

## Jaaziel Emmanuel García-Hernández

### EDUCATION

2013 - 2017 M.S. Biology - University of Puerto Rico at Mayagüez  
2009 - 2012 B.S. Marine Science - University of Hawaii at Hilo

### RESEARCH INTERESTS

Studying the biodiversity of marine sponges within coral reefs (shallow & mesophotic) as well as cryptic habitats such as caves, caverns and overhangs. I am also interested in ecological interactions between sponges and other marine animals (i.e., corals, ascidians, fish, and zoantharians). At a larger scale, I am interested in the ecological response of marine sponges with regards to climate change within tropical coral reef ecosystems.

### PUBLICATIONS

Hoeksema BW, Butôt R, **García-Hernández JE** (2017) A new host range record for the gall crab *Fungicola fagei* as a symbiont of the mushroom coral *Lobactis scutaria* in Hawai'i. *Pacific Science*

**García-Hernández JE** & Hoeksema BW (2017) Sponges as secondary hosts for Christmas tree worms at Curaçao. *Coral Reefs* DOI 10.1007/s00338-017-1617-2

**García-Hernández JE**, Hammerman NM, Cruz-Motta JJ, Schizas NV (2017) Infaunal organisms inhabiting the calcareous sponge *Clathrina* sp. in Southwest Puerto Rico. *Caribbean Journal of Science*

Hammerman NM & **García-Hernández JE** (2016) *Xestospongia muta* offers a refuge for the stony coral *Madracis auretenra* (Northwest Puerto Rico). *Marine Biodiversity* DOI: 10.1007/s12526-016-0574-2

**García-Hernández JE**, de Voogd NJ, van Soest R (2016) Sponges (Porifera) of St. Eustatius. In book: Marine biodiversity survey of St. Eustatius, Dutch Caribbean, 2015., Publisher: Naturalis Biodiversity Center, Leiden, and ANEMOON Foundation, Bennebroek., Editors: B.W. Hoeksema, pp. 23-31

**García-Hernández JE**, van Moorsel GWNM, Hoeksema BW (2016) Lettuce corals overgrowing tube sponges at St. Eustatius, Dutch Caribbean. *Marine Biodiversity* DOI 10.1007/s12526-016-0467-4

**García-Hernández JE**, Reimer J, Hoeksema BW (2015) Sponges hosting the Zoantharia-associated crab *Platypodiella spectabilis* at St. Eustatius, Dutch Caribbean. *Coral Reefs* DOI: 10.1007/s00338-015-1361-4

Hagiwara K, **García-Hernández JE**, Harper MK, Carroll A, Motti CA, Awaya J, Nguyen HY, Wright AD (2015) Puupehenol, a Potent Antioxidant Antimicrobial Meroterpenoid from a Hawaiian Deep-Water *Dactylospongia* sp. Sponge. *Journal of Natural Products* DOI: 10.1021/np500793g

**García-Hernández JE**, Hagiwara KA, Tabanera N, de Voogd NJ, Kelman D, Wright AD (2013) Biological activity investigations of sponges collected from Hawaii and Maui. B.S. Thesis, Department of Marine Science, University of Hawaii at Hilo. In: Lang, MA & Sayer MDJ (ed.) Proceedings of the 2013 AAUS/AEDP Curacao Joint International Scientific Diving Symposium, Dauphin Island, AL: American Academy of Underwater Sciences, pp 61-64

### MANUSCRIPTS IN PREPARATION

**García-Hernández JE**, Hammerman NM, Sanchez P, Schizas NV - Sponge, coral, and fish assemblages along mesophotic reefs within the Guanica (Puerto Rico) shelf edge

**García-Hernández JE**, Condor-Lujan B, Klautau M, Schizas NV - Diversity of calcareous sponges (subclass Calcinea) from Puerto Rico: Genetic and Morphological Evidence

**García-Hernández JE**, van Moorsel GWNM, Hoeksema BW - Exploitation of sponge surfaces by Scleractinian corals in the Caribbean

## **GRANTS, AWARDS, & FELLOWSHIPS**

**2017 (June 8<sup>th</sup> - 24<sup>th</sup>): \$2,083**

Martin Fellowship at Naturalis Biodiversity Center: Sponge specialist researching sponge-coral interactions during the Curaçao MARMABI Expedition, Dutch Caribbean. Expedition leader, Dr. Bert W. Hoeksema

**2016: \$1,200**

The Explorers Club Exploration Fund – Mamont Scholars Program: Project - Exploring Deep Reefs: Diversity study of mesophotic reef sponges (Porifera) from Puerto Rico using Closed Circuit Rebreather

**2016: \$3,000**

Society of Systematic Biologist – Mini ARTS Award: A Morphological and Molecular Study of Calcareous Sponges (Porifera) from Puerto Rico. Collaboration with Dr. Michelle Klautau's Laboratory in Rio de Janeiro, Brazil

**2016: \$12,000**

The NASA Puerto Rico Space Grant: Project - Sponges-Microbe Symbiosis in Puerto Rican Mesophotic Reefs

**2016: \$1,765**

Sea Grant Puerto Rico: Travel funds to give a talk at the International Coral Reef Symposium in Honolulu, Hawaii. Presentation title - Mesophotic reef sponges (Porifera) from Puerto Rico and the US Virgin Islands

**2016: \$1,039.94**

Idea Wild Equipment Grant: Project - Puerto Rican Calcareous Sponges (Porifera): A Morphological and Molecular Study. Funds used to purchase two Light & Motion 1200 Lumens Photo lights

**2016: \$721**

Sea Grant Puerto Rico: Sponge specialist at the NEKTON Deep Ocean Exploration Expedition in Bermuda. \*Due to a personal emergency I had to leave the expedition, although, my adviser brought sponge material which is being worked on by myself

**2015: \$2,000**

Lerner-Gray Memorial Fund – American Museum of Natural History: Project - BarcoDingPRiMeRS: Barcoding the Diversity of Puerto Rican Mesophotic Reef Sponges. Funds used for boat trips to dive sites

**2015 (June 6<sup>th</sup> - 30<sup>th</sup>): \$ 2,250**

Martin Fellowship at Naturalis Biodiversity Center (St. Eustatius): Sponge Specialist for the Marine Biodiversity Expedition of St. Eustatius, Dutch Caribbean. Expedition leader, Dr. Bert W. Hoeksema

**2015 (November 2<sup>nd</sup> - 29<sup>th</sup>): \$ 3,500**

Martin Fellowship at Naturalis Biodiversity Center (Netherlands, Leiden): Learned taxonomic techniques from sponge taxonomist Dr. de Voogd in order to identify a collection of Mesophotic reef sponges from Puerto Rico

**2014: \$1,517**

Sea Grant Puerto Rico: Project - Puerto Rican Calcareous Sponges (Porifera): A Morphological and Molecular Study. Funds used for DNA extraction kit, and boat trips to sampling sites at the continental shelf edge

## **CONFERENCES**

**García-Hernández JE**, Schizas NV, Alfaro M, de Voogd NJ (2016) Mesophotic reef sponges (Porifera) from Puerto Rico and the US Virgin Islands. **Talk** at the 13<sup>th</sup> International Coral Reef Symposium, Hawaii June 19<sup>th</sup>-24<sup>th</sup>

**García-Hernández JE**, Alfaro M, Schizas NV (2016) Sponge-microbe symbiotic associations in Puerto Rican mesophotic reefs. **Poster** at the *NASA Puerto Rico Space Grant Consortium*. Held at the University of Puerto Rico – Rio Piedras

**García-Hernández JE**, Hagiwara KA, Tabanera N, de Voogd NJ, Kelman D and Wright AD (2013) Biological activity investigations of sponges (Porifera) collected from Hawaii and Maui. **Talk** at the *2013 AAUS/AEDP Curacao Joint International Scientific Diving Symposium*, Dauphin Island, AL: AAUS

## PRESENTATIONS

**García-Hernández JE** (2016) Marine sponges from Hawai'i. **Talk** at the *2016 AECiMa Student Research Symposium*. Held at the University of Puerto Rico – Mayagüez

**García-Hernández JE** (2015) Calcareous sponges from Puerto Rico. **Talk** at the *2015 AECiMa Student Research Symposium*. Held at the University of Puerto Rico – Mayagüez

## RESEARCH EXPEDITIONS

### **Sponge Specialist (Naturalis Biodiversity Center – Leiden, The Netherlands)**

Member for the Marine Biodiversity Expedition of Curaçao, Dutch Caribbean (June 8<sup>th</sup>-24<sup>th</sup>, 2017)  
Expedition Leader: Dr. Bert W. Hoeksema

### **Sponge Specialist (Naturalis Biodiversity Center – Leiden, The Netherlands)**

Member for the Marine Biodiversity Expedition of St. Eustatius, Dutch Caribbean (June 6<sup>th</sup>- 30<sup>th</sup>, 2015)  
Expedition Leader: Dr. Bert W. Hoeksema

## SPECIAL TRAINING

*2013(Dec. 1<sup>st</sup> – 8<sup>th</sup>, 2013)*

Sponge Biodiversity of the Caribbean Sea: Taxonomy Training course in La Martinique. Taxonomy Instructors: J. Vacelet, N. Boury-Esnault, C. Diaz, M. Klautau, H. Thierry, S. Zea, R. Thacker, and A. Ereskovsky

*2013 – Present*

Closed Circuit Rebreather: Scientific Technical Diver (AAUS) for the University of Puerto Rico – Mayagüez's Marine Science Department (Mesophotic Coral Reef Ecosystems) **SCUBA/CCR**: A total of **608 dives**; in California (18), Hawaii (89), the Adriatic Sea (25), Caribbean (457), and Curaçao (19).

*2013 (July 6<sup>th</sup> - August 3<sup>rd</sup>)*

Underwater Archaeology: attended two underwater archaeology field school courses in the Adriatic Sea where I learned underwater archaeological techniques and ethics. Performed ecological surveys of wrecks, artifacts and ruins

## PROFESSIONAL ORGANIZATIONS

The Explorers Club, Society of Systematic Biologists, International Society for Reef Studies, American Academy of Underwater Sciences

## REFERENCES

Dr. Nikolaos V. Schizas, Marine Sciences, Associate Professor, UPRM (787) 248-0057

Dr. Bert W. Hoeksema, Senior Research Scientist, Naturalis Biodiversity Center +31 (0) 71-7519 631

Dr. Anthony Wright, Pharmaceutical Sciences, Associate Professor (retired) (808) 981-4521