

ABSTRACT

Oosthuizen, A. (2005)

Success for squid eggs in cold, deep water?

Abstracts of the 12th Southern African Marine Science Symposium: Coast to Coast, Durban, South Africa, July 2005.

The objective of this project was to determine the success of egg development under natural cold, deep-water conditions. The squid *Loligo vulgaris reynaudii* spawns in two distinct environments, the relatively warm (16-22°C), shallow inshore areas and the colder (9-12°C) deeper offshore areas of the Eastern Cape. Fishing activity and environmental events in the inshore waters drive the squid to spawn in offshore water. However, previous laboratory studies have shown that the temperature conditions in the deeper water is not conducive to egg development and that high percentages of abnormalities occur at temperatures of 9°C or lower. Freshly spawned eggs were collected by diving from the shallow inshore spawning areas and incubated offshore in deep, colder water. Eggs were incubated in specially designed cages connected to acoustic releases to facilitate retrieval of the cages from 125m depth. Eggs were retrieved before hatching to assess the occurrence of abnormal development. The results indicate that abnormalities do occur, but at low frequencies. This indicates that inshore disturbances on spawning activity may not have as a severe impact on egg development as previously conceived.