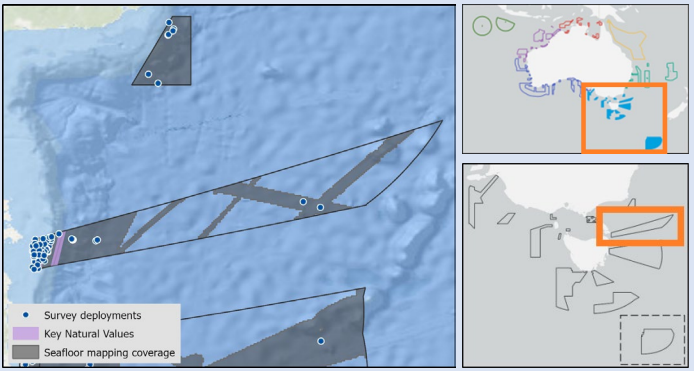
Flinders Marine Park state of knowledge

Australian Government
Parks Australia

Australian Marine Parks



Interactive Map and Report.

Flinders Marine Park contains soft sediment and hard substrate shelf areas, canyons, deep (mesophotic) reefs, and seamounts. It covers representative areas of four bioregions.

Targeted biological surveys have revealed diverse benthic communities of hydrozoans, bryozoans, ascidians and sponges. Monitoring of these communities has been undertaken using Automated Underwater Vehicles (AUVs).

Depth - 34m - 5041m

33% of seafloor mapped, with much at medium to high resolution to support habitat mapping and biodiversity surveys.

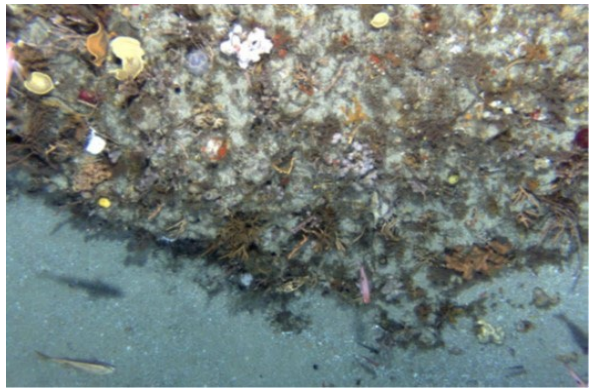
Further information:

1. Perkins *et al.* (2019). Analysis of a time-series of benthic imagery from the South-east Marine Parks Network. Institute of Marine and Antarctic Studies.
2. Monk J, *et al* (2016a) *Outcropping reef ledges drive patterns of epibenthic assemblage diversity on cross-shelf habitats.*.
3. Althaus *et al* (2016) *Analysis of approaches for monitoring biodiversity in Commonwealth waters*: Field work report.

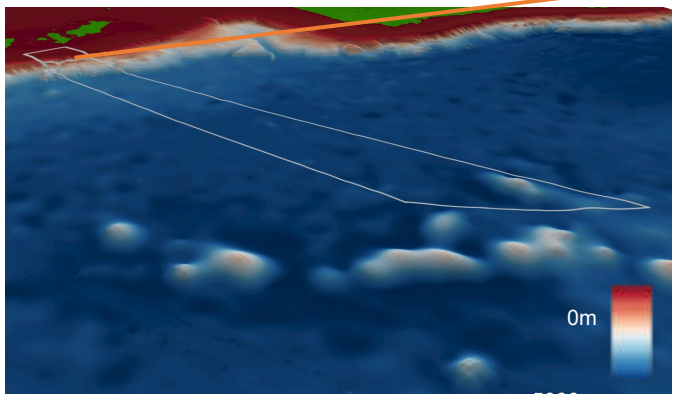
| State of Knowledge published Feb 2023 |

Overall knowledge status

Flinders Marine Park has a **medium level of knowledge**. Fine-scale mapping exists for the shelf break, all of the upper and mid continental slope and much of the lower slope. Targeted biological surveys and monitoring has focused on deep reefs.



Source; Nicholas Perkins, IMAS



Source; Geoscience Australia

Deep reefs

KNV

Long linear reef features that extend over kilometres are often undercut forming small caves and ledges. A diverse sessile invertebrate community of hydrozoans, bryozoans, ascidians and sponges occur on these features.

The central western boundary of the park has mesophotic reefs habitat with red cup sponges, a dominant feature of this site.

Unique fish communities associated with rare outcroppings of shelf break reefs are a feature of the park. Rock lobsters are also present within the park.

Key knowledge gaps

- Additional seafloor mapping of the shelf.
- Benthic communities of canyons and upper slope reefs and sediments.
- Changes in reef and sediment communities due to climate change and other pressures.
- Recreational fishing effort and catch in the Multiple Use Zone.

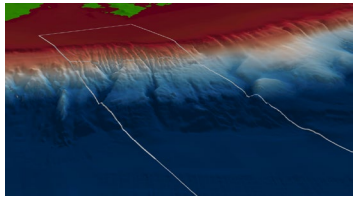
Key activities

Commercial fishing, Recreational fishing, Shipping

Key pressures

Resource extraction, Climate change, Underwater noise

KNV **KNV**= Key Natural Values
Habitat or species that are particularly important to management



Source; Geoscience Australia

Two major canyons occur within the park featuring large benthic fauna such as bamboo octocorals on the rocky outcrops, where topography is steeper. The Flinders canyons and upper slope reef supports a high abundance of rare corals.

KNV

Source; Nicholas Perkins, IMAS

Feature of interest

Biologically diverse survey sites with a variety of sponges, cnidarians, and hydroids, including large gorgonian fans and soft coral species unique within the South-east network.