

## SQUID RESOURCES

### Review of Activities Related to Squid Resources

4.1 No Members reported undertaking any squid fishing within the Convention Area during the past year.

4.2 The United Kingdom reported that seven squid-jigs were trawled up in January 1990 at 54°28'S, 38°13'W during the course of a fish survey around South Georgia. The origin of these jigs was unknown.

4.3 No Members present have reported the loss of any squid fishing gear but the possibility remained that non-Member nations might be involved (e.g., SC-CAMLR-VIII, paragraph 4.3). The Scientific Committee noted that the topic of obtaining data from non-member nations would be discussed at this meeting of the Commission (CCAMLR-VIII, paragraph 54).

4.4 The Secretariat reported that, following the decision of the Commission (CCAMLR-VIII, paragraph 55) to accept the recommendation from the Scientific Committee (SC-CAMLR-VIII, paragraph 4.5) that fine-scale catch and effort data from squid fishing operations in the Convention Area should be submitted to the Commission, it had developed a preliminary format for the reporting of such data (SC-CAMLR-IX/BG/4). The Scientific Committee thanked the Secretariat and their specialist advisers for preparing this and approved its content.

4.5 During last year's discussion of this Agenda Item it was concluded that, chiefly because of the limited market potential of the most likely target species, the ommastrephid squid *Martialia hyadesi*, it was unlikely that squid fishing in the Convention Area would expand in the near future. However, the view was also expressed that the squid resource was not available in sufficient quantities or with adequate predictability to be of future importance as a commercial resource (SC-CAMLR-VIII, paragraph 4.4).

4.6 However, ommastrephids are one of the two families which form over 70% of the World's commercial catch of cephalopods and *Martialia* has been a significant element in the current Patagonian shelf/Falkland Islands squid fishery, with annual catches of up to

26 000 tonnes and has contributed a catch of commercial quantity during exploratory fishing within Subarea 48.3 (SC-CAMLR-VIII, paragraph 4.2).

4.7 Furthermore, Dr Croxall introduced a report by Dr P. Rodhouse (SC-CAMLR-IX/BG/13) which provided the first, preliminary, assessment of the stock of *M. hyadesi* in the Convention Area, based on data from its contribution to the squid diet of predators.

4.8 Based on sampling over several years, the proportion of *Martialia* in the squid diet of predators breeding at South Georgia is known for grey-headed albatross (*Diomedea chrysostoma*) (69%), black-browed albatross (*Diomedea melanophrys*) (76%), wandering albatross (*Diomedea exulans*) (2%), light-mantled sooty albatross (*Phoebastria palpebrata*) (1%), northern giant petrel (*Macronectes halli*) (1%), southern giant petrel (*Macronectes giganteus*) (15%), and southern elephant seal (*Mirounga leonina*) (12%). The squid diet of a number of other seabirds and seals is insufficiently known to indicate whether or not they eat *Martialia*.

4.9 Based on these quantitative data, the estimated annual consumption of *M. hyadesi* is at least 330 000 tonnes, of which about 94% is due to southern elephant seals. No data are available to estimate the relationship between the biomass of *Martialia* consumed by predators and the total stock.

4.10 The Scientific Committee welcomed this assessment and noted that the paper had important implications. It clearly demonstrated the existence of a substantial population of a squid species of potential commercial significance within the Convention Area and indicated the nature of some of the relationships between this species and its dependent predators. The knowledge that *Martialia* probably has a life-span of two years (rather than one year as in most ommastrephid squid) also has important implications for management of any future commercial exploitation.

#### Advice to the Commission

4.11 The Scientific Committee recommended that the Commission should adopt the instructions and data reporting form in SC-CAMLR-IX/BG/4 as the standard format for reporting fine-scale catch and effort data from squid-jig fisheries.