

ABSTRACT

Booth, T., Sauer, W. and M.J. Roberts (1997)

Spatial analysis of chokka squid *Loligo vulgaris* within a GIS framework.

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A geographical information system (GIS) was developed using random stratified fishery-independent trawl survey data collected from 1985 to 1996 on the Agulhas Bank, South Africa. The commercially important chokka squid was chosen as a suitable candidate for investigation. The system was developed to provide a graphical and statistically suitable interface to facilitate the analysis of the distribution and abundance dynamics which is commonly found in Agulhas Bank communities. The system enabled both the qualitative and quantitative analysis of disparate data types which were either categorical or numerical in nature. The system facilitated exploratory visual data analysis including the qualitative overlaying of data coverages and the investigation of multivariate relationships between the qualitative data types using Generalised Additive Models.