

SC-03-06.3.2(01)

3rd Meeting of the Southern Indian Ocean Fisheries Agreement (SIOFA) Scientific
Committee

20-24 March 2017, Saint Denis, La Reunion

Proposal for designation of the 'EAST BROKEN RIDGE' fishery closure
for the purpose of the protection of its unique geographic
representation

Relates to agenda item: 6.3.2

Working paper Info paper

Delegation of Australia

Abstract

The purpose of this paper is to propose that the East Broken Ridge feature meets the following criteria under the SIOFA Standard protocol for protected areas designation (see Annex H of SC2 report):

3a. Geographic and/or unique representation – The area proposed is known to contain unique or unusual geomorphological features that fishing operations may damage.

Recommendations *(working papers only)*

It is recommended that the SC:

- **Note** that the proposed East Broken Ridge feature meets the following criteria in the protocol: 3a. Geographic and/or unique representation – The area proposed is known to contain unique or unusual geomorphological features that fishing operations may damage.
 - **Recall** Article 4(c) of the Agreement which obliges Contracting Parties to apply the precautionary approach in accordance with the FAO Code of Conduct for Responsible Fisheries and the 1995 UN Fish Stocks Agreement, whereby the absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures.
 - **Recommend** to the Meeting of the Parties that, in line with the precautionary approach, the East Broken Ridge feature be designated as an interim fishery closure for the purpose of the protection of its unique geographic representation, with a prohibition on all fishing to be review after 2 to 5 years.
-

Proposal for designation of the 'EAST BROKEN RIDGE' fishery closure for the purpose of the protection of its unique geographic representation

Australia

Acknowledgement

Australia have prepared this proposal in consultation with the Cook Islands, SIODFA, Ms Lynda Goldsworthy AM, and an informal steering committee of SIOFA SC members who met to advise Australia on its review of the SIOFA Standard protocol for future protected areas designation.

Purpose and rationale

The purpose of this paper is to propose that the East Broken Ridge feature meets the following criteria under the SIOFA Standard protocol for protected areas designation (see Annex H of SC2 report):

- 3a. Geographic and/or unique representation – The area proposed is known to contain unique or unusual geomorphological features that fishing operations may damage.

Background

At the 4th Meeting of the Parties in 2017, Australia signalled its intention to review the SIODFA 'benthic protected areas' against the protocol for protected area designation. The proposal follows a template suggested at the intersessional meeting of the informal SIOFA steering committee in November 2017.

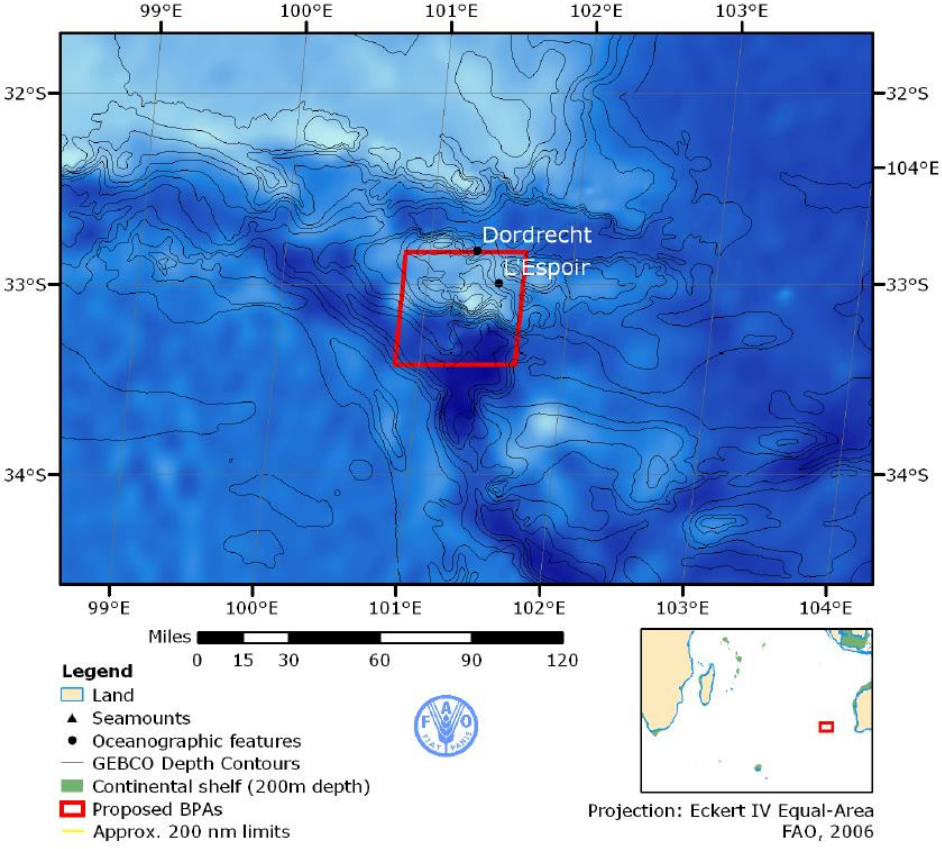
Name	East Broken Ridge								
Propone nt/s	Australia (SIOFA Contracting Parties) <i>Prepared in collaboration with the Southern Indian Ocean Deepsea Fishers Association (SIOFA Observer)</i>								
Geograph ic descripti on	<p>Coordinates: Latitude 32° 50' S, 100° 50' E and 33° 25' S and 101° 40' E. Area: 5034 km²</p> <p>Area by depth range:</p> <table border="1" data-bbox="512 584 1241 658"> <thead> <tr> <th><1000 m</th> <th>1000-1500 m</th> <th>> 1500 m</th> <th>Total area (km²)</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>98</td> <td>4937</td> <td>5034</td> </tr> </tbody> </table> <p>Figure 1 Location and bathymetry of East Broken Ridge</p> 	<1000 m	1000-1500 m	> 1500 m	Total area (km ²)	0	98	4937	5034
<1000 m	1000-1500 m	> 1500 m	Total area (km ²)						
0	98	4937	5034						

Figure 2 Bathymetry of East Broken Ridge

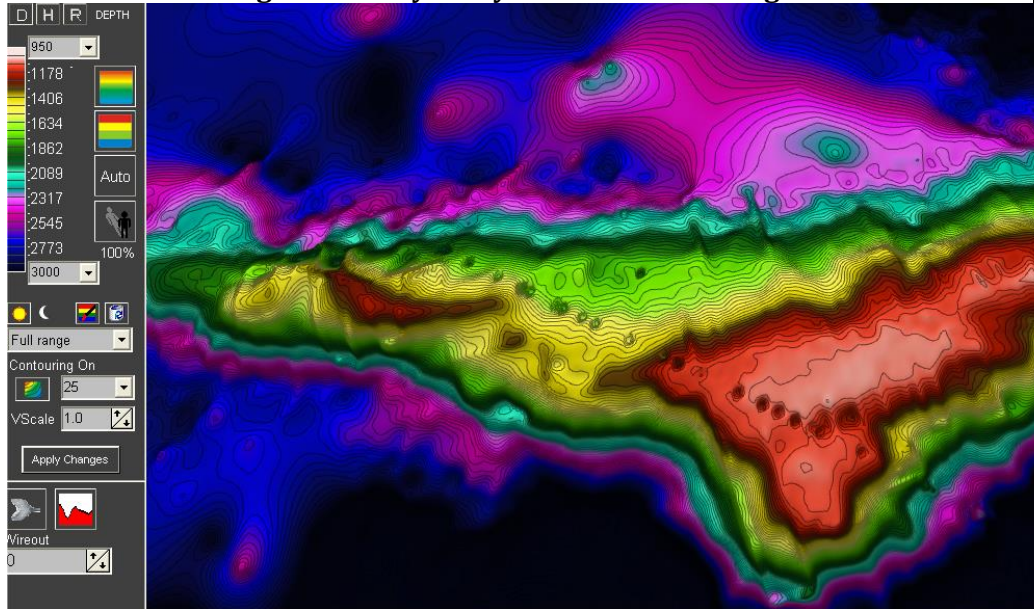


Figure 3 Swathe sidescan image of the guyot east of Broken Ridge

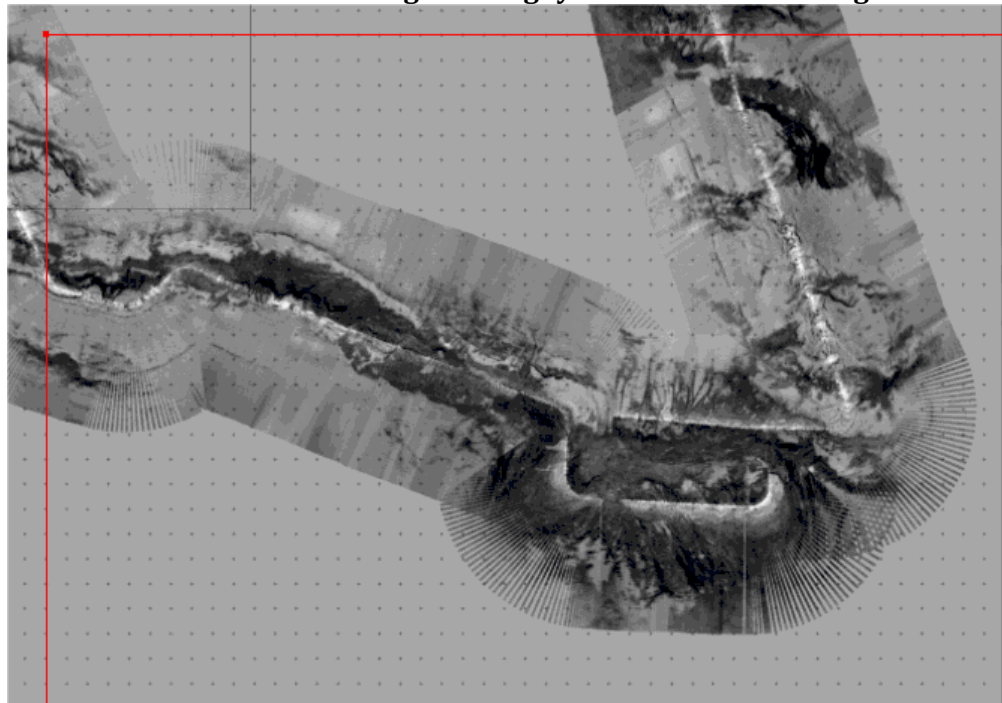
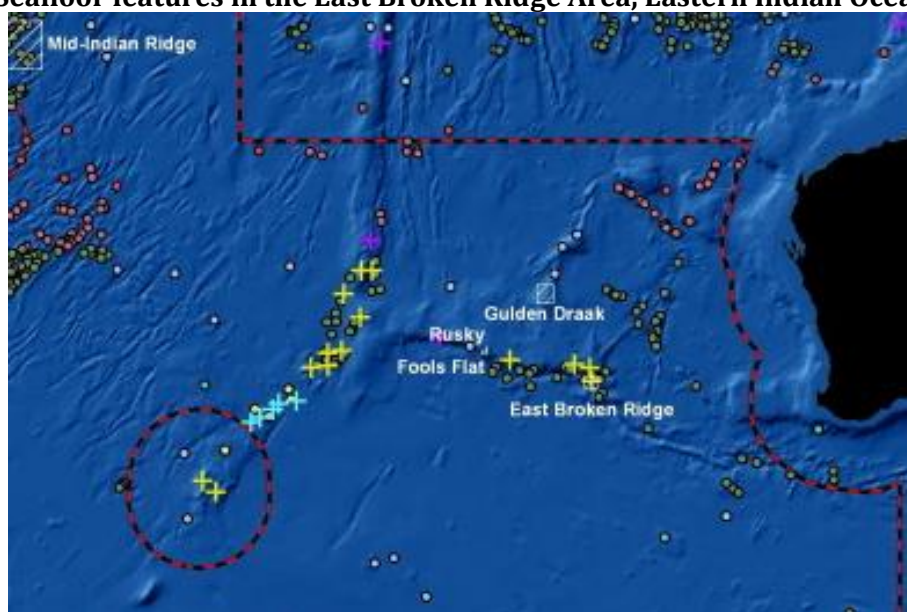


Figure 4
Seafloor features in the East Broken Ridge Area, Eastern Indian Ocean



<p>Objective s</p>	<p>The objective for this area is to protect its geographic and/or unique representation.</p>
<p>Criteria that the protected area meets</p>	<p>The area meets the following criteria:</p> <p>3a. Geographic and/or unique representation – The area proposed is known to contain unique or unusual geomorphological features that fishing operations may damage.</p> <p><u>Feature description and geographical representation</u> This guyot¹ is located on the eastern end of Broken Ridge and is characterised by numerous slips and canyons extending down the sides. This seafloor feature is in the same Broken Ridge region in the northeast of the SIOFA area as the Rusky and Fools’ Flat seamount locations. Figures 1 and 2 show the regional bathymetry of the East Broken Ridge area. This seafloor feature rises from a depth of 3000 m to 1060 m. As far as is known it has not been previously described and has not been trawled on (SIODFA 2016).</p> <p><u>Biodiversity representation</u> There are reportedly stands of brain and black coral on the southern rim of the ridge, which have elevations of 20 – 30 m and can be seen with sidescan sonar (Figure 3). When these have been observed on vessel echo sounders they look like aggregations of fish (but they do not move) – hence the term “East Broken Ridge”. There appears to be strong upwelling over the south-west boundary and this no doubt has resulted in favourable conditions for the growth of deepwater corals.</p> <p><u>Fishing history</u></p>

¹ A guyot is a flat topped seamount. Guyots show evidence of having been above the surface with gradual subsidence through stages from fringed reefed mountain, coral atoll, and finally a flat topped submerged mountain.

	<p>Known searches for fish aggregations have reportedly been undertaken, but only for one day (SIODFA 2016). The seamount appears to have suitable environmental conditions for the deepwater species of fish that typically occur in the area</p> <p><u>Other information to support designation</u> Industry members from Australia, the Cook Islands and Japan support the designation of East Broken Ridge feature. No trawling by SIODFA vessels is permitted.</p>
Social, cultural and economic interests	Historical fishing data may assist with understanding any social, cultural and/or economic costs associated with designating this as a protected area. It is possible that designation could have adverse social, cultural or economic impacts in terms of forgone opportunity for fishing.
Proposed activities to be restricted or prohibited	Fishing within this proposed area with all gears could detrimentally impact the feature. The MoP should consider closure to all fishing.
Review periods	The scientific evidence to support a closure is uncertain and it is proposed that this fishery closure be regarded as an interim measure in accordance with the requirements of the precautionary approach. It is recommended that this designation be reviewed after 2 and not more than 5 years, or sooner if new information becomes available that enhances or degrades the justification for its protection.
Outline of monitoring and/or research needed	A desk-top compilation of publications from research undertaken within this area would assist with future reviews of the designation.
Compliance	Compliance-related issues are outside of the remit of the SIOFA SC.

References

SIODFA 2016, Southern Indian Ocean Deepwater Fisheries Association (SIODFA), Benthic Protected Areas in the Southern Indian Ocean. SIODFA Technical Report XVII 16/01. 40 pp