

Dear all,

Welcome to the final edition of the newsletter for 2024. This edition, we look back at some of the highlights from the last 12 months and outline some ideas as to how the project may grow and change in 2025 and beyond. There's also a summary of the transition process to move the project from FRDC to IMOS. We wish you all a great end to the year and every success for 2025.

Transition to IMOS

2024 marked a new chapter in the life and growth of the FishSOOP initiative, as the trial phase funded by the Fisheries Research and Development Corporation (FRDC) came to an end. We're very grateful to FRDC for the funding and support throughout the trial phase. The Integrated Marine Observing System (IMOS) took over the project in June, establishing it as an ocean observing sub-facility, under the 'Ships of Opportunity' facility.

What does IMOS do?

IMOS undertakes systematic and sustained observing of Australia's marine estate through a portfolio of platform-based Facilities to acquire ocean observations. It plans operations through internationally peer-reviewed science processes and engages with users across universities, governments, and industries to drive uptake and impact. IMOS makes all of its data openly and freely accessible to the marine and climate science community, other stakeholders and users, and international collaborators. It is enabled by the National Collaborative Research Infrastructure Strategy (NCRIS) and is operated by a consortium of institutions as an unincorporated joint venture, with the University of Tasmania as Lead Agent.

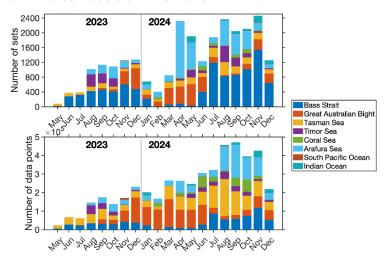
There have been some significant changes behind the scenes in FishSOOP as a result, including a re-branding of communications material and the website, as well as

the establishment of new legal agreements with all of our fishers, securing ongoing participation.

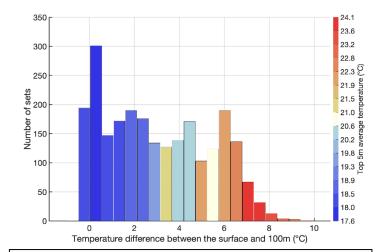
The project's focus remains however, the delivery of anonymised, quality-controlled ocean data to the Australian Ocean Data Network (AODN), national weather services, and of course our fishers, without whom none of this would be possible.

2024 Data Highlights

It has been a successful year for FishSOOP in improving our understanding of the ocean shelf water temperature around Australia. We have grown the program from 19 vessels sending temperature data from around Australia in January, to 42 vessels in December. Ocean temperature measured around Australia ranged from 4°C to 32°C. In a year we received 3.7 million datapoints over nearly 20,000 sets from the surface down to 1048m.



In the 2024 data collected for FishSOOP, there was on average 3.1°C difference between data measured in the top 5m and data measured 95-100m (for the sets that were at least 95m deep). However, the difference in temperature between the surface and a 100m depth has varied greatly, ranging from -0.5°C to 9.9°C, highlighting the need to measure the temperature below the surface.



Histogram of the number of sets per 0.5° C temperature difference between the surface and 100m. The colour for the bars shows the average top 5m temperature for the sets counted within that bar.

Look ahead to 2025

The year ahead will see the project stabilise under IMOS and develop a formal governance structure through both a steering committee (focussing on the scientific impact of the project), and stakeholder forum (which will address the needs and interests of our fishers and the fishing industry).

We hope to see the project deliver even greater impact across academia and industry. Firstly, we hope to increase vessel numbers in strategic locations to address spatial and temporal data gaps. Secondly, we want to see greater data uptake and use by stakeholders across the blue economy. One example of this will be automating the transfer of anonymised data to the Global Telecommunications System (GTS). From this, national weather services will be able to improve their forecasts, especially in relation to cyclone and tropical storm predictions, thereby saving lives and property.

We will continue to improve the system in place to deliver value to our fishers, particularly through the feedback received in the recent vessel survey.

Feedback

Please provide your feedback and comments by emailing us. We are particularly keen to understand which elements of the data you receive are most useful and how we can improve.

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Thank you

Thank you for your continued support of the FishSOOP program - the data that you help us gather is extremely valuable to the wider community. It will help us improve weather and ocean forecasting models daily, allow us to monitor changes in the oceans, and enable a better understanding of the risks and impacts of climate change, while also contributing to operational decision making at sea, and fisheries stock assessment and research.

Fair winds and following seas

Professor Moninya Roughan and the FishSOOP team.



Partners

IMOS Fisheries Ships of Opportunity sub-Facility is operated through the University of New South Wales and the Sydney Institute of Marine Science (SIMS) an IMOS partner.

Delivery Partners

Australian Fisheries Management Authority (AFMA)
Charles Darwin University (CDU)
Fisheries Research and Development Corporation (FRDC)
Fishing Vessel Observing Network (FVON) – International
Fishwell Consulting
Northern Territory Fisheries
University of the Sunshine Coast (USC)
University of New South Wales (UNSW)

For more information, please see the FishSOOP website and/or email FishSOOP@unsw.edu.au

About IMOS

The <u>Integrated Marine Observing System (IMOS)</u> operates a wide range of observing equipment throughout Australia's vast and valuable coastal and open ocean estate.

IMOS makes all of its data openly and freely accessible to the marine and climate science community, other stakeholders and users, and international collaborators.

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