NEW AND EXPLORATORY FISHERIES

New and Exploratory Fisheries in 2000/01

9.1 Fourteen conservation measures relating to exploratory fisheries were in force during 2000/01, but fishing only occurred in respect of four of these. In most of the active exploratory fisheries, the numbers of days fished and the catches reported were small. The notable exception was the exploratory fishery for *Dissostichus* spp. in Subarea 88.1, where 417 vessel days of effort were reported, taking 658 tonnes of *Dissostichus* spp. Vessels from New Zealand (3 vessels), South Africa (2 vessels) and Uruguay (2 vessels) participated in this fishery.

New and Exploratory Fisheries Notified for 2001/02

9.2 Thirteen notifications of new or exploratory fisheries were made for 2001/02. All of the notifications this year referred to fisheries or regions that have been considered previously by WG-FSA. The Scientific Committee noted that two Members (Japan and Russia) had made notifications of new or exploratory fisheries for the first time this year.

9.3 As was the case last year, there were multiple notifications of exploratory fisheries for *Dissostichus* spp. for several subareas or divisions (Annex 4, Table 18). While this is of potential concern, and takes considerable time to consider, the Scientific Committee also noted that the experience of previous years suggested that many of these notifications may not be activated.

9.4 The Scientific Committee also noted that there are still inconsistencies in the way in which notifications specified intended catch levels in particular. As was the case last year, some notifications attempted to specify realistic levels of intended catches, while others simply specified an intended catch that was equal to the current precautionary catch limit. While this inconsistency continues, the task of assessing the likely effects of multiple new or exploratory fisheries in an area is made much more difficult. In the time available, the Scientific Committee was unable to develop criteria for determining whether the information contained in the notifications regarding intended catches was adequate.

9.5 This year, once again, there has been a large number of notifications for Division 58.4.4 (five notifications for a maximum of up to 10 vessels). As the recommended precautionary catch limit is only 103 tonnes (Annex 5, paragraph 4.78), there is a clear potential for the catch limit to be taken in a very short time and with the extreme likelihood of it being exceeded.

9.6 With regard to the provision of new advice on precautionary catch limits for stocks likely to be subject to new or exploratory fisheries in 2001/02, the Scientific Committee agreed that this would only be possible in 2001 for Subarea 88.1 and Division 58.4.4, as these were the only areas for which sufficient data were available. For all other subareas and divisions for which notifications had been made, the Scientific Committee was unable to provide any new advice on precautionary catch limits.

9.7 Dr Parkes pointed out that the fishery summary in Annex 5, Table 19 addressed the context of assessment and management of fisheries, and indicated those exploratory fisheries

for which advice remains in place in the absence of surveys or fishery-based research information.

9.8 An assessment of *D. eleginoides* in the Prince Edwards Islands EEZ suggested that the stock in that area had been greatly reduced from its unexploited level primarily by IUU fishing. This raised major concerns about the status of *D. eleginoides* stocks throughout Subarea 58.7. The Scientific Committee recommended that France be requested to submit fine-scale haul-by-haul data from waters adjacent to the Crozet Islands so that an assessment of the stock in that area could be carried out to determine whether the same problems may exist throughout Subarea 58.6.

Precautionary Catch Limits

Subarea 88.1

9.9 Using new data resulting from the exploratory fishery in Subarea 88.1, estimates of precautionary yields for this subarea had been calculated for each SSRU. These estimates are given in Annex 4, Table 20 and total 5 016 tonnes.

9.10 While the current assessment incorporates several improvements over earlier assessments of this subarea, considerable uncertainty still exists. In light of this, a discount factor still needs to be applied. If the same discount factor as last year (0.5) is used, the resulting catch limit for *Dissostichus* spp. in Subarea 88.1 would be 2 508 tonnes. Individual catch limits for each SSRU are shown in Annex 4, Table 22.

9.11 Dr Sullivan stated New Zealand's support for the general concept of estimating yield in exploratory fisheries for each SSRU based on the method used. However, from a management perspective he noted that two points need to be considered, when recommending catch limits to the Commission:

(i) Was there any necessity to increase overall catch limits to achieve the objectives of the exploratory fishery? For example, in Subarea 88.1 the fishery has not been constrained by the previous catch limit with catches in 2000/01 at about 30% of the limit.

(ii) If the rate of information gathering was to be increased, would it not be preferable to spread the yield more evenly across SSRUs rather than concentrate the catch in the areas of highest density?

9.12 Mr Jones considered whether the separate yield estimates calculated for each SSRU in Subarea 88.1 and the estimation of relative fish density between the subareas (Annex 4, paragraphs 4.27 and 4.30) was an improvement on last year and endorsed the current precautionary approach. Dr Constable stated that the assessments were based on the best available data and that the Commission should proceed from information available in Annex 5.

9.13 The Scientific Committee noted that the western boundary for SSRU D in Subarea 88.1 does not extend to the Antarctic coast, and recommended that the western boundary of this SSRU be moved to 160°E (Annex 4, paragraph 4.79).

Division 58.4.4

9.14 Using a similar method, an estimate of precautionary yield for Division 58.4.4 had also been calculated. This estimate, which is subject to even more uncertainty than those for Subarea 88.1, is 206 tonnes (Annex 4, Table 20). If the same discount factor of 0.5 was used as in last year, the resulting catch limit for *D. eleginoides* in Division 58.4.4 would be 103 tonnes (Annex 4, Table 22).

Research Requirements

9.15 The Scientific Committee also welcomed and endorsed the additional research activities proposed in the Australian and New Zealand notifications above the minimum requirements as set out in Conservation Measure 200/XIX.

9.16 Conservation Measure 200/XIX currently requires that research sets or trawls must be separated by a minimum of 10 n miles. Experience in both the Australian and New Zealand exploratory fisheries suggests that this requirement may be too restrictive, given the topography of the areas being fished. Analyses of covariance and bias in CPUE of vessel longline sets (Annex 5, paragraphs 4.30 to 4.37) indicated that a minimum separation distance of 5 n miles appeared to be appropriate. The Scientific Committee recommended that the minimum distance between research hauls should be reduced to 5 n miles. In making this recommendation, the Scientific Committee recognised that this may compromise the effort-spreading objective of the conservation measure. The Scientific Committee agreed that a maximum number of research sets also needed to be applied for each fine-scale rectangle. However, no information is available at the moment to allow specification of such a maximum number. This matter needs to be examined during the next intersessional period (Annex 4, paragraph 4.81).

9.17 Also, Conservation Measure 200/XIX currently specifies a minimum number of 3 500 hooks per research longline set but the maximum number of hooks is omitted. The Scientific Committee agreed that a maximum number of 10 000 hooks should also be prescribed for research sets (Annex 4, paragraph 4.82) to accommodate requirements set out in paragraph 9.16.

9.18 Dr Constable noted that the Commission in 2000 (CCAMLR-XIX, paragraph 9.45) requested that the Scientific Committee and WG-FSA provide advice on the ability of the proposed research plan relative to Conservation Measure 200/XIX. The Scientific Committee also advised that the value of including a research component in Conservation Measure 200/XIX had been amply demonstrated by the use of the CPUE estimates from the research, exploratory, and commercial sets in assessments of *Dissostichus* spp. in Subarea 88.1, and of *D. eleginoides* in Division 58.4.4. Further collection of data from research sets will be essential for any assessments that are carried out next year.

Management Areas

9.19 In 2000 the Commission requested that the Scientific Committee review the definition of the boundaries of subareal division of Divisions of 58.4.1 and 58.4.3 (CCAMLR-XIX, paragraph 9.47). The request came about because new and exploratory fisheries proposed for Division 58.4.3 in the 1999/2000 and 2000/01 seasons were given separate catch allocations

for BANZARE and Elan Banks. These banks are separated by a trough of deep water at least 130 n miles wide. Each bank had to be specifically defined in the conservation measures in order to allocate individual catch limits, rather than apportioning a catch limit to an entire statistical division. Various options for modifying the boundaries were reviewed in SC-CAMLR-XX/5 with two separate catch limits.

9.20 The eastern boundary of Division 58.4.3 almost bisects BANZARE Bank, while there is no current distinction within Division 58.4.3 between Elan and BANZARE Banks.

9.21 The revised boundaries are shown on Figure 2 of SC-CAMLR-XX/5 and are the minimum required to comply with the Commission's request to separate and define adequately the banks of Division 58.4.3. Further adjustments could be made to better contain natural features within statistical divisions in this area during this process. The first would be to move the boundary between Divisions 58.4.3 and 58.5.2 southwards from 55° to 56°S so that it runs through the deep trough separating the Kerguelen–Heard Plateau from BANZARE and Elan Banks. A further amendment could be to extend the eastern boundary of Subarea 58.5 (which also defines the outer boundary of the CCAMLR Convention Area) from 80° to 85°E in order to include William's Ridge that currently lies outside the CCAMLR Convention Area.

9.22 The Scientific Committee considered that it would be preferable to take the boundary between Divisions 58.4.3 and 58.5.2 to an area of deep water further away from the eastern edge of BANZARE Bank. Therefore the Scientific Committee agreed that moving the boundary to 86°E would be a more appropriate delimitation.

9.23 Concerns were raised regarding the potential difficulties in ascribing historical catches to the revised subdivisions, but the Secretariat confirmed that there are no reported catches from the original Division 58.4.3 apart from the exploratory fishery conducted by Australia a few years ago that yielded a catch of three *D. eleginoides.*

9.24 The Scientific Committee recommended that the alterations to the boundaries of Divisions 58.4.3 and 58.5.2 as discussed in the above paragraphs be adopted by the Commission.

9.25 The Scientific Committee agreed that extension of the boundaries of the CCAMLR Convention Area should be further considered to include areas in the Indian Ocean immediately adjacent to the Convention Area in which target species may be present, albeit in low numbers, and for which CCAMLR is primarily responsible. As well as the extensions to include William's Ridge, an area where *D. eleginoides* is known to occur and where IUU vessels have been observed to operate, Dr Miller stated that a similar situation exists to the north of Subareas 58.6 and 58.7 on the portions of the Marion Rise and Del Cano/Africana Rise which are in Area 51.

9.26 The FAO Observer (Dr R. Shotton) stated that he could not foresee problems from his organisation's point of view in amending the Convention Area boundaries.

9.27 The Scientific Committee recommended that the Commission consider extensions to the boundaries of the Convention Area to include as much as possible of the distribution range of the species for which it has primary responsibility, e.g. toothfish. This is because it

would facilitate the accumulation of data, observations and the provision of management advice on whole stocks.

Incidental Mortality

9.28 Consideration of new and exploratory fisheries from the perspective of seabird incidental mortality was undertaken by WG-IMALF (Annex 5, paragraphs 7.131 to 7.141) and is reported in paragraphs 4.54 and 4.55.