

# PÉREZ-ROSALES, Gonzalo, PhD

**Availability:** Currently an RGC Post-Doctoral fellowship at HKUST

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Platforms:



## PROFESSIONAL EXPERIENCE

**Feb 2024 - present**

**RGC Postdoctoral Fellowship – The Hong Kong University of Science and Technology (HKUST).** Hong Kong

Postdoc to work on the Oceanography & Ecology Lab of Dr. Alex SJ Wyatt. Study the ecology and oceanography of Mesophotic Coral Ecosystems in the Coral Triangle – project in collaboration with Udayana University, Indonesia. It includes extended Indonesian Fieldwork, Technical Diving and the goal to improve ecosystem functions and human well-being

**Nov 2022 - Nov 2023**

**Postdoctoral Investigator - Woods Hole Oceanographic Institution (WHOI).** Woods Hole, United States

Postdoc to work on the “Super Reefs” project under the supervision of Dr. Anne Cohen and Dr. Simon Thorold. Identify reefs across the tropics that can survive ocean heatwaves and climate change. Project in collaboration with Stanford University and The Nature Conservancy

**2018 - July 2022**

**PhD - École Pratique des Hautes Études – CRIOBE (CNRS-EPHE-UPVD).** Moorea, French Polynesia and Perpignan, France

Complete PhD thesis entitled “Diving deep on the reef slopes in French Polynesia: new insights into mesophotic coral ecosystems”. PhD Supervisors: Dr. Parravicini and Dr. Hédouin

**Aug 2018 - July 2019**

**PhD Fieldwork CRIOBE (CNRS-EPHE-UPVD) - UNDER THE POLE.** French Polynesia

Manage and offshore scientist research for DEEPHOPE expedition. Sample and process with ecological and environmental (CTD, temperature and light) data for quantitative studies, as well as molecular (DNA, microbiome, ARN, eDNA), taxonomy, physiology, acoustic and oceanographical data

**Feb - July 2018**

**Internship for Dr. Hédouin, CRIOBE (CNRS-EPHE-UPVD).** Moorea, French Polynesia

Work in spatial and temporal dynamics of coral reefs with special attention to Climate Change. Realise assessments of mesophotic corals in French Polynesia. Participate in restoration fieldwork and laboratory programs

**Feb - July 2017**

**Internship for Dr. Parravicini, CRIOBE (CNRS-EPHE-UPVD).** Perpignan, France

Analyse the biogeography of coral reef fish functional diversity according to anthropogenic and environmental variables

**Aug 2016 - present**

**MESOPHOTIC.ORG [www.mesophotic.org](http://www.mesophotic.org).** Brisbane, Australia and remote

Curate database. Update relevant information and publications. Mesophotic.org [website](http://www.mesophotic.org)

**Feb - May 2016**

**CHASING CORAL - Exposure LABS and The Ocean Agency.** Great Barrier Reef, Australia

Production assistant, secondary camera and fieldwork team member recording coral bleaching and mortality through the GBR (**Lizard Island Research Station, Heron Island Research Station, Keppel Islands and outer GBR**). **Emmy Award** as camera. Chief diving safety and technician, boat driving and multiskilling assistant on inland operations. Exchanges with Dr. Ove Hoegh-Guldberg, Dr. J. Veron, Dr. Andrew Baird, Dr. Justin Marshall

**Nov 2015 - July 2016**

**Volunteer for CORAL REEF ECOSYSTEMS LAB, UNIVERSITY OF QUEENSLAND.** Brisbane and Heron Island research station, Australia

**7 months** - Collaborate with Dr. Bongaerts to launch the website project <www.mesophotic.org>. Review and categorise all bibliography published by mesophotic

**1 month** - Perform fieldwork to set up the <Mesocosms Project> of Dr. Hoegh-Guldberg and Dr. Dove. Collect coral species for the Mesocosms and maintain the infrastructure

**2013 - 2014**

**OCEANOGRÁFICA: Educación, Divulgación y Ciencia S.L.** Gran Canaria, Spain

Carry out Marine Science campaigns. Lead surveys, press conferences, social media management and events for environmental awareness and education

2013 - 2014

**Divemaster PADI.** Gran Canaria, Spain

Assist instructor Luis Piñana Luque (MSDT-279850). Teach and guide beginner and intermediate diving groups

## ACADEMIC BACKGROUND

2018 - July 2022

**PhD - École Pratique des Hautes Études – CRIOBE (CNRS-EPHE-UPVD).**

Moorea, French Polynesia and Perpignan, France

**“Diving deep on the reef slopes in French Polynesia: new insights into mesophotic coral ecosystems”** Supervision of Dr. Hédouin, Dr. Parravicini. Co-supervision Prof Pichon, Dr. Bongaerts

2016 - 2018

**MSc - École Pratique des Hautes Études.** Multiple cities, France

Master of Science in Biodiversity and Environmental Management of Coral Reefs (av. mark 14.857/20 M1 & 16.389/20 M2, 1<sup>st</sup> of the promotion)

2010 - 2014

**BSc - University of Las Palmas de Gran Canaria.** Gran Canaria, Spain

Bachelors in Marine Science - Oceanography (240ECTS; av. mark 7.965/10)

Member of *Ciencia Compartida – Biblioteca ULPGC*. Conferences organization. Member of *DyC Ocean*. Excellence Grant “Formula Santander Bank”. Academic Exchange program to Pontificia Universidad Católica de Valparaíso Chile (2012)

## SCIENTIFIC PUBLICATIONS

### PUBLISHED PEER-REVIEWED:

- **Pérez-Rosales G**, Pei Y-D, Bennet-Williams J, King TB, Rummel M, Chung TH, Wyatt ASJW (2026) Shallow seasonal stratification ameliorates coral bleaching during record-breaking marine heatwaves in a marginal subtropical system. *Coral Reefs*. <https://doi.org/10.1007/s00338-026-02835-w>
- Jia Y, Zhang WG, Lentz SJ, Mollica NR, **Pérez-Rosales G**, Cohen AL. (2025) Fine-scale hydrodynamic variability at Majuro Atoll, Republic of the Marshall islands. Part I: Flow variability. *Progress in Oceanography*. <https://doi.org/10.1016/j.poccean.2025.103648>
- **Pérez-Rosales G**, Rouzé H, Pichon M, Bongaerts P, Bregere N, Carlot J, UTP Consortium, Parravicini V, Hédouin L. (2024) Differential strategies developed by two light-dependent scleractinian corals to extend their vertical range to mesophotic depths. *Coral Reefs* <https://doi.org/10.1007/s00338-024-02544-2>
- Radice V, Hernández-Agreda A, **Pérez-Rosales G**, et. al, Bongaerts P. (2024) Recent trends and biases in mesophotic ecosystem research. *Biology Letters* <https://doi.org/10.1098/rsbl.2024.0465> (equal contribution to the study)
- Colin JA, Lock C, **Pérez-Rosales G**, Rouzé H, Loreto Paulino Jr. L, Raymundo LJ, Bentlage B. (2024) Symbiodiniaceae phenotypic traits as bioindicators of acclimatization after coral transplantation. *Marine Pollution Bulletin* <https://doi.org/10.1016/j.marpolbul.2024.117250>
- Raick X, Parmentier E, Gervaise C, Lecchini D, Under The Pole Consortium, **Pérez-Rosales G**, Rouzé H, Bertucci F, Di Iorio L. (2024) Invertebrate sounds from photic to mesophotic coral reefs reveal vertical stratification and diel diversity. *Oecologia* 205, 307-322. <https://doi.org/10.1007/s00442-024-05572-5>
- Carlot J, Voutsoukas M, Rovere A, Karambas T, Lenihan HS, Kayal M, Adjeroud M, **Pérez-Rosales G**, Hédouin L, Parravicini V. (2023) Coral reef structural complexity loss exposes coastlines to waves. *Scientific Reports*; 13(1):1683 <https://doi.org/10.1038/s41598-023-28945-x>
- Raick X, Di Iorio L, Lecchini D, Gervaise C, Hédouin L, Under The Pole Consortium, **Pérez-Rosales G**, Rouzé H, Bertucci F, Parmentier E (2023) Fish sounds of photic and mesophotic coral reefs: variation with depth and type of island. *Coral Reefs* <https://doi.org/10.1007/s00338-022-02343-7>
- **Pérez-Rosales G**, Hernández-Agreda A, Bongaerts P, Rouzé H, Pichon M, Carlot J, Torda G, UTP Consortium, Hédouin L, Parravicini V. (2022) Mesophotic depths hide high coral cover communities in French Polynesia. *Science of the Total Environment* <https://doi.org/10.1016/j.scitotenv.2022.157049>
- **Pérez-Rosales G**, Pichon M, Rouzé H, Villeger S, Torda G, Carlot J, Bongaerts P, UTP Consortium, Parravicini V, Hédouin L. (2022) Mesophotic coral ecosystems of French Polynesia are hotspots of alpha and beta generic diversity for scleractinian assemblages. *Diversity & Distribution* <https://doi.org/10.1111/ddi.13549>
- Carlot J, Rouzé H, Barneche DR, Mercière A, Espiau B, Cardini U, Brandl DJ, Casey JM, **Pérez-Rosales G**, Adjeroud M, Hédouin L, Parravicini V. (2022) Scaling up calcification, respiration, and photosynthesis rates of six prominent coral taxa. *Ecology and Evolution* <https://doi.org/10.1002/ece3.8613>
- **Pérez-Rosales G**, Rouzé H, Torda G, Bongaerts P, Pichon M, UTP Consortium, Parravicini V, Hédouin L. (2021) Mesophotic coral communities escape thermal coral bleaching in French Polynesia. *R. Soc. Open Sci.* 8: 210139. <https://doi.org/10.1098/rsos.210139>
- **Pérez-Rosales G**, Brandl SJ, Chancerelle Y, Siu G, Martinez E, Parravicini V, Hédouin L. (2021) Documenting decadal disturbance dynamics reveals archipelago-specific recovery and compositional change on Polynesian reefs. *Marine Pollution Bulletin*; 170:112659. <https://doi.org/10.1016/j.marpolbul.2021.112659>
- Rouzé H, Galand PE, Medina M, Bongaerts P, Pichon M, **Pérez-Rosales G**, Torda G, Moya A, Raina JB, Hédouin L. (2021) Symbiotic associations of the deepest recorded photosynthetic scleractinian coral (172 m depth). *The ISME journal*; 15(5):1564-8. <https://doi.org/10.1038/s41396-020-00857-y>

- Moritz C, Brandl SJ, Rouzé H, Vii J, **Pérez-Rosales G**, Bosserelle P, Chancerelle Y, Galzin R, Liao V, Siu G, Tairui M, Nuges MM, Hédouin L. (2021) Long-term monitoring of benthic communities reveals spatial determinants of disturbance and recovery dynamics on coral reefs. *Mar. Ecol. Prog. S.* 672:141-152. <https://doi.org/10.3354/meps13807>
- Hédouin L, Rouzé H, Berthe C, **Pérez-Rosales G**, Martinez E, Chancerelle Y, Galand PE, Lerouvreur F, Nuges MM, Pochon X, Siu G. (2020) Contrasting patterns of mortality in Polynesian coral reefs following the third global coral bleaching event in 2016. *Coral Reefs*; 39(4):939-52. <https://doi.org/10.1007/s00338-020-01914-w>
- Bongaerts P, **Perez-Rosales G**, Radice VZ, Eyal G, Gori A, Gress E, Hammerman NM, Hernandez-Agreda A, Laverick J, Muir P, Pinheiro H. (2019) Mesophotic.org: a repository for scientific information on mesophotic ecosystems. *Oxford Database*; <https://doi.org/10.1093/database/baz140>

#### IN REVIEW:

- Pei Y-D, Wang S, Skinner C, **Pérez-Rosales G**, Intan AG, Nandi S, Wyatt ASJ. Individual trophic plasticity as a functional trait in mixotrophic corals across an estuarine–oceanic gradient. *Proc R Soc Lond B Biol Sci*
- Zhang WG, Jia Y, Lentz SJ, Mollica N, **Pérez-Rosales G**, Cohen AL. Fine-scale Hydrodynamic Variability at Majuro Atoll, Republic of Marshall Islands. Part II: Residence Time and Temperature Variability. *Progress in Oceanography*

#### IN PREPARATION:

- **Pérez-Rosales G**, Cohen A, Jia Y, Mollica N, Galochkina M, Tong E, Thorrold SR, Zhang G. Pacific island coral communities experience fine-scale spatial and temporal heat variability across heatwaves
- **Perez-Rosales et al.**, AI depth estimation of structural complexity delivers photogrammetry-level accuracy from one image

#### NON-PEER REVIEWED PUBLICATIONS:

- **Pérez-Rosales, G** (2020). Les mystères de la zone crépusculaire. Book Étonnants récifs - CNRS Éditions
- **Pérez-Rosales, G** (2019). Los ecosistemas mesofóticos. Una esperanza para los arrecifes de coral superficiales. *Revista InMare* N°3, 15-17
- **Pérez-Rosales, G** (2017). Un Paraíso al Borde del Colapso. El blanqueamiento del coral pone en riesgo su futuro. *Journal Okeanos*. Revista de la Sociedad Atlántica de Oceanógrafos N°5, 18-22
- **Pérez-Rosales, G** (2014). Estado de sobrepesca de las Islas Canarias/The state of overfishing in the Canary Islands. BSc Thesis. Acceda ULP GC

#### REVIEWED PUBLICATIONS:

- Twenty six publications

### GRANTS & SCHOLARSHIPS

- RGC University Grants Committee Hong Kong – Postdoctoral Fellowship (PDFS) (2024) 1,260,270 HKD
- École Pratique des Hautes Études – Grant to cover expenses ICRS International Conference (2022)
- École Pratique des Hautes Études – PhD Grant (2018-2021) 63,648 €
- Formula Santander Bank - Excellence Grant. Academic Exchange program to Pontificia Universidad Católica de Valparaíso Chile (2012) 5,000 €

### INTERNATIONAL CONFERENCES, SEMINARS & WORKSHOPS

- International Coral Reef Symposium (Expected New Zealand 2026). Co-chair session 4 Sub-theme 117. Abstract submitted. Vertical structuring of mesophotic coral ecosystems in Bali, Indonesia: internal waves, light and biodiversity transitions
- Bali Ocean Days, Bali, Indonesia, 2026. Invited Speaker at Coral Reef Expert Panel Session 4. Drivers of mesophotic coral ecosystem biodiversity and functions in Indonesia's twilight zone.
- Hong Kong Laureate Forum, Hong Kong 2025. Flash Presentation. Diving Deep: New insights into Mesophotic Coral Ecosystems
- The International Seminar on Ocean Sciences and Sustainability, Bogor, Indonesia 2024. Speaker: Oceanographic drivers shaping biodiversity and functions in mesophotic coral ecosystems: implications for understanding Indonesia's coral reefs
- Global Ocean Partnership Accounts, Bali, Indonesia, 2024.
- WHOI. Biology Seminar. Pérez-Rosales, G. Diving deep on the reef slopes in French Polynesia: new insights into mesophotic coral ecosystems (Woods Hole, 2023)
- Workshop: Super Reefs with WHOI, Stanford and TNC (Majuro 2023, Maui 2023 & Belize 2023)
- Hawaii Conservation Conference. Honolulu, Oahu, 2023.
- WHOI. Invited Seminar Marine Chemistry & Geochemistry. Diving Deep: Mesophotic Coral Ecosystems of French Polynesia (Woods Hole, 2023)
- International Coral Reef Symposium (Bremen 2022) First author oral presentation: Diving deep in French Polynesia reveals new insights on the ecological importance of mesophotic coral ecosystems; Non-First author oral presentation: Scleractinian coral assemblages on the deeper fore-reef slopes: mesophotic, oligophotic, ... or rariphotic?
- International Coral Reef Symposium (Remotely-Bremen 2021) Non-First author oral presentation: Diving deep in paradise shines new light on the twilight zone: preliminary results of the “deephope” mesophotic programme in French Polynesia
- European Coral Reef Symposium (Oxford, 2017)
- Workshop: Delving into the Depths: What do we study on Mesophotic Reefs? (Oxford, 2017)
- Workshop: PSL Research University, Summer Coral Reef Formation, Moorea, French Polynesia (May, 2017)

- International Symposium of Marine Science (Gran Canaria, 2014)

## LANGUAGES

- Spanish Mother tongue
- Catalan Mother tongue
- English Fluent
- French Professional working and communication knowledge

## ADDITIONAL INFORMATION

### Awards:

- Lewis Pugh Foundation. Coral Champion (2022)
- Prix Europcar RESIPOL. Finalist PhD Thesis. (Tahiti, 2019)
- The National Academy of Television Arts & Sciences. Emmy Award-winning. Additional Camera (Los Angeles, 2017)

### Teaching:

- Master HKUST – Global Marine Resources OCES 4204, 2024, 2025
- Master EPHE – BGE, 2020 - 2021, Online and in person
- Master Université Polynésie Française. 2020, Moorea, French Polynesia
- Vive MANEA ENSAD, CRIOBE, EPHE, PSL, Online 2021-present

### Outreach:

- Super Reefs [GG Films](#) (2023)
- Lewis Pugh Foundation (2022) awarded me as a [Coral Champion](#)
- Figaro – France (2022) published about my [publication](#)
- The Conversation – France (2022) published about my [publication](#)
- *Españoles en el Mundo*, RTV1 – Spain (2021) featured me in their [TV show \(trailer\)](#)
- *Polynésie La 1ère* Journal and Website – French Polynesia featured me ([2019](#))
- *France Info – Polynésie La 1ère* – French Polynesia featured me ([2019](#), [2018](#))
- Under The Pole – French Polynesia (2021) featured in Documentary “[Polynésie: la quête des profondeurs](#)” and (2018-19) Webdocs [1](#), [2](#) and [3](#)
- Chasing Coral – Netflix (2017) was part of the filming team. [Film](#) capturing the most severe bleaching event in recorded history. [Credits](#)
- International News Journals – Australia (2015) Richard Ververs (The Ocean Agency) photographed me filming bleaching, and the shot was published in the [New York Times](#), [Nature](#), [The Guardian](#), [NBC News](#), etc.

### Scientific advisor volunteering:

- *Biodiversitat Sitges*, 2020 - present, Barcelona, Spain
- Coral Gardeners, 2017 - 2020, Moorea, French Polynesia

### Non-profit organisations volunteering:

- Més Que Surf, 2015 – present (occasional weekends), Sitges, Spain
- Coral Gardeners, 2017 - 2020, Moorea, French Polynesia
- Sea Shepherd inland team member, 2015 - 2016, Brisbane, Australia

### Diving:

- SSI – CCR Extended Range TRIMIX MOD 2 (60 m) on rEvo (Cert. ID: 741489N7704288084935)
- SSI – CCR Extended Range TRIMIX MOD 1 on rEvo (Cert. ID: 741489U7449516836357). Personal rEvo available
- SSI – DPV Diving (SC – DPV)
- TDI - Rebreather certification - Air on JJCCR (Cert Number: 998913)
- TDI - Advanced NITROX (Cert Number: 998912)
- AAUS - American Academy of Underwater Sciences 60 feet
- CMAS\*\*\* - N3 Star Diver
- DIVEMASTER (PADI Nb. 348471)
- Certification for Aptitude Hyperbaric (CAH) - Scientific Diving (Level 1 Mention B)

### Training:

- CPR and O2 First Aid Emergency Response (2013, Spain; 2015 Australia; 2019 France, 2023 USA; 2025 Hong Kong)
- Ocean Accounts; Ecosystem Accounting Global Ocean Accounts Partnership (Bali)
- R Studio Workshops (CRIOBE)
- Python (CRIOBE)
- Project Management (EPHE)

### Computer skills:

- R
- Microsoft
- Adobe (Illustrator, Photoshop, Lightroom, InDesign)
- QGIS
- Matlab
- Python
- SPSS
- Inkscape
- Ocean Data View, Grapher, surfer

#### Content creation:

- Underwater camera (RED, Sony, Canon, GoPro) and filming experience (FA5, FA7). Emmy Award-winning program for Additional Camera in CHASING CORAL. Advanced knowledge skills

#### Other:

- Sailing and offshore experience living in a boat
- Navigation License P.E.R. up to 15 m boats and 12 miles from shore
- International Driver's License

#### References:

- Alex SJ Wyatt, Current Postdoctoral Advisor, HKUST, wyatt[at]ust.hk
- Valeriano Parravicini, PhD Supervisor, CRIIBE, valeriano.parravicini[at]univ-perp.fr
- Laetitia Hedouin, PhD Supervisor, CRIIBE, laetitia.hedouin[at]criibe.pf
- Michel Pichon, PhD Mentor & Colleague, Queensland Museum, michel.pichon[at]bigpond.com
- Héloïse Rouzé, PhD Mentor & Colleague, IRD,
- Anne Cohen, Postdoctoral advisor PI, WHOI, acohen[at]whoi.edu
- Simon Thorrold, Postdoctoral advisor PI, WHOI, sthorrold[at]whoi.edu