

Erika Gress

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Research Interests

~ Shallow, Mesophotic & Deep Sea species - ecology, evolution and conservation – focus on Antipatharia Corals

Research Experience

Current Post-Doctoral Research Fellow – *Department of Biology, Faculty of Science, Hong Kong Baptist University, HK*

- Phylogenomics, Taxonomy and Ecology of Antipatharia corals

Aug - Sep 2024 Coral Expert – *Western Pacific International Cruise for “Deep Sea Typical Habitats” 2024 - United Nations Decade of Ocean Science and Sustainable Development Programme, Western Pacific High Seas*

- Coral scientist during two-month deep sea expedition to Northwest Pacific Seamounts

2022 – 2024 Research Assistant – *Thriving Oceans Research Hub, The University of Sydney, Australia*

- Global Coral Reefs data validation

Apr - Jun 2024 Smithsonian Institution Fellow – *National Museum of Natural History, Smithsonian, Washington D.C., US*

- Phylogenomics and taxonomy of Antipatharians

Mar - Apr 2024 Coral Expert – *Ocean Census & NIWA Deep Sea Expedition Member & Taxonomic workshop on Antipatharia - Ocean Census & NIWA Deep Sea Expedition New Zealand*

- Coral scientist during one-month deep sea expedition to the Bounty Through
- Principal Antipatharia taxonomist during workshop

January 2023 Smithsonian Institution Fellow – *National Museum of Natural History, Smithsonian, Washington D.C., US*

- Next-generation DNA sequencing techniques and taxonomy of Antipatharians (black corals)

March 2023 Principal Taxonomist – *Workshop on Antipatharia Corals - Nekton Maldives Taxonomic Workshop, Maldives*

- Principal Antipatharia taxonomist

Nov - Dec 2022 Corals Expert – *BioBlitz Expedition to the Sultanate of Oman - National Science Foundation, USA & Oman*

- Antipatharians (black corals) specialist during one-month shallow reefs expedition

2017 - 2023 Research associate – *NEKTON Oxford Deep Ocean Exploration. UK*

- Analysis of surveys from mesophotic reefs and deep-sea

Jan 2020 Project leader – *Ecology and Taxonomy of Antipatharians in Raja Ampat, Indonesia*

- Secured funding, designed project and developed a capacity building collaboration scheme with in-country collaborators

Jun - Aug 2018 Lecturer – *Reef Survey Techniques & Coral Reef Ecology – Operation Wallacea, Sulawesi, Indonesia*

2016 - 2017 Project Leader – *First Characterisation of Mesophotic Coral Ecosystems in Mexico – Cozumel Island*

- Secured funding, designed data collection, conducted field work and liaise with managers to update the Mexican Protected Species List to include threatened antipatharian species at national level

2016 Field Scientist – *Sian Ka'an Biosphere (UNESCO World Heritage Site). Global Vision International Mexico*

2015 Science Coordinator – *Fish Surveys Project. Operation Wallacea Honduras*

2014 - 2015 Research Assistant – *Mesophotic Coral Reefs: Operation Wallacea Honduras and University of Oxford, UK*

2013 - 2014 Research Assistant – *Reef Restoration Program. Reef Systems Academic Unit, Universidad Nacional Autonoma de Mexico, Quintana Roo, Mexico*

2012 - 2013 Field Scientist. *Blue Ventures Conservation. Madagascar*

June 2012 Research Assistant. *Operation Wallacea. Wakatobi, Sulawesi, Indonesia*

Publications **25 publications in total**, including a **book chapter (Springer Nature)** as first author and editor of a youth-focus educational book. Only first authored publications listed below. Other publications: [Erika Gress ResearchGate](#)

- **Gress, E.**, Bairois-Novak, K., Bridge, T., Galbraith, G. (2025). Neglected biodiversity and ecological functioning – fish community structure associated with Antipatharia (black corals) on shallow reef ecosystems. *Ecology and Evolution* 15:8. doi.org/10.1002/ece3.72015
- **Gress E**, Bridge TC, Fyfe J, Galbraith G. (2023). Novel Interaction between a Rabbitfish and Black Corals. *Oceans* 4(3):236-241. doi.org/10.3390/oceans4030016
- **Gress E**, Kaimuddin M (2021). Observations of sea anemones (Hexacorallia: Actiniaria) overgrowing black corals (Hexacorallia: Antipatharia). *Marine Biodiversity* 51:45. doi.org/10.1007/s12526-021-01184-x
- **Gress E**, Godefroid M, Igor Eeckhaut, et al. (2021). Investigation into the presence of *Symbiodiniaceae* in Antipatharians (Black Corals). *Oceans* 2 (4), 772-784. https://doi.org/10.3390/oceans2040044
- **Gress E**, Opresko DM, Brugler MR, Wagner D, et al. (2020). Widest geographic distribution of a shallow and mesophotic antipatharian coral (Anthozoa: Hexacorallia): *Antipathes grandis* VERRILL, 1928 – confirmed by morphometric and molecular analyses. *Marine Biodiversity Records* 13:12. doi.org/10.1186/s41200-020-00195-0
- **Gress E**, Voss JD, Eckert RJ, Rowlands G, Andradi-Brown DA. (2019). Chapter: The Mesoamerican Reef. In: Loya Y, Puglise KA, Bridge T (eds) *Mesophotic Coral Ecosystems, Coral Reefs of the World* 12, Springer Nature Switzerland
- Stefanoudis PV, **Gress E**, Pitt JM, et al. (2019) Depth-Dependent Structuring of Reef Fish Assemblages from the
- **Gress E**, Arroyo-Gerez M, Wright G, Andradi-Brown D. (2018) Assessing Mesophotic Coral Ecosystems inside and outside a Caribbean Marine Protected Area. *Royal Society Open Science* 5: 180835. doi: 10.1098/rsos.180835
- **Gress E**, Andradi-Brown DA. (2018) Assessing population changes of historically overexploited black corals Order: Antipatharia) in Cozumel, Mexico. *PeerJ* doi: 10.7717/peerj.5129
- **Gress E**, Andradi-Brown DA, Woodall L, Schofield PJ, Stanley K, Rogers AD. (2017) Lionfish (*Pterois* spp.) invade the upper-bathyal zone in the western Atlantic. *PeerJ* 5:e3683
- **Gress E**, Paige N, Bolland S. (2014) Observations of Acropora spawning in the Mozambique Channel. *Western Indian Ocean J. Mar. Sci.* Vol. 13, No. 1, p. 107 [First published documentation of coral spawning in the Mozambique Channel]

Awards	2018	Marsh Award for Marine Conservation Leadership – Flora & Fauna International & WCS
	2021	Best Student Talk-Paper – AIMA Oceans of Heritage Conference, Australia
	2024	Outstanding Scientist of the 2024 Western Pacific Ocean International Cruise

Conference Presentations

- 2025 **HK Science Museum, 2024 Western Pacific Cruise Progress Report**, Hong Kong. **Oral Presentation:** 'Deep sea Corals – what we know and what is there to learn'
- 2025 **International Deep Sea Symposium**, Hong Kong. **Poster:** 'Cold-Water Corals from the 2024 Western Pacific International Cruise - preliminary findings and research visions'
- 2024 **East Asian Seas Congress 2024**, Xiamen. **Oral presentation:** 'Habitat and Inhabitants of the Deep Sea, from Diversity to Ecology to a Prosperous Coexistence'
- 2021 **AIMA Oceans of Heritage Conference**, Queensland, Australia. **Oral presentation:** 'Marine biodiversity thriving at the *SS Yongala*'
- 2019 **Ocean Talks**, Royal Geographical Society, London, UK. **Oral presentation:** 'Exploring ecology of antipatharians (black corals) shallow and mesophotic reefs in Indonesia'
- 2017 **European Coral Reef Symposium (ECRS)**, University of Oxford, UK. **Oral presentation:** 'Jewels of the Mesophotic: a Mexican Black Coral Perspective'
- 2017 **International Congress for Conservation Biology (ICCB)**, Colombia. **Oral presentation:** 'Assessing whether existing shallow reef focused management provides protection for mesophotic reefs'
- 2017 **Student Conference on Conservation Science (SCCS)**, University of Cambridge, UK. **Oral presentation:** 'Deep reef refuges in Mexico'
- 2016 **Gulf and Caribbean Fisheries Institute Conference (GCFI69)**, Grand Cayman. **Oral presentation:** 'Mesophotic Coral Ecosystems (MCEs) act as deep reef refuges for fish populations in Cozumel, Mexico'
- 2015 **Reef Conservation UK Poster: Gress E**, Andradi-Brown D, Laverick J and Rogers AD. *Orbicella* spp. assessment across a shallow-mesophotic gradient on the Mesoamerican Barrier Reef

Education

2020 - 2025 PhD Marine Science. **ARC Centre of Excellence for Coral Reef Studies. James Cook University, Australia**
Thesis Submitted: *Phylogenomics of Antipatharia and their role as reef ecosystem engineers*

2017 - 2019 M.Sc. Global Change Ecology – **University of Bayreuth, Germany & University of Mons, Belgium**
Thesis: *Black Corals (Hexacorallia: Antipatharia) in shallow and mesophotic reef ecosystems from Madagascar, and in a global perspective*

2017	Internship - Ocean Research and Conservation Group. Department of Zoology. University of Oxford. UK
2016	Conservation Management and Leadership Training - University of Calgary, Canada.
2005 - 2009	BSc - Universidad Nacional Autonoma de Mexico (UNAM)

Other Qualifications

- Bioinformatics, Laboratory and Microscopy skills; Technical Trimix Diver; Technical Cave Diver

Languages Proficiency

- **Spanish** (mother tongue), **English** (excellent), **French** (fair), **Indonesian** (fair)
