

Supplementary material to:

Green A., Uken R., Ramsay P., Leuci R. and Perritt S. (2009). Potential sites for suitable coelacanth habitat using bathymetric data from the western Indian Ocean. *S. Afr. J. Sci.* **105**, 151–154.

Table 1. Data sources used in the creation of the GIS for South African waters.

Map name	Chart No.	Geological comments
East London to Mbashe River	59	Shelf narrows southwards, overall relatively narrow and with a steep gradient. Evidence of four canyons in the south.
Great Fish Point to Port St Johns	60	Shelf relatively narrow and widens southwards. No evidence of any major canyons.
Mbashe River to Port St Johns	128	Shelf widens to the south, evidence of one canyon, probably other minor canyons.
Port Shepstone to Cooper Light	129	Shelf width narrow in the north, widens off the Thukela (Thukela sedimentary cone), and narrows again south of Durban. About seven canyons in the southern region.
Port St Johns to Cape St Lucia	131	Two canyons. Shelf narrow with fairly steep gradient.

Table 2. Data sources used in the creation of the GIS for Mozambiquan and Tanzanian waters.

Map name	Chart No.	Geological comments
Rovuma ao Cabo Pequeve	408	Fourteen canyons. Canyons extend very close to the coast.
Northern entrance to Mozambique Channel	2110	Regional overview. Only for coastline digitising.
Mozambique Channel	1810	Regional overview. Only for coastline digitising.
Moçambique a Angoche	412	Seven canyons. Canyons extend close to the coast.
Rio Zambeze to Ilha Chiloane	61140	No canyons. Wide shelf dominated by the Zambeze sedimentary wedge.
Quelimane as Bocas do Zambeze	416	One canyon. Shelf widens south due to proximity of Zambeze sedimentary wedge.
Ponta da Barra to Rio Limpopo	61120	No canyons. Dominated by Limpopo sedimentary wedge.
Moebase a Quelimane	415	Five canyons. Shelf widens to the south.
Mchinga Bay to Porto do Ibo	61180	At least eighteen canyons which extend close to the coast. Extremely narrow shelf with a very steep slope.
Luiro a Moçambique	410	Five canyons. Canyons extend close to the coast.
Jesser Point to Boa Paz	2930	No canyons. Shelf widens northwards due to presence of Limpopo sedimentary wedge.
Ilha Chiloane to Ponta da Barra	61130	One canyon south of Bazaruto. Shelf widens to the north towards Zambeze sedimentary wedge.
Dar es Salaam to Mombasa Harbour	61200	Extremely narrow shelf, basically starts at coastline. Data sparse. Shelf very shear.
Dar es Salaam to Mchinga Bay	61190	Five canyons, potential for more as data are sparse. Shelf very narrow. Steep shelf.
Cabo Pequeve ao Lurio	409	Six canyons. Canyons extend close to the coast.

Table 3. Data sources used in the creation of the GIS for Madagascan waters.

Map name	Chart No.	Geological comments
Ambavalato to Faraony	61520	Data extremely sparse. Indicates shelf is narrow and with a steep slope.
Cap des Karimboly to Tolanaro	61510	Data very sparse. Indicates that the shelf is narrow and the slope is steep.
Toliara to Tanjon Andriamanao	61470	Very narrow shelf and very steep. One canyon off Toliara. Data sparse.
Tolanaro to Ambalavato	61520	Data extremely sparse. Indicates shelf is narrow and with a steep slope.
Toamasina to Tanjon Antsirakosy	61540	Seven canyons. Narrow shelf and steep slope.
Toamasina and Approaches 2	61538	Shelf is narrow, slope is steep. One large canyon.
Toamasina and Approaches 1	61538	Shelf is narrow, slope is steep. One large canyon.
Tanjona Bobaomby to Nosy Be	61410	Potential canyon north of Nosy-Be, shelf is narrow.
Tanjon Antsirakosy to Iharana	61560	Data sparse in the north. Five canyons in the south. Shelf break very close to the coast.
Tanjon Andriamanano Cap des Karimboly	61510	Shelf very narrow in the north, widens to the south. Very steep slope but data too sparse to indicate canyons.
Nosy Lava to Toliara	61470	Very narrow shelf, very steep slope, two canyons. Data sparse in areas. Coelacanths recorded in this area.
Nosy Be to Helandro Bometoka	61420	Very narrow shelf, data too sparse to indicate canyons.
Mahanoro to Toamasina	61530	Shelf is narrow, slope is steep. Three canyons. Two quite major. Data in the south are sparse.
Ile Aux Nattes to Tamatave	678	Three canyons, narrow to moderate shelf width.
Iharana to Tanjona Bobaomby	61560	Narrow shelf, quite sparse data. Four canyons positioned close to shore. Potential for more canyons.
Helodrano Bombetoka to Tanjona Vilanandro	61430	Very narrow shelf incised by at least six minor canyons.
Farnaoy to Mahanoro	61530	Data extremely sparse.
Tanjona Kimby to Nosy Lava	61460	Narrow shelf and very steep slope, data too sparse to indicate canyons.
Tanjona Vilanandro to Tanjona Kimby	61440	Shelf is narrow and slope is steep, data are very sparse, indicating only one canyon.

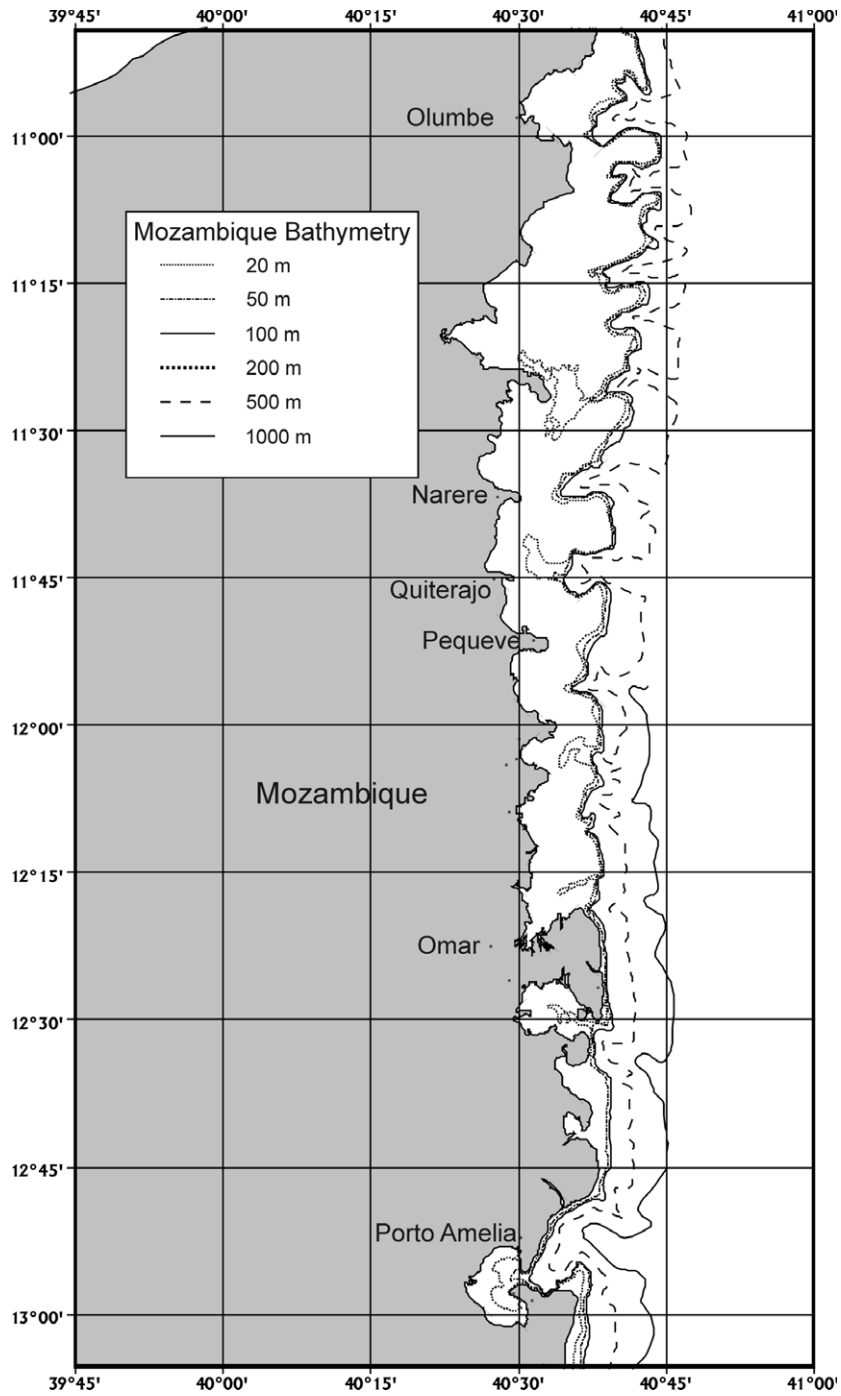


Fig. 1. Bathymetric plot of the Porto Amelia–Olumbe stretch of coastline, northern Mozambique. Note the pronounced inshore extension and steep clustering of the contours, indicating the extension of numerous canyon features, most evident from the Porto Amelia continental shelf.

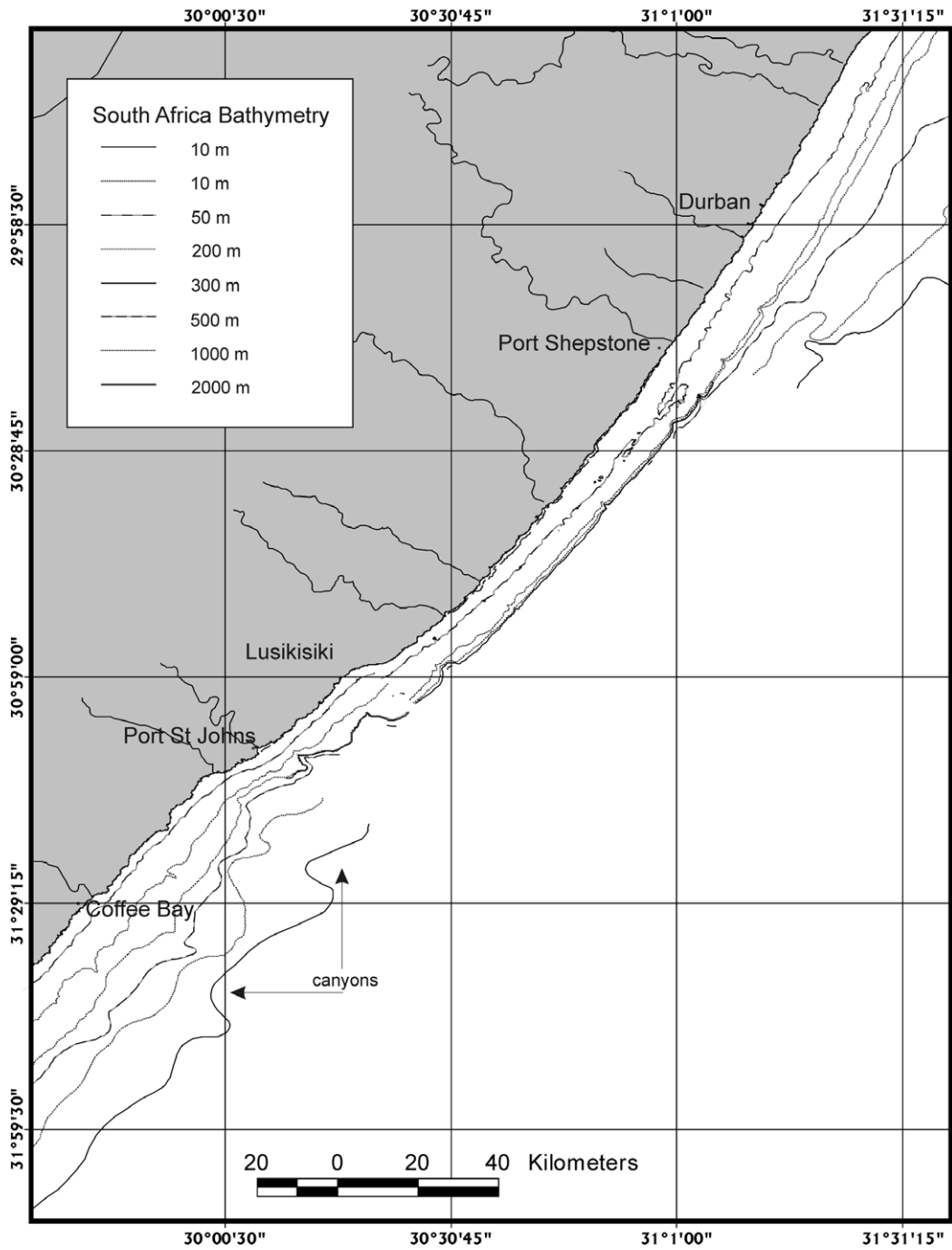


Fig. 2. Suspected submarine canyons off the Durban–Port St Johns coastline. Note the indentation of the 100-m isobaths by submarine canyons. This is similar in its depth incursion to those canyons documented from the northern KwaZulu-Natal continental shelf.¹³

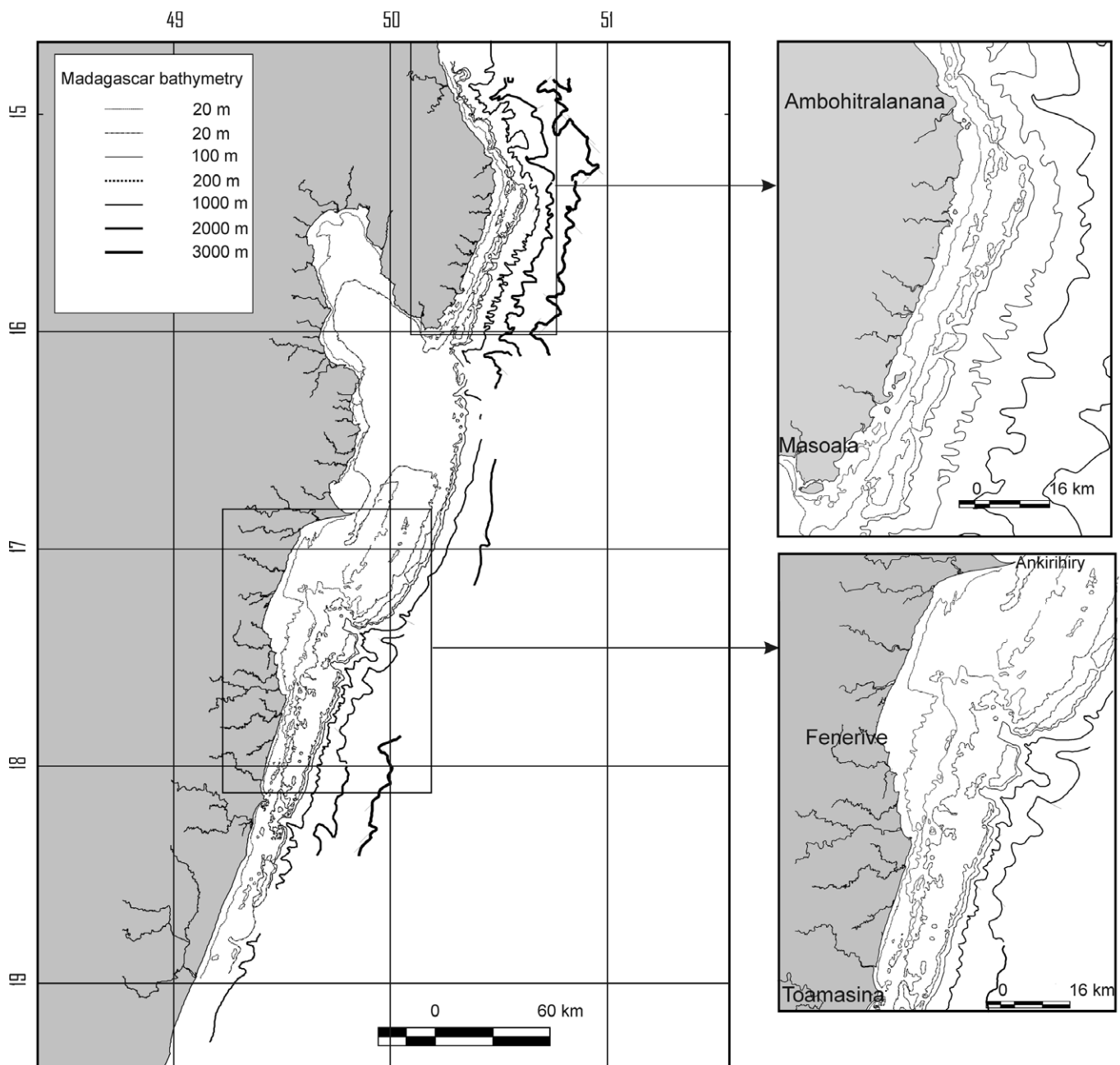


Fig. 3. Prevalent submarine canyons from the east coast of Madagascar. Examples include occurrences in the area between Ambohitralanana and Masoala, and the Toamasina area.