



## Meeting Report – 19 April 2018

### INTRODUCTION

The second face-to-face meeting of the National Marine Science Committee (NMSC) for 2018 was held in Canberra on Thursday 19 April. The purpose of this report is to ensure the national marine science community keeps informed about the NSMC's action agenda, and has an opportunity to provide comment and input.

The Committee's agenda has evolved to include five main items i.e.

- Implementing the National Marine Science Plan
- NMSC Sub-Committees, Working Groups, and Workshops
- Discussion of Member Reports
- Presentations on 'Hot Topics', and
- Forward Strategy.

### 1. IMPLEMENTING THE NATIONAL MARINE SCIENCE PLAN

The eight high level priorities in the National Marine Science Plan continue to be a major focus for the Committee. The Plan is responding to grand challenges out to 2025, and the timeframes for potential action will range from the near term to many years. Overall, the Committee is satisfied with progress to date, noting that the next Federal Budget is imminent and is expected to provide clarity in some areas.

#### **National marine environmental baselines and long term monitoring**

A large number of people within the national marine science community have interests in the priority area of marine environmental baselines and long term monitoring. A sub-group has been formed to organise a national workshop designed to plan the way forward. The sub-group is led by David Souter (AIMS), supported by Paul Hedge (NESP Marine Biodiversity Hub), with the other members being Alistair Hobday (CSIRO), Tim Ward (SARDI), Chloe Schauble (GBRMPA), Tanya Whiteway (GA), Chari Pattiaratchi (UWA), and Alan Jordan (NSW DPI). They will meet by teleconference in early May.

### **Coordinated studies on marine ecosystem processes and resilience**

The organisers of a working group focused on this priority area, led by Peter Steinberg (SIMS), have recently reconvened by teleconference to discuss next steps. It is expected that there will be more progress to report at NMSC meetings later in the year.

### **Create a national ocean modelling system**

Based on feedback from various recent discussions and meetings, Tim Moltmann (IMOS) and Peter May (Bureau of Meteorology) have suggested a change of tack in this priority area. It is proposed to focus on national infrastructure and capability for ocean modelling at all scales. There are a number of exciting activities underway in global ocean modelling, and in the regional modelling community within Australia. There is not currently strong demand from users and stakeholders for national modelling outputs, though this may change over time. NMSC believes it would however be wise to underpin global and regional efforts with nationally coordinated infrastructure and capability. Several opportunities were identified to move in this direction:

- The Department of Defence member report provided an update on the recent Bluelink Science Meeting. A 2025 Bluelink Roadmap is being developed, with a goal of supporting Defence applications (global, regional, and littoral), and supporting a national ocean forecasting capability. Collaboration with the Consortium for Ocean Sea-Ice Modelling in Australia ([COSIMA](#)), involving Universities and the AAD, was seen as a good model for including more national capability in the development of Bluelink.
- The AODN report noted that work is now well underway on data enhancement of the Marine Virtual Laboratory (MARVL), with emphasis on closing key data gaps (e.g. river inputs) and making existing data 'ready for assimilation' by the modelling community.
- The IMOS member report noted that the fourth, biennial Australian Coastal and Oceans Modelling and Observations ([ACOMO](#)) Workshop will be held at the Australian Academy of Science in Canberra on 9-11 October 2018. ACOMO 2018 provides a timely opportunity for discussion about national ocean modelling infrastructure and capability.

### **Develop a coordinated science program to support decision making**

David Smith (CSIRO) and Rick Fletcher (WA DPIRD) joined the meeting by phone. It was noted that this priority is quite broad, and there appears to be little benefit in dealing with individual sectors that already have well developed regulations and decision support tools. Rather it was proposed that we focus on 'integrated ecosystem assessments' (see [here](#) for a definition). This is considered to be a more strategic approach, and could assist with understanding cumulative impacts, trade-offs between sectors and multi-sector management. It could also feed into Australia's response to the UN Sustainable Development Goals relevant to the ocean. It was agreed that CSIRO would undertake a review of the current literature, most of which is coming out of the EU, Norway and US. The review will then be considered by NMSC, providing a basis for discussion of next steps.

### **Develop marine science research training that is more quantitative, cross-disciplinary and congruent with industry and government needs**

This working group in this priority area, led by Helene Marsh (JCU), arranged to meet on the day after the NMSC meeting (20<sup>th</sup> April). They will be finalising their work plan which will include targeted interviews with industry and government employers. NMSC members agreed to help with identifying suitable contacts from their networks. The group is planning undertake its work and report to the NMSC meeting on 18 October.

### **Sustain the Integrated Marine Observing System and expand it to include estuarine and coastal observations**

It is hoped that the Federal Budget on 8 May will provide clarity on forward funding for national research infrastructure, including IMOS.

### **Fund research vessels for full use**

It is also hoped that the Budget will provide clarity on funding for full utilisation of *RV Investigator*.

### **Create an explicit focus on the blue economy throughout the marine science system**

In line with the intent of the National Marine Science Plan, it was agreed that three, broad, 'blue economy' themes will be woven in to all NMSC priorities as appropriate i.e. full integration of socio-economics, accelerating the innovation cycle, and indigenous engagement.

## **2. NMSC SUB-COMMITTEES, WORKING GROUPS, AND WORKSHOPS**

NMSC has found it useful to establish mechanisms to focus on important areas and emerging issues, in addition to those identified in the Decadal Plan. These mechanisms also provide an opportunity to engage more people from the national marine science community. Three main mechanisms are being used i.e.

- Sub-Committees (ongoing)
- Working Groups (time bounded)
- Workshops (role for NMSC, priority issue to be discussed, may or may not require a Sub-Committee or Working Group)

### **Sub-Committees**

- **Marine Data** - The Australian Ocean Data Network ([AODN](#)) Technical Advisory Group (TAG) is the Marine Data Sub-Committee of NMSC. A written report is provided to each NMSC meeting, and the Committee approves the AODN Annual Implementation Plan on advice from the TAG. (Contact: Roger Proctor [roger.proctor@utas.edu.au](mailto:roger.proctor@utas.edu.au))
- **Marine Biotechnology** – Based on a recommendation from the Australia New Zealand Marine Biotechnology Society ([ANZMBS](#)), it was agreed to establish a new Marine Biotechnology Subcommittee. The Decadal Plan for marine science

speaks to the potential for emerging industries to contribute strongly to Australia's future blue economy, and NMSC is keen to be engaged and provide support. (Contact: Wei Zhang [wei.zhang@flinders.edu.au](mailto:wei.zhang@flinders.edu.au))

- **Other** – Discussion about the potential for a Marine Mammals/Fisheries Interactions Research Co-ordination Sub-Committee is ongoing, between Patrick Hone (FRDC), Tim Ward (SARDI), Helene Marsh (JCU) and Lee-Anne Shepherd (DoEE).

### **Working Groups**

- None active at the moment, other than those associated with Implementing the National Marine Science Plan – see above.

### **Workshops**

- In considering some potential new Working Groups, NMSC decided that sometimes it would be better to sponsor/co-sponsor a National Workshop in the first instance. This will enable important issues to be raised and discussed without rushing to a structure that may or may not be needed.
- Within the context of Marine Environmental Variables of interest to Defence, consideration is being given to a National Workshop on Bioluminescence in conjunction with DSTG.
- Consideration is also being given to a National Workshop on Marine Image Analysis, in conjunction with IMOS, FRDC and others.
- Further information will be provided in due course.

## **3. MEMBER REPORTS**

Written reports submitted by members provide a very useful mechanism for cross-sector communication at the National Marine Science Committee. Some key points of interest are as follows:

- Construction of Australia's new scientific icebreaker RSV Nuyina has reached another major milestone, with more than 7000 tonnes of steel cut, and the assembly of the base of the hull in the dry dock. Updates including video of the ship's construction are available on the AAD's website: <http://www.antarctica.gov.au/icebreaker>.
- The Reef Restoration and Adaption Program ([RRAP](#)) was announced by the Prime Minister Malcolm Turnbull MP in January as part of the \$60 million reef investment. The RRAP is now operational and in concept feasibility phase. It aims to secure the viability of the Great Barrier Reef by developing a suite of scalable, cost effective restoration and adaption methods, based on the best research and technology available, to be deployed, if and when the community decides intervention is needed.
- State of the Environment (SoE) 2021 planning has begun. The next SoE report will have regard to sustainable development goals and indicators, and environmental-economic accounts. User research activity is underway as an important input to planning. (Contact [soe@environment.gov.au](mailto:soe@environment.gov.au))

- Management plans for 44 marine parks in the South-west, North-west, North and Temperate East networks and the Coral Sea have been approved and introduced into parliament. The plans will come into effect on July 2018.

#### **4. PRESENTATIONS ON HOT TOPICS**

FRDC (Carolyn Stewardson) gave a presentation on their Indigenous Reference Group ([IRG](#)). This generated good discussion, including linkages with indigenous engagement within the National Environmental Science Program (NESP). NMSC resolved to think more carefully about building indigenous engagement into its activities going forward.

#### **5. FORWARD STRATEGY**

After the Federal Budget is handed down on 8 May, NMSC will reconsider how best to structure a brief update on the decadal plan after three years since its release (in August 2015).

Greater attention is also being paid to national policy and management agendas, with a summary of relevant government inquiries prepared and discussed. The intention is for the secretariat to keep this summary up to date, and for NMSC to be active in considering whether it needs to provide input and/or respond to outcomes.

#### **NEXT MEETING**

Meeting dates for the remainder of 2018 are as follows:

- Thurs 9 August 09.00-17.00, Canberra
- Thurs 18 Oct 10.30-15.00, Canberra

#### **NMSC Chair, on behalf of the Committee**

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