

Advertised in: *EOS*
The UWA external web site
Coralreef links web site, ARC Centre of Excellence in Coral Reef Studies website



THE UNIVERSITY OF
WESTERN AUSTRALIA

TWO SUPER SCIENCE FELLOWSHIPS (Coral Reef Processes) (REF:3380, 3381)

[THE UWA OCEANS INSTITUTE, THE ARC CENTRE OF EXCELLENCE IN CORAL REEF STUDIES & THE SCHOOL OF EARTH AND ENVIRONMENT](#)

- Two x 3 year fixed term appointments
- Salary range: Research Associate, Level A \$72,160 - \$74,713 p.a.
- Closing date: 31st March 2011.

As part of the Australia's Super Science Initiative, UWA has received funding to support two outstanding early-career researchers (within three years of their PhDs) in the study of coral reef systems. These prestigious Fellowships (with additional \$20k p.a. research support) offer an exciting opportunity for innovative, enthusiastic individuals with demonstrated track records in marine biogeochemistry and physical/chemical oceanography, to conduct process-studies into how rising levels of anthropogenic pCO₂ and ocean warming will affect coral reef calcification rates, with emphasis on the response of the relatively pristine coral reefs along the West Australian coast.

Fellow #1 will have a PhD in Marine Biogeochemistry, or related discipline (eg Marine Biology/Chemistry), and will examine how coral calcification rates respond to physical and chemical ocean variability (under present and future conditions) by developing a program using a combination of field, laboratory and controlled mesocosm experiments. For further information regarding this Fellowship, please contact Professor Malcolm McCulloch on (08) 6488 1921, or email Malcolm.McCulloch@uwa.edu.au

Key Responsibilities include:

1. Undertake research to develop a physiological-processed based understanding of the impacts of rising CO₂ on coral reefs and biogenic calcification and its broader implications for marine ecosystems.
2. Conduct field work together with laboratory based geochemical studies to investigate how climate change in the Indian Ocean is influencing the chemical oceanography and calcification processes of West Australian coral reefs, especially at Ningaloo Reef.
3. Assist in the development and utilisation of the new mesocosm and culturing facilities at UWA's Watermans facility and elsewhere.
4. In collaboration with Super Science Fellow #2, contribute to the development of a quantitative, processed-based understanding of how the impact of climate change on the oceans (in particular increasing ocean temperatures, ocean acidification, and rising sea-levels) will affect species-scale coral calcification rates.

Fellow #2 will have a PhD in Physical and/or Chemical Oceanography (or closely related discipline), and will examine how regional ocean processes drive reef-scale calcification and production rates (including under projected climate change scenarios), by applying a

combination of field work and ocean modelling. For further information regarding this Fellowship, please contact Professor Greg Ivey on (08) 6488 1921, or email Greg.Ivey@uwa.edu.au, Ryan Lowe on (08) 6488 2706, or email Ryan.Lowe@uwa.edu.au

Key Responsibilities include:

1. Investigate how climate change in the Indian Ocean is influencing the regional physical and chemical oceanography of West Australian coral reefs, especially at Ningaloo Reef.
2. Conduct field work and apply coastal ocean models to investigate the coupled physical and biogeochemical processes operating within the reef-lagoon system at Ningaloo.
3. In collaboration with Super Science Fellow #1, contribute to the development of a quantitative, process-based understanding of how the impact of climate change on the oceans (in particular increasing ocean temperatures, ocean acidification, and rising sea-levels) will affect reef-scale coral calcification rates.

UWA's Oceans Institute has a unique combination of research expertise spanning the physical, chemical and biological aspects of the marine environment. The successful candidate will also be affiliated with the node of the ARC Centre of Excellence in Coral Reef Studies in the School of Earth and Environment. Located adjacent to the picturesque banks of the Swan River, the University offers an attractive benefits package including generous superannuation and leave provisions, a fare to Perth (if applicable) for appointee and an enviable working environment. These and other benefits will be specified in the offer of employment.

APPLICATION DETAILS: The position description follows. Applicants must address the [selection criteria](#). Written applications quoting the reference number, personal contact details, qualifications and experience, along with contact details of three referees should be sent to Director, Human Resources, The University of Western Australia, M350, 35 Stirling Highway, Crawley WA 6009 or emailed to jobs@uwa.edu.au by the closing date.

Achieve international excellence