# Education

## Ph.D in Forestry and Environmental Studies, *Yale University, New Haven, CT 2018 - Present*

Advisor: Dr. Oswald Schmitz

## Masters of Arts in Conservation Biology, *Columbia University, New York, NY* May 2015

## Ecology, Evolution, and Environmental Biology Department in Graduate School of Arts and Sciences. GPA 3.82.

**Bachelor of Arts in Environmental Studies,** *Colby College, Waterville, ME* May 2010

Concentration in Conservation Biology; minor in Mathematics. GPA (3rd and 4th year) 3.4.

#  Relevant Research Experience

## Program Coordinator, *Round River Conservation Studies (RRCS), Botswana* June 2017 –July 2018

## Manage and lead the research and student program for RRCS Botswana. Maintain partnership with the University of Botswana’s Okavango Research Institute and Department of Wildlife and National Parks.

## Program Leader, *RRCS, Botswana* Aug 2015 – June 2017

## Co-manage and led the RRCS student program and development of research. Work includes herbivore and bird monitoring, and community escort guide training and assisting with the Northern Botswana Ecological Assessment and Decision Support Tool. Teach five, college-level, three-credit courses to American students.

## Program Leader, *RRCS, Canada* July 2016 – Aug 2016

## Facilitate research and classes conducted by RRCS in the Taku Watershed, British Columbia in partnership with Taku River Tlingit First Nation.

## Graduate Student Researcher for the Rainforest Standard, *Columbia University, New York City* Jan 2014 – Aug 2015

## Assist Professor Melnick in preliminary analysis of forest loss using remote sensing and GIS to determine appropriate protected areas for forest loss evaluation.

## Manager, *Global Vision International (GVI), Karongwe Private Game Reserve, South Africa* Oct 2012 – June 2013

Manage and facilitate research on a large carnivore project. Coordinate monthly budget, reports, scheduling, disciplinary action, and overall safety and running of the GVI Karongwe program. Maintain partnerships with the University of Pretoria, Queen’s University Belfast, and Endangered Wildlife Trust.

## Mountain Project Coordinator, *GVI, Karongwe Private Game Reserve, South Africa* Dec 2010 – Oct 2012

Manage the small mammal, reptile, amphibian, and butterfly satellite research camp and collaborate with University of Pretoria.

**Assistant Researcher**, *GVI, Karongwe Private Game Reserve*, *South Africa* Dec 2010 – June 2013

Field research on large mammal movements including lion, cheetah, elephant, and all other large game. Conduct population surveys of prey species, camera trap studies, and create ID kits for focus species.

# Publications and Presentations

1. **Orrick, K.D.** “Range Size and Drivers of African Elephant (*Loxodonta africana*) Space Use on Karongwe Private Game Reserve, South Africa.” *African Journal of Ecology* 56, no. 3 (September 2018): 572–81. <https://doi.org/10.1111/aje.12500>.

2. Heinemeyer, K., **Orrick, K.,** Sinvula, M., Masunga, G.S. (2018). Comparing strip transect and distance sampling for community-based large herbivore monitoring in the Okavango region of Botswana. *In submission.*

## 3. Heinemeyer, K., Masunga, G.S. Orrick, K., Smith, J., Sinvula, M., Dain-Owens, S. (2016). Community-based wildlife monitoring in selected concessions of Chobe and the Okavango Delta, 2013-2015.

4. Presentation to Department of Wildlife and National Parks and the University of Botswana, May 2016: Community-based wildlife monitoring in selected concessions of Chobe and the Okavango Delta, 2013-2015.

5. Presentation inMontpellier, France, August 2015**:** International Congress for Conservation Biology-European Congress for Conservation Biology Conference**.**

6. Interactive workshop at Columbia University, NY, March 2015: Advanced Consortium on Cooperation, Conflict, and Complexity Conference.

7. Presentation atColumbia University, NY, March 2015: Advanced Consortium on Cooperation, Conflict, and Complexity Conference.

## 8. Presentation at Columbia University, NY, April 2014: Earth Institute Student Research Showcase.

## 9. Presentation in South Africa, September 2002: Southern African Wildlife Management Association (SAWMA).

10.Colby Environmental Assessment Team, Colby College and Problems in Environmental Science course (Biology 493), Colby College. (2009)."A Watershed Analysis Of Salmon Lake And McGrath Pond: Implications For Water Quality And Land Use Management". Colby College Watershed Study: Salmon Lake and McGrath Pond (2009, 1993). 1.
https://digitalcommons.colby.edu/salmonmcgrath/1

# Funding

## Natural Selection, *Makgadikgadi, Botswana* Nov 2017

Assisted Round River Conservation Studies to secure annual funding through Natural Selection, a conservation-driven tourism company, for USD$100,000, for up to three years.

## AC4 Graduate Student Fellowship, *Columbia University, New York City* Apr 2014

Recipient of USD$3000.00 from the Advanced Consortium on Cooperation, Conflict, and Complexity.

**E3B Graduate Student Fellowship,** *Columbia University, New York City* Apr 2014

Recipient of USD$1500.00 from the Ecology, Evolution, and Environmental Biology department.

# Teaching Experience

**Guest Lecturer,** *Community-based Conservation in Conservation Biology, Portland State University* Oct 2016

**Guest Lecturer,** *Community-based Conservation in Conservation Biology, Colby College* Sept 2016

**RRCS Program Leader,** *Botswana*Aug 2015 – present

Five undergraduate courses in Field Methodology, Natural History, Applied Conservation Biology, Humans and the Environment, and Community-Based Natural Resource Management.

**Reading Assistant,** *Conservation Biology (graduate level course), Columbia University* Spring 2015

**Reading Assistant**, *Introduction to Environmental Biology (undergraduate course), Columbia University* Fall 2014

# Leadership/Service/Relevant Recent Volunteer Experience

## Earth Institute Student Advisory Council Vice President, *Columbia University* Sept 2014 – May 2015

## Reunion President, *Colby College* June 2014 – present

## Department Masters Representative, *Columbia University* Sept 2013 – May 2014

## GVI Intern, *South Africa* July 2010 – Dec 2010

## Co-Class President, *Colby College* Jan 2009 – May 2010

# Relevant Skills

**Field Research:** transect surveys, 4x4 manual driving, basic mechanical knowledge, camera trapping methods and technology, Sherman trap surveys, mark-recapture, VHF biotelemetry and triangulation.

**Software:** ArcGIS (including ArcPy), R Statistical Software, ENVI, Google Earth Engine, Mendeley Desktop, Adobe Photoshop, Microsoft Office (Word, Excel, Powerpoint). Basic knowledge of LiDAR and Python.

**Professional Development:** FGASA (Field Guide Association of Southern Africa) Level Two qualified; FGASA Trails Guide qualified; WFR certified.

**Language:** Setswana (conversational).