

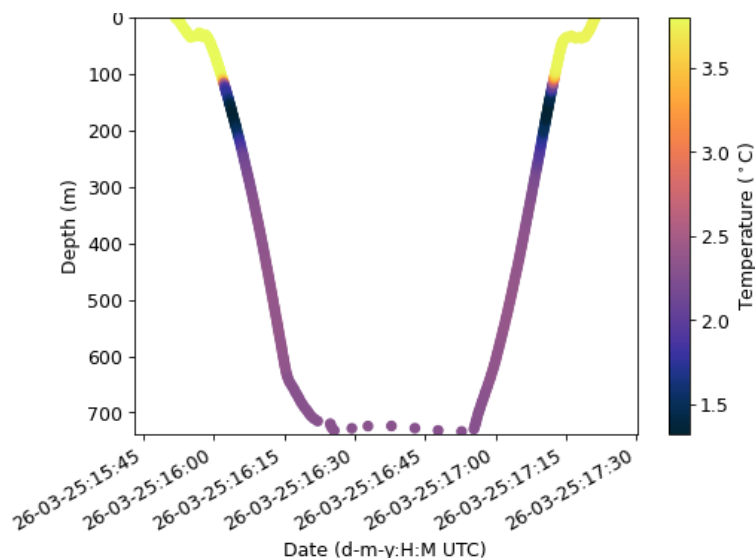
Welcome to the March edition of the FishSOOP newsletter. Here you'll find an example of the Southern Ocean data we're collecting, thanks to our recent partnership with the Coalition of Legal Toothfish Operators (COLTO). There's also a spotlight on Sea Country rangers, with whom we have worked for some time to monitor ocean temperatures in remote areas of Australia, in collaboration with citizen scientists.

If any of our fishers or collaborators would like to be featured in future newsletters, please reach out (via the email address at the end) with your photos, data uses, and general experiences from your participation in the programme. **We would love to put you in the spotlight.**

Finally, there's an intro to the newest member of the team and an update on the email address for data emails.

Plot of the month

Here's a plot from one of our newer vessels to enter the programme. Through our collaboration with COLTO, we are now receiving data from the Southern Ocean. This plot shows a temperature inversion i.e. a layer of colder water (in this case 1.5°C at $\sim 150\text{--}200\text{m}$ depth) on top of warmer



water, meaning that temperature increases with depth. This inversion is caused by the so called 'winter water' phenomenon i.e. colder water left over from the previous winter. It occurs in mid-latitudes ($\sim 60^{\circ}\text{S}$ - to the South of the Polar front) where colder surface waters from the Antarctic meet warmer waters from further north, resulting in a sharp temperature gradient.

This 'winter water' layer tends to remain stable due to the strong salinity gradient between it and the circumpolar deep water underneath. Our thanks go to Associate Professor Jan Zika of UNSW for providing a fascinating insight into this concept.

The new deep sensors operated by COLTO, which were developed with the manufacturer ZebraTech, can be used down to depths of approximately 2000m. We look forward to even deeper profiles in due course.

Data email has changed

You many have noticed that the email address that sends your data to you has changed for FishSOOP data emails. We have had to update our email server, and your data will now come from this address:

no-reply@fishsoop.com

Please add this email address to your 'contacts' or 'safe senders' list to keep receiving seamless data delivery. Check your junk mail if you can't find your most recent data emails, and make sure to select "Not Junk" to continue receiving the emails in your regular inbox.

The regular FishSOOP email addresses fishsoop@unsw.edu.au remains valid for all other communication.

Spotlight: Sea Country rangers



*Sea Country rangers install the FishSOOP deck unit on Ranger 1.
Photo credit: Ngiyambandigay Wajaarr Aboriginal Corporation*

We're delighted to announce that another vessel has joined the project through our collaborations with Sea Country rangers. Ranger 1, as the vessel is affectionately known, surveys the waters off Coffs Harbour, Gumbaynggirr country and is run in partnership with the Ngiyambandigay Wajaarr Aboriginal Corporation.

This collaboration with FishSOOP is part of a larger effort to monitor ocean temperatures with citizen scientists and fishing vessels (both recreational and commercial) around Australia.

Introducing Stella Caon (FishSOOP Fleet Manager)

We're pleased to welcome a new member of the FishSOOP team, Stella Caon. Stella, originally from the Surf Coast in Victoria, studied a Bachelor of Marine Science, during which she spent time



abroad in the Indo-Pacific undertaking marine study and internships across both Japan and French Polynesia. Her interests include collaborative cross industry marine research, furthering effective science communication, and caring for the natural world. In her

spare time, she enjoys diving, hiking, surfing, and crochet. Her role will involve field work, inventory management, and delivery of data reports back to fishers and organisations primarily in the Pacific, in collaboration with the Pacific Community (SPC).

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@unsw.edu.au

Bryce Nurnaitis, Liaison, Fishwell

bryce@fishwell.com

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 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)

International Collaborators

Papua New Guinea National Fisheries Authority
Papua New Guinea Fishing Industry Association
Pacific Community (SPC) - coinvested in the trial of FishSOOP across the Central and Western Pacific.

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

Fish SOOP data is delivered from this email address: 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.