

Meredith Keeley

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Education

- Current Virginia Polytechnic Institute, Doctoral Student (Advisor: Dr. Ignacio Moore)
- 2010 – 2014 Queens University of Charlotte, Major: Biological Sciences - Minor: Physical Science & Pre-Health/Med (BS: Summa Cum Laude). Thesis - “Review: Mating Systems, Sexual Selection, and Sexual Dimorphism in Pinnipeds” GPA: 3.92
- 2013 Study Abroad: Universiti Pendidikan Sultan Idris, Malaysia

Research and Field Experience

- Current **Independent Research;** Manufacture of small mammal GPS collars equipped with solar panel, light sensor, activity sensor, etc. (PI: Dr. Scott Kelly- University of North Carolina at Charlotte)
- Spring 2015 **Research Assistant;** Six months of field research in Limpopo, South Africa. Collected behavioral data (scan sampling) of Chacma baboons, Samango monkeys, and Vervet monkeys, in the afro-montane forests of the Soutpansberg Mountains. Collected vegetation and phenology data. Assisted Earthwatch teams in research methods. Collected/tagged camera trap images to assess leopard density and hyaena/leopard scat analysis (PI: Dr. Russel Hill- University of Durham)
- Fall – Winter 2014 **Independent Research;** Temporal feeding ecology of *P. diadema* and *E. fulvus* in Tsinjoarivo forest, Madagascar. Designed and implemented a behavioral study to investigate the degree of shared food patches and feeding overlap between two threatened lemur species. Supervised a team of 17 full-time research assistants. Collected phenology data and over 3,000 hours of feeding & behavioral data via focal animal sampling in fragmented and primary rainforest.
- Summer 2014 **Research Assistant;** Lemur geophagy and feeding behavior in Tsinjoarivo forest, Madagascar. Collected over 800 hours of feeding & behavioral data, fecal, plant and soil samples to assist in an investigation into lemur geophagy in Eastern Madagascan rainforests. (PI: Dr. Mitchell Irwin- Northern Illinois University).
- Fall 2013 **Independent Undergraduate Research;** Molecular sexing of birds of prey. Used blood samples, specific primers for the CHD1W and CHD1Z genes, PCR amplification, and gel electrophoresis, to determine the sex of sexual monomorphic birds of prey
- Spring 2012 **Independent Undergraduate Research;** Disturbance effects on moss species in temperate deciduous forests. Designed and implemented a study on moss abundance and distribution in deciduous temperate forest patches to investigate the influence of air pollution.

Professional Presentations

- 2016 **Keeley, MA**, MT Irwin and J-L Raharison. (*Poster*). Food patch characteristics and dynamics of patch use and sharing in two sympatric lemur species at Tsinjoarivo, Madagascar. *Meeting of the American Association of Physical Anthropologists*. (PI: Dr. Mitchell Irwin-Northern Illinois University)
- 2016 Semel, BP, MT Irwin, **MA Keeley**, and M Konen. (*podium presentation*). A multi-species approach to elucidating the ecological function of primate geophagy. *Meeting of the American Association of Physical Anthropologists*
- 2012 **Keeley, MA**, SA Swanson, KA Campbell, and C DeJaco (*Poster*). Disturbance effects on moss species in temperate deciduous forests. *Queens University of Charlotte Conference*.

Volunteer Activities

- 2012 – 2014 **Rehabilitation Intern: Carolina Raptor Center**. Gained experience handling birds of prey, administering medication and fluids, making nutritional supplements, and evaluating birds for release
- 2013 **Elephant Husbandry & Veterinary Internship**, Elephant Nature Park, Chiang Mai, Thailand. Behavioral observation of elephants including displays of aggression, play, communication, and learning. Overall husbandry including nutritional preparation and veterinary procedures
- 2012 – 2013 **Carolina Waterfowl Rescue Intern**. Cared for and tube-fed orphaned & abandoned baby birds and bandaged wounds on injured birds
- 2012 **Live Care Intern at Discovery Place** Monitored overall water quality of salt aquariums and adjusted water chemistry as needed, prepared food, and maintained habitat enclosures of aquatic organisms and various reptile species
- 2012 **Rehabilitation Assistant: Sloth Sanctuary**, Limon, Costa Rica. Rehabilitated injured sloths & rainforest creatures and performed necropsies on deceased sloths. Assisted with studies of morphological differences, behavioral differences, and mating vocalizations in *Bradypus* and *Choloepus* sloth species.

Teaching Experience

- 2015 – 2016 **High School Science Teacher**, Grace Academy, Matthews, NC
Taught Honors Biology, Honors Anatomy & Physiology, Honors Chemistry, Honors Physics, Honors Earth & Environmental Science
- 2011 – 2014 **Student Tutor, Center for Academic Success**, Queens University of Charlotte. Tutored college students in one-on-one and group sessions in general biology, chemistry, microbiology, animal behavior, scientific writing, and biostatistics. Arranged weekly lab review sessions for general biology and chemistry and participated in presentations educating students about plagiarism.

Leadership Activities

- 2011 - 2014 **President of Student chapter of the American Institute of Biological Sciences.** Queens University. Facilitated science experiments for elementary students, promoted science education in public schools, and integrated environmental service projects on campus.
- 2012 – 2014 **President of Beta Beta Beta:** Biological Honor Society. Queens University of Charlotte. Informed students of new developments within the field of biology, arranged speakers in various fields of biology, and organized fund-raising events in the campus community

Fellowships and Scholarships

- 2016 National Science Foundation Graduate Research Fellowship (\$34,000 & tuition waiver/yr; 3 years)
- 2013 – 2014 Critical Thought Symposium, Merit scholarship, \$5,000; year-long course in which each monthly class is a simulation of complex situations requiring a crucial decision
- 2012 Dana Scholarship, Academic scholarship

Honors, Awards, Publicity

- 2015 Tutor of the Year
- 2014 Top Biology Student
- 2014 Board of Trustees Speaker
- 2014 USA TODAY article, <http://college.usatoday.com/2014/11/28/wanderlust-in-action-student-travels-to-14-countries-in-four-years>
- 2012-2014 Phi Beta Delta, International Scholars Honor Society,
- 2011-2012 Janusian Order, Honorary organization based on leadership, citizenship and scholarship
- 2013-2014 Mortar Board, National Senior Honor Society
- 2010 Valedictorian, High School: Grace Academy

Other Skills/Scores

Foreign languages: Intermediate Malagasy
Programs: Basics of R, SPSS, and C++; Proficient in Excel, PowerPoint, Word
PADI Rescue Diver Certification
Level II Certified Tutor

References

Dr. Carrie DeJaco: (Associate Professor - Queens University of Charlotte); dejacoc@queens.edu
Dr. Jeff Thomas: (Associate Professor - Queens University of Charlotte); thomasj@queens.edu
Dr. Mitchell Irwin: (Associate Professor - Northern Illinois University); mirwin@niu.edu
Dr. Kent Rhodes: (Professor Emeritus – Queens University of Charlotte); rhodesk@queens.edu