

Twenty Years with IMOS

Fishing Fleets as Observing Infrastructure

A future view from Austral Fisheries

David Carter
CEO, Austral Fisheries

The partnership

Austral Fisheries and IMOS

- Three commercial fleets
- Remote, data-poor oceans
- Nearly 20 years with SOOP
- Data collected during fishing



IMOS Integrated **Marine Observing** System



Austral Fisheries

Southern Ocean

- Regular transits from Mauritius to Heard Island
- Seasonal fishery
- Patagonian Toothfish



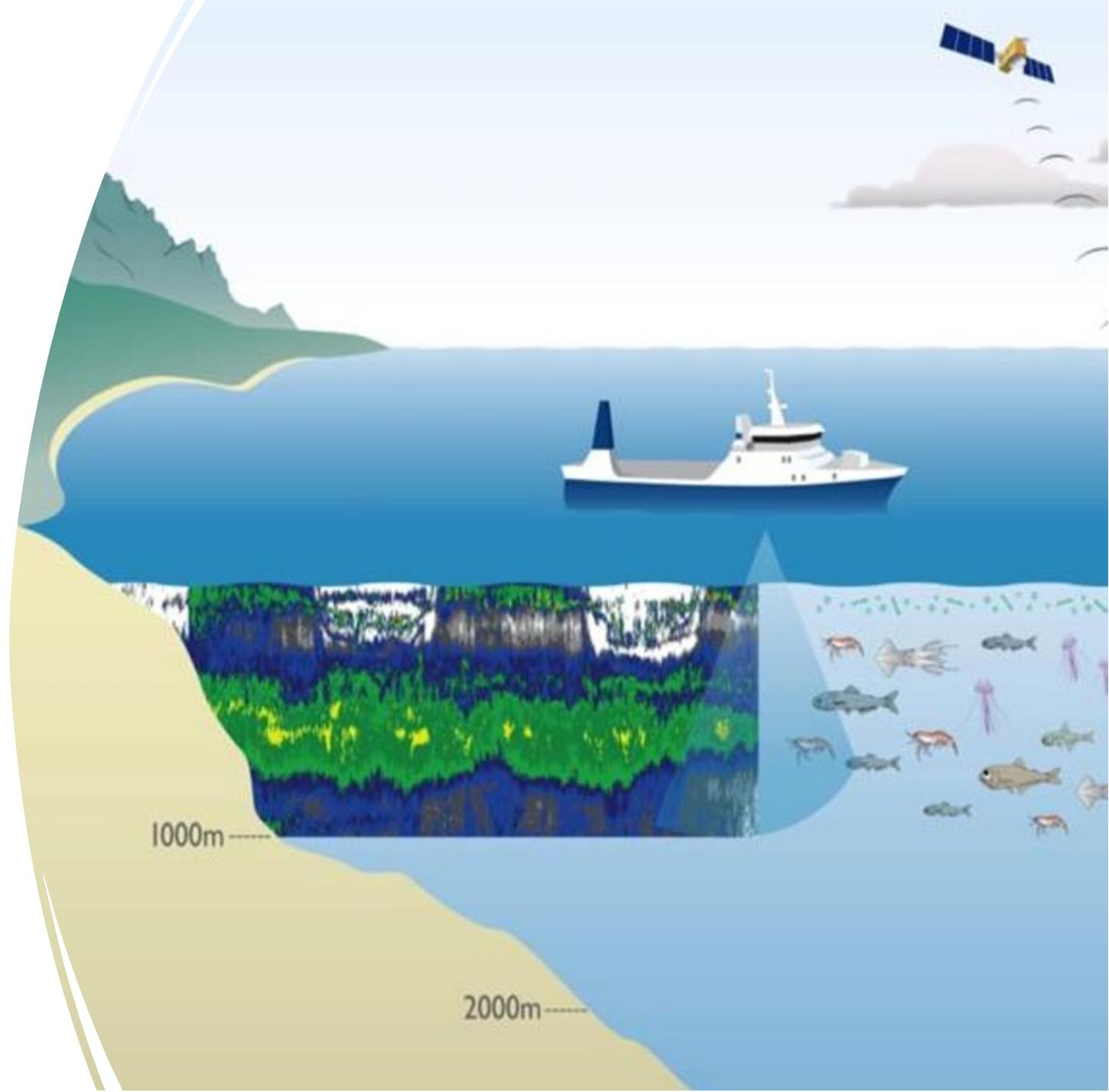
Southern Ocean

- Expensive and difficult place to operate
- 20 years experience with running Bio Acoustic transects
- Lots of what we know about this region comes from fishing boats

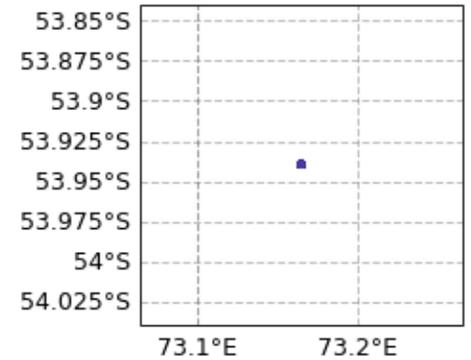
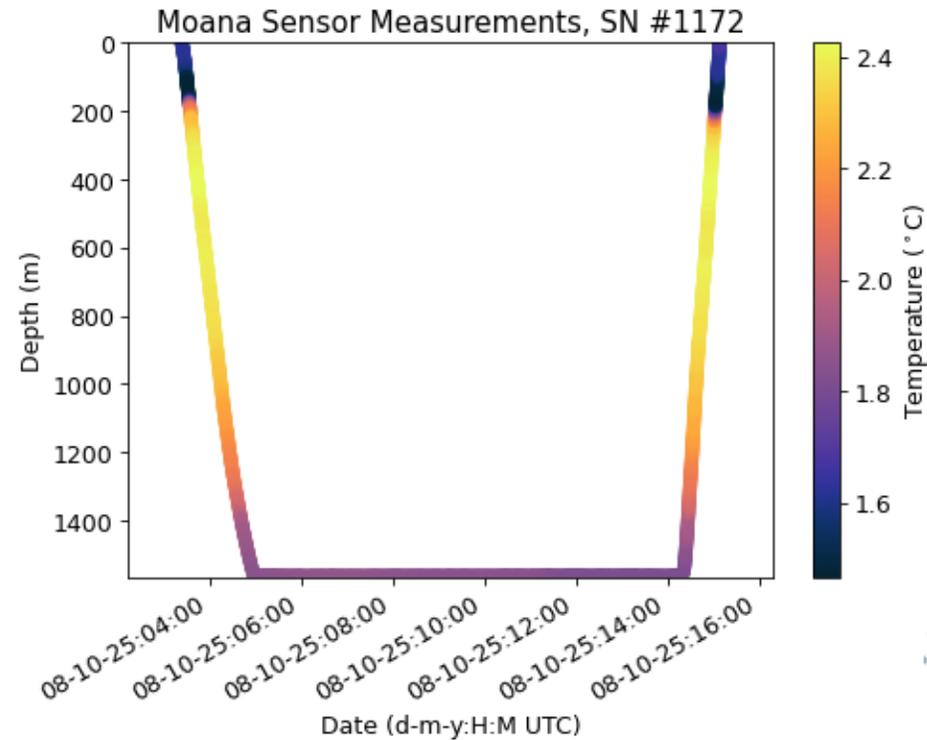


Southern Ocean

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Austral Fisheries



Average fishing depth: 1561.7 m
Average fishing temperature: 1.84 °C
Min fishing temperature: 1.81 °C
Max fishing temperature: 1.87 °C
Data filename: MOANA_1172_110_251008150754_qc.nc

Southern Ocean

- 20 years gap in Govt research
- 2 full MPA cycles
- Super valuable data, bugged all cost to Govt
- TREV



Northern Prawn Fishery

- 11 boats
- Operating across almost 1 million km² of northern Australia
- FishSOOP collecting data
- Around three years worth of data
- Again remote and expensive place to operate



NT Demersal Snapper

- 4 boats
- Trap fishery
- FishSOOP collecting data
- Around three years worth of data

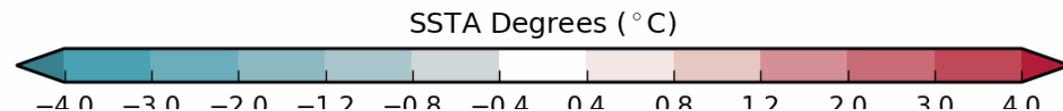
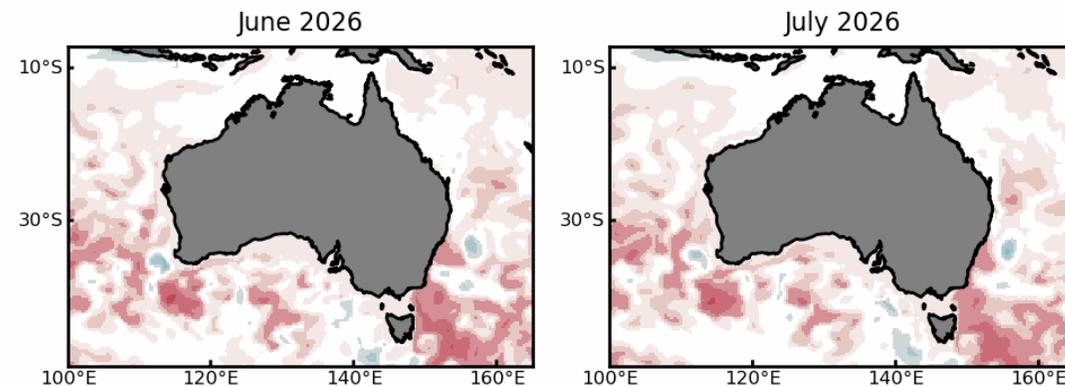
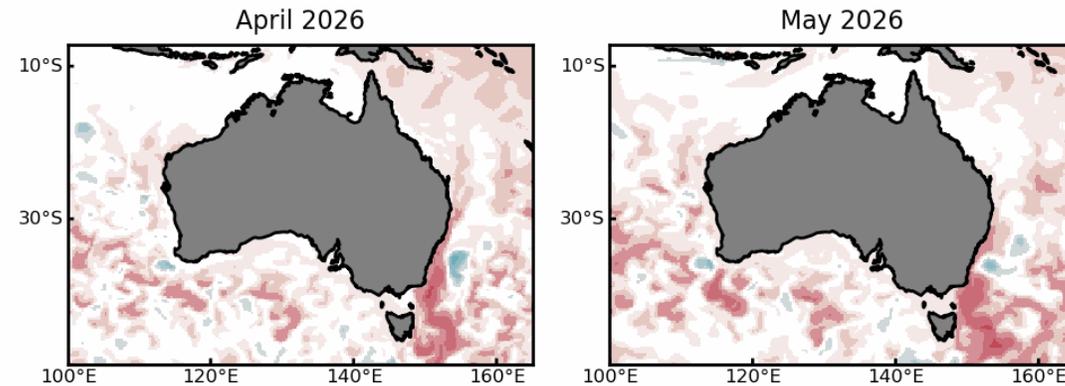


Fisheries sob story

Tuff times for many parts
of the sector

- Raptis in Administration
- The ocean is highly contested
- Rising Costs / fuel
- Climate Change
- WA Demersal ban

Australia
Sea Surface Temperature Anomaly



The Constraint

Doing more with less

- Regulatory burden
- Operating costs are rising
- Risk sits with fishers
- Prices are not risk adjusted



The Challenge

- Our past is likely a poor predictor of our future
- Species are moving
- Ecosystems are wicked complex
- Fish can't read maps
- Data will be key to planning the future and knowing where to invest



IMOS alignment

Inside the IMOS framework

- Rhys - Bluewater and Climate Node
- Boundary currents
- Open-ocean systems
- Fleets cross them routinely



FishSOOP

A win-win observing practice

- Fishing boats are already at sea
- Data and our ability to analyse it are critical
- This data is valuable and should be priced
- Resourcing is the barrier



Looking ahead

IMOS 2036

- Fleets as core infrastructure
- Data is valued and valuable
- Routine multi disciplinary system approaches to ocean management
- Ships of opportunity are the lower cost per observation