FISHING VESSELS AS SHIPS OF OPPORTUNITY

IMOS Integrated Marine Observing System

FishSOOP FAQs

Introduction - Fishing Vessels as Ships of Opportunity Observing Program

We are working with fishers like you to collect real-time ocean observations where they matter most. These observations help us understand our oceans and therefore deliver real value to the maritime sector e.g. by improving cyclone prediction. The data can also help you understand the relationship between catch and sea temperature, allowing you to make dynamic decisions about where to fish.

How does the system work?

Once installed, the system requires little human intervention - it will:

- automatically switch on when the sensor enters water.
- internally record temperature, depth, position, and time.
- automatically switch off when the sensor exits the water.
- offload the data to an external database via the deck unit.

Sensor

Deck unit

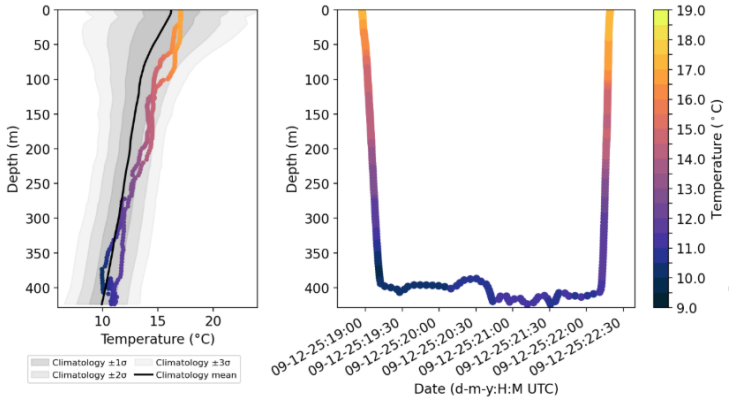
What do I need to do?

In general, the only part we need you to do is to **attach the sensor securely to your pots before you deploy them and monitor the attachment for security and safety.** Your gear can continue to be deployed as per normal.

What will I get in return?

You will receive an email containing all the data you collected by each sensor i.e. temperature, depth, position, and time. You should receive this within 1 hour of it being transmitted from your vessel (either via your vessel's Wi-Fi, or via a mobile signal from the deck unit).

The data will show you:



- The depth at which your gear was sitting and the corresponding temperatures.
- The location of your gear.
- The recorded temperature compared to the predicted temperature.

How can I use temperature data?

You can compare the temperature data with your personal catch information and understand relationships between catch and temperature. (Note that we do not collect any information about catch).

How do we use your temperature data?

We send the data to be assimilated in forecasting models to improve your ocean and weather forecast. We also send the anonymised temperature, depth, time, and position data for open access by the scientific community. No information about you or your boat is shared.

What if I have problems using the system?

Report an issue

Please speak to your local point of contact who provided the system to you (e.g. fleet manager, industry body). If necessary, they will contact the IMOS FishSOOP team for further assistance. Or you can reach out directly to us via email using fishsoop@unsw.edu.au or report an issue/sensor loss etc via this QR code.

NCRIS National Research Infrastructure for Australia An Australian Government Initiative

UNSW SYDNEY

Australia's Integrated Marine Observing System (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 Univeristy of Tasmania as Lead Agent.

IMOS acknowledges the Traditional Custodians and Elders of the land and sea on which we work and observe, and recognise their unique connection to land and sea. We pay our respects to Aboriginal and Torres Strait Islander people past and present.

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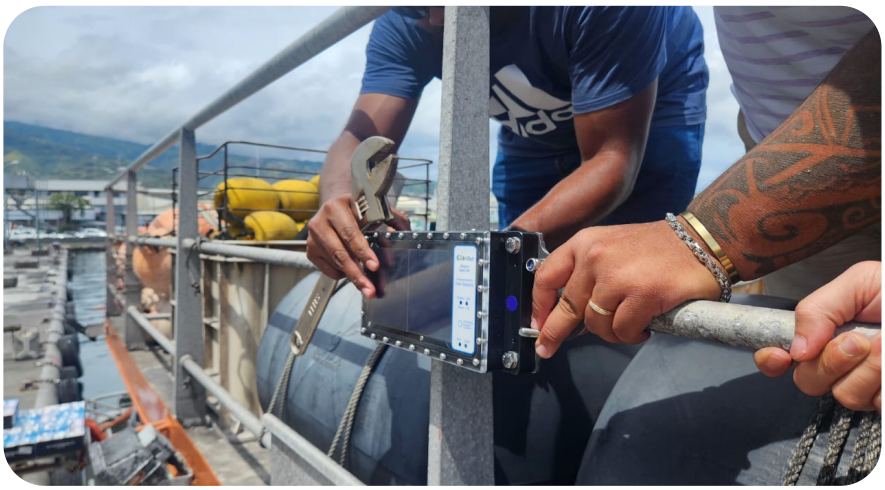
FishSOOP Gear Installation



Deck unit being installed. Credit: SPC

What's in the box?

Deck Unit: This is attached to the vessel using the provided U-bolts. It is solar-charged and fully self-contained. The Deck Unit receives data from the Moana sensor and transmits it to our secure cloud server.

Moana sensors: The blue sensor comes pre-mounted in its housing for easy attachment. It is fully automatic and measures water depth and temperature with high accuracy.

Installation of the deck unit

The deck unit must be installed so that it:

a. Has **clear sky view** for solar charging and GPS reception
b. Is **within 20 meters of the working deck**
c. Has a **clear line of sight with the working deck**
d. If **latitude is < 25°,** install the deck unit **vertically** to prevent overheating

Installation of the sensors

The sensors can be attached to many types of gear. When you receive your sensors, they will already be in a housing suitable for your gear type. Mounting requirements:

- Sensor is within the housing provided.
- Sensor is mounted with **multiple points of attachment** to reduce chance of loss

Sensor being deployed on a long line vessel. Credit: SPC

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