors Joseph Cook and John Demboski*
- 2006 M.S. Biology, Idaho State University  
*Advisor Marjorie Matocq*
- 2003 B.S. Biology, Idaho State University

### APPOINTMENTS

- 11/2016–present Peter Buck Postdoctoral Fellow, Department of Invertebrate Zoology,  
National Museum of Natural History, Smithsonian Institution
- 01/2018–present Research Associate, Denver Museum of Nature & Science
- 09/2010–12/2017 Departmental Associate, Denver Museum of Nature & Science
- 08/2016–10/2016 Postdoctoral Associate, Museum of Southwestern Biology,  
University of New Mexico
- 11/2007–08/2010 Research Assistant, Department of Zoology, Denver Museum of Nature &  
Science
- 01/2007–10/2007 Mobile Molecular Lab Outreach Facilitator, New Mexico State University

### HONORS AND AWARDS

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|------------------------------------|-------------------------------------|------|
| Ernst Mayr Award, Evolution 2015   | Society of Systematic Biologists    | 2015 |
| Outstanding Graduate Student Award | Department of Biology, UNM          | 2013 |
| Meritorious Student Paper Award    | American Society of Parasitologists | 2011 |

### PEER-REVIEWED PUBLICATIONS

- McLean, B.S., **K.C. Bell**, J.M. Allen, K.M. Helgen, J.A. Cook. In press. Impacts of inference method and dataset filtering on phylogenomic resolution in a rapid mammalian radiation. *Systematic Biology*.
- Heske, E.J., **K.C. Bell**. In press. Professional awards of the American Society of Mammalogists. *Journal of Mammalogy*.
- Bell, K.C.**, J.R. Demboski, J.A. Cook. **2018**. Sympatric parasites have similar host-associated, but asynchronous, patterns of diversification. *American Naturalist*. 192:E106–E119.
- Bell, K.C.**, C.J. Carlson, A.J. Phillips. **2018**. Parasite collections: overlooked resources for integrative research and conservation. *Trends in Parasitology* 34:637–639.
- Cook, J.A., K.E. Galbreath, **K.C. Bell**, M.L. Campbell, S. Carriere, J.P. Colella, N.G. Dawson, J.L. Dunnum, R.P. Eckerlin, S.E. Greiman, V. Fedorov, G.M.S. Haas, V. Haukisalmi, H. Henttonen, A.G. Hope, D. Jackson, T. Jung, A.V. Koehler, J.M. Kinsella, D. Krejsa, S.J. Kutz, S. Liphardt, S.O. MacDonald, J.L. Malaney, A. Makarikov, J. Martin, B.S. McLean, R. Mulders, B. Nyamsuren, S.L. Talbot, V. Tkach, A. Tsvetkova, H.M. Toman, E.C. Waltari, J.S. Whitman, E.P. Hoberg. **2017**. Arctic Museum Collections--Special Issue: the Beringian Coevolution Project: holistic collections of mammals and associated parasites reveal novel perspectives on evolutionary and environmental change in the North. *Arctic Science* 3:585–617.

- Lacey, E.A., T.T. Hammond, R.E. Walsh, **K. Bell**, S.V. Edwards, E.R. Ellwood, R. Guralnick, S.M. Ickert-Gond, A.R. Mast, J. McCormack, A.K. Monfils, P.S. Soltis, D.E. Soltis, J.A. Cook. **2017**. Change, collections and the classroom: using big data to tackle big problems. *Evolution: Education and Outreach* 10:2.
- Allen, J., B. Boyd, N. Nguyen, P. Vachaspati, T. Warnow, D. Huang, P. Gero, **K. Bell**, Q. Cronk, L. Mugisha, B. Pittendrigh, M. Leonardi, D. Reed, K. Johnson. **2017**. Phylogenomics from whole genome sequences using aTRAM. *Systematic Biology* 66:786–798.
- Bell, K.C.**, K. Calhoun, E.P. Hoberg, J.R. Demboski, J.A. Cook. **2016**. Temporal and spatial mosaics: deep host association and shallow geographic drivers shape genetic structure in a widespread pinworm, *Rauschtineria eutamii* (Nematoda: Oxyuridae). *Biological Journal of the Linnean Society* 119:397–418.
- Cook, J.S., E.A. Lacey, S.M. Ickert-Bond, E.P. Hoberg, K.E. Galbreath, **K.C. Bell**, S.E. Greiman, B.S. McLean, S. Edwards. **2016**. From museum cases to the classroom: emerging opportunities for specimen-based education. *Archives of the Zoological Museum of Moscow State University* 54:787–899.
- Hope, A.G., J.L. Malaney, **K.C. Bell**, F. Salazar-Miralles, A.S. Chavez, B.R. Barber, J.A. Cook. **2016**. Revision of the widespread red squirrels (genus *Tamiasciurus*) highlights the complexity of speciation within North American forests. *Molecular Phylogenetics and Evolution*. 100:170–182.
- McLean, B.S., **K.C. Bell**, J.L. Dunnum, B. Abrahamson, J.P. Colella, E.R. Deardorff, J. Weber, A.K. Jones, F. Salazar-Miralles, J.A. Cook. **2016**. Natural history collections-based research: progress, promise, and best practices. *Journal of Mammalogy* 97:287–297.
- Bell, K.C.**, D. Matek, J.R. Demboski, J.A. Cook. **2015**. Expanded host range of sucking lice and pinworms in western North American chipmunks (genus *Tamias*). *Comparative Parasitology* 82:312–321.
- Cook, J.A., S.V. Edwards, E. Lacey, R.P. Guralnick, P.S. Soltis, D.E. Soltis, C. Welch, **K.C. Bell**, K.E. Galbreath, C. Himes, J.M. Allen, T.A. Heath, A.C. Carnaval, K.L. Cooper, M. Liu, J. Hanken. **2014**. Natural history collections as emerging resources for innovative undergraduate education in biology. *Bioscience* 8:725–734.
- Sullivan, J., J.R. Demboski, **K.C. Bell**, S. Hird, B. Sarver, N. Reid, J.M. Good. **2014**. Divergence-with-gene-flow within the recent chipmunk radiation (*Tamias*). *Heredity* 113:185–194.
- Bell, K.C.**, M.D. Matocq. **2011**. Regional genetic subdivision in the Mohave ground squirrel: evidence of historic isolation and ongoing connectivity in a Mojave Desert endemic. *Animal Conservation* 14:371–381.
- Bell, K.C.**, D.J. Hafner, P. Leitner, M.D. Matocq. **2010**. Phylogeography of the ground squirrel subgenus *Xerospermophilus* and assembly of the Mojave Desert biota. *Journal of Biogeography* 37:363–378.
- Bell, K.C.**, M.D. Matocq. **2010**. Development and characterization of polymorphic microsatellite loci in the Mohave ground squirrel (*Xerospermophilus mohavensis*). *Conservation Genetics Resources* 2:197–199.

## RESEARCH GRANTS AND FUNDING

(UNM = University of New Mexico)

- 2017 Supplement: Cooperative Research with USDA, Developing a Pipeline for Helminth Parasite Genomes. PI: J. Cook; co-PIs: E. Hoberg, S. Greiman, K.C. Bell, J. Allen, J. P. Colella
- 2016 Smithsonian Institution Scholarly Studies Award, the Impact of Host Hybridization on Parasitism in Western North American Chipmunks. Co-PI: Anna Phillips
- 2016 Cooperative Research with USDA, Developing a Pipeline for Helminth Parasite Genomes. PI: J. Cook; co-PIs: E. Hoberg, S. Greiman, K.C. Bell, J. Allen
- 2016 Global Genome Initiative Rolling Awards
- 2015 ASM Fellowship, American Society of Mammalogists
- 2013 NSF Doctoral Dissertation Improvement Grant Elucidating Evolutionary Histories of Multiple Chipmunk Parasites Using Next Generation Sequencing, co-PI, Joseph Cook
- 2012, 2014 Grant-in-Aid of Research, American Society of Mammalogists
- 2011, Joseph Alvin Gaudin Jr. Scholarship, Biology Department, UNM
- 2013–2016
- 2011 Research Project & Travel Grant, Office of Graduate Studies, UNM
- 2011 Graduate Research & Development, Graduate & Professional Student Association, UNM
- 2011 Graduate Student Research Award, Society of Systematic Biologists
- 2011 Willis A. Reid Jr. Fund, American Society of Parasitologists
- 2009, 2010, Lloyd David & Carlye Cannon Wattis Foundation Internship Program
- 2011 for Zoology, Denver Museum of Nature & Science

## SELECT RESEARCH PRESENTATIONS

- Bell, K., A. Phillips. August 2018. Collections are key: the role for natural history collections in parasite biodiversity research. Ecological Society of America, New Orleans, LA.
- Bell, K., B. McLean, J. Allen, K. Johnson, J. Demboski, J. Cook. June 2017. Double take: comparative phylogenomics and the mosaic of chipmunk and louse diversification. American Society of Parasitologists, San Antonio, TX.
- Bell, K., A. Phillips, J. Allen, K. Johnson, J. Demboski, J. Cook. June 2017. Testing for selection in chipmunk sucking lice. Evolution, Portland, OR.
- Bell, K. February 2017. A phylogenomic perspective on host-parasite diversification in chipmunks and lice. Smithsonian Conservation Biology Institute, Washington D.C.
- Bell, K. June 2016. Disentangling lousey relationships: a phylogenomic perspective on host-parasite coevolution. American Society of Mammalogists, Minneapolis, MN.
- Bell, K., K. Calhoun, E. Hoberg, J. Demboski, J. Cook. June 2015. Comparative parasitology: diversification of two pinworms across a widespread North American clade of rodents. Evolution, Guarujá, Brazil.
- Bell, K., E. Hoberg, J. Demboski, J. Cook. January 2013. Worms Out West: Revealing Faunal Assembly for Pinworms (Nematoda: Oxyurida) and Chipmunks (Mammalia: Rodentia) in the American West. International Biogeography Society Meeting, Miami, FL
- Bell, K., D. Matek, J. Malaney, J. Demboski, J. Cook. June 2012. Untangling Lousey Chipmunk Relationships. American Society of Mammalogists, Reno, NV.
- Bell, K., E. Hoberg, J. Demboski, J. Cook. June 2011. Comparative phylogeography of two species of pinworms that infect chipmunks. American Society of Parasitologists Annual Meeting, Anchorage, AK

- Bell, K., N. Reid, J. Sullivan, and J. Demboski. June 2010. Phylogenetic complexity within western North American chipmunks. American Society of Mammalogists Annual Meeting, Laramie, WY.
- Bell, K., J. Light, N. Reid, J. Sullivan, J. Cook, and J. Demboski. June 2009. Investigation of Lice and Pinworm Coevolutionary Histories with Chipmunk (genus *Tamias*) Hosts. American Society of Mammalogists Annual Meeting, Fairbanks, AK.
- Bell, K. February 2008. A tale of two squirrels: hanky-panky in the desert. Lunchtime Lecture. Denver Museum of Nature & Science, Denver, CO.

#### **INVITED PRESENTATIONS**

- Bell, K. December 2016. Disentangling diversification and community assembly of sciurid mammals and their parasites. Sam Noble Oklahoma Museum of Natural History, University of Oklahoma, Norman, OK.
- Bell, K. October 2015. Blood Feeders. Bloodsucker's Delight Science Lounge, Denver Museum of Nature & Science, Denver, CO.

#### **EDUCATIONAL PRESENTATIONS**

- Bell, K., E. Lessa, S. Edwards, S. Ickert-Bond, E. Lacey, R. Guralnick, A. Monfils, J. Cook. June 2015. AIM-UP! Advancing Integration of Museums into Undergraduate Evolution Programs. Evolution, Guarujá, Brazil.
- Bell, K. 9 June 2014. Engaging Biology Students Through Digital Data. American Society of Mammalogists Annual Meeting, Oklahoma City, OK.
- Bell, K., J. Dunnum, F. Salazar-Miralles, J. Cook. 26 July 2013. Colecciones de Los Museos in el Internet y en La Sala de Clases. Curso de Biodiversidad, Ecología y Conservación de Los Roedores Neotropicales. Universidad Nacional de San Agustín, Arequipa, Peru.

#### **PROFESSIONAL MEMBERSHIPS**

American Society of Mammalogists	2004–present
American Society of Naturalists	2016–present
American Society of Parasitologists	2009–present
Ecological Society of America	2018–present
Helminthological Society of Washington	2014–present
International Biogeography Society	2010–present
Society for the Study of Evolution	2006–present
Society of Systematic Biologists	2004–present

#### **PROFESSIONAL SERVICE**

Ad hoc reviewer for National Science Foundation	2017, 2018
Instructor for “How to Write a Successful Grant Proposal” Workshop, American Society of Mammalogists Meeting, Moscow, ID	2017
Member of American Society of Mammalogists Board of Directors	2016–present
Membership Committee, American Society of Mammalogists	2016–2017
Reviewer, Society of Systematic Biologists Graduate Student Research Award	2016
UNM Biology Graduate Student Selection Committee Member	2016
Reviewer, UNM Graduate and Professional Student Association	2014
Program Committee, American Society of Mammalogists	2013–present
UNM Biology BA/MD Faculty Search Committee Member	2012
Student Member of American Society of Mammalogists Board of Directors	2011–2013
Public Education Committee, American Society of Mammalogists	2011–2014
Advancing the Integration of Museums into Undergraduate Education (AIM-UP!), NSF-funded RCN-UBE.	2011–2015
Reviewer, UNM Biology Graduate Student Association Grant	2010–2015

Reviewer, *BiolInvasions Records*, *Biological Journal of the Linnean Society*, 2010–2018  
*BMC Evolutionary Biology*, *Evolution*, *Journal of Mammalogy*, *Molecular Ecology*, *Molecular Phylogenetics and Evolution*, *PLOS One*  
 Mobile Molecular Lab Outreach in local high schools, 2006  
 sponsored by Idaho State Board of Education

### TEACHING EXPERIENCE

Courses Led (designed and co-taught; UNM=University of New Mexico)

2014	Animal Hybridization Dynamics	UNM Biol 402/502
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Teaching Assistantships (UNM=University of New Mexico, ISU=Idaho State University)

2014	Human Dimension of Natural History	UNM Biol 402/502
2011, 2014, 2016	Tropical Biology	UNM Biol 461L/561L
2012	Mammalogy	UNM Biol 489L/589L
2006	Introductory Biology	ISU Bio100
2005	Introductory Biology, part II	ISU Bio101

### STUDENTS MENTORED (UNM=University of New Mexico)

Schuyler Liphardt, UNM undergraduate volunteer, 2013–2015  
 Distributions and diversity of Mongolian *Ochotona*. Presented research at 2015 and 2016 American Society of Mammalogists meetings.

Fernando Salazar-Miralles, UNM Minority Access to Research Careers (MARC), 2013–2014  
 Pleistocene endemism in *Tamiasciurus*. Presented research at 2013 SACNAS, 2014, UNM Biology Research Day. Coauthored Hope et al. 2016 *Molecular Phylogenetics and Evolution*.

Kendall Calhoun, UNM & University of California, Berkeley MARC, 2013  
 Phylogeography of the chipmunk pinworm *Rauschtineria eutamii*. Presented research at 2014 SACNAS, 2014 UNM Biomedical Symposium. Coauthored Bell et al. 2016 *Biological Journal of the Linnean Society*.

Candice Espinoza, UNM Post-baccalaureate Research and Education Program, 2011–2012  
 Species limits and phylogeography of Mongolian pikas (*Ochotona*). Presented research at 2012 American Society of Mammalogists meeting.

Diego Matek, UNM Undergraduate Opportunities, 2010–2012  
 Host-parasite associations of western chipmunk sucking lice. Presented research at 2011 UNM Biology Research Day, 2011 UNM Biomedical Symposium, 2012 UNM Undergraduate Research and Creativity Symposium. Coauthored Bell et al. 2015 *Comparative Parasitology*

### FIELD EXPERIENCE

Field experience includes: planning expeditions, obtaining domestic and international permits, collecting and preparing museum specimens, and shipping and transferring specimens.

May–August 2017	Small mammal trapping in 4 western states
March 2016	Small mammal trapping in Ecuador
July–August 2012, 2015	Small mammal trapping in Mongolia
March 2012, 2014, October 2016	Small mammal trapping in Panama
June–September 2008-2013	<i>Tamias</i> & small mammal trapping in 11 western states
July–August 2013	Small mammal trapping in Bolivia and Peru
March–May 2004, 2005	<i>Xerospermophilus</i> live trapping in California Mojave Desert
June–August 2004	Small mammal trapping in Northwest Territories
July–August 2002, 2003	Small mammal trapping in National Parks of Alaska