

# MATÍAS GÓMEZ-CORRALES

Postdoctoral Research Associate, National Coral Reef Institute (NCRI)  
Nova Southeastern University (NSU)

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## EDUCATION

2024 - **Ph.D.** Biological and Environmental Sciences

University of Rhode Island (Kingston, USA)

Dissertation: Cryptic lineages matter for coral conservation under climate change

Advisor: Dr. Carlos Prada

2018 - **M.Sc.** Biological Sciences

Universidad of Los Andes (Bogotá D.C., Colombia)

Thesis: Asynchronous spawning reflects genetic structure in a Caribbean brain coral, *Diploria labyrinthiformis* (Scleractinia: Faviinae)

Advisor: Dr. Juan A. Sánchez

2015 - **B.S.** Marine Biology

Universidad of Bogotá Jorge Tadeo Lozano (Bogotá D.C., Colombia)

Thesis: Foraminifera as bioindicators of water quality on coral reefs

Advisors: Dr. Juan A. Sánchez & Dr. Elvira Alvarado

## RESEARCH & ACADEMIC POSITIONS

2024 - Present **Postdoctoral Associate**, National Coral Reef Institute, Nova Southeastern University  
(Advised by Dr. Jose Lopez)

## PUBLICATIONS

### Summary Statistics

**Citation indices:**    **All**    **Since 2019**

Citations                105    97

h-index                 4       4

i10-index               3       3

8. Alvarado-Cerón V., Prada C., **Gómez-Corrales M.**, Padilla-Souza A. C., León-Pech M. G., Rivera-Madrid R., & Arias-González J. E. Studying the genomics of natural and restored populations of *Acropora palmata* is crucial for understanding their genetic diversity and the impact of conservation efforts. <https://doi.org/10.21203/rs.3.rs-4596031/v1> (*In review*).

7. **Gómez-Corrales, M.**, González, A., Kamel, B., Medina, M., Levitan, D.R., Knowlton, N., & Prada, C. Speciation across depth gradients in reef corals. <https://doi.org/10.21203/rs.3.rs-4202515/v1> (*In review*).

6. Grupstra, C., **Gómez-Corrales, M.**, Fifer, J., Aichelman, H.E., Meyer-Kaiser, K.S., Prada, C. & Davies, S.W. *Nature Ecology & Evolution* (2024). Integrating cryptic diversity into coral evolution, symbiosis, and conservation. <https://doi.org/10.1038/s41559-023-02319-y>

5. Rodríguez, L., Acosta, A., González-Zapata, F.L., **Gómez-Corrales, M.**, Marrugo, M., Alvarado-Ch, E.M., Dueñas, L.F., Andrade, J., Gutierrez-Cala, L. & Sánchez, J.A. *Biodiversity and Conservation* (2023). Conservation at the edge: connectivity and opportunities from non-protected coral reefs close to a national park in the Colombian Caribbean. <https://link.springer.com/article/10.1007/s10531-022-02539-x>
4. **Gómez-Corrales M.** & Prada C. (2020). Cryptic lineages respond differently to coral bleaching. *Molecular Ecology*, 00:1–9. <https://doi.org/10.1111/mec.15631>
3. Sánchez, J. A., **Gómez-Corrales, M\***, Gutierrez-Cala, L. Vergara, D.C., Roa, P., González-Zapata, F.L., Gnecco, M., Puerto, N., Neira, L. & Sarmiento, A. (2019). Steady Decline of Corals and Other Benthic Organisms in the SeaFlower Biosphere Reserve (Southwestern Caribbean). *Frontiers in Marine Science*, 6. <https://doi.org/10.3389/fmars.2019.00073> \*Equal Contribution.
2. **Gómez-Corrales M.**, Flórez E., Hernández L. & Fajardo Medina, G. E. (2017). Post-embryonic development stages of *Tityus columbianus* (Thorell, 1846), (Scorpiones, Buthidae): morphometric estimation approach. *Revista Mutis*, 7(2), 75-80. <https://doi.org/10.21789/22561498.1257>
1. Alonso, D., Vides, M., Cedeño, C., Marrugo, M., Henao, A., Sánchez, J.A., Dueñas, L., Andrade, J.C., González, F. & **Gómez, M.** (2015). Parque Nacional Natural Corales de Profundidad: descripción de comunidades coralinas y fauna asociada. *Serie de Publicaciones Generales del Invemar*, (88), 20.

## PRESS & RESEARCH FEATURES

- Gómez-Corrales M.** (2022). Cryptic diversity matters for coral conservation. In: Ormond, R. and Rogers, C (eds), Reef Encounter 51, Vol 37, No. 1, 82. [http://coralreefs.org/publications/reef\\_encounter\\_51/](http://coralreefs.org/publications/reef_encounter_51/)
- Baird A and Harrison H: H1 Connect Recommendation of [**Gómez-Corrales M**, Prada C, Mol Ecol 2020 (:)]. In H1 Connect, 05 Nov 2020; <https://connect.h1.co/article/738876544>

## FUNDING

(Total secured funding ~\$73,463)

- 2024 – Conference Delivery Program, University of Rhode Island Graduate Student Association (\$500).
- 2024 - Annual Grant Fund, University of Rhode Island Graduate Assistants United (\$500).
- 2024 - Dean’s Travel Award, University of Rhode Island (\$300).
- 2023 - Sea Grant Travel Award, University of Rhode Island Graduate School of Oceanography (\$800).
- 2022 - Rosemary Grant Advanced Award, Society for the Study of Evolution (3,500).
- 2022 - Lerner-Gray Grants for Marine Research, American Museum of Natural History (\$2,000).

2022 - Dean's Fellowship Award, University of Rhode Island (\$34,563).

2022 - Early Career Training Award, Coral Bleaching Research Coordination Network (\$2,500).

2022 - Dean's Travel Award, University of Rhode Island (\$450).

2022 - Annual Grant Fund, University of Rhode Island Graduate Assistants United (\$500).

2021 - Global Marine Initiative Student Research Award Program, The Nature Conservancy & University of Rhode Island (\$10,000).

2020 - Graduate Student Research Award, Society of Systematic Biologists (\$3,000).

2020 - Enhancement of Graduate Research Awards, University of Rhode Island (\$1,000).

2020 - Graduate Fellow, International Coral Reef Society (\$2,500).

2020 - Species Delimitation Workshop Travel Grant, University of Michigan (\$600).

2017 - Master's Research Grant, Universidad of Los Andes (\$1,000).

2015 - Master's Scholarship, Universidad of Los Andes (\$7,000).

2014 - Excellence Student Award, Universidad of Bogotá Jorge Tadeo Lozano (\$1,250).

2013 - Excellence Student Award, Universidad of Bogotá Jorge Tadeo Lozano (\$1,250).

2011 - Conference Registration Grant, III Latin-American Conference of Arachnology (\$250).

### **RESEARCH EXPERIENCE**

2019 - 2024 Graduate Research Assistant, University of Rhode Island.

2022 - Visiting Scholar, Pennsylvania State University (Iglesias-Prieto Lab).

2015 - 2017 Graduate Research Assistant, Universidad of Los Andes, Colombia.

2012 - 2013 Junior Researcher in Coral Reef Ecology. Ecoral Company, Colombia.

2011 - 2012 Junior Researcher in Marine Invasions. Dr. Michael J. Ahrens, Consultancy.

### **UNDERGRADUATE TEACHING EXPERIENCE**

2020 - Zoology of Invertebrates, Laboratory. University of Rhode Island.

2018 - Marine Ecology, Laboratory. Universidad of Los Andes, Colombia.

2017 - Cellular Biology, Laboratory. Universidad of Los Andes, Colombia.

2015 - 2016 Zoology of Invertebrates, Laboratory. Universidad of Los Andes, Colombia.

## ORAL PRESENTATIONS

- 2024 - **Gómez-Corrales, M.**, González, A., Kamel, B., Medina, M., Levitan, D.R., Knowlton, N., Prada, C. Speciation across depth gradients in reef corals. XII Congreso Mexicano de Arrecifes Coralinos y III Congreso Panamericano de Arrecifes Coralinos. Ensenada, Mexico.
- 2024 - **Gómez-Corrales, M.**, González, A., Kamel, B., Medina, M., Levitan, D.R., Knowlton, N., Prada, C. Coral Cryptic Lineages Segregate across a Depth Cline in the Caribbean. Ocean Sciences Meeting. Louisiana, US.
- 2023 - **Gómez-Corrales, M.**, González, A., Kamel, B., Medina, M., Levitan, D.R., Knowlton, N., Prada, C. Adaptation to light drives speciation in depth-segregated corals via temporal reproductive isolation. Evolution. New Mexico, US.
- 2022 - **Gómez-Corrales, M.**, Medina, M., Prada, C. Speciation in Caribbean Corals. 2<sup>nd</sup> Early Career Researcher Symposium, International Fossil Coral and Reef Society.
- 2022 - **Gómez-Corrales, M.**, López-Londoño., T, Huntley, N., Iglesias-Prieto, R., Prada, C. Depth matters for coral restoration. Reef Futures, Key Largo, US.
- 2022 - **Gómez-Corrales, M.**, Medina, M., Prada, C. Coral cryptic lineages segregate across a depth cline in the Caribbean. 15<sup>th</sup> International Coral Reef Symposium, Bremen, Germany.
- 2022 - **Gómez-Corrales, M.**, Medina, M., Prada, C. Coral cryptic lineages across a depth cline. 50<sup>th</sup> Benthic Ecology Meeting, Portsmouth, US.
- 2021 - **Gómez-Corrales, M.** & Prada, C. Cryptic lineages matter for coral conservation under climate change. Society for Integrative and Comparative Biology (SICB) meeting, US.
- 2021 - **Gómez-Corrales, M.** & Prada, C. Cryptic lineages matter for coral conservation under climate change. Virtual Stand-Alone Conference of The American Society of Naturalists, US.
- 2017 - **Gómez-Corrales, M.**, Chamberland V, Snowden S, Vermeij M.J., Sánchez J.A. Genomic insights into a sympatric Caribbean brain coral population with two non-overlapping reproductive cohorts, *Diploria labyrinthiformis* (Scleractinia: Mussidae). European Coral Reef Symposium, Oxford, UK.

## POSTER PRESENTATIONS

- 2024 - Prada, C., **Gómez-Corrales, M.**, Girard, J., Lasker, H., Benson, K., Gardner, C., Etnoyer, P. Potential for colony propagation in Mesophotic Octocorals of the Gulf of Mexico. Ocean Sciences Meeting. Louisiana, US.
- 2023 - **Gómez-Corrales, M.**, González, A., Kamel, B., Medina, M., Levitan, D.R., Knowlton, N., Prada, C. Coral cryptic lineages segregate across a depth cline in the Caribbean. Ecological and Evolutionary Genomics Gordon Research Conference. Rhode Island, US.
- 2022 - Alvarado-Cerón, V., **Gómez-Corrales, M.**, Padilla-Souza, A.C., León-Pech, M.G., Rivera-Madrid, R., Prada, C., Arias-González, J.E. Population genomics of natural and restored populations of the Elkhorn coral in northern Quintana Roo, Mexico. 15<sup>th</sup> International Coral Reef Symposium, Bremen, Germany.

- 2019 - **Gómez-Corrales, M.**, Chamberland V, Snowden S, Vermeij M.J., Sánchez J.A. Temporal reproductive isolation uncovers cryptic speciation in a common Caribbean brain coral. Evolution. Providence, US.
- 2011 - **Gómez-Corrales, M.**, Flórez, E., Fajardo Medina, G. E. Post-embryonic development stages of *Tityus columbianus* (Thorell, 1846), (Scorpiones, Buthidae): morphometric estimation approach. III Latin American Arachnology Conference. Armenia, Colombia.

### INVITED PRESENTATIONS

- 2024 - Graduate Research Excellence Grants, Society for the Study of Evolution. “Speciation and heat tolerance across depth gradients in reef corals”.
- 2023 - Universidad Jorge Tadeo Lozano, Dr. Gonzalo Fajardo’s class. “Coral speciation in the Caribbean”.
- 2021 - University of Rhode Island, Dr. Rachel Schwartz’s class. “A personal scientific journey”.
- 2021 - National Museum of Natural History, Coral Lab (Dr. Andrea Quattrini). “Cryptic lineages matter for coral conservation under climate change”
- 2018 - Deep Sea Corals National Natural Park, Colombia. “Benthic foraminifera as water quality indicators on coral reefs, Colombian Caribbean”.

### RESEARCH EXPEDITIONS

- 2024 - Maio & Sal (Cape Verde), 28 days
- 2024 - Gulf of Mexico (USA), R/V Island Intervention, 10 days
- 2021 - Puerto Rico (USA), 45 days
- 2018 - Malpelo Island (Colombia), 10 days
- 2017 - Malpelo Island (Colombia), 20 days
- 2017 - San Andres Islands (Colombia), 12 days
- 2016 - Curaçao Island (The Netherlands), 10 days
- 2015 - Barú Island (Colombia), 7 days
- 2014 - Rosario Islands (Colombia), 21 days
- 2013 - Barú Island (Colombia), 21 days

### MENTORING

- 2024 - Blake Freas (University of Rhode Island)
- 2022 - Willow Dunster (University of Rhode Island)

2022 - Zack Bergeron (University of Rhode Island)  
2019 - 2021- Myles Wagner (University of Rhode Island)  
2017 - Andrés Chilma (Universidad of Los Andes, Colombia)  
2017 - Diana Vergara (Universidad of Los Andes, Colombia)  
2016 - Karen Naranjo (Universidad El Bosque, Colombia)

### **SERVICE & OUTREACH**

2021 - Student Chapter – International Coral Reef Society – English/Spanish Translator  
2020 - Current Biology Journal reviewer (1)  
2020 - Coral Reefs Journal reviewer (1)  
2017 - Coral Collection Curator, Universidad of Los Andes, Bogotá D.C.  
2012 – Student Representative, Marine Biology program. Universidad of Bogotá Jorge Tadeo Lozano  
2011 - Arachnological Collection Curator, Universidad of Bogotá Jorge Tadeo Lozano

### **PROFESSIONAL SOCIETIES**

2022 - Society for the Study of Evolution  
2020 - The Society of Systematic Biologists  
2019 - International Coral Reef Society

### **CERTIFICATIONS & BADGES**

2024 - Diversity and Inclusion Badge Program (University of Rhode Island)  
2019 - AAUS Scientific Diver  
2006 - PADI Rescue Diver

### **LANGUAGES**

Spanish - Native  
English - Proficient  
Portuguese - Basic