



Nathan Cook

COMPANY

Reef Ecologic

POSITION IN FIRM

Marine Scientist

ROLE ON PROJECT

Scientific diver

QUALIFICATIONS

Master of Marine Science,
Southern Cross
University, Coffs Harbour
Bachelor of Business,
Monash University,
Melbourne,

Expertise areas

- Environmental Impact Assessment
- Strategic Planning
- Coral reef research and monitoring
- Capacity building
- Reef restoration

Project Roles and Responsibilities

Scientific Diving Officer and assistant marine science

Career Overview

Nathan has over 15 years' experience in coral reef management, monitoring and consultancy in Australia and Internationally. He has extensive experience in field-based management and monitoring of environmental projects and has led numerous reef restoration and remediation projects from inception to completion.

As an applied scientist and specialist in coral reef monitoring and environmental assessment, Nathan has provided environmental assessment and guidance for developing environmental monitoring plans for assessment of long-term ecosystem health.

Nathan has been a passionate advocate for sustainability and stewardship in coral reef ecosystems since first working in South East Asia nearly 20 years. He has played leading roles in pioneering marine conservation and education initiatives, developing local-specific marine monitoring and assessment programs and establishing innovative coral reef restoration programs.

His Masters in Marine Science is complemented by decades of practical experience, combined with management and tourism engagement responsibilities with the Great Barrier Reef Marine Park Authority. As manager of the Great Barrier Reef Marine Park Authority's Eye on the Reef monitoring program, Nathan was a lead co-ordinator in the National Coral Bleaching Taskforce lead monitoring of the 2016-17 coral-bleaching event across the Great Barrier Reef.

As a key member of the Reef Ecologic team he has access to several research and education permits. Nathan is a co-investigator at James Cook University of the National Environment Science Program (NESP) Tropical Water Quality Hub project *Best practice coral restoration for the Great Barrier Reef*.

Nathan is PADI Master Instructor with over 3500 dives. He has led and taught coral reef survey programs, practical coral reef conservation and marine resource management. He has designed and implemented a range of experiential learning programs, including curricula focused on integrating the theory of marine management with active reef restoration techniques development and installation of coral nurseries and artificial reefs.

Relevant projects

Project Name	<i>Phoenix Islands Protected Area Monitoring and Evaluation Plan</i>
Date	2017
Role and responsibility	Expedition planning, Dive supervisor, Field work, Consultation, Report Writing
Project overview	In 2017 Reef Ecologic were contracted by the Government of Kiribati to research and compile a comprehensive monitoring and evaluation plan for the 408,250km ² Phoenix Islands Protected Area (PIPA). The project involved substantial field work at remote Kanton Island, located 1700kms from Tarawa, the capital of Kiribati. Nathan was responsible for coordinating fieldwork and managing data collection to guide the process that delivered a comprehensive plan for monitoring PIPA. Extensive consultation was undertaken with government representatives, professional organisations, community groups and scientific advisors throughout the 7-month process. The resulting 100-page report collated the combined knowledge and experience of our own studies and numerous researchers to deliver a realistic proposal to be implemented across one of the largest MPA's in the world.

Project Name	<i>RHIS surveys in support of GBR Coral Bleaching Incident Response</i>
Date	2016
Role and responsibility	Expedition planning, Dive supervisor, Field work
Project overview	Nathan acted as the Dive Supervisor for a 10-day expedition for the Great Barrier Reef Marine Park Authority's response to the coral-bleaching event of 2016. Nathan collaborated with external contractors to arrange the vessel, and organise logistics for the expedition that efficiently surveyed 17 reefs offshore from Cairns/Port Douglas in October 2016. As the Dive supervisor, Nathan was responsible for managing the logistics of both snorkel and SCUBA based dive teams to collect survey data at 3 aspects across each reef, totalling 255 Reef Health and Impact (RHIS) surveys as part of the Reef wide response. Data management, quality control and chain of custody procedures were all key tasks successfully performed and delivered as part of the role.

Project Name	<i>Fitzroy Island Reef Restoration Project</i>
Date	2017-19
Role and responsibility	Lead scientific coordinator and project advisor
Project overview	<p>The Great Barrier Reef Marine Park Authority (GBRMPA) permitted the establishment of the first active reef restoration project on the Great Barrier Reef in 2017. Nathan provided significant strategic advice to the Reef Restoration Foundation in the consultation phase with the Authority to enable the permission and commencement of the project.</p> <p>The project involved survey design, expedition planning and implementation. Baseline studies were conducted before sampling and establishment of the coral nurseries. The scientific assessment included positive identification to species level of relevant species for fragmentation and installation into the coral nurseries, appropriate monitoring and maintenance of the samples to temporally track their condition and fate. 264 samples were successfully established as part of an on-going three-year project.</p>

Project Name	<i>Best practice coral restoration for the Great Barrier Reef</i>
Date	2017-2020
Role and responsibility	Co-investigator, designing and undertaking research, report writing, resources, collaboration, communication
Project overview	<p>A NESP and JCU project involving review, workshops, research and training. Working in partnership with GBRMPA to select sites and techniques for assisted recovery and coral restoration in the GBR (building on goals from the 2017 Reef Summit).</p> <p>In the first year we are undertaking a global literature review to assesses the effectiveness of coral restoration, rehabilitation and assisted recovery techniques and outline the options that may work in the GBR region. We will share knowledge by organising a workshop/symposium (in 2018) that builds on the 2017 Reef Summit and 2017 Coastal Restoration Symposium, and that includes broad participation from business, tourism and engineering disciplines to develop new direct intervention options, and refinements of existing techniques to help improve GBR health.</p> <p>Evaluating the approaches, methods and success of existing coral restoration efforts in the GBR through meetings and discussions with restoration practitioners and in-water assessments where appropriate.</p> <p>Designing an experimental protocol to test different broken coral reattachment and re-orientation techniques, ready for implementation after ship strike or cyclone damage.</p> <p>Assessing the effectiveness of coral reattachment and re-orientation techniques and coming up with best practice guidelines by conducting surveys of scientifically validated trial sites (2018-2019). Conducting field experiments to scientifically test promising methods relevant to the GBR identified through the scoping study</p>