

ASSESSMENT AND AVOIDANCE OF INCIDENTAL MORTALITY OF ANTARCTIC MARINE LIVING RESOURCES

25. In considering this item, the Commission had reports from eight Members, some of which described the results of surveys undertaken to detect marine debris and entanglement-related problems. It also had before it an information bulletin (brochure) and placard prepared by the Secretariat to inform operators in the Convention Area of the marine debris problem and the proper handling of different types of refuse. In addition, the Commission considered the imminent entry into force of Annex V of the *MARPOL Convention. Finally, the Commission was presented with a request from the Scientific Committee on Antarctic Research (SCAR) to establish programs to monitor plastic pollution and entanglement of Antarctic marine life.

Members' Reports on the Assessment and Avoidance of Incidental Mortality

26. In the Report of the Commission's Meeting last year, Members agreed to request their nationals working in the Convention Area to report any observations of lost or discarded fishing gear and to survey periodically beaches and seal and penguin colonies in the vicinity of their coastal stations. Reports were received from Argentina, Australia, Japan, Republic of Korea, South Africa, Soviet Union, United Kingdom and the United States.

27. While several Members observed no marine debris or entanglement problems, others reported the loss of trawl bags and sightings of derelict debris consisting of fishing buoys, gas bottles, plastic containers, net fragments and packaging from domestic products. In addition, five fur seals were seen entangled in derelict fishing gear and two bull fur seals died after becoming entangled in trammel nets. Members agreed that these reports provided useful information about the loss of Antarctic marine life from entanglement in marine debris.

28. To ensure that the loss or disposal of nets, net fragments, and other potentially hazardous debris does not contravene efforts to achieve the objectives set forth in Article II of the Convention, it was agreed that Members would continue to take those steps outlined at the Commission's Fifth Meeting (CCAMLR-V, paragraphs 40-43). Such steps include maintaining a complete record of lost fishing gear, collecting where feasible derelict marine debris, periodically surveying beaches and seal and penguin colonies near coastal stations, requesting nationals to report observations of derelict

* The International Convention for the Prevention of Pollution from Ships of 1973, as modified by its Protocol of 1978.

debris, determining practical methods for marking fishing gear, and maintaining an inventory of the types and quantities of netting used in the Convention Area. In this context, the Commission noted that reporting of incidental mortality as recommended in CCAMLR-V, paragraph 42 had to date been inadequate.

Information Brochure and Placard

29. In response to the Commission's decision at the Fifth Meeting (CCAMLR-V, 40 (b)), during the intersessional period the Executive Secretary completed and distributed an information brochure 'to advise fishermen, researchers, and others working in the Convention Area of the sources, fates and effects of potentially hazardous marine debris' and a placard 'that could be displayed in appropriate places aboard ships operating in the Convention Area, describing "do's and don'ts" with respect to handling, storing, and discarding different types of refuse.' The text of the brochure and placard is provided in Annex F of CCAMLR-VI.

30. Members are urged to distribute the brochure widely among their people working in Antarctica and to ensure that all vessel operators were provided with the placard. The Executive Secretary noted that additional brochures were available and that additional placards could be ordered from the Secretariat. The Commission expressed its appreciation to the Executive Secretary for a fine job in preparing and distributing these materials.

Regulation of Vessel Source Pollution Under Annex V of the MARPOL Convention

31. The MARPOL Convention is designed to control pollution generated by ships, including the accidental disposal of wastes incidental to normal vessel operations. Annex V of the Convention prohibits the disposal of 'all plastics, including but not limited to synthetic ropes, synthetic fishing nets 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.

32. Annex V of the MARPOL Convention will enter into force on 31 December 1988. Because the MARPOL Convention applies to vessels operating in Antarctic waters it was agreed that those Members who have not done so would consider and take such steps as may be appropriate to accept or ratify Annex V of the MARPOL Convention. In addition, the Commission

again drew attention to the desirability of all Members operating in the Convention Area to observe the measures outlined in the Annex.

Request to SCAR for Advice on Monitoring Programs

33. At its meeting during XX SCAR, 1988, the Bird Biology Sub-Committee of the SCAR Working Group on Biology discussed plastic pollution in Antarctic seabirds. On the basis of discussion of submitted papers it considered that there was evidence that levels of such pollution are increasing and are already high in some species of procellariiform seabirds (SC-CAMLR-VII/12, page 22).

34. The Bird Biology Sub-Committee had requested that the SCAR Working Group on Biology consider commencing a program to monitor the levels and effects of plastic pollution in seabirds, involving both the ingestion of plastic particles and mortality through entanglement and similar effects.

35. The SCAR Working Group on Biology taking note of existing CCAMLR initiatives in this field, requested CCAMLR 'to consider initiating programs to monitor the level and effects of plastic pollution in Sub-Antarctic and Antarctic seabirds, both from ingestion of plastic particles and from entanglement'. (SC-CAMLR-VII/12, paragraph 3.6).

36. The SCAR Group of Specialists on Seals, meeting in association with XX SCAR 1988, noted that entanglements of Antarctic fur seals have been reported from several areas around the Antarctic (including South Georgia, the South Shetland Islands, Crozet, Marion, Heard and Bouvet Islands) (SC-CAMLR-VII/12, page 49).

37. The Group noted the potential for significant future adverse effects on Antarctic pinnipeds and requested CCAMLR 'to seek detailed information on the frequency of occurrence and nature of entanglement events involving seals in order to identify the causes of entanglement of seals and trends in the frequency and extent of seal entanglement over time. The Group recommended that regular and comprehensive reporting should be encouraged to include:

- (a) sufficient description of seal entanglement events to identify, as far as possible, both the causes of entanglement and their effects on individual seals (e.g. condition, lesions etc); and
- (b) the presence, or absence, of seal entanglement events on a quantitative basis by species, within areas, groups or populations of a specified size.'

The Group offered to provide assistance to CCAMLR in designing a suitable report sheet for circulation to countries operating in the Antarctic.

38. In response to these requests from SCAR, the Commission noted that Members are already required to report losses of equipment which might pose potential hazards to animals through entanglement, to report any entanglements in such gear and to conduct quantitative surveys of fishing gear and other debris cast ashore (CCAMLR-V/5, paragraph 41). Furthermore, Members are obliged to make an annual report (including details on age or size, sex and reproductive status of birds and mammals taken incidentally during fishing operations (CCAMLR-V/5, paragraph 42)).

39. The Commission noted, however, that these obligations:

- (a) do not address the problem of ingestion of plastics;
- (b) do not specifically provide for quantitative and detailed reports of the incidence, causes and effects of entanglement in circumstances where fishing operations are not directly involved; and
- (c) may not provide adequately detailed information on incidental mortality during fishing operations to enable assessment of the extent of the problem or to monitor changes on a quantitative basis.

40. Accordingly the Commission requested that the Chairman of the Scientific Committee consult and request:

- (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 entanglements of marine mammals, and

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

Future Work

41. It was agreed that this item should be included on the agenda of 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 40–43 of CCAMLR-V.