

# 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 Bai Y, Osinubi MOV, Osikowicz L, **McKee C**, Vora NM, Rizzo MR, Recuenco S, Davis L, Niezgoda M, Ehimiyein AM, Kia GSN, Oyemakinde A, Adeniyi OS, Gbadegesin YH, Saliman OA, Ogunniyi A, Ogunkoya AB, Kosoy MY, Idanre Bat Festival Investigation Team. Human exposure to a novel *Bartonella* species associated with fruit bats possibly related to participation in a bat festival in Nigeria. **Emerging Infectious Diseases**.
- 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**, 55, 5, 1292–1298.

## PUBLICATIONS (CONTINUED)

- 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.
- 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*

## PRESENTATIONS (CONTINUED)

- 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
- 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 TS Hayman** Associate Professor · Institute of Veterinary, Animal and Biomedical Sciences · Massey University

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