

Sophia L. Raithel

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EDUCATIONAL EXPERIENCE

- Sept. 2017 - PRESENT | M.A in Ecology, Evolution, & Conservation
Columbia University, Graduate School of Arts and Sciences
Expected Graduation in May 2019
- Aug. 2008 - May 2012 | B.A. in Biology
University of Vermont, College of Arts and Sciences
Concentration on Environmental Biology, Double minor in Chemistry and Art

College of Arts and Sciences Dean's List *awarded May 2012*

PROFESSIONAL EXPERIENCE & RESEARCH

Columbia University, Teaching Assistant – *January 2018 – PRESENT*

EEEE UN1011 Behavioral Biology of Living Primates

Supervisor: Nicole Thompson, PhD

- Led discussion section for material review
- Mentored 17 undergraduate students
- Assisted in grading and creating exam material

Columbia University, Research Lab Assistant – *September 2017 - PRESENT*

Dr. Maria-Diuk Wasser epidemiology Lab

Supervisor : Danielle Tufts, PhD

- Responsibilities as manager of *Peromyscus* colony
- Assisted in breeding and artificial insemination of *peromyscus* colony
- Assisted in infecting *Peromyscus* and *Mus* with spirilla spirochetes by subcutaneous injection and vector mediated infection
- Collected tissue and blood samples from live *Peromyscus* lab colony
- DNA extraction from tissues using Qiagube Robot, Quantitative PCR, and by hand with DNeasy blood and tissue kit
- Fecal parasite analysis of previously collected field samples
- Developed organizational skills and laboratory note-taking

Smithsonian National Zoo, Animal Keeper Aide - *February - August 2017*

Great Ape House

Supervisor: Erin Stromberg

- Assisted in caring for Gorillas, Orangutans, Gibbons, and Lemurs
- Designed and carried out animal enrichment
- Ensured animal safety within indoor and outdoor enclosures
- Ensured safety of orangutans and public while on the O-line, a line providing freedom to the Orangutan to navigate from one building to the other
- Acted as a ape steward for questions from viewing public

Cary Institute of Ecosystem Studies, Research Project Assistant - April – October 2016

Supervisor: Richard Ostfeld *PhD* and Jen Pendleton M.S

- Developed field protocols by assessing best practices and feasibility of study design
- Digitized habitat features using ParcelAccess mapping software
- Enrolled private landowners in 5 year study using large community outreach efforts
- Managed human relations communication and private information
- Set up Sherman traps for mark-recapture surveys of small mammals assessing age, sex, reproduction status, and tick burden
- Flagged multiple habitats to collect and identify ticks for lab analysis
- Independently designed and set up a pitfall trap study across 11 sites collecting 184 pitfall samples and identified over 4900 arthropods to order
- Trained project assistants to collect and identify arthropod orders

Gibbon Experience - Field Assistant/ Project Intern - August – November 2013

Nam Kan National Park, Laos

Supervisor: Jean-François Reumaux CEO & Raffael Ayé

- Set, documented, and monitored first baseline mammal camera trap survey
- Led small field team for collection of camera trap data bi-weekly
- Surveyed Black-crested Gibbons surrounding eco-tourism area
- Assisted in field protocols for invited researchers
- Organized fauna and flora photo database
- Redesigned and updated informational displays

Smithsonian National Zoo, Animal Keeper Aide - October 2012 – March 2013

African Exhibit

Supervisor: Katherine Volz, PhD

- Assisted in caring for Zebras, Scimitar-horned Oryx, Dama Gazelles, Cheetah, Hornbills, Griffon Vultures, Red-River Hogs, and Maned Wolves
- Designed and carried out animal enrichment
- Set up hot-wire to ensure public and animal safety within outdoor enclosures
- Recorded mating attempts by Dama Gazelle breeding pair
- Assisted in handling cervids during veterinarian visits

University of Vermont, Undergraduate Research Assistant - October 2011 – May 2012

Department of Biology

- Dissected collections of fruit field samples from Towering Jacobs Ladder (*Polemonium foliosissimum*)
- Organized and recorded lab notes on fruit and seed output, seed sie and the presence of insect larvae

Operation Wallacea, Field Research Assistant - July 2011 – August 2012

- Developed techniques for small mammal trapping, mist netting of birds and bats, habitat surveys, species identification of fish, coral, algae, and marine invertebrates
- Monitored 12 troops of Howler monkeys in a tropical forest fragmentation for six-hour intervals
- Recorded dietary, sleeping and social behavior of troops every 15 minutes
- Conducted habitat surveys

LEADERSHIP & COMMUNITY DEVELOPMENT

- Nov 2016 – Feb. 2016 D.C. Solidarity for Standing Rock
Organized community events at local businesses to fundraise and spread awareness for “No Dakota Pipeline” movement
- Dec 2014 – Apr 2015 Fremantle Community Beach Clean-up
Initiated biweekly local beach cleans recruiting backpacker hostels and local business participation
- Apr. 2014 – May 2014 WWOOF Volunteer – Thailand
Assisted to implement sustainable farming practices within the community
- Jan. 2014 – Feb. 2014 Marine Conservation Cambodia – Koh Rong Samolem, Cambodia
Marine Field Assistant
- July 2013 – Sept. 2013 Center of International Cooperation & Vietnam Talent Development
Volunteered as an English teacher in rural areas for children
- Jun. 2011 – July 2011 WWOOF Volunteer – Belize
Volunteered for a reforestation community project

GRANTS

Columbia Student Initiatives Grant – 2018	\$1,000.00
Student Research Grant – Columbia University, Department of E3B	\$1,500.00
GSAS Matching Funds	\$250.00

SKILLS

Languages: Portuguese (proficient), conversational French, conversational Spanish

Computer: Microsoft Office Suite, Lightroom, Sharepoint, Photoshop (basic)

Technology: Global Positioning Systems, trail cameras, Digitizing map features in ParcelAccess, RStudio, GGPLOT, Digital and film Cameras

Public Safety: NIH Safety Certificate for Human Subject research, PADI Divemaster (2014 – PRESENT), Emergency First Responder, CPR

Interests: Film and Digital Photography, hiking, camping, sketching