

## ABSTRACT

Schön, P-J., Roberts, M.J. and W.H.H. Sauer (1997)

**An investigation into the influence of the environment on chokka squid  
*Loligo vulgaris reynaudii* catches.**

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This recently initiated study aims to obtain information on the impact of the local environmental conditions on the presence, abundance and availability of chokka squid *Loligo vulgaris raynaudii* on the inshore spawning areas off the South African south coast. Two hypotheses are presented:

1. The change in temperature caused by upwelling events result in increased chokka catches, and therefore spawning activity;
2. High levels of benthic turbidity leads to periods of poor catches and therefore little spawning.

Three environmental parameters are considered, viz. temperature gradient, surface temperature and turbidity. Preliminary results show the temperature gradient to be the most influential. Low CPUE values occurred with low as well as high temperature gradients, but high CPUE values only occurred where the temperature gradient was high. There also appears to be a threshold limit above which squid are not caught. The same phenomenon occurs with an increase in benthic turbidity. A high availability of squid therefore appears related to a comfort zone of environmental factors. An environmental window, which dictates the availability of squid on the inshore spawning grounds, is hypothesized, governed by both physical and biological factors which may often occur in synergy.