

## MANAGEMENT UNDER UNCERTAINTY

### Regulatory Framework

10.1 Last year, the Commission had requested the Scientific Committee to consider the inter-relationship between different stages of fishery development (CCAMLR-XVI, paragraph 10.1). The Commission welcomed the Scientific Committee's initiative to determine the period of time over which assessment may be considered valid (i.e. the 'currency' of available assessments). This was an important element in the debate associated with the resumption of closed or lapsed fisheries for which fishery or research data from recent seasons were absent (SC-CAMLR-XVII, paragraph 5.26).

10.2 The Commission recalled its discussion at last year's meeting regarding the status of fisheries, and the need to review the inter-relationship of all stages of fisheries development, including those of new and exploratory fisheries, to ensure that there was a coherent progression from an unexploited resource, through the various phases of fisheries, to fully-commercial fisheries (CCAMLR-XVI, paragraph 10.4). At that meeting, the Commission proposed that Members should examine this issue intersessionally and submit proposals to the Secretariat for timely transmission to all Parties.

10.3 The Commission welcomed the submission by the European Community of a discussion paper on a unified regulatory framework of CCAMLR based on stages of fishery development (CCAMLR-XVII/18). The proposed framework, while drawing substantially on the existing regulatory procedures of the Commission, has been designed to meet two criteria: on the one hand to be sufficiently comprehensive to provide guidelines for the management of all existing and potential fisheries, and on the other to be adequately flexible to allow the Commission to adopt measures tailored to the specific needs of individual fisheries.

10.4 The Commission agreed that this proposal was an important initiative and that a framework of this type needed to be developed. The Commission noted the comments of the Scientific Committee regarding the need to develop the scientific criteria for transition between stages of fishery development, particularly with respect to the move from a developing to an established fishery.

10.5 The European Community noted that some confusion had arisen regarding their proposal for a unified regulatory framework and confirmed there was no question of automatic transfer from notification to established fishery.

10.6 The Commission endorsed the sentiments expressed in the final paragraph of CCAMLR-XVII/18 which emphasised that the development of the framework would take some time, and that Conservation Measures 31/X and 65/XII should remain in force until an alternative scheme is adopted.

10.7 The Commission agreed that it was desirable to make progress on developing the scientific basis of the framework prior to the next meeting of the Commission. In this regard it requested the Chairman of the Scientific Committee to set up a task group during the intersessional period to explore the scientific issues with the purpose of preparing a working paper to be considered by the 1999 meeting of the Scientific Committee.

10.8 Dr Miller indicated that the Scientific Committee would be very interested in moving this process forward, and developing scientific criteria to enhance the decision-making process. It was agreed that this matter could be progressed by adding it to the program of high-priority work endorsed to be undertaken on *D. eleginoides* at the next meeting of WG-FSA.

10.9 Without minimising the importance of international and national initiatives relating to incidental mortality of seabirds, Chile considered that several other aspects of CCAMLR-XVII/18 deserved special attention, including strategies devised to regulate and

control the expansion of new fishing activity in the Convention Area; the requirement for a unified regulatory framework which would provide guidelines for the management of all existing and potential fisheries in the Convention Area; the requirement for further research surveys to estimate recruitment or biomass in each area for which yields have so far been based on extrapolated data, as well as to improve knowledge about the levels of by-catch or its potential effects on stocks of the by-catch species, some of which required better taxonomic keys; and methods to calculate yield estimates for mixed fisheries at the present stage, a matter to which the Scientific Committee had drawn the attention of the Commission.

## Management Units

10.10 The Commission recognised that there is substantial uncertainty concerning the estimated precautionary yield levels for new and exploratory fisheries for *Dissostichus* spp. because it has been necessary in most cases to extrapolate recruitment and stock discreteness levels from estimates of these parameters in other areas (SC-CAMLR-XVII, paragraph 7.6). The Commission noted the Scientific Committee's advice that it would normally be preferable to manage *Dissostichus* spp. stocks using geographic units smaller than the statistical areas currently used (SC-CAMLR-XVII, paragraph 7.8). The Commission also noted the Scientific Committee's advice that research surveys are a critical element of the precautionary approach to fisheries management (SC-CAMLR-XVII, paragraph 7.8) and the Committee's recommendation (SC-CAMLR-XVII, paragraph 9.48) that research surveys to estimate biomass should be included in the early stages of new and exploratory fishery development. The Commission endorsed the Scientific Committee's conclusion (SC-CAMLR-XVII, paragraph 5.134) that high priority should be afforded to resolving uncertainties concerning *Dissostichus* spp., particularly regarding stock structure and recruitment.

10.11 With regard to the last point, the USA noted the Scientific Committee's concern that much less is known about stocks of *D. mawsoni* than stocks of *D. eleginoides* (SC-CAMLR-XVII, paragraph 9.40) and that, as a consequence, there is greater uncertainty associated with the estimates of precautionary yields for *D. mawsoni* stocks than for *D. eleginoides* stocks (SC-CAMLR-XVII, paragraph 9.42). The USA also noted that *D. mawsoni* occurs exclusively in the Convention Area and that, to date, new and exploratory fisheries for that species have been initiated only in a small part of the species' probable range. The USA proposed and the Commission requested that the Scientific Committee consider and, as a matter of priority, provide advice as to how the development of fisheries for *D. mawsoni* might be structured and research surveys or experimental fisheries conducted, as was done for the new crab fisheries, to ensure the fisheries develop no faster than the acquisition of information needed to assure compliance with the objectives set forth in Article II of the Convention.

## General By-catch Provision

10.12 The Commission discussed existing by-catch provisions in conservation measures (e.g. Conservation Measures 130/XVI and 133/XVI), and the advice of the Scientific Committee regarding possible changes (SC-CAMLR-XVII, paragraphs 5.115 and 5.116).

10.13 The Chairman of the Scientific Committee outlined the rationale applied to develop these recommendations (SC-CAMLR-XVII, paragraph 5.115). The Scientific Committee considered that existing conservation measures (e.g. Conservation Measure 130/XVI) may limit exploratory fishing on some of the grounds where *Dissostichus* spp. may occur. The Scientific Committee had discussed the extent to which the existing by-catch provisions of conservation measures need to be revised in order to allow prospecting as part of exploratory fishing for *Dissostichus* spp. It was agreed that any such change should nevertheless ensure that

exploratory fisheries continue to be undertaken in the spirit of Conservation Measure 65/XII, and retain the level of control on the size and distribution of by-catch inferred by the existing provisions.

10.14 The Commission noted the advice of the Scientific Committee that the scheme set out in the following subparagraphs would be a reasonable way to proceed:

- (i) for any species for which there is no explicit by-catch limit held under a conservation measure, the by-catch limit should be set at 50 tonnes;
- (ii) when the catch of a single by-catch species (as defined in conservation measures) in an individual set or haul exceeds 2 tonnes, the vessel shall move to another fishing location at least 5 n miles distant, in accordance with the existing provision; and
- (iii) in statistical areas where the aggregate catch limits for target species are less than 1 000 tonnes, the catch of a single by-catch species should be no more than 5% by weight of the aggregate catch limit.

This last provision was added in recognition of the fact that 50 tonnes represents a high proportion of the catch in some statistical areas where the sum of all catch limits for target species is low.

10.15 The Commission agreed that the Scientific Committee should consider further the requirements for a general by-catch conservation measure at its next meeting.