

ABSTRACT

LE CLUS, F. and M. J. ROBERTS (1995)

Topographic and hydrographic effects on catch rates of *Austroglossus pectoralis* (Soleidae) on the Agulhas Bank.

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Catch rates of Agulhas sole *Austroglossus pectoralis* from research trawls were compared with depth of sea bed, bottom temperature and oxygen concentrations. Data were from 10 research surveys conducted during the years 1986-1992 in autumn and spring. Cold bottom water situated between Mossel Bay and St Francis Bay separated two zones of warmer water on the inner central and eastern Agulhas Bank in both seasons. Low to zero catch rates were associated with the cold water, whereas catch rates were higher in warmer water, especially at depths shallower than 75m. On the inner central Agulhas Bank, catch rates close inshore were considerably higher in autumn than in spring. Conversely, on the eastern Agulhas Bank, catch rates were higher over a larger area in spring than in autumn. Depth of sea bed explained 23-49% of the variability in catch rates within localities and seasons, whereas bottom temperature and oxygen concentrations had lesser effect.