

Zachary Amir

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Education

University of Queensland (Australia, April 2020-Present)

- Ph.D. in Wildlife Ecology and Conservation
- School of Biological Science; Centre for Biodiversity and Conservation Science
- *Thesis*: “The Ecological Impacts of Apex Predator Declines in Tropical Forest Food Webs”
- Advisors: Matthew Luskin, Ph.D. (Primary) & James Watson, Ph.D. (Associate)

University of Colorado- Boulder (USA, August 2012-May 2016)

- B.A. Psychology
- B.A. Ecology and Evolutionary Biology, *magna cum laude*
- *Departmental Honors*: “Assessing Collateral Damage: Interactions among native thistles and the introduced biological control agent *Rhinocyllus conicus* in the Colorado Front Range”
- Advisor: Timothy Seastedt, Ph.D.

School for International Training (Australia, January-May 2015)

- Study abroad semester: Rainforest, Reef, and Cultural Ecology
- *Independent Research Project*: “Relative Abundance and Risk Perception of Lace Monitors (*Varanus varius*) on Fraser Island, Queensland: Are Monitors Habituated to Human Presence?”
- Advisor: Tony Cummins, M.S. & Bill Bateman, Ph.D.

Publications

Amir, Z. (2018) Relative Abundance and Risk Perception of Lace Monitors (*Varanus varius*) on Fraser Island, Queensland: Are Monitors Habituated to Human Presence? *Biawak* 12(1): 23-33. http://varanidae.org/12_1.pdf

Amir, Z. (2016) Assessing Collateral Damage: Interaction among native thistles and the introduced biological control agent, *Rhinocyllus conicus* in the Colorado Front Range. *Undergraduate Honors Thesis*. 1038. https://scholar.colorado.edu/honr_theses/1038

Scholarships

University of Queensland Graduate School Scholarship (2020 - 2023)

- Assessed by the UQ Graduate School via a competitive process and deemed to meet all conditions for admission to the Higher Degree by Research Program.
- Provides a research training tuition fee offset and yearly stipend for the duration of my degree at UQ.

Segal AmeriCorps Education Award (2017)

- Completed a 300-hour term of service and an additional 450 hour term of service during my research internship with ACE-EPIC where I worked with the National Park Service on the Buck Island Sea Turtle Research Project.
- Total value of the scholarship is \$2,760 USD.

Research Experience

Paid PhD Candidate at University of Queensland (Queensland, April 2020-Present)

- Using a large database containing 130+ camera trapping surveys from across Southeast Asian tropical forests to test how the loss of apex predators impacts the larger wildlife community.
- I am examining how prey availability, poaching pressure, and environmental degradation influence apex predator distributions within landscapes and drive extirpations between landscapes. Additionally, I am testing for trophic cascades by examining abundance and behavior related changes in both herbivores and mesopredators.
- Working closely with the Ecological Cascades Lab and international researchers to collaborate on Southeast Asian wildlife ecology projects, such as studying the factors driving increased abundance of *Macaca* and *Suidae* species.

Paid Lead Field Research Technician with Clemson University (Georgia, May-October 2019)

- Assisted Ph.D. candidate Bryan Hudson from Clemson University on a community ecology and northern pine snake (*Pituophis melanolucus melanolucus*) movement study across Northern Georgia and Alabama.
- Studied how the affects of differing restoration efforts influence the community structure of snakes in the endangered Montane Longleaf Pine Ecosystem and utilized the northern pine snake as a flagship species for this ecosystem.
- Regularly conducted radio telemetry to locate individual snakes, and additionally communicated and worked with a diverse range of volunteers, from community members to university students, to check over 100 live traps per day.

Paid Field Research Technician with the U.S. Geological Survey (California, March-April 2019)

- Worked for the Western Ecological Research Center to conduct population surveys for the rare Shasta salamander (*Hydromantes shastae* sp) to enable the U.S. Fish and Wildlife Service to generate a federal species status assessment, which will assist decision makers on the potential new building plans of Shasta Dam.
- Additionally, assisted with other research projects, including Western spadefoot toad (*Spea hammondi*) surveys, and giant garter snake (*Thamnophis gigas*) trap maintenance and repair.

Paid Research Intern with ACE-EPIC (U.S. Virgin Islands, July-December 2017)

- American Conservation Experience Emerging Professional Internship Corps (ACE-EPIC) has the goal of providing opportunities to recent graduates to work alongside agency mentors on applied resource management projects.
- Worked with the National Park Service to conduct conservation research on a long-term (30+ years) project that monitors nesting sea turtles on Buck Island Reef National Monument. Also worked with The Buccaneer Resort to monitor nesting sea turtles on its beaches and to provide sea turtle information to its guests.
- Conducted nightly observations of hawksbill sea turtles (*Eretmochelys imbricata*) and green sea turtles (*Chelonia mydas*) and recorded biological data including biopsies and carapace measurements, as well as PIT tag and Inconel tag insertions, and geographical data on nests.
- I was the sole intern (4 interns picked out of 200+ candidates, and I was the 1 of those 4) offered a continuing appointment to excavate all sea turtle nests to determine hatchling success, as well as to assist other projects and researchers including St. Croix ground lizard surveys, in-water sea turtle population sampling, and an underwater acoustic receiver array download and redeployment.
- Assisted in hurricane relief efforts after back-to-back category five hurricanes Irma and Maria ravaged the island. Used these hurricanes to study their impacts on sea turtle nesting success.

University of Colorado- Boulder, EEB Honors Thesis (Colorado, July 2015-May 2016)

- Trekged across a wide range of habitats and elevations in Colorado's Front Range Mountains to collect seed heads of two different native thistles, which were later dissected in the lab where viable seed count and presence of seed-head boring insects was established to determine non-target affects of the invasive bio-control weevil *Rhinocyllus conicus*.
- Successfully presented and defended finalized research in front of a committee of University of Colorado Ecology and Evolutionary Biology faculty.

SIT Independent Study Project (Queensland, April-May 2015)

- Designed, budgeted, and implemented an original ecological research project.
- Sampled large areas in diverse ecosystems, including multi-day overnight trips.
- Independently pursued the publication in *Biawak*, a Varanid-specific international peer-reviewed journal.

Exotic Veterinarian Internship (Missouri, May-August 2013)

- Interned with the premier exotic animal veterinarian in the greater Saint Louis, MO area, Douglas Pernikoff, DVM.
- Worked with and handled diverse animal species, including domestic and exotic mammals, reptiles, and birds.
- Ultimately decided against pursuing veterinary studies for several reasons.

Teaching Experience

Paid Tutor of Conservation and Wildlife Biology Course at UQ (Queensland, July 2020-Present)

- Working with Professor Salit Kark as a tutor for the UQ Masters of Conservation Biology course CONS7008.
- I teach students through weekly practical courses and a human-wildlife conflict project with one other tutor.

Paid Private Tutor for International Masters Student at UQ (Queensland, March 2021-Present)

- Working closely with Cambodian Master of Environmental Management Student Ret Thuang to understand what factors determine the abundance and health of Asian elephants (*Elaphus maximus*) in the Cardamom Mountains in Cambodia
- Teaching basic data wrangling skills in RStudio, and how to run statistical analysis such as N-Mixture Models and Linear Mixed Effect Models. Will be assisting and editing final research project, with the eventual goal of publication.

Teachers Assistant for Ecological Cascades Lab Summer Research Program (Queensland, November 2020-Present)

- Assisted Dr. Matthew Luskin in teaching a cohort of 20+ volunteers, undergraduate, and masters students how to conduct wildlife ecology research and conservation on a wide variety of understudied Southeast Asian wildlife species.
- Gave lectures to the students regarding how to write, read scientific publications, and methodology, and lead several workshops to help students implement statistical analyses such as occupancy modelling and activity pattern analyses.
- Continue to assist students through RStudio help and reviewing all students' papers with the goal of publishing.

General Biology 1 & 2 Teachers Assistant (Colorado, January-December 2014)

- Assisted Dr. Rebecca Safran, Dr. Kendi Davies, Dr. Pieter Johnson, and Dr. Brett Melbourne over two semesters.
- Teachers Assistant to a 300+ person class, where I personally assisted students in the lecture hall to better understand various ecological and biological concepts. I also held regular office hours and held pre-test review sessions.
- Gratification was achieved by student's accrediting their success to my assistance and ability to teach effectively.

Leadership and Travel Experience

University of Queensland Herpetological Society Executive Board (Queensland, October 2020-Present)

- As Secretary, I am responsible for maintaining a current list of active members and recruiting new members.
- Help plan and implement field-based events to natural areas around Southeast Queensland to teach members about field ecology methods used to search for cryptic reptiles and amphibians.

Alpha Epsilon Pi Fraternity Executive Board (Colorado, January 2013-December 2014)

- Served twice as Social Chairman and Director of Recruitment, and each had a committee I lead.
 - As Social Chairman I planned, organized, budgeted and effectively executed many successful large-scale events within the fraternity, and occasionally in tandem with other organizations.
 - As Director of Recruitment I recruited and communicated with potential new members and organized events to attract more new members. I was responsible for the largest new class in this chapter's history with 25 new members

Backpacking through 12 countries and 6 US States (January-December 2018)

- Effectively saved, budgeted, planned and implemented a year long expedition
- Traveled to remote locations in search of unique wildlife, environments, and cultures, such as Gunung Mulu National Park in Sarawak, Malaysia.

Other Work Experience

Lead Sales Associate with Vail Resorts (Colorado, August 2016-February 2017)

- In charge of all rental skis and snowboards, and in charge of all youth ski snowboard sales at Boulder Ski Deals, one of America's largest ski shops.
- Managed a team of 12 people to provide customer satisfaction and worked closely with store managers to increase sales and ensure store productivity.

Tropical World Pets Employee (Missouri, January-May 2012)

- Educated customers about the care of pet reptiles, fish, and invertebrates, as well as maintained the multitude of exotic animals in the store.

Volunteer Experience

Australia Zoo Volunteer (Queensland, July-August 2020)

- Assisted zookeepers at Australia Zoo to maintain high animal welfare standards for various mammals and birds.
- Interacted with zoo guests to help educate them about diverse wildlife species and the conservation issues facing them in their native habitats.

African Painted Dog Research Project (Missouri, January-February 2019)

- Assisted Ph.D. candidate Tammy Cloutier from Antioch University of New England on a behavioral study of large pack of African Painted Dogs housed at the Endangered Wolf Center.
- Recorded behavioral observations of all pack members and performed regular maintenance, downloads, and editing of photos from camera traps.

Skills

- Highly proficient in data wrangling, analysis and visualization using RStudio. Specifically, I have substantial experience using the R packages 'unmarked', 'lme4', 'activity', 'vegan', and 'tidyverse' on a massive dataset spanning 4 countries, 10 landscapes, and 20+ camera trapping surveys with 67,000+ independent wildlife detections.
- Moderately proficient at utilizing high performance computing (HPC) technology to distribute data-heavy statistical analyses over multiple computers. Moderately proficient coding in Bash.
- I can effectively conduct ecological fieldwork in tough conditions with severe weather, poisonous plants, venomous snakes, hoards of biting insects, uneven terrain, steep elevation gain, and while working alone or in a team in remote and inaccessible places. All the while with a positive attitude and ability to accurately record data.
- Skilled at using GPS and maps to navigate remote backcountry areas by foot and on off-road trails in 4WD vehicles.
- Extensive expedition planning, including international and domestic locations, typically to remote areas, with a high degree of organization.
- Highly adept at recognizing different wildlife species in specific localities, tracking their presence, and staying informed of their natural history.
- Extensive experience working Microsoft Word, Excel, and PowerPoint. I have also worked with Microsoft Access on a large 30+ year dataset. Additionally, I have preformed many hours of quality assurance and quality control of data.

Honors

University of Colorado- Boulder Dean's List (Colorado, August 2013-May 2016)

- Recognized outstanding students with a semester GPA at or above a 3.75.
- Earned for all semesters at CU, except for freshman year

Order of Omega (Colorado, January 2014-May 2016)

- Member of this organization that strives to recognize outstanding students within the Greek Community at CU- Boulder who seek to progress and advance the community.

National Society of Collegiate Scholars (Colorado, January 2014-May 2016)

- Member of this organization that recognizes outstanding college students across the USA who earn exceptional grades and intend to have an impact on the world.

Brother of the Year Award (Colorado, January-December 2013)

- Awarded for my successful implementation of large events in tandem with other organizations, my recruitment of the largest class of new members in the chapter's history, and general brotherly attitude.