Robin P. Marquez
Curriculum Vitae

EDUCATION

University of Minnesota (UMN) **Department of Entomology** **(Start) September 2026**
Entomology PhD Student Saint Paul, MN

- **Advisors:** Dr. Matt Petersen, PhD and Dr. Cristian Beza-Beza, PhD
- Member of: Entomological Society of America; Entomological Collections Network; International Society of Hymenopterists; Royal Entomological Society

University of Central Florida (UCF) **January 2024 – May 2026**
BS Biology; Geographic Information Systems Certificate (3.6 Institutional GPA) Orlando, FL

Valencia College **January 2019 – December 2023**
AA General Studies (4.0 Institutional GPA) Orlando, FL

RESEARCH INTERESTS

- **Parasitoid Wasp Systematics and Evolutionary Ecology**
    - Host associations in multi-trophic systems, role of host shifting in speciation, biological controls

HONORS AND AWARDS ($109,000+)

- **Academic Honors** ($97,000+): UMN Diversity of View & Experience (DOVE) Fellow (2026); UMN Provost PhD Recruitment Award (2026); DAAD (German Academic Exchange Service) Scholarship for Master's Degree (offer declined, 2026); Dr. Ronald E. McNair Scholar (2023-2026); UCF Order of Pegasus (highest student honor, 2026); Barry Goldwater Scholar (2024); Research Showcases (UCF Judges' Choice 2024; Valencia College 1st Place 2022, 2023); WaspID Course Scholarship (2024); Valencia VECTOR Scholarship (2022-2023); Valencia College Academic Excellence Award for Plant Sciences (2022)
- **Travel Awards** ($12,000+)**:** International Society of Hymenopterists Congress Student Travel Award (2026); Entomological Society of America Alate Award (2025); McNair Scholars (2024-2025); Student Government (June, August 2025); Office of Undergraduate Research (2024); Smithsonian National Museum of Natural History (2024); University of Michigan (2024)

RESEARCH EXPERIENCE

Assistant Curator of Entomology **January 2024 - August 2026**

- **Supervisor:** Sandor Kelly (UCF Collection of Arthropods)
    - Assist with collection, display, preservation, and identification of arthropod specimens
    - Lead public outreach, education, and collection tours
    - Strengthen entomology knowledge through additional opportunities (Ex. WaspID Course)

Visiting Scholar, Discover Life in America Wasp ID Blitz **March 22-25 2026**

- Curate parasitoid Hymenoptera (i.e., mount, identify, sort, accession) collected in Great Smoky Mountains National Park
- Contribute to optimizing methods for specimen preparation by Park volunteers, and databasing/accession workflow

Meta-Analysis of Avian Malaria **November 2024 –January 2026**

- **Advisor:** Dr. Andrea Ayala, PhD (University of New Hampshire)

Climate and Pathogenic *Vibrio* Bacteria in Gut Microbiomes of Mottled Ducks **February 2023 – January 2026**

- **Advisors:** Dr. Andrea Ayala (University of New Hampshire) and Dr. C. Brandon Ogbunu (Yale University)
    - Survey Central Florida waterbodies for research suitability, conduct humane trapping and biological sample collection (avian venipuncture, fecal sample collection) from dabbling ducks (AALAS/IACUC trained)
    - Contribute to meta-analysis of *Vibrio* gene sequences by collating information from literature and publicly available databanks

NSF REU Site: Interdisciplinary Evolutionary Sciences **May – August 2025**

- **Advisor**: Dr. Andrew A. Forbes (Professor, University of Iowa)
- **Project:** Taxonomy of Gall Wasp Parasitoids in Genus *Ormyrus*
    - Contributed to taxonomic revision of cryptic species of gall wasp parasitoids in genus *Ormyrus* through combination of DNA barcoding and traditional morphological taxonomic work

NSF REU Site: Natural History Research Experiences **May – August 2024**

- **Advisors:** Dr. Jeffrey Sosa-Calvo (Smithsonian Institution); Dr. R. Luke Kresslein (United States Department of Agriculture); and Dr. Matthew L. Buffington (United States Department of Agriculture)
- **Project:** Survey of Neotropical Parasitoid Hymenoptera in Leaf Litter
    - Investigated micro-parasitoid Hymenoptera species richness, species turnover, and species diversity between surveyed regions in Central and South America
    - Curated over 1,400 micro-Hymenoptera specimens in entomology collections, which involved mounting, labeling, and identifying specimens to closest taxonomic group or morphospecies
    - Conducted education and outreach on museum floor during peak visitation hours

Assessing Functional Value of Urban Flower Patches by Tracking Pollen Grains **January – April 2024**

- **Advisor:** Dr. Patrick Bohlen (University of Central Florida)

Impact of Agrochemicals on Mosquito Immunology and Disease Transmission Capabilities **January – April 2024**

- **Advisor:** Dr. Ken Fedorka (University of Central Florida)

Big Ten Academic Alliance Summer Research Opportunity Program (SROP) **May – August 2023**

- **Advisor:** Dr. Regina Baucom (University of Michigan)
- **Project:** Effects of dicamba (herbicide) drift on *Ipomoea purpurea* and arthropod communities
    - Responsible for cultivation and experimental monitoring of 400 plants on agricultural research plot
    - Collected arthropod community data utilizing active visual surveys and pitfall traps

Pollinator Diversity and Abundance in Sustainable Coastal Landscape Design **January – May 2023**

- **Advisor:** Emily Surmont (Florida Department of Environmental Protection)
    - Conducted pollinator surveys in sustainable landscape at field station and traditional residential lawn
    - Co-led programming at field station to raise awareness for pollinator-friendly landscaping and enhance community scientists' pollinator identification skills
    - Trained FDEP staff and student intern in specimen collection using insect net

Characterization of Bacteria in Central Florida Urban Springs and Streams **August 2022 – April 2023**

- **Advisors:** Dr. Rita Luther (Valencia College) and James C. Adamski, PG (Valencia College and Friends of the Wekiva River)

NSF REU Site: Conservation, Restoration, and Communication **May – July 2022**

- **Advisor:** Dr. Patrick Bohlen (University of Central Florida)
- **Project:** Indirect Effects of Compost on Pollinators in Suburban Native Plant Landscapes
    - Conducted pollinator flower visitation surveys and collected insects using hand net and blue vane traps
    - Direct pinned or point mounted insect specimens to be added to Collection of Arthropods
    - Supported Sunbridge planned community stakeholders in designing sustainable residential landscape

RESEARCH CERTIFICATIONS, TRAINING, AND SKILLS

Biological Safety and Laboratory Safety Training, *University of Central Florida* **May 2022 - Present**

Research Statistics and Programming Retreat, *University of Central Florida* **March 17–20 2025**

- Enhanced statistical skills from theory to practice, including R-based data modeling and analyses

Chemical Laboratory Safety Training, *University of Michigan* **June 2023**

AALAS/IACUC Training – Wildlife User Track, *Yale University* **March 2022**

Biomedical Responsible Conduct of Research, *CITI Program* **May 2022**

Entomological Methods: Insect identification, collection (9+ methods), curation, microscopy (light, SEM), imaging, rearing, surveying

Plant Science and Ecology: Plant identification; standardized cultivation of experimental plants; seed collection for plant breeding research; documenting plant traits: herbivory damage, true leaf counts, germination times, flower counts

Microbiology: Polymerase chain reaction (PCR), Reverse Transcription PCR, Quantitative PCR, RNA extraction, hemolymph assay, bacterial culturing, Gram staining, vacuum membrane filtration

PUBLICATIONS

1. M. Hagaman, P.J. Bohlen, D. Jenkins, **R.P. Marquez**, B. Iannone, and B. Moffis (2025). Saving water, supporting pollinators: Greening new residential developments through soil remediation and diverse native plantings. *Urban Forestry & Urban Greening*. https://tinyurl.com/4zp965hx
2. **R.P. Marquez** (2025). From garden to Goldwater: sowing seeds of success as a non-traditional McNair scholar. *McNair National Research Journal*. https://tinyurl.com/pdd3dwpt

PUBLICATIONS IN PREPARATION

1. A.J. Ayala, B.A. Nasiff, **R.P. Marquez**, T.M. Hellinger, N.A. Cabral, A.R. Hackley, D.J. Becker (expected 2026). Models of avian malaria distributions as a result of climate change. *In prep for Science of the Total Environment*.
2. A.J. Ayala, T.A. Hellinger, J. Occiano, G. Santa Cruz, **R.P. Marquez**, A. Chan, R. Blass, A. Schoenherr, D. Vlaslov, V. Vives, N. Cabral, M. Sepulveda, C.M. Muise, S.N. Manivannan, T.J., Johnson, J. Webb, K.M. McBride, A. Fanning, A. Bartel, M. Ferragamo, D. Garcia, L. Gordon, J.L. Sevigny, K. Kabengele, C.A. Diaz, T-A Grant, D.B. Needle, W.K. Thomas, J. Bloodgood, S. Almagro-Moreno, and C.B. Ogbunugafor (expected 2026). Vibriosis in mottled ducks of Florida. *In prep for Ecology & Evolution*.

SCIENCE COMMUNICATION PUBLICATIONS

1. **Pitilon, R.** (2022). Audubon Engages Students with Conservation Leadership Assembly. *OASis*, *56*(8), 3. https://tinyurl.com/fbejk2as
2. **Pitilon, R.** (2022).*For the birds, prioritize native plants*. Orlando Sentinel. https://tinyurl.com/ys6me8dv
3. **Pitilon, R.** (2022). Playalinda Brewing Company: A Toast to Raising Awareness for Florida Scrub-Jays. *The Jay*, 4. https://tinyurl.com/mrctbzwc

SAMPLE RESEARCH PRESENTATIONS AND POSTERS (21 First Author, 8 Co-Author Total)

1. **Marquez, R.P.**; Nastasi, L.; Brown, G.; Steffensen, M.; Forbes, A.A. (2026). Taxonomy of Gall Wasp Parasitoids in Genus *Ormyrus*. [Accepted Oral Presentation]. National Autonomous University of Mexico (UNAM) Institute of Biology, Mexico City, Mexico. 11th Congress of the International Society of Hymenopterists.
2. **Marquez, R.P.**; Sheikh, S.; Brown, G.; Nastasi, L.; Steffensen, M.; Forbes, A.A. (2025). Gall Things Considered: Taxonomy of Gall Wasp Parasitoids in Genus *Ormyrus*. [Oral Presentation]. Virtual. International Society of Hymenopterists Meeting (Hymathon).
3. **Marquez, R.P.**; Sheikh, S.; Brown, G.; Nastasi, L.; Steffensen, M.; Forbes, A.A. (2025). Gall Things Considered: Taxonomy of Gall Wasp Parasitoids in Genus *Ormyrus*. [Poster Presentation]. Portland, Oregon. Entomological Society of America 2025 Annual Meeting.
4. **Marquez, R.P.**; Haji, D.; Talamas, E.; Gates, M.W.; Kula, R.; Schultz, T.R.; Buffington, M.L.; Sosa-Calvo, J.; Kresslein, R.L. (2024). Turning over a New Leaf: A Survey of Neotropical Parasitoid Hymenoptera in Leaf Litter. [Oral Presentation]. Phoenix, Arizona. Entomological Society of America 2024 Annual Meeting.
5. **Marquez, R.P.**; Buffington, M.L.; Sosa-Calvo, J.; Kresslein, R.L. (2024). The Game of Leaf: a gamified outreach drawer for micro-parasitoid Hymenoptera in leaf litter. [Oral Presentation]. Phoenix, Arizona. Entomological Collections Network 2024 Annual Meeting.
6. **Marquez, R.P.**; Haji, D.; Talamas, E.; Gates, M.W.; Kula, R.; Schultz, T.R.; Buffington, M.L.; Sosa-Calvo, J.; Kresslein, R.L. (2024). Turning over a New Leaf: A Survey of Neotropical Parasitoid Hymenoptera in Leaf Litter. [Poster Presentation]. Phoenix, Arizona. National Diversity in STEM Conference.
7. **Marquez, R.P.**; Zhang, G.; Baucom, R. (2024). Catch My Drift? Effects of Herbicide Drift on Morning Glory Plants and Arthropod Communities. [Poster Presentation]. Long Beach, California. Ecological Society of America 2024 Annual Meeting.

LEADERSHIP POSITIONS

Student Undergraduate Research Council, *University of Central Florida* **May 2024 – May 2025**
- Led programming and speaking events to promote undergraduate research and reviewed award applications

Entomology Workshop Planner and Lead Instructor, *Florida Dept. of Environmental Protection* **March 1, 2025**
- 3-hour workshop for class of 22 adults in collaboration with Merritt Island Wildlife Association and Florida Department of Environmental Protection

Judge for Spring 2024 Undergraduate Research Showcase, *Valencia College* **April 19, 2024**
- Evaluated student research presentations for science quality and presentation skills

Tour Leader for Sustainable Landscaping Conference *OUTSIDE Collab, Lake Nona, FL* **October 12, 2023**
- Guided tours through native plant landscape research plots

Student Selection Committee Member, *Audubon Florida* **July – September 2022, 2023**
- Reviewed applications for the Audubon Florida Conservation Leadership Initiative cohorts

Regional Conservation Committee Member, *Audubon Florida* **January 2022 – June 2023**
- Collaborated with Central Florida Audubon leaders to address regional conservation priorities
- Coordinated discussions about advancing environmental justice, equity, diversity, and inclusion in local chapter outreach and conservation efforts

Event Planning Team and Trip Leader, *Audubon Florida* **January 2023 – March 2023**
- Coordinated day-long event designed to promote careers in environmental conservation

Co-Creator of STEM and Climate Science Curriculum, *National Audubon Society* **June 2022**
- Co-created National Science Foundation-funded curriculum for 18-to-25-year-olds that combines guided nature experiences with STEM and Climate Science

Audubon Florida Conservation Leadership Initiative **October 2021 – May 2022**

- Strengthened leadership skills and understanding of conservation careers with support from Audubon Florida, diverse student cohort, and mentor Phyllis Hall, President of Seminole Audubon Society

PUBLIC SPEAKING ENGAGEMENTS AND PRESS RELEASES

Guest Speaker:

- "Explore Undergraduate Research Opportunities with Robin Marquez" (2024). Valencia College.
- Panelist (200+ attendees; 2024). Transfer Student Success Partnership Conference, Valencia College.
- Workshop speaker (2024). Florida Undergraduate Research Conference, University of North Florida.

Press:

- "Conservation Leadership Initiative Students Soar to New Heights" https://tinyurl.com/2bjedhx7
- "UCF Student Honored with Prestigious Goldwater Scholarship" (2024). *UCF Today.* https://tinyurl.com/yetuf6ev
- "VC student discovers a passion for research, wins a prestigious Goldwater Scholarship" (2024). *Valencia College Stories.* https://tinyurl.com/y82ebpfe

PUBLIC OUTREACH

Museum Educator, Entomology, *Smithsonian National Museum of Natural History* **August 2024**
Entomology Outreach and Education for Earth Day Celebration, *Kennedy Space Center* **April 8, 2024**
Young Voices of Science Program, *Hubbard Brook Research Foundation* **March 2022 – June 2022**
Write for Climate Program, *Audubon Florida* **2022**

VOLUNTEERING

Judge (K-12 Research Presentations), *Seminole County Regional Science, Math & Engineering Fair* **February 2025**
Student Volunteer, *Ecological Society of America 2024 Annual Meeting* **August 2024**
Entomology Collection Volunteer **April - December 2023**
University of Central Florida Collection of Arthropods, Orlando, FL
Indian River Lagoon Aquatic Preserves Team Volunteer (Alternative Spring Break) **March 6 – 9, 2022**
Florida Department of Environmental Protection, Titusville, FL
Bird Banding Volunteer, *Wekiva Basin Bird Banding Station* **October 2021 – April 2022**

OTHER CERTIFICATIONS AND TRAINING

Hands-Only CPR, AED, and First Aid Training, *American Red Cross* **May 2022**
Florida-Friendly Landscaping™ Certified Professional, *University of Florida* **December 2021**
Produce Safety Alliance (PSA) Grower, *Cornell University* **September 2021**
Green Industries Best Management Practices **April 2021**
University of Florida, Florida Department of Environmental Protection
Certified Horticulture Professional, *Florida Nursery, Growers, and Landscapers Association* **April 2021**