

BRYAN S. MCLEAN, PHD

University of North Carolina Greensboro · Department of Biology

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EDUCATION

- 2017 Ph.D Biology, University of New Mexico (with distinction, *Advisor: Joseph Cook*)
Pattern and Process in the Radiation of Ground-dwelling Squirrels
- 2011 M.S. Biology, University of North Carolina Wilmington (*Advisor: Steven Emslie*)
Late Quaternary Paleoecology of Two High-Elevation Mammal Species from the Southern Rocky Mountains, Colorado
- 2004 B.S. Biology, Appalachian State University

RESEARCH FOCI

Ecology and evolution of mammals, phylogenetics, phenotypic plasticity, biodiversity informatics, specimen-based research

APPOINTMENTS

- University of North Carolina Greensboro, Department of Biology
2019 - present Assistant Professor and Curator of Biodiversity Collections
- University of Florida, Florida Museum of Natural History
2018 - 2019 NSF Postdoctoral Fellow (*Sponsors: Rob Guralnick, David Blackburn, David Reed*)
2017 - 2018 Postdoctoral Associate
- University of New Mexico, Museum of Southwestern Biology
2018 - present Research Assistant Professor
2014 Curatorial Assistant, Division of Mammals
2011 - 2014 Curatorial Assistant, Division of Genomic Resources
- Smithsonian Institution, National Museum of Natural History
2015 Peter Buck Predoctoral Fellow (*Sponsors: Kristofer Helgen, Gene Hunt*)

FUNDING AND AWARDS (to date >\$5 million)

- 2024 **National Institute of Health**
UNC-Greensboro U-RISE: Engage, Sustain, and Prepare Future PhD Biomedical Scientists (\$2,257,683 over 5 years, co-PD beginning in Project Year 2)
- 2024 **UNCG College of Art and Sciences**, Proposal Preparation Program (P3) (\$3,000)
- 2024 **UNCG College of Art and Sciences**, FY24 Internal Research Award (\$25,000, co-PI)
- 2022 **National Science Foundation** (DBI)
BRC-BIO: Flexible traits and functional trade-offs: an integrated analysis of gastrointestinal plasticity in mammals (\$502,203, sole PI)
- 2022 **National Science Foundation** (DBI)
Collaborative Research: Ranges: Building Capacity to Extend Mammal Specimens from Western North America (\$2,600,000, lead PI, 21 participant institutions)
- 2022 **UNCG College of Art and Sciences**, Proposal Preparation Program (P3) (\$3,000)
- 2021 **National Science Foundation** (DEB)
Collaborative Research: STEPP-NET: Steppe Parasite Networks (\$850,000, lead PI)
Career-Life Balance Supplement to STEPP-NET (\$46,808, co-lead PI)
- 2021 **National Science Foundation** (DBI)
MRI: Acquisition of Micro-computed Tomography and 3D Imaging Infrastructure for Interdisciplinary STEM Research in North Carolina (\$918,417 [NSF portion = \$642,892], lead PI)
- 2018 **National Science Foundation** (DEB), Postdoctoral Research Fellowship in Biology
Linking processes of speciation and extreme genital evolution: a multi-clade comparison in squirrels (\$138,000, lead PI)
- 2016 **United States Fish and Wildlife Service**, Candidate Conservation Fund
*Distribution and Population Connectivity of Merriam's Ground Squirrel (*U. canus vigilis*)* (\$10,000)
- 2016 **American Society of Mammalogists**, ASM Fellowship
Pattern and process in the radiation of ground-dwelling squirrels (\$7,500)

- 2015 **National Museum of Natural History**, Peter Buck Predoctoral Fellowship
Finding common ground: towards a timescale for analyzing the radiation of ground-dwelling squirrels (\$32,000)
- 2015 **American Museum of Natural History**, Theodore Roosevelt Memorial Grant (\$2,275)
- 2014 **American Society of Mammalogists**, Grant-in-Aid of Research (\$2,000)
- 2014 **American Society of Mammalogists**, Elizabeth Horner Award (\$500)
- *** \$21,950 in additional research and travel support since 2010

PUBLICATIONS

- 39) **McLean BS**, et al. (**48 authors**) Extending mammal specimens with their essential phenotypic traits. *Journal of Mammalogy* in revision.
- 38) Odom et al. (**author 8 of 9**) Seasonal succession of cestode metacommunities in two North American *Sorex* shrews. *Journal of Parasitology* in press.
- 37) **McLean BS**, Stierman KE, Ivey LR, Weller AK, Chapman OS, Miller AM, Byrd JS, Garcia AM, Greiman SE. 2025. Seasonal body size plasticity and the generality of Dehnel's phenomenon in *Sorex* shrews. *The American Naturalist* 205:537—546. <<https://doi.org/10.1086/735018>> <Popular Press [here](#), [here](#), and [here](#)>
- 36) **McLean BS**, Rickart EA, Cook JA, Guralnick RP, Burgin C, Lohr K. 2025. Integrative species delimitation reveals an Idaho-endemic ground squirrel, *Urocitellus idahoensis* (Merriam 1913). *Journal of Mammalogy* 106:405—429. <<https://doi.org/10.1093/jmammal/gyae135>> <Popular Press [here](#), [here](#), and [here](#)>
- 35) Beltran et al. (**author 7 of 13**) 2025. Integrating animal tracking and trait data to facilitate global ecological discoveries. *Journal of Experimental Biology* 228 (Suppl_1):jeb247981. <<https://doi.org/10.1242/jeb.247981>>.
- 34) Boldgiv et al. (**author 17 of 26**) 2025. Global natural history infrastructure requires international solidarity, support and investment in local capacity: lessons from Mongolia. *Proceedings of the National Academy of Sciences* 122:e2411232122. <<https://doi.org/10.1073/pnas.2411232122>>.
- 33) Richardson et al. (**author 5 of 9**) 2024. *Orientia*, *Rickettsia*, and the microbiome in rodent attached chiggers in North Carolina, USA. *PlosONE* 19:e0311698. <<https://doi.org/10.1371/journal.pone.0311698>>
- 32) Chapman OS, **McLean BS**. 2024. Gastrointestinal morphology is an effective functional proxy for understanding small mammal community structure. *Ecology* 2024:e4454. <<https://doi.org/10.1002/ecy.4454>>
- 31) Blackburn DC, et al. (**oVert Project Team**) 2024. Increasing the impact of vertebrate scientific collections through 3D-imaging: The openVertebrate (oVert) Thematic Collections Network. *Bioscience* 74:169—186. <<https://doi.org/10.1093/biosci/biad120>>
- 30) Weller AK, Chapman OS, Gora SL, Guralnick RP, **McLean BS**. 2023. New insight into drivers of mammalian litter size from individual-level traits. *Ecography* 2023:e06928 <<https://doi.org/10.1111/ecog.06928>>
- 29) Chapman OS, **McLean BS**. 2023. Seasonal and sex-specific changes in the gastrointestinal tracts of *Peromyscus maniculatus*. *Journal of Mammalogy* 104:1264—1376 <<https://doi.org/10.1093/jmammal/gyad086>>
- 28) **McLean BS**, Barve N, Guralnick RP. 2022. Sex-specific breeding phenologies in the North American deer mouse (*Peromyscus maniculatus*). *Ecosphere* 13: e4327. <<https://doi.org/10.1002/ecs2.4327>>
- 27) Balk M, Deck J, Emery K, et al. (**author 25 of 35**) 2022. A solution to the challenges of interdisciplinary aggregation and use of specimen-level trait data. *iScience* 105101. <doi.org/10.1016/j.isci.2022.105101>
- 26) Abreu EF, Pavan SE, Tsuchiya MTN, **McLean BS**, Wilson DE, Percequillo AR, Maldonado JE. 2022. Old specimens for old branches: Assessing effects of sample age in resolving a rapid Neotropical radiation of squirrels. *Molecular Phylogenetics and Evolution* 175: 107576. <doi.org/10.1016/j.ympev.2022.107576>
- 25) Ponnusamy L, Garshong R, **McLean BS**, Wasserberg G, Durden LA, Crossley D, Apperson CS, Roe RM. 2022. *Rickettsia felis* and other *Rickettsia* Species in chigger mites collected from wild rodents in North Carolina, USA. *Microorganisms* 10:1342. <doi.org/10.3390/microorganisms10071342>
- 24) Kays R, et al. (**author 9 of 14**) 2022. Which mammals can be identified from camera traps and crowdsourced photographs? *Journal of Mammalogy* 103:767—775. <doi.org/10.1093/jmammal/gyac021>
- 23) **McLean BS**, Bell KC, Cook JA. 2022. SNP-based phylogenomic inference in Holarctic ground squirrels (*Urocitellus*). *Molecular Phylogenetics and Evolution* 169:107396 <doi.org/10.1016/j.ympev.2022.107396>
- 22) Hantak MM, **McLean BS**, Li D, Guralnick RP. 2021. Mammalian body size is determined by interactions between climate, urbanization, and ecological traits. *Communications Biology* 4:972. <doi.org/10.1038/s42003-021-02505-3> <Popular Press [here](#) [here](#) and [here](#)>
- 21) Colella JP, Stephens RB, Campbell ML, Kohli BA, Parsons DJ, **McLean BS**. 2021. The open-specimen movement. *BioScience* 71:405—414. <doi.org/10.1093/biosci/biaa146>
- 20) **McLean BS**, Guralnick RP. 2021. Digital biodiversity data sets reveal breeding phenology and its drivers in a widespread North American mammal. *Ecology* 102:e03258. <doi.org/10.1002/ecy.3258> <Popular Press [here](#) and [here](#)>

- 19) Guralnick RP, Hantak MM, Li D, **McLean BS**. 2020. Body size trends in response to climate and urbanization in the widespread North American deer mouse, *Peromyscus maniculatus*. *Scientific Reports* 10:8882. <doi.org/10.1038/s41598-020-65755-x> <Popular Press>
- 18) Barve VV, Brenskelle L, Li D, Stucky BJ, Barve NV, Hantak MM, **McLean BS**, Paluh DJ, Oswald JA, Belitz MW, Folk RA. 2020. Methods for broad-scale plant phenology assessments using citizen scientists' photographs. *Applications in Plant Sciences* 8:e11315. <doi.org/10.1002/aps3.11315>
- 17) Phillips CD, Dunnum JL, Dowler RC, Bradley LC, Garner HJ, MacDonald KA, Lim BK, Revelez MA, Campbell ML, Lutz HL, Garza NO, **ASM Systematic Collections Committee**. 2019. Curatorial guidelines and standards of the American Society of Mammalogists for collections of genetic resources. *Journal of Mammalogy* 100:1690–1694. <doi.org/10.1093/jmammal/gyz111>
- 16) **McLean BS**, Cook JA, Durden LA, Hoberg EP, Guralnick RP. 2019. The next chapter of human-plague science. *Proceedings of the National Academy of Sciences* 116:14411-14412. <doi.org/10.1073/pnas.1908836116>
- 15) Durden LA, Robinson C, Cook JA, **McLean BS**, Nyamsuren B, Greiman SE. 2019. A new species of sucking louse from the long-tailed ground squirrel, *Urocitellus undulatus*, from Mongolia, with a key to species, and a review of host associations and geographical distributions of members of the Genus *Linognathoides* (Psocoda: Anoplura: Polyplacidae). *Journal of Parasitology* 105:469-479. <doi.org/10.1645/18-198>
- 14) **McLean BS**, Barve NN, Flenniken J, Guralnick RP. 2019. Evolution of litter size in North America's most common small mammal: an informatics-based approach. *Journal of Mammalogy* 100:365–381 <doi.org/10.1093/jmammal/gyz057>
- 13) **McLean BS**, Bell KC, Allen JM, Helgen KM, Cook JA. 2019. Impacts of inference method and dataset filtering on phylogenomic resolution in a rapid radiation of ground squirrels (Xerinae: Marmotini). *Systematic Biology* 68:298–316. <doi.org/10.1093/sysbio/syy064> ****Featured on cover****
- 12) Dunnum JD, **McLean BS**, Dowler RC, **ASM Systematic Collections Committee**. 2018. Mammal collections of the Western Hemisphere: a survey and directory of collections. *Journal of Mammalogy* 99:1307–1322. <doi.org/10.1093/jmammal/gyy151>
- 11) **McLean BS**. 2018. *Urocitellus parryii* (Rodentia: Sciuridae). *Mammalian Species* 50:84-99. <doi.org/10.1093/mspecies/sey011>
- 10) **McLean BS**, Nyamsuren B, Tchabovsky A, Cook JA. 2018. Impacts of late Quaternary environmental change on the long-tailed ground squirrel (*Urocitellus undulatus*) in Mongolia. *Zoological Research* 39:364-372. <doi.org/10.24272/j.issn.2095-8137.2018.042> **** Special issue - Mammal Biodiversity in Asia ****
- 9) **McLean BS**, Helgen KM, Goodwin HT, Cook JA. 2018. Trait-specific processes of convergence and conservatism shape ecomorphological evolution in ground-dwelling squirrels. *Evolution* 72:473-489. <doi.org/10.1111/evo.13422>
- 8) Cook JA, et al. (**author 27 of 36**) 2017. 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. <doi.org/10.1139/AS-2016-0042> ****Special issue on Arctic Museum Collections****
- 7) **McLean BS**. 2017. Splendid (continental) radiations. *Evolution* 71:802-803. <doi.org/10.1111/evo.13183>
- 6) **McLean BS**, Jackson DJ, Cook JA. 2016. Rapid divergence and gene flow at high latitudes shape the history of Holarctic ground squirrels (*Urocitellus*). *Molecular Phylogenetics and Evolution* 102:174-188. <doi.org/10.1016/j.ympev.2016.05.040>
- 5) Cook JA, **McLean BS**, Jackson DJ, Colella JP, Greiman SE, Tkach VV, Jung TS, Dunnum JL. 2016. First record of the Eurasian Least Shrew (*Sorex minutissimus*) and associated helminths from Canada: new light on northern Pleistocene refugia. *Canadian Journal of Zoology* 94:367-372. <doi.org/10.1139/cjz-2015-0212>
- 4) Cook JA, Lacey EA, Ickert-Bond SM, Hoberg EP, Galbreath KE, Bell KC, Greiman SE, **McLean BS**, Edwards S. 2016. From museum cases to the classroom: emerging opportunities for specimen-based education. *Archives of the Zoological Museum of Moscow State University* 38.
- 3) **McLean BS**, Bell KC, Dunnum JL, Abrahamson B, Colella JP, Deardorff ER, Weber J, Jones AK, Salazar-Miralles F, Cook JA. 2016. Natural history collections-based research: progress, promise and best practices. *Journal of Mammalogy* 97:287-297. <doi.org/10.1093/jmammal/gyv178>
- 2) **McLean BS**, Ward JK, Polito MJ, Emslie SD. 2014. Responses of high-elevation herbaceous plant assemblages to low glacial CO2 concentrations revealed by fossil marmot (*Marmota*) teeth. *Oecologia* 175:1117-1127. <doi.org/10.1007/s00442-014-2982-y>
- 1) **McLean BS**, Emslie SD. 2012. Stable isotopes reflect the ecological stability of two high-elevation mammals from the late Quaternary of Colorado. *Quaternary Research* 77:408-417. <doi.org/10.1016/j.yqres.2012.02.001>

PRESENTATIONS († denotes undergraduate student author)

- Von Holten ZS, Anderson J, **McLean BS**, Greiman SE. Collaborative field collections of *Sorex* shrews in North Carolina uncover novel cestode diversity. American Society of Parasitologists 100th Annual Mtg, poster pres. (Jul. 2025).
- McLean BS**, Reyes AA. Fleas parasitizing divergent lineages of the long-tailed ground squirrel (*Uroditellus undulatus*) in Mongolia. American Society of Mammalogists 104th Annual Mtg, oral pres. (Jun. 2025).
- Weller AK, **McLean BS**. Buried diversity: Systematics and phylogenomics of the mole voles (*Ellobius* and *Bramus*) in the Palearctic realm. American Society of Mammalogists 104th Annual Mtg, oral pres. (Jun. 2025).
- Stierman KE, **McLean BS**. Shrinking shrews: exploring Dehnel's Phenomenon in the appendicular skeleton of *Sorex cinereus*. American Society of Mammalogists 104th Annual Mtg, poster pres. (Jun. 2025).
- Hernandez MF†, Plylar HB, **McLean BS**. Assessing Dehnel's Phenomenon in *Sorex cinereus* using micro-computed tomographic scans. American Society of Mammalogists 104th Annual Mtg, poster pres. (Jun. 2025).
- Chapman OS, Allred CD, Allred KF, **McLean BS**. Gutsy adaptations: seasonal microstructural plasticity in the gastrointestinal tracts of wild-caught *Peromyscus maniculatus*. American Society of Mammalogists 104th Annual Mtg, oral pres. (Jun. 2025).
- Burris WM, **McLean BS**. Ancient flea diversification and the Gondwanan land bridges. American Society of Mammalogists 104th Annual Mtg, poster pres. (Jun. 2025).
- Weller AK, **McLean BS**. Buried diversity: Systematics and phylogenomics of the mole voles (*Ellobius* and *Bramus*) in the Palearctic realm. Evolution Annual Mtg, oral pres. (Jun. 2025).
- McLean BS**, Bloom DL, Davis E, Guralnick RP, Santana S. Extending mammal specimens with their essential phenotypic traits. Society for the Preservation of Natural History Collections Annual Mtg, invited oral pres. (May 2025).
- Byrd J†, Weller AK, **McLean BS**. Convergent evolution of subterranean adaptations and morphological divergence across rodent lineages. UNCG 19th Annual Carolyn & Norwood Thomas Undergraduate Research & Creativity Expo, poster pres. (Apr. 2025).
- Hernandez M†, Plylar HB, **McLean BS**. Computed tomography scans offer a non-destructive method to measure brain volume in *Sorex cinereus*. UNCG 19th Annual Carolyn & Norwood Thomas Undergraduate Research & Creativity Expo, poster pres. (Apr. 2025).
- Garcia AM†, Stierman KE, **McLean BS**. Adaptations to seasonal climates and the remodification of skeletal elements in shrews (*Sorex*). UNCG 19th Annual Carolyn & Norwood Thomas Undergraduate Research & Creativity Expo, poster pres. (Apr. 2025).
- McLean BS**. Phylogeny of ground squirrels and relationship to global grassland evolution. NC State University Evolutionary Genomics Seminar Series, invited oral pres. (Apr. 2025).
- Burris WM, **McLean BS**. Ancient flea diversification and the Gondwanan land bridges. Southeastern Society of Parasitologists Annual Mtg, poster pres. (Apr. 2025).
- Chapman OS, **McLean BS**. Seasonal microstructure plasticity in the gastrointestinal tracts of wild-caught *Peromyscus maniculatus*. 30th Annual Mtg of the Southeastern Bat Diversity Network, poster pres. (Feb. 2025).
- Sainzorigt, M-O, **McLean BS**. Seasonal interaction of GI tract plasticity, gut microbiome, and diet in North American deer mice (*Peromyscus maniculatus*). 30th Annual Mtg of the Southeastern Bat Diversity Network, poster pres. (Feb. 2025).
- Stierman KE, **McLean BS**. Shrinking shrews: exploring Dehnel's phenomenon in the appendicular skeleton of *Sorex cinereus*. 30th Annual Mtg of the Southeastern Bat Diversity Network, poster pres. (Feb. 2025).
- McLean BS**. Seasonal shrinkage and shrinking seasons: Exploring phenotypic plasticity in small mammals using museum collections. University of Texas El Paso Biology Seminar Series, invited oral pres. (Feb. 2025).
- McLean BS**. Trait data resources for mammalogy and conservation in the temperate zone. University of Michigan Ecology and Evolutionary Biology Seminar Series, invited oral pres. (Sep. 2024).
- Wooten NTP†, Malaney JL, Greiman SE, **McLean BS**, Galbreath KE, Dunnum JL, Batsaikhan N, Tsogetsaikhan T, Garder SL, Cook JA, Koerner SE, Lkhagvasuren D. Visualizing Mongolian mammal specimens and their parasites across institutions and time. American Society of Mammalogists 103rd Annual Mtg, poster pres. (Jun. 2024).
- Weller AK, **McLean BS**. Systematics and phylogenomics of the mole voles (*Ellobius* and *Bramus*). American Society of Mammalogists 103rd Annual Mtg, poster pres. (Jun. 2024).
- Burris WM, Hayden J, Campbell M, Cook J, Dunnum JL, Galbreath K, Greiman SE, Koerner SE, Malaney J, **McLean BS**. Patterns in flea abundance on small mammals in Mongolia. American Society of Mammalogists 103rd Annual Mtg, poster pres. (Jun. 2024).

- Chapman OS, **McLean BS**. Gastrointestinal morphology is an effective functional dietary proxy that predicts small mammal community structure. American Society of Mammalogists 103rd Annual Mtg, oral pres. (Jun. 2024).
- McLean BS**, Stierman KE, Ivey LR, Weller AK, Chapman OS, Miller AM, Byrd JS, Garcia AM, Greiman SE. On the limits of Dehnel's phenomenon. American Society of Mammalogists 103rd Annual Mtg, oral pres. (Jun. 2024).
- Gould D[†], Weller AK, **McLean BS**. From specimen to open data: digitizing the UNCG Mammal Biodiversity Collection. UNCG 18th Annual Carolyn & Norwood Thomas Undergraduate Research & Creativity Expo, poster pres. (Apr. 2024).
- Hayden J[†], Burris WM, **McLean BS**. Patterns in flea abundance on small mammals in Mongolia. UNCG 18th Annual Carolyn & Norwood Thomas Undergraduate Research & Creativity Expo, poster pres. (Apr. 2024).
- Miller AM[†], Garcia AM, Byrd JS, Stierman KE, Chapman OS, **McLean BS**. Testing the extent of Dehnel's phenomenon. UNCG 18th Annual Carolyn & Norwood Thomas Undergraduate Research & Creativity Expo, poster pres. (Apr. 2024).
- McLean BS**. Assembling trait data resources for mammal conservation in the temperate zone. East Tennessee State University Biology Seminar Series, *invited* oral pres. (Feb. 2024).
- Reyes AA, **McLean BS**. Genes and fleas (Siphonaptera) of the Long-Tailed Ground Squirrel across Inner Asia. The Wildlife Society 30th Annual Meeting, poster pres. (Oct. 2023).
- Pickeral AC[†], Durden LA, Greiman SE, Cook JA, **McLean BS**. 2024. Sucking lice parasitizing small mammals in Mongolia. Annual Meeting of the Southeastern Society of Parasitologists, oral pres. (Apr. 2024).
- McLean BS**, Bloom DL, Santana S, Davis E, Guralnick RP. Ranges Digitization Network - Extending mammal specimens from western North America. BioDigiCon, oral pres. (Jul. 2023).
- Bloom DL, **McLean BS**, Santana S, Davis E, Guralnick RP. Ranges Digitization Network - Extending mammal specimens in western North America. 13th International Mammal Congress/American Society of Mammalogists 102nd Annual Mtg, oral pres. (Jul. 2023).
- Malaney J, Galbreath KE, Greiman SE, Koerner SE, Nyamsuren B, Dunnum J, Cook JA, **McLean BS**. STEPP-NET 2023 update – new discoveries, biodiversity infrastructure, and next steps. 13th International Mammal Congress/American Society of Mammalogists 102nd Annual Mtg, poster pres. (Jul. 2023).
- Chapman OS, **McLean BS**. Gastrointestinal plasticity in three widespread North American small mammals. 13th International Mammal Congress/American Society of Mammalogists 102nd Annual Mtg, poster pres. (Jul. 2023).
- Wooten NTP[†], Dunnum JL, Malaney J, Greiman SE, Galbreath KE, **McLean BS**, Koerner SE, Cook JA. Visualizing Mongolian mammal specimens and their parasites across institutions and time. 13th International Mammal Congress/American Society of Mammalogists 102nd Annual Mtg, poster pres. (Jul. 2023).
- Weller AK, **McLean BS**. Digging into the evolution of the subterranean mole-voles, genus *Ellobius*, with phylogenomics. Evolution Annual mtg, poster pres. (Jun. 2023).
- Moore N, **McLean BS**, Cook JA, Galbreath KE, Greiman SE. Diversity of tapeworms (Cestoda: Cyclophyllidae) parasitizing two shrew species, *Sorex caecutiens* and *Sorex isodon*, from Northern Mongolia. Southeastern Society of Parasitologists Annual Mtg, oral pres. (Apr. 2023).
- Ahmed R, **McLean BS**, Cook JA, Galbreath KE, Greiman SE. Diversity of cestode species within the shrew *Sorex roboratus* (Eulipotyphla: Soricidae) collected from Mongolia. Southeastern Society of Parasitologists Annual Mtg, oral pres. (Apr. 2023).
- Chapman OS, **McLean BS**. Gut's going on? Seasonal and sex-specific changes in the gastrointestinal tracts of *Peromyscus maniculatus*. Association of Southeastern Biologists 84th Annual Mtg. (Mar. 2023).
- McLean BS**. Trees and traits for mammal conservation in the temperate zone. Florida Museum of Natural History Seminar Series, *invited* oral pres. (Jan. 2023).
- Weller AK, **McLean BS**. Systematics and species delimitation of the mole-voles, genus *Ellobius*. Society of Systematic Biologists standalone mtg, poster pres. (Jan. 2023).
- McLean BS**. Assembling life-history and phenology data for mammals from digitized NHC collections. BioDigiCon, *invited* oral pres. (Sep. 2022).
- McLean BS**, Guralnick RP. Assembling individual-level trait-bases for small mammal phenology research. American Society of Mammalogists 101st Annual Mtg, *invited* oral pres. (Jun. 2022).
- Chapman OS, **McLean BS**. Gut check: exploring gastrointestinal morphology as a continuous functional trait in Appalachian small mammal communities. American Society of Mammalogists 101st Annual Mtg, oral pres. (Jun. 2022).
- Weller AK, Chapman OS[†], Gora SL[†], **McLean BS**. Litter size variation among North American small mammals. American Society of Mammalogists 101st Annual Mtg, oral pres. (Jun. 2022).

- Ivey L†, **McLean BS**. What's going on upstairs? - testing Dehnel's phenomenon in small mammals of the Appalachians. American Society of Mammalogists 101st Annual Mtg, oral pres. (Jun. 2022).
- Ivey L†, **McLean BS**. Testing Dehnel's phenomenon in small mammals of the Eastern United States. UNCG 16th Annual Carolyn and Norwood Thomas Undergraduate Research and Creativity Expo, poster pres. (Apr. 2022).
- Worcester JN†, Reyes A, **McLean BS**. Patterns of genetic diversity of the long-tailed ground squirrel (*Uroditellus undulatus*) in Mongolia. UNCG 16th Annual Carolyn and Norwood Thomas Undergraduate Research and Creativity Expo, poster pres. (Apr. 2022).
- Harris M†, Weller AK, Agresti H, **McLean BS**. The UNCG Mammal Collection as a conservation genetics resource for the Southern Appalachian ecosystem. UNCG 16th Annual Carolyn and Norwood Thomas Undergraduate Research and Creativity Expo, poster pres. (Apr. 2022).
- Anderson J†, Tkach VV, McLean BS, Greiman SL. Diversity of cestodes in two congeneric and syntopic shrew species, *Sorex cinereus* and *Sorex fumeus*, from North Carolina. Southeastern Society of Parasitologists Annual Mtg, oral pres. (Apr. 2022).
- Moore N†, Tkach VV, McLean BS, Greiman SL. New species of *Mathevolepis* Spassky 1948 from two shrew species, *Sorex cinereus* and *Sorex fumeus*, collected from the Appalachian Mountains of North Carolina. Southeastern Society of Parasitologists Annual Mtg, oral pres. (Apr. 2022).
- Chapman OS, **McLean BS**. Seasonal and sex-specific changes in the gastrointestinal tract of *Peromyscus maniculatus*. Southeastern Bat Diversity Network 27th Annual Mtg, oral pres. (Mar. 2022).
- McLean BS**. Three-dimensional data for the trait-based revolution. Joint School of Nanoscience and Nanoengineering (Greensboro), *invited* oral pres. (Nov. 2021).
- Davis E, Balk M, Bernor R, Deck J, Emery K, Guralnick RP, Hank M, **McLean BS**, Meshida K, Walls RL. FuTRES, a functional trait resource for environmental studies, allows more precise body mass estimation for extinct mammals. Ecological Society of America Annual Mtg, oral pres. (Aug. 2021).
- McLean BS**. Informatics workflows for reconstructing breeding phenologies and phenological change through time in North American small mammals. Ecological Society of America Annual Mtg, *invited* oral pres. (Aug. 2021).
- McLean BS**, Bell KC, Cook JA. SNP-based phylogenomics in Holarctic ground squirrels. American Society of Mammalogists 100th Annual Mtg, oral pres. (Jun. 2021).
- Abreu EF, Pavan S, Tsuchiya M, **McLean BS**, Wilson D, Percequillo AR, Maldonado JE. Assessing effects of sample age in resolving a rapid Neotropical radiation of squirrels. American Society of Mammalogists 100th Annual Mtg, oral pres. (Jun. 2021).
- Chapman OS, **McLean BS**. Gastrointestinal morphology as a continuous functional trait in Appalachian small mammal communities. American Society of Mammalogists 100th Annual Mtg, poster pres. (Jun. 2021).
- Weller AK, Chapman OS†, Gora SL†, **McLean BS**. Litter size variation among North American small mammals. American Society of Mammalogists 100th Annual Mtg, poster pres. (Jun. 2021).
- McLean BS**, Guralnick RP. Individual-level trait-bases for small mammal phenology research. iDigBio 5th Annual Digital Data Conference, oral pres. (Jun. 2021).
- Ivey L†, **McLean BS**. Predicting species range expansions using new integrative datasets and species distribution modeling. UNCG 15th Annual Carolyn & Norwood Thomas Undergraduate Research & Creativity Expo, poster pres. (Apr. 2021).
- Kohn C†, **McLean BS**. Understanding the role of the baculum in a rapid evolutionary radiation of tree squirrels. UNCG 15th Annual Carolyn and Norwood Thomas Undergraduate Research and Creativity Expo, poster pres. (Apr. 2021).
- McLean BS**, Guralnick RP. Leveraging digitized trait data for new insight into small mammal phenology across North America. iDigBio 4th Annual Digital Data Conference, oral pres. (Jun. 2020).
- McLean BS**, Cook JA, Guralnick RP. The disparate evolutionary histories of Great Basin ground squirrels (*Uroditellus*). American Society of Mammalogists 99th Annual Mtg, oral pres. (Jun. 2019).
- McLean BS**. Insights into rodent speciation from small bones and big biodiversity data. Florida Museum of Natural History seminar series, oral pres. (Mar. 2019).
- McLean BS**, Guralnick RP, Barve N. Evolution of litter size in North America's most common small mammal: An informatics-based approach. American Society of Mammalogists 98th Annual Mtg, oral pres. (Jun. 2018).
- McLean BS**. Pattern and process in the radiation of ground-dwelling squirrels. American Society of Mammalogists 97th Annual Mtg, plenary presentation (Jun. 2017).
- McLean BS**, Bell KC, Allen JM, Helgen KM, Cook JA. Impacts of phylogenomic dataset filtering for resolving a rapid radiation of ground squirrels. Society of Systematic Biologists standalone mtg, oral pres. (Jan. 2017).
- McLean BS**, Cook JA. Pattern and process in the Pleistocene diversification of small-eared ground squirrels (*Uroditellus*). American Quaternary Association 24th Biennial Mtg, poster pres. (June 2016).

- McLean BS**, Cook JA. Parallel ecomorphological evolution in ground-dwelling squirrels: roles of phylogeny, allometry, and integration. *Evolution* 2016, poster pres. (Jun. 2016).
- McLean BS**, Jackson DJ[†], Cook JA. Diversity, distribution and conservation of Holarctic ground squirrels (*Urocitellus*): new phylogenetic insights. American Society of Mammalogists 95th Annual Mtg, oral pres. (Jun. 2015).
- McLean BS**, Cook JA. A history of high-latitude adaptation in Holarctic ground squirrels. Evolution Annual Meeting, oral pres. (Jun. 2014). <https://www.youtube.com/watch?v=iIsG5SQJkdk>
- McLean BS**. An isotopic role for fossil small mammals in paleoecology and paleoclimatology. Wisc-SIMS High Resolution Proxies of Paleoclimate workshop, University of Wisconsin, oral pres. (Jun. 2013).
- McLean BS**, Cook JA. New geometric morphometric methods for taxonomic identification of fossil ground squirrels (Rodentia: Marmotini). American Society of Mammalogists 93rd Annual Mtg, oral pres. (Jun. 2013).
- McLean BS**. Inferring geographic modes of speciation in ground-dwelling sciurids. American Society of Mammalogists 92nd Annual Mtg, poster pres. (Jul. 2012).
- McLean BS**, Emslie SD. A unique isotopic record of mammal ecology from the Southern Rockies during and after the last glacial period. American Society of Mammalogists 91st Annual Mtg, poster pres. (Jul. 2011).
- McLean BS**, Emslie SD. Mammalian paleoecology across the Last Glacial Maximum in the Southern Rocky Mountains. American Quaternary Association 21st Biennial Mtg, poster pres. (Aug. 2010)
- McLean BS**, Emslie SD. Mammalian paleoecology across the Last Glacial Maximum in the Southern Rocky Mountains. American Society of Mammalogists 90th Annual Mtg, poster pres. (Jun. 2010)

TEACHING

University of North Carolina Greensboro

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|---------|---|
| 2025 | Biology of Mammals |
| 2023-24 | Introduction to Biodiversity Data (grad/undergrad) |
| 2022,24 | Host-Parasite Networks (grad/undergrad) |
| 2021-25 | Biostatistics II (grad) |
| 2021 | Seminar in Animal Ecology (grad/undergrad) |
| 2019-24 | Landscape Ecology, Landscape Ecology lab (grad/undergrad) |
| 2023 | Environmental Health Science (grad, hereafter "EHS"): Essential Biodiversity Variables |
| 2022 | Symbiosis (grad/undergrad, Guest Lecture) |
| 2021 | Ecology: "Large-Scale Patterns in Biodiversity" (undergrad, Guest Lecture) |
| 2021 | EHS: "Informatics workflows for reconstructing breeding phenologies and phenological change in small mammals" (Guest Lecture) |
| 2020 | EHS: "Detecting Global Change Responses in Mammal Communities" (Guest Lecture) |
| 2019 | EHS: "Detecting Global Change Responses in Mammal Communities" (Guest Lecture) |
| 2017 | EHS: "Detecting Global Change Responses in Mammal Communities" (Guest Lecture) |
| 2017 | Ecology: "Large-Scale Patterns in Biodiversity" (Guest Lecture) |
| 2016 | Evolution: "Molecular Phylogenetics" (Guest Lecture) |

SERVICE

Biocollections Development · Specimen-based inquiry is a core of my research and teaching program. Since 2006, I have led or participated in national and international field expeditions resulting in >13,000 vouchers (many with associated tissues and/or parasites) deposited in museums. I currently curate the UNCG Mammal Collection, which is 100% digitized and globally discoverable via the Arctos database and biodiversity data aggregators (see [UNCG:Mamm on GBIF](#)).

Student Mentorship · I have mentored 8 graduate students since 2019 (all at UNCG), each of whom executed independent research projects. I have also mentored 37 undergraduate students since 2006 (29 at UNCG). My goal is to open the "black box" of specimen-based research for students and give them a platform to answer their own questions about biodiversity. To that end, I have mentored students in field methods (small mammal trapping and sampling), specimen preparation and curatorial methods, wet lab methods (DNA extraction, sequencing), data analysis, and biodiversity informatics.

Peer Review/Editorial · I serve as Associate Editor at *Journal of Mammalogy* (2024-present). Since 2017, I have contributed peer reviews for manuscripts at 22 journals: *Annals of the Carnegie Museum of Natural History*; *Biological Conservation*; *Biological Journal of the Linnean Society*; *Conservation Genetics Resources*; *Diversity and Distributions*; *Ecography*; *Ecology and Evolution*; *Hystrix*; *Journal of Animal Ecology*; *Journal of Mammalogy*; *Journal of Zoological Systematics and Evolutionary Research*; *Mammal Review*; *Mammalia*; *Methods in Ecology and Evolution*; *Molecular Phylogenetics and Evolution*; *Nature Communications*;

Occasional Papers of the Museum (Texas Tech University); Paleogeography, Paleoclimatology, Paleoecology; PloS Neglected Tropical Diseases; PloS One; Scientific Communications; Systematic Biology

Grant Review · I have participated in 13 federal/national grant panels or ad hoc reviews since 2019: *NSF Division of Integrative Organismal Systems (2022,2025); NSF Division of Biological Infrastructure (2022,2024); NSF Division of Environmental Biology (2021,2022); NSF Postdoctoral Research Fellowships in Biology (2023); NSF Graduate Research Fellowship (2019,2020,2021,2022); European Research Council (2023), Leverhulme Trust (2024).*

Society Service · I serve on committees of the American Society of Mammalogists (*Systematic Collections Committee, 2013-present, Publications Advisory Board, 2024-present*) and as a society grant reviewer (*American Society of Mammalogists, Grants-in-Aid of Research, 2018-2025; Society of Systematic Biologists, Graduate Research Fellowships 2018,2019*).

PROFESSIONAL AFFILIATIONS

American Society of Mammalogists
Society of Systematic Biologists
Ecological Society of America