

ABSTRACT

Le Clus, F., Roberts, M.J. and HF Henning (1996)

Implications for *Austroglossus pectoralis* (Soleidae) of seasonal changes in the thermal structure on the inner central Agulhas Bank.

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p.49.**

Agulhas sole migrated westward against westerly winds in autumn and eastwards against easterly winds in spring, potentially responding to gradients in wind-generated noise (Le Clus et al 1996). Wind-generated noise is trapped in the surface duct formed by the upper layer (Piggot 1964, Urick 1983) and may therefore have a stronger impact on sole when, or where, the upper mixed layer deepens to the sea bed. Studies are therefore needed on seasonal changes in the size and locality of regions with isothermal or weakly stratified water, to interpret the effect of wind direction and strength on sole migration. Temperature data were obtained from demersal and pelagic surveys. In summer and autumn the water column is expected to be strongly stratified except close to shore in years with persistent southeasterly winds in summer. A narrow belt of water close to the shore become isothermal in late autumn to early winter. The belt expanded during winter and spring to include a large proportion of the inner central Agulhas Bank and retracted again in early summer. Agulhas sole may therefore show stronger reaction to the influence of wind-generated noise on the sea floor in a relatively small locality of the central Agulhas Bank, close to shore, mainly from late autumn to early summer.