

South African Research on Antarctic krill

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South African research on Antarctic krill (*Euphausia superba* Dana) had its origins in the international BIOMASS (Biological Investigations of Marine Antarctic Systems and Stocks) Programme during the mid 1970s (Cram *et al* 1979). In keeping with the objectives of this Programme, national krill research focussed on estimating krill distribution and abundance in various areas of the Antarctic (e.g. Hampton 1983; Miller 1986). The use of high-frequency echosounders was fundamental to this work (Hampton 1985) and a number of surveys were carried out (Miller, 1991a). Through these activities, considerable local expertise was developed and this was put to good effect in the production of a

substantive review on krill ecology commissioned by BIOMASS (Miller and Hampton 1989a).

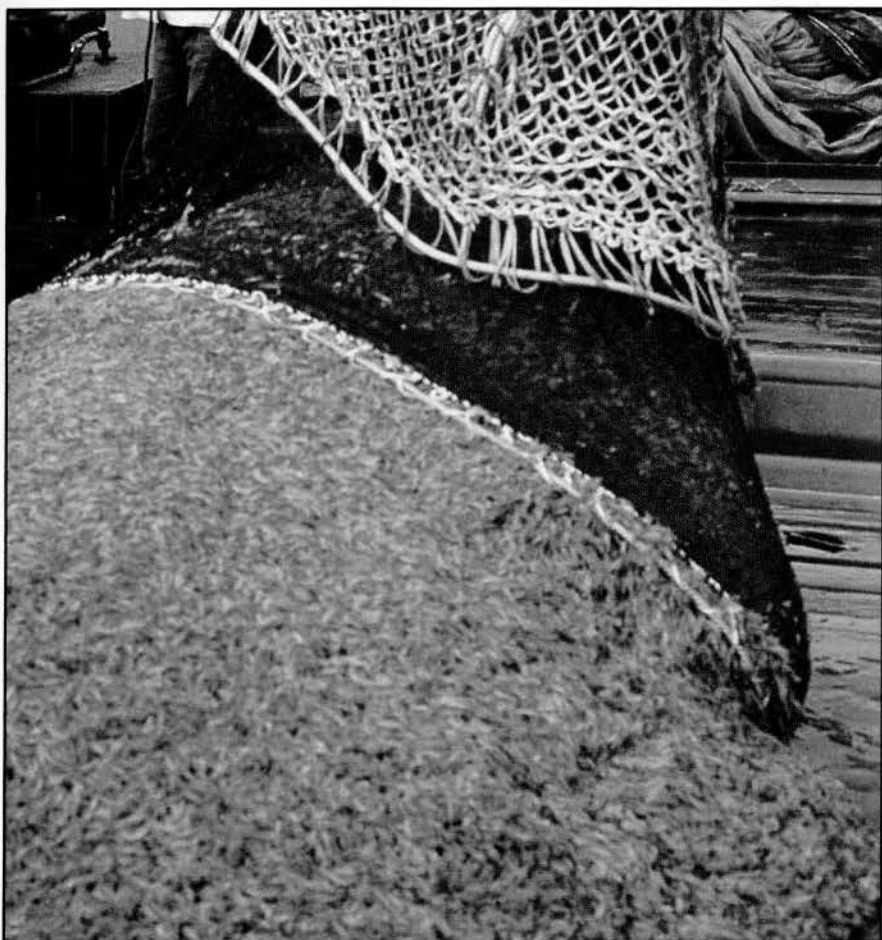
The entry into force of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) in 1982 greatly influenced the course of local krill research. The knowledge gained during BIOMASS formed the basis for the research necessary to address the Convention's objectives. Consequently, the rather broad-scale approach initiated under BIOMASS has become focussed onto problems associated with management (Miller 1991b) of the krill resource.

Current South African krill research is thus geared towards monitoring the impact of fisheries on krill and possible interactions between krill, the fishery and related species. A key element of this approach is investigation of the nature and extent of krill aggregation and how this is reflected in the species' availability to the fishery (Butterworth 1989) and its distribution (Miller and Hampton 1989b). A future development of the latter will be to determine

the importance of krill aggregation in the flux of energy and matter in the Southern Ocean as a whole.

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A large catch of (>10 tons) krill (*Euphausia superba*)