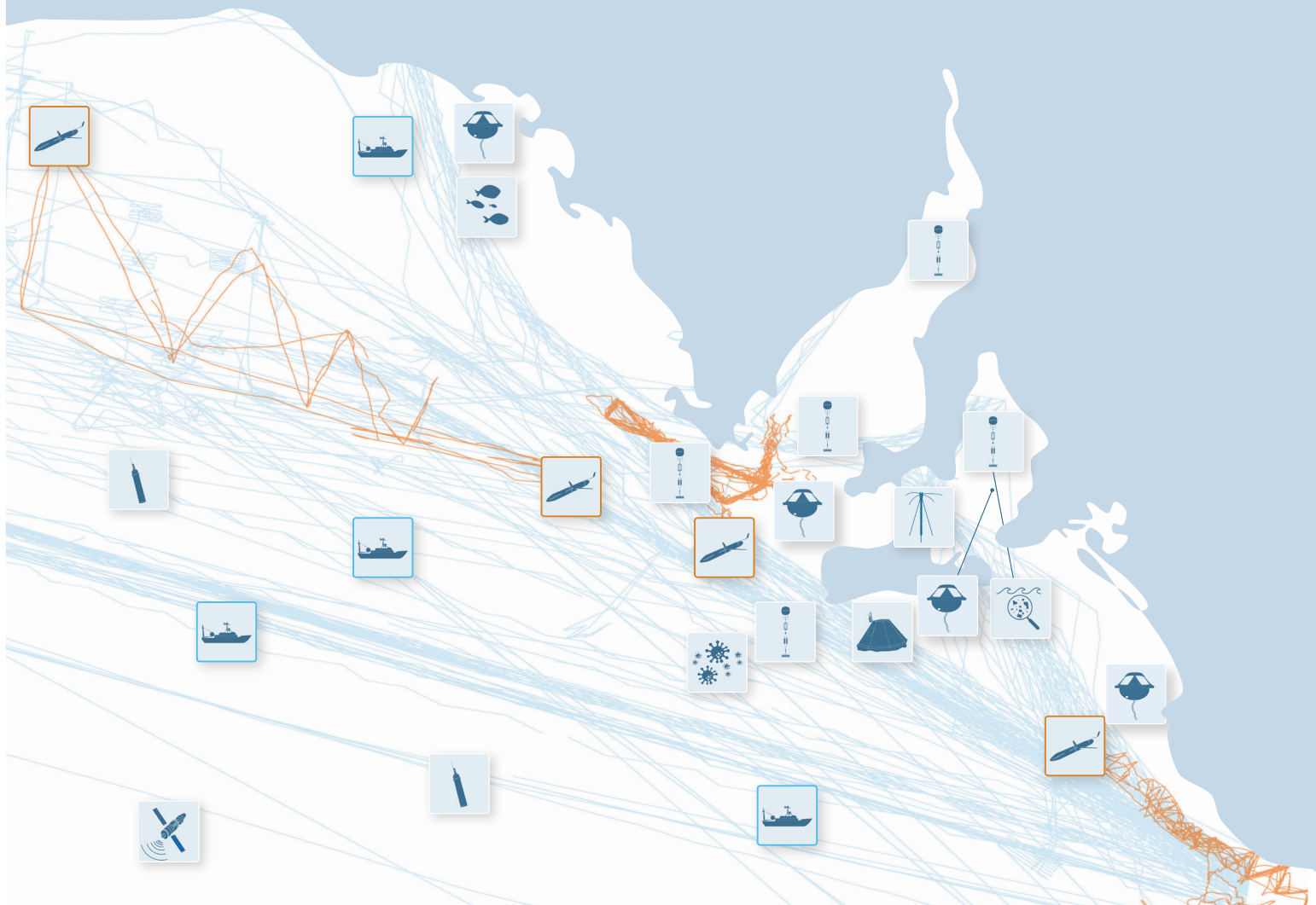











# IMOS

## in South Australia

Locations are approximate



### IMOS sustained ocean observing infrastructure in South Australia

- |   |  |  |  |
|---|--|--|--|
|  <p><b>Ships of Opportunity</b><br/>Voyage observations</p> |  <p><b>National Mooring Network</b></p> |  <p><b>Acidification Moorings</b></p>   |  <p><b>Argo Floats</b></p>              |
|  <p><b>Ocean Gliders</b><br/>Glider deployments</p>         |  <p><b>Marine Microplastics</b></p>     |  <p><b>Ocean Radar</b></p>              |  <p><b>Satellite Remote Sensing</b></p> |
|  <p><b>Coastal Wave Buoys</b></p>                          |  <p><b>Animal Tracking</b></p>          |  <p><b>Biomolecular Observing</b></p> |  |

**Australia's Integrated Marine Observing System (IMOS) operates a variety of observing equipment across Australia's coastal and open oceans. IMOS is designed to be a fully integrated, national system, collecting data at ocean-basin and regional scales, measuring physical, chemical and biological variables.**

**All data collected by IMOS is openly and freely available through the IMOS Australian Ocean Data Network (AODN) portal, to support scientists, industries, government and First Nations communities.**

South Australia encompasses temperate coastal and shelf/slope waters off southern Australia between Cape Pasley (WA) and Cape Otway (Victoria). The state's marine environment is influenced by the warm Leeuwin Current into the eastern Great Australian Bight, seasonal coastal upwelling, freshwater outflow from the Murray Mouth and hyper-saline conditions within Spencer Gulf and Gulf St Vincent.

Ecosystems include rocky reefs, kelp forests, seagrass meadows, sandy sediments, mangroves and numerous offshore islands. These habitats support high species endemism, biodiversity and fisheries, and have significant environmental, economic, social, and cultural value.

### IMOS' sustained ocean observing infrastructure in South Australia



#### **Ships of Opportunity**

A combination of commercial, fishing and research vessels collecting a wide range of oceanographic measurements.



#### **Animal Tracking**

Uses acoustic telemetry to monitor the movements of tagged animals to support research and the management of marine biodiversity.



#### **National Mooring Network**

A collection of moorings that monitor oceanographic conditions in shelf waters and boundary currents in Australia's coastal waters.



#### **Ocean Gliders**

Deployments along the coast monitor subsurface properties of shelf and boundary currents.



#### **Coastal Wave Buoys**

Moored wave buoys deliver near real-time wave and surface temperature observations.



#### **Marine Microplastics**

Microplastics samples are collected to identify sources and impacts of contamination.



#### **Ocean Radar**

Provides high resolution data on surface currents which contribute to research into biological systems, ocean modelling and ocean circulation.



#### **Argo Floats**

Autonomous profiling instruments collecting real-time subsurface ocean temperature and salinity data.



#### **Biomolecular Observing**

Water samples are collected at National Reference Stations to analyse environmental DNA to track trends in marine biodiversity.



#### **Satellite Remote Sensing**

Provides calibrated satellite-derived ocean data, including sea surface temperature, ocean colour, and surface waves.



#### **Acidification Moorings**

A specially designed mooring system that measures CO<sub>2</sub> of the ocean's surface and atmosphere.

### The SA marine science community has used IMOS observations to produce:

- 223** Journal Articles
- 157** Reports
- 124** Projects
- 54** Data Products
- 36** Postgraduate Projects

### SA institutional users of IMOS observations:

- 13** Government Departments & Research Agencies
- 8** Research Collaboration & Non-government
- 10** Industry & Services
- 3** Universities

### State partnerships

The South Australian Research and Development Institute (SARDI) is a principal participant of IMOS.

Data collected by IMOS observing infrastructure has been used by South Australian universities, state and local government environmental departments and marine industries (e.g. ports, fisheries and aquaculture).

### Access data

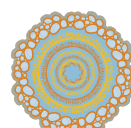
[portal.aodn.org.au](http://portal.aodn.org.au)

### More information

[imos.org.au/nodes](http://imos.org.au/nodes)



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 University 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 them as Australia's first marine scientists and carers of sea Country. We pay our respects to Aboriginal and Torres Strait Islander peoples past and present.