



AusSeabed Newsletter No. 12 March 2020

Hello all,

Welcome to the March newsletter. We are still sending the newsletter from CSIRO, but we have a new newsletter editor. Francisco Navidad, who is building the CSIRO end of AusSeabed, is taking over editorship of the newsletter. The contribution email remains unchanged. Remember we welcome contributions so if you have something you'd like to share, please send it in!

Updates and other news

Update from the chair

Hi all,

With the numerous news items delivered this month, I'd like to draw your attention to one particular item that requires your input in the Meeting report section. Please consider taking few minutes to fill the Geohab backscatter working group questionnaire as the information collated will also be helpful for our mapping community.

We are making great progress in the planning of a very exciting AMSA 2020 workshop (Sydney), which will see our AusSeabed community come together with Seabed 2030 for a full two days (~10-11 July). Keep the dates free and find more info in the April newsletter.

Finally, the steering committee has now been active for nearly 1.5 years and will be coming up for its first renewal. Next month, we will be seeking nominations from all sectors for six new members. Keep an eye for the information in the April newsletter.

Program themes

Data Hub

Development work continues on a prototype automated, cloud-based processing pipeline for multibeam data. Focus is now on refining the system to enable the production of a suite of consistent AusSeabed bathymetry datasets. Work is progressing on mapping metadata to ISO standards, QA/QC tool development and polygon extraction prototypes.

WA DOT have completed an aerial photo coast run from Kalbarri to Israelite Bay (Esperance). This year they will be receiving a 1m resolution DEM (Digital Elevation Model) of the whole coast as part of the Aerial Mosaic Process. This will provide a compliment to the South Coast Bathymetric Lidar data from AHO. With both data sets WA DOT will be able to evaluate what further data acquisition needs to be done for the South Coast of WA. WA DOT are also proposing a Northern Aerial Coast run from Kalbarri to Broome in the future.

A 30m resolution GBR bathymetry grid was published by Geoscience Australia, Australia Hydrographic Office and JCU in 2018, available on the AusSeabed Marine Data Discovery portal <http://marine.ga.gov.au/#/>

Outreach, Education, and Training (OET)

The Outreach Team are planning for four upcoming conferences:

1. Ports Australia Brisbane 15-16 September
2. Locate Brisbane 28-30 April
3. PIANC Fremantle 16-19 June
4. AMSA 2020 Sydney 5-9- July
5. ACS (Australian Coastal Society) Cairns 29-30 July

IMSA (Index of Marine Surveys for Assessments) was launched and legislated on 11 March 2020. Ralph Talbot-Smith attended the pre-launch with all major Private Enterprise, Federal and State Agencies. A large part of IMSA is the contribution of marine data to AusSeabed, AODV, NESP and the standards for data contribution. This initiative runs on a parallel course to the IBSA system that is already running: <https://www.dwer.wa.gov.au/ibsa>. This could be carried over to the rest of Australia and AusSeabed could receive contributions from a large number of private and government organisations as part of legislations.

An “Open Data” day in WA on the 9 March 2020 used AusSeabed as an example among other WA Open Data initiatives. This day encouraged open data across Government in WA.

Other activities in WA include a workshop to scope development of a Volunteer Coastal collaboration network.

Other updates

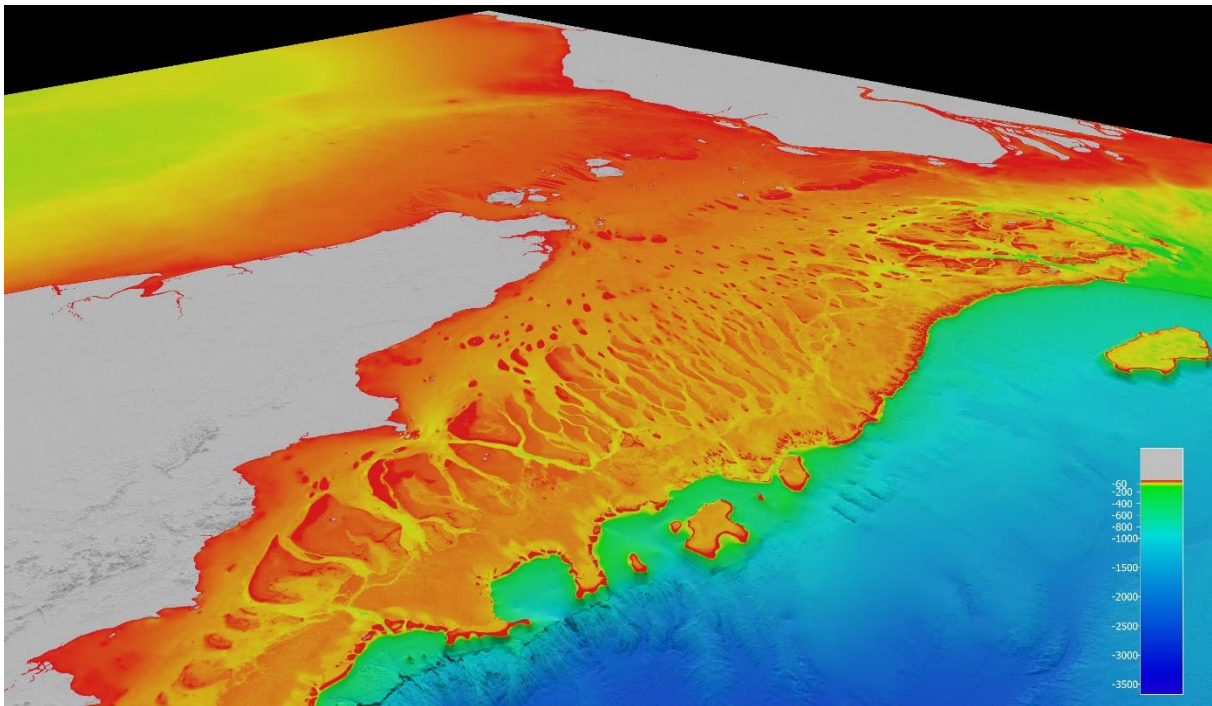
Surveys and data on the Great Barrier Reef

There is lots of work underway and planned on the GBR. These include:

1. RV Investigator conducted a GBR continental slope mapping expedition in October 2019. Another RV Investigator expedition is planned in May/June this year to study and map the extensive *Halimeda* bioherms on the northern GBR shelf, and is also an opportunity to further map the canyons offshore of Cape York. Our group is interested in understanding upwelling across the margin as ocean currents are interacting with the topography of the canyons and passages, directing upwelling waters onto the *Halimeda* bioherms.
2. The Schmidt Ocean Institute RV Falkor is conducting several expeditions out of Cairns in August, mainly for deepwater ROV observations and sediment/oceanographic sampling, and also more mapping of the GBR canyons and Qld Plateau reefs. With the conclusion of these expeditions, we will be on track to have most of the GBR continental slope north of Cairns mapped with multibeam.
3. With support from the GBR Foundation, a successful crowdsourced bathymetry project is collecting singlebeam bathy data from volunteer vessels across the length of the GBR. In just one year, ~53,000 line km of data collected with a depth point

every 2 seconds <https://www.deepreef.org/publications/conference/261-crowdsourced-bathy-lessons.html>

4. With support from the GBRMPA, revised 30/100m grids are being developed this year to include the extensive new multibeam, singlebeam, airborne lidar bathymetry and satellite derived bathymetry data acquired since the online publication of those earlier grids.
5. A new 30m Torres Strait depth model is being developed incorporating all available survey data, for publication on the AusSeabed Marine Data Discovery portal later this year.



Mapping data gives first glimpse of deep reefs beneath Bass Strait

Newly released mapping data and imagery show deep reefs beneath Bass Strait. Read more about this data, from Dan Ierodiaconou, through the [media release](#) and short video [here](#) for the Apollo Marine Park Project.

Meeting reports

During the May 2018 Backscatter Working Group (BSWG) side meeting that was held during the GeoHab conference in Santa Barbara, California, members proposed the formation of sub-groups to pursue specific aspects of multibeam backscatter that were of strong interest to them, with the possible intention of updating or adding to the report published in 2015, Backscatter measurements by seafloor-mapping sonars: Guidelines and Recommendations (<http://geohab.org/wp-content/uploads/2018/09/BWSG-REPORT-MAY2015.pdf>) .

In preparation for the upcoming GeoHab meeting in Venice, Italy (<http://geohab.org/geohab-2020/>), the Variability and Monitoring (VARIMONIT) BSWG subgroup has put together a survey to gauge interest in use of multibeam backscatter for monitoring seafloor changes. If you do multibeam backscatter surveys for monitoring, or have interest in the process, we

request that you take a few moments to participate in their survey. Attendance at the upcoming GeoHab meeting is by no means required to be an active part of this discussion! Further, if you have colleagues or contacts that you feel may be interested in this topic, please forward the information and survey link.

Survey Link: <https://www.surveymonkey.com/r/RSWB3ZT>

Upcoming meetings

GeoHab 2020 (18-20 May, Venice, Italy)

Registrations open on February 10th for GeoHab, which will be held this year in Venice. Abstracts for the conference close on the 15th of March.

Paper submissions are already open for papers concerning the presentations for GEOHAB2020 for the special issue Marine Habitat Mapping: Selected Papers from GeoHab 2020: https://www.mdpi.com/journal/geosciences/special_issues/GeoHab_2020

Register now for AMSA (Sydney, 5-9 July).

AMSA 2020 will host the 3rd AusSeabed symposium: Applications of seabed mapping to resource and environmental management during the Anthropocene, convened by Tim Ingleton (NSW OEH), Alan Jordan (NSW DPI), Kam Austine (EGS) and Scott Nichol (GA). We have also proposed to host a Seabed Mapping workshop, in partnership with the GEBCO-Nippon Foundation Seabed 2030 program.

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.