

CCAMLR'S APPROACH TO ECOSYSTEM MANAGEMENT

Text of letter to be sent by the Executive Secretary
of CCAMLR to the UN and FAO (see paragraph 12.7)

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The Convention's primary objective is the conservation of Antarctic marine living resources which includes the rational utilisation of such resources (Article II, paragraphs 1 and 2). Also explicit in Article II is that the provisions for marine resource exploitation should take account of ecosystem interactions. The Article (paragraph 3) states that:

“Any harvesting and associated activities in the area to which this Convention applies shall be conducted in accordance with the provisions of this Convention and with the following principles of conservation:

- (a) prevention of decrease in the size of any harvested population to levels below those which ensure its stable recruitment. For this purpose its size should not be allowed to fall below a level close to that which ensures the greatest net annual increment.
- (b) maintenance of the ecological relationships between harvested, dependent and related populations of Antarctic marine living resources and the restoration of depleted populations to the levels defined in subparagraph (a) above; and
- (c) prevention of changes or minimisation of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades, taking into account the state of available knowledge of the direct and indirect impact of harvesting, the effect of the introduction of alien species, the effects of associated activities on the marine ecosystem and of the effects of environmental changes, with the aim of making possible the sustained conservation of Antarctic marine living resources.”

2. Based on these provisions, the Commission has endorsed the following general concepts as a basis for the development of a management policy for krill (CCAMLR-IX, paragraphs 4.17 and 4.18):

- (i) to aim at keeping the krill biomass at a higher level than might be the case if only single species harvesting considerations were of concern;

- (ii) to focus on the lowest biomass that might occur over a future period, rather than the mean biomass at the end of that period as might be the case in a single species context, given that krill dynamics have a stochastic component;
 - (iii) to ensure that any reduction of food to predators which may arise because of krill harvesting is not such that land breeding predators with restricted foraging ranges are disproportionately affected in comparison with predators in pelagic habitats; and
 - (iv) to examine what level of krill escapement would be sufficient to meet the reasonable requirements of krill predators.
3. These concepts have been applied to krill in a way which specifically attempts to take into account the need to sustain consistency of catch levels with time.
4. Further, the Commission has attempted to take into account uncertain or unknown effects so that, on available information at least, the possibilities of management objectives not being met are reduced.
5. In the exercise of its management responsibilities CCAMLR has adopted a conservative approach. In this regard it has adopted the following Conservation Measures:
- the introduction, in 1991 and 1992, of precautionary catch limits for krill fisheries in Statistical Area 48 and Division 58.4.2 to prevent uncontrolled expansion of the krill fishery;
 - the institution in 1992 of advance notification and data requirements prior to the development of new fisheries, which led to catch and effort regulations being applied to exploratory fishing;
 - the implementation in 1993 of an experimental approach to the crab (*Paralomis* spp.) fishery in Subarea 48.3 which integrates experimental with commercial fisheries thereby optimising available resources which are limited for stock assessment purposes;
 - the control in 1993 of exploratory fishing, such that it should not be allowed to expand faster than the acquisition of information necessary to ensure that the fishery can and will be conducted in accordance with the concepts developed from Article II;

- the introduction of a precautionary catch limit for the fishery on *Electrona carlsbergi* 1993; and
 - the prohibition since 1991 of bottom trawling to safeguard against unknown effects of bottom trawling on mixed species assemblages and benthos.
6. A list of relevant Conservation Measures is provided.