

MANAGEMENT UNDER UNCERTAINTY

7.1 No new information relevant to this agenda item was provided by WG-EMM.

7.2 WG-FSA provided information dealing with catch and effort data for *Dissostichus* spp. in waters adjacent to the Convention Area, as well as information concerning IUU fishing. In addition, the Scientific Committee discussed a Russian proposal to classify the krill fishery using the continuous fishing system as a new and exploratory fishery, and technical aspects of CCAMLR-XXV/39 on improving the performance of CCAMLR with respect to its ecosystem-based approach to management.

7.3 Catch and effort data for *Dissostichus* spp. outside the Convention Area originated mostly from Areas 41 and 87 (Annex 5, Table 3). In order to assess the stock of *D. eleginoides* on the Scotia Ridge (Area 41) more adequately, WG-FSA requested that Members provide information on the sustainability of the resource, in particular because the western sector of Subarea 48.3, which is adjacent to the Scotia Ridge, was excluded from the area currently in the assessment.

7.4 Dr Barrera-Oro provided additional information on toothfish in Area 41. The fishery conducted by Argentina is a mixed fishery using both longlines and trawls in depths greater than 800 m. The catch limit for toothfish was 2 500 tonnes, of which 45% was allocated to by-catch.

7.5 The Scientific Committee noted the extensive work undertaken by WG-FSA (Annex 5, paragraphs 8.1 to 8.15) and JAG (CCAMLR-XXV, Annex 6) with respect to better estimating the level of IUU catches. The Scientific Committee noted WG-FSA's management advice (Annex 5, paragraphs 8.14 and 8.15).

7.6 The Scientific Committee endorsed WG-FSA's recommendation for further development of the new methodology proposed by JAG with the following actions (paragraphs 11.2 to 11.4):

- (i) SCIC should consider whether the weightings of individual categories were appropriate, whether the number of levels in each category was correct and whether there were other useful categories that might be used without overly complicating the analysis.
- (ii) SCIC should determine the vulnerability of different areas to IUU fishing, for instance using the template provided by SCIC-06/9.
- (iii) WG-FSA will develop distributions of likely catch rates of IUU fishing vessels by area using data from licensed vessels. The attention of SCIC is drawn to the fact that data are currently most limiting in the areas which have higher levels of IUU fishing.

7.7 In future, determination of credible ranges of IUU estimates should be followed by investigation of the consequences of this uncertainty for the assessments.

7.8 Drs Shust and V. Sushin (Russia) drew the attention of the Scientific Committee to discussions on the continuous fishing system used for catching krill under Agenda Item 4 (paragraphs 4.12 to 4.17) and noted that in their view the new method should be classified as

a new and exploratory fishery. This would result in the development and implementation of the fishery plans, including a research plan as adopted by the Scientific Committee, becoming obligatory for all vessels using this method in any season. They emphasised that classifying this fishery as a new and exploratory fishery will in no way create obstacles for its development. On the contrary, within the framework of a new or exploratory fishery it may be possible to resolve more rapidly the abovementioned scientific, methodological and organisational difficulties related to the implementation of the new krill fishing method.

7.9 New Zealand provided a proposal on further improving CCAMLR's ability to manage Southern Ocean fisheries by expanding the current Fishery Plan concept endorsed by the Commission into a forward-looking management plan ('Fisheries Management Plan') (CCAMLR-XXV/39).

7.10 Fisheries Management Plans would provide a mechanism to set the objectives for a fishery and define strategies to achieve those objectives. This would provide a stronger link between objectives and management and better integrate science, policy and compliance.

7.11 The Scientific Committee was only able to comment on some of the technical details of the proposal.

7.12 Drs Shust and Naganobu cautioned that the proposal outlined by New Zealand has the potential to further increase bureaucracy but might not necessarily improve fisheries and ecosystem management in the Southern Ocean.

7.13 Prof. Moreno stated that similar plans have been developed in the remit of FAO for application in countries bordering the Pacific Ocean. These plans offer a useful approach in individual countries, such as Chile, where they have been successfully implemented but may be more difficult to implement in RFMOs such as CCAMLR.

7.14 Dr Constable supported the approach taken by New Zealand in principal but noted that many of the points relate to how the Commission may choose to set objectives or manage the fisheries. He drew the attention of the Scientific Committee to the fact that some of the ideas outlined by New Zealand had been initially discussed by WG-DAC in 1987/88. He also drew the attention of the Scientific Committee to the development of management strategy evaluations (Annex 5, paragraphs 12.5 to 12.7), noting that the Scientific Committee can assist both in the evaluation of management strategies as well as refining operational objectives for fisheries based on the most up-to-date information.