

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 – <i>Department of Biology, Faculty of Science, Hong Kong Baptist University, HK.</i> <ul style="list-style-type: none">Phylogenomics, Taxonomy and Ecology of Antipatharia corals
Aug - Sep 2024	Coral Expert – <i>Western Pacific International Cruise for “Deep Sea Typical Habitats” 2024 - United Nations Decade of Ocean Science and Sustainable Development Programme, Western Pacific HighSeas</i> <ul style="list-style-type: none">Coral scientist during two-month deep sea expedition to Northwest Pacific Seamounts
2022 – 2024	Research Assistant – <i>Thriving Oceans Research Hub, The University of Sydney, Australia</i> <ul style="list-style-type: none">Global Coral Reefs data validation
Apr - Jun 2024	Smithsonian Institution Fellow – <i>National Museum of Natural History, Smithsonian, Washington D.C., US</i> <ul style="list-style-type: none">Phylogenomics and taxonomy of Antipatharians
Mar - Apr 2024	Coral Expert – <i>Ocean Census & NIWA Deep Sea Expedition Member & Taxonomic workshop on Antipatharia – Ocean Census & NIWA Deep Sea Expedition New Zealand</i> <ul style="list-style-type: none">Coral scientist during one-month deep sea expedition to the Bounty ThroughPrincipal Antipatharia taxonomist during workshop
January 2023	Smithsonian Institution Fellow – <i>National Museum of Natural History, Smithsonian, Washington D.C., US</i> <ul style="list-style-type: none">Next-generation DNA sequencing techniques and taxonomy of Antipatharians (black corals)
March 2023	Principal Taxonomist – <i>Workshop on Antipatharia Corals – Nekton Maldives Taxonomic Workshop, Maldives</i> <ul style="list-style-type: none">Principal Antipatharia taxonomist
Nov - Dec 2022	Corals Expert – <i>BioBlitz Expedition to the Sultanate of Oman - National Science Foundation, USA & Oman</i> <ul style="list-style-type: none">Antipatharians (black corals) specialist during one-month shallow reefs expedition
2017 - 2023	Research associate – <i>NEKTON Oxford Deep Ocean Exploration. UK</i> <ul style="list-style-type: none">Analysis of surveys from mesophotic reefs and deep-sea
Jan 2020	Project leader – <i>Ecology and Taxonomy of Antipatharians in Raja Ampat, Indonesia</i> <ul style="list-style-type: none">Secured funding, designed project and developed a capacity building collaboration scheme with in-country collaborators
Jun - Aug 2018	Lecturer – <i>Reef Survey Techniques & Coral Reef Ecology – Operation Wallacea, Sulawesi, Indonesia</i>
2016 - 2017	Project Leader – <i>First Characterisation of Mesophotic Coral Ecosystems in Mexico – Cozumel Island</i> <ul style="list-style-type: none">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 – <i>Sian Ka’an Biosphere (UNESCO World Heritage Site). Global Vision International Mexico</i>
2015	Science Coordinator – <i>Fish Surveys Project. Operation Wallacea Honduras</i>
2014 - 2015	Research Assistant – <i>Mesophotic Coral Reefs: Operation Wallacea Honduras and University of Oxford, UK</i>
2013 - 2014	Research Assistant – <i>Reef Restoration Program. Reef Systems Academic Unit, Universidad Nacional Autonoma de Mexico, Quintana Roo, Mexico</i>
2012 - 2013	Field Scientist. <i>Blue Ventures Conservation. Madagascar</i>
June 2012	Research Assistant. <i>Operation Wallacea. Wakatobi, Sulawesi, Indonesia</i>

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.**, Bairos-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**, Opreško 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, Bollard 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 <i>SS Yongala</i> ’
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. <i>Orbicella</i> 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: <i>Phylogenomics of Antipatharia and their role as reef ecosystem engineers</i>
2017 – 2019	M.Sc. Global Change Ecology – University of Bayreuth, Germany & University of Mons, Belgium Thesis: <i>Black Corals (Hexacorallia: Antipatharia) in shallow and mesophotic reef ecosystems from Madagascar, and in a global perspective</i>

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
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Languages Proficiency

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