

# Clifton McKee

## Ecologist

Department of Biology, Colorado State University · 1878 Campus Delivery · Fort Collins, CO 80523

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## INTERESTS

wildlife disease ecology · phylogenetics · statistical modeling · population genetics · molecular biology

## EDUCATION

- 2019 **PhD in Ecology (expected May 2019)** Colorado State University · Fort Collins, CO  
Advisor: Prof Colleen Webb
- 2015 **MS in Ecology** Colorado State University · Fort Collins, CO  
Advisor: Prof Colleen Webb
- 2011 **BS in Ecology & BA in Environmental Studies** University of Pittsburgh · Pittsburgh, PA

## PROFESSIONAL EXPERIENCE

- 2014-2018 **CDC Division of Vector-Borne Diseases** Guest Researcher · Fort Collins, CO  
Supervisor: Dr Michael Kosoy
- 2015-2017 **CDC Division of Vector-Borne Diseases** Regular Fellow · Fort Collins, CO  
Supervisor: Dr Michael Kosoy
- 2010 & 2013 **Emory University** Field Assistant & Field Research Specialist · Atlanta, GA  
PI: Prof Donna Maney
- 2011-2013 **WL Gore & Associates** Laboratory Technician · Newark, DE
- 2011 **University of California, Santa Cruz** Field Technician · Santa Cruz, CA  
PI: Prof Marm Kilpatrick

## FELLOWSHIPS · GRANTS · AWARDS

Total received: \$96,150

- 2018 **Colorado State University** Vice President for Research Fellowship · \$4,000
- 2015-2017 **CDC Division of Vector-Borne Diseases** Regular Fellowship · \$82,000
- 2014 & 2017 **Colorado State University** Department of Biology Travel Awards · \$2,000
- 2015 **Colorado State University** Sharon E and David E Kabes Scholarship · \$1,150
- 2014 **Colorado State University** Graduate Degree Program in Ecology Small Research Grant · \$2,000
- 2013 **Colorado State University** Graduate Fellowship · \$1,000
- 2011 **University of Pittsburgh** Phi Beta Kappa
- 2007 **University of Pittsburgh** Honors College Scholarship · \$4,000

## PUBLICATIONS

- In press Kellner A, Carver S, Scorza V, **McKee CD**, Lappin M, Crooks KR, VandeWoude S, Antolin MF. Transmission pathways and spillover of an erythrocytic bacterial pathogen from domestic cats to wild felids. *Ecology and Evolution*.
- 2018 **McKee CD**, Osikowicz LM, Schwedhelm TR, Maes SE, Ensore RE, Gage KL, Kosoy MY. Acquisition of *Bartonella elizabethae* by experimentally exposed Oriental rat fleas (*Xenopsylla cheopis*; Siphonaptera, Pulicidae) and excretion of bartonella DNA in flea feces. *Journal of Medical Entomology*.
- 2018 Kosoy M, **McKee C**, Albayrak L, Fofanov Y. Genotyping of *Bartonella* bacteria and their animal hosts: current status and perspectives. *Parasitology*, 145, 5, 543-562.
- 2018 Gorsich EE, **McKee CD**, Grear DA, Miller RS, Portacci K, Lindstrom T, Webb CT. Model-guided suggestions for targeted surveillance based on cattle shipments in the US. *Preventive Veterinary Medicine*, 150, 52-59.

## PUBLICATIONS (CONTINUED)

- 2018 **McKee CD**, Osikowicz LM, Schwedhelm TR, Bai Y, Castle KT, Kosoy MY. Survey of parasitic bacteria in bat bugs, Colorado. *Journal of Medical Entomology*, **55**, 237-241.
- 2017 **McKee CD**, Kosoy MY, Bai Y, Osikowicz LM, Franka R, Gilbert AT, Boonmar S, Rupprecht CE, Peruski LF. Diversity and phylogenetic relationships among *Bartonella* strains from Thai bats. *PLOS ONE*, **12**, e0181696.
- 2017 Urushadze L, Bai Y, Osikowicz LM, **McKee C**, Kandaurov A, Kuzmin IV, Sidamonidze K, Putkaradze D, Imnadze P, Kosoy MY. Prevalence, diversity, and host associations of *Bartonella* strains in bats from Georgia (Caucasus). *PLOS Neglected Tropical Diseases*, **11**, e0005428.
- 2016 **McKee CD**, Hayman DTS, Kosoy MY, Webb CT. Phylogenetic and geographic patterns of bartonella host shifts among bat species. *Infection, Genetics and Evolution*, **44**, 382-394.
- 2015 Zinzow-Kramer WM, Horton BM, **McKee CD**, Michaud JM, Tharp GK, Thomas JW, Tuttle EM, Yi S, Maney DL. Genes located in a chromosomal inversion are correlated with territorial song in white-throated sparrows. *Genes, Brain and Behavior*, **14**, 641-654.
- 2015 Bai Y, Hayman DTS, **McKee CD**, Kosoy MY. Classification of *Bartonella* strains associated with straw-colored fruit bats (*Eidolon helvum*) across Africa using a multi-locus sequence typing platform. *PLOS Neglected Tropical Diseases*, **9**, e0003478.

## OTHER CONTRIBUTIONS

- 2015 **McKee C**, Hallman C, Portacci K, Miller R, Lindstrom T, Webb C. USAMM Shiny Visualization (R package). Available at: <https://usamm-gen-net.shinyapps.io/usamm-gen-net/>.

## TEACHING

- 2014 & 2018 **Molecular and General Genetics** Teaching Assistant & Guest Lecturer · Colorado State University
- 2018 **Introduction to Evolution** Teaching Assistant & Guest Lecturer · Colorado State University
- 2018 **Principles of Systematic Zoology** Guest Lecturer · Colorado State University
- 2017 **Ecology** Teaching Assistant · Colorado State University
- 2017 **Tropical Ecology and Evolution** Guest Lecturer · Colorado State University
- 2016 **Ecology of Infectious Diseases** Guest Lecturer · Colorado State University
- 2014 & 2015 **Ornithology** Teaching Assistant & Guest Lecturer · Colorado State University
- 2013 **Attributes of Living Systems** Teaching Assistant · Colorado State University

## STUDENT MENTORING

- 2018 **Paul Lazarus** Undergraduate Research Assistant · Colorado State University
- 2016-2017 **Alexis Cannella** Undergraduate Research Assistant · Colorado State University
- 2015 **Jake Doyle** Undergraduate Research Assistant · Colorado State University
- 2014-2015 **Madison Leming** Undergraduate Research Assistant · Colorado State University

## PRESENTATIONS

- 2018 **Ecological Society of America Annual Meeting** New Orleans, LA  
Contributed talk: Timing the diversification of a mammal parasite, *Bartonella*
- 2018 **Front Range Student Ecology Symposium** Fort Collins, CO  
Contributed talk: Timing the diversification of a mammal parasite, *Bartonella*
- 2018 **Vice President for Research Three Minute Challenge** Fort Collins, CO  
Invited talk: Bad roommates? Inferring bacterial interactions in coinfecting individuals
- 2017 **Colorado State University Graduate Student Showcase** Fort Collins, CO  
Poster: Timing the diversification of a mammal parasite, *Bartonella*
- 2017 **Ecological Society of America Annual Meeting** Portland, OR  
Contributed talk: Long-term monitoring of *Bartonella* spp. bacteria in a captive colony of fruit bats and experimental evidence of bat flies as vectors of bartonella

## PRESENTATIONS (CONTINUED)

- 2017 **International Symposium on Infectious Diseases of Bats** Fort Collins, CO  
Contributed talk: Long-term monitoring of *Bartonella* spp. bacteria in a captive colony of fruit bats and experimental evidence of bat flies as vectors of bartonella
- 2017 **Ecology and Evolution of Infectious Disease Conference** Santa Barbara, CA  
Poster: Linking patterns of bacterial parasite diversity across host and vector communities
- 2017 **Front Range Student Ecology Symposium** Fort Collins, CO  
Contributed talk: Host phylogenetic distance and ectoparasite overlap predict *Bartonella* sharing in European bats
- 2015 **Ecological Society of America Annual Meeting** Baltimore, MD  
Contributed talk: Phylogeography of *Bartonella* bacteria in *Eidolon* spp. fruit bats across Africa
- 2015 **Ecology and Evolution of Infectious Disease Conference** Athens, GA  
Poster: Phylogeography of *Bartonella* bacteria in *Eidolon* spp. fruit bats across Africa
- 2015 **Front Range Student Ecology Symposium** Fort Collins, CO  
Contributed talk: Phylogeography of *Bartonella* in *Eidolon* fruit bats across Africa
- 2014 **Ecological Society of America Annual Meeting** Sacramento, CA  
Poster: Large-scale patterns of *Bartonella* prevalence and diversity in African fruit bats
- 2014 **Ecology and Evolution of Infectious Disease Conference** Fort Collins, CO  
Poster: Large-scale patterns of *Bartonella* prevalence and diversity in African fruit bats
- 2014 **Front Range Student Ecology Symposium** Fort Collins, CO  
Poster: A novel method of isolating multi-locus sequence data for characterizing *Bartonella* diversity in bats

## PROFESSIONAL SERVICE

**Peer review:** *Acta Chiropterologica*, *Infection*, *Genetics and Evolution*, *Microbial Ecology*, *PLOS Neglected Tropical Diseases*, *Tropical Biomedicine*, *Zoonoses and Public Health*

- 2014-2018 **Ecological Society of America** Member
- 2014-2018 **Front Range Student Ecology Symposium** Volunteer
- 2014 **Ecological Society of America** Volunteer
- 2014-2015 **Front Range Student Ecology Symposium** Vice President

## COMMUNITY ENGAGEMENT

- 2018 **National Science Olympiad** Fort Collins, CO · Workshop on Disease Ecology
- 2018 **Rocky Mountain Regional Middle School Science Bowl** Loveland, CO · Moderator
- 2015 **O'Dea Elementary School Science Fair** Fort Collins, CO · Judge

## REFERENCES

**Dr Colleen Webb** Professor · Department of Biology · Colorado State University

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**Dr Michael Kosoy** Chief · Laboratory of Rodent-Borne and Wildlife Diseases · CDC Division of Vector-Borne Diseases

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**Dr David Hayman** Associate Professor · Institute of Veterinary, Animal and Biomedical Sciences · Massey University

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