ABSTRACT

van Rooyen, P., Roberts, M.J. and W Sauer (1996)

The influence of the environment on chokka squid catches.

Abstracts of the Benguela Dynamics Symposium, Cape Town, November 1996: p. 70.

There is little doubt amongst fisheries scientists that the environment plays an important role in determining the abundance, distribution and catches of fish stocks in general. Chokka squid are no exception as is easily seen in catch statistics.
Curious of this, Sauer at al (1991), attempted to correlate surface water temperature measured at Cape Recife with catches of chokka from 4 fishing vessels operating along the St Francis Bay-Maitland coast. While their analysis was not definitive, it nevertheless hinted that chokka catches increase when water temperature decrease.
Later Roberts and Sauer (1994) added further support for this notion after they noticed an apparent correlation between total annual chokka catch for the fishery and years of increased frequency of coastal upwelling. In addition, from examining diving and vessel log records, they also suggested that high levels of benthic water turbidity may account for periods of poor squid catches. These two hypotheses are now integral components in the Climate Change and Squid Programme which aims to forecast chokka availability and catches based on atmospheric and ocean variability (Roberts in prep).
The work presented in this poster, intends to test the *'good catch-cold water'* and *'poor catch-high turbidity'* hypothesis, which are now seen as the weakest links in the CCSP. At present, CTD and turbidity measurements are being made from commercial fishing vessels, while CPUE is monitored.