AusSeabed Newsletter No. 8 October 2019

Hello all,

There have been some changes to the AusSeabed newsletter this month, with the departure of Georgy Falster, who has done such an excellent job of co-ordinating the newsletter until now – many thanks Georgy! CSIRO is co-ordinating the newsletter from now, so you may see some changes as we transfer the newsletter between host institutions.

Updates and other news

The AusSeabed 2030 Strategic Plan has been published on our website as well as the revised AusSeabed Steering Committee Terms of Reference. Follow the hyperlinks to access the documents or visit AusSeabed.gov.au.

Program themes

Data Hub

A few exciting changes are in motion with the Data Hub program theme! We welcomed the GA Digital Innovation Team (DIT) into our midst at the beginning of October. The DIT will be working alongside GA marine team for three months to begin automating the bathymetry processing pipeline, an important step in realising the Data Hub's end-to-end capability. Also joining AusSeabed, will be software architect and engineer Dave Penton with GA and spatial data manager Francisco Navidad with CSIRO. We look forward to working with our new team members, and sharing the successes with you in the coming months!

At the end of September, we submitted an Expression of Interest to the Australian Research Data Commons Software and Platform call to invest in the AusSeabed Data Hub platform. The submission has progressed through to the '*Request for Proposal'* stage and is now being developed by a working group led by GA. For more information, please email Kim Picard at kim.picard@ga.gov.au

The AusSeabed portal now includes new and updated layers. These include

1. **Upcoming Surveys** with areas planned to be surveyed
2. **Priorities Layer** with updated areas

3. **AusSeabed Bathymetry Holdings (by survey)** with updated metadata fields, including access to survey data
4. **AusSeabed Bathymetry Holdings (by compilation)** with the updated Kerguelen Plateau 100m bathymetry

Outreach, Education, and Training (OET)

OceanObs19 took place in Honolulu, Hawaii, from Sept 16-20. This decadal conference brought together approximately 1500 ocean scientists and engineers from the academic, government and industry sectors. The meeting consisted of plenary sessions, special topical sessions and side meetings focused on all aspects of ocean observing. Several members of the international seabed mapping community attended the conference, presented posters, and worked together to raise the profile of ocean mapping as an essential ocean observation. Three plenary and two special topical presentations focused on this topic and discussed the Seabed 2030 Initiative (David Millar (view on YouTube), Larry Mayer (view on YouTube), Vicki Ferrini (view on YouTube), Kim Picard, and Kelley Brumley). In addition, a Seabed 2030 booth was set up in the exhibit hall to raise awareness and gather feedback from users about their bathymetric data needs. A presentation by Kim Picard during the Science as Art session also showcased seafloor mapping images from http://visualsoundings.org/. Vicki Ferrini also gave an interview about the Seabed 2030 project to a local news agency, which plans are to produce a 30 min documentary about OceanObs '19. These coordinated efforts were quite successful and resulted in the expansion of the final conference statement to include "seafloor" as one of the specific frontiers in ocean observation. We look forward to developing collaborations with this community to help acquire new observational data throughout the global oceans and to work more closely in the coming *Decade of Ocean Science for Sustainable Development*.

AMSA
AUSTRALIAN MARINE SCIENCES ASSOCIATION INC.

NSW-ACT AusSeabed community members (Tim Ingleton, Alan Jordan, Kam Austine, Scott Nichol and Wendy Stewart) submitted a proposal for an AusSeabed symposium for the 2020 Australian Marine Science Association. The conference is to be held in Sydney at Macquarie University (July 5-9) with the theme of 'Anthropocene'. The symposium will seek to highlight the value of seabed

mapping for understanding actual and potential impacts of human use of marine and coastal environments in this, a new 'human-driven' geological epoch. There will be a focus on the importance of data and observations that are collected using as range of the best available technologies and in a standardised manner. High resolution seabed mapping using multibeam sonar and LiDAR have revolutionised our capacity to achieve this, revealing new insights into the form and composition of the seabed and coastline, in the water-column, on the seabed and even underneath it. This critical information provides context for managing human use of the marine and coastal zone and for modelling environmental responses into the future. Symposium proposals will be assessed by the AMSA Scientific Committee in coming months and a general call for abstracts will be made in early December.

Tim Ingleton has led the submission of an AusSeabed abstract on behalf of the Steering Committee to the International Conference on Coastal Engineering 2020 (Sydney, September 2020). This conference represents an opportunity to increase the exposure of AusSeabed in coastal industry and engineering circles.

Tools, Standards, and Guidelines (TSG)

Nothing to report.

Other updates

POGO and GEO Blue Planet have launched the Oceanscape Portal, and invite the ocean community to participate by adding new organisations. "Organisations" can include intergovernmental organisations, NGOs, private foundations, programmes/projects, companies, trade associations and others – the idea is to make this as inclusive and as useful as possible. You can find out more about the Oceanscape project below.

About the Oceanscape project

Oceanscape is an effort of the GEO Blue Planet Initiative to identify the numerous organisations (including projects, programmes, and other structures) working in the "ocean space", and to clarify the connections between them (as well as identifying

opportunities to make connections where none exist). The Partnership for Observation of the Global Ocean (POGO), a founding member of GEO Blue Planet, is leading the development of the Oceanscape portal. This portal, which launches during Ocean Obs'19 in September 2019, is a community effort that aims to serve a variety of stakeholders:

- the scientific community, who may not be aware of all the initiatives taking place in the "ocean space", and who could benefit from identifying synergies, new collaborations, and avoiding overlap or duplication;
- NGOs, as well as the private sector, who may be looking for suitable organisations for collaboration;
- governments and funding agencies, who may not have a clear picture of the "oceanscape" of organisations, what they are each doing, and how they differ from one another.

This project can only be successful with input from the organisations themselves. We therefore ask that you help us to raise awareness about Oceanscape, and that you take a few minutes to enter your organisation and keep it updated in the years to come.

Click here to visit Oceanscape

pogo
Partnership for
Observation of the Global Ocean

BLUE PLANET
Oceans and Society
a GEO Initiative

Intertidal and subtidal ecosystems mapping for Central Queensland is online

Understanding the nature and extent of ecosystems is fundamental to their management. Intertidal and Subtidal ecosystem mapping and ecosystem type descriptions are now available for the Central Queensland to inform their management and protection. Ecosystem types are described in

terms of their biophysical influences (attributes) which underpin the mapping. This mapping is a first for Queensland and was compiled using a system complementing existing mapping done for other Queensland wetlands and terrestrial Regional Ecosystems, and fills a critical data gap for management.

The online mapping available at 'WetlandMaps' is supported by Wetland*Info* pages and documents:

- Intertidal and subtidal mapping background
- Intertidal and subtidal mapping FAQs (including field names and alias)
- Module 2 - Literature review of intertidal and subtidal classification frameworks and systems (PDF, 7.5 MB) looks at available classifications in Australia and overseas
- Fact sheet: The Queensland Intertidal and Subtidal Ecosystem Classification Scheme – Mapping method (PDF, 0.5 MB) documents the classification and typology method and how it was applied to produce the map
- Intertidal and Subtidal Ecology (Estuarine and Marine) and Intertidal and subtidal ecosystem types of Central Queensland links to 94 different ecosystem descriptions
- Attributes and qualifiers respectively outline eight of the fundamental biophysical factors underpinning the nature and extent of intertidal / subtidal ecosystems, and changes in the attributes. Fundamental is benthic depth, which influences exposure to air, light, temperature, pressure and wind/wave action. It is an indicator of sea floor shape or morphology, which in turn influences attributes such as energy and processes of erosion and deposition. Informing the mapping is a 30m digital bathymetric elevation model (DEM) collated from existing data by Robin Beaman from James Cook University, see
    - Development of the ceq30 bathymetry grid (2019) (PDF, 8.1 MB)
    - High-resolution depth model for the Great Barrier Reef - 30m
    - High-resolution depth model for the Great Barrier Reef - 30m (PDF, 7.0 MB)
    - Deepreef
- Assessment of Common Conservation Values - Intertidal and Subtidal Environs of the Baffle to Fitzroy Coast (ACCV) – This separate component of the project assessed conservation values of an area from just south of the mouth of Baffle Creek to north of the Fitzroy River. The method used is non-social, non-economic and tenure independent and is based upon a subset of the criteria employed by the Aquatic Biodiversity Assessment and Mapping Method (AquaBAMM[1]) and founded upon a wide body of national and international literature.

Meeting reports

The minutes and presentations from the annual AusSeabed AGM and workshop held in July are now available on the web. Follow the hyperlinks or visit AusSeabed.gov.au

Upcoming meetings

Forum for Operational Oceanography (Melbourne)

The 3rd Forum for Operational Oceanography will be on **15-16 October**, at the **Pullman Albert Park, Melbourne**. The meeting will have the following two major themes:

- Opportunities for operational oceanography to drive the development of Australian marine industries
- Risks to Australian marine industries and the role of operational oceanography in helping to manage them

Abstract submission for FOO 2019 has already closed, but even if you did not submit an abstract it would be wonderful to have an AusSeabed presence at the meeting, given the importance of accurate and precise seabed information in oceanographic models. You can see the full program (with talks) here, and the FOO 2019 website here.

Group on Earth Observations (GEO) Week 2019: GEO Blue Planet Side Event (Tuesday 5th November)

Side meeting 'The Role of the Group on Earth Observations in the United Nations Decade of Ocean Science for Sustainable Development (2021-2030). Further details from Kim. https://www.earthobservations.org/geoweek19.php?t=side_events

GEBCO annual meeting and symposia (New Hampshire, 5-9 November)

This meeting is a week of meetings that is open to all and includes meetings of the GEBCO Guiding Committee and sub-committees (SCRUM, TSCUM, and SCUFN). It also includes a symposium—'Map the Gaps—that will be held mid-week. Further information and registration details can be found here.

American Geophysical Union (AGU) Fall Meeting (San Francisco, 10-15 December)

Abstract submissions for AGU 2019 have now closed. The seafloor mapping session 'Beyond Hydrography: Seafloor Mapping as Critical Data for Understanding Our Oceans' received 34 abstract submissions. These are now being reviewed, and assignment to poster or talk will be determine once the AGU organising committee provides the convener with the final ratio in early September. See website here for further information on the meeting.

Share your work with the AusSeabed community

Finally, a reminder as always that anyone with an interest in AusSeabed can sign up to the newsletter mailing list on our website, where you can also check out past issues. And please send any items for the next letter to AusSeabedNews@ga.gov.au.