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# fish technology

# newsletter

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# FIRST INDIAN ANTARCTIC KRILL EXPEDITION (FIKEX)

The potential development of Antarctic krill (*Euphausia superba*) has attracted world wide attention in recent years. It is adjudged to be one of the promising under-utilised resources at a time when most of the conventional resources are either approaching or have exceeded maximum sustainable limits. Estimates of krill stocks vary greatly, but generally fall between 100 and 500 million tonnes. Krill has been harvested, since 1970s, by nations including Chile, Japan, Korea, Poland, Ukrain and Russia. Others like Australia are now venturing into this field. Assessment and sustainable utilisation of krill and other living resources in the Antarctic waters, particularly in the FAO fishing areas 58, in the Indian Ocean Sector, is of

great national interest.

The harvested krill poses several processing problems such as fragility, rapid post mortem proteolytic activity and presence of high concentration of flourides in its shell which need to be tackled while harvesting, onboard handling, processing, storage and transportation.

Techno-economic feasibility of harvesting, utilisation and marketing of krill and other living resources with special reference to Indian Ocean Sector of Southern Ocean, need to be investigated in detail and potential of krill as a source of high quality protein and valuable by products such as chitin and chitosan need to be evaluated in the Indian context. The First

Indian Antarctic Krill Expedition is the first puissant step in this direction, by India.

In view of the potential importance of Antarctic krill and other living resources of the Southern Ocean, the Department of Ocean Development, Government of India, organized the First Indian Antarctic Krill Expedition (FIKEX) from 22 December, 1995 to 12 March 1996, on board FORV Sagar Sampada.

The Expedition team was constituted by 10 representatives from CIFT, IFP, NIO, CMFRI, DOD, NORINCO and Deep Sea Fishing Industry, 3 Polish experts in Polar Navigation, Resource Assessment and Post-harvest Technology and a 35 member ship's crew from SCI,

Bombay. The expedition was led by Mr. M.K.R. Nair, Director, Integrated Fisheries Project.

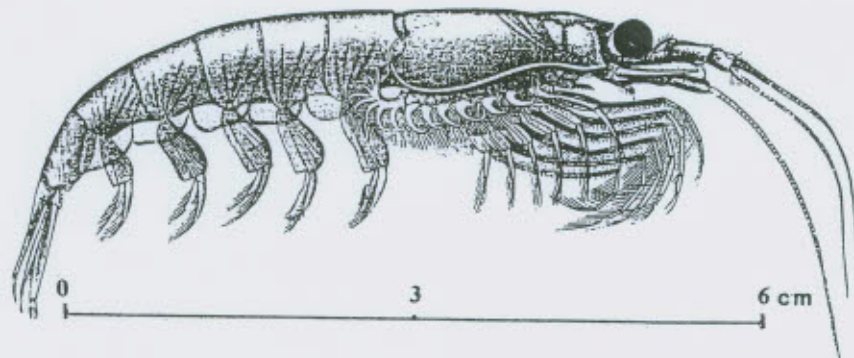
Main objective of the expedition was preliminary survey of fishery resources of the Indian Ocean

sector of Southern Ocean with krill as the target resource, in order to obtain first-hand information pertaining to factors affecting viability of commercial harvest and post-harvest operations. During the period of expedition spanning two and half

months the vessel covered 12,550 nautical miles and ventured up to 61° 20' S latitude, in the FAO fishing area 58 covering 33 stations. A total catch of 12470 kg was landed during operations using 42 m and 49.5 m Krill midwater trawls. This included 5637 kg of Antarctic Krill (*Euphausia superba*) 6738 kg of salpa, 35 kg of jellyfish, 12 kg of krill juveniles, 2.2 kg of lanternfish, 5.7 kg of squid and 2.7 kg of other fishes.

Two scientists represented CIFT in FIKEX. Mr M.R. Boopendranath conducted investigations on harvest technology and Dr Ravishankar on post-harvest technology.

**Mr M.R. Boopendranath &  
Dr N. Ravishankar**



Lateral view of adult male Antarctic Krill, *Euphausia superba*