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

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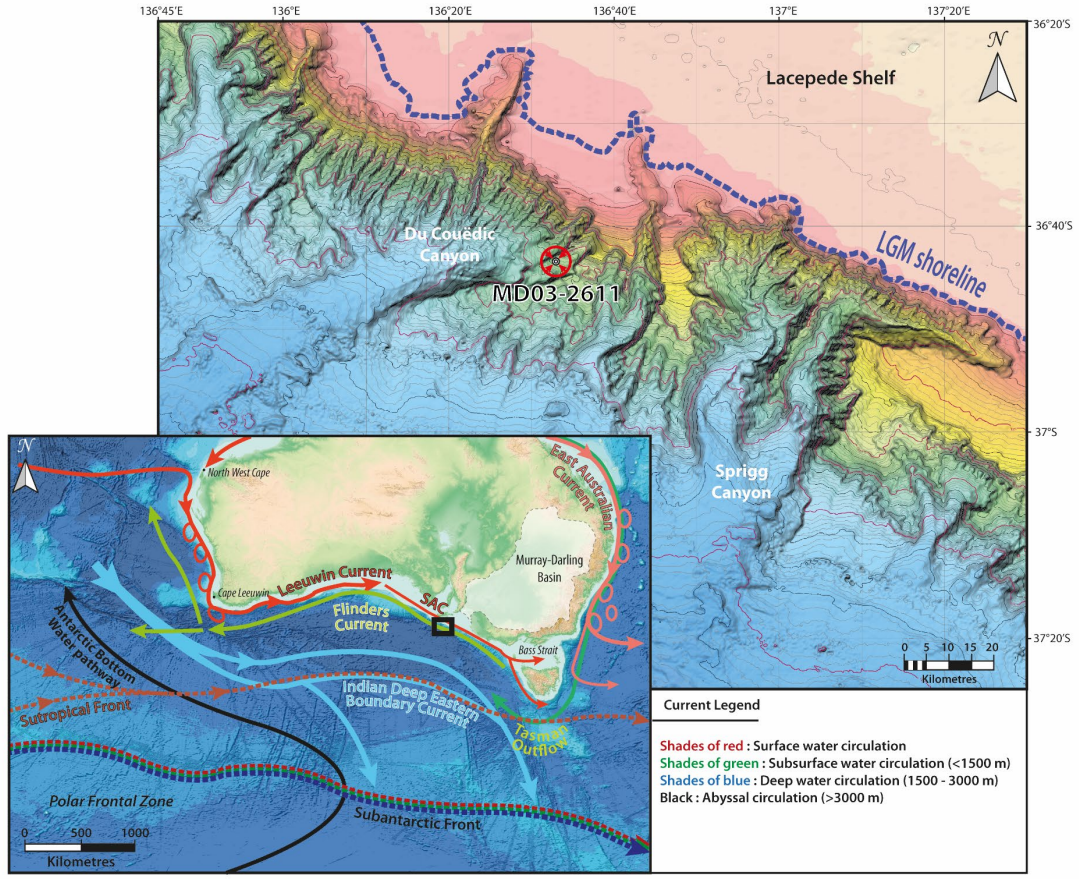

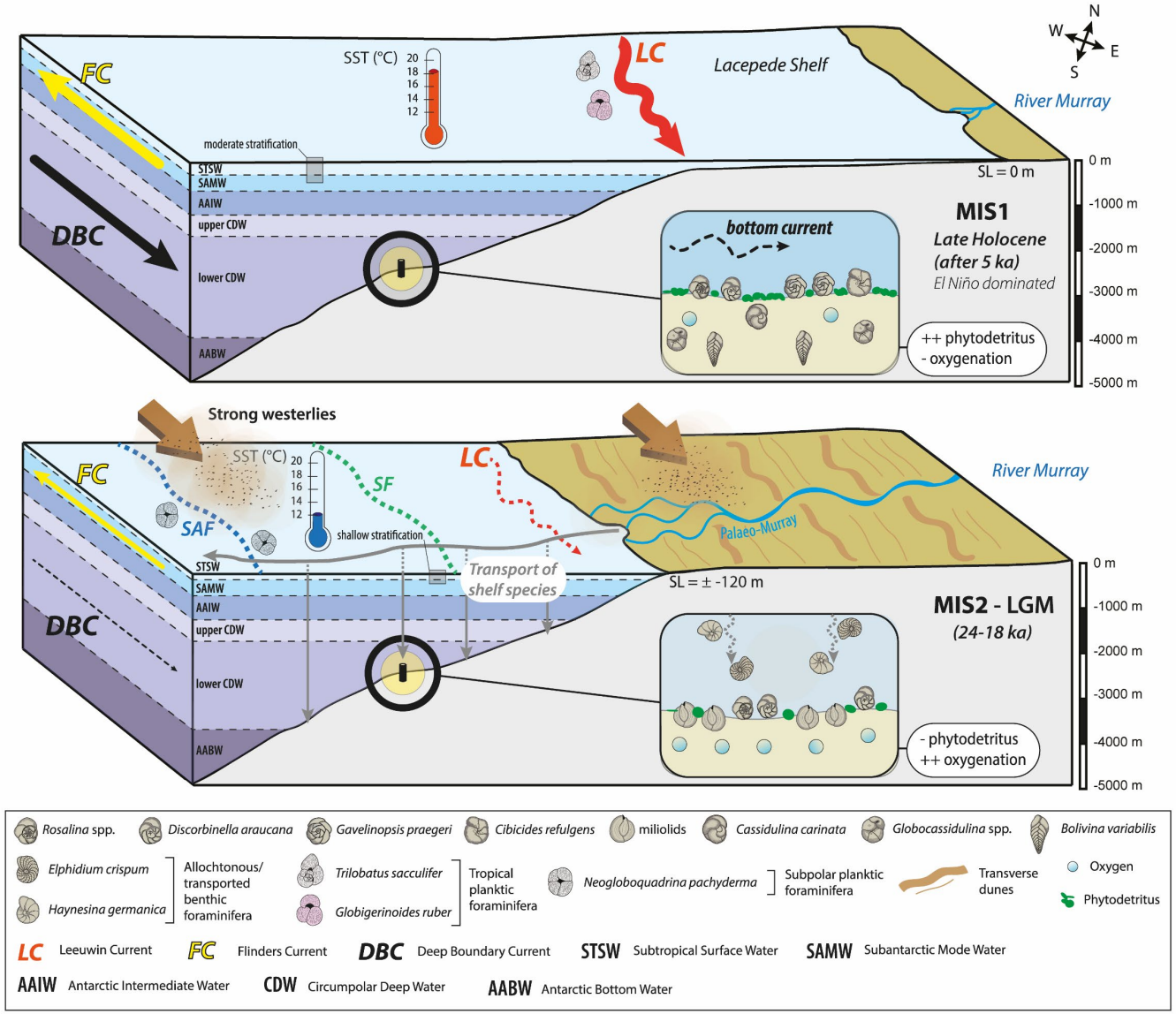

- Using a combination of benthic foraminiferal assemblages and other geochemical and sedimentological proxies, the deep-sea benthic realm and its evolution over the last 94 ka was reconstructed for the first time off Kangaroo Island at 2420 m depth.
- Results show a clear distinction between cold and 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)

***Reference**: Fentimen, R., De Deckker, P., Depuydt, P., Mojtahid, 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