

Dear all,

With the end of the year rapidly approaching, we hope you are well and that this time brings good fishing conditions for those at sea. This month's newsletter contains a deeper dive into the results of the survey in which many of our vessels participated last month. There's also a look at how FishSOOP data is being used to challenge current ocean models in the hope of improving them in the future, which will in turn benefit the blue economy. Our end of year edition will be out before Christmas with a summary of the year including the transition to IMOS.

IMOS workshop, Hobart

The IMOS FishSOOP team met in Hobart last week for a workshop to discuss the running and potential expansion on the project. They were joined online by



L-R: Matt Irwin, Véronique Lago, Moninya Roughan (UNSW), Michelle Heupel, Mark Scognamiglio, Fabrice Jaine (IMOS) & Ian Knuckey (Fishwell) (Photo credit: Matt Irwin)

Josh Fielding of the Fisheries Research and Development Corporation (FRDC). Throughout the day long workshop, the team discussed data impact in both fishing and wider areas, governance structure, and project funding. Watch this space for further updates on these aspects and more next year.

Survey – You said, we did

Thank you to all of you who contributed to our survey over the past few weeks. The comments and results were really insightful, and we appreciate the thoughtful remarks. Here's a summary of the responses and the first of three compelling case studies as to how the data are being used - more to follow on these in subsequent editions.

Satisfaction

- 88% satisfied or very satisfied overall
- 96% satisfied or very satisfied with support
- 96% rated the equipment robustness as good or excellent
- 96% said no negative impacts of gear

Positive aspects

- Interesting, useful data
- Quick when in phone range
- Contribution to science
- Low impact, easy to use

Areas for improvement

- Send sensor ready to use i.e. inside tough jacket
- Would like average temp for seabed only
- Data emails too frequent
- Data emails hard to read

Data impact

- 56% said the data has some positive impact on their fishing operations
- 88% think that additional data collection (e.g. salinity, chlorophyll) could benefit the industry

Case study 1: Transport of live catch

One fisher described the data as “transformative”. They use the FishSOOP data to match the holding tank temperature to that at which the fish were caught, thereby minimizing stress on the animals.

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Data access

- 33% said emails are too frequent (67% were content or didn't receive emails)
- 79% would use a FishSOOP app
- 75% would use the data if integrated into nav software e.g. TimeZero
- 50% would like to see historic data and/or forecasts
- 29% would like to see the data integrated into an e-logbook (acknowledging that 71% wouldn't)
- Suggestions for improvements included additional information on isotherms and thermoclines

Newsletters

- 86% of those receiving said the frequency was 'about right'
- 86% of those receiving said the data content was 'about right'
- Suggestions for improvements included information on scientific projects in which the data is used, data use examples, and vessel/fisher profiles

Action plan

The following aspects of the project have changed or will change as a direct result of this survey.

- We have started sending instruments ready to use i.e. inside their tough jackets
- We will include more data use examples (from the fishing industry, oceanography, and wider applications)
- We will interview willing fishers to explain how they use the data

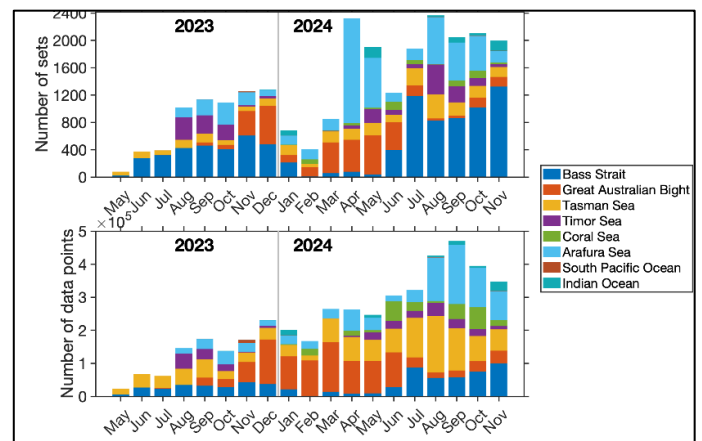
- We will attempt to quantify the benefits derived by fishers from the data e.g. better catch survival rate, larger catch¹, reduced costs by better use of time, fuel, and bait
- We will modify the data output to make it easier to use

Summary

The survey was extremely useful for us and will help shape the future of the project – thank you for your honesty and contributions. Please do send feedback any time – your ideas help add value throughout.

Activities & Insights

In the previous month, the prawn season has been wrapping up in the Northern Territory, we wish you a great break. We received the most sets of data in Bass Strait with 1324 sets in this region alone, which is a monthly regional record throughout the project.

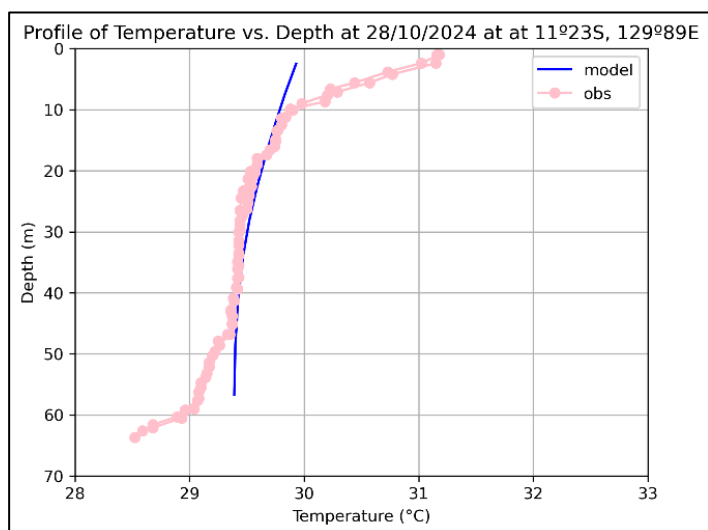


¹ IMOS FishSOOP will never ask you to reveal your catch information – this is your private information and is completely outside the remit of the project.

Oceanic Shoals Marine Park Recreational Fishing Charter – Model/Data comparisons

Moninya was up in the Tiwi islands in the Oceanic Shoals Marine Park last month, collecting temperature data using our Moana sensors on a commercial fishing charter. We worked with Humbug Fishing charters <https://fishingcharterdarwin.com.au/> together with collaborators from Charles Darwin University, Tiwi Land Council, Elysium and Parks Australia. and spent several days out in the Timor Sea. Humbug then took the sensor out on two additional recreational fishing charters.

Here's a plot of a cast (the measured data is in pink) compared to an ocean forecast. The surface waters were warmer than 31°C. While the bottom waters at 70m depth were 28.5°C. What's interesting is that ocean forecast model didn't show the very warm surface waters, nor did it show the cooler (?) bottom waters.



Data like this are essential for evaluation of ocean models so that we can work to improve them.

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.

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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 [Integrated Marine Observing System \(IMOS\)](#) 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.

IMOS is enabled by the [National Collaborative Research Infrastructure Strategy \(NCRIS\)](#). It is operated by a consortium of institutions as an unincorporated joint venture, with the [University of Tasmania](#) as Lead Agent.