Bolívar Aponte Rolón

Ph.D. CANDIDATE

Department of Ecology and Evolutionary Biology | Tulane University, New Orleans, LA 70118

 ■ apontebolivar@gmail.com

I am a curiosity driven community ecologist focused on plant-fungal symbiosis and genomics.



Tulane University (TU), Department of Ecology and Biology

New Orleans, LA

Ph. D. candidate

2018 - Present

· Committee members: Sunshine Van Bael, Ph.D. (advisor; dissertation chair), Kathleen Ferris, Ph.D. (co-advisor), Keith Clay, Ph.D., & P. Camilo Zalamea, Ph.D.

University of Michigan (UM), School for the Environment and Sustainability

Ann Arbor, MI

MASTER OF SCIENCE, NATURAL RESOURCES MANAGEMENT: CONSERVATION ECOLOGY

2018

University of Puerto Rico (UPR)

San Juan, Puerto Rico

BACHELOR OF ARTS IN POLITICAL SCIENCE,

2014 - 2014

• Area of concentration: Political Theory, Magna Cum Laude

Peer-Reviewed Publications

Aponte Rolón, B., & Perfecto, I. (2023). Between two trees: Environmental effects of I. Micheliana and A. Latifolia on leaf litter ants in a coffee agroecosystem. *Ecosphere*, 14(2), e4442. https://doi.org/10.1002/ecs2.4442Schmitt, L., Aponte Rolón, B., & Perfecto, I. (2020). Evaluating community effects of a Keystone Ant, *Azteca sericeasur*, on *Inga micheliana* leaf litter decomposition in a shaded coffee agro-ecosystem. *Biotropica*, 52(6), 1253–1261. https://doi.org/10.1111/btp.12833

Other Publications _

Aponte Rolón, B. (2023). *High-Molecular-Weight SPRI-aided DNA extraction from Mimulus (Phrymaceae) leaf tissue.* https://doi.org/dx.doi.org/10.17504/protocols.io.bp216xn8rlqe/v2

! Research Experience

Ecology and Evolutionary Biology

Tulane University, New Orleans, LA

DOCTORAL RESEARCH

August 2018 - Present

- "Leaf Functional Traits Influence on Foliar Endophytic Fungi and Their Effects on Plant's Response to Herbivory and Pathogenicity In Tropical Trees" (in progress)
- "Foliar Endophytic Fungi in Yellow Monkeyflowers Along an Elevational Gradient in the Sierra Nevada, CA" (in progress)
- "Leaf Functional Trait Plasticity and Foliar Endophytic Fungi in Yellow Monkeyflowers: Linking Traits and Symbionts to Genes" (in progress)
- PI, Sunshine Van Bael Ph.D. & Kathleen Ferris, Ph.D.

School for the Environment and Sustainability

University of Michigan, Ann Arbor, MI

MASTER'S THESIS

January 2016 - April 2018

- "Impacts of quality of leaf-litter on ant assemblages in shade-grown coffee in the Soconusco region in Chiapas, Mexico"
- PI, Ivette Perfecto, Ph. D.

School for the Environment and Sustainability

University of Michigan, Ann Arbor, MI

GRADUATE STUDENT RESEARCH ASSISTANT

January 2016 - May 2016

- "Impacts of quality of leaf-litter on ant assemblages in shade-grown coffee in the Soconusco region in Chiapas, Mexico"
- PI, Ivette Perfecto, Ph. D.

Department of Chemistry

University of Puerto Rico, San Juan, PR

Undergraduate Research Assistant

January 2014 - May 2014

1 OF 6

- Conducted GC-MS and QuECHERs methods in development of an analytical methodology for the detection of Hypoglycin A in Ackee Fruit (Blighia sapida).
- · Worked in the characterization of Ackee Fruit and applied the QuEChERS method to analyze analyte properties
- PI, Liz Díaz, Ph. D.

FEBRUARY 28, 2024

Department of Chemistry

UNDERGRADUATE RESEARCH ASSISTANT

University of Puerto Rico, San Juan, PR

June 2013 - July 2013

- · Characterized and assessed marine algae as sources for biofuels, plastics, electrodes and bioindicators.
- Conducted a simultaneous assay of pigments, carbohydrates, proteins and lipids of Tricleocarpa cylindrica.
- · PI, Liz Díaz, Ph. D.

Center for Landscape Conservation, Inc.

San Juan, Puerto Rico

July 2013 - July 2013

Undergraduate Research Assistant

- "Rapid Ethnographic Assessment in El Yunque: Understanding local visitors' willingness and capacity to collaborate in the revision of EYNF's Management Plan"
- PI, Federico Cintrón-Moscoso, Ph. D.

Grants and Fellowships_

Student Research Grant Tulane University, New Orleans, LA.

DEPARTMENT OF ECOLOGY AND EVOLUTIONARY BIOLOGY February 2020 - 2021 ,2022

OGPS Fellowship Tulane University, New Orleans, LA.

OFFICE OF GRADUATE AND POST-DOCTORAL STUDIES November 2021 - May 2022

Rackham International Research Award University of Michigan, Ann Arbor, Ml. RACKHAM GRADUATE SCHOOL April - 2017

Rackham Conference Travel Grant University of Michigan, Ann Arbor, MI.

Rackham Master Fellowship University of Michigan, Ann Arbor, Ml.

RACKHAM GRADUATE SCHOOL April - 2015

Awards & Honors_____

RACKHAM GRADUATE SCHOOL

The Connolly Alexander Institute for Data Science

SUMMER GRADUATE AWARD

June 2023

April - 2017

Graduate Studies Student Association

Graduate Studies Student Association

TRAVEL AWARD

Tulane University, New Orleans, LA May 2023

Tulane University, New Orleans, LA

School of Science and Engineering

DEAN'S TRAVEL AWARD

Tulane University, New Orleans, LA May 2023

Tulane University, New Orleans, LA

TRAVEL AWARD

May 2022

School of Science and Engineering

Tulane University, New Orleans, LA DEAN'S TRAVEL AWARD

April 2022

School for the Environment and Sustainability

JEFFREY LUND FOREST ECOLOGY AWARD

University of Michigan, Ann Arbor, MI

April 2017

• Annual award for academic excellence, research capability and professional promise.

Conference Presentations and Posters _

Aponte Rolón, B. (2023 June). Oral Presentation: "Foliar fungal symbionts in sympatric yellow monkeyflowers along an elevational gradient". Evolution 2023, Albuquerque, NM.

Aponte Rolón, B. (2023 March). Poster: "The Influence of host genotype and leaf trait plasticity on foliar fungal endophytes of yellow monkeyflowers in Yosemite National Park, CA". Collaborators: Kathleen Ferris & Sunshine Van Bael. Tulane Research, Innovation, and Creativity Summit (TRICS), Jung Hotel Grand Hall, New Orleans, LA.

Aponte Rolón, B. (2022 July). Oral Presentation: "Interactions between functional leaf traits and foliar endophytes in the defense against natural enemies of tropical trees" (ID: 358). The 58th Meeting of the Association for Tropical Biology and Conservation (ATBC 2022), Cartagena de Indias, Colombia.

Aponte Rolón, B. (2022 May). *Poster*: "The Influence of host genotype and leaf trait plasticity on foliar fungal endophytes of yellow monkeyflowers in Yosemite National Park, CA". Collaborators: Kathleen Ferris & Sunshine Van Bael. Yosemite Symbiosis Workshop. Wawona, CA, USA.

Aponte Rolón, B. (2020 July). *Graphical Abstract*: "Investigating trade-offs and complementarity between functional leaf traits and foliar endophytic fungi in the defense against plant enemies of tropical woody plants". Collaborators: A. Elizabeth Arnold, and Sunshine Van Bael. The Mycological Society of America's First Virtual Meeting, MSA 2020: Mycology from the Cloud (virtual).

Aponte Rolón, B. (2019 May). *Poster*: "Leaf and Root Endophytes of Mangroves in Southwestern Florida Everglades". Collaborators: Mareli Sánchez Juliá, Edward Castañeda, John Kominoski, & Sunshine Van Bael. Florida Coastal Everglades LTER All Scientists Meeting. Fairchild Tropical Botanic Garden, Miami, Florida.

Aponte Rolón, B. (2017 October). *Poster*: "Quality of leaf-litter and ant assemblages in shade-grown coffee in Chiapas, Mexico", Collaborator: Ivette Perfecto. Student Conference on Conservation Science-New York (SCCS-NY), American Museum of Natural History in New York City.

Aponte Rolón, B. (2017 July). *Poster*: "Impacts of quality of leaf-litter on ant assemblages in shade-grown coffee in Chiapas, Mexico", Collaborator: Ivette Perfecto. 54th Annual Meeting of the Association for Tropical Biology and Conservation, "Ecological and Social Dimensions of Tropical Biodiversity Conservation", Merida, Yucatan, Mexico.

Aponte Rolón, B. (2014 May). *Poster*: "El efecto del Curcumin en la señalización celular de Artritis Psoriática" [The Effect of Curcumin on cell signaling of Psoriatic Arthritis]. (With Carrero Feliciano, Heysel M.; Hall Laureano, Stephanie; Montes González, Ingrid, PhD.) Annual poster presentation of the American Chemical Society, Puerto Rico Chapter, University of Puerto Rico, Río Piedras Campus, San Juan, Puerto Rico.

Seminars & Workshops

Delegate (Aug. Sept. 2014): "Encuentro latinoamericano y caribeño: asamblea intermedia". [Intermediate Assembly of the Consejo de Educación Popular de América Latina y el Caribe-CEAAL]. Quito, Ecuador.

Delegate (October 2013): *"Rumbo a la asamblea intermedia"*. Sponsored by the *Consejo de Educación Popular de América Latina y el Caribe-CEAAL*. Santo Domingo, Dominican Republic.

Organizer (August 2013): "Primer Encuentro Nacional de Educadores(as) Populares de Puerto Rico". Sponsored by Consejo de Educación Popular de América Latina y el Caribe-CEAAL, Pontifical Catholic University of Puerto Rico, Ponce, Puerto Rico.

Workshop Developer (August 2013): "Educación Popular y Liberación Nacional" [Workshop on Popular Education and National Liberation] Sponsored by La Nueva Escuela at Primer Encuentro Nacional de Educadores (as) Populares de Puerto Rico. Pontifical Catholic University of Puerto Rico, Ponce, Puerto Rico.

Facilitator & organizer (March 2012): "Sexto Campamento de Jóvenes: Educando para una nueva Patria" [Summit on Popular Education Critical Ideologies, Racism & Xenophobia]. La Nueva Escuela, Peñuelas, Puerto Rico.

Organizer (March 2012): "Debates y perspectivas en la construcción de una reforma universitaria inclusiva". Sponsored by Honors Program Student Association (AEPREH), University of Puerto Rico, Río Piedras Campus. Social Sciences Faculty, University of Puerto Rico, Río Piedras Campus, San Juan Puerto Rico.

Round table (July 2012): "Puerto Rico: a brief historical account". Second International Summit "Entre las Crisis y Otros Mundos Posibles" of the Transnational Network of Other Knowledges. Sponsored by Centro de Investigaciones y Estudios Superiores en Antropología Social (CIESAS), CIDECI Las Casas/ UNITIERRA-Chiapas, San Cristóbal de las Casas, Chiapas, México.

Workshop Developer (September 2010): "Taller de Educación Popular" [Workshop on Popular Education]. La Nueva Escuela at The University of Puerto Rico, Río Piedras Campus, San Juan, Puerto Rico.

Workshop Developer (May 2010): "Taller de Educación Popular y el Movimiento Estudiantil" [Workshop on Popular Education and the Student Movement]. La Nueva Escuela at The University of Puerto Rico, Río Piedras Campus, San Juan, Puerto Rico.

Teaching Experience

Tulane University: 2018-Present

Instructor

- October 2023 | *Introduction to Version Control with Git and GitHub*. Developed by **B. Aponte Rolón** for the Howard-Tilton Memorial Library, Tulane University, New Orleans LA.
- October 2023 | *Introduction to Data Visualization in R*. Developed by **B. Aponte Rolón** for the Howard-Tilton Memorial Library, Tulane University, New Orleans LA.
- October 2023 | *Introduction to R, Part 1*. Developed by Mike Ellis for the Howard-Tilton Memorial Library, Tulane University, New Orleans LA.

Teaching Assistant

- Summer 2023 | **Tropical Field Biology EBIO 3780**. Dr. Sunshine Van Bael, Department of Ecology and Evolutionary Biology.
- Spring 2023 | **Natural History of Louisiana EBIO 2330**. Dr. Donata Henry, Department of Ecology and Evolutionary Biology.
- Spring 2023 | Theory and Methods in Ecology and Evolutionary Biology EBIO 2020. Dr. Donata Henry, Department of Ecology and Evolutionary Biology.
- Fall 2022 | **Entomology EBIO 4430/4431**. Dr. Jelagat Cheruiyot, Department of Ecology and Evolutionary Biology.
- Spring 2022 | **Insects and Human Interactions EBIO 2210**. Dr. Jelagat Cheruiyot, Department of Ecology and Evolutionary Biology.
- Fall 2021 | **Entomology EBIO 4430/4431**. Dr. Jelagat Cheruiyot, Department of Ecology and Evolutionary Biology.
- Spring 2021 | **Plants and Human Affairs EBIO 3180/3185**. Dr. Keith Clay, Department of Ecology and Evolutionary Biology.
- Fall 2020 | **Entomology EBIO 4430/4431**. Dr. Jelagat Cheruiyot, Department of Ecology and Evolutionary Biology.
- Spring 2020 | **Plant Biology and Adaptation EBIO 3590/3591**. Dr. Jelagat Cheruiyot, Department of Ecology and Evolutionary Biology.
- Fall 2019 | **Plants and Human Affairs EBIO 3180/3185**. Dr. Jelagat Cheruiyot, Department of Ecology and Evolutionary Biology.
- Spring 2019 | **Entomology EBIO 4430/4431**. Dr. Jelagat Cheruiyot, Department of Ecology and Evolutionary Biology.
- Fall 2018 | Diversity of Life EBIO 1010. Dr. Donata Henry, Department of Ecology and Evolutionary Biology.

Guest Lectures

- Summer 2023 | **Tropical Field Biology EBIO 3780**, Dr. Sunshine Van Bael, Department of Ecology and Evolutionary Biology.
- Fall 2021 | **Tropical Biology EBIO 2110**, Dr. Renata Durães Ribeiro, Department of Ecology and Evolutionary Biology.
- Fall 2021 | **Entomology EBIO 4430/4431**. Dr. Jelagat Cheruiyot, Department of Ecology and Evolutionary Biology.
- Fall 2019 | **Plants and Human Affairs EBIO 3180/3185**. Dr. Jelagat Cheruiyot, Department of Ecology and Evolutionary Biology.

University of Michigan: 2016 - 2017

- Fall 2017 | NRE 509: Ecology: Concepts and Applications. Dr. Sheila K. Schueller, School for the Environment and Sustainability.
- Fall 2016 | **ENVIRON 270: Our Common Future**. Dr. Ivette Perfecto, Program in The Environment, College of Literature, Science and the Arts.

Ω Outreach $_$

FIRST Bayou Regional

FIRST ROBOTICS COMPETITION March 2022

• Volunteer in robotics competition for high school students

Yosemite Conservancy Yosemite National Park

Nature Talk May 2022

• Led public on nature walk and art activity to examine functional significance of leaf shapes.

University of Michigan

ECODIA

Finca Irlanda, Soconusco, Chiapas, Mexico

June 2017

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· Developed and executed a science communication day for the school.

Offices and Other Experience _

Connolly Alexander Institute for Data Science

PRODUCT DEVELOPER January 2024 - Present

Howard-Tilton Memorial Library,

INSTRUCTOR September 2023 - December 2023

Tulanians Who Enjoy R Coding (TWERC)

COORDINATOR January 2023 - January 2024

AmeriCorps STATE

Urban Agriculture Instructor

December 2014 - June 2015

Consejo de Educación Popular de América Latina y el Caribe (CEAAL)

LIASON November 2013 - June 2015

General Student Council Directive

ALTERNATE REPRESENTATIVE August 2011 - May 2012

Honors Program Student Association (AEPREH)

President August 2011 - May 2012

Honors Program Student Association (AEPREH)

VICE-PRESIDENT August 2010 - May 2011

Social Sciences College Student Action Committee

COORDINATOR August 2010 - May 2011

La Nueva Escuela

COLLABORATOR September 2010 - May 2015

A Memberships _____

ATBC | Association for Tropical Biology and Conservation

ESA | Ecological Society of America

SSE | Society for the Study of Evolution



🌣 Technical _____

Skill	Proficiency	
R	Advanced	
Bash	Intermediate	
Python	Beginner	
LaTex	Beginner	
Fusion 360	Intermediate	
Inkscape	Intermediate	
Git	Intermediate	
Markdown	Intermediate	

A⊉ Languages _____

Skill	Spanish	English	Portuguese
Reading	Native	Advanced	Intermediate
Writing	Native	Advanced	Intermediate
Listening	Native	Advanced	Intermediate
Speaking	Native	Advanced	Intermediate