

## ASSESSMENT AND AVOIDANCE OF INCIDENTAL MORTALITY OF ANTARCTIC MARINE LIVING RESOURCES

15. The Commission, in considering this item, had reports from Argentina, Australia, Japan, the Republic of Korea, the USSR, the United Kingdom and the United States describing steps that had been taken to assess and avoid mortality of Antarctic marine living resources caused by entanglement in and ingestion of persistent marine debris of human origin and by incidental catch during commercial fishery operations. The Commission also had the responses to the request (CCAMLR-VII, paragraph 40) for information and advice which it had asked the Chairman of the Scientific Committee to seek from the SCAR Bird Biology Sub-Committee and the SCAR Group of Specialists on Seals. In this regard, the Commission noted and considered paragraphs 6.7, 6.8 and 6.9 of SC-CAMLR-VIII.

16. During discussion of matters under this agenda item, a number of Members, in addition to those noted in the preceding paragraph, described steps that they have taken to assess and avoid incidental mortality of Antarctic marine living resources.

### Marine Debris

17. Australia reported that it had conducted systematic surveys of the coasts of Heard Island in 1986/87 and 1987/88, and of Macquarie Island in 1988 and 1989, to determine the types, quantities, rates of accumulation, and possible sources of marine debris washing up on the islands. There was a high proportion of plastic in the debris found, including plastic bottles, plastic packing straps, net fragments, and buoys and ropes from bottom trawl and longline fisheries. The country or area of origin (manufacturer) of some items was determined from writing on or other characteristics of these items. In this regard, it was noted that while the country of origin could be determined in some cases, this did not necessarily mean that nationals or vessels of the country of origin were responsible for the loss or discard of the item at sea.

18. The United Kingdom reported finding 208 fur seals entangled in marine debris of human origin on Bird Island, South Georgia, during the 1988/89 pup rearing season. This represents 0.5 to 1.0% of the total population and suggests that 5 000 to 10 000 animals could be affected.

19. The United States reported that two adult male fur seals and two nearly weaned fur seal pups were observed entangled in marine debris at Seal Island, Elephant Island, and at Cape Shirreff, Livingstone Island, respectively, during studies conducted in 1989. During discussion of this issue,

Chile noted that its scientists had observed incidents of entanglement or potential entanglement (e.g. plastic debris in birds' nests) involving one prion, one chinstrap penguin, two kelp gulls, and two fur seals at Cape Shirreff. Chile also noted that photographs of these incidents were being prepared for publication and that 90 kilograms of debris of human origin had been removed from Cape Shirreff.

20. Argentina and the United States reported one efforts to assess and minimise the environmental impact of oil released into the marine environment following the wreck of the *Bahia Paraiso* near Palmer Station on 28 January 1989. Argentina noted the lack of knowledge concerning the effects of hydrocarbons on coastal ecosystems and indicated its interest in initiating a cooperative research program on this issue. It also noted and offered to make available, copies of a report on the *Bahia Paraiso* incident which it had distributed at the preparatory meeting for the XVth Antarctic Treaty Consultative Meeting.

21. There were no reports of at-sea sightings of potentially hazardous marine debris or of animals entangled in such debris.

#### Incidental Catch

22. As noted in paragraph 42 of CCAMLR-V, it has been agreed that 'Members would take such steps as necessary to ensure that operators of vessels engaged in fishing and related operations in the Convention Area maintain a record and report the number, species and, where appropriate, the age or size, sex and reproductive status, of any birds and marine mammals taken incidentally during fishing operations.'

23. In this regard, the United Kingdom reported that during a joint UK/Polish krill survey carried out in 1989, black-browed albatrosses and white-chinned petrels were frequently seen diving around the net as it came to the surface and that three white-chinned petrels were seen entangled and killed in one of the 55 net hauls observed. The Commission noted that this was but a small proportion of the total fishing effort in the Convention Area and might indicate that there is substantial incidental mortality which is not being reported.

24. The Commission also noted that a longline fishery was conducted in the Convention Area for the first time during the 1988/89 fishing season and that experience in other areas indicates that there may be a substantial incidental mortality of seabirds associated with such fisheries. In this context, Japan noted that, in cooperation with Australia, procedures had been developed and were being used on a trial basis to minimise the incidental take of albatrosses in its tuna longline fishery in the Southwest Pacific.

25. The Commission called upon its Members to review measures taken to date and take such additional measures as may be necessary to ensure that operators of vessels engaged in fishing and related operations in the Convention Area maintain records and report incidents of incidental catch of marine mammals and birds as specified in paragraph 42 of CCAMLR-V. It requested that the Scientific Committee consider and provide advice on steps that could be taken to better assess and minimise the incidental take of marine mammals and seabirds during commercial and exploratory fishing operations.

26. On a related point, the United States recalled the possibility, noted in paragraph 43 of CCAMLR-V, that seabirds and marine mammals may be more vulnerable to incidental capture in gill nets than in other types of fishing gear. It requested and received confirmation of its understanding that gill nets currently are not being used nor are they planned to be used by Members in the Convention Area.

27. In this regard, Japan noted its view that there are no living resources in the Convention Area that could be caught more effectively with gill nets than other fishing gear.

#### SCAR Response to Request for Advice on Monitoring

28. At its Seventh Meeting, the Commission requested that the Chairman of the Scientific Committee consult and request (SC-CAMLR-VII, paragraph 40):

‘(a) the SCAR Bird Biology Sub-Committee to:

- (i) provide a summary of existing information on the incidence of ingestion of plastics by marine birds in the Antarctic; and
- (ii) make suggestions as to how the levels and effects of such pollution could be monitored.

(b) the SCAR Group of Specialists on Seals to advise the Commission on:

- (i) the conduct (including data collecting and reporting formats) of surveys to determine the incidence, causes and effects of entanglement of marine mammals; and

- (ii) improvements to the existing system of CCAMLR for reporting incidental mortality associated with fishing operations, in order more precisely to determine the incidence, causes and effects of mortality.’

The Chairman of the Scientific Committee subsequently corresponded with the Conveners of the two SCAR Groups.

29. The response from the Convener of the Bird Biology Sub-Committee:

- (a) indicated that the incidence of plastic ingestion by Antarctic and sub-Antarctic seabirds within the CCAMLR Convention Area is widespread geographically and in the number of species affected and includes a high proportion of individuals of a number of species, especially burrowing petrels;
- (b) outlined ways whereby the levels of ingestion might be monitored; and
- (c) called attention to the need for carefully designed field and laboratory studies to discern the effects of any plastic ingested by seabirds.

30. The Convener of the SCAR Group of Specialists on Seals advised that it would be desirable to:

- (a) develop standardised formats for reporting the incidental catch of marine mammals during fishing operations and observations of marine mammals found entangled in lost and discarded fishing gear and other marine debris;
- (b) establish standard, quantitative measures of the types and amounts of marine debris washing ashore on beaches in the Convention Area and the incidence of marine mammals observed entangled in such debris; and
- (c) expedite establishment of an observer program to gather information on the number, species, age sex, stomach contents and other characteristics of marine mammals caught incidentally during commercial fishing operations.

## Regulations of Vessel Source Pollution Under Annex V of the MARPOL Convention

32. Annex V of the MARPOL Convention prohibits the at-sea disposal of 'all plastics, including but not limited to synthetic ropes, synthetic fishing gear and plastic garbage bags', and requires commercial fishing fleets to take 'reasonable precautions' to prevent the accidental loss of synthetic fishing nets. In addition, the Annex places certain restrictions on dumping and disposal of other types of garbage from vessels at sea.

33. It was agreed at CCAMLR-VII that those Members who had not already done so would consider and take such steps as may be appropriate to accept or ratify Annex V of the MARPOL Convention. During consideration of this matter at CCAMLR-VII, it was noted that:

- Belgium, France, the German Democratic Republic, the Federal Republic of Germany, Japan, Norway, Poland, the USSR, the United Kingdom and the United States had accepted or ratified the Annex;
- three acceding states, Greece, Sweden and Uruguay, also had accepted or ratified the Annex;
- South Africa and Peru had indicated their intent to ratify the Annex;
- Chile informed the Commission that it was considering adhesion; and
- Argentina, Australia and New Zealand advised that their ratification procedures were in train.

It was noted that the XVth Antarctic Treaty Consultative Meeting, held recently in Paris, had adopted recommendations concerning waste disposal and measures to minimise marine pollution in the Antarctic Treaty Area including possible designation of the Treaty Area as a Special Area under MARPOL Annex V.

34. In this context, the Commission noted the importance of continuing efforts by Argentina and the United States to assess the environmental impacts of the *Bahia Paraiso* oil spill, as well as the recommended actions to minimise the risk and impacts of such accidents.

35. The Commission agreed that those Members who have not already done so would consider and take such steps as appropriate to accept or ratify MARPOL Annex V. The Commission also

agreed that Members should take such steps as appropriate to ensure that their nationals and vessels operating in the CCAMLR Convention Area comply with the provisions of the Annex.

#### Future Work

36. It was agreed that this item should be included on the agenda for subsequent annual meetings of the Commission and that, prior to such meetings, Members would advise the Executive Secretary of steps that have been or are being taken to implement the measures agreed to in paragraphs 40 to 43 of CCAMLR-V.

37. The Commission noted that all Members have not reported steps they have taken to assess and avoid incidental mortality. It called upon Members to review and take such steps as necessary to fully comply with the data collection and reporting measures set forth in paragraphs 40 to 43 of CCAMLR-V.