



12th International **Coral Reef** Symposium
9-13 July 2012 • Cairns • Queensland • Australia



Outcomes Report

www.icrs2012.com



The 12th International Coral Reef Symposium (ICRS 2012), held in Cairns from 9th to 13th July 2012, was hosted by the Australian Research Council Centre of Excellence for Coral Reef Studies and James Cook University. This major event attracted more than 2,000 delegates from 80 countries. The delegates included more early career researchers than in any previous meeting, securing the future of coral reef research. Generous support from sponsors also provided an unparalleled number of grants to assist attendance. Delegates presented the largest and most comprehensive scientific program in the history of ICRS, including nine outstanding plenary talks and over 1,500 presentations in 12 concurrent sessions. The focus on coral reef science and management was highlighted by the unveiling of the *Consensus Statement on Climate Change and Coral Reefs*, endorsed by >3,000 scientists. Media coverage of this Statement and the Symposium in general was unprecedented, with over 2,500 stories reported across the world.

ICRS 2012 illustrated the growing evolution of coral reef science and provided a timely opportunity for the global research community to present the cutting edge findings necessary for the conservation and management of reefs around the world. Climate change and ocean acidification along with chronic anthropogenic factors and their impacts on bleaching, diseases and Crown of Thorns starfish were major topics of discussion. Conservation planning, coral reef management and the social and economic dimensions of coral reefs were also major themes, with more talks on these topics than any previous ICRS. These issues featured heavily in the eight plenary talks and in the Darwin Medal lecture, the Press Briefings and stories emanating from ICRS 2012.

Delegates

Two thousand and eighty one delegates from 80 countries around the world attended the quadrennial meeting of coral reef scientists, which is sanctioned by the International Society for Reef Studies. The geographical location of each meeting is a major factor affecting the mix of delegates. Consequently, although the largest attendance at ICRS 2012 continued to be from the USA (457 delegates) and Australia (622), we saw a marked increase in representation from the six Coral Triangle countries (129) and South-East Asia (204) compared to the delegates attending ICRS 2008 in Florida. Of particular note was the number of early career researchers, including 531 student delegates.

Opening Ceremony

The week began with a welcome from the Convenor of the Symposium, Terry Hughes, followed by an inspirational introduction from the Governor of Queensland, Her Excellency Ms Penelope Wensley AC, about her concern for the environment and sustainable development, and more specifically her interest in coral reefs through her involvement as an Australian diplomat with the International Coral Reef Initiative. The Queensland Premier was represented by Michael Trout MP who spoke of the benefits that hosting the Symposium brought to the region and the importance of protecting the Great Barrier Reef. Bob Richmond, the President of the International Society for Reef Studies, then launched the *Consensus Statement on Climate Change and Coral Reefs*.

Consensus Statement on Climate Change and Coral Reefs

The *Consensus Statement* was drafted by a working group of eminent scientists, brought together under the auspices of The Center for Ocean Solutions, to address the topic of climate change impacts on coral reefs. The invitation to endorse the statement was issued by three of the authors, Steve Palumbi, Bob Richmond and Terry Hughes. As of 1st August 2012 there were 3,150 endorsees. The *Consensus Statement* drew attention from around the world and formed the basis of a well reported Press Briefing on the first morning of ICRS 2012 in Cairns that resulted in over 600 media stories.

Plenary Talks

The eight plenary talks and Darwin Medal lecture highlighted many of the major research themes and challenges faced by coral reef scientists and managers in today's environment. All of these high profile talks injected unique perspectives, documented significant



advances in coral reef science, and were challenging, thought provoking, and entertaining.

The Plenary speakers, in order of appearance, were Jane Lubchenco, Jamaluddin Jompa, Denis Allemand, Geoffrey Jones, Peter Kareiva, Helene Marsh, Madeleine van Oppen and Ove Hoegh-Guldberg. Jeremy Jackson (*pictured*) delivered the Darwin Medal lecture.



Scientific Sessions

There were 72 *Mini-Symposia* aggregated into 22 Symposia Themes. They provided the framework for 1,300 talks and 225 posters presented by the delegates at ICRS 2012. The program had 12 concurrent sessions across two adjoining venues, the Cairns Convention Centre and the Sebel Hotel. The program was designed to maximise the number of delegates who were afforded the opportunity to speak, resulting in a 25% increase in the size of the oral program compared to ICRS 2008. The speed talks were a new innovation and proved to be a successful and stimulating addition.

Traditional coral reef science featured prominently in the scientific sessions, interspersed with new technologies: the growing influence of genomics, an increase in the use of remote sensing, robots and sensor networks. Many research areas have expanded since 2008, and the program reflected the increased interest in ocean acidification, climate change, coral bleaching, and in modeling the dynamics of reefs into the future. However, the major expansion was in the areas of conservation planning, management and social sciences. One specialised theme in this vein was The Coral Triangle Initiative, which attracted 61 presentations.

The Coral Triangle Initiative

The Coral Triangle Initiative theme attracted great interest in the 2012 Symposium. Two and a half days were specifically devoted to the Coral Triangle (CT) during which speakers from the six CT countries spoke along with others who are actively contributing to research in the region. These sessions followed on from a highly successful meeting held on the Saturday preceding ICRS 2012, which unveiled the State of the Coral Triangle Report. This satellite meeting was attended by 130 delegates - most also attended ICRS 2012 – of whom a number were senior representatives of each of the six Coral Triangle countries.



ICRS 2012 Photographic competition's Best in Show, taken by Kemit-Amon Lewis in the Bahamas

Media Uptake

As in previous years, the media outreach from ICRS 2012 was ably managed by *SeaWeb* under the guidance of Kristian Teleki and Scott Radway. They recruited eleven journalists from developing countries; co-ordinated the media workroom for journalists, the daily Press Briefings, managed social media exposure and distributed media releases around the world. They were helped by Melissa Lyne who expertly dealt with the Australian media. This effort resulted in an extremely high media profile for ICRS 2012, with over 2,500 stories and interviews logged during the week long Symposium. The *Media Portal* including the streaming of the Press Briefings is accessible from the ICRS 2012 web site.

Future Forum

Associated with ICRS 2012, the Australian Broadcasting Corporation, in collaboration with James Cook University, recorded a one-hour "Future Forum" television program at the Cairns Cruise Liner Terminal entitled *Can coral reefs survive the 21st century?* A diverse panel with expertise in the science, management, and goods and services provided by coral reefs discussed the topic and answered questions from an interested and informed audience.

Web site

The ICRS 2012 web site (www.icrs2012.com) has been a major communication and outreach tool, with 8.9 million hits since February 2010. It has been used not only for those attending the Symposium, but also for anyone interested in coral reefs. Indeed, many scientists and reef managers who did not come to Cairns nonetheless experienced the Symposium through the web site, accessing the daily editions of *Coral News* and viewing the Plenary talks which were available online on the same day as the live presentations. The web site will remain as a permanent resource into the future, providing access to the Symposium Proceedings, the 1,500 abstracts, plenary talks, uploaded posters, photographs, and Press Briefings.

Innovations at ICRS 2012

A number of new features were introduced at ICRS 2012. The feedback from delegates suggests that they were a success and added to the value of the Symposium. The major innovations were:

- The Welcome Reception was held on the evening prior to the opening of ICRS. This provided a focus for delegates to meet and greet before talks commenced, and was enjoyed by >1,500 delegates;
- Art by North Queensland primary school students featured in all delegate name badges;
- A comprehensive daily newspaper, *Coral News*, was published onsite and online each day. It featured the previous day's science and events and the highlights for the coming day;
- Memory sticks were distributed at registration containing the scientific program, abstracts, a list of delegates, and notably, the Proceedings. All these functions were searchable, providing access to the content and outcomes of ICRS 2012;
- All Plenary talks were loaded onto the ICRS 2012 web site

within a couple of hours of presentation and are freely available for viewing;

- Speed talks were included in the program to offer as many delegates as possible an opportunity to talk, which is often a requirement for attendance by delegates; and
- All Press Briefings were streamed on the Media Portal by *SeaWeb*.

Proceedings of the 12th ICRS

The ICRS Proceedings have in the past taken a protracted period to complete, long after the Symposium. The Executive decided for ICRS 2012 that the Proceedings would be available electronically, for distribution to delegates at registration on the first day of the Symposium. The *Proceedings* are on the ICRS 2012 website, and are also available from *ReefBase*.

Financial Support for Delegates

Funding was obtained by the ICRS 2012 Fundraising Committee from a number of sources, to support the costs of delegates to attend ICRS 2012. The funds were targeted at postgraduate students and early career scientists and in particular, those from developing nations, the Coral Triangle countries and the south west Pacific. We sincerely thank the sponsors for their generosity which enabled 120 people from 40 countries to offset their costs of registration, accommodation and/or travel, more than any previous ICRS meeting.

Symposium Committees

International *Committees* were established to organise the scientific program, the field trips, and to raise \$1 million in sponsorship funds. The hosts would like to thank all the members on these Committees for their time and expertise. A listing of all Committees can be accessed at www.icrs2012.com.

Sponsors

The generous support of *sponsors* is crucial to the success of ICRS. Thank you to those sponsors who repeatedly back ICRS and to those sponsors who supported for the first time in 2012. A listing of sponsors can be viewed at www.icrs2012.com. We applaud your commitment to supporting coral reef science.

In Conclusion

ICRS 2012 was an extremely successful quadrennial meeting of the coral reef science community. The scientific program showcased the latest in coral reef research and demonstrated how scientific knowledge contributes to the sustainable use of coral reefs. The next ICRS, to be held in 2016, will be in Hawai'i and will be convened by Bob Richmond and his team at the University of Hawai'i.

Terry Hughes
ICRS 2012 Convenor

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