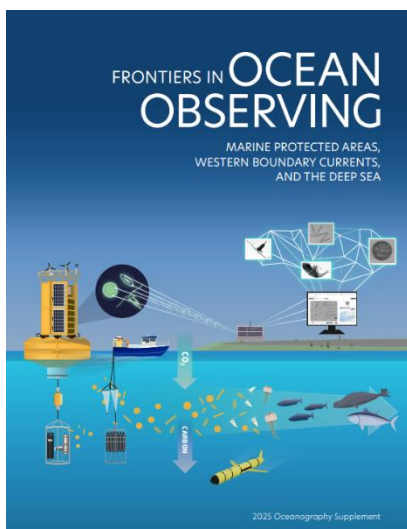


Welcome to the May edition of the FishSOOP newsletter. Here you'll find a story about one of our sensors going for a longer than expected swim and an update on some fieldwork in the NT. There's also a summary of the recent scientific paper on FishSOOP which was published earlier this year and a reminder for our fishers to check their junk folder and email settings to ensure continued delivery of data.

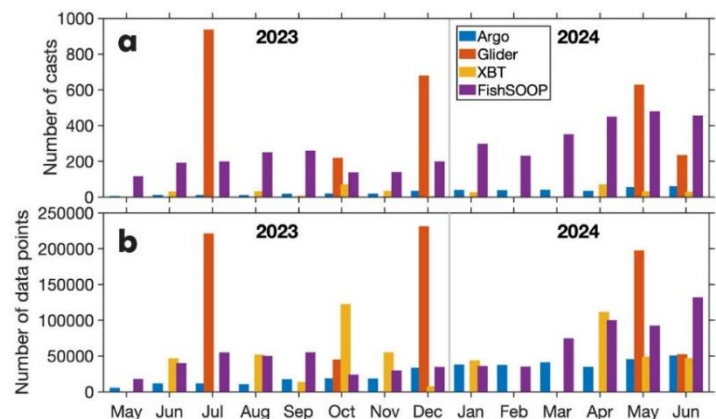
## FishSOOP paper published



January saw the publication of a paper on FishSOOP in the Oceanography Society magazine who led a special issue on the *Frontiers in Ocean Observing*. The paper was led by FishSOOP's data scientist Dr Véronique Lago, along with Chief Investigator Prof. Roughan, Dr.

Colette Kerry (also of UNSW), and Dr Ian Knuckey (Fishwell). It describes the concept and origins of FishSOOP, which was born out of the Moana Project in New Zealand, also led by Prof. Roughan. The paper focussed on 3 main areas:

1. **Filling observational gaps.** FishSOOP data complements existing infrastructure by filling gaps in the observing system e.g. between high resolution but sparse moorings (of which there are only 11 on the NSW shelf) and infrequent glider deployments offshore (see plot below).
2. **Fishing industry engagement.** FishSOOP data can directly benefit the fishers involved e.g. those targeting temperature sensitive species such as tuna, especially during a marine heatwave during which



significant changes to fishing strategy may be required.

3. **Improving ocean models.** FishSOOP data can be assimilated into ocean models to improve their accuracy. The inclusion of satellite derived data (e.g. sea surface height and temperature) is already routine but does not fully capture the extent of fine scale features such as fronts and eddies. Assimilating more sub-surface ocean observations can help to improve the accuracy of such models, which in turn helps us to understand our complex and changing oceans.

You can read the full text of the article [here](#).

Lago, V., M. Roughan, C. Kerry, and I. Knuckey. 2025. Fishing for ocean data in the East Australian Current. In *Frontiers in Ocean Observing: Marine Protected Areas, Western Boundary Currents, and the Deep Sea*. E.S. Kappel, V. Cullen, G. Coward, I.C.A. da Silveira, C. Edwards, T. Morris, and M. Roughan, eds, *Oceanography* 38(Supplement 1):67–71, <https://doi.org/10.5670/oceanog.2025e105>.

## Tiwi Islands fieldwork

The FishSOOP team has again been out in the field, this time working with a commercial fishing charter and Traditional Owners from the Tiwi Islands in the Northern Territory.



Fatcat at anchor. Credit: C.Hodgman.



Moninya Roughan (Chief Investigator) and Claire Hodgman (Master of Philosophy Student) joined the fishing charter vessel 'Fatcat'. Their destination was the Oceanic Shoals Marine Park, around 80NM NW of Darwin.



Traditional owner Simon Peter Munkard collecting temperature data using a Moana sensor on a hand reel. Credit: M. Roughan.

Onboard were representatives from Tiwi Land Council, who were focused on documenting traditional ecological knowledge around the Islands, as well as researchers from Parks Australia, Charles Darwin University and Elysium EPL who were studying the cultural and environmental value of the area.

In addition to monitoring projects for Olive Ridley turtles and seagrass, the Tiwi TOs and Sea Country rangers are now trained and equipped to observe ocean temperatures using a Moana sensor. Master's student Claire Hodgman said, "This was more than just a research trip. It was a two-way exchange, where science and traditional knowledge came together out on the water. It showed the value of working together to care for Sea Country and the importance of engaging



Traditional owners Tony Pilakui and Sylvester Fernando discussing FishSOOP data with Claire onboard Fatcat. Credit: M. Roughan.

with communities who are facing the daily impacts of rising sea levels and temperatures".

## Spam/junk email folder

Some of our fishers have had issues receiving data emails due to the settings on their email accounts. Please check the junk/spam folder before contacting us and **ensure that emails from**



Image generated using ChatGPT

**both of the following addresses are allowed through:**

- [fishsoop@unsw.edu.au](mailto:fishsoop@unsw.edu.au)
- [no-reply@fishsoop.com](mailto:no-reply@fishsoop.com)

You may need to add these addresses to your contacts or a 'safe sender' list.

## Record for longest submersion

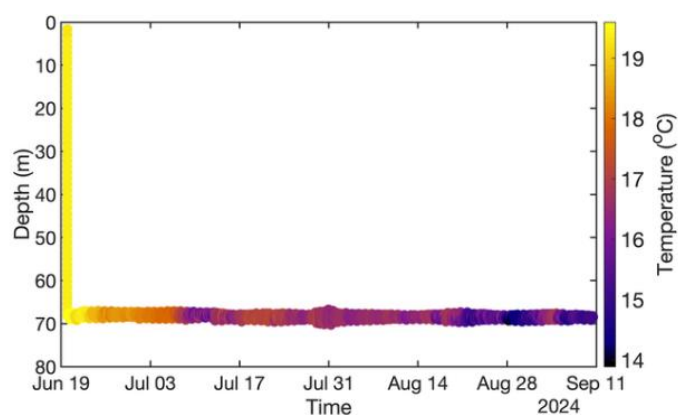
A FishSOOP sensor spent 10 months on the seabed – and emerged still working at the end! The Moana sensor was deployed in June 2024 on a commercial fishing trap off New South Wales. The trap became lodged on the seabed, preventing its recovery until April 2025,

The data plot from the deployment can be seen below, during which the sensor recorded 82 days' worth of data before filling up the memory. Each sensor



can record more than 30,000 individual records of time, temperature, and pressure\*, with data recorded every 5 minutes while the sensor is at a constant depth.

(\*Position data is recorded by the deck unit while the sensor is deployed, then linked to the other three variables after the sensor emerges from the water).



The plot shows a gradual reduction in water temperature at depth throughout the deployment: from 19°C in June to 14.5°C in September, which could be attributed to one or more key ocean processes. Firstly, there are seasonal variations, with a deeper mixed layer in winter. Secondly this could indicate upwelling, whereby deeper, cooler water is drawn up towards the surface by the wind or current on the continental shelf.

## 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.

Matt Irwin, Project manager, UNSW FishSOOP

[FishSOOP@unsw.edu.au](mailto:FishSOOP@unsw.edu.au)

Bryce Nurnaitis, Liaison, Fishwell

[bryce@fishwell.com](mailto:bryce@fishwell.com)

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.

## Thank you



## Partners

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

### Delivery Partners

Australian Fisheries Management Authority (AFMA)  
Parks Australia (Australian Marine Parks)  
Coalition of Legal Toothfish Operators (COLTO)  
Fisheries Research and Development Corporation (FRDC)  
Fishwell  
New South Wales Government (Office of Chief Scientist and Engineer)  
Northern Territory Government (Fisheries)  
University of the Sunshine Coast (USC)  
University of New South Wales (UNSW)  
Western Rock Lobster (WRL)

### International Collaborators

Pacific Community (SPC) - coinvested in the trial of FishSOOP across the Central and Western Pacific, in collaboration with regional fishing industries in Papua New Guinea, Solomon Islands and Fiji.

### Data and other Info

For more information, please see the [FishSOOP website](#) and/or email [FishSOOP@unsw.edu.au](mailto:FishSOOP@unsw.edu.au)

Fish SOOP data is delivered from this email address: [no-reply@fishsoop.com](mailto:no-reply@fishsoop.com). Please add it to your contacts to ensure you receive the email

## 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.