

AGULHAS BANK

South of Africa the continental shelf extends in a triangle shape known as the Agulhas Bank. It is approximately 800 km in length and 250 km wide at the apex. At the coast, the shelf drops steeply to 50 m, and then gradually slopes to 200 m where the shelf break occurs followed by a steep drop to 1000 m. The Bank forms a boundary between the Benguela Current and the Agulhas Current. Various mechanisms cause upwelling of large volumes of cold water onto the Bank. Strong mixing occurs in the upper layers due to gale-force winds all year round. (Hutchings, 1994).

The Agulhas Bank is a major spawning ground for pelagic fish, and is thus important to the South African fishing industry (Chapman and Largier, 1989). Relative to primary production and zooplankton biomass, the Agulhas Bank appears to have a low fish yield compared to other regions (Hutchings, 1994). A distinct cyclonic gyre is present in the centre of the Agulhas Bank during summer (Hutchings, 1994). Bottom flow of cold water onto this bank is seasonal. Warm filaments from the Agulhas Current are advected onto the Agulhas Bank. (Lutjeharms, Catzel and Valentine, 1989).

The highest number of meanders observed is between Port Elizabeth and the southern tip of the Agulhas Bank. Eddies are also widely scattered in this area, and are relatively concentrated in the Agulhas Bight. Shear-edge features are almost always present on the inshore edge of the Agulhas Current as it flows past the Agulhas Current. (Lutjeharms, Catzel and Valentine, 1989).



CLASSIC PAPER

Lutjeharms, J. R. E., Catzel, R. and Valentine, H. R. (1989). **Eddies and other boundary phenomena of the Agulhas Current.**

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