

NEW AND EXPLORATORY FISHERIES

New and Exploratory Fisheries in 1998/99

7.1 The Commission noted that fishing had taken place in only one of the new fisheries (Conservation Measure 162/XVII) and four of the exploratory fisheries (Conservation Measures 151/XVII, 166/XVII, 167/XVII and 169/XVII) endorsed for the 1998/99 season. With the exception of the exploratory longline fishery in Subarea 88.1, where a total of 298 tonnes of *Dissostichus mawsoni* was taken, the level of fishing in new and exploratory fisheries had been very small (<1 tonne of *Dissostichus* spp. or 4 tonnes of crab).

7.2 The Commission also noted that the Scientific Committee and WG-FSA had spent increasing amounts of time each year developing advice on precautionary limits for these fisheries. However, there remained a paucity of fishery information on *Dissostichus* spp. in a number of subareas and divisions, even though new or exploratory fisheries had been notified for these areas, in some cases over the previous four fishing seasons. The concern is further heightened by the fact that substantial amounts of IUU fishing are believed to have occurred in some of these areas (see section 5).

New and Exploratory Fisheries in 1999/2000

7.3 Notifications for new and exploratory fisheries for *Dissostichus* spp. in 1999/2000 had been submitted in relation to longlining in Subareas 48.6, 58.6, 58.7, 88.1, 88.2 and Divisions 58.4.3, 58.4.4, 58.5.1, 58.5.2 and trawling in Divisions 58.4.1, 58.4.2 and 58.4.3. The notification for trawling in Division 58.4.2 was for a mixed species fishery.

7.4 Notifications were as follows:

- (i) exploratory longline fishery for *D. eleginoides* in Subarea 58.6 outside the EEZs of South Africa and France notified by South Africa (CCAMLR-XVIII/8);
- (ii) new longline fishery for *D. eleginoides* in Subarea 48.6 and Division 58.4.4 notified by South Africa (CCAMLR-XVIII/9);
- (iii) exploratory longline fishery for *Dissostichus* spp. in Subarea 88.1 notified by New Zealand (CCAMLR-XVIII/10);
- (iv) new trawl fishery in Division 58.4.2 notified by Australia (CCAMLR-XVIII/11);
- (v) exploratory trawl fishery in Divisions 58.4.1 and 58.4.3 notified by Australia (CCAMLR-XVIII/12);
- (vi) exploratory longline fishery for *Dissostichus* spp. for Subareas 58.6, 88.1, 88.2 and Divisions 58.5.1 and 58.4.4 outside the EEZs of South Africa and France notified by Chile (CCAMLR-XVIII/13);
- (vii) new longline fishery notified by Uruguay in Division 58.4.4 outside the South African EEZ (CCAMLR-XVIII/14); and
- (viii) new and exploratory longline fisheries for *D. eleginoides* in Subareas 58.6 and 58.7 and Divisions 58.4.3, 58.4.4, 58.5.1 and 58.5.2 outside the EEZs of South Africa, Australia and France, notified by France (CCAMLR-XVIII/20).

7.5 In addition, the European Community had submitted a notification (CCAMLR-XVIII/21) on behalf of Portugal for new and exploratory fishing for

Dissostichus spp. in Subareas 48.6, 58.6, 88.1, 88.2 and Divisions 58.4.3 and 58.4.4 outside the Australian, French and South African EEZs. This had only been received by the Secretariat on 1 October 1999.

7.6 At the time of adoption, Chile announced that in relation to its notification (CCAMLR-XVIII/13), it intended to conduct a single fishing trip to Subarea 88.1 during the 1999/2000 season (paragraph 9.40).

7.7 Japan informed the Commission that it had received expressions of interest from industry sources regarding participation in new and exploratory fisheries for *Dissostichus* spp., but that it had decided not to proceed with notifications due to insufficient information on the development of these fisheries. The Commission agreed that Japan's decision should not be construed as prejudicing the rights of other Members to participate in these fisheries in the future.

7.8 The Commission noted that the Scientific Committee had found that the information provided in many of the notifications submitted for 1999/2000 was seriously deficient in terms of the requirements set out in paragraph 3 of Conservation Measure 31/X and paragraph 2 of Conservation Measure 65/XII. This had seriously jeopardised the ability of the Scientific Committee and WG-FSA to provide advice on the likely consequences to the target and by-catch species should the notified fisheries commence (SC-CAMLR-XVIII, paragraph 9.9).

7.9 The Commission reaffirmed the need for notifications for new and exploratory fisheries to be submitted on time, and for each notification to comprehensively address all of the requirements defined in the respective conservation measure. New Zealand noted that its notifications had been fully consistent with Conservation Measure 65/XII.

Calculation of Precautionary Catch Levels

7.10 The Commission noted that WG-FSA had repeated the 1998 procedure for the calculation of precautionary catch levels, and compared these results with a refined version that had been developed at WG-FSA-99. The refinement involved the use of an adjustment based on relative areas of seabed which may be classified as recruitment areas (SC-CAMLR-XVIII, paragraphs 9.10 and 9.11). The procedure had originally been developed in an attempt to investigate the possible effects of IUU catches. WG-FSA had used agreed methods incorporating assumptions that it had believed to be the most appropriate given the available information.

7.11 In reviewing the results of these calculations, the Scientific Committee had agreed that in a number of cases the calculated yield levels were far in excess of any possible precautionary catch levels appropriate for those subareas or divisions (e.g. SC-CAMLR-XVIII, Table 7). The instances of clearly inappropriate calculated yields were therefore taken to indicate that the methods and assumptions themselves must be flawed.

7.12 The Commission noted that the Scientific Committee had agreed that it was no longer appropriate to use these methods for estimating precautionary yield levels for new and exploratory fisheries for *Dissostichus* spp., while information is absent on recruitment and stock status (SC-CAMLR-XVIII, paragraph 9.16).

7.13 Given this situation, especially in respect of the wide deficiency in the types of information required under Conservation Measure 65/XII, the Scientific Committee agreed that the submission of a research plan should be a prerequisite for the commencement of any future new or exploratory fishery (SC-CAMLR-XVIII, paragraph 9.18). The Scientific Committee had considered how to incorporate this research activity into the development plans for new and exploratory fisheries. Two approaches were needed:

- (i) research surveys to estimate standing stock and recruitment; and
- (ii) a sampling design to be implemented during commercial fishing operations.

7.14 The Commission noted that there had been considerable discussion about suitable sampling designs and how these might be implemented during commercial fishing, and that two considerations were paramount:

- (i) a desire to obtain objective data from normal commercial operations; and
- (ii) a need to obtain information over as large an area as possible.

7.15 The Commission agreed that in view of the high level of IUU fishing in many parts of the Convention Area, it was unrealistic to regard fisheries for *Dissostichus* spp. as new (SC-CAMLR-XVIII, paragraph 7.23). As a consequence, all proposals for new and exploratory *Dissostichus* spp. fisheries in 1999/2000 should be considered as being for exploratory fisheries. It also agreed that a fundamental element in the development of a management approach for these fisheries should be to carry out fisheries-independent surveys to estimate the recruitment of young *Dissostichus* spp. in the various areas subject to notification. However, it was recognised that fishing vessels undertaking exploratory fisheries are likely to be the only vessels able to undertake research to estimate the average density of *Dissostichus* spp. in the above areas in the short term, since given the size of many such areas it will be some time before large fisheries-independent surveys can be coordinated amongst several institutions or Members (SC-CAMLR-XVIII, paragraph 9.25). Such surveys of *Dissostichus* spp. have been undertaken in the past as an integral part of the early development of some fisheries, e.g. longline fishing for *D. eleginoides* in Subarea 48.4 and trawl fishing for *D. eleginoides* in Division 58.4.3. A similar approach was adopted for crab fishing in Subarea 48.3.

7.16 The Commission recalled that it had endorsed a number of principles to be applied to new fisheries for *D. eleginoides* in 1996 and that these were not inconsistent with the above approach. Such principles include a dispersal of fishing effort to avoid overfishing in localised areas, and a permitted level of fishing fixed at a responsible level (CCAMLR-XV, paragraphs 6.7 and 6.8). The Scientific Committee advised that spreading the effort using fine-scale area limitation constitutes key elements in protecting local stocks of *Dissostichus* spp. from depletion (SC-CAMLR-XVIII, paragraph 9.49).

7.17 The Commission endorsed the advice of the Scientific Committee that catch limits for statistical subareas or divisions should be limited to levels that enable prospecting by commercial vessels and to enable research activities to be undertaken (SC-CAMLR-XVIII, paragraph 9.47). In the past this procedure has been applied to the longline fishery for *Dissostichus* spp. in Subarea 48.4.

Fisheries-based Research Plan

7.18 The Commission endorsed the fisheries-based research plan for new and exploratory fisheries proposed by the Scientific Committee (SC-CAMLR-XVIII, paragraphs 9.25 to 9.43). It was agreed that the components of the fisheries-based research activity proposed for the 1999/2000 season should include:

- (i) the identification of small-scale research units (SSRUs) (see SC-CAMLR-XVIII, paragraph 9.30 and Figure 1) for assessing the relative density of *Dissostichus* spp. using CPUE;

- (ii) measures to ensure:
 - (a) sufficient hauls are undertaken in each area to provide the statistical power for detecting differences in *Dissostichus* spp. density that will influence management advice on catch limits in each area;
 - (b) the effort is distributed over the whole area in order to ensure the CPUE is most likely to reflect the average density of fish in the SSRU; and
 - (c) minimum characteristics of each haul needed for maintaining a minimum standard sampling methodology.

7.19 It was noted that the research activity would be desirable in successive years in order to provide all of the information necessary to characterise the distribution of the stocks in the different statistical and biological units.

7.20 In respect to the notification for the new trawl fishery in Division 58.4.2, the Commission agreed that the research proposal was appropriate for that fishery (CCAMLR-XVIII/11). This proposal requires some flexibility in the placement of the research operation but the approach is consistent with the dimensions of the SSRUs described above.

7.21 The Commission agreed that a common sampling methodology is required for all research units to ensure a common distribution and density of samples in the different fishing grounds, including the application of these requirements to both longline and trawl fisheries. As a result, it should be possible to obtain a coherent set of data that will enable analyses of the distribution and some aspects of the dynamics of these stocks.

Catch Limits

7.22 The Commission noted that the Scientific Committee had indicated four options for the establishment of catch levels for exploratory fisheries for *Dissostichus* spp. notified for 1999/2000.

7.23 On the advice of the Scientific Committee the Commission agreed that:

- (i) the nominal catch level for *D. mawsoni* in Division 58.4.2 should be 500 tonnes (SC-CAMLR-XVIII, paragraph 9.51);
- (ii) the proposals for exploratory fisheries in Divisions 58.5.1 and 58.5.2 would not be viable (SC-CAMLR-XVIII, paragraph 9.50); and
- (iii) only a nominal catch should be taken on BANZARE Bank in Divisions 58.4.1 and 58.4.3 (SC-CAMLR-XVIII, paragraph 9.45).

7.24 The Commission agreed to retain the fine-scale rectangle catch limit of 100 tonnes to protect stocks from local depletion (SC-CAMLR-XVIII, paragraph 9.49). The Commission agreed that this fine-scale limitation could be used as a basis for determining a nominal total catch level per statistical subarea or division, while recognising the need to vary the nominal catch according to the amount of potential fishable area in those statistical subareas or divisions. In this context, a total catch could be determined by summing the fine-scale rectangle limit across the number of fine-scale rectangles covering the fishable grounds in each of these statistical subareas or divisions. As in the past, the Commission agreed to discount the estimated total catch to 50% for *D. eleginoides* and 25% for *D. mawsoni* to take account of

uncertainties in abundances in these stocks. These discount factors are consistent with those used in the past (SC-CAMLR-XV, paragraph 8.17) and take into account advice of the Scientific Committee regarding these stocks (SC-CAMLR-XVIII, paragraph 9.46).

7.25 Table 1 provides the information used to calculate nominal maximum catches using a precautionary approach. These catches were calculated for each of the subareas or divisions for which exploratory fisheries proposals were considered. For each subarea and division, the amount of potential fishable area is given along with the approximate number of fine-scale rectangles covering that potential fishable area. These catches were derived using the steps in the following example for *D. eleginoides* (north of 60°S) for the proposed exploratory longline fishery in Subarea 48.6. The fine-scale limitation of 100 tonnes is summed across 9.1 fine-scale rectangles in the area, giving a figure across all fine-scale rectangles of 910 tonnes. This is then discounted to 50% to give a precautionary catch of 455 tonnes in Subarea 48.6 north of 60°S.

Table 1: Information for developing option 3 from the Scientific Committee for determining precautionary catch levels in exploratory fisheries for *Dissostichus* spp. in 1999/2000. L – longline, T – trawl, E – *Dissostichus eleginoides*, M – *Dissostichus mawsoni*.

Subarea / Division	Fishing Gear / Species		Fishable Seabed Areas for Proposals (km ²)	Approx. No. of Fine-scale Rectangles	Nominal Maximum Catch (tonnes)
48.6 ¹	L	E	28 070	9.1	455
48.6 ²	L	M	56 146	18.2	455
58.4.2	T	M	129 059	41.8	500 ^{3,4}
58.4.3 ⁵	L	E	Elan Bank 15 552	5.0	250
			BANZARE Bank 75 186	24.4	300 ⁴
58.4.3/1	T	E	Elan Bank 9 054	2.9	145
			BANZARE Bank 54 244	17.6	300 ⁴
58.4.4	L	E	22 743	7.4	370
58.5.1 ⁵	L	E	6 354	2.1	0 ⁶
58.5.2 ⁵	L	E	1 083	0.4	0 ⁶
58.6 ⁵	L	E	27 763	9.0	450
58.7	L	E	6 445	2.1	0 ⁷
88.1 ⁸	L	E	10 838	3.5	175
88.1 ⁹	L	M	236 391	76.6	1 915
88.2	L	M	30 986	10.0	250

¹ North of 60°S

² South of 60°S

³ Divided into 150 tonnes per 10° longitude SSRU (see paragraphs 7.20 and 7.26)

⁴ Not using calculations for other subareas/divisions

⁵ Outside EEZs

⁶ Based on Scientific Committee advice that these fisheries are unlikely to be viable (see also paragraph 7.23)

⁷ Subject to Conservation Measure 160/XVII (see also paragraph 7.28)

⁸ North of 65°S

⁹ South of 65°S

7.26 The Commission agreed that, for large statistical subareas or divisions the spreading of effort can be enhanced by subdividing the catch between SSRUs. In this case, the Commission agreed to the proposal of the Scientific Committee that the catch of *D. mawsoni* should be limited to 150 tonnes in each SSRU in Division 58.4.2 (SC-CAMLR-XVIII, paragraph 9.52) and that the catch limit in Subarea 88.1 for *D. mawsoni* (south of 65°S) be divided equally between the four SSRUs in that area.

7.27 The Commission agreed that the catch on BANZARE Bank should remain at a low level relative to the nominal catches being estimated for other areas described in paragraph 7.25 (paragraph 7.22). The Commission agreed that a catch limit of 150 tonnes would be

appropriate for the exploratory trawl fishery for this coming year to enable prospecting over this large bank (see paragraph 9.53). An equivalent catch level for the exploratory longline fishery for this coming season was considered to be 300 tonnes, taking into account the selection of larger fish by longline fishing vessels and the larger seabed area accessible by these operations.

7.28 In respect of the nominal maximum catch ascribed to Subarea 58.7 in Table 1, the Commission recognised that Conservation Measure 160/XVII prohibits directed fishing on *D. eleginoides*, other than for scientific research in accordance with Conservation Measure 64/XII, in this subarea until such time that a survey of *D. eleginoides* has been carried out and a decision is made by the Commission to reopen the fishery. The inclusion of a nominal maximum catch for this subarea in Table 1 is for illustrative purposes only and in the interest of a consistent demonstration of the approach outlined in paragraph 7.25.

7.29 The Commission endorsed the proposed work plan of the Scientific Committee detailed in SC-CAMLR-XVIII, paragraphs 9.53 to 9.55, to assess how these fisheries can be developed in a manner consistent with the objectives of the Commission.