

ABSTRACT

Roberts, M.J. 1993.

The cool ridge on the eastern Agulhas bank and its links to coastal upwelling.

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The 'cool-ridge' commonly observed in hydrological data collected over the central and eastern Agulhas Bank has recently re-attracted much attention. The reason for this are not only because it dominates the oceanography in the region but also it appears to play a major role in South Coast primary production and clearly has important implications for successful recruitment in several large fisheries.

This paper first undertakes a review of previous work related to the cool ridge feature highlighting important findings, the most notable of which is that of Swart and Largier (1987), Largier and Swart (1987), and recently Boyd and Shillington (in press). Using data collected from more than 27 Sea Fisheries Research Institute cruises, coupled with satellite imagery and current measurements, the paper extends our knowledge by characterizing the cool ridge in terms of its 'morphology' and its spatial and temporal variability. Although it has been suggested that the mechanism responsible for the cool ridge is of oceanic origin, data presented in this paper strongly suggest that it is linked to coastal upwelling on the South Coast.