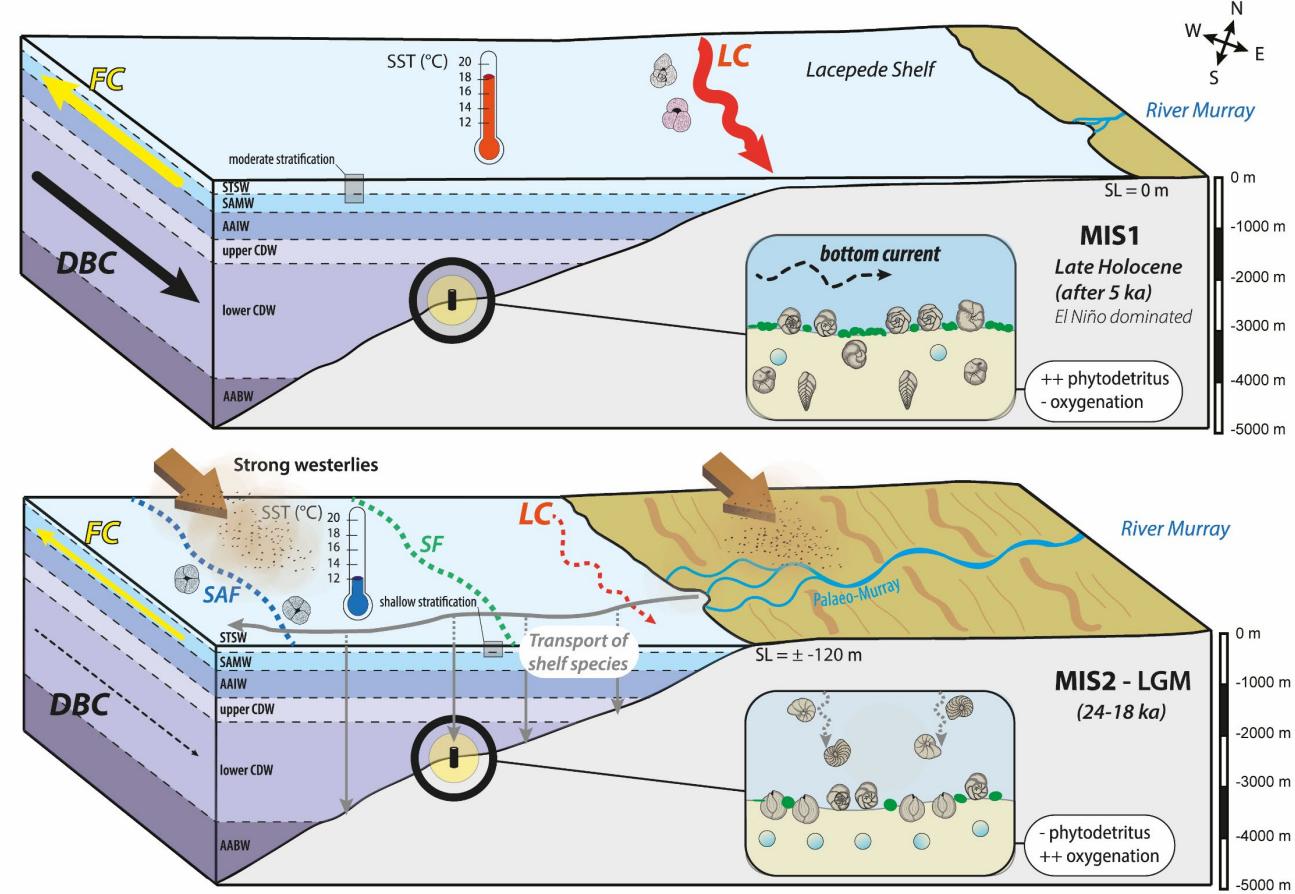
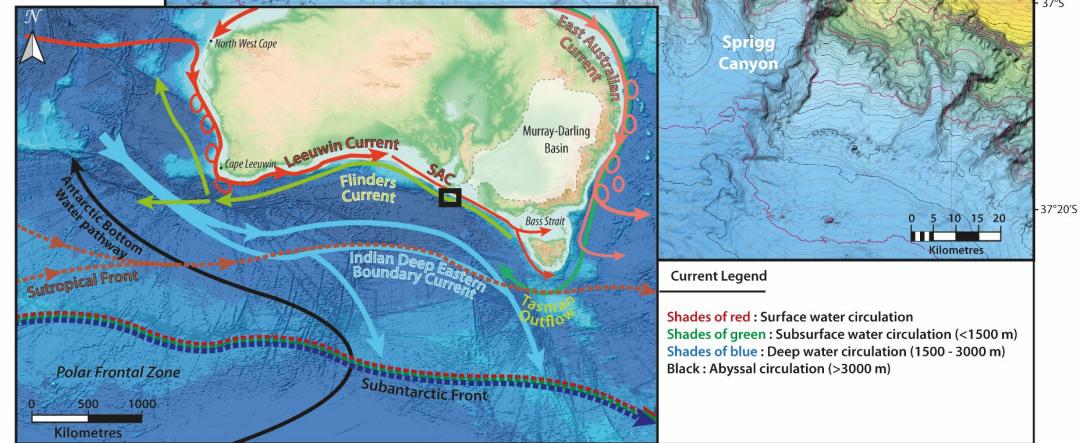
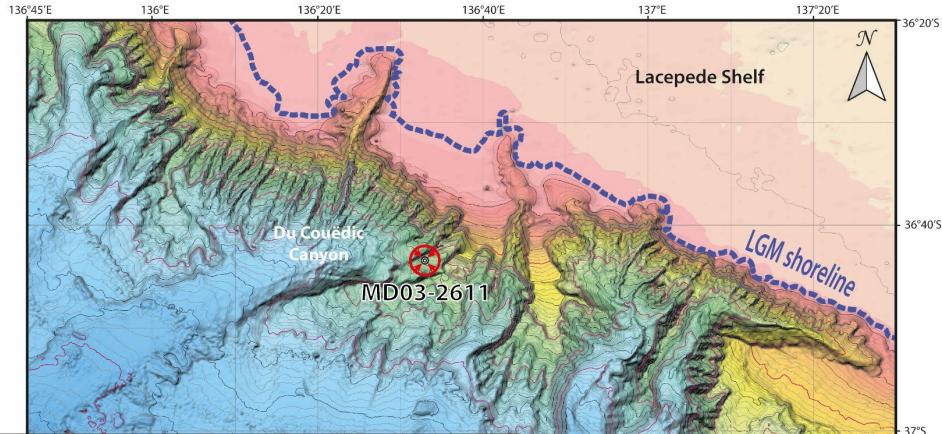


Deep-sea response to interglacial-glacial variability on the South Australian margin over the last 94 ka

Fentimen, R., De Deckker, P., Depuydt, P., Mojtaid, M.



- Using a combination of benthic foraminiferal assemblages and other geochemical and sedimentological proxies, the deep-sea benthic realm and its evolution over the last 94 ka was reconstructed for the first time off Kangaroo Island at 2420 m depth.
- Results show a clear distinction between cold and warm periods, with a greater seafloor oxygenation during the former and a strengthening of bottom currents and organic matter input during the latter.
- We suggest that the Deep Eastern Boundary Current circulating eastward and transporting Indian Deep Water was more dynamic during warm periods, whilst a greater influence of oxygen-rich Antarctic Bottom Water triggered the change in deep-sea foraminiferal communities during cold periods (noticeably during the Last Glacial Maximum)

Rosalina spp.	Discorbarella araucana	Gavelinopsis praegeri	Cibicides refulgens	miliolids	Cassidulina carinata	Globocassidulina spp.	Bolivina variabilis
Elphidium crispum	Allochthonous/transported benthic foraminifera	Trilobatus saccifer	Tropical planktic foraminifera	Haynesina germanica	Globigerinoides ruber	Neogloboquadrina pachyderma	Subpolar planktic foraminifera
LC Leeuwin Current	FC Flinders Current	DBC Deep Boundary Current	STSW Subtropical Surface Water	SAMW Subantarctic Mode Water	CDW Circumpolar Deep Water	AABW Antarctic Bottom Water	Transverse dunes
AAIW Antarctic Intermediate Water							Oxygen
							Phytodetritus

Reference: Fentimen, R., De Deckker, P., Depuydt, P., Mojtaid, M. 2023. Deep-sea response to interglacial-glacial variability on the South Australian margin over the last 94 ka. *Quaternary Science Reviews*, 320(5):108328
DOI: 10.1016/j.quascirev.2023.108328