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## Colourful gardens thrive in canyon's deeps

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**Stunning “gardens” of deep-sea corals have been discovered in the Bremer Canyon Marine Park by Australian and international scientists during an oceanographic expedition aboard Schmidt Ocean Institute’s R/V Falkor.**

The marine park, 50km south-east of Bremer Bay, is known as a biodiversity hotspot for marine species such as whales and dolphins, however a recent expedition focused on the deep sea has now revealed rich and diverse ecosystems inhabiting the cold waters deep within the canyon.

The discoveries, by a team led by researchers from the University of Western Australia, were made possible by the philanthropic Schmidt Ocean

Institute’s deep-sea remotely operated vehicle, SuBastian, which is capable of sampling depths to 4500m.

The team collected deep-sea corals, associated fauna, seawater and geological samples from the abyssal depths (about 4000m) to the continental shelf (about 200m).

Expedition leader Julie Trotter, from UWA’s School of Earth Sciences and Oceans Institute, said researchers had already made remarkable discoveries from the Bremer Canyon.

“The vertical cliffs and ridges support a stunning array of deep-sea corals that often host a range of organisms and form numerous mini-ecosystems,” Dr Trotter said.

“Such rare records of these deep-sea habitats are a new and very important contribution to the marine parks, which will help managers as well as the broader community to better understand and protect these previously unknown ecosystems.”

The deeper waters in the three oceans that surround Australia, including the world’s biggest barrier reef and submarine canyons, are largely unexplored. The expedition explored the Bremer, Leeuwin and Perth canyons, all of which have extensive fossil coral deposits, with the Leeuwin especially notable for a massive pedestal-like coral graveyard.

Professor Malcolm McCulloch, also from UWA’s Oceans Institute, said the discovery had global implications given these waters originate from around Antarctica and feed all of the major oceans and regulate our climate system.

Australia has only one oceanographic vessel available for scientific research and no supporting deep-sea underwater robots, which makes this expedition so important and rare.



*R/V Falkor took a team of international scientists to explore the Bremer Canyon.*