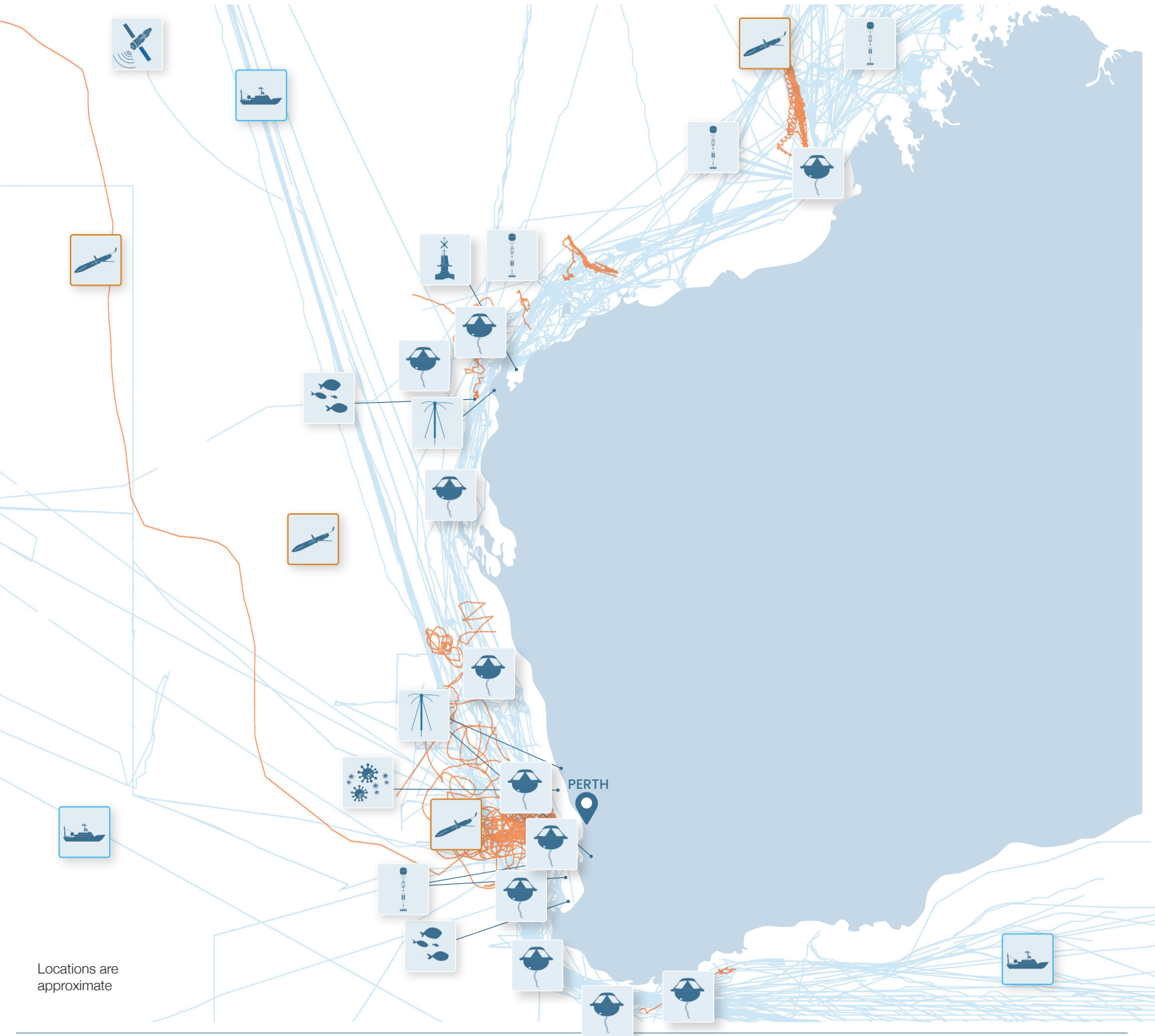


IMOS

in Western Australia



IMOS sustained ocean observing infrastructure in Western Australia

| | | | |
|---|--|--|--|
|  <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> | |







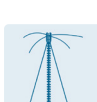





Australia's Integrated Marine Observing System (IMOS) operates a variety of observing equipment across Australia's coastal and open oceans. IMOS is designed to be a fully integrated, national system, collecting data at ocean-basin and regional scales, measuring physical, chemical and biological variables.

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.

Marine environments off Western Australia are shaped by the Indo-Pacific climate and the poleward-flowing Leeuwin Current, which transports warm, low-nutrient waters southward and creates globally unique ecosystems. Intermittent upwelling, internal tides, and eddies regulate exchange from the coast to the deep ocean. Wind, waves, ocean temperature and sea level variability shape our coastal environments and impact marine industries.

IMOS observational infrastructure in Western Australia contributes to understanding and predicting ocean processes that impact our marine ecosystems, marine operations and coastal populations.

IMOS' sustained ocean observing infrastructure in Western Australia

| | | |
|--|---|--|
|  <p>Ships of Opportunity A combination of commercial, fishing and research vessels collecting a wide range of oceanographic measurements.</p> |  <p>Animal Tracking Uses acoustic telemetry to monitor the movements of tagged animals to support research and the management of marine biodiversity.</p> |  <p>National Mooring Network A collection of moorings that monitor oceanographic conditions in shelf waters and boundary currents in Australia's coastal waters.</p> |
|  <p>Understanding Marine Imagery A national repository for annotated benthic marine imagery, enhancing species and habitat data sharing.</p> |  <p>Coastal Wave Buoys Moored wave buoys delivers near real-time wave and surface temperature observations.</p> |  <p>Marine Microplastics Microplastics samples are collected to identify sources and impacts of contamination.</p> |
|  <p>Ocean Radar Provides high resolution data on surface currents which contribute to research into biological systems, ocean modelling and ocean circulation.</p> |  <p>Ocean Gliders Deployments along the coast monitor subsurface properties of shelf and boundary currents.</p> |  <p>Biomolecular Observing Water samples are collected at National Reference Stations to analyse environmental DNA to track trends in marine biodiversity.</p> |
|  <p>Satellite Remote Sensing Provides calibrated satellite-derived ocean data, including sea surface temperature, ocean colour, and surface waves.</p> |  <p>Argo Floats Autonomous profiling instruments collecting real-time subsurface ocean temperature and salinity data.</p> |  <p>Estuarine & Coastal Moorings Two monitoring sites in Exmouth Gulf collect real-time and delayed-mode data on currents, temperature, and salinity.</p> |

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

- 378** Journal Articles
- 137** Reports
- 140** Projects
- 44** Data Products
- 95** Postgraduate Projects

WA institutional users of IMOS observations:

- 30** Government Departments & Research Agencies
- 7** Research Collaboration & Non-government
- 20** Industry & Services
- 4** Universities

State partnerships

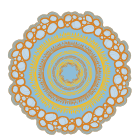
Principal participants are the University of Western Australia, the Australian Institute of Marine Science (AIMS) and CSIRO, with Curtin University as an associate participant. IMOS observation data are used by Western Australian universities and government agencies.

In 2025, the Western Australian Government co-invested to expand IMOS observing infrastructure in the state to increase long-term ocean observations in Exmouth Gulf and at six coastal locations, supporting a wide range of end user needs, including researchers, coastal managers and diverse marine industries.

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.