

SC-CAMLR-39  
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**Report of the Thirty-ninth meeting  
of the Scientific Committee**  
(Virtual meeting, 26 October 2020)

This is a preliminary<sup>1</sup> version of the SC-CAMLR-39 Report  
as adopted on Monday 26 October 2020.

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<sup>1</sup> Preliminary in this case means that further proofreading and verification may still be required by the Secretariat.

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**Draft Report of the Thirty-ninth  
Meeting of the Scientific Committee**  
(Virtual meeting, 26 October 2020)

## **Opening of the meeting**

1.1 The Scientific Committee for the Conservation of Antarctic Marine Living Resources met online on 26 October 2020 in its first virtual meeting and was chaired by Dr D. Welsford (Australia).

1.2 Dr Welsford welcomed participants (Annex 1) to the first-ever online meeting of the Scientific Committee noting the changes to the normal meeting schedule necessitated by the COVID-19 pandemic. He thanked the participants and conveners for their intersessional engagement in the very successful online discussion meetings, and the document submitted to the meeting (Annex 2), that had contributed greatly to the priorities of the Scientific Committee.

1.3 He reiterated the status of the convener summaries and the Chair's summary from the online discussion of the working groups and informal meeting of the Scientific Committee noting that these had provided a very useful opportunity to develop an understanding of the views of Members in preparation for this abbreviated meeting of SC-CAMLR-39 (Annex 3).

1.4 The Chair also noted that, given the very short period of time available for the meeting to discuss its business and adopt a report, there would not be time for translation of the report prior to adoption. He sought the understanding of Members in this regard and noted that simultaneous interpretation and closed captions of the meeting would be available throughout the meeting. Due to technical difficulties, the Scientific Committee was unable to consider all of its report, those paragraphs in the draft report that were not able to be considered have been retained in square brackets (see paragraph 6.1).

1.5 The Chair thanked the Secretariat for the extensive logistic and technical facilities that it had put in place to facilitate the first online meeting of the Scientific Committee. He noted that closed captioning of the meetings of the Scientific Committee was being provided to facilitate engagement in the meeting and that it does not represent the official record of the meeting. Copies of the transcript from the closed captions will be retained by the Secretariat for verification purposes and will not be made available or distributed by the Secretariat.

## **Harvested species**

### **Catches in the Convention Area**

2.1 The Scientific Committee noted the summary of catches of target species in the Convention Area in 2018/19 and 2019/20 (Tables 1 and 2) prepared by the Secretariat. It noted that the catch of krill in the 2019/20 season was the largest catch ever reported in Area 48 and that, in Subarea 48.1, the duration from the date on which 5% of the catch was taken to the date on which 95% of the catch was taken was 69 days, compared to an average of 130 days over

the previous 5 years. The Scientific Committee noted that the voluntary closures enacted by the Association of Responsible Krill harvesting companies (ARK) members are partially responsible for the shortened period of fishing operations.

#### Non-target catch species and VMEs

2.2 The Scientific Committee noted the discussions relating to non-target species and vulnerable marine ecosystems (VMEs) in SC-CAMLR-39/BG/60 (paragraphs 20 to 25). The Scientific Committee encouraged further work on progressing the VME workplan outlined in WG-FSA-2019, Table 12, including the convening of a subgroup during the next WG-EMM meeting.

2.3 The Scientific Committee noted the analyses presented by the Secretariat detailing by-catch reporting on fishing vessels operating in both the longline and krill fisheries, and requested that the Secretariat repeated the vessel survey circulated in COMM CIRC 15/74–SC CIRC 15/44 for krill vessels to determine if lower by-catch rates in vessel data were due to procedural differences in by-catch recording and reporting on different vessels.

2.4 The Scientific Committee recommended that the by-catch analyses presented by the Secretariat be regularly presented to WG-FSA, to determine any changes in by-catch reporting frequency by longline and krill vessels.

2.5 The Scientific Committee noted that having an index of vessel reporting performance for by-catch species would be useful when assessing research proposals, and encouraged Members to develop such an index. Additionally, a more general vessel performance index could potentially take into account other indices currently used in research proposal assessments such as tagging performance.

2.6 The Scientific Committee discussed the report submitted by Norway on seabird interactions with net monitoring cables (SC-CAMLR-39/BG/59). The Scientific Committee noted that it was unclear to what extent the conditions of the trial outlined in SC-CAMLR-38, paragraph 5.14, had been addressed, noting that Norway is undertaking further analyses and will provide a complete report of the data collected during the 2019/20 season to the next meeting of WG-FSA.

[2.7 The Scientific Committee recommended the convening of an e-group under the terms of reference of the ad-hoc WG-IMAF, to work with Norway and other interested parties, to assess levels of seabird interactions and evaluate the design of mitigation measures deployed on krill trawl vessels using the continuous trawling method. The Scientific Committee expressed its appreciation of Norway and New Zealand for offering to facilitate this e-group.]

[2.8 The Scientific Committee recommended that any continuation of the Norwegian trial requires the formation of this e-group prior to the 2020/21 fishing season, to provide guidance on trial design which should include a higher level of bird strike observations than were present in the preliminary report, the use of infra-red cameras for quantifying both net monitoring cable and warp strikes that occur in low light conditions, the removal of the spotlight used on one vessel as lighting is known to attract seabirds, and additional or improved mitigation measures to protect the exposed warp and net monitoring cables such as seawater sprays or any other

effective options that may come up intersessionally. The e-group should consider whether the trial include observations of bird density around fishing vessels at all stages of fishing operation.]

### **Priorities for work of the Scientific Committee and its working groups**

3.1 The Scientific Committee recalled priorities set out for consideration of working groups at SC-CAMLR-38 (paragraph 13.4), noting that these remain relevant for the forthcoming intersessional period. The Scientific Committee noted the high priority for the revised krill fishery management procedure and the work required for the revision of Conservation Measure (CM) 51-07, updated integrated assessments and data-limited approaches for toothfish. In addition, the Scientific Committee noted that intersessional work focusing on seabird mitigation from krill fisheries, VMEs and climate change would be conducted through dedicated e-groups.

3.2 The Scientific Committee considered how to conduct its business next year given that it is uncertain that face-to-face meetings can be organised due to the COVID-19 pandemic. It was noted that, despite the difficulties of the past year, a lot of work has been done in the intersessional period and that this is reflected in the convener reports of the informal online sessions of the working groups, which were widely attended by Members and in many cases successfully hosted over 100 attendees. Some Members proposed that if the intersessional working group meetings or the Scientific Committee meetings would not be able to occur face to face, they should be able to be formally convened meetings organised through an online platform in an official capacity, including report adoption.

3.3 The Scientific Committee noted that while online meetings have some shortcomings, including technical and time limitations and time zone differences in comparison to in-person meetings, they also had some benefits, including:

- (i) virtual sessions make it easier for smaller delegations to engage with the work of the Scientific Committee
- (ii) attendance of external experts may be easier in virtual meetings
- (iii) close captioning during the meeting is very helpful
- (iv) savings in time and carbon emissions due to removing the need for air travel.

3.4 The Scientific Committee noted that planning for online meetings should include the following considerations:

- (i) starting times of online meetings could be more diversified to ensure that the burden of meeting outside normal office hours is shared equitably
- (ii) clear procedures would need to be established, for example with regard to paper submission deadlines and establishing an agenda
- (iii) concern about connectivity issues, in particular related to report adoption with the restricted time availability and Members working in different time zones.

3.5 The Scientific Committee noted Part III of the Rules of Procedure of the Scientific Committee that describes the meetings of the Scientific Committee, in particular Rule 4 states that:

- The Committee shall meet as often as may be necessary to fulfil its functions.
- Regular meetings of the Committee normally shall be held once a year at the Headquarters of the Commission, unless it decides otherwise.

3.6 In order to provide a mechanism consistent with Rule 4 of the Rules of Procedure, the Scientific Committee recommended that in order to respond to prevailing conditions in deciding on the modality of its meetings in 2021 and enable an in-person meeting to proceed, that the following criteria be further considered intersessionally:

- (i) there are no host government restrictions on holding a meeting which can accommodate all participants consistent with Rule 1 of the Rules of Procedure and there are no social distancing requirements that would preclude holding such a meeting
- (ii) there are no host government restrictions on foreign nationals entering the country of the meeting from any of CCAMLR's Member countries or acquiring visas, and there are no quarantine restrictions for such entries
- (iii) all Members of the Commission that wish to attend the meeting confirm that there are no domestic regulations in place or expected to be in place at the time of the meeting that would preclude them and their delegations travelling to the meeting, and that suitable flights are available.

3.7 In the event that the regular meeting in 2021 cannot be held at the Headquarters of the Commission, given restriction associated with the COVID-19 pandemic and the criteria outlined above 120 days before the scheduled meeting, the Scientific Committee agreed that the Chair, in consultation with the Executive Secretary, may prepare a preliminary agenda and schedule for an online meeting.

3.8 In the event that the meetings of the subsidiary bodies in 2021 cannot be held in an in-person format, given the restriction associated with the COVID-19 pandemic and the criteria outlined above 100 days before the scheduled meeting, the Scientific Committee agreed that the Chair and the conveners of the subsidiary bodies, in consultation with the Executive Secretary, may prepare a preliminary agenda and schedule for an online meeting.

3.9 The preparation of the provisional agenda and the conduct of an online meeting of the Scientific Committee, subsidiary body meeting or a meeting of Scientific Committee Representatives would follow the existing Rules of Procedure of the Scientific Committee.

3.10 The Chair of the Scientific Committee agreed to lead intersessional work, in consultation with the Secretariat and Scientific Committee Representatives, to develop an agreed procedure for conducting formal online meetings.

## Other Scientific Committee matters

### Special Areas for Scientific Study

[3.11 The Scientific Committee considered the proposal outlined in SC-CAMLR-39/02 to designate the newly exposed marine area adjacent to Pine Island Glacier (Subarea 88.3) as a Stage 2 Special Area for Scientific Study (SASS). The authors noted that the proposal meets the conditions as required by CM 24-04, providing all data required by the conservation measure in addition to supplementary information as requested at SC-CAMLR-38 (paragraphs 6.13 to 6.20).]

[3.12 Many Members expressed the view that the scientific reasoning for designation as a Stage 2 SASS was justified, and that continued collaborative research in this area among Members should be encouraged noting that a German expedition is planned to this area by the *Polarstern* in 2024.]

[3.13 Some Members expressed views that:

- (i) the priority research questions in this area should focus on the evolution of the exposed benthic ecosystem rather than on physical processes
- (ii) there is not sufficient rationale for transferring to a Stage 2 SASS, and additional research is required to obtain baseline data to support designation.]

[3.14 The Scientific Committee noted that the purpose of a Stage 1 SASS designation is to offer immediate protection to a newly exposed area, while the Stage 2 SASS designation is to afford scientists the opportunity to prepare, organise and implement research in this region to address scientific priorities.]

[3.15 The Scientific Committee recommended that, should there be no agreement on progressing the designation of the newly exposed marine area adjacent to Pine Island Glacier (Subarea 88.3) as a Stage 2 SASS, and given the particular circumstances of this meeting, that there should be an extension of the Stage 1 SASS status to this area for an additional year, until 31 May 2022, to allow further discussion between Members to address outstanding concerns.]

### Spatial planning – DIMPA

[3.16 The Scientific Committee considered CCAMLR-39/08 Rev. 1 and CCAMLR-39/09, regarding the Domain 1 marine protected area (DIMPA) proposal and noted:

- (i) the concerns of some Members regarding the MPA proposal, recalling discussions at SC-CAMLR-38 (paragraphs 6.52 and 6.54), with specific regard to expansion of the general protection zones (GPZs) in the southwest Antarctic Peninsula (SWAP) and the need for further scientific basis to support the establishment of an MPA in Domain 1
- (ii) the concerns that closure of large areas of the SWAP could potentially reduce the ability to manage the spatial concentration of the fishery in other areas

- (iii) the desire for conservation measures that establish an MPA to work in parallel with other fisheries management conservation measures to achieve the overall conservation objectives of CCAMLR
- (iv) the clarification that while establishing an MPA may not mitigate the direct effects of climate change, it would reduce the impact of additional stressors on the marine ecosystem
- (v) that the spatial designation of the MPA zones, including the GPZ, is based on current fishery concentrations rather than potential future fishery zones
- (vi) that the proponents have previously provided peer-reviewed research indicating the potential impacts of concentrated fishing activities on predators (WG-EMM-2018, paragraph 4.41).]

[3.17 There was support from many Members for the establishment of a D1MPA, noting that the most recent proposal is based on the best available science, and that the Antarctic Peninsula is an important area for biodiversity that is highly susceptible to impact due to climate change. Those Members also recalled that in 2009 the Commission had tasked the Scientific Committee with developing recommendations for a representative system of MPAs to be implemented by 2012, and that previous MPAs have been referred to the Commission once the Scientific Committee was satisfied that the best available science has been considered in producing the proposal.]

#### Climate change

[3.18 The Scientific Committee considered SC-CAMLR-39/03 and encouraged Members to work intersessionally to develop new terms of reference for the ‘climate change impacts and CCAMLR’ e-group in order to further development of mechanisms to ensure the latest climate change research is integrated into the work of the Scientific Committee and considered in the development of management advice.]

### **Advice to the Commission**

#### *C. gunnari* – Division 58.5.2

[4.1 The Scientific Committee considered SC-CAMLR-39/01 Rev. 1 which describes the annual stock assessment for mackerel icefish in Division 58.5.2. The assessment followed standard methodology using the generalised yield model. The paper recommended that the catch limit for *C. gunnari* should be set at 1 276 tonnes in 2020/21 season and 1 047 tonnes in the 2021/22 season in Division 58.5.2.]



## Research plans under CMs 24-01 and 21-02

4.2 The Scientific Committee recalled that the guidance provided by CCAMLR-38 in paragraph 5.64 for fishing where a research plan was required was that:

- (i) Continuing research in closed areas submitted under CM 24-01, paragraph 3, would be limited to three years. After review by both WG-SAM and WG-FSA in the first year, they would be reviewed by WG-FSA in the next two years.
- (ii) Continuing research in those exploratory fisheries submitted for those fisheries listed in CM 21-02, paragraph 6(iii), would be reviewed by both WG-SAM and WG-FSA in the first year and by WG-FSA every other year thereafter, unless otherwise specified.

4.3 The Scientific Committee further noted that, following this guidance:

- (i) all continuing research under CM 21-02, paragraph 6(iii), had been reviewed by WG-FSA in 2019, therefore exploratory fisheries research plans in Subareas 48.6 and 58.4 did not require review this year
- (ii) all research proposals under CM 24-01 did require review; new ones at WG-SAM and WG-FSA and continuing ones at WG-FSA: only those in Subarea 58.4 and the Ross Sea shelf survey were continuing research under CM 24-01. All other research proposals are new proposals.

4.4 However, the Scientific Committee further noted that no review had been possible for the new research proposals by the working groups this year, as they did not formally meet. The Scientific Committee also noted the information in CCAMLR-39/BG/05 that Russia submitted a research proposal for the SRZ in Subarea 88.1, but the required fee was not received by the Secretariat as required by CM 24-01, paragraph 6, and the proposal was therefore considered 'withdrawn'.

4.5 The Scientific Committee noted that the two proposals under CM 24-01 that were for continuing research (in Division 58.4.4b and the Ross Sea shelf survey) had been reviewed by WG-FSA in 2019 and there had been no recommendations for changes to be made at that time and the current proposal had not changed substantively since the last review.

### Area 48

4.6 The Scientific Committee discussed the research proposal developed by Ukraine for continuing research on *Dissostichus* spp. in Subarea 48.1 (SC-CAMLR-39/BG/08). The Scientific Committee noted that the previous two years of research had not completed their objectives due to poor ice conditions and high by-catch rates.

4.7 The Scientific Committee could not reach consensus advice on the proposal by Ukraine and referred it to the Commission.

4.8 The Scientific Committee noted the withdrawal of a proposal by Ukraine to conduct a survey for mackerel icefish (*Champsocephalus gunnari*) in Subarea 48.2 (SC-CAMLR-39/BG/07).

4.9 The Scientific Committee discussed the research proposal developed by Chile for continuing research on *Dissostichus* spp. in Subarea 48.2 (SC-CAMLR-39/BG/09). The Scientific Committee noted that due to the quarantined data of Ukrainian vessels from this area, it was not possible to develop formal advice on catch limits for this research proposal and referred the matter to the Commission.

#### Area 58

4.10 The Scientific Committee recalled the discussions of SC-CAMLR-39/BG/10 (proposal to continue research in exploratory fishery in Divisions 58.4.1 and 58.4.2 from 2018/19 to 2021/22) and noted the reiteration of issues that had been raised in the past regarding the standardisation of fishing gear and survey design.

4.11 The Scientific Committee noted that many Members supported the proposed research plan as it had consistently achieved reporting milestones, had developed an integrated stock assessment for the area, and was considered to be using the best available scientific advice to develop catch limits for target and by-catch species.

4.12 Russia noted that it did not support the proposed multi-Member survey in Divisions 58.4.1 and 58.4.2 and stated that the survey should be considered a new research proposal.

4.13 The Scientific Committee could not achieve consensus on the research proposal and referred it to the Commission and provided options for catch limits in this fishery in Table 3.

#### Area 88

4.14 The Scientific Committee considered the allocation of catch for the Ross Sea shelf survey notified by New Zealand (SC-CAMLR-39/BG/03) within the Ross Sea region MPA (RSRMPA). The Scientific Committee recalled discussions in SC-CAMLR-38, paragraphs 3.136 to 3.138, and requested the Commission consider the options presented in Table 4 as consensus advice on the allocation for the survey catch could not be reached.

4.15 The Scientific Committee discussed the multi-Member research proposal on Antarctic toothfish (*D. mawsoni*) in Subarea 88.3 and noted some Members raised issues regarding the standardising of survey design and effective spatial tagging effort. The Scientific Committee did not reach consensus on the research proposal and referred it to the Commission.

## Catch limits for 2020/21

4.16 The Scientific Committee recalled discussions regarding the proposed catch limits for 2020/21 presented in SC-CAMLR-39/BG/60, Tables 1 to 3.

4.17 Many Members noted that these proposed catch limits had been derived using the best available science and statistical procedures agreed upon by the Scientific Committee (such as the trend analysis, Chapman estimates and generalised yield model assessments).

4.18 Russia noted that since the working groups did not formally meet this year it was not able to support catch limits that have been discussed during informal meetings or online discussions and that catch limits should be derived from last year's advice that was agreed by the Commission.

4.19 The Scientific Committee agreed that, in accordance with its Rules of Procedure, it was appropriate to provide the proposed catch limits as well as the catch limits from last year in Table 5 to the Commission noting the difference of views expressed by the Scientific Committee.

## Other business

[5.1 The Scientific Committee agreed to extend the roles of the current Vice-Chair Dr G. Zhu (China) and Junior Vice-Chair Dr A. Makhado (South Africa) for another year, due to COVID-19 limiting their participation in these roles. Both Vice-Chairs welcomed the confidence of the Scientific Committee in extending their respective terms.]

[5.2 The Scientific Committee thanked the conveners of the working groups for their hard work intersessionally and welcomed their agreement to continue in their roles for another year.]

[5.3 The Scientific Committee agreed to extend current scholarships for another 12 months, noting that the current recipients have not been able to attend working group meetings for which they were funded due to COVID-19. It was further suggested that scholarship recipients be invited to present their research at virtual meetings next year for discussion and feedback.]

[5.4 The Scientific Committee agreed that the CCAMLR Scientific Scholarships Review Panel had assessed the applications submitted to the Scientific Scholarship Scheme and announced the laureates of the 2020 scholarships:

- (i) Dr Erica Carlig, from Italian National Research Council, who works on remote visual techniques for research and monitoring of marine communities in fast-ice covered coastal areas, and will focus on increasing knowledge of fish assemblages and benthic communities around Victoria Land in the RSRMPA GPZ. She will visit her mentor Dr S. Grant at the British Antarctic Survey, UK, and attend WG-EMM and the Scientific Committee meeting to present her results.
- (ii) Dr Chris Oosthuizen, from Nelson Mandela University, South Africa, who works on the development of monitoring indices to quantify and characterise functional responses of penguins to changes in their prey field, which will contribute to

improving ecosystem monitoring and for use in krill fisheries management. He will visit his mentor Dr A. Lowther (Norway) at the Norwegian Polar Institute, and attend WG-EMM to present his results.]

### **Adoption of the report**

6.1 Noting the advice provided by the Scientific Committee Chair in paragraph 1.4, the Scientific Committee Chair sought the views of Members on continuing the adoption process in the absence of interpretation and closed captions. As there were some Members that were unable to continue to participate in the report adoption process, the Chair advised that all non-adopted paragraphs from the draft report would be indicated by inclusion in square brackets in the final report (paragraphs 2.7, 2.8, 3.11 to 3.18, 4.1 and 5.1 to 5.4). He clarified that these paragraphs had not been adopted by the Scientific Committee because they could not be dealt with due to technical difficulties associated with the unprecedented circumstances of this meeting.

### **Close of the meeting**

7.1 Dr Welsford thanked all participants for their hard work and patience and encouraged all Members to work cooperatively to facilitate the ongoing priorities of the Scientific Committee. He expressed his disappointment that there was text of the Scientific Committee report that remained unadopted, however, he suggested that this simply reflected the unprecedented circumstances faced by the Scientific Committee and its Members this year.

7.2 Dr Welsford undertook to present the advice of the Scientific Committee to the Commission and in doing so to make clear those elements that represented the agreement of the Scientific Committee.

7.3 Dr Reid, on behalf of the Scientific Committee, thanked Dr Welsford for his patience and responsiveness to the unique circumstances of this year's meeting which had made more progress than many believed possible. He further encouraged Dr Welsford to continue to show the leadership that had characterised this year's discussions leading up to, and including, the meeting of the Scientific Committee.





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Table 3: Potential options for determining catch limits in Divisions 58.4.1 and 58.4.3a given the absence of directed fishing in the past 2 years. Option A – is the catch limit set for 2018/19 using the trend analysis approach incorporating data to the last year that fishing took place, Option B is the catch limit from 2019/20 based on the last catch limit agreed by the Commission, Option C is the catch limit based on the agreed trend analysis approach up to 2020. AUS – Australia; ESP – Spain; FRA – France; JPN – Japan; KOR – Republic of Korea.

Subarea/ division	Fishing area	Target species	Catch limit			Conservation measure	Notified Members
			2018/19 Option A	2019/20 Option B	2020/21 Option C		
58.4.1	5841_1	<i>D. mawsoni</i>	115	138	166	41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>1</sup>
	5841_2	<i>D. mawsoni</i>	116	139	167	41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>1</sup>
	5841_3	<i>D. mawsoni</i>	149	119	95	41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>1</sup>
	5841_4	<i>D. mawsoni</i>	19	23	0	41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>1</sup>
	5841_5	<i>D. mawsoni</i>	50	60	72	41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>1</sup>
	5841_6	<i>D. mawsoni</i>	130	104	83	41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>1</sup>
	Total	<i>D. mawsoni</i>	579	583	583	41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>1</sup>
58.4.3a	5843a_1	<i>D. eleginoides</i>	30	24	19	41-06, 33-03	None

<sup>1</sup> See COMM CIRC 20/78 in respect of notification from France.

Table 4: Potential catch allocation methods for the Ross Sea Shelf Survey. Method 1 was used for the 2017/18–2018/19 seasons which allocates the survey catch from the overall catch limit for the Ross Sea region toothfish fishery, Method 2 allocates the shelf survey catch limit from the special research zone catch limit, as agreed for the 2020 season and Method 3 is based on the allocation of 15% to the SRZ first then subtracting the survey catch limit from the remainder. Relevant conservation measure text is in paragraph 28 and paragraph 8(ii) of CM 91-05.

Area	Percent	No survey	Method 1 (2017/18–2018/19)	Method 2 (2019/20)	Method 3 (SC-CAMLR-39/BG/03)
North of 70°S	19	597	584	597	582
South of 70°S	66	2072	2029	2072	2022
Special research zone	15	471	461	406	471
Shelf survey	-	-	65	65	65
Total		3140	3140	3140	3140

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Table 5: Proposed catch limit (in tonnes) for consideration by the Commission for 2020/21. AUS – Australia; CHL – Chile; ESP – Spain; FRA – France; GBR – United Kingdom; JPN – Japan; KOR – Republic of Korea; NZL – New Zealand; RUS – Russia; UKR – Ukraine; ZAF – South Africa. NB: by-catch limits are based on the 2020/21 catch limits where applicable.

Subarea/ division	Fishing area	Target species	Catch limit			Skates and rays	<i>Macrourus</i> spp.	Other species	Conservation measure	Notified Members
			2018/19	2019/20	2020/21					
48.1	481_1 and 481_2	<i>D. mawsoni</i>		43	43		21		24-05	UKR
48.2	482_N 482_S	<i>Dissostichus</i> spp. <i>Dissostichus</i> spp.			TBD TBD				24-05 24-05	CHL CHL
48.3	483A 483B 483C Total 483	<i>D. eleginoides</i> <i>D. eleginoides</i> <i>D. eleginoides</i> <i>D. eleginoides</i> <i>C. gunnari</i>		0 698 1629 2327 3225	0 698 <sup>a</sup> 1629 <sup>a</sup> 2327 <sup>a</sup> 2132 <sup>a</sup>			See CM 33-01 See CM 33-01 See CM 33-01 See CM 33-01 See CM 33-01	41-02, 33-01 41-02, 33-01 41-02, 33-01 41-02, 33-01 42-01, 33-01	Not applicable Not applicable Not applicable Not applicable Not applicable
48.4	484 484	<i>D. eleginoides</i> <i>D. mawsoni</i>		27 45	27 55				41-03 41-03	Not applicable Not applicable
48.6	486_2 486_3 486_4 486_5 Total	<i>D. mawsoni</i> <i>D. mawsoni</i> <i>D. mawsoni</i> <i>D. mawsoni</i> <i>D. mawsoni</i>		140 38 163 329 670	112 30 196 263 601	5 1 9 13 28	17 4 31 42 94	17 4 31 42 94	41-04, 33-03 41-04, 33-03 41-04, 33-03 41-04, 33-03 41-04, 33-03	JPN, ESP, ZAF JPN, ESP, ZAF JPN, ESP, ZAF JPN, ESP, ZAF JPN, ESP, ZAF

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Table 5 (continued)

Subarea/ division	Fishing area	Target Species	Catch limit			Skates and rays	<i>Macrourus</i> spp.	Other species	Conservation measure	Notified Members
			2018/19	2019/20	2020/21					
58.4.1	5841_1	<i>D. mawsoni</i>	115	138	See Table 3				41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>b</sup>
	5841_2	<i>D. mawsoni</i>	116	139	See Table 3				41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>b</sup>
	5841_3	<i>D. mawsoni</i>	149	119	See Table 3				41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>b</sup>
	5841_4	<i>D. mawsoni</i>	19	23	See Table 3				41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>b</sup>
	5841_5	<i>D. mawsoni</i>	50	60	See Table 3				41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>b</sup>
	5841_6	<i>D. mawsoni</i>	130	104	See Table 3				41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>b</sup>
	Total	<i>D. mawsoni</i>	579	583	See Table 3				41-11, 33-03	AUS, ESP, JPN, KOR, FRA <sup>b</sup>
58.4.2	5842_1	<i>D. mawsoni</i>		60	72	3	11	11	41-05, 33-03	AUS, JPN, FRA <sup>b</sup>
58.4.3a	5843a_1	<i>D. eleginoides</i>	30	24	See Table 3				41-06, 33-03	None
58.4.3b	5843b	<i>D. mawsoni</i>		0	0	0	0	0	41-07, 33-03	None
58.4.4	5844b_1	<i>D. eleginoides</i>		23	18				24-05	FRA, JPN
	5844b_2	<i>D. eleginoides</i>		18	14				24-05	FRA, JPN
	Total	<i>D. eleginoides</i>		41	32				24-05	FRA, JPN
58.5.2	5852	<i>D. eleginoides</i>		3030	3030 <sup>a</sup>			CM 33-02	41-08, 33-02	Not applicable
58.5.2	5852	<i>C. gunnari</i>		527	1276			CM 33-02	42-02, 33-02	Not applicable

(continued)

Table 5 (continued)

Subarea/ division	Fishing area	Target species	Catch limit			Skates and rays	<i>Macrourus</i> spp.	Other species	Conservation measure	Notified Members
			2018/19	2019/20	2020/21					
88.1 and 882A–B	N70	<i>D. mawsoni</i>		597	See Table 4	29	93	29	41-09	AUS, ESP, GBR, JPN, KOR, NZL, RUS, UKR
	S70	<i>D. mawsoni</i>		2072	See Table 4	101	323	101	41-09	AUS, ESP, GBR, JPN, KOR, NZL, RUS, UKR
	SRZ	<i>D. mawsoni</i>		426	See Table 4	23	75	23	41-09	AUS, ESP, GBR, JPN, KOR, NZL, RUS, UKR
	Shelf survey SRZ	<i>D. mawsoni</i> <i>D. mawsoni</i>		45	See Table 4 140				24-05,41-09 24-05	NZL RUS
	Total	<i>D. mawsoni</i>		3140	3140	157	502		41-09	AUS, ESP, GBR, JPN, KOR, NZL, RUS, UKR
88.2	882_1	<i>D. mawsoni</i>		192	195	10	31	31	41-10, 33-03	AUS, ESP, GBR, KOR, NZL, RUS, UKR
	882_2	<i>D. mawsoni</i>		232	186	9	30	30	41-10, 33-03	AUS, ESP, GBR, KOR, NZL, RUS, UKR
	882_3	<i>D. mawsoni</i>		182	170	8	27	27	41-10, 33-03	AUS, ESP, GBR, KOR, NZL, RUS, UKR
	882_4	<i>D. mawsoni</i>		128	154	8	25	25	41-10, 33-03	AUS, ESP, GBR, KOR, NZL, RUS, UKR
	882H	<i>D. mawsoni</i>		160	128	6	20	20	41-10, 33-03	AUS, ESP, GBR, KOR, NZL, RUS, UKR
	Total	<i>D. mawsoni</i>		894	833	41	133	133	41-10, 33-03	AUS, ESP, GBR, KOR, NZL, RUS, UKR

(continued)

Table 5 (continued)

Subarea/ division	Fishing area	Target species	Catch limit			Skates and rays	<i>Macrourus</i> spp.	Other species	Conservation measure	Notified Members
			2018/19	2019/20	2020/21					
88.3	883_1	<i>D. mawsoni</i>		16	13			24-05	KOR, UKR	
	883_2	<i>D. mawsoni</i>		20	16			24-05	KOR, UKR	
	883_3	<i>D. mawsoni</i>		60	72			24-05	KOR, UKR	
	883_4	<i>D. mawsoni</i>		60	72			24-05	KOR, UKR	
	883_5	<i>D. mawsoni</i>		8	6			24-05	KOR, UKR	
	883_6	<i>D. mawsoni</i>		30	30			24-05	KOR, UKR	
	883_7	<i>D. mawsoni</i>		30	30			24-05	KOR, UKR	
	883_8	<i>D. mawsoni</i>		10	10			24-05	KOR, UKR	
	883_9	<i>D. mawsoni</i>		10	10			24-05	KOR, UKR	
	883_10	<i>D. mawsoni</i>		10	10			24-05	KOR, UKR	
	Total	<i>D. mawsoni</i>		254	269			24-05	KOR, UKR	

<sup>a</sup> Catch limits in existing conservation measures apply to 2020/21.

<sup>b</sup> See COMM CIRC 20/78 in respect of notification from France.



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PRELIMINARY



**PRELIMINARY**

**List of Documents**



### List of Documents

- SC-CAMLR-39/01 Rev. 1 Assessment of mackerel icefish (*Champsocephalus gunnari*) in Division 58.5.2 based on results from the 2020 random stratified trawl survey  
Delegation of Australia
- SC-CAMLR-39/02 Update on the proposed designation of a newly exposed marine area adjacent to Pine Island Glacier (Subarea 88.3) as a Stage 2 Special Area for Scientific Study  
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- SC-CAMLR-39/03 Identifying and integrating relevant scientific research outputs on climate change into the work of the Scientific Committee and its Working Groups  
Delegations of the United Kingdom, Argentina, Australia, Belgium, Norway and Sweden
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- SC-CAMLR-39/BG/01 Research Plan under CM 24-01, paragraph 3. New research program to examine the life-cycle and resource potential of *Dissostichus* spp. in the Special Research Zone within the Ross Sea region Marine protected area (RSRMPA) in 2020/21–2022/23  
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- SC-CAMLR-39/BG/03 Notification for the Ross Sea shelf survey in 2021  
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Delegations of Japan and France

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- SC-CAMLR-39/BG/51 Updating CASAL model for *D. eleginoides* at Division 58.4.4b  
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SC-CAMLR-39/BG/53	Italy research and monitoring in the Ross Sea region in support of the Ross Sea region Marine Protected Area: 2020 update L. Ghigliotti, M. Azzaro and M. Vacchi
SC-CAMLR-39/BG/54	Setting out a structure for WG-FSA advice on the management of Antarctic krill ( <i>Euphausia superba</i> ) in Subarea 48.1 C. Darby
SC-CAMLR-39/BG/55	Preliminary tag-recapture based population assessment of Antarctic toothfish ( <i>Dissostichus mawsoni</i> ) in Subarea 48.4 – 2019/20 fishing season T. Earl and A. Riley
SC-CAMLR-39/BG/56	Feasibility of establishing limits on use of continuous fishing system for the krill fishery in the Area 48 Delegation of Ukraine
SC-CAMLR-39/BG/57	A summary of catches of target species in the Convention Area in 2018/19 and 2019/20 Secretariat
SC-CAMLR-39/BG/58	Convener's summary of WG-FSA-2020 e-group discussions WG-FSA Convener (S. Somhlaba)
SC-CAMLR-39/BG/59	Monitoring cable and bird strike trials Delegation of Norway
SC-CAMLR-39/BG/60	Chair's Summary of the Informal meeting of SC-CAMLR-39 Chair of the Scientific Committee (Dr Dirk Welsford)
SC-CAMLR-39/BG/61	Request for Scientific Committee Advice from the Standing Committee on Implementation and Compliance (SCIC) and the Standing Committee on Administration and Finance (SCAF) Chair of the Scientific Committee (Dr D. Welsford)

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#### Other Documents

CCAMLR-39/08 Rev. 1	Revised proposal for a conservation measure establishing a Marine Protected Area in Domain 1 (Western Antarctic Peninsula and South Scotia Arc) Delegations of Argentina and Chile
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CCAMLR-39/09	Re-emphasising the importance of the D1MPA proposal for the conservation of the Antarctic marine ecosystem under scenarios of environmental and management uncertainties Delegations of Argentina and Chile
CCAMLR-39/BG/02	Domain 1 MPA Proposal CM 91-XX: Rationale of the changes for the Proposal for the Establishment of a Marine Protected Area in the Western Antarctic Peninsula–South Scotia Arc Delegations of Argentina and Chile
CCAMLR-39/BG/10	2020 Report to SC-CAMLR-39 and CCAMLR-39 by the Association of Responsible Krill harvesting companies (ARK) Submitted by ARK

**Agenda for the Thirty-ninth Meeting  
of the Scientific Committee**

PRELIMINARY



**Agenda for the Thirty-ninth Meeting of the  
Scientific Committee for the Conservation  
of Antarctic Marine Living Resources**

1. Opening of the meeting
2. Harvested species
3. Priorities for work of the Scientific Committee and its working groups
4. Advice to the Commission
5. Adoption of report of the Thirty-ninth Meeting.

PRELIMINARY