

Helen Winter Sung

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EDUCATION

Ph.D. *In progress*, Zoology; Specialization in Ecology, Evolution, and Conservation Biology: University of Hawai'i at Mānoa

B.S. *December 2014*, Ecology, Behavior and Evolution; Conservation Biology: University of California, Los Angeles

October 2014 – December 2014 (Study Abroad), Tropical Biology and Conservation: Monteverde Institute, Costa Rica

GRANTS, HONORS, AND AWARDS

2019 National Science Foundation Graduate Student Research Fellowship (NSF-GRFP), 2019-2022

2018 University of Hawai'i, Graduate Student Organization – Travel Award

2017 Dr. Charles and Sandra Guest-Van Riper Endowed Student Travel Award

2014 University of California, Los Angeles Dean's Honor List

2014 University of California, Los Angeles - Department of Ecology and Evolutionary Biology Undergraduate Research Award

2014 University of California, Los Angeles - Department of Ecology and Evolutionary Biology Travel Grant

2013 University of California, Los Angeles Dean's Honor List

2013 University of California, Los Angeles Whitcome Summer Research Fellowship – Honorable Mention

PUBLICATIONS

Triminio, J., Tellez, M., and **Sung, H.** (2019) Cannibalism in *Crocodylus Acutus* (American Crocodile). *Herpetological Review*. (*In press*)

Sung, H., Tellez, M., and Butler, M.A. (2018) Hybridization between threatened species of Caribbean crocodiles: A new hope or a dead end? Proceedings of the 25th Working Meeting of the Crocodile Specialist Group of the Species Survival Commission of IUCN.

Tellez, M., and **Sung, H.** (2017) Unveiling the host-parasite dynamic of alligators and their endoparasites. *In: C.B. Eversole, and S.E. Henke [Eds.], American Alligators: Habitats, Behaviors, and Threats.* NOVA Science Publishers, Inc. p. 175-214

Sung, H., Tellez, M., and Merchant M. (2017) Endoparasitism in *Crocodylus Acutus*, *Crocodylus Moreletii*, and *Caiman crocodilus chiapasius*. *Herpetological Review*. 48(2): 431-432

Sung, H. and Tellez, M. (2016) Spatial variation of parasite infracommunities in the American Alligator (*Alligator mississippiensis*). *Southwestern Naturalist*. 61(4): 324-328

Sung, H. and Tellez, M. (2014) Parasitism in the American crocodile, Morelet's crocodile, and Spectacled caiman in Mexico, Belize, and Guatemala. Proceedings of the 23rd Working Meeting of the Crocodile Specialist Group of the Species Survival Commission of IUCN.

PRESENTATIONS

2019, June **IUCN-SSC Crocodile Specialist Group Regional Meeting**

Placencia, Stan Creek District, Belize

Why so salty: Evolution and conservation implications of physiological stress in *Crocodylus* hybrid zones (poster presentation)

2018, July **American Genetic Association Symposium**

Waimea, Hawaii, USA

Hybridization between threatened species of Caribbean crocodiles: A new hope or a dead end? (poster presentation)

2018, May **IUCN-SSC Crocodile Specialist Group 25th Working Meeting**

Santa Fe, Santa Fe Province, Argentina

Hybridization between threatened species of Caribbean crocodiles: A new hope or a dead end? (poster presentation)

2018, January **The Society for Integrative & Comparative Biology Annual Meeting**

San Francisco, California, USA

Morphological correlates of jumping and swimming performance in Papuan microhylid frogs (oral presentation)

2014, December **Monteverde Institute UCEAP Research Symposium**

Monteverde, Puntarenas, Costa Rica

A comparison of ectoparasite infrastructure across varying populations of *Ctenosaura similis* with regards to: host behavior, environmental, and/or anthropogenic impact (oral presentation)

2014, May **IUCN-SSC Crocodile Specialist Group 23rd Working Meeting**

Lake Charles, Louisiana, USA

Parasitism in the American crocodile and Morelet's crocodile in Belize and Guatemala (poster presentation)

PROFESSIONAL EXPERIENCE

Purdue University Department of Forestry and Natural Resources

O'Bannon Woods State Park, Corydon, Indiana (September 2016 – November 2016)

Amphibian (Hellbender) Field Technician

- Conducting nest searches for eastern Hellbenders in the Blue River, Indiana via snorkeling, surface-supplied air (Hookah), and rock-flipping in water
- In field data collection and physical assessment of captured adult Hellbenders
- Conducting macro-invertebrate surveys
- Attending and presenting at outreach events

Indiana State University, Center for Bat Research, Outreach and Conservation

Terre Haute, IN (May 2016 – August 2016)

Bat Research Technician

- Conducting bat surveys in conjunction with bird, amphibian, plant, small mammal, and insect projects
- Using radio telemetry to pinpoint foraging locations of bats at night
- Performing homing telemetry, emergence counts of bat exiting roosts, mist-netting, and acoustic surveys
- In field data collection and physical assessment of captured bats
- Data entry and management, and gear maintenance/decontamination

University of Florida, Fort Lauderdale Research and Education Center (“Croc Docs”)

Fort Lauderdale, FL (August 2015 – December 2015)

Biological Intern

- Performing radio telemetry, live trapping, camera trapping, and removal of invasive species for the Everglades Invasive Reptile and Amphibian Management program
- Performing herpetofauna surveys across Southern Florida
- Conducting necropsies and data analysis
- Monitoring American Alligators and American Crocodiles as indicators of Everglades restoration

UCLA, Department of Ecology and Evolutionary Biology, Buth/Tellez Lab

Los Angeles, CA (May 2011 – July 2015)

Head Research Assistant

- In field capture and release of crocodylians for gastric flushing and data collection
- Dissection of crocodylian viscera for locating parasites
- Fixation and Preparation of crocodylian viscera for further dissection
- Staining and mounting parasites on microscope slides
- Parasite species identification
- Lab/In field management and training of undergraduates on laboratory/in field techniques and skills

American Crocodile Education Sanctuary

Ambergris Caye, Belize (August 2013 – July 2015)

Summer Intern/Volunteer Researcher

- Capture and relocation of problematic crocodiles
- In field data collection of captured crocodiles
- Conducted American crocodile population surveys
- Laboratory and in field water sampling and analysis across various crocodile habitats
- Presented wildlife education talks to local schools, community events, tours, and sanctuary guests

Monteverde Institute

Monteverde, Puntarenas, Costa Rica (October 2014 – December 2014)

Independent Researcher

- Organized and conducted independent field research project for UCEAP Tropical Biology and Conservation Program
 - Project: Comparisons of ectoparasitism in *Ctenosaura similis* and the effects of host behavior, environmental impact, and/or anthropogenic impact

UCLA, Department of Ecology and Evolutionary Biology

Los Angeles, CA (March 2014 – June 2014)

Field Herpetology/Field Ecology Research Assistant

- Organized and conducted independent research project for the UCLA Field Biology Quarter, Field Herpetology/Field Ecology course
 - Project: Analyzing body size variation of 3 related species of lizards, *Sceloporus occidentalis*, *S. graciosus*, and *Uta stansburiana*, along an elevational cline in the San Jacinto Mountains and its surrounding areas
- In field capture, handling, and restraint of wildlife
- Data collection, organization, and analysis
- Conducted herpetological survey of uncharted wilderness area

UCLA, Department of Life Sciences Core Education

Los Angeles, CA (February 2012 – March 2014)

Lab Assistant/Animal Caretaker

- Monitoring animal health and daily welfare
- Preparing diets and feeding
- Cleaning and habitat maintenance
- Creating monthly logs, data collection
- Preparation for classroom animal presentation

Belize Wildlife and Referral Clinic

San Ignacio, Cayo District, Belize (August 2012 – September 2013)

Intern/Intern Coordinator

- Coordinating summer internship program with the BWRC
- Leading interns and overseeing intern activities in field and in clinic
- Daily operations of BWRC in field and in clinic
- Animal handling and restraint
- Assisting in surgery, emergency medical care, operating anesthesia
- Conducting basic health checks, physicals, and administering medication
- Laboratory work (parasitology and pathology)
- Developing and instituting treatment plan such as drug dosage and nutritional requirements
- Animal husbandry, food preparation and feeding, cleaning and basic maintenance

UCLA, David Geffen School of Medicine, Division of Laboratory Animal Medicine

Los Angeles, CA (June 2013 – August 2013)

Summer Intern

- Daily health inspections and medical cases with veterinarians and animal health technicians
- Animal handling, restraint, and treatment
- Assisted in surgery, emergency medical care, operating anesthesia
- Assisted with training courses such as rodent classes, cover species classes, aseptic surgical techniques, and special surgical procedures
- Assisted with the DLAM Assisted Reproduction Technology Services, DLAM Diagnostics Lab and Pathology

TEACHING EXPERIENCE

University of Hawai'i at Mānoa, Department of Biology

Honolulu, HI (August 2017 – May 2019)

Teaching Assistant

- Lab and Lecture TA for Zoology 430, Animal Physiology
- Lab TA for Biology 171L, Introduction to Biology I Lab

- Lab TA for Biology 172L, Introduction to Biology II Lab
- Lab TA for Biology 101L, Biology Lab for non-science majors

Riverside Unified School District; Moreno Valley Unified School District; Cucamonga Unified School District

Riverside, CA; Moreno Valley, CA; Rancho Cucamonga, CA (March 2017 – June 2017)

Substitute Teacher

- Provided instruction for students from K-12th grade at public schools across RUSD, MVUSD, and CUSD
- Directed the absent teachers' lesson plans, instructional procedures, and materials while also ensuring effective discipline and classroom control

Private Tutoring

Riverside, CA (December 2015 – April 2016)

Tutor

- Provided 1-on-1 tutoring for 7th-12th grade in Reading, Math, and Science; SAT prep; SAT subject test prep; AP Biology
- Created personalized curriculum and educational activities for each student to maximize learning

Apple Ipad and Android Tablet Tutoring

Riverside, CA (January 2015 – April 2015)

Tutor

- Provided 1-on-1 tutoring for students K-12th grade, primarily in English/Language Arts and Math
- Created personalized curriculum and educational activities for each student to maximize learning

UCLA, Department of Life Sciences Core Education

Los Angeles, CA (January 2014 – March 2014)

Undergraduate Teaching Assistant

- Presentation of course material
- Lab and exam preparation
- Assisted graduate Teaching Assistants during lab sections for the UCLA Life Science 2 (Cells, Tissues, and Organs) and Life Sciences 3 (Introduction to Molecular Biology) lab courses

PROFESSIONAL ORGANIZATIONS

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| 2019 – current | Graduate Women in Science – Hawaii Chapter |
| 2019 – current | Sigma Xi, Full member |
| 2018 – current | The American Genetics Association |
| 2017 – current | The Society of Integrative and Comparative Biology |

VOLUNTEER AND SERVICE ACTIVITIES

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| 2018 – current | <i>Volunteer Researcher/Outreach, Crocodile Research Coalition</i> |
| 2009 – 2014 | <i>Volunteer/Camp Councilor/Camp coordinator, St. Andrew Kim Summer Camp</i> |
| 2013 – 2014 | <i>External Relations Chair, UCLA Pre-Veterinary Society</i> |
| 2014 | <i>Volunteer, Natural History Museum of Los Angeles</i> |
| 2011 – 2013 | <i>Treasurer, UCLA Pre-Veterinary Society</i> |
| 2012 – 2013 | <i>Treasurer, UCLA Ocean's Club</i> |

2011 – 2012
2011 – 2012

External Vice President, UCLA Sproul Residential Hall
Volunteer, LA Spay and Neuter Project