

IMOS Bulletin

Issue #63 March 2017

Welcome to the IMOS Bulletin. Please feel free to distribute this email bulletin to others. The Bulletin is also available for download from the website at <http://imos.org.au/bulletin.html>.

If you have any comments or questions regarding the IMOS Bulletin please contact IMOS Communications, communication@imos.org.au.

From the IMOS Office

Below is a brief roundup of activity and engagement done through the IMOS Office over the last month.

- Forum for Operational Oceanography ([FOO](#)) Steering Committee meeting held on 2 March. Now in 'organising committee' mode for FOO 2017 on 25-27 July in Fremantle.
- Welcomed the EU-funded Ocean Data Interoperability Platform ([ODIP](#)) 7th project workshop to Hobart on 7-10 March.
- Attended the NESP Earth Systems and Climate Change Stakeholder Advisory Group meeting on 9 March.
- Attended the NESP Marine Biodiversity Hub partners meeting on 14 March, and the Threatened Species workshop on 15 March to speak about developments in the IMOS acoustic tracking network.
- Ana Lara-Lopez convened a second workshop on Harmful Algal Bloom (HAB) forecasting on 16 March. Strong interest from fishing and aquaculture industries, and regulators.
- IMOS Director chaired a GOOS Regional Alliance (GRA) teleconference on 20 March, to set the agenda for the 8th GRA Forum in Singapore on 5-7 September 2017.
- IMOS Office staff attended a series of NCRIS meetings in Canberra on 22-24 March.
- IMOS Director chaired a National Marine Science Committee meeting in Canberra on 23 March.

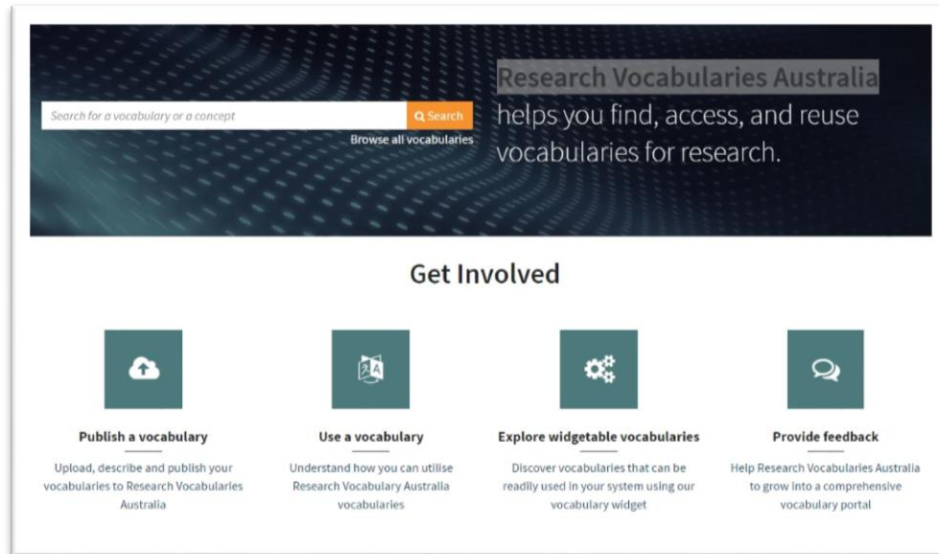
IMOS Data Reports

Speaking the same language – using and sharing vocabularies

To enable the reliable discovery and consumption of data via the AODN Portal, dataset descriptions encompass controlled vocabularies. Portal data indexing and facet-based searching harness vocabulary terms to improve the precision and recall of search results.

Until late 2015 the creation and management of AODN vocabularies was a labour intensive activity, involving relational databases, spreadsheets and custom scripting. Community participation in vocabulary development was restricted. Since then, a partnership between IMOS and the Australian National Data Service (ANDS), has delivered a national set of services that not only help the AODN with its vocabulary management, but any Australian agency wishing to create and publicly deploy vocabularies.

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Research Vocabularies Australia is the controlled vocabulary discovery service of the Australian National Data Service (ANDS).

Vocabularies can be downloaded in a range of file formats and can be browsed through a web interface which shows expandable categories of terms.

The four vocabularies of most relevance to the IMOS community are:

- [Platform](#)
- [Instrument](#)
- [Organisation](#)
- [Discovery parameter](#)

Now that basic tooling is in place to create, manage and publish controlled vocabularies experimenting has begun to develop a shared governance model for vocabulary management amongst AODN partners. Greater participation by partners in curating and moderating community vocabularies should engender stronger ownership, expand the range and number of vocabularies and their terms and make it easier for data providers to deliver conformant metadata mark-up.

Vocabularies can be accessed and published via Research Vocabularies Australia (<https://vocabs.ands.org.au/>)

The IMOS data holdings are detailed in a suite of reports generated by the AODN on a monthly basis. The summary reports for February 2017 can be downloaded directly via the IMOS website <http://imos.org.au/datareports.html>.

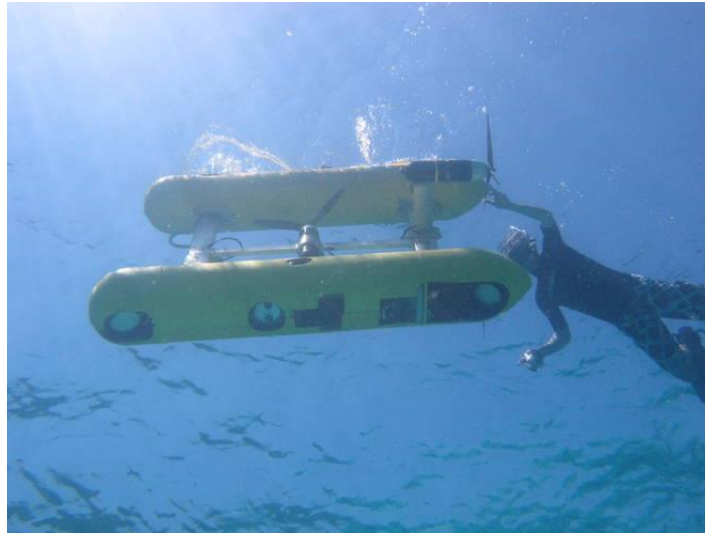
IMOS Activity Planning

Deployment and maintenance activities next month include:

- The Autonomous Underwater Vehicles Facility is deploying the Sirius AUV, designed for undertaking high resolution benthic optical and acoustic imaging work, in the Perth region with partners UWA and WA Fisheries.

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- The National Mooring Network, in partnership with SIMS/UNSW and Oceanographic Field Services (OFS), is turning over moorings at locations along the NSW coast.
- The Animal Tracking Facility has planned acoustic telemetry deployments at Heron and One Tree Islands (Southern GBR) and the Perth OTN line.



The ocean going AUV 'Sirius' is managed by the University of Sydney's Australian Centre for Field Robotics (ACFR). Sirius is specifically designed for undertaking high-resolution benthic optical and acoustic imaging work and is equipped with a full suite of oceanographic instruments.

Future activity planning for the IMOS Facilities is provided via the IMOS website (<http://imos.org.au/imosactivityplanning.html>). The activity plans contain details for all the planned deployment/recovery/servicing/sampling etc. activities for the 2016-17 period.

Did you know?

This section features news from the marine science community and highlights various ways in which you can discover, access and use IMOS data.

AIMS Index of Marine Industry

This month the Australian Institute of Marine Science's latest 'AIMS Index of Marine Industry' was released. The 2016 report says Australia's marine industries now contribute more than \$74 billion directly and indirectly to the annual national gross domestic product. You can read the [IMOS comment regarding the AIMS index](#) and follow the link to the full report.

Australia State of the Environment report released

The broader benefits of sustained ocean observing and open data access have been highlighted in the 2016 State of Environment (SoE) Report.

Released on 7 March by the Minister for Environment and Energy, Josh Frydenberg, SoE 2016 is the fifth national assessment of the state of Australia's environment, reporting on the current condition of and likely outlook for our environment.

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Read how [IMOS is referred to in the Report](#) and follow the link to the full report.

National Marine Science Committee – Quarterly updates are accessible to all

As Chair of the National Marine Science Committee (NMSC), Tim Moltmann writes a quarterly update for the whole Australian marine science community. These are available, along with NMSC meeting reports, on the NMSC website [‘Activities and News’](#) page. Anyone can subscribe to these Community Updates.

Paper of the month

This month we’d like to highlight the following paper that references IMOS data:

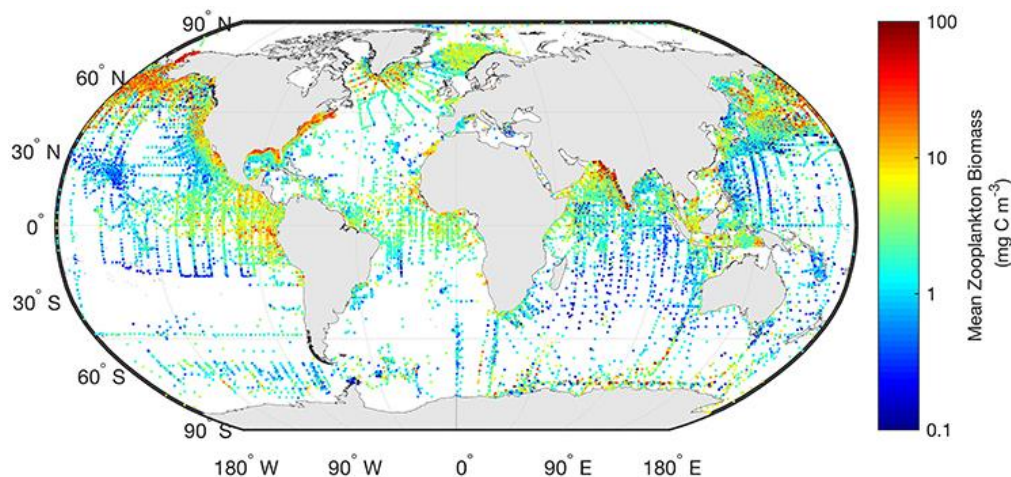
Modeling What We Sample and Sampling What We Model: Challenges for Zooplankton Model Assessment

Jason D. Everett, Mark E. Baird, Pearse Buchanan, Cathy Bulman, Claire Davies, Ryan Downie, Chris Griffiths, Ryan Heneghan, Rudy J. Kloser, Leonardo Laiolo, Ana Lara-Lopez, Hector Lozano-Montes, Richard J. Matear, Felicity McEnnulty, Barbara Robson, Wayne Rochester, Jenny Skerratt, James A. Smith, Joanna Strzelecki, Iain M. Suthers, Kerrie M. Swadling, Paul van Ruth and Anthony J. Richardson.

Front. Mar. Sci., 22 March 2017 | <https://doi.org/10.3389/fmars.2017.00077>

The list of authors on this *Frontiers in Marine Science* paper reads like a who’s who of IMOS!

Zooplankton are the intermediate trophic level between phytoplankton and fish, and are an important component of carbon and nutrient cycles, accounting for a large proportion of the energy transfer to pelagic fishes and the deep ocean. Given zooplankton's importance, models need to adequately represent zooplankton dynamics. A major obstacle, though, is the lack of model assessment. Here we try and stimulate the assessment of zooplankton in models by filling three gaps.



The mean marine zooplankton biomass (mg C m^{-3}) for mesozooplankton (0–200 m depth) is shown illustrating the distribution of records from the most comprehensive database available. The data shown here are freely available from “COPEPOD: The Global Plankton Database” (<http://www.st.nmfs.noaa.gov/copepod/>).

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Upcoming Events

- **16-18 May 2017** Greater impact through environmental infrastructure symposium, Canberra, Australia. <http://www.tern.org.au/Upcoming-Events-pg17737.html>
- **29 May – 2 June 2017** Linking Environmental Data and Samples, Canberra, Australia <https://csiro-enviro-informatics.github.io/environmental-data-symposium-2017/>
- **31 May – 2 June 2017** Blue Planet Symposium: Oceans and Society, Maryland USA. <http://symposium.geoblueplanet.com>.
- **17th June 2017** IMOS Animal Tracking Workshop, Cairns, Australia. For more information: fabrice.jaine@sims.org.au.
- **19-23 June 2017** 4th International Conference on Fish Telemetry, Cairns, Australia. <http://www.4thicft.org>
- **2 – 6 July 2017** AMSA Australian Marine Science Conference 2017, Darwin, Australia. <http://events.amsaconference.net/home.html>
- **16-18 July 2017** Australian Coral Reef Society Conference , Townsville, Queensland. <http://www.australiancoralreefsociety.org/conference>
- **25 – 27 July 2017** The Australian Forum for Operational Oceanography (FOO), Fremantle, Australia. <http://www.foo.org.au/forum/>
- **27 August- 1 September 2017** Joint IAPSO-IAMAS-IAGA Assembly in Cape Town, South Africa. <http://www.iapso-iamas-iaga2017.com/index.php>
- **5 – 7 September 2017** Eighth GOOS Regional Forum Meeting, Singapore. http://goosocean.org/index.php?option=com_oe&task=viewEventRecord&eventID=1973
- **2-13 October 2017** GODAE OceanView International School, New Frontiers in Operational Oceanography, Mallorca, Spain. <https://www.godae-oceanview.org/outreach/education-training/gov-summer-school-2017/>
- **3-5 October 2017** EuroGOOS International Conference: Operational Oceanography serving sustainable marine development, Bergen, Norway. <http://eurogoos.eu/events/eurogoos-international-conference/>
- **5-6 October 2017** Our Ocean, Malta. <http://ourocean2017.org/>

For a full list of upcoming conferences please visit the Calendar page at <http://imos.org.au/calendar.html>. If you would like an event or conference featured on our website calendar please contact communication@imos.org.au.