## Valuing the Gascoyne Marine Park

Project endorsement proposal to IIOE-II

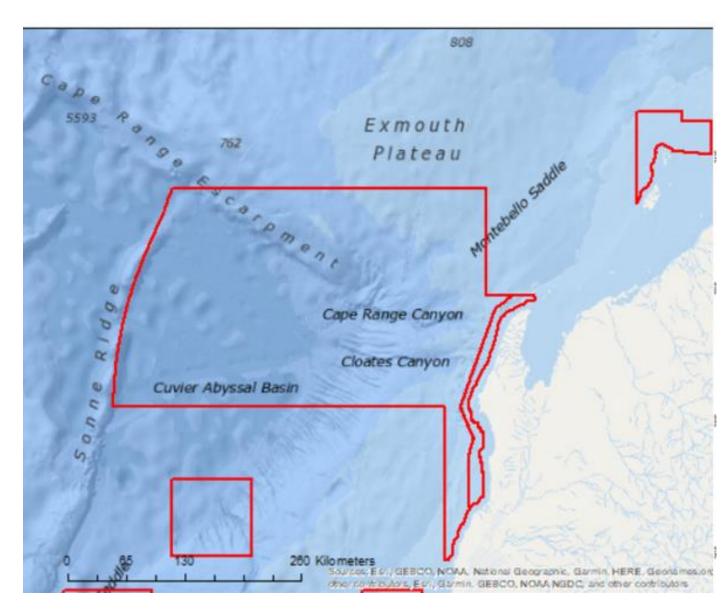
John Keesing CSIRO

Voyage dates: mid- ovember to mid-December 2022



## Survey plan

- Surveys will transverse the main geomorphic features in the GMP and the range of habitat types considered most important across its vast area:
- the "shallow" (100 1000 m) narrow shelf area extending from 21.5°–24°S where mesotrophic reefs occur seaward of the Ningaloo Reef. This area is expected to be highly diverse in terms of mesotrophic benthic habitats and associated fish fauna.
- the northern and western parts of the Park targeting the transition from the Exmouth Plateau at about 1000 m and then down the steep slope of the Cape Range Escarpment descending from 2000–5000 m over a distance of just 50 km and out onto the Cuvier Abyssal Basin at 5000–6000 m.
- the Cloates Canyon from 5000 m up to where it intrudes close to the shelf at about 1000 m. We will also continue sampling this transect up on to the shelf to a depth of 100 m.



## Objectives

- Describe the habitats and quantify fish and seabed biodiversity of the GMP from depths of 100 m to over 5000 m with the expectation of discovery of new types of marine animals.
- Describe the diversity of fishes and of key habitat forming and mobile marine invertebrates across the range of depth regions and in each of three zoning categories (IUCN II, IV, VI).
- Highlight importance of protecting natural values of the GMP and connectivity between the biodiversity assets in the MP and adjacent areas which do not share the same protection.
- Refine the bioregionalization boundaries of the slope provinces and bathomes of NW Australia and resolve debate around the importance of the region from the point of view of the levels of endemicity of fishes and invertebrates.

