

# Collin Michael McCabe

Curriculum Vitae

April 27, 2016

Ph.D. Candidate, Harvard University  
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Visiting Scholar, Duke University  
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## EDUCATION:

Harvard University	Cambridge, MA
Ph.D., Human Evolutionary Biology	Expected May 2017
<i>Dissertation: Behavioral determinants of pathogen risk across scales</i>	

Harvard Business School	Boston, MA
Pass with Honors, HBX Credential of Readiness (CRe)	2014

Harvard University	Cambridge, MA
A.M., Human Evolutionary Biology	2012
<i>Prospectus: Rodent commensalism and disease transfer among sedentary humans</i>	

University of Notre Dame	Notre Dame, IN
B.S., Biological Sciences	2010
B.A. with Honors, Anthropology	2010
<i>Thesis: Conceptualizing &amp; operationalizing a theory of "culture" among great apes</i>	

## RESEARCH INTERESTS:

Disease ecology, zoonoses, commensalism, personality, foraging ecology, culture, innovation, social learning, cooperation, global health, one health, open data management, social network analysis, mathematical/simulation modeling of disease spread

## PUBLICATIONS:

Nunn CL, Jordan F, Verdolin J, McCabe CM, Fewell J. 2015. Infectious disease and group size: More than just a numbers game. *Philos Trans R Soc B* 370:20140111. DOI: 10.1098/rstb.2014.0111.

**McCabe CM**, Reader SM, Nunn CL. 2014. Infectious disease, behavioral flexibility, and the evolution of culture in primates. *Proc R Soc B* 282:20140862. DOI: 10.1098/rspb.2014.0862.

**McCabe CM**, Rand DG. 2014. Coordinated punishment does not proliferate when defectors can also punish cooperators. In: JH Gallo (Ed.), *Antisocial Behavior: Etiology, Genetic and Environmental Influences and Clinical Management*. Nova Science Publishers: Hauppauge, NY. pp 1-14.

Garamszegi LZ, Nunn CL, **McCabe CM**. 2012. Informatics approaches to developing dynamic meta-analyses. *Evol Ecol* 26(5):1275-1276. DOI: 10.1007/s10682-012-9592-0

**McCabe CM**, Lee T, Fuentes A, Archie EA, Shaw E. In Prep. Variation in gastrointestinal parasite burdens among semi-free-ranging Barbary macaques, *Macaca sylvanus*, in the Upper Rock Nature Reserve, Gibraltar.

**McCabe CM**, Gerrish GA. In Prep. Geospatial analysis of social learning behaviors of yellow-bellied marmots, *Marmota flaviventris*, in response to natural and artificial path obstructions.

## **AWARDS & FELLOWSHIPS:**

Graduate Research Fellowship in Biological Anthropology, NSF	2011
Lambda Alpha National Collegiate Honors Society for Anthropology	2010
McGrath Award for Excellence in Research, University of Notre Dame	2009
Bernard J. Hank Research Fellowship, University of Notre Dame	2008-9
Eagle Scout Award	2006

## **RESEARCH GRANTS:**

Doctoral Dissertation Research Improvement Grant, NSF (\$21,812)	2014
Dissertation Fieldwork Grant, Wenner-Gren Foundation (\$15,681)	2014
Early Training & Research Grant, Harvard University, H.E.B. Dept. (\$5,000)	2012
Nanovic Institute Research Grant, University of Notre Dame (\$1,072)	2010
President's Circle Grant, University of Notre Dame (\$500)	2010
College of Science Travel Grant, University of Notre Dame (\$500)	2010
Undergrad Research Opportunity, University of Notre Dame (\$1,750)	2009

## INVITED LECTURES:

McCabe, CM. "Unwelcome Guests: Human-rodent commensalism and implications for zoonotic disease transfer." *The Nunn Lab at Duke University*; Durham, NC, October 2013.

McCabe, CM. "Monkey Business: How studying primates and other animals can teach us more about human epidemiology." *Harvard Global Health Institute Seminar Series*; Cambridge, MA, October 2012.

## PRESENTATIONS:

McCabe CM, Wrangham RW. "Habitat temperature and implications for total energy expenditure among mammals and primates." Poster at: *American Association of Physical Anthropologists Annual Meeting*; Atlanta, GA, April 2016.

McCabe CM, Jordán F, Nunn CL. "More than just a numbers game: populations, networks, and disease dynamics in primates." Keynote seminar podium presentation at: *American Society of Primatologists Annual Meeting*; Bend, OR, June 2015.

McCabe CM, Castillo ER, Otárola-Castillo ER. "Enhancing physical anthropology graduate education with public outreach in the K-12 classroom." Invited poster at: *American Association of Physical Anthropologists Annual Meeting*; St. Louis, MO, March 2015.

McCabe CM, Reader SM, Nunn CL. "Social learning as a conduit for parasite transmission in the evolution of primates." Podium presentation at: *Göttinger Freilandtage IX*; Göttingen, Germany, December 2013.

McCabe C, Nunn C, Reader S. "How do social learning and environmental exploration affect infectious disease risk in primates?" Poster at: *Ecology and Evolution of Infectious Diseases Annual Meeting*; Ann Arbor, MI, May 2012.

McCabe CM, Nunn CL, Reader SM. "Infectious disease risk in the evolution of culture." Podium presentation at: *American Association of Physical Anthropologists Annual Meeting*; Portland, OR, April 2012.

McCabe CM, Lee T, Fuentes A. "Variation in parasite burdens among semi-free-ranging Barbary macaques, *Macaca sylvanus*, in the Upper Rock Nature Reserve, Gibraltar." Poster at: *Midwest Primate Interest Group Annual Meeting*; Allendale, MI, October 2009.

## TEACHING EXPERIENCE:

Teaching Fellow, Harvard University

- *Primate Social Behavior* (Drs. Zarin Machanda & Stephanie Meredith) Fall 2013
- *Animal Behavior* (Profs. Bence Ölveczky & Naomi Pierce) Spring 2013
- *Primate Disease Ecology and Global Health* (Prof. Charles Nunn) Fall 2012

Teaching Assistant, University of Notre Dame

- *Practicum in Environmental Field Biology* (Prof. Gary Belovsky) Summer 2010

## LABORATORY & FIELD RESEARCH EXPERIENCE:

Mpala Research Centre Laikipia, Kenya  
Dissertation Researcher; Advisors: Charles Nunn & Richard Wrangham 2012-15  
Zoonotic Disease Risks of Rodent-Human Interactions

UND Environmental Research Center-West Moiese, MO  
Undergraduate Researcher; Advisors: Gretchen Gerrish & Gary Belovsky 2009  
Geospatial Movement Patterns and Learning Behavior in *Marmota flaviventris*

Upper Rock Nature Reserve Gibraltar  
Field Researcher & Technician; PI: Agustín Fuentes 2009-11  
Gastrointestinal Parasites in *Macaca sylvanus* on the Rock of Gibraltar

UND Environmental Research Center-East Land O' Lakes, WI  
Undergraduate Researcher; Advisors: Michael Cramer & Gary Belovsky 2008  
Habitat Disturbance and Foraging Strategies in *Peromyscus maniculatus gracilis*

University of Notre Dame, Department of Biological Sciences Notre Dame, IN  
Laboratory Technician; PI: Gary Belovsky 2007-10  
Ecosystem Structure and Function in Palouse Grasslands

## ACADEMIC SERVICE:

Undergraduate Thesis Mentor, Harvard University & Duke University 2013-present  
Manuscript Reviewer, *EcoHealth* 2014-present

**Curriculum Development Coordinator, "Professional Development for Graduate Students,"** Department of Human Evolutionary Biology, Harvard University 2013-14  
**Faculty-Graduate Student Liaison,** Department of Human Evolutionary Biology, Harvard University 2012-14

## **PUBLIC OUTREACH:**

**Guest Lecturer,** Chapel Hill High School, Human Evolution Lecture / Hands-on Fossil Comparisons; Chapel Hill, NC, May 2016.  
**Education Volunteer,** Clearwater Environmental Festival; Croton-on-Hudson, NY, June 20-21, 2014.  
**Human Evolution Educator,** Harvard Museums of Science and Culture, Stories Through Time Family Festival; Cambridge, MA, March 9, 2013.  
**Guest Lecturer,** Boston Day and Evening Academy, Global Development and Infectious Diseases Lecture / Q&A Session; Cambridge, MA, December 4, 2012.  
**Guest Lecturer,** Somerville High School, Human Evolution Lecture / Hands-on Fossil Comparisons; Somerville, MA, May 2012-14.  
**Microblogger,** Twitter, Sharing interesting biology and anthropology news stories from @collinmmccabe; April 2012-present.  
**Invited Panelist,** Undergraduate Research Grant-writing Workshop; Notre Dame, IN, January 27, 2010.

## **COLLABORATIVE RESEARCH AFFILIATIONS:**

National Evolutionary Synthesis Center (NESCent) Working Group Durham, NC  
**Participating Researcher;** Organizer: Jennifer Fewell 2011-13  
Large-scale Demographic, Network, and Behavioral Trait Analyses of Sociality  
  
NESCent Working Group Durham, NC  
**Participating Researcher;** Organizers: Charles Nunn & Brian Hare 2011  
How Does Cognition Evolve?

## **SKILLS:**

Behavioral assessment of rodents in hole-board & open field tests; rodent handling  
Parasitological quantification via ova flotation, incubation, and microscopy  
Mammalian gut dissection, cardiac puncture and retro-orbital blood collection  
Bayesian phylogenetic comparative methods and trait reconstruction  
**Software:** R, Matlab, Python, BayesTraits, Mesquite, NetLogo, Noldus Ethovision XT