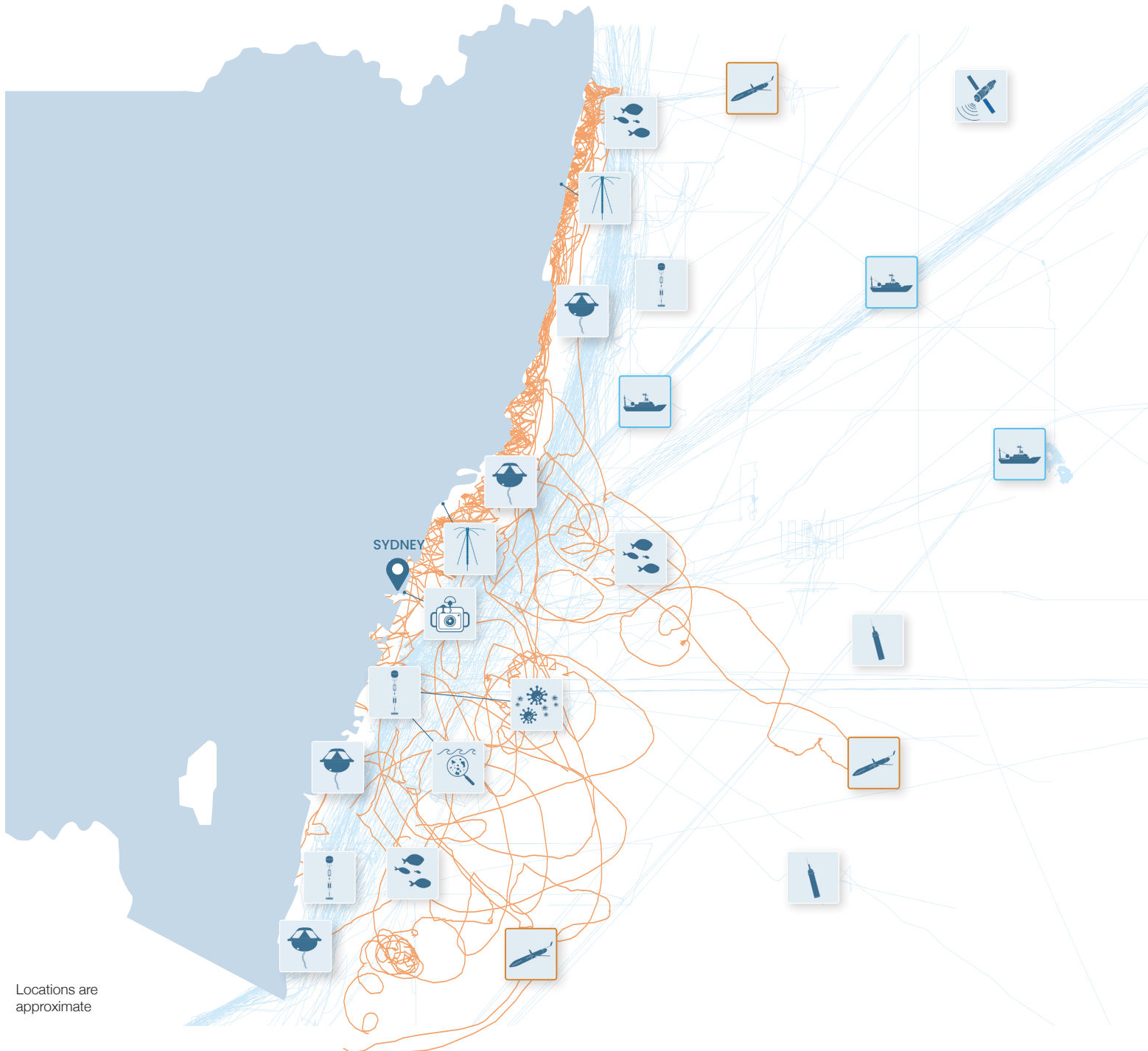



IMOS

in New South Wales



IMOS sustained ocean observing infrastructure in New South Wales

 <p>Ships of Opportunity Voyage observations</p>	 <p>National Mooring Network</p>	 <p>Understanding Marine Imagery</p>	 <p>Argo Floats</p>
 <p>Ocean Gliders Glider deployments</p>	 <p>Marine Microplastics</p>	 <p>Ocean Radar</p>	 <p>Satellite Remote Sensing</p>
 <p>Coastal Wave Buoys</p>	 <p>Animal Tracking</p>	 <p>Biomolecular Observing</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.

The East Australian Current (EAC) flows poleward along the NSW coast, where it influences the climate and marine economies for half of Australia's population.

The EAC and its associated eddies dominate the oceanography and ecology of this region and is a central focus for NSW IMOS, but other coastal processes, including extreme wave and wet weather events associated with East Coast Lows, and river outflow events are also emerging as priority areas.

IMOS' sustained ocean observing infrastructure in New South Wales



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.



Understanding Marine Imagery

A national repository for annotated benthic marine imagery, enhancing research species and habitat data sharing.



Coastal Wave Buoys

Moored wave buoys delivers 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.



Ocean Gliders

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



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.



Argo Floats

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

The NSW marine science community has used IMOS observations to produce:

- 464** Journal Articles
- 87** Reports
- 143** Projects
- 54** Data Products
- 115** Postgraduate Projects

NSW institutional users of IMOS observations:

- 30** Government Departments & Research Agencies
- 15** Research Collaboration & Non-government
- 27** Industry & Services
- 10** Universities

State partnerships

The Sydney Institute of Marine Science is a principal participant to IMOS. The data collected by IMOS has been used by all major universities in New South Wales including, University of New South Wales, University of Sydney, Macquarie University and University of Technology Sydney.

In turn, this has led to significant relationships across many sectors, in particular NSW State Government agencies, including the departments of Primary Industries & Regional Development and Climate Change, Energy, the Environment and Water.

Access data

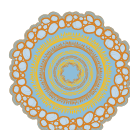
portal.aodn.org.au

More information

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.