

Australian BGC-Argo: Status and plans

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In partnership with the Argo Australia team
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AAPP
Australian Antarctic
Program Partnership

15
YEARS
of IMOS


Integrated **Marine**
Observing System

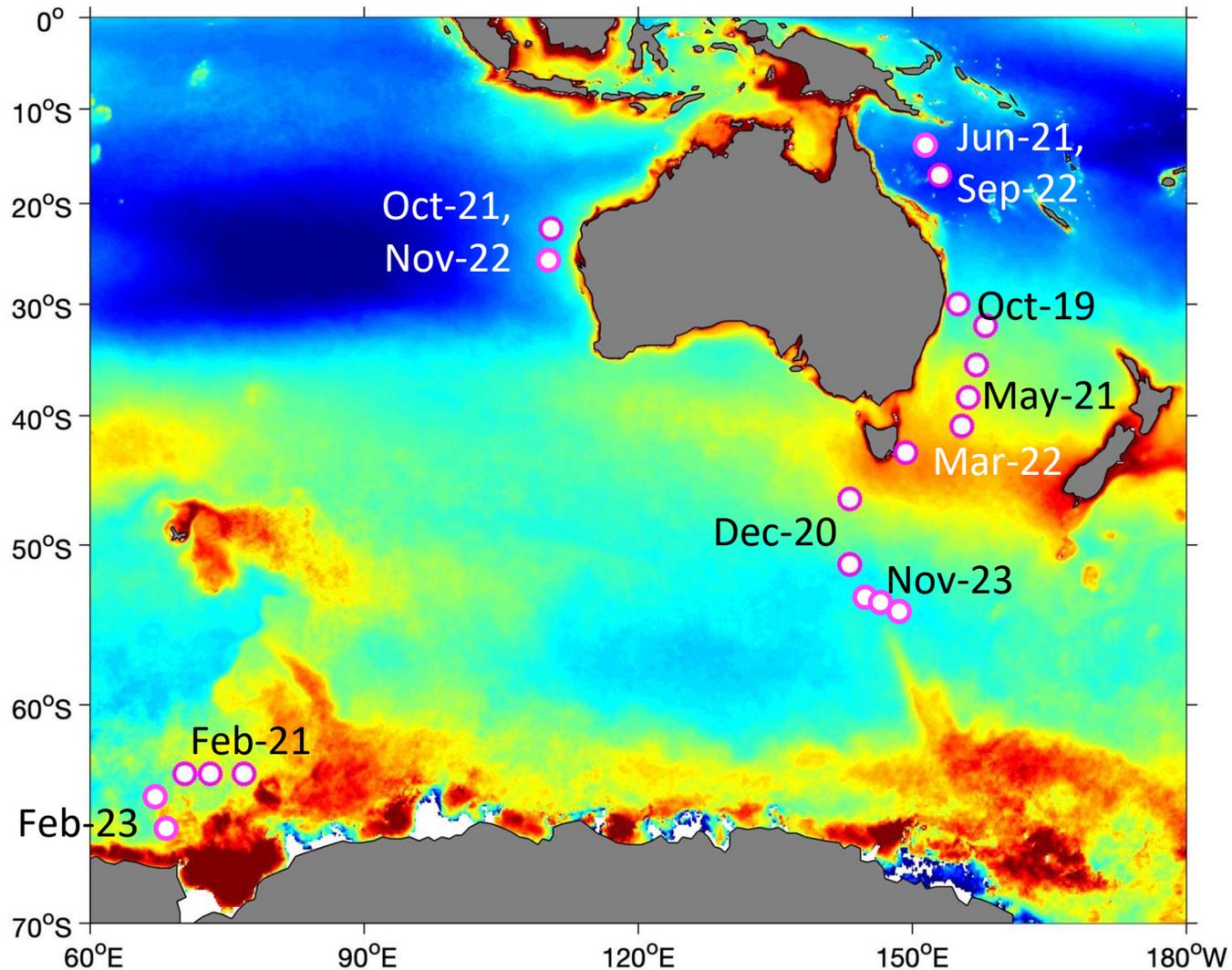


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BGC-Argo Australia: Status and plans



- 14 live floats, 12 x 6 BGC sensors
- 6 deployments in the last year
- Deployment plans for 2023:
 - 1 float with 5 sensors
 - 2 floats with DOXY/FLBB-OCR
 - 1 float with DOXY
- 6 dead, 1 suspect pH sensors (50% failure rate)
- Hoping to pick up 1-3 floats soon (Southern Ocean and Tasmania)
- Continue to partner with SOCCOM, GO-BGC and others (big I9S voyage January 2024).

BGC QC status

- All live floats RTQC A-mode DOXY, PH, NITRATE and CHLA
- BBP will start after ADMT agreement
- >80% of all our DOXY data is in D-mode, rest A-mode, very few suspect profiles in Josh's list
- Significant DMQC effort on some bad BBP data
- Almost all our live floats are now cycling on a 10-day + 4h cycle. This wasn't easy with Provor CTS4s
- DOXY adjustments impacted by the 3.2 Traj file issue reported in main update

Current issues

- Ship scheduling has mostly returned to normal
 - ➔ ~~Jan-Feb 2022 East Antarctica~~ re-attempted Feb 2023 ... success!
- About 50% failure of pH sensors
- Three 6-sensor floats deployed in early 2021 failed to surface after winter, still have not surfaced
- IMOS, which funds Australian Argo, has committed to another 5 years of funding at steady rate

Australia: Science outputs

Geophysical Research Letters^{*}

RESEARCH LETTER
10.1029/2021GL097372

Special Section:
Southern Ocean and Climate:
Biogeochemical and Physical
Fluxes and Processes

New Estimates of Southern Ocean Annual Net Community Production Revealed by BGC-Argo Floats

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Geophysical Research Letters^{*}

RESEARCH LETTER
10.1029/2021GL097538

Special Section:
Southern Ocean and Climate:
Biogeochemical and Physical
Fluxes and Processes

Southern Ocean Phytoplankton Stimulated by Wildfire Emissions and Sustained by Iron Recycling

Jakob Weis^{1,2}, Christina Schallenberg^{1,3}, Zanna Chase¹, Andrew R. Bowie^{1,3}, Bozena Wojtasiewicz^{1,4}, Morgane M. G. Perron¹, Marc D. Mallet^{1,3}, and Peter G. Strutton^{1,2}

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nature communications



Article

<https://doi.org/10.1038/s41467-023-36954-7>

Seasonality of downward carbon export in the Pacific Southern Ocean revealed by multi-year robotic observations

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- Plus presentations the SOCCOM and GO-BGC community
- Currently at least 5 PhD students and several postdocs at UTas using BGC-Argo data