

Assessment of mortality of Antarctic krill (*Euphausia superba*) escaping from a trawl

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Abstract

The overall purpose of this study was to estimate the mortality of Antarctic krill (*Euphausia superba*) that escape from the most common mesh size used for codends (16 mm) in the current commercial fishery. The experiment was carried out off the South Orkney Islands (60°35`S, 45°30`W) using a covered codend sampling technique for retaining escaped krill, which thereafter were observed in holding tanks to monitor their mortality rate. Our results suggest that krill with smaller body lengths suffered higher mortality. However, sampling depth, haul duration and catch accumulation as well as handling effects onboard such as exposure to temperature differences, likely increased the mortality rates in our experiment. The results indicates that mortality of krill which escape trawl nets is relatively small, suggesting that krill, in common with many other crustacean species, are fairly tolerant to a process of capture-and-escape.

Key words: Southern Ocean, unaccounted mortality, size selectivity, fishery management

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