

Katherine (Kaggie) Orrick

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Profile

Accomplished researcher in a number of unique ecosystems. Interested in Conservation Biology, landscape connectivity, human-wildlife interactions and the social landscape. International experience working in Botswana, South Africa and Canada for over seven years. Domestic and international experience has cultivated leadership abilities, organizational skills, language skills, and an ability to adapt to new surroundings. Experience in a running research program while teaching others in a remote wilderness setting.

Education

PhD Student in F&ES, Yale University, New Haven, CT 2018 – present

Advisor: Dr. Oswald Schmitz; School of Forestry and Environmental Studies

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. Thesis: ‘Anthropogenic effects on wildlife: Do anthropogenic features affect African elephant (*Loxodonta africana*) space use in a small, protected area?’

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.

Round River Conservation Studies, Study Abroad, Namibia Sept - Dec 2008

Studied conservation biology, ecology, natural history of Namibia, and wildlife habitat and management while assisting Save the Rhino Trust. GPA 4.0.

Relevant Research Experience

Program Coordinator, Botswana June 2017 – July 2018

Managed and led the community-based wildlife monitoring project and student program for Round River Conservation Studies (RRCS) in Botswana. Maintained partnership with the University of Botswana’s Okavango Research Institute and Department of Wildlife and National Parks.

Program Leader, Botswana Aug 2015 – June 2017

Co-managed and led the RRCS student program and development of community-based wildlife monitoring project. Work included herbivore and bird monitoring, and community escort guide training and assisting with the Northern Botswana Ecological Assessment and Decision Support Tool. Taught five, college-level, three-credit courses to American students.

Program Leader, Canada July 2016 – Aug 2016

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

Graduate Student Researcher, Columbia University, New York City Jan 2014 – Aug 2015

Assisted Professor Melnick in preliminary analysis of forest loss using remote sensing and GIS for

the Rainforest Standard to determine appropriate protected areas for forest loss evaluation.

Manager, South Africa

Oct 2012 – June 2013

Managed and facilitated research on a large carnivore project for Global Vision International (GVI). Coordinated monthly budget, reports, scheduling, disciplinary action, and overall safety and running of the GVI Karongwe program. Maintained partnerships with the University of Pretoria, Queen’s University Belfast, and Endangered Wildlife Trust.

Mountain Project Coordinator, South Africa

Dec 2010 – Oct 2012

Managed the small mammal, reptile, amphibian, and butterfly satellite research camp for GVI and collaborated with University of Pretoria.

Assistant Researcher, South Africa

Dec 2010 – June 2013

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

Assistant Trainer for Colby Athletics, Colby College

Jan 2009 – May 2010

Worked in the training room assisting players with injuries, taping, stretching, and rehabilitation. Observed all Varsity practices and games and was first on scene for all emergencies. (Waterville, Maine)


Double H Wilderness Guide, New Mexico

June 2009 – Aug 2009

Led groups consisting of eight or more teenagers with the Boy Scouts of America on five-day treks in the backcountry of New Mexico. Taught a number of environment topics including camping skills, map orientation, Leave No Trace principles, astronomy, and leadership skills. Conducted basic medical treatment and maintenance of equipment in a backcountry setting.

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., 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.
3. Presentation at Yale University, New Haven CT, April 2019: “Humans and the Environment: Exploring Human-Wildlife Conflict through social and ecological patterns”, Yale Forestry & Environmental Studies Research Day Conference.
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 in Montpellier, France, August 2015: “African elephant space use on Karongwe Private Game Reserve, South Africa: A call for a greater understanding of anthropogenic effects on wildlife”. International Congress for Conservation Biology-European Congress for Conservation Biology Conference.

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6. Interactive workshop at Columbia University, NY, March 2015: “Human-Wildlife Conflict: System Dynamics and Trans-Disciplinary Approaches”, Advanced Consortium on Cooperation, Conflict, and Complexity Conference.
 7. Poster presentation at Columbia University, NY, March 2015: “Roads and African elephants in a small private game reserve: A call for greater understanding of the impacts of roads on space use of wildlife”, Advanced Consortium on Cooperation, Conflict, and Complexity Conference.
 8. Presentation at Columbia University, NY, April 2014: Vehicle noise disturbance on carnivores and large herbivores in Karongwe Private Game Reserve”, Earth Institute Student Research Showcase.
 9. Poster presentation in South Africa, September 2012: of Wilson, J., Scantlebury, M.’s work. “The response of small mammals to natural and human-altered edges associated with afro-montane forests of South Africa” 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>.
 11. Poster presentation at Maine Water Conference, Augusta, ME, April 2010: The influence of land use changes on water quality in Salmon Lake and McGrath Pond” by Holmen, A., Gildesgame, E., Orrick, K., Firmage, D., Cole, R., Greenwood, T.

Funding

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| YIBS, Yale University, New Haven | April 2019 |
| Recipient of USD\$3,000.00 from Yale Institute for Biospheric Studies (YIBS) for Doctoral Pilot Grant. | |
| Natural Selection, Makgadikgadi, Botswana | Nov 2017 |
| Assisted RRCS to secure annual funding through Natural Selection, a conservation-driven tourism company, for up to USD\$100,000 per year, for up to three years. | |
| AC4 Graduate Student Fellowship, Columbia University, New York City | Apr 2014 |
| Recipient of USD\$3,000.00 from the Advanced Consortium on Cooperation, Conflict, and Complexity. | |
| E3B Graduate Student Fellowship, Columbia University, New York City | Apr 2014 |
| Recipient of USD\$1,500.00 from the Ecology, Evolution, and Environmental Biology department. | |

Teaching Experience

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| Teaching Fellow, Yale University | |
| <i>Natural Science Methods</i> | Fall 2019 |
| Graduate course taught by Professor William Lauenroth. | |



Building a Conservation Toolkit Spring 2019
 Graduate course taught by Dr. Amy Vedder and Dr. Bill Weber.

Guest Lecturer

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

Community-based Conservation in Conservation Biology, Colby College Sept 2016

RRCS Program Leader, Botswana Aug 2015 – July 2018

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

Reading Assistant, Columbia University

Conservation Biology Spring 2015

Graduate course taught by Dr Joshua Drew. Taught 1 lecture.

Introduction to Environmental Biology Fall 2014

Undergraduate course taught by Dr. Shahid Naeem and Dr. Dustin Rubenstein. Ran hour-long recitations each week, taught 1 lecture.

Leadership/Service/Relevant Recent Volunteer Experience

Student Affairs Committee, Yale University Jan 2019 – present

Liaison between the School of Forestry and Environmental Studies at Yale University. Organize lectures, events and mitigate issues between the faculty, staff and student body. Responsible for the flagship seminar series.

EISAC Vice President, Columbia University Sept 2014 – May 2015

Earth Institute Student Advisory Council Vice President. Foster relations between student groups, departments, and schools on campus surrounding earth systems science and sustainable development.

Department Masters Representative, Columbia University Sept 2013 – May 2014

Liaison between faculty, staff and students within the department. Attended all faculty meetings.

GVI Charitable Trust, South Africa 2012

Created and implemented two charitable events for a local environmental education center. Organized the entire event including safety procedures, fundraising awareness, and donation collections.

GVI Intern, South Africa July 2010 – Dec 2010

Assisted with research involving small mammals, reptiles, amphibians, and butterflies on Mariepskop Mountain.

Reunion President, Colby College June 2014 – present

Organize events for the Reunion Weekend, work with the Colby Fund to raise money for the college, and act as liaison for the class.



Class President, Colby College

Jan 2009 – May 2010

Liaison between classmates, the Student Government and the school's administration. Organized all social programs for over four hundred peers throughout the year. Elected by peers for both third and fourth year in college.

First-Year Orientation Leader, Colby College

Sept 2009 – May 2010

Leading first-year university students into the wilderness for up to 4 days. Mentoring them throughout the year.

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 (including Fugro Viewer), Python and Distance Sampling.

Professional Development: FGASA (Field Guide Association of Southern Africa) Level Two qualified; FGASA Trails Guide qualified; Advanced Snake Handling certified; WFR certified, First Aid and CPR certified.

Language: Setswana (conversational).

Other: Proficient in teaching college-level courses and public speaking; Proficient analytical and leadership skills.