

PhD Scholarship to work on coral larvae - coralline algae interactions in the context of coral reef restoration

### Project Description

This project is part of the Reef Restoration and Adaptation Program (RRAP, <https://gbrrestoration.org/>), which brings together Australia's leading marine experts to create an innovative suite of interventions to help the Great Barrier Reef (GBR) resist, adapt to, and recover from the impacts of climate change. One of the RRAP projects aims to develop and optimise methods of larval settlement for the restoration of core coral populations in the GBR (<https://gbrrestoration.org/program/coral-aquaculture-and-deployment/>). Given the importance of coralline algae as inducers of coral larval settlement, this PhD project will focus on examining the relationship between coral larvae and coralline algae, and specifically will identify species of coralline algae that are strong inducers of coral settlement across a range of scales. Key coralline algae inducers will be used to test biological and chemical pathways of coral larval – coralline algae interactions, knowledge that will be used to develop methodologies that will enhance settlement and survival of coral larvae in the lab and in the field. This information will contribute to reef restoration initiatives and interventions to help conserve wild populations.

### Location and supervisory team

We are looking for one to two PhD candidates to be part of the project. The PhD candidates will be enrolled at Griffith University (Brisbane) and will join the Coral Reef Algae Lab and will be primarily based at the Australian Institute of Marine Science (AIMS) in Townsville. The project will be supported by the RRAP and Griffith University, and candidates will be supervised by Associate Professor Guillermo Diaz Pulido (Griffith), Dr Muhammad Abdul Wahab, Dr Andrew Negri, Dr Carly Randall and Dr Nicole Webster (AIMS). Depending on the student profile and specific interest in the project, supervisory involvements may vary.

### Eligibility and documentation

Scholarships are available to Australian and international students that demonstrate a strong academic record and research potential. The selected applicants will be put forward to apply to a tuition fee scholarship [Griffith University International Postgraduate Research Scholarship (GUIPRS), <https://www.griffith.edu.au/research-study/scholarships/guiprs>) and living allowance scholarship [Griffith University Postgraduate Research Scholarship, (GUPRS), <https://www.griffith.edu.au/research-study/scholarships/guprs>; or Australian Government Research Training Program, <https://www.griffith.edu.au/research-study/scholarships/au-gov-research-training-program>, ca AUD \$28,092).

An ideal candidate will have:

#### Essential

- A Bachelor with Honours (or equivalent) and preferably a Master of Science degree in marine biology or related field (provide evidence that a significant research component was completed as part of the degree, e.g. thesis/dissertation)
- Experience designing and conducting laboratory and/or field experiments with marine or aquatic species, with a sound understanding of complex experimental design
- Skills in the analysis of statistical data
- Sound oral and written communication skills with the ability to interact effectively with other team members
- International applicants require proof of English language proficiency (ELP) test.
- Be able to commence by April/May 2020

#### Desirable

- Experience with scientific publishing
- Knowledge of macroalgal biology, physiology and ecology
- Experience with macroalgal taxonomy and knowledge of molecular tools applied to algal identification/systematics
- Knowledge of, and experience with, the sexual reproduction and larval settlement of corals

- Knowledge of, and experience with, chemical extracts (isolation and structure elucidation of bioactive molecules)
- An interest in algal and coral aquaculture/husbandry
- The desire and ability to be registered on the AIMS dive register
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Further details:

- Interested applicants should email A/Prof Diaz-Pulido no later than 15 Dec 2020 (g.diaz-pulido@griffith.edu.au) with a statement of interest, curriculum vitae and contact information for two professional references.
- Shortlisted candidates will be interviewed (by telephone, Skype or Zoom) by the supervisory team and successful candidates will be recommended to apply to the university scholarship scheme (<https://www.griffith.edu.au/research-study/scholarships>). A final selection panel will decide on the award of scholarships and successful applicants will be offered a 3-year scholarship (with possibility of 6-month extension).
- Applications to the university scholarship scheme should be submitted no later than Monday 18th January 2021.
- Applications without personal contact with the prospective supervisor (Diaz-Pulido) are unlikely to succeed, so take the initiative and start the conversation now!