

CONSIDERATION OF CONSERVATION MEASURES

Review of Existing Measures

85. As a result of a review of existing conservation measures, the Commission agreed that Conservation Measures 1/III, 3/IV, 4/V, 5/V, 6/V, 7/V and 9/VI should remain in force as they stand. Conservation Measures 8/VI and 10/VI expired at the end of the 1987/88 season and on 1 October 1988, respectively. In view of the advice from the Scientific Committee, specifically including that on *C. gunnari* in Statistical Subarea 48.3, requested by the Commission last year, the remaining conservation measures required further consideration.

86. Discussion involved consideration of two main items:

- (a) the efficacy of the conservation measures established by the Commission last year; and
- (b) the necessary measures or actions to be taken in respect of this evaluation and of the discussion of specific items of advice from the Scientific Committee.

87. First, however, the Commission recalled the general fisheries management strategy it adopted last year (SC-CAMLR-VI, paragraphs 61 to 65). This was:

- (a) to limit fishing mortality to a low level of F , preferably $F_{0.1}$; and
- (b) to effect this limitation by means of some combination of TAC's and protection for small fish. The protection for small fish would be achieved by some combination of:
 - (i) establishing a minimum mesh size that will allow small fish to escape capture;
 - (ii) prohibiting fishing in certain areas where small fish are most likely to be caught; and
 - (iii) prohibiting fishing during certain periods of time when small fish are most likely to be caught.

88. Last year the Commission noted the advice of the Scientific Committee that, in respect of the fishery on *C. gunnari* in Subarea 48.3, it would be beneficial to reduce the level of fishing mortality

and to protect small fish (CCAMLR-VI, paragraph 68). After considering this advice, the Commission agreed on a management strategy (CCAMLR-VI, paragraph 68):

- (i) limiting catches, i.e. selecting a TAC;
- (ii) developing an appropriate reporting schedule for this catch (Conservation Measure 9/VI); and
- (iii) closing the fishery for a period of time.

89. In reviewing the operation of these measures last year, the Commission noted:

- (a) the catch of *C. gunnari* in Subarea 48.3 reported on Statlant forms was 34 573 tonnes, just below the TAC set of 35 000 tonnes, though the aggregate catch reported to the Secretariat under the existing reporting system (Conservation Measure 9/VI) was only 29 124 tonnes; and
- (b) there were no indications that the provisions of the closed season had been contravened.

Review of Additional Requirements

90. In developing its management policy for 1988/89, the Commission considered each of the main elements of its strategy, viz:

- (a) setting TAC's;
- (b) protecting juvenile fish by:
 - (i) establishing minimum mesh sizes;
 - (ii) prohibiting fishing in certain areas;
 - (iii) prohibiting fishing at certain times.

91. On the advice of the Scientific Committee, it continued to focus this policy on fisheries operating in area 48.3.

TAC's

92. The Scientific Committee responded to the Commission's request for advice on TAC's to achieve low values of fishing mortality, preferably $F_{0.1}$ (CCAMLR-VI, paragraph 84.) The TAC's it calculated for fishing mortality at $F_{0.1}$, and the values it gave for F_{max} for comparison, were:

	$F_{0.1}$	F_{max}
<i>Champscephalus gunnari</i>	10 194	18 586
<i>Notothenia gibberifrons</i>		
if $M = 0.25$	256	450
if $M = 0.125$	443	720
<i>Pseudochaenichthys georgianus</i>	1 800	
<i>Chaenocephalus aceratus</i>	1 100	

For *Patagonotothen brevicauda guntheri*, no TAC had been calculated, because insufficient data were available to the Working Group from the fishery on existing levels of M , but the recommended policy limiting catches to around the level of recent years was noted.

93. The catches of *C. gunnari* in Subarea 48.3 reported (under Conservation Measure 9/VI which is still in force) since the reopening of the fishery on 1 October were as follows:

Period A (1-10 October)	: 10 121 tonnes
Period B (11-20 October)	: Report overdue (due 30 October)
Period C (21-31 October)	: Report due 10 November

94. The delegation of France supported by other delegations expressed concern at the delay which had occurred in the communication to the Contracting Parties (in accordance with Conservation Measure 9/VI, paragraph 4) of the catch of *C. gunnari* reported for period A of October 1988 in Subarea 48.3. They further expressed the view that the availability of the above information within the required time would have facilitated greatly the formulation of advice by the Scientific Committee to the Commission for the assessment of *C. gunnari* stocks in this subarea.

95. In view of the rate of catch during the first 10 days of October and bearing in mind the advice of the Scientific Committee and that a further 23 days of fishing had taken place since that report, there was unanimous agreement that the fishery should be closed immediately.

96. Furthermore, it was agreed that a situation whereby the level of fishing between the start of a season and the meeting of the Commission could effectively pre-empt the Commission's decisions at that meeting on appropriate TAC's, was unacceptable.

97. Conservation Measure 11/VII was adopted.

98. In order that the prohibition in Conservation Measure 11/VII should have the appropriate management effect it was essential to avoid by-catch of this species in the course of other fishing in the area. Conservation Measure 11/VII therefore also prohibits fishing on specified finfish species in Subarea 48.3 before 20 November 1989.

99. The Commission turned to consideration of the Scientific Committee's advice to the Commission with respect to *Patagonotothen brevicauda guntheri* and decided to limit the catch to a figure of 13 000 tonnes, between the catches of the previous two years.

100. Conservation Measure 12/VII was adopted.

101. The catch limitation on *Patagonotothen brevicauda guntheri* set out in Conservation Measure 12/VII would apply immediately (retrospectively to 1 July 1988). Members should report their aggregate catch to date to the Commission as soon as possible and not later than 1 December 1988.

102. The delegation of Poland noted that the catch reporting system was developed for monitoring the aggregate catch of *Champscephalus gunnari* in Subarea 48.3 in order to determine the date when the fishery on that species should close for all Members fishing in that area. In its opinion it is not necessary to monitor in this way a fishery conducted by a single country.

103. The delegation of the United Kingdom pointed out that there could be no assurance that the fishery would remain in the hands of one country.

104. The Commission expressed concern about the need, in future years, to avoid circumstances such as those which had occurred this year (paragraph 12 above). A draft conservation measure was tabled by the United Kingdom aimed at avoiding a repetition of these circumstances. There was not enough time to consider the full implications of this proposal, more particularly, as it related to the advisability of having TAC's which covered parts of two fishing years, and it was agreed to take up the matter again at the next meeting.

Protection of Juvenile Fish

Minimum mesh size

105. The Commission noted that the response of the Scientific Committee to its request for advice on mesh size was ‘to achieve the target size of first capture of 32 cm for *C. gunnari* would require, under conditions of low catch rates, a 107 mm mesh. If selectivity of the net is less under commercial conditions of large catches a correspondingly larger mesh would be required to achieve the desired results.’

106. There was considerable discussion on the background to and interpretation of this advice. It was stated by certain delegations that proposing changes to existing conservation measures governing mesh size selection required further analysis of existing Polish and Spanish data and the analysis of USSR data.

107. The Commission noted with some concern that such views were not clearly reflected either in the advice of the Scientific Committee to the Commission on this topic or in the section on proposals for future work of the Fish Stock Assessment Working Group.

108. The Commission therefore asked the Scientific Committee to complete the evaluation of the whole topic of minimum mesh size for use in the *C. gunnari* fishery, taking into account the Commission’s desire to keep fishing mortality around the level $F_{0.1}$ and to protect juvenile fish. Members were asked to give this topic priority attention before the next meeting of the Fish Stock Assessment Working Group.

109. It was agreed that Conservation Measure 2/III should remain in force.

Closed areas

110. No proposals were made for new conservation measures relating to closed areas.

Closed seasons

111. The Commission noted that when it established a closed season for the *C. gunnari* fishery in Subarea 48.3 last year it did so in the absence of any advice from the Scientific Committee. This

year, in respect to the request for advice on closed seasons for *C. gunnari* the Scientific Committee indicated that it had no new data which would suggest alterations to the present closed season.

112. This response was deemed open to conflicting interpretations. In order to clarify the matter the Commission asked the Scientific Committee to evaluate all existing data on *C. gunnari* relevant to proposing closed seasons in the fishery to protect juvenile fish.

Guidance to the Scientific Committee

113. In light of the Commission's consideration of issues arising from the Report of the Scientific Committee, as well as from the development and implementation of conservation measures, and giving due regard to obligations under Article II regarding the restoration of depleted populations, the Commission requests that the Scientific Committee provides advice on management options, and their consequences, for heavily exploited fish stocks, including those subject to by-catches.

114. Such advice should consider, inter alia:

(i) *C. gunnari*

What are the likely trajectories, of catch, total biomass, and spawning biomass, and the effects upon by-catches of other species, under different patterns of fishing mortality, including:

(a) different constant levels of F including $F_{0.1}$.

(b) a complete ban, or a low value of F for a short period, followed by a higher level

(ii) *N. gibberifrons*, *N. rossii*

(a) Is the abundance resulting from F_{\max} a satisfactory measure of the GNAI population level for these species or should another measure be used?

(b) What factors, other than directed or incidental catching, might be impeding their recovery?

- (c) What might be the effect, in terms of the total catches of these species, of the changes of fishing gear suggested for the *C. gunnari* fishery in SC-CAMLR-VII, paragraph 3.17?
- (d) What will be the likely results of keeping catch levels as high as four times the TAC calculated for F_{\max} on the capability of the exploited part of the stock of *N. gibberifrons* to recover in 20 to 30 years?

115. In light of the anticipated completion of work on mesh sizes and net selectivity, the Commission further requests that the Scientific Committee provides specific recommendations on the appropriate minimum mesh size to protect juvenile fish.

116. In the light of the identified need for further advice on closed seasons for *C. gunnari*, the Commission asks the Scientific Committee to provide specific recommendations on this topic which would assist the recovery of any depleted fish stocks.

117. The Commission also noted that the Scientific Committee had identified a number of items of information and data which were essential to improving their assessments (set out in Annex 6 to the Report of the Scientific Committee). The Commission urged Members to provide this essential data and information or to undertake research leading to their provision as a matter of high priority.

118. The Commission further notes that, in general, its decisions in respect to fisheries management would be facilitated by the Scientific Committee's provision in the future of alternative management recommendations and their consequences for each of the fisheries requiring management. This should include, beside TAC's for the current seasons, a forecast for catch levels in the following season, based upon realistic assumptions about fishing mortality and recruitment.

CONSERVATION MEASURE 11/VII

Prohibition of Directed Fishery on *Champscephalus gunnari*
in Subarea 48.3 from 4 November 1988 to 20 November 1989

119. The Commission in accordance with Conservation Measure 7/V, hereby adopts the following Conservation Measure in accordance with Article IX of the Convention:

Directed fishing on *Champscephalus gunnari* shall be prohibited from 4 November 1988; this prohibition shall extend, through a closed season from 1 April to 1 October

1989, to 20 November 1989. During this protected period *Champscephalus gunnari*, *Notothenia rossii*, *Notothenia gibberifrons*, *Chaenocephalus aceratus* and *Pseudochaenichthys georgianus* shall not be taken in Statistical Subarea 48.3 except for scientific research purposes.

CONSERVATION MEASURE 12/VII

Catch Limitation on *Patagonotothen brevicauda guntheri*
in Statistical Subarea 48.3 for the 1988/89 Season

120. The Commission in accordance with Conservation Measure 7/V, hereby adopts the following Conservation Measure in accordance with Article IX of the Convention:

The catch of *Patagonotothen brevicauda guntheri* in Statistical Subarea 48.3 in the 1988/89 season shall be limited to 13 000 tonnes. For the purpose of implementing this Conservation Measure the catch Reporting System set out in Conservation Measure 9/VI shall apply.

Scientific Research Exemption Provision

121. The Scientific Committee had briefly discussed this topic and made general recommendations with respect to descriptions of size and capacity.

122. The Commission noted that there had been insufficient time for discussion of this issue but that the matter was an important one and should be included on the agenda for the next meeting of the Commission. During the intersessional period all Members were encouraged to consult with appropriate experts to consider ways in which the Register of Permanent Research Vessels might usefully be improved with particular regard to fishing, processing and storage capacity.