

## **STATUS, ROLE AND CONTROL OF *ELECTRONA ANTARCTICA* IN THE LAZAREV SEA**

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The lanternfish, *Electrona antarctica*, is endemic to the Southern Ocean. It is a mesopelagic that displays strong diurnal migrations. During the day it remains at great depth (500-750m) and migrates to the surface during the night to feed on copepods and euphausiids. It is one of the most abundant fish in the open waters of the Southern Ocean and is an important resource for many top-predators.

During a campaign of the German RV Polarstern (ANT XXI/4, march-may 2004) in the Lazarev Sea, samples of different life classes were collected using pelagic trawls (RMT 8+1). By using three different approaches (ecology, modelling and genetic analysis) knowledge about the status role and control of this species will increase. Here, we present these different approaches and some preliminary results.

The ecological approach focuses on the distribution, feeding ecology and energy content of different life stages. By using dynamic programming different survival strategies for *E. antarctica* will be modelled and compared with each other. Finally by using mitochondrial and microsatellite markers the genetic structure of *E. antarctica* is studied on a population genetic (Lazarev Sea) and phylogeographic (Circum-Antarctic) scale.

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