

**REPORT OF THE WORKING GROUP ON INCIDENTAL
MORTALITY ASSOCIATED WITH FISHING**
(Hobart, Australia, 10 to 12 October 2011)

CONTENTS

| | Page |
|--|------|
| OPENING OF THE MEETING | 409 |
| Organisation of the meeting and adoption of the agenda..... | 409 |
| INTERSESSIONAL WORK OF WG-IMAF | 409 |
| INCIDENTAL MORTALITY OF SEABIRDS AND MARINE MAMMALS IN FISHERIES IN THE CONVENTION AREA | 410 |
| Seabirds | 410 |
| Seabirds in longline fisheries..... | 410 |
| Seabird incidental mortality in the French EEZs in Subarea 58.6 and Division 58.5.1..... | 410 |
| Review of progress made to reduce seabird mortality in the French EEZs | 411 |
| Seabirds in trawl fisheries | 412 |
| Subarea 48.3 icefish | 412 |
| Division 58.5.2 toothfish/icefish..... | 412 |
| Krill | 412 |
| Seabirds in pot fisheries | 413 |
| Marine mammals | 413 |
| Marine mammals in longline fisheries | 413 |
| Marine mammals in trawl fisheries | 413 |
| Krill | 413 |
| Finfish | 413 |
| Marine mammals in pot fisheries | 413 |
| Information relating to the implementation of CMs 26-01, 25-02, 25-03 and 51-01 | 414 |
| CM 26-01 ‘General environmental protection during fishing’ | 414 |
| Plastic packaging bands | 414 |
| Gear debris and garbage..... | 414 |
| CM 25-02 ‘Minimisation of the incidental mortality of seabirds in the course of longline fishing or longline fishing research in the Convention Area’ | 414 |
| Line weighting | 414 |
| Night setting | 414 |
| Offal discharge | 415 |
| Discard of hooks | 415 |
| Streamer lines | 415 |
| Haul mitigation | 415 |
| CM 25-03 ‘Minimisation of the incidental mortality of seabirds and marine mammals in the course of trawl fishing in the Convention Area’ | 415 |
| Net sonde cables | 415 |
| Offal discharge | 416 |
| CM 51-01 ‘Precautionary catch limitations on <i>Euphausia superba</i> ’ | 416 |
| Summary of conservation measure implementation | 416 |
| INCIDENTAL MORTALITY OF SEABIRDS AND MARINE MAMMALS IN FISHERIES OUTSIDE THE CONVENTION AREA..... | 416 |

| | |
|--|-----|
| INCIDENTAL MORTALITY OF SEABIRDS DURING IUU FISHING IN THE CONVENTION AREA | 418 |
| RESEARCH INTO AND EXPERIENCE WITH MITIGATION MEASURES | 419 |
| Trawl gear | 419 |
| Demersal longline gear | 420 |
| OBSERVER REPORTS AND DATA COLLECTION | 421 |
| Reports of marine debris | 421 |
| Reporting hydrocarbon soiling on seabirds reported by observers | 422 |
| Priorities for data collection by observers | 422 |
| ASSESSMENT OF RISK IN CCAMLR SUBAREAS AND DIVISIONS | 422 |
| INCIDENTAL MORTALITY OF SEABIRDS IN RELATION TO NEW AND EXPLORATORY FISHERIES | 425 |
| OTHER BUSINESS | 426 |
| The future of WG-IMAF | 426 |
| ADVICE TO THE SCIENTIFIC COMMITTEE | 427 |
| ADOPTION OF THE REPORT AND CLOSE OF THE MEETING | 429 |
| REFERENCES | 429 |
| | |
| APPENDIX A: Agenda | 430 |
| APPENDIX B: List of participants | 431 |
| APPENDIX C: List of documents | 434 |

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OPENING OF THE MEETING

1.1 The meeting of WG-IMAF was held in Hobart, Australia, from 10 to 12 October 2011.

1.2 The Convener, Mr J. Moir Clark (UK), opened the meeting and welcomed participants, including the invited expert from ACAP (Mr B. Baker).

Organisation of the meeting and adoption of the agenda

1.3 The provisional agenda for the meeting was discussed and adopted (Appendix A).

1.4 The participants thanked Mr Moir Clark for his work in preparing for the meeting and in taking over the duties of Convener following the non-availability of the former Co-conveners of the Working Group.

1.5 The report was prepared by the participants and includes a list of participants (Appendix B) and a list of documents considered at the meeting (Appendix C).

1.6 In this report, paragraphs that provide advice to the Scientific Committee have been highlighted. A list of these paragraphs is provided in Item 11.

INTERSESSIONAL WORK OF WG-IMAF

2.1 The Convener reported on progress made in addressing the intersessional tasks of WG-IMAF according to the agreed plan of intersessional activities for 2008/09 (SC-CAMLR-XXVIII, Annex 7, Table 1), noting in particular the material provided to the observer accreditation process and advice on materials that should be available to observers to assist in the data collection relating to seabirds and marine mammals (including identification, activity data and sample collection).

2.2 The Working Group noted that CCAMLR Members have reported data on incidental mortality of seabirds in fisheries adjacent to the Convention Area to ACAP, and that the reporting formats for this data are currently under development by ACAP. Members are encouraged to continue this provision of data to ACAP, especially where Convention Area seabirds may be involved.

2.3 Dr K. Reid (Science Officer) reported on discussions between the Secretariats of ACAP and CCAMLR to further enhance the integration of their work, especially in light of the MOU signed between ACAP and CCAMLR two years ago. This included the presentation of the reports of relevant working groups of ACAP to SC-CAMLR.

2.4 Other issues raised in Table 1 of SC-CAMLR-XXVIII, Annex 7, are addressed in the appropriate sections of this report.

INCIDENTAL MORTALITY OF SEABIRDS AND MARINE MAMMALS IN FISHERIES IN THE CONVENTION AREA

Seabirds

Seabirds in longline fisheries

3.1 Data were available from all longline cruises conducted in the Convention Area during the 2010/11 season (WG-IMAF-11/5 Rev. 2, Table 2).

3.2 The proportions of hooks observed ranged from 16 to 100%, with an average of 53% (WG-IMAF-11/5 Rev. 2, Table 2).

3.3 The total extrapolated seabird mortalities due to interactions with fishing gear during longline fishing for *Dissostichus* spp. in the Convention Area in 2010/11 were estimated to be 220 (all within the French EEZs) (WG-IMAF-11/5 Rev. 2, Table 4). These consisted of 82% white-chinned petrels (*Procellaria aequinoctialis*), 12% grey petrels (*P. cinerea*), 4% northern giant petrels (*Macronectes halli*) and 2% rockhopper penguins (*Eudyptes chrysocome*).

3.4 The total number of seabirds observed caught and released uninjured was 32 (WG-IMAF-11/5 Rev. 2, paragraph 5, Tables 2 and 3), all caught during hauling. Of these, seven were caught within Subarea 48.3, and 24 within the French EEZs in Subarea 58.6 (2 birds) and Division 58.5.1 (22 birds). All vessels, except one fishing in Subarea 58.7, recorded the use of a haul scaring device (WG-IMAF-11/5 Rev. 2, paragraph 11).

Seabird incidental mortality in the French EEZs in Subarea 58.6 and Division 58.5.1

3.5 Data were available from eight cruises in Subarea 58.6 and 15 cruises in Division 58.5.1 in 2010/11. All vessels in the French EEZs were autoliners using at least 50 g m⁻¹ IWLs. The proportion of hooks observed was 26% in Subarea 58.6 and 25% in Division 58.5.1, the total observed seabird incidental mortality was 7 and 49 birds respectively (sum of dead and injured birds) (WG-IMAF-11/5 Rev. 2, Table 3). The corresponding incidental mortality rates were 0.009 and 0.015 birds/thousand hooks and the extrapolated total seabird mortalities for Subarea 58.6 and Division 58.5.1 were 27 and 193 respectively (WG-IMAF-11/5 Rev. 2, Table 4).

3.6 The observed captures in Subarea 58.6 comprised seven white-chinned petrels. The observed catches for Division 58.5.1 were 39 (80%) white-chinned petrels, seven (14%) grey petrels, two (4%) northern giant petrels and one (2%) rockhopper penguin (WG-IMAF-11/5 Rev. 2, paragraph 8).

3.7 The Working Group noted that when comparing the seabird incidental mortality rates provided by France, there was a reduction of 74% and 40% for Subarea 58.6 and Division 58.5.1 respectively from the previous season; a reduction of 47% from the combined total estimated incidental mortality from these areas.

Review of progress made to reduce seabird mortality in the French EEZs

3.8 The Working Group thanked Mr A. Falguier (France) for the comprehensive report on progress made to reduce seabird mortality in the French EEZs (WG-IMAF-11/10 Rev. 1), noting that this demonstrated that a significant reduction in by-catch could be achieved with improved mitigation measures, while also identifying the areas where further reductions can be made.

3.9 The analysis provided in WG-IMAF-11/10 Rev. 1 showed high variability in seabird by-catch between vessels; this was attributed to differences in the level and effectiveness of the implementation of by-catch mitigation. The increase in number of birds caught in Subarea 58.6 between 2009 and 2010 was due to a single vessel.

3.10 The highest numbers of white-chinned petrels were caught immediately before and after the period of closure (1 February to 15 March), however, some vessels that fished during these periods caught very few birds. Accordingly, the approach taken by France is to ensure that all vessels fully implemented the required measures rather than increasing the period of the closure.

3.11 Mr Falguier explained that the approach taken by France to further reduce seabird by-catch is to have all vessels achieving the by-catch rates of the best performing vessels. As an incentive to do this, those vessels that caught the largest number of birds receive a reduced allocation of quota for toothfish in subsequent seasons.

3.12 Mr Falguier noted that the work done in conjunction with WG-IMAF has allowed France to lower its incidental mortality of seabirds over the last three years and he confirmed France's will and commitment to achieve a level of near-zero in coming years, adding its intention is to work individually with vessels, especially those with the highest catch rates to ensure best-practice guidelines are followed.

3.13 The Working Group noted that France intends to undertake a demographic study on the white-chinned petrel at Kerguelen Island and that a new survey on Crozet Island, planned for November 2011, will provide a comparison with data from surveys conducted in 2005.

3.14 The Working Group applauded the substantial progress made by France and reiterated its previous advice (SC-CAMLR-XXVIII, Annex 7, paragraph 3.54) that full implementation of best-practice would further reduce seabird by-catch.

3.15 During the meeting it was noted that there were some differences in the numbers of total extrapolated mortality of seabirds in the French EEZs presented in WG-IMAF-11/5 Rev. 2 and WG-IMAF-11/10 Rev. 1. Some of these numerical inconsistencies between the two reports were attributed to differences in the reporting periods used in the analyses. However, full reconciliation of the differences was not possible at the meeting. The Working

Group requested that the Secretariat and appropriate French officials liaise in the intersessional period to ensure that future updates of incidental mortality data are consistent.

Seabirds in trawl fisheries

Subarea 48.3 icefish

3.16 Observer data were available from one trawl cruise (data from one cruise was not available at the time the report was compiled) conducted within Subarea 48.3 in 2010/11 (WG-IMAF-11/5 Rev. 2); 100% of all tows were observed (WG-IMAF-11/5 Rev. 2, Table 10).

3.17 For 2010/11, no seabird mortalities were reported in Subarea 48.3 (WG-IMAF-11/5 Rev. 2, Table 8).

3.18 This represents a decrease in the level of seabird mortality in 2009/10 where two were recorded dead and 16 recorded released alive. The rate of mortality in Subarea 48.3 in 2011 was 0 birds per trawl, compared to 0.07, 0.07, 0.024, 0.07 and 0.07 in 2010, 2009, 2008, 2007 and 2006 respectively (WG-IMAF-11/5 Rev. 2, Table 11).

Division 58.5.2 toothfish/icefish

3.19 Data were available from one vessel, *Southern Champion*, which conducted one trawl cruise within Division 58.5.2 in 2010/11 (WG-IMAF-11/5 Rev. 2, Table 7). The Working Group noted that 390 trawls were undertaken and that 100% of these were observed.

3.20 No seabird mortality was reported, however, there were six instances of interaction with gear observed with all birds uninjured and released alive (WG-IMAF-11/5 Rev. 2, paragraph 34).

Krill

3.21 Data were available from 19 trawl cruises conducted within Area 48 in 2010/11 (WG-IMAF-11/5 Rev. 2), with two more observer reports still due. In the krill fishery, 20% of vessels fishing in Subarea 48.1, 57% of vessels fishing in Subarea 48.2 (two cruises) and 100% of vessels fishing in Subarea 48.3 had observers on board at some time during their trips. There were four reported incidents of seabird incidental mortality (all Cape petrels (*Daption capense*)) in Subarea 48.2, giving a calculated total observed seabird mortality rate for Area 48 of 0.002 birds per trawl (WG-IMAF-11/5 Rev. 2, Table 10). This mortality rate is the same as in the previous season. A further six birds were released alive uninjured (WG-IMAF-11/5 Rev. 2, Table 8).

3.22 Net cleaning was reported by observers on all the vessels except for the *Juvel* and *Saga Sea* in Area 48. Due to the nature of the continuous trawl system, it was considered that the *Saga Sea* net was self-cleaning. The *Saga Sea* continued to use bow thrusters which

helped to maintain vessel speed while the vessel turned, and limited seabird exposure to the nets. Net weighting was used by all vessels except for the *Fukuei Maru* (WG-IMAF-11/5 Rev. 2, paragraph 25).

Seabirds in pot fisheries

3.23 During pot fishing in 2010/11, no seabird mortalities were recorded during the single cruise targeting *Dissostichus eleginoides* in Division 58.5.2 (WG-IMAF-11/7, paragraph 40).

Marine mammals

Marine mammals in longline fisheries

3.24 No marine mammal incidental mortalities were recorded in the Convention Area in 2010/11 (WG-IMAF-11/5 Rev. 2, paragraph 10). There was one reported entanglement of a sperm whale (*Physeter macrocephalus*) in the fishing line of the *Argos Froyanes* in Subarea 48.3, which freed itself.

Marine mammals in trawl fisheries

Krill

3.25 A single marine mammal incidental mortality (fur seal) was recorded in the krill trawl fishery in 2010/11 from the *Dalmor II* in Subarea 48.1 (WG-IMAF-11/5 Rev. 2, Table 8).

3.26 Observers reported the use of marine mammal exclusion devices on all vessels. There were no reports of other marine mammal mortalities or entanglements.

Finfish

3.27 No marine mammal incidental mortalities were observed in finfish trawl fisheries (WG-IMAF-11/5 Rev. 2, paragraph 30 and Table 8).

Marine mammals in pot fisheries

3.28 No marine mammal incidental mortalities were reported for pot fisheries in the Convention Area (WG-IMAF-11/5 Rev. 2).

Information relating to the implementation of CMs 26-01, 25-02, 25-03 and 51-01

3.29 Information from observer reports relating to the implementation of CMs 26-01, 25-02, 25-03, 24-02 and 51-01 in 2010/11 was provided by the Secretariat (WG-IMAF-11/6).

CM 26-01 'General environmental protection during fishing'

Plastic packaging bands

3.30 There were no reports of bait box packaging bands on board vessels this season. All other types of packaging bands were either retained on board for disposal on shore or incinerated (WG-IMAF-11/6, Table 1).

Gear debris and garbage

3.31 The Working Group noted one vessel had disposed of fishing gear (snoods) at sea (WG-IMAF-11/6, Table 1).

CM 25-02 'Minimisation of the incidental mortality of seabirds in the course of longline fishing or longline fishing research in the Convention Area'

Line weighting

3.32 In 2010/11, full compliance with line weighting for Spanish longline systems (6 kg every 20 m or 8.5 kg every 40 m or hydrodynamic-shaped solid steel weights of at least 5 kg every 40 m) was achieved for all but one vessel in Subarea 58.4 (WG-IMAF-11/6, Table 3). It was noted that this vessel also used an IWL system with 200 g m^{-1} and achieved the minimum sink rate.

3.33 For autoliners, all vessels fishing in Subareas 88.1 and 88.2 and Divisions 58.4.1, 58.4.2, 58.4.3a and 58.4.3b, met the requirement to achieve a consistent minimum line sink rate as described in CM 24-02 (WG-IMAF-11/6, Table 5).

Night setting

3.34 There was 100% compliance with night setting in all areas where this was required (Subareas 48.3, 58.6 and 58.7) (WG-IMAF-11/6, Table 3).

3.35 Vessels fishing in Subareas 48.6, 88.1 and 88.2 and Divisions 58.4.1, 58.4.2, 58.4.3a, 58.4.3b and 58.5.2, may set longlines during daylight hours providing they can demonstrate a consistent minimum line sink rate of 0.3 m s^{-1} , or use an IWL of at least 50 g m^{-1} and achieve a sink rate of 0.2 m s^{-1} . All vessels fishing in these areas fully implemented one or both of these requirements (WG-IMAF-11/6, Table 5).

Offal discharge

3.36 All longline vessels fully implemented the requirement to retain offal on board in all areas where this was required (Subareas 48.6, 88.1 and 88.2 and Divisions 58.4.1, 58.4.2, 58.4.3a, 58.4.3b and 58.5.2) during the 2010/11 season (WG-IMAF-11/6, Table 3).

Discard of hooks

3.37 Hooks were reported by the observer in the offal discards on rare occasions in Subareas 58.6 and 58.7 (WG-IMAF-11/6, Table 1).

Streamer lines

3.38 The overall compliance with streamer line design was lower this season than in 2009/10, with six vessels failing to meet the minimum specifications with all aspects of streamer line design (WG-IMAF-11/6, Table 2). The Working Group noted that these small deviations from full implementation with streamer line configuration had not led to any observed seabird incidental mortality. Nevertheless, the Working Group encouraged vessels to strive for full implementation.

3.39 The Working Group recommended that recording of aerial extent of streamer lines should be discontinued for night setting.

Haul mitigation

3.40 In all required areas (Subareas 48.3, 58.6, 58.7 and Division 58.5.2), a bird exclusion device designed to discourage birds from accessing baits during the hauling of a longline was used 100% of the time by all but two vessels (WG-IMAF-11/6, Table 2).

CM 25-03 'Minimisation of the incidental mortality of seabirds and marine mammals in the course of trawl fishing in the Convention Area'

3.41 A range of mitigation measures was used on board icefish vessels in Subarea 48.3 and Division 58.5.2 (WG-IMAF-11/5 Rev. 2) and implementation of CM 25-03 was good.

Net sonde cables

3.42 There were no reports of net monitoring cables (net sonde cables) being used in 2010/11.

Offal discharge

3.43 Several observers on board krill trawl vessels reported the discharge of ‘stickwater’, a liquid containing pigments and oil naturally excreted from krill. The Working Group recommended that a clarification be added to CM 25-03 on the definition of offal, distinguishing it from stickwater, and that a note needed to be added to the observer logbooks informing them not to record stickwater.

CM 51-01 ‘Precautionary catch limitations on *Euphausia superba*’

3.44 Paragraph 7 of CM 51-01 requires the use of marine mammal exclusion devices on trawls in Subareas 48.1, 48.2, 48.3 and 48.4 and observers reported the use of marine mammal exclusion devices on all vessels.

Summary of conservation measure implementation

3.45 The Working Group recalled SC-CAMLR-XXVIII, paragraph 5.6, and agreed that SCIC should review WG-IMAF-11/6 in respect of the implementation of CMs 26-01, 25-02, 25-03 and 51-01, noting that any deterioration in the implementation of conservation measures relating to the mitigation of incidental mortality may have implications for seabird conservation.

INCIDENTAL MORTALITY OF SEABIRDS AND MARINE MAMMALS IN FISHERIES OUTSIDE THE CONVENTION AREA

4.1 The Working Group recalled the CCAMLR standing request to Members to report on the details and magnitude of seabird mortality for species breeding within the Convention Area, but arising from fisheries conducted outside the Convention Area (SC-CAMLR-XXVII, Annex 6, paragraph 4.3).

4.2 A written report was provided by Dr R. Leslie (South Africa) (WG-IMAF-11/11) noting the level of seabird incidental mortality within the five South African fishing sectors most likely to impact on seabirds and South Africa’s progress to reduce it. The report highlighted high levels of Cape petrel warp captures in the demersal trawl fishery which were traced to the warp manufacturer using bitumen-based warp grease. The bitumen-based grease was found to stick to the warps for longer periods than other greases and was more prone to capturing smaller seabirds such as Cape petrels. The report went on to describe, inter alia, the banning of bitumen-based grease on trawl warps in the South African offshore hake and horse mackerel fisheries initiated by the Responsible Fisheries Alliance (RFA), made up of WWF South Africa and four of the major demersal trawl fishing companies.

4.3 The Working Group thanked South Africa for submitting the information and supported the action taken by South Africa in banning bitumen-based warp grease. It encouraged South Africa to continue to take actions in the future to reduce incidental mortality, and urged Members not to use bitumen-based grease on warps.

4.4 WG-IMAF-11/13 recognised the relevance of a recently published global assessment of seabird by-catch in longline fisheries conducted by BirdLife (Anderson et al., 2011), which had been carried out by reviewing the extent of seabird by-catch in all longline fisheries for which data are available. Despite the limitations of such data, the published estimate indicated at least 160 000 (and potentially in excess of 320 000) seabirds are killed annually. Most frequently caught are albatrosses, petrels and shearwaters, with current levels of mortality liable to be unsustainable for many species and populations.

4.5 Where realistic comparisons could be made with data from the 1990s, there was evidence of substantially reduced by-catch in some key fisheries, including CCAMLR fisheries. Reductions stemmed from decreased fishing effort, and wider and more effective use of mitigation measures, notably in demersal longline fisheries. Fisheries with previously unidentified by-catch problems were also identified. The authors noted that significant data gaps (e.g. in the Asian distant-water fleet) prevented more precise and comprehensive assessments of the global scale of by-catch impacts. Future assessments will only achieve greater precision when minimum standards of data collection, reporting and analysis are implemented by longline fishing fleets, relevant national fishery managers and RFMOs. Those fisheries where by-catch has been substantially reduced demonstrated that the problem of seabird by-catch can be reduced to negligible proportions by enforced implementation of appropriate best-practice mitigation devices and techniques.

4.6 Mr Baker reported that over the last two years ACAP has been working on a prioritisation framework to guide the work of the ACAP Agreement (WG-IMAF-11/13 and 11/14). While this has been completed for land-based threats, final conclusions from the at-sea prioritisation framework were unlikely to be available until the end of 2011. In the interim, ACAP's Seabird Bycatch Working Group (SBWG) and the Population and Conservation Status Working Group (PaCSWG) acknowledged the clear advantage of highlighting particularly strong cases on which ACAP might focus its efforts.

4.7 An examination of the available data on population size and trends in the ACAP database identified five populations representing sizeable proportions (>10% of the global total) that were declining rapidly (>3% per annum), for which a major underlying cause was incidental mortality in fisheries. These were the wandering albatross (*Diomedea exulans*) and black-browed albatross (*Thalassarche melanophrys*) populations at South Georgia, the Tristan albatross (*D. dabbenena*) at Gough Island and the sooty albatross (*Phoebastria fusca*) at the Crozet and Prince Edward Islands. These were all considered to be of high-priority, and ACAP agreed that addressing threats to their population required urgent and coordinated international action.

4.8 Necessary actions include: (i) gathering new and existing by-catch data in relevant fisheries and submitting those data to ACAP; (ii) specifically highlighting the conservation threat to these species/populations to RFMOs and others managing fisheries within the foraging distribution of those populations; and (iii) requesting that those fisheries implement best-practice seabird by-catch mitigation measures. The Working Group endorsed these recommendations and requested all Members to comply with this request where relevant to fisheries within their jurisdiction.

4.9 Mr Baker also reported that by-catch and fishing effort data have recently been provided by ACAP Parties for the purpose of determining global estimates of by-catch for albatrosses and petrels. These data have been provided in summary format, rather than on a

shot-by-shot basis, and are currently awaiting analysis. An intersessional working group has been formed to determine the best analytical approaches to apply to the data, and to consider the extent to which the original objectives of the by-catch data collection process are able to be fulfilled by the data.

4.10 Given that considerably greater levels of mortality of Convention Area seabirds continue to occur in areas north of the Convention Area, compared to levels within the Convention Area, the Working Group again urged all Members to comply with the request to report on incidental mortality of Convention Area seabirds and marine mammals arising from fisheries conducted outside the Convention Area (Resolution 22/XXV, paragraph 3; SC-CAMLR-XXV, Annex 5, Appendix D, Table 20, item 3.2). Members submitting reports in 2012 are encouraged to give emphasis to information on incidental mortality, numbers by species wherever possible, and the use of mitigation measures and management approaches similar to those used in CCAMLR fisheries or potentially relevant to such fisheries.

4.11 No data were received relating to fisheries' incidental mortality of Convention Area marine mammals outside the Convention Area.

INCIDENTAL MORTALITY OF SEABIRDS DURING IUU FISHING IN THE CONVENTION AREA

5.1 As no information is available on rates of incidental mortality of seabirds from the IUU fishery, estimation of the incidental mortality of seabirds during IUU fishing within the Convention Area presents a number of difficulties requiring various assumptions to be made. Notwithstanding this, in previous years the Working Group has prepared estimates of seabird incidental mortality in IUU longline fisheries using both the average catch rate for all cruises from the appropriate period of the regulated fishery in a particular area and the highest catch rate for any cruise in the regulated fishery for that period. The method used to prepare estimates of the incidental mortality of seabirds during IUU fishing within the Convention Area is described in full in SC-CAMLR-XXV/BG/27 and in SC-CAMLR-XXII, Annex 5, paragraphs 6.112 to 6.117.

5.2 Estimates of IUU seabird incidental mortality in longline fisheries were prepared every year from 1996 to 2007. The most recent estimates (2007) of potential IUU seabird incidental mortality in the Convention Area for longline vessels are provided in SC-CAMLR-XXVI/BG/32.

5.3 The Working Group noted that, given the absence of baited hooks, the risks to seabirds posed by gillnetting were quite different to those from longlining and, because of the reasons described in 2008 (SC-CAMLR-XXVII, Annex 6, paragraph 5.3), reiterated its view that there were insufficient data to estimate seabird incidental mortality caused by IUU gillnetting.

5.4 The Working Group encouraged Members that conducted gillnet fishing in areas outside the Convention Area to investigate factors affecting the incidental mortality of marine mammals and seabirds.

RESEARCH INTO AND EXPERIENCE WITH MITIGATION MEASURES

6.1 Mr Baker introduced WG-IMAF-11/13 which presented key outcomes of the Fourth Meeting of ACAP's SBWG (22 to 24 August 2011). Of relevance to WG-IMAF and this agenda item were the regular reviews of mitigation measures available for both demersal and pelagic trawl, and demersal longline gear types, based on published literature and expert opinion, and the best-practice scientific advice statements for these gears.

Trawl gear

6.2 ACAP's best-practice advice noted that the causes of incidental mortality in trawl fisheries are varied and dependent on the nature of the fishery (pelagic or demersal), the species targeted and fishing area. Mortalities may be categorised into two broad types: (i) cable-related mortality, including collisions with net monitoring cables, warp cables and paravanes; and (ii) net-related mortality, which includes deaths caused by net entanglements. Seabird interactions have been demonstrated to be significantly reduced by the use of mitigation measures that include protecting the warp cable, managing offal discharge and discards, and reducing the time the net is exposed on the surface of the water. The following measures have been demonstrated to be effective at reducing seabird by-catch in trawl fisheries and are recommended:

Cable strike –

- (i) deploy bird-scaring lines while fishing to deter birds away from warp cables and net monitoring cables.

Net entanglement –

- (ii) clean nets after every shot to remove entangled fish ('stickers') and benthic material to discourage bird attendance during gear shooting
- (iii) minimise the time the net is on the water surface during hauling through proper maintenance of winches and good deck practices
- (iv) for pelagic trawl gear, apply net binding to large meshes in the wings (120–800 mm), together with a minimum of 400 kg weight incorporated into the net belly prior to setting.

6.3 In all cases, the presence of offal and discards is the most important factor attracting seabirds to the stern of trawl vessels, where they are at risk of cable and net interactions. Managing offal discharge and discards while fishing gear is deployed has been shown to reduce seabird attendance. The following management measures are recommended:

- (i) avoid any discharge during shooting and hauling
- (ii) where possible and appropriate, convert offal into fish meal and retain all waste material with any discharge restricted to liquid discharge/sump water to reduce the number of birds attracted to a minimum

- (iii) where meal production from offal and full retention are not feasible, batching waste (preferably for two hours or longer) has been shown to reduce seabird attendance at the stern of the vessel. Mincing of waste has also been shown to reduce the attendance of large albatross species.

6.4 The Working Group noted that currently there is no single solution to reduce or avoid incidental mortality of seabirds in trawl fisheries, and that the most effective approach is to use the measures listed above in combination. Net entanglements during the haul remain the most difficult interactions to mitigate. Further measures include avoiding fishing operations in areas and periods of peak seabird foraging activity.

6.5 Many of the measures recommended by ACAP are already included in CM 25-03. In view of the low level of mortality associated with CCAMLR trawl fisheries, the Working Group agreed there was no need to review this measure at present.

Demersal longline gear

6.6 Two ACAP papers on interactions with demersal longline gear are described in WG-IMAF-11/13 but the results of these studies were consistent with ACAP's previous review and advice on best-practice mitigation for demersal longline operations. As a consequence, it was not necessary to update ACAP's review table and summary advice statement (WG-IMAF-11/13, Annexes 6 and 7).

6.7 In summary, ACAP's best-practice advice is that the most effective measures to reduce incidental take of seabirds in demersal longline fisheries are (i) use of an appropriate line-weighting regime to reduce the time baited hooks are near or on the surface and thus available to birds; (ii) actively deterring birds from baited hooks by means of bird-scaring lines; and (iii) setting longlines at night. Further measures include bird-deterrent curtains at the hauling bay, responsible offal management and avoiding peak areas and periods of seabird foraging activity. It is important to note that there is no single solution to reduce or avoid incidental mortality of seabirds in demersal longline fisheries, and that the most effective approach is to use the recommended measures in combination.

6.8 All of the measures recommended by ACAP are already included in CM 25-02.

6.9 Following a request from ad hoc TASO (SC-CAMLR-XXIX, Annex 7, paragraph 4.32) to investigate the use of electronic monitoring technology, the UK discussed a trial that had taken place in Subarea 48.3 last season where line setting could be monitored remotely using a fixed video camera. The footage could either be viewed in real time by the observer from the cabin or recorded and viewed at a later date. The footage showed the streamer line being deployed and the line being set, and the Working Group hoped that in the future this technology could be applied to reduce the workload on observers.

6.10 Mr K. Ramm (New Zealand) outlined video monitoring trials that are being carried out by the Department of Conservation in New Zealand to monitor a selection of inshore demersal longline fisheries. The vessels were carrying multiple cameras which monitored, inter alia, the setting and hauling of longlines and offal discharge.

6.11 Mr I. Hay (Australia) gave a verbal report on a trial of video monitoring and surveillance in three Australian fisheries, including pelagic longline fishery, trawl fishery and gillnet hook fishery. The trials, using multiple cameras on each vessel, have been successful and cost-effective, and the use of cameras has been expanded to the whole fleet in two of the three fisheries where trials have occurred.

6.12 The potential to use video technology in CCAMLR fisheries was discussed and the Working Group agreed that it may be suitable for augmenting the duties of the observer and would provide additional flexibility in observer tasking.

OBSERVER REPORTS AND DATA COLLECTION

Reports of marine debris

7.1 The Working Group considered WG-IMAF-11/12, presented by Dr K.-H. Kock (Germany), that reported on sightings of marine debris during aerial surveys for marine mammals throughout the austral summer of 2010/11 west of the Antarctic Peninsula in Subarea 48.1.

7.2 In relation to WG-IMAF-11/12, the Working Group concluded that, while there were a number of items of fishing gear found in areas where fishing has been prohibited for over two decades, this gear could have originated outside the Convention Area. Members that conduct at-sea surveys are encouraged to provide information on any marine debris sighted to the Secretariat.

7.3 WG-IMAF-11/4 Rev. 1 provided a review of marine debris surveys in the Convention Area which have been reported to the Secretariat as part of the CCAMLR marine debris monitoring program. It was noted that data had been submitted by three Members in 2011. The monitoring sites were located in Subareas 48.1, 48.2, 48.3 and 58.7. Results indicate that the types of debris found are generally non-fishing items such as packaging items and wood. A decrease in the number of plastic packaging bands found in beach surveys was recorded. The amount of debris in colonies of grey-headed albatrosses (*T. chrysostoma*) and black-browed albatrosses at Bird Island has increased recently, although the major category of items found were plastics. The amount of fishing-related items (fishing lines and hooks) found in wandering albatross colonies remains the most numerous debris item found in each season. The number of marine mammal entanglements increased in 2011 with packaging bands and fishing gear the main entangling materials. There were no reports of hydrocarbon soiling in 2011.

7.4 The Working Group also reviewed SC-CAMLR-XXX/BG/5 that described marine debris surveys undertaken by the UK in Area 48, and expressed concern that there was no long-term decline in the number of hooks found in seabird colonies, particularly the wandering albatross, on Bird Island in Subarea 48.3.

7.5 The Working Group noted that the data for the marine debris collection in the Convention Area over the last 10 years showed no consistent decline in the amount of debris on beaches, in bird colonies and in the incidence of marine mammal entanglement.

7.6 A comparison of the numbers of hooks reported lost in the C2 data submitted by the vessel (WG-IMAF-11/4 Rev. 1) and that reported by observers, revealed some discrepancies. The Working Group noted that, while the issue of gear loss posed potential risk of incidental mortality to marine mammals and birds, the analysis presented in WG-FSA-11/48 also indicated the potential impact of such gear on target species.

Reporting hydrocarbon soiling on seabirds reported by observers

7.7 The Working Group considered the advice from ad hoc TASO on recording seabirds with hydrocarbon soiling (SC-CAMLR-XXIX, Annex 7, paragraph 4.3). The Working Group recommended that observers be trained on how to identify seabirds with hydrocarbon soiling, and to report any sightings using the CCAMLR marine debris hydrocarbon soiling form (<http://www.ccamlr.org/pu/e/sc/deb/forms-inst.htm>), and submit this with their observer cruise report.

Priorities for data collection by observers

7.8 The Working Group considered the priorities for observer data collection, noting that due to the complexity of this task it would best be undertaken intersessionally. The Working Group considered the request from WG-EMM to combine the observer forms K7 (Incidental Mortality of Seabirds and Marine Mammals) and K11 (Trawl Warp Strike Protocol) (Annex 4, paragraph 2.42). The Working Group recommended that the Scientific Committee write to ACAP and request it to provide advice on how best to combine the reporting of incidental mortality and warp strike data, including on vessels using a continuous trawl system.

7.9 The Working Group reiterated its praise for the valuable work of observers and the importance of observer data to the success of CCAMLR in addressing seabird incidental mortality.

ASSESSMENT OF RISK IN CCAMLR SUBAREAS AND DIVISIONS

8.1 As there was no additional information provided this year on the at-sea distribution of seabirds, the assessments and advice provided in SC-CAMLR-XXVI/BG/31 were again endorsed by the Working Group (SC-CAMLR-XXVIII, Annex 7, Tables 13 and 14 and Figure 2).

8.2 The Working Group considered three papers containing proposals to vary the mitigation measures in a fishery; these were WG-IMAF-11/8 and 11/9 concerning Subarea 48.3, and WG-IMAF-11/7 concerning Division 58.5.2. The Working Group recalled the Scientific Committee's advice that the ultimate aim in managing seabird by-catch in the Convention Area is to allow fishing at any time of day without seasonal closure of fishing grounds (SC-CAMLR-XIX, paragraphs 4.41(iv) and 4.42), and that any relaxation of closed seasons should proceed in a step-wise fashion and the results of this be carefully monitored and reported (SC-CAMLR-XXI, paragraph 11.7).

8.3 WG-IMAF-11/9 contained a proposal to change the pre-season extension start date of the fishery for *D. eleginoides* in Subarea 48.3 in two annual steps of five days each from 21 April to 16 April in 2011/12 and to 11 April in 2012/13, and to also change the main season start date from 1 May, as set out in CM 41-02, to 21 April.

8.4 The Working Group noted that three birds had been killed during the last two seasons during the pre-season extension period; two albatrosses (1 black-browed, 1 grey-headed) in 2009/10 when the extension period started on 26 April and one white-chinned petrel in 2010/11 when the extension started on 21 April. In some cases this was clearly due to poor implementation of prescribed mitigation measures.

8.5 Noting that albatrosses have been caught in the pre-season extension period, the Working Group agreed that the main season start date should remain unchanged from 1 May; this would also increase the incentive for fishers to avoid seabird by-catch in the pre-season extension period.

8.6 The Working Group supported the proposed trial of five-day changes to the start of the pre-season extension in 2011/12 and 2012/13 on the basis that they would only be open to vessels which had fully complied with CM 25-02 in the previous fishing season and that any vessel that had three or more seabird mortalities during the extension would be required to suspend fishing operations until 1 May.

8.7 The Working Group agreed that the following decision rules should be used by the Scientific Committee in respect of an extension in 2012/13, based on the level of seabird incidental mortality during the extension period in 2011/12. Thus, in addition to the expected changes to update season references – from ‘2009/10’ to ‘2011/12’ and from ‘2010/11’ to ‘2012/13’ seasons in the title and paragraphs 2 and 3 (in two places) of CM 41-08 – the Working Group recommended that paragraphs 5, 6 and 7 of CM 41-02 be modified as follows (new text in bold):

5. For the purpose of the longline fishery for *Dissostichus eleginoides* in Statistical Subarea 48.3, the **2011/12 and 2012/13** seasons **are** defined as the period from 1 May to 31 August in each season, or until the catch limit is reached, whichever is sooner. For the purpose of the pot fishery for *Dissostichus eleginoides* in Statistical Subarea 48.3, the **2011/12 and 2012/13** seasons are defined as the period from 1 December to 30 November, or until the catch limit is reached, whichever is sooner. The **2011/12** season for longline fishing operations may be extended in two periods: (i) to start on **16 April** and (ii) to end on 14 September for any vessel which has demonstrated full compliance with Conservation Measure 25-02 in the previous season.

6. The following decision rule shall apply to the extension of the **2012/13** season:

(i) if, on average, less than one bird per vessel is caught during the two extension periods in the **2011/12** season, the **2012/13** season **extension** shall start on **11 April 2013**;

(ii) if, on average, between one and three birds per vessel, or more than 10 and fewer than 16 birds in total, are caught during the extension periods in the **2011/12** season, the **2012/13** season **extension** shall start on **16 April 2013**; or

(iii) if, on average, more than three birds per vessel, or more than 15 birds in total, are caught during the extension periods in the **2011/12** season, the **2012/13** season shall start on **21 April 2013**.

7. The extensions to the seasons in **2011/12** and **2012/13** shall be subject to a combined catch limit of three (3) seabirds per vessel per season. If a total of three seabirds is caught **by one vessel** during the two extension periods in any one season, fishing shall cease immediately for that vessel **in the extension periods**. In the case of the extension at the start of the season, fishing shall not resume until 1 May of the corresponding season and the extension at the end of that season shall not apply.

8.8 Prior to 2013/14, the incidental mortality for the trial season extensions in 2011/12 and 2012/13 would need to be reviewed before any recommendations on season extensions could be made.

8.9 WG-IMAF-11/8 contained a proposal to trial daylight setting on longliners fishing for *D. eleginoides* in Subarea 48.3. The proposed trials were for 10-day periods of daylight setting between 1 July and 15 August and would be open to vessels that have shown excellent compliance with conservation measures in previous seasons. Participating vessels would be required to carry an extra observer to monitor setting during the trial period and there would be a three-bird total by-catch limit where vessels catching more than this limit would revert to night setting only. The proposal also noted the risk that daylight setting posed to albatrosses and that the proposed dates of the trial would minimise the risk to grey-headed and black-browed albatrosses which were largely absent from Subarea 48.3 at this time. However, the Working Group noted that the proposal did not consider that wandering albatrosses, which breed in the area, would still be attending large chicks at this time.

8.10 During its discussion of the proposal in WG-IMAF-11/8, the Working Group expressed concern at the potential for by-catch of albatrosses, particularly from the breeding population of wandering albatross on South Georgia. The Working Group noted that ACAP, at its 2011 meeting, had identified this wandering albatross population as a high conservation priority because it comprised a significant portion of the global species population and was experiencing a long-term serious population decline. The Working Group also noted that night setting was the single most effective measure to reduce by-catch of this and other species of albatross in longline fisheries, and that albatrosses were regularly present on the fishing grounds. After considerable discussion of the level of risk and possible risk mitigation strategies, the Working Group recommended that this proposed trial not proceed.

8.11 WG-IMAF-11/7 contained a proposal to allow daylight setting on longliners fishing for *D. eleginoides* in Division 58.5.2 during the pre-season extension period of 15 to 30 April. The Working Group supported the proposal on the basis that it would be a two-year trial; that other mitigation measures would remain unchanged, including that a three-bird total by-catch limit would remain for the season extension periods; and that the trial results would be reviewed before any recommendation on their future status could be made. The Working Group recommended that, in addition to the expected changes to update season references –

from '2009/10' to '2011/12' and from '2010/11' to '2012/13' seasons in the title and paragraphs 2 and 3 (in two places) of CM 41-08 – paragraphs 5 and 6 of CM 41-08 be modified for the 2011/12 and 2012/13 seasons as follows (new text in bold):

5. The operation of the trawl fishery shall be carried out in accordance with Conservation Measure 25-03 so as to minimise the incidental mortality of seabirds and mammals through the course of fishing. The operation of the longline fishery shall be carried out in accordance with Conservation Measure 25-02, except paragraph 5 (night setting) shall not apply for vessels using integrated weight lines (IWLs) during the period **15 April–May** to 31 October in **the 2011/12 and 2012/13**~~each season~~ **seasons**. Such vessels may deploy IWL gear during daylight hours if, prior to entry into force of the licence, each vessel shall demonstrate its capacity to comply with experimental line-weighting trials as approved by the Scientific Committee and described in Conservation measure 24-02.

During the period 15 April to 30 April in ~~each season~~**the 2011/12 and 2012/13** **seasons**, vessels shall use IWL gear in conjunction with ~~night setting and paired~~ streamer lines.

6. Each vessel participating in this fishery shall have at least one scientific observer, and may include one appointed in accordance with the CCAMLR Scheme of International Scientific Observation, on board throughout all fishing activities within the fishing period, with the exception of the period 15 April to 30 April in ~~each season~~**the 2011/12 and 2012/13** **seasons** when two scientific observers shall be carried.

INCIDENTAL MORTALITY OF SEABIRDS IN RELATION TO NEW AND EXPLORATORY FISHERIES

9.1 The Working Group noted the Scientific Committee request that WG-IMAF and WG-FSA review the prohibition on offal and discarding of dead fish in Subarea 88.1 and exploratory fisheries south of 60°S and determine if it continues to be required, given the risk status of those areas and the much improved compliance with other mitigation measures (SC-CAMLR-XXVIII, paragraph 5.12).

9.2 The Working Group also noted that the prohibition of offal discharge during fishing operations is currently applied to all finfish fisheries south of 60°S (CM 26-01, paragraph 6) and offal retention has been proven to be one of the most effective methods of minimising the attraction of fishing vessels to seabirds and minimising the risk of seabird interactions and by-catch. Both the Working Group and the ACAP SBWG consider it constitutes part of 'best-practice mitigation measures' and it was noted that the incidental mortality in these areas remains at, or near, zero. The prohibition of offal discharge may also serve to reduce the attractiveness of fishing vessels to some marine mammals.

9.3 The Working Group understood that some fishing vessels are able to store all offal from a single trip while other vessels interrupt a fishing trip and leave the fishing grounds to discharge offal outside the Convention Area. No data on the extent of this practice nor any specific proposal for an alternative approach were presented to the Working Group.

9.4 In the absence of appropriate research and the current ability of vessels to comply with the requirement to retain all offal and the lack of a specific proposal for an alternative approach, the Working Group considered that the current prohibition on the discard of offal and dead fish should continue.

9.5 The Working Group recommended that if a proposal were to be developed, changes to the current prohibition on offal discharge should be undertaken on an incremental and trial basis, with consideration given to the likelihood of all adverse impacts, including on marine mammals as well as on seabird by-catch, noting any such proposals should take into account the advice provided by ACAP in paragraph 6.3.

OTHER BUSINESS

The future of WG-IMAF

10.1 The Working Group discussed the primary core functions of WG-IMAF as identified in WG-FSA-08/65, paragraph 28:

- (1) annual review and monitoring of incidental mortality of seabirds and marine mammals in Convention Area fisheries
- (2) annual review and monitoring of information relating to the performance of implementation of specific conservation measures
- (3) research into and experience with fishing gears and mitigation methods
- (4) evaluate and advise on changing needs for observer reports and data collection
- (5) conduct assessments of risk to seabirds in CCAMLR areas and subdivisions
- (6) coordination with ACAP.

10.2 In respect of (1), the Working Group agreed that this review could be undertaken by the Secretariat and presented as a summary paper to the Scientific Committee or one of its working groups. In respect of (2), the Working Group agreed that reviewing the effectiveness of specific conservation measures addressing seabird by-catch could be addressed in the review of incidental mortality, while any review of the implementation or compliance with these measures was an issue more appropriate to SCIC.

10.3 The ongoing coordination with ACAP, including the presentation of the report of the SBWG (WG-IMAF-11/13) addresses (3) and (6).

10.4 Given the ongoing population changes experienced by Convention Area seabird species, as well as the continued development of telemetry and tracking data, the Working Group agreed that there would be a requirement for periodic review of risk assessments (5). Such a review could be undertaken every three years (or when new data, likely to change the risk category of a fishery, became available) and could be done intersessionally in collaboration with BirdLife International and ACAP.

10.5 In considering (4), the Working Group agreed that a review of the data collection and reporting requirements for IMAF-related issues could be reviewed, as the data required during the development phase of CCAMLR mitigation measures may not be required in the future, given the current levels of incidental mortality and hence the effectiveness of those mitigation measures (SC-CAMLR-XXVIII, Annex 7, Table 12, reviewed the requirement for data collection and the use of such data).

10.6 When considering the medium-term tasks, as developed in WG-FSA-08/56, paragraph 30, the Working Group agreed that issues related to seabird incidental mortality outside the Convention Area, and for gear types other than those currently permitted in the Convention Area, may be progressed in collaboration with ACAP.

10.7 The Working Group agreed that, while there may not be a requirement for WG-IMAF to meet regularly, it would be essential for CCAMLR to have a mechanism to retain the importance of incidental mortality issues on its annual agenda and to ensure annual review of data and implementation of mitigation, consistent with 'Best Practice Technical Guidelines' (FAO, 2009). This would provide an opportunity for Members to report on progress in addressing incidental mortality, for example, noting that while the situation in the French EEZ was improving, these fisheries still have a higher level of incidental mortality than other fisheries in the CAMLR Convention Area.

10.8 The Working Group requested the Scientific Committee to consider how best to maintain the importance of issues associated with incidental mortality in CCAMLR fisheries, including through continued engagement with ACAP. The Working Group noted the model of operation of SG-ASAM, where a meeting is called when a requirement for the group to meet has been identified by the Scientific Committee. Such a requirement for a meeting could be triggered by the introduction of a new fishery/gear type into the Convention Area and/or a substantial change in the risk status of a fishery.

ADVICE TO THE SCIENTIFIC COMMITTEE

11.1 The Working Group identified the following advice to the Scientific Committee.

Incidental mortality of seabirds in longline fisheries in the Convention Area:

- (i) A total of 220 seabird mortalities due to interactions with longline fishing gear (all within the French EEZs), four seabird mortalities due to interactions with krill trawl gear and no seabird mortality in finfish trawl fisheries (paragraphs 3.3, 3.17, 3.20 and 3.21).

Review of progress made to reduce seabird mortality in the French EEZs:

- (ii) Progress made by France in reducing seabird mortality, discussion of measures to further reduce mortality rates and advice on data reporting (paragraphs 3.14 and 3.15).

Streamer lines:

- (iii) Discontinue recording of aerial extent of streamer lines for night setting (paragraph 3.39).

Offal discharge:

- (iv) Definition of stickwater to be added to CM 25-03 (paragraph 3.43).

Incidental mortality of seabirds and marine mammals in fisheries outside the Convention Area:

- (v) Members are urged not to use bitumen-based grease on warps (paragraph 4.3).
- (vi) Data submission for fisheries adjacent to the Convention Area (paragraphs 4.8 to 4.10).

Incidental mortality of seabirds during IUU fishing in the Convention Area:

- (vii) Members that conducted gillnet fishing in areas outside the Convention Area to investigate factors affecting the incidental mortality of marine mammals and seabirds (paragraph 5.4).

Research into and experience with mitigation measures:

- (viii) The potential to use video technology in CCAMLR fisheries (paragraph 6.12).

Observer reports and data collection:

- (ix) Members conducting at-sea surveys are encouraged to provide information on any marine debris sighted to the Secretariat (paragraph 7.2).
- (x) Data for the marine debris collection in the Convention Area over the last 10 years showed no consistent decline (paragraph 7.5).
- (xi) Observers should be trained to identify seabirds with hydrocarbon soiling and submit CCAMLR hydrocarbon soiling form along with their observer cruise reports (paragraph 7.7).
- (xii) Request ACAP to provide advice on how best to combine the reporting of incidental mortality and warp strike data, including on vessels using a continuous trawl system (paragraph 7.8).
- (xiii) Praise for the valuable work of observers and the importance of observer data to the success of CCAMLR in addressing seabird incidental mortality (paragraph 7.9).

Assessment of risk in CCAMLR subareas and divisions:

- (xiv) No revision to risk assessments for CCAMLR fisheries (paragraph 8.1).

(xv) Season extensions and changes to mitigation requirements in Subarea 48.3 and Division 58.5.2 (paragraphs 8.7, 8.10 and 8.11).

Incidental mortality of seabirds in relation to new and exploratory fisheries:

(xvi) Recommendation to retain all offal south of 60°S (paragraphs 9.4 and 9.5).

Future of WG-IMAF:

(xvii) Recommendations for future consideration by the Scientific Committee of incidental mortality associated with fishing (paragraphs 10.2 to 10.8).

ADOPTION OF THE REPORT AND CLOSE OF THE MEETING

12.1 The report of the meeting of WG-IMAF was adopted.

12.2 In closing the meeting, Mr Moir Clark thanked all participants for their work during the meeting.

12.3 Mr Hay, on behalf of the participants, thanked Mr Moir Clark for his relaxed and helpful guidance during the meeting.

12.4 The meeting closed.

REFERENCES

Anderson, O.R.J, C.J. Small, J.P. Croxall, E.K. Dunn, B.J. Sullivan, O. Yates and A. Black. 2011. Global seabird bycatch in longline fisheries. *Endang. Species Res.*, 14: 91–106.

FAO. 2009. Fishing operations. 2. Best practices to reduce incidental catch of seabirds in capture fisheries. *FAO Technical Guidelines for Responsible Fisheries*, 1, Suppl. 2: 49 p. FAO, Rome.

AGENDA

Working Group on Incidental Mortality Associated with Fishing
(Hobart, Australia, 10 to 12 October 2011)

1. Appointment of 2011 Convener
 - 1.1 Opening of the meeting
 - 1.2 Welcome
 - 1.3 Adoption of the agenda, appointment of rapporteurs and subgroups
2. Intersessional work of WG-IMAF
3. Incidental mortality of seabirds and marine mammals in fisheries in the Convention Area
 - 3.1 Seabirds
 - 3.2 Marine mammals
4. Incidental mortality of seabirds and marine mammals in fisheries outside the Convention Area
5. Incidental mortality of seabirds during IUU fishing in the Convention Area
6. Research into and experience with mitigation measures
7. Observer reports and data collection
8. Assessments of risk in CCAMLR subareas and divisions
9. Incidental mortality of seabirds in relation to new and exploratory fisheries
10. Other business
11. Advice
12. Adoption of the report and close of the meeting.

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(Hobart, Australia, 10 to 12 October 2011)

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LIST OF DOCUMENTS

Working Group on Incidental Mortality Associated with Fishing
(Hobart, Australia, 10 to 12 October 2011)

| | |
|----------------------|---|
| WG-IMAF-11/1 | Agenda for the 2011 Meeting of the Working Group on Incidental Mortality Associated with Fishing (WG-IMAF) |
| WG-IMAF-11/2 | List of participants |
| WG-IMAF-11/3 | List of documents |
| WG-IMAF-11/4 Rev. 1 | Review of activities in monitoring marine debris in the CAMLR Convention Area Secretariat |
| WG-IMAF-11/5 Rev. 2 | Summary of scientific observations in the CAMLR Convention Area for 2010/11 Secretariat |
| WG-IMAF-11/6 | Summary of scientific observation related to Conservation Measures 24-02 (2008), 25-02 (2009) and 26-01 (2009) Secretariat |
| WG-IMAF-11/7 | Proposal to allow daytime setting of longlines between 15 and 30 April in the Patagonian toothfish longline fishery in CCAMLR Statistical Division 58.5.2 I. Hay (Australia) |
| WG-IMAF-11/8 | Proposal to trial daylight setting on longliners fishing for <i>Dissostichus eleginoides</i> for a 10 day period during the middle of winter during the fishing season in Subarea 48.3 J. Brown (United Kingdom) |
| WG-IMAF-11/9 | Proposal to amend the fishing season for longline vessels fishing for <i>Dissostichus eleginoides</i> in Subarea 48.3 and trial two further 5 day season extensions J. Brown (United Kingdom) |
| WG-IMAF-11/10 Rev. 1 | Assessment of the Action Plan aimed at reducing incidental catch of seabirds in the French EEZ included in the CCAMLR Division 58.5.1 and Subarea 58.6 C. Marteau (France) (Original was available in English and French, Revision in English only) |

- WG-IMAF-11/11 Report on seabird by-catch outside the CCAMLR Convention Area recorded in the South African fisheries
C. Heineken and P. Mullins (South Africa)
- WG-IMAF-11/12 Sighting of marine debris during aerial marine mammal surveys conducted in Antarctic waters in austral summer 2010/11
L.S. Lehnert, K.-H. Kock and U. Siebert (Germany)
- WG-IMAF-11/13 Report of the Fourth Meeting of the Seabird Bycatch Working Group, Guayaquil, Ecuador, 22–24 August 2011
ACAP
- WG-IMAF-11/14 Report of the Breeding Sites Working Group and Status and Trends Working Group – Joint BSWG4/STWG6, Guayaquil, Ecuador, 25–26 August 2011
ACAP

