

**LAUREN HOLIAN**  
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## **EDUCATION**

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<b>University of Florida</b>	<b>Gainesville, FL</b>
Master of Science in Zoology	2019
Bachelor of Science in Integrative Biology: Honors Program & Magna Cum Laude	2018
Minor in Sustainability Studies	2018
Study Abroad in New Zealand (Focus: Biodiversity & Conservation)	2016
Study Abroad in Costa Rica (Focus: Rural Communities & Environmental Issues)	2015

## **RESEARCH & FIELD WORK**

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<b>Theoretical Ecology &amp; Disease: Dallas Lab</b>	November, 2020 – Present
<ul style="list-style-type: none"><li>• Project: Spatial-temporal abundance-occupancy relationships across diverse taxa</li><li>• Project: Relationships between a host's pathogen communities</li></ul>	
<b>Invasive Cane Toad Collection: Zoo Miami</b>	August, 2020
<ul style="list-style-type: none"><li>• Annual nocturnal collection of invasive amphibians</li><li>• Cane toads of appropriate size were collected for dissection &amp; analysis</li></ul>	
<b>Functional Ecology &amp; Evolution: Gillooly Lab</b>	August, 2016 – 2019
<ul style="list-style-type: none"><li>• Thesis Project: Host cell volume explains differences in the size of dsDNA Viruses<ul style="list-style-type: none"><li>○ Evaluation of virus-host size relationships for dsDNA viruses infecting the three domains of life using two measures of size (genome size and cell volume)</li><li>○ Comparison of virus-host relationships across domains and between size measures</li><li>○ Data compilation from NCBI and primary literature, statistical analysis in R</li><li>○ Responsible for all stages of project development (primary literature search, data collection, analysis, presentation, and publication)</li><li>○ Advisor: Dr. Jamie Gillooly</li></ul></li><li>• Vertebrate brain evolution &amp; scaling project<ul style="list-style-type: none"><li>○ Analysis of brain size across vertebrate groups and potential life history trade-offs</li><li>○ Mentorship of undergraduate research team</li><li>○ Analysis using R programming</li></ul></li></ul>	
<b>Project Assistant: PORTAL Ecological Project</b>	October, 2018 & January, 2019
<ul style="list-style-type: none"><li>• Rodent surveys as part of 40 year ecological dynamics project</li><li>• Multi day sessions of rodent trapping/handling, species ID, weighing, and sexing</li></ul>	
<b>Native Trout Conservation: Yellowstone National Park</b>	May – August, 2018
<ul style="list-style-type: none"><li>• Intern on three person backcountry streams crew through SCA/AmeriCorps</li><li>• Extensive hiking (7-14 miles/day) and multiday backcountry work</li><li>• Surveying streams: Electroshocking/netting skills, genetic sampling (fin clips &amp; scale removal), eDNA collection (environmental DNA), and mechanical removal of invasives</li><li>• Stream stocking: Hiking in and placement of fry/eggs, implementation and maintenance of RSI's (Remote Site Incubators)</li><li>• Annual Lake Population Assessment: 10 day intensive surveying of Yellowstone lake requiring 10+ hour days of gill netting, species ID, otoliths removal, sexing and data entry</li><li>• Other skills: Telemetry tracking, net repair and development of SCA outreach project</li></ul>	
<b>Sexual Selection &amp; Spider Behavior: Taylor Lab</b>	January, 2014 – May, 2016
<ul style="list-style-type: none"><li>• Responsible for jumping spider breeding/rearing, daily care, and color preference tests</li><li>• Field collection of spiders and termites at various sites</li><li>• Website Manager</li></ul>	
<b>Lepidoptera Systematics: Florida Museum of Natural History</b>	August – May, 2015
<ul style="list-style-type: none"><li>• Morphological illustration of tropical butterflies' genitalia for species identification</li></ul>	

## **PUBLICATIONS & PRESENTATIONS**

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Manuscript Under Review: **Holian, L.A.**, Anderson, D.M, Gillooly, J.F. (2020). Host Cell Volume Explains Differences in the Size of DsDNA Viruses. – Submitted to Virus Research

Dallas, T., **Holian, L.A.**, Foster, G. (2020). What determines parasite species richness across host species? *Journal of Animal Ecology*

Powell, E. C., Cook, C., Coco, J., Brock, M., **Holian, L. A.**, & Taylor, L. A. (2019). Prey colour biases in jumping spiders (*Habronattus brunneus*) differ across populations. *Ethology*.

Nakahara, S., Zacca, T., Huertas, B., Neild, A. F., Hall, J. P., Lamas, G., **Holian, L.A.**, Espeland, M., Willmott, K. R. (2018). Remarkable sexual dimorphism, rarity and cryptic species: a revision of the 'aegrota species group' of the Neotropical butterfly genus *Caeruleptychia* Forster, 1964 with the description of three new species (Lepidoptera, Nymphalidae, Satyrinae). *Insect Systematics & Evolution*, 49(2), 130-182.

### Lead Author Presentations

"Old Viruses, New Questions" – UF Biology Department Retreat 2019

"Estimating Viral Carbon Across Oceans" – UF Ecology Seminar 2019

"Viruses Can't Take the Heat"

- Regional: University of Florida Water Institute 2018 Symposium 2018
- UF Biology Symposium 2017
- UF Genetics Symposium 2017
- UF Fall Symposium 2017
- UF Biology Symposium 2017

"Prey Color Aversions in Jumping Spiders Differ Across Populations" – UF Undergraduate Res. Symposium 2016

### Co-Author Presentation

Powell E, Cook C., Coco J., Brock M., **Holian L.**, Taylor. Prey color aversions in jumping Spiders differ across populations. Poster Presentation, 45<sup>th</sup> meeting of the Australian Society for the Study of Animal Behaviour. Mooroolbark, Victoria, Australia, July 2017.

## EDUCATION & OUTREACH

**Keeper Talks: Zoo Miami** August, 2019 – May, 2020

- Daily keeper talks (15-30min) with the public regarding rhino natural history, phylogeny, husbandry, and conservation
- Volunteered for Instagram virtual keeper talk (Covid-19 zoo closure)

**Guest Speaker: Archbishop Coleman F. Carroll High School** February 2020

- Biodiversity & Conservation (Patterns, significance, and how to contribute)
- Spoke with 3 classes ranging from 15-40 students
- Loosely structured discussion that allowed students to engage in various aspects

**Graduate Teaching Assistant: University of Florida** August, 2018 – August, 2019

- Interdisciplinary lab (X-Lab 1/2): 3 credit course, 16 students, 6 hours/week
  - Biology/Physics/Chemistry
  - Grading and distilment of classroom material
  - Editing lab manuals & providing course feedback
- Biology Lab 1: 1 credit course, 20 students, 4 hours/week
  - Development of lecture and quiz materials, grading all assignments and assessments
  - Lab set up/clean up and proctoring exams

**Leader: C.I.F.A.E. Nonprofit (Conservation Initiative for the Asian Elephant)** January, 2017 – August, 2019

- Responsible for developing educational/informational material for CIFAE website and community events
- Coordinator of monthly farmers market tabling and outreach
- Management/support of all events: Global March (Elephants & Rhinos), VegFest, documentary screenings, etc.

**Wetlands Club President: University of Florida** August, 2016 – May, 2018

- Salt marsh planting/restoration: Living Shoreline Project on Cedar Key
- SEEP wetland maintenance: Boardwalk repair and removal of non-wetland species
- Environmental Outreach: Wetland workshops with children, young adults and adults, water runoff demonstrations/interactive presentations and participation in local BioBlitz

## ANIMAL HUSBANDRY

**Hoofstock Keeper 1: Zoo Miami** February, 2019 – August, 2020

- Primary Focus: Black rhinos & Greater one horned rhinos

- Daily maintenance routines of indoor and outdoor exhibits as set forth by AZA, USDA, and Zoo Miami
- Assist in the distribution of diets, maintenance/disinfection, and implementation of enrichment materials
- Record animal behavior observations and maintain individual records
- Assist in medical procedures and operant conditioning training for voluntary blood draws and injections
- Public engagement with species natural history and conservation

#### **Hoofstock Keeper Aide: Zoo Miami**

August, 2019 – February, 2019

- Awarded 'Out of Class License'
  - Responsibilities and expectations of a Keeper 1
  - Participate in training and medical sessions

#### **Lubee Bat Conservatory**

September – October, 2017

- Weekly volunteer responsible for diet preparation, habitat maintenance and record keeping
- Comfortable working with various bat species under minimal supervision

#### **Animal Science Internship: Pachyderm Team, Zoo Miami**

May – August, 2017

- Full time intern responsible for daily care of Asian & African elephants, black & Indian rhinos, and Banteng
- Daily activities: Food & enrichment preparation, delivering educational talks to the public, habitat maintenance
- Projects: Development of habitat enrichment and analysis of records for indicators of animal behavior
- Other skills: Observation of animal behavior for illness and shadowing or primate team daily activities

### **HONORS & AWARDS**

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Magna Cum Laude —University of Florida	2018
Dean's List: Fall '14-17, Spring '15, 17, 18 —University of Florida	2014 – 2018
University Scholars Research Grant Recipient —University of Florida	2017
University Scholars Research Grant Recipient —University of Florida	2016
Study Abroad Merit Scholarship —University of Florida	2015

### **SKILLS & MISCELLANEOUS**

Expert: Excel, Word, and PowerPoint

Intermediate: Use of R for statistical analyses and data representation

Personal: Dedicated, take initiative, strong collaborator

Bilingual: English & Spanish

Cantera and Associates Tax: Document management & data entry

August – June, 2016

Press on Running Camp Counselor: Led team exercises & monitored running improvement

August – June, 2016