

## **Declaration by concerned scientists on industrial development of the Great Barrier Reef coast<sup>1</sup>**

Recent scientific evidence continues to document a very serious decline in the quality of the Great Barrier Reef's inshore habitats and the abundance of key species.

Our concern for the health of the Great Barrier Reef is due to:

- A significant decline in water quality due to land-based sources of pollution to a level that brings environmental harm<sup>3,4,5,6</sup>;
- A 50% decline in coral cover over the last 27 years with a major factor being recurrent plagues of crown-of-thorn starfish driven by the input of land-based nutrients<sup>7,8</sup>;
- Reductions in the abundance of fish stocks to a degree that targeted species are, at best, half their natural stock size or less<sup>9</sup>;
- Inshore species for which we have information are either threatened or in substantial trouble (e.g. southern dugong populations are significantly smaller than in the mid-1960s, a situation exacerbated by recent extreme weather events<sup>10,11</sup>, the intensity of which may increase with climate change<sup>12</sup>);
- The GBR has already experienced two mass coral bleaching events and climate change is forecast to increase the frequency and intensity of bleaching<sup>13</sup> and possibly the intensity of cyclones and storms<sup>12,14,15</sup> and
- Ocean acidification, from increasing greenhouse gases, is reducing the ability of some corals to grow, especially inshore (due to poor water quality), making these inshore regions even more vulnerable to increases in cyclone and storm intensity<sup>16,17</sup>.

As scientists, we therefore are concerned about the additional pressures that will be exerted by expansion of coastal ports and industrial development accompanied by a projected near-doubling in shipping, major coastal reclamation works, large-scale seabed dredging and dredge spoil disposal<sup>18,19,20,21,22</sup> – all either immediately adjacent to, or within the Great Barrier Reef World Heritage Area.

We believe these activities will exacerbate impacts upon an ecosystem already in decline.

We are calling on the Queensland and Australian Governments to:

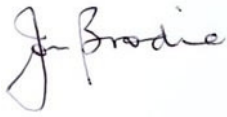
- Ensure that the Outstanding Universal Value (including all World Heritage Values and Matters of National Environmental Significance) of the Great Barrier Reef World Heritage property are protected;
- Restrict port developments to within existing major, long-established port areas<sup>2,23,24</sup> (excluding Balaclava Island, north Curtis Island and Port Alma amongst others) until an agreed future coastal development strategy for the entire Great Barrier Reef coastline is completed (see sixth dot point below);
- Require new development to minimise its industrial footprint through efficient sharing of infrastructure;
- Improve all aspects of the management of shipping through the World Heritage Area to ensure maximum environmental protection;
- Use independent peer-reviewed research to support the environmental management of all port facilities and associated activities including addressing cumulative impacts over time, space and multiple sources;
- Instigate comprehensive, independent peer-reviewed natural and social scientific research and monitoring to inform, within the next ten years, a sustainable coastal development strategy for the entire Great Barrier Reef coastline;
- Apply improved standards and latest technology to industrial developments and associated activities to ensure maximum environmental protection; and
- Ensure that the capacity and resources of relevant government agencies are adequate to ensure effective and coordinated implementation of these new standards and protocols.

We pledge to review future decisions made by our governments on further industrial development on the Great Barrier Reef coast and keep the public informed of our independent opinions.

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<sup>1</sup> References listed at the end of this document

<sup>2</sup> This has already been agreed to by delegates to the World Heritage Committee including the Australian Government



**Mr Jon Brodie**  
Senior Principal Researcher  
TropWATER  
James Cook University



**Prof Malcolm McCulloch**  
Western Australia Premier's Fellow  
Oceans Institute and School of Earth and  
Environmental Sciences  
University of Western Australia



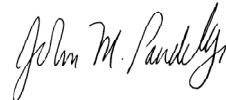
**Dr Rob Coles**  
Team Leader, Seagrass Habitats  
TropWATER, James Cook University



**Prof Peter Mumby**  
Australian Research Council Laureate Fellow  
Director, Marine Spatial Ecology Laboratory  
School of Biological Sciences  
University of Queensland



**Dr Leanne Fernandes**  
Director  
Earth to Ocean Consulting



**Prof John Pandolfi**  
Director, Centre for Marine Science  
University of Queensland



**Prof Ove Hoegh-Guldberg**  
Director  
Global Change Institute  
University of Queensland



**Prof Hugh Possingham**  
Director  
National Environment Research Facility's  
Environmental Decisions Hub



**Prof Helene Marsh**  
Dean of Postgraduate Studies  
James Cook University



**Prof Bob Richmond**  
Senior Investigator  
Kewalo Marine Laboratory  
University of Hawaii



*Stone Island, Great Barrier Reef ~1893*  
(Photos: Commonwealth of Australia, GBRMPA)



*Stone Island, Great Barrier Reef 1994*

Endorsed by:

**The Australian Coral Reef Society** (>250 members)

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**Australian Scientists:**

**Dr Alana Grech**

Australian Research Council Centre of  
Excellence for Coral Reef Studies

**Professor Justin Marshall**

Director, CoralWatch, ARC Discovery  
Outstanding Research Fellow, University of  
Queensland

**Emeritus Professor Richard G. Pearson**

School of Marine and Tropical Biology, James  
Cook University

**Dr Joost van Dam**

Australian Institute of Marine Science

**Dr Mike van Keulen**

Murdoch University

**Dr Jeffrey Leis**

Institute for Marine and Antarctic Studies,  
University of Tasmania

**Dr Ian Poiner**

Chair Integrated Marine Observing System  
(IMOS) Advisory Board

**Mr Graeme Kelleher AO**

Canberra, Australia

**Dr Eric Trembl**

University of Melbourne

**Dr Leon Javier**

Global Change Institute, University of  
Queensland

**Dr Seline Ward**

University of Queensland

**Dr Heroen Verbruggen**

University of Melbourne

**Dr Pat Hutchings, D.Sc.**

Australian Museum

**Dr Rebecca Weeks**

Australian Research Council Centre of  
Excellence for Coral Reef Studies

**Dr Steven Purcell**

National Marine Science Centre, Southern Cross  
University

**Dr John (Charlie) E. N. Veron**

Coral Reef Research, Townsville, Australia

**Dr John Hooper**

Griffiths University

**Dr Peter Cowan**

Australian National University

**Ms Jessica Tout**

University of Technology Sydney

**Dr Megan Saunders**

Global Change Institute, University of Queensland

**Professor Jessica Meeuwig**

University of Western Australia

**Ms Maria Catalina Reyes**

University of Queensland

**Mr Mario Espinoza**

James Cook University

**Ms Jessica Hopf**

James Cook University

**Dr Scarla Weeks**

University of Queensland

**Dr Glen Holmes**

University of Queensland

**Dr Ros Hill**

University of New South Wales

**Dr Stuart Field**

Perth, Western Australia

**Dr Adriana Verges**

Sydney, New South Wales

**Dr Cynthia Riginos**

University of Queensland

**Ms Maria Renata Cao**

University of Queensland

**Ms Blanche D'Anastasi**

James Cook University

**Dr Maria Beger**

Centre for Biodiversity and Conservation Science, University of Queensland

**Professor Mike Kingsford**

Head of School, Marine and Tropical Biology, James Cook University

**Ms Joleah Lamb**

Australian Institute of Marine Science

**Ms Lucy Hurrey**

University of Queensland

**Mr Amin Mohamed**

James Cook University

**Dr Cheryl Knowland**

University of Queensland

**Mr Ian McLeod**

Townsville, Australia

**Professor Eric Wolanski, FTSE**

James Cook University

**Ms Dominique McCowan**

James Cook University

**Mr Daniel Wangpraseurt**

University of Technology, Sydney

**Dr Alistair Birtles**

Dept of Tourism, Events & Sport, School of Business, James Cook University

**Mr Brett Taylor**

James Cook University

**Mr Shane Preston**

School of Earth and Environmental Sciences, James Cook University

**Dr Matthew Curnock**

Townsville, Australia

**Ms Alyssa Marshall**

University of Queensland

**Dr Sally Keith**

Australian Research Council Centre of Excellence for Coral Reef Studies

**Dr Helen Penrose**

School of Earth and Environmental Sciences, James Cook University

**Dr Terry Done**

Townsville, Australia

**Dr Kathy Townsend**

University of Queensland

**Mr Len Zell**

Wild Discovery Tours and James Cook University

**Dr Carolyn Smith-Keune**

Townsville, Australia

**Dr Mary Bonin**

James Cook University

**Dr Sally Pryor**

Townsville, Australia

**Ms Apanie Wood**

TropWATER, James Cook University

**Ms Carolina Castro Sanguino**

School of Biological Sciences, University of Queensland

**Ms Lauren Hodgson**

James Cook University

**Dr Yan Li**

James Cook University

**Ms Jessica P Nowicki**

Australian Research Council Centre of Excellence for Coral Reef Studies, James Cook University

**Dr Ashley Field**

Cairns, Australia

**Ms Brigitte Sommer**

University of Queensland

**Dr Angela Capper**

James Cook University

**Ms Milena Kim**

James Cook University

**Dr Kathryn Burns**

TropWATER, James Cook University

**Prof Bette Willis**

School of Marine and Tropical Biology, James Cook University & Australian Research Council Centre of Excellence for Coral Reef Studies

**Prof Wolfgang Fischer**

Townsville, Australia

**Mr Michael Haywood**

CSIRO

**Dr Renata Ferrari**

University of Sydney

**Dr Ruth Reef**

University of Queensland

**Mr Mauro Lepore**

University of Queensland

**Professor Lance Hill**

James Cook University

**Dr Peter Wood**

Cairns, Australia

**Dr Anne Hoggett**

Lizard Island Research Station, Australian Museum

**Dr Mark Hamann**

School of Earth and Environmental Sciences, James Cook University

**Dr Anna Scott**

National Marine Science Centre, Southern Cross University

**Ms Ruth Kamrowski**

James Cook University

**Dr Mia Hoogenboom**

James Cook University

**Dr Alastair Harborne**

University of Queensland

**Dr Lyle Vail**

Lizard Island Research Station, Australian Museum

**Dr Alexandria Grutter**

University of Queensland

**Prof Geoff Jones**

James Cook University

**Dr Ulrike Siebeck**

University of Queensland

**Mr Daniel Atwater**

James Cook University

**Dr Alexandra Campbell**

University of New South Wales

**Dr Susan Sobotzick**

TropWATER, James Cook University

**Mrs Mirjam Maughan**

Australian Research Council Centre of  
Excellence for Coral Reef Studies

**Dr Shelley Wright**

University of New England

**Ms Mizue Hisano**

James Cook University

**Dr Naomi Gardener**

School of Tropical and Marine Biology, James  
Cook University

**Mr Jonathan Meddings**

Melbourne, Australia

**Mr Shane Blowes**

James Cook University

**Ms Katherine Kelly**

University of the Sunshine Coast

**Dr Daniella Ceccarelli**

Townsville, Australia

**Ms Amber-Louise Burberry**

Lakelands, Australia

**Dr Amy Diedrich**

School of Earth and Environmental Sciences,  
James Cook University

**A/Prof Julian Clifton**

University of Western Australia

**Dr Ida Fellegara**

University of Queensland

**Mr Russell Kelly**

CICBP, Townsville, Australia

**Dr Carissa Klein**

University of Queensland

**Dr Oscar Venter**

James Cook University

**Ms Megan Evans**

National Environmental Research Program's  
Environmental Decisions Hub, Australian  
National University

**Mrs Chrystal Mantyka-Pringle**

University of Queensland

**Ms Rebecca Runting**

National Environmental Research Program's  
Environmental Decisions Hub

**Dr Karen Miller**

Institute for Marine and Antarctic Studies

**Ms Angela Recalde-Salas**

Centre for Marine Science and Technology,  
Curtin University

**Mr Sean Maxwell**

University of Queensland

**Ms Melissa Bruton**

University of Queensland

**Dr Eridani Mulder**

Townsville, Australia

**Dr Christopher Brown**

University of Queensland

**Mrs Alicia Lloyd**

University of Technology, Sydney

**Dr Lisa Pope**

University of Queensland

**Prof Frank Talbot AM**

Fellowship of the Royal Zoological Society of  
New South Wales

**Ms Amelia Wenger**

James Cook University

**Dr Danielle Shanahan**

University of Queensland

**Dr Eric Peterson**

Victoria University of Technology and University  
of Queensland

**Dr Nathalie Butt**

University of Queensland

**Dr Vimoksalehi Lukoschek**

Australian Research Council Centre of  
Excellence in Coral Reef Studies

**Ms Jennifer Loder**

ReefCheck Australia

**Dr Kelli Anderson**

Macquarie University

**Dr Janja Ceh**

Murdoch University

**Dr Lyndon DeVantier**

Noosa, Australia

**Dr Emmanuelle Botte**

Australian Institute of Marine Science

**Ms Tessa Hempson**

Townsville, Australia

**Dr Tom Holmes**

Perth, Australia

**Dr David Williamson**

Australian Research Council Centre of  
Excellence for Coral Reef Studies

**Mr Jamie Colquhoun**

Australian Institute of Marine Science

**Dr Julia Hazel**

James Cook University

**Prof Bob Pressey**

Australian Research Council Centre of  
Excellence for Coral Reef Studies

**Dr Kirsten Michalek-Wagner**

Southern Cross University

**Prof Mark McCormick**

School of Tropical and Marine Biology, James  
Cook University

**Professor Peter Harrison**

Director, Marine Ecology Research Centre  
Southern Cross University

**Ms Natalie Soars**

University of Sydney

**Dr Joanne Wilson**

Sea Solutions, Australia

**Dr Ruth Thurstan**

University of Queensland

**Dr Carden Wallace**

Townsville, Australia

**Dr Vanessa Messmer**

James Cook University

**Mr Sebastian Schmidt-Roach**

James Cook University

**Dr Andrew Hoey**

James Cook University

**Mr Chico Birrell**

University of Queensland

**Ms Giverny Rodgers**

James Cook University

**Dr Vanessa Hernaman**

Brisbane, Australia

**Mr Jeremy Goldberg**

James Cook University

**Prof David Booth**

University of Technology, Sydney

**International scientists:**

**Prof Yossi Loya**

Tel Aviv University, Israel

**Dr John McManus**

Director, National Center for Coral Reef Research, University of Miami

**Dr Judit Szabo**

East Asian – Australasian Flyway Partnership Secretariat, Incheon, Republic of Korea

**Dr Kirstin Kleisner**

University of British Columbia

**Dr Dirk Zeller**

University of British Columbia

**Dr Paul Havemann**

University of London

**Prof Callum Roberts**

University of York

**A/Prof Jeffrey Maynard**

University of North Carolina – Wilmington

**Prof Malcolm Hill**

University of Richmond, USA

**Prof Charles Sheppard**

University of Warwick

**Dr Shimrit Perkol-Finkel**

ECONcrete Tech Ltd, Israel

**Prof Phillip Dustan**

College of Charleston, South Carolina

**Dr Keven Reed**

Fleming Island, USA

**Dr Mark Tupper**

The Coastal Resources Association, Canada

**Dr Flavia Nunes**

Institut Universtaire Europeen de la Mer

**Dr Daniel Pauly**

University of British Columbia, Canada

**Prof Rupert Ormond**

Research Chair, Coral Reef Conservation King Abdul-Aziz University, Saudi Arabia

**Dr Melissa Roth**

University of California, Berkley

**Prof Peter Sale**

Institute for Water, Environment & Health, UN University, Hamilton, Ontario

**Ms Shelby McIlroy**

University at Buffalo – SUNY

**Dr Georg Heiss**

Freie Universität, Berlin

**Dr Mark Eakin**

Silver Spring, Maryland

**Mr Millard McCleary**

Executive Program Director, Reef Relief, Florida

**Mr Victor Bonito**

Reef Explorer, Fiji

**Prof Reinhold Leinfelder**

Freie Universität Berlin

**Dr Judith Lang**

Atlantic and Gulf Rapid Reef Assessment Program, USA

**Dr Alexander Kerr**

University of Guam Marine Laboratory

**Mr Jason Flower**

Durham, United Kingdom

**Dr Natalie Ban**

University of Victoria, Canada

**Mr Tom van't Hof**

Saba, Netherlands Antilles

**Dr Dean Jacobson**

College of the Marshall Islands

**Ms Abigail Moore**

Sekolah Tinggi Perikanan dan Kelautan, Indonesia



**Prof Eric Deleersnijder**

Université Catholique de Louvain, Belgium

**Mr Javier Mendez**

Hawaii, USA

**Dr Marie-Lise Schläppy**

École Polytechnique Fédérale de Lausanne,  
Switzerland

**Mr Sylvan Schurwanz**

Houston, USA

**Dr Carolina Bastidas**

Universidad Simón Bolívar, Venezuela

**Mr Roland Dreffer**

Cincinnati, USA

**Ms Jennifer Wilkes**

Indiana University, USA

**Mr Christopher Thomas**

Université Catholique de Louvain, Belgium

**Mr Scott Huff**

Greenwood, USA

**Dr Susie Tomson**

Southampton, UK

**Ms Estell Davies**

Hong Kong, China

**Dr Stuart Kininmonth**

Stockholm Resilience Centre

**Dr Jim Maragos**

Hawaii, USA

**A/Prof Gilianne Brodie**

University of the South Pacific

**Dr Erik Meesters**

Wageningen University and Research Centre,  
Netherlands

**Ms Natalia Andrade**

Quito, Ecuador

**Dr Emmanuel Hanert**

Université Catholique de Louvain, Belgium

**Dr Claire Goiran**

University of New Caledonia

**Mr Malik Mohit**

New Dehli, India

**Dr Mark Westneat**

Curator of Zoology (Fishes) and Director,  
Biodiversity Synthesis Center, Field Museum of  
Natural History, Chicago, USA

**Ms Elizabeth Brill**

Corning, USA

**Prof Brian Morton\***

Natural History Museum, London

**Ms Hasna Jasimuddin Moudud\***

Coastal Area Resource Development and  
Management Association, Dhaka, Bangladesh

**Mr Yogesh Jadhav\***

Barli Development Institute for Rural Women,  
Indore, India

**Mr D S Ranga Rao**

Mumbai, India

**Prof Zygfryd Nowak\***

Polish Cleaner Production Society, Poland

**Ms Kate Lipkis\***

Los Angeles, USA

**Ms Julia Hailes\***

United Kingdom

**Dr Anne Ehrlich\***

Stanford University, USA

**Prof Jesus Arias Chavez\***

Director, Desarrollo Integral con Tecnología  
Adecuada Casa Xochicalli, A.C., Mexico

**Mr Veeresh**

India

**Mr Khadijah Abdul Rahman**

President, Yayasan Anak Warisan Alam\*  
Malaysia

*\*Global 500 Roll of Honour Laureate*

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