

ABSTRACT

LUTJEHARMS, J.R.E, COOPER, J. AND ROBERTS, M.J. (2000)

Upwelling at the inshore edge of the Agulhas Current.

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Evidence for upwelling along the landward side of the Agulhas current is presented. An analysis of old and new hydrographic data, surface temperature observations and satellite measurements show that this upwelling occurs in a tightly circumscribed geographic area. Centered at Port Alfred, it has a lateral range along the Agulhas Current from 85 to 300km. Intermittent outcropping of upwelled water occur more than 40% of the time and changes the surface temperatures dramatically. Below the upper layers this upwelling is more persistent and durable. It derives its water from the upper to middle levels of South Indian Central Water. This process may have a profound effect on the nutrient availability, the stratification and the primary productivity of specifically the eastern Agulhas Bank south of South Africa.