

IMOS Bulletin

Issue #65 May 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.

- IMOS hosted a visit from Miles Apperley and Suzanne Hollins of the Australian Nuclear Science and Technology Organisation (ANSTO) on 9 May. The purpose was to explore potential for future collaboration.
- Ana Lara-Lopez and Tim Moltmann presented at the '[Greater Impact through Environmental Infrastructure Symposium](#)' held at the National Library in Canberra on 16-18 May. This event provided an opportunity to both showcase and build on collaborations between NCRIS capabilities active in environmental science. Many were involved, but particular thanks go to John La Salle, director of the [Atlas of Living Australia](#), for bringing us together.
- The 14th meeting of the National Fisheries & Aquaculture Research Providers Network (RPN) was held at Melbourne Airport on 17 May. We reached agreement on a priority species list which will help guide future design of the IMOS acoustic Animal Tracking Network. There was also good discussion about fisheries data management.
- IMOS Director was an invited guest at the launch of the [Centre for Southern Hemisphere Oceans Research](#) (CSHOR) on 22 May. CSHOR is a long-term research collaboration between Qingdao National Laboratory for Marine Science and Technology (QNLN) in China and CSIRO. QNLN and CSIRO have entered into an initial five-year Agreement together with CSHOR Australian partners, the University of New South Wales and University of Tasmania. Whilst the research program is still firming up, there appears to be excellent potential for collaboration between CSHOR and IMOS in southern hemisphere ocean observing.
- The NESP Marine Biodiversity Hub held a joint meeting between its Research Partners (including IMOS) and Research Leadership Team at Melbourne Airport on 23 May. The meeting objective was to propose refinements to the Hub's strategic research plan and continuing research themes and projects, and identify new areas of research to be recommended to the Steering Committee.
- IMOS Director met with senior staff from Deakin University in Melbourne on 23 May. Discussion centred on opportunities presented by the recent announcement of a new agreement for Deakin University to establish a formal presence at the Victorian Government's Queenscliff Centre (see [here](#)). Deakin is now actively involved in our SEA-IMOS Node, and IMOS hopes to build a stronger presence in this region.
- The Group on Earth Observations (GEO) is sponsoring its third [Blue Planet Symposium](#) in Maryland USA on 31 May to 2 June. IMOS and NOAA are co-chairing a session on Sustainable use of Ocean Resources.

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The latest news from the Australian Ocean Data Network (AODN)

AODN conducts 3 practicals for IMAS/UTAS course

In May the AODN contributed for the first time to the University of Tasmania (UTAS) course KZA324 - Oceanographic Methods. The course focuses on introducing students to research at sea, how to take measurements, and data access and preservation. AODN involvement focussed on data discovery and access, illustrating methods of finding data through the AODN Portal (discovery, visualisation, filtering and download) and in the use of data tools like MARVL and Gliderscope.

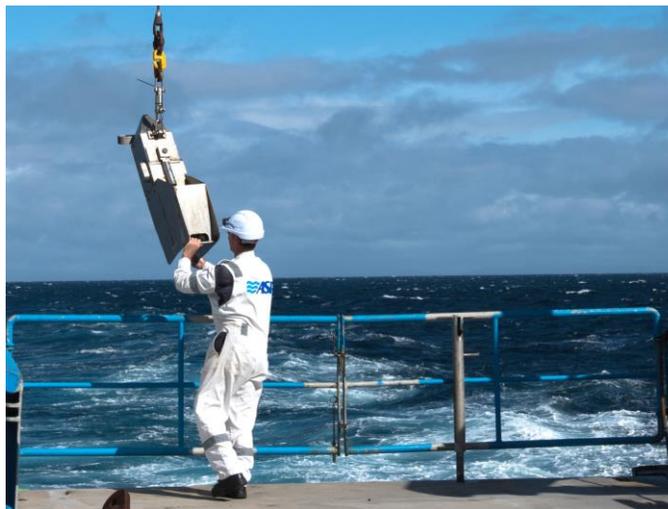
The AODN team, alongside a colleague from CSIRO, conducted three practicals as part of the unit schedule. The first practical was an introduction to the Integrated Marine Observing System (IMOS) and AODN including a hands on lesson on data access through the AODN Portal. The second focused on the use of gliders in coastal and ocean environment monitoring, in particular in the River Derwent Hobart, the students explored the data collected by the IMOS Glider facility through the Gliderscope visualisation tool.

The IMOS data holdings are detailed in a suite of reports generated by the AODN on a monthly basis. The summary reports for April 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 Ships of Opportunity IMOS Australian Plankton Survey Facility, with CSIRO, will be deploying a CPR during the journey of the MV *Tonsberg* from Brisbane to Fremantle via Sydney, Melbourne and Adelaide.
- The National Mooring Network will undertake the monthly BGC sampling at all National Reference Stations (except Kangaroo Island), and turnaround Two Rocks and Perth Canyon moorings in WA from the RV *Linnaeus*



CPR deployed from RV *Investigator* in August 2016. Photo: Marian Wiltshire

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.

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Did you know?

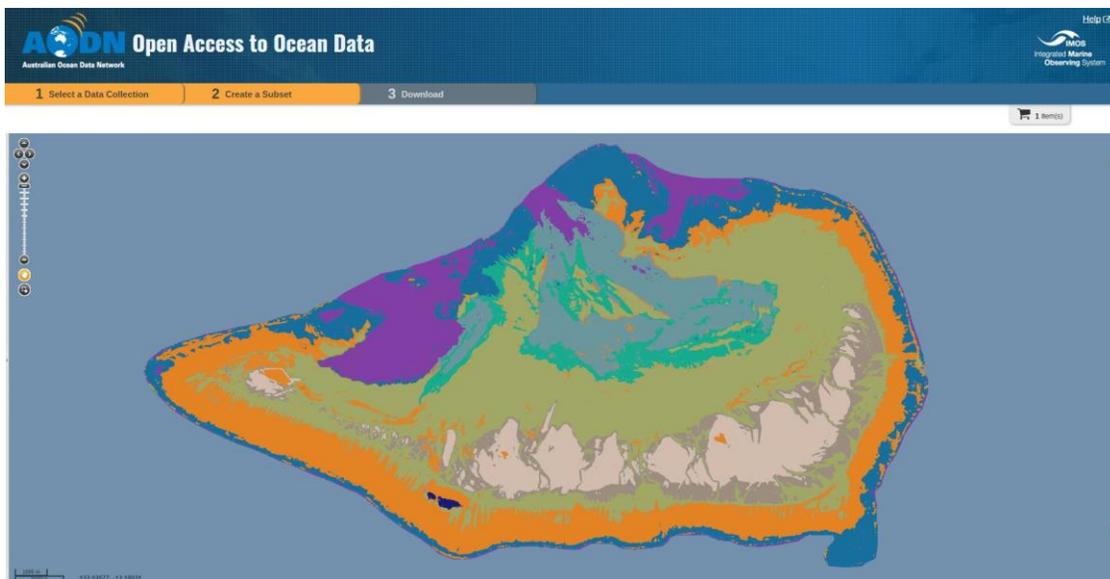
This section features news from the marine science community and highlights various ways in which you can discover, access and use IMOS data.

AODN Portal users are now able to download data in the form of shapefiles.

The ability to download data in the form of shapefiles from the AODN Portal, has previously not been a requirement in regards to IMOS data. However, several of our AODN partners do have data expressed in the form of shapefiles, and the ability to be able to download data from the AODN Portal was highly desired.

The types of datasets that are commonly expressed as shapefiles, include benthic habitat maps and certain types of biological data. End users are interested in downloading these data in shapefile format instead of CSV or netCDF because GIS software like ArcGIS (proprietary) or QGIS (open source) are commonly used to interact with this type of data.

Shapefiles are available from the [AODN Portal](#).



Survey and stock size estimates of the shallow reef (0-15 m) and shoal area (15-50 m) marine resources and habitat mapping within the MOU74 Box (for Seamap Australia)

Paper of the month

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

LC James, MP Marzloff, N Barrett, A Friedman and CR Johnson, (2017) *Changes in deep reef benthic community composition across a latitudinal and environmental gradient in temperate Eastern Australia*, Marine Ecology - Progress Series, 565 pp. 35-52. doi:10.3354/meps11989 ISSN 0171-8630

OK, this paper is from February this year so not exactly hot off the press but we thought it was worth highlighting some of the recent work of the Autonomous Underwater Vehicles Facility.

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Deep reef assemblages in south-eastern Australia are poorly described, and have been surveyed by only a few studies conducted over small spatial scales. Here, the team characterises the composition of deep (~30–90 m depth) sessile invertebrate communities from sub-tropical (27° S) to temperate eastern Australia (43° S). They estimated the cover of 51 preselected invertebrate types from over 1700 seafloor images collected by an autonomous underwater vehicle from >105 km of transects across the study region.

See the complete paper online: http://www.int-res.com/articles/meps_oa/m565p035.pdf

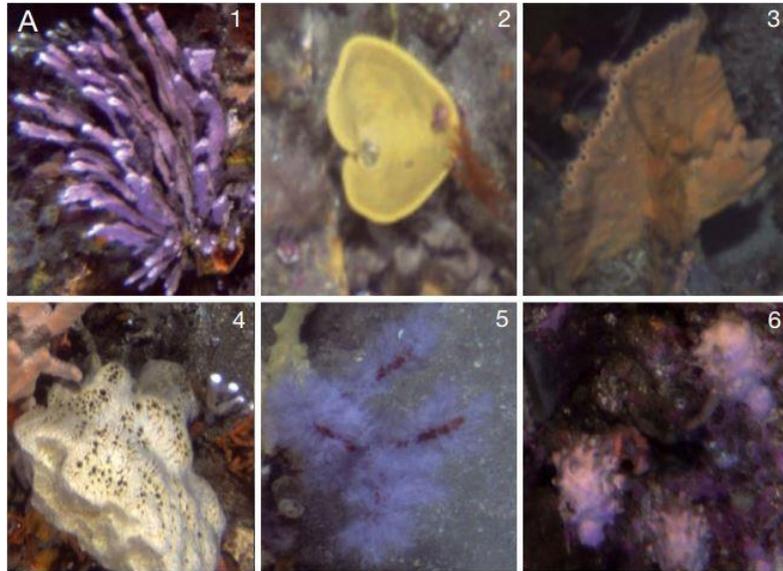


Fig A: Example invertebrates, taken from the subset of the 51 morphotypes selected for scoring given their characteristic features (i.e. large size, strong features and obvious colours): (1) purple branching sponge, (2) yellow cup sponge, (3) orange laminar sponge, (4) white (shapeless) massive sponge, (5) blue hydroid blackcoral, (6) purple solitary ascidian.

Australian Marine Sciences Association (AMSA) Conference in Darwin

The 54th Conference of AMSA will be held in Darwin at the Doubletree Hilton – Darwin Entertainment Centre complex, **2–6 July 2017**. There are 25 Symposia and general sessions running in which over 350 presentations will be made. Invited speakers including: Prof Helene Marsh, Dr. Julie Hall, Dr. Alistair Hobday, Prof Rob Harcourt, IMOS Director Mr. Tim Moltmann, Prof Anthony Richardson, Assoc Prof Moninya Roughan, Dr. Richard Brinkman, Mr. Patrick Seares and Prof Nic Bax. . See [The conference program](#).

Darwin is an appropriate setting for the AMSA 2-017 conference as the concept for the conference is ‘Connections through Shallow Seas’ and the greatest global extent of shallow tropical seas is around northern Australia and to our near north. The concept also alludes to the connectivity that exists in marine science: linkages between different disciplines of marine science, connecting traditional knowledge and western science and the regional collaborations (both domestic and international).

The conference will showcase a strong IMOS presence with plenary sessions on day 4 focusing on the impact of ten years of IMOS data. On days 3 and 4, a session on ‘Observing the north’, chaired by IMOS Science Manager Ana Lara-Lopez and IMOS National Mooring Network’s Craig Steinberg and David Williams, will feature a number of researchers from the IMOS community.

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- Limited funding may be available to support member travel. Please see state branches for further information.
- There are numerous and substantial prizes for student presentations.

See the [conference website](#) for further information and registration.

Upcoming Events

- **31 May – 2 June 2017** Blue Planet Symposium: Oceans and Society, Maryland USA.
<http://symposium.geoblueplanet.com>.
- **5 – 9 June** The Ocean Conference, New York, USA
<https://oceanconference.un.org/>
- **17 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>
- **22 – 24 July** Australian Society for Fish Biology Conference, Albany, Western Australia
<http://asfbconference.org/>
- **25 – 27 July 2017** The Australian Forum for Operational Oceanography (FOO), Fremantle, Australia.
<http://www.foo.org.au/forum/>
- **21 – 25 August 2017** Online training for Using the Copernicus Marine Data Stream for Ocean Applications. The classroom phase of the course will be **4-8 September** in Oostende, Belgium. The deadline for application is Wednesday, 7 June 2017 via <http://training.eumetsat.int/course/view.php?id=158>
- **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.

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