INCIDENTAL MORTALITY

5.1 The Scientific Committee reviewed the report of ad hoc WG-IMAF (Annex 5, section 7). It endorsed the report and its conclusions, and the plan of intersessional work (Annex 5, Appendix D) subject to the comments set out below, and drew these to the attention of the Commission.

Incidental mortality of seabirds during regulated longline fishing in the Convention Area in 2004

- 5.2 The Scientific Committee noted that:
 - (i) for Subarea 48.3, the total estimated seabird by-catch in 2004 was 18 birds at a rate of 0.001 birds/thousand hooks, a slight increase compared with last year but values are still the second lowest yet recorded for this area (Annex 5, paragraphs 7.8 and 7.9 and Tables 7.1 to 7.3);
 - (ii) within the South African EEZs in Subareas 58.6 and 58.7, the total estimated seabird by-catch was 39 birds at a rate of 0.025 birds/thousand hooks, increased values over the previous two years. The total estimated seabird by-catch rate is only 20% of that in 2001 (Annex 5, paragraphs 7.10 and 7.11 and Tables 7.1 to 7.3);
 - (iii) a single seabird was observed killed in Subarea 88.1 after seven successive years of zero incidental mortality. No incidental mortality of seabirds was observed in Subarea 88.2 (for the third successive year) (Annex 5, paragraph 7.12), nor in Subarea 48.6, Divisions 58.4.3b (first year of longline fishing in these areas), and 58.4.2 and 58.5.2 (for the second successive year) (Annex 5, paragraph 7.13 and Tables 7.1 to 7.3).

5.3 The Scientific Committee noted that these totals represent slight increases in the estimated seabird by-catch in parts of the Convention Area, compared with the data reported in the last two years (Annex 5, paragraph 7.9 and Table 7.3).

5.4 The Scientific Committee welcomed the submission by France of historical data from longline fishing in the French EEZs in Subarea 58.6 and Division 58.5.1 for the 2001/02 and 2002/03 fishing seasons (Annex 5, paragraphs 7.16 to 7.19 and Tables 7.5 to 7.8). It noted that the reported totals of birds killed in these two years are based on retention of all birds brought on board each vessel, rather than on subsampling by observing some proportion of the total hooks set (Annex 5, paragraphs 7.20 and 7.21). Overall it noted that:

- (i) in Subarea 58.6 (Crozet) in 2001/02, 1 243 birds were reported killed during setting of 7.4 million hooks, at a rate of 0.167 birds/thousand hooks. In 2002/03, 720 birds were reported killed during setting of 6.6 million hooks, at a rate of 0.109 birds/thousand hooks, a decrease in annual by-catch rate of 53% (Annex 5, paragraphs 7.16 to 7.19);
- (ii) in Division 58.5.1 (Kerguelen) in 2001/02, 10 814 birds were reported killed during setting of 11.5 million hooks, at a rate of 0.936 birds/thousand hooks. In

2002/03, 13 926 birds were reported killed during setting of 26.9 million hooks, at a rate of 0.518 birds/thousand hooks, a decrease in annual by-catch rate of 45% (Annex 5, paragraphs 7.16 to 7.19).

5.5 The Scientific Committee welcomed the intersessional work by France to address this problem, including:

- (i) collaborative interactions and mitigation experiments involving testing of IWLs, technical exchange of mitigation information, evaluation of coloured hookline, and initiation of a study on the population status of white-chinned and grey petrels on Kerguelen and Crozet (Annex 5, paragraph 7.35);
- (ii) in 2004, revision to fishing practices (on offal discharge, night setting, line weighting and streamer lines) including requirement to use at least two streamer lines that adhere to the provisions of Conservation Measure 25-02, fishery closure during February, use of white-coloured hookline, and a line-weighting regime of 8 kg/120 m on autoliners (Annex 5, paragraphs 7.39 and 7.40);
- (iii) the results of an analysis of the 2001/02 and 2002/03 data which indicated that seabird mortality was mainly of white-chinned petrels (93%) in October and between January and April, followed by grey petrels (5%) caught between April and November; higher seabird by-catch rates occurred around Kerguelen, the more heavily fished area; autoline vessels caught many times more birds than vessels using the Spanish system; and a significant part of the mortality of white-chinned and grey petrels is explained by season, area and method of fishing (Annex 5, paragraph 7.22).

5.6 The Scientific Committee welcomed the submission of data from the 2003/04 fishing season (Annex 5, paragraphs 7.23 to 7.30). It noted that data through February 2004 were reported as for the two previous years. From March onward, data were recorded as by-catch observed on a proportion of the hooks set. Combining the totals of birds reported killed during the first half of the fishing season with the number of birds estimated killed in the second half of the season indicated that 342 and 3 666 birds were killed in Subarea 58.6 and Division 58.5.1 respectively (Annex 5, paragraph 7.28 and Tables 7.9 and 7.10). Compared to last year, this represents reductions in birds killed of 42.5% (66.4% if reported data only are used) in Subarea 58.6 and 73.7% (85.1% if reported data only are used) for Division 58.5.1 (Annex 5, paragraph 7.29 and Table 7.11). Of the total 4 008 birds estimated killed, 95% were white-chinned petrels and 5% grey petrels, both globally threatened species.

5.7 The Scientific Committee welcomed the substantial improvements in seabird by-catch resulting from changes implemented by France in the management of these fisheries. It also thanked New Zealand and Australia for assisting, respectively, in the exchange of fishing experience and the trials of IWLs. However, it noted the advice of ad hoc WG-IMAF that further improvements were desirable and possible, and recommended:

- (i) weighting regimes (including IWLs) that will ensure that longlines sink at >0.25 m/s be used (Annex 5, paragraph 7.45(ii));
- (ii) standards for streamer lines as outlined in Conservation Measure 25-02 be complied with (Annex 5, paragraph 7.45(iii));

- (iii) observer coverage and duties should be sufficient to ensure that at least 25% of hooks are observed on every vessel (Annex 5, paragraph 7.45(v));
- (iv) fishery closures in high-risk periods during seabird breeding seasons be maintained (Annex 5, paragraph 7.45(vi));
- (v) France supply 2000/01 data so that a comprehensive conspectus of the history of seabird by-catch in this fishery is possible (Annex 5, paragraph 7.34);
- (vi) France conduct an analysis of the 2004 data to evaluate vessel-specific factors contributing to high levels of by-catch (Annex 5, paragraph 7.25).

5.8 France indicated that it intended to implement these recommendations as far as was operationally feasible within the fisheries concerned.

5.9 Prof. Beddington asked how the recent by-catch levels, exceeding 30 000 seabirds in the last three years, related to the size of the populations particularly affected.

5.10 Prof. Duhamel indicated that there were no reliable population (or demographic) data for white-chinned and grey petrels at either Kerguelen or Crozet, which is why France had just funded the initiation of studies of this kind. Estimates from the 1980s suggested that populations of white-chinned petrels at Kerguelen and Crozet were in the order of hundreds of thousands and tens of thousands respectively. For grey petrels, values were an order of magnitude lower in each case.

Implementation of Conservation Measures 24-02, 25-02, 25-03, 41-09 and 41-10

5.11 The Scientific Committee noted that compliance with Conservation Measure 25-02 is summarised as follows:

- (i) Streamer lines compliance with streamer line design was 64% compared with 92% last year (Annex 5, paragraph 7.47). The majority of the vessels that failed to fully comply this year would have complied under the previous specifications (Annex 5, paragraph 7.58). Vessels in Subarea 48.6, South African EEZ in Subareas 58.6 and 58.7, and Divisions 58.4.2, 58.4.3b and 58.5.2, used streamer lines on all sets; in Subarea 48.3, seven of 16 vessels undertook sets without using a streamer line; and in Subareas 88.1 and 88.2, six vessels undertook some sets without using a streamer line (Annex 5, paragraph 7.49 and Table 7.12).
- (ii) Offal discharge in Subarea 88.1, one vessel did not comply with requirements to not discharge offal (Conservation Measures 41-09 and 41-10). One vessel in Subarea 48.3 and one vessel in the South African EEZ in Subarea 58.6 were observed discharging offal during the set (Annex 5, paragraphs 7.50 and 7.51 and Table 7.13).
- (iii) Discard of hooks fishing gear, snoods and hooks, were occasionally being disposed of at sea on eight vessels. Hooks were present in discards on eight vessels, a daily occurrence on one of them (Annex 5, paragraph 7.52).

- (iv) Night setting in the South African EEZs in Subareas 58.6 and 58.7 compliance was 83%, compared to 98 and 99% in the past two years; in Division 58.5.2 compliance was 99%; in Subarea 48.3 compliance was 98% (Annex 5, paragraph 7.53).
- (v) Line weighting (Spanish system) in Subarea 48.3 compliance was 87% compared to 100% last year; the single Spanish system vessel fishing in the South African EEZs in Subareas 58.6 and 58.7 fully complied (Annex 5, paragraph 7.55).
- (vi) Line weighting (autoline system) the requirement to achieve a line sink rate of 0.3 m/s when fishing in daylight in Subareas 48.6, 88.1 and 88.2 and Division 58.4.2 was met by all vessels (Annex 5, paragraph 7.57 and Figure 7.1).

5.12 In relation to overall compliance with Conservation Measure 25-02, 13 of 40 vessels (33%) fully complied with all measures at all times throughout the Convention Area, compared to 48% last year (Annex 5, paragraph 7.61). Some vessels failed to comply by small margins and it was re-emphasised that vessels should be advised to exceed the standards to prevent compliance failure.

5.13 With respect to Conservation Measure 25-03, four of eight vessels did not comply with the prohibition of discharge of offal during the shooting and hauling of gear. This level of compliance is lower than in 2003, when only two vessels discharged offal (Annex 5, paragraph 7.62 and Table 7.14).

5.14 The Scientific Committee noted with concern that compliance with some of these conservation measures was considerably less than last year. Although some of this could be attributed to the time taken for familiarisation with those elements of Conservation Measure 25-02 changed last year, failure to use streamer lines, discharge of offal in Subarea 88.1 (and thereby risking creating an attraction of seabirds to vessels) and inadequate line weighting, could not be so regarded. It recommended that all involved make every effort to improve compliance in order to reattain, and preferably exceed, the levels of compliance reported in 2003.

Revision of Conservation Measures 24-02 and 25-02 and related matters

5.15 The Scientific Committee noted that future revision to Conservation Measure 25-02 would require:

- (i) consistently collected data on the aerial extent of the streamer line (Annex 5, paragraph 7.66);
- (ii) research on the sink rate of external weighted autolines to allow mandatory line-weighting regimes for autoliners to be included in the conservation measure (Annex 5, paragraph 7.93 and Figure 7.2);

and requested that appropriate data are provided as soon as possible.

5.16 It noted that, based on the success of trials of IWLs, reducing white-chinned petrel by-catch by 98% in 2002 and 92% in 2003 in New Zealand areas comparable to the highest risk levels in the Convention Area (Annex 5, paragraph 7.74), coupled with successful trials in Division 58.5.1 (Annex 5, paragraph 7.76), a protocol for using IWLs in new and exploratory fisheries is included in a draft revision of Conservation Measure 24-02 (Annex 5, paragraphs 7.95 and 7.110).

5.17 The Scientific Committee endorsed the recommendation for exemption from night-setting requirements for autoline vessels operating in Division 58.5.2 in 2005, subject to the conditions proposed in Annex 5, paragraph 7.86.

Assessment of incidental mortality of seabirds during IUU longline fishing in the Convention Area

- 5.18 The Scientific Committee endorsed the advice that:
 - (i) the methods used to estimate seabird by-catch associated with IUU fishing were the same as revised and adopted last year. IUU removals were reported for the first time from Division 58.4.3 and this was allocated the same seabird by-catch rate as Division 58.4.4 (Annex 5, paragraphs 7.113 to 7.115);
 - (ii) the much lower estimates of IUU toothfish removals (full details provided in SC-CAMLR-XXIII/BG/23) means that estimates of IUU seabird by-catch, 5 311 birds (95% confidence interval 4 352 to 14 166 birds), are the lowest ever reported for the Convention Area and 30% less than the value for 2003 (Annex 5, paragraph 7.117 and Table 7.15);
 - (iii) even these reduced levels of IUU seabird by-catch were of substantial concern and likely unsustainable for some of the populations concerned (Annex 5, paragraph 7.121);
 - (iv) the Commission should continue to take action in respect of seabird mortality caused by IUU fishing (Annex 5, paragraph 7.122).

Incidental mortality of seabirds during longline fishing outside the Convention Area

5.19 The Scientific Committee noted that new data on mortality of seabirds outside the Convention Area relevant to fisheries and/or seabirds within the Convention Area, had been presented by Chile, Uruguay and New Zealand (Annex 5, paragraphs 7.125 to 7.129).

Research into the status and distribution of seabirds at risk

5.20 The Scientific Committee noted and endorsed, as appropriate, that:

- (i) in response to the revised reporting format devised intersessionally, national research summaries and details of data on status, trends and distribution (at sea) of albatross and petrel populations had been received only from Australia, New Zealand and the USA (Annex 5, paragraph 7.130);
- (ii) reports from other Members were essential to enable the linking of data on fishing effort and seabird by-catch with population dynamics and foraging range. Argentina, France, South Africa and the UK were particularly urged to make relevant data available as soon as possible (Annex 5, paragraphs 7.130 to 7.134);
- (iii) there had been no changes since last year to the global conservation status (as reviewed annually by BirdLife International on behalf of IUCN) of albatross and petrel species of relevance to the Convention Area (Annex 5, paragraph 7.135);
- (iv) new data on remote-recorded at-sea distributions of albatrosses and petrels, of considerable relevance to CCAMLR, have been requested from BirdLife International (Annex 5, paragraphs 7.144 and 7.145);
- (v) a comprehensive survey in 2003/04 of all colonies of black-browed, grey-headed and wandering albatrosses throughout South Georgia indicated continuing declines for all species, that the rate of decline in wandering albatrosses is increasing, and that trends at the Bird Island colonies monitored annually are representative of the overall South Georgia population (Annex 5, paragraphs 7.151 and 7.152).

International and national initiatives relating to incidental mortality of seabirds in relation to longline fishing

5.21 The Scientific Committee noted reports on current international initiatives under the auspices of:

- ACAP now in force; CCAMLR attending inaugural meeting as observer, tabling paper summarising work of relevance to ACAP and hoping to develop close links (Annex 5, paragraphs 7.155 to 7.158);
- (ii) FAO (NPOA-Seabirds) noting the adoption of plans by New Zealand and Falkland/Malvinas Islands, the completion of a draft plan by Brazil and progress towards plans by Chile and Taiwan (paragraphs 9.23 to 9.26; Annex 5, paragraphs 7.161 to 7.163);
- (iii) RFMOs recollecting renewed attempts last year for more effective collaboration (SC-CAMLR-XXII, paragraph 5.28), progress with the main tuna commissions was regarded as discouraging (Annex 5, paragraphs 7.165 to 7.173);
- (iv) non-governmental organisations new initiatives with Southern Seabird Solutions and BirdLife International of considerable interest to CCAMLR were commended and Members urged to collaborate (Annex 5, paragraphs 7.174 to 7.177).

5.22 Prof. Croxall, as Convener of ad hoc WG-IMAF, drew particular attention to the continuing difficulties of developing a constructive dialogue and practical progress on issues of seabird by-catch with those RFMOs most relevant to mitigating by-catch of Convention Area seabirds in areas to the north of the Convention Area. There seemed to be some evidence of potential progress with CCSBT and IATTC (Annex 5, paragraphs 7.167 and 7.170), but ICCAT and IOTC still did not appear to be addressing the issue in a manner appropriate to their responsibilities (see also CCAMLR-XXII, paragraphs 5.17 to 5.19).

Incidental mortality of seabirds in relation to new and exploratory fisheries

- 5.23 The Scientific Committee noted that:
 - (i) fifteen of the 29 applications for exploratory longline fisheries for 2003/04 were undertaken (Annex 5, paragraph 7.184). Only in Subarea 88.1 was any seabird by-catch (one bird) reported. This could not be attributed to any failure of compliance with the suite of mitigation measures employed, which remain highly effective at avoiding seabird by-catch in areas where these new and exploratory fisheries have so far been undertaken (Annex 5, paragraph 7.185);
 - (ii) the assessment of potential risk of interactions between seabirds and longline fisheries for all statistical areas in the Convention Area was reviewed, revised, and provided as advice to the Scientific Committee and Commission as SC-CAMLR-XXIII/BG/21. There were no changes this year to levels of risk (Annex 5, paragraphs 7.181 to 7.183 and 7.191 and Figure 7.3);
 - (iii) however, a substantial review of the summary presentation of advice to simplify and improve consistency was undertaken, incorporated into SC-CAMLR-XXIII/BG/21 and summarised in Annex 5, Table 7.16 (Annex 5, paragraphs 7.186 to 7.190);
 - (iv) the 35 proposals by 13 Members for new and exploratory fisheries in seven subareas/divisions of the Convention Area in 2004/05 were addressed in relation to the advice in SC-CAMLR-XXIII/BG/21 and Annex 5, Table 7.17. The results, summarised in Annex 5, Table 7.16, indicate that, with the single potential inconsistency resolved at the meeting, all are in conformity with advice relating to incidental mortality of seabirds (Annex 5, paragraphs 7.194 and 7.195);
 - (v) issues relating to:
 - (a) exemptions in Subareas 48.6, 88.1 and 88.2 and Divisions 58.4.1, 58.4.2, 58.43a and 58.4.3b from setting longlines at night, subject to Conservation Measure 24-02 and seabird by-catch limits;
 - (b) exemptions in Divisions 58.4.3a and 58.4.3b in respect of recommended closed seasons, subject to Conservation Measure 24-02 and seabird by-catch limits;

(c) including reference to the definition of birds caught (as adopted by the Commission last year) in all relevant conservation measures;

are addressed in SC-CAMLR-XXIII/BG/21 and in Annex 5, paragraphs 7.197 to 7.202.

Interactions involving marine mammals and seabirds and trawl finfish fishery operations

5.24 The Scientific Committee noted that three Antarctic fur seals were reported killed in the icefish fishery in Division 58.5.2.

- 5.25 It also noted that:
 - (i) the only seabird mortality observed in trawl fishing operations in 2003/04 was in the icefish fishery in Subarea 48.3 where 87 seabirds were killed and another 136 released alive (Annex 5, paragraph 7.206 and Table 7.18);
 - (ii) in this fishery, following reduction in total birds killed in each of the last three years, values had more than doubled in 2004. Mortality rates were nearly double those last year (Annex 5, paragraphs 7.209 and 7.210 and Table 7.18);
 - (iii) despite extensive attempts to devise and improve mitigation measures for use in this fishery, limited success was reported (Annex 5, paragraphs 7.218 and 7.219);
 - (iv) taking into account the increase in by-catch, the status of the birds killed and the continued difficulties with mitigation, the Working Group had made various suggestions as to how the situation might be improved, including:
 - (a) supporting an application for further trials of mitigation measures in 2004/05, including a relaxation of the vessel seabird by-catch limit (Annex 5, paragraphs 7.219 and 7.220);
 - (b) an overall seabird by-catch limit for all vessels in this fishery;
 - (c) a reduction in the vessel seabird by-catch limit (Annex 5, paragraphs 7.211 to 7.217).

5.26 Prof. Moreno indicated that, as far as Chilean vessels operating in this fishery were concerned, the observed mortality related mainly to single hauls in February, when the greatest number of seabirds was associated with vessels. All vessels involved had tried hard to implement effective mitigation measures. He was opposed to setting reduced by-catch limits for vessels in this fishery, as this would act as a disincentive to continue to address this difficult problem and to improve fishing practice.

5.27 Prof. Beddington agreed with Prof. Moreno and further noted that the levels and rates of by-catch mortality in this fishery were at levels that would have a negligible effect on the populations concerned. In the case of black-browed albatrosses, 26 birds killed out of a

population of over 100 000 birds and for white-chinned petrels, 59 birds killed out of a population of several hundred thousand birds. He viewed the existing by-catch limits as sufficiently precautionary and could not support any change to the existing regulations.

5.28 Mr B. Baker (Australia) observed that the suggestions for reduced by-catch limits were intended to encourage better mitigation measures to be developed and to reward those vessels with lower by-catch rates with longer fishing seasons. Importantly, the by-catch of threatened and endangered seabirds needs to be avoided in this fishery.

5.29 Dr Marschoff accepted that the by-catch rates were unlikely to affect the populations concerned but noted that CCAMLR had always endeavoured to set the highest standards and therefore a more stringent by-catch limit would be appropriate.

5.30 Prof. Moreno observed that he supported all attempts to reduce by-catch but was very concerned that, in simply attempting to reduce levels in one fishery in one area in the manner proposed, the problem would not be solved and would potentially be exported to other areas through the continued operation of vessels with inadequate mitigation. He favoured supporting the current attempts to improve mitigation measures in the fishery by working more closely with the fishers and captains who were trying to solve the problem.

5.31 Prof. Beddington agreed with Prof. Moreno and expressed concern with the comments of Mr Baker, which implied that the Working Group was exceeding its brief in seeking, in effect, to manage effort and participation in this fishery rather than simply advising on the use of mitigation measures. He reiterated his concern at over-reacting to a problem that was trivial compared to the scale of known and estimated by-catch mortality through longlining in other parts of the Convention Area, through IUU fishing and outside the Convention Area.

5.32 Dr Constable suggested that ad hoc WG-IMAF should invite and review data and submissions on the potential effects of by-catch levels and rates in this fishery on the seabird populations concerned, particularly threatened and endangered species.

5.33 Prof. Croxall, as Convener of ad hoc WG-IMAF, observed that the Working Group had discussed this topic in the past. It had noted:

- (i) the lack of appropriate demographic models (a situation now being remedied by the initiatives described in Annex 5, paragraph 7.153);
- (ii) the lack of reliable data on mortality rates of the relevant seabird species in longline (and trawl) fisheries outside the Convention Area and in IUU fisheries generally;
- (iii) that the goal with significantly depleted populations of globally-threatened seabird species is restoration to previous levels;
- (iv) that therefore the main objectives should be to minimise by-catch mortality rates in all fisheries where appropriate management is feasible.

However he agreed that it was important to recommend management actions that are consistent with the level of risk to the species and populations concerned.

Interactions involving marine mammals and krill fishing operations

5.34 Revised data for 2002/03 indicate that a minimum of 114 Antarctic fur seals were caught in krill fishing operations in Area 48, 53 of which were killed and 61 released alive (Annex 5, paragraph 7.228).

5.35 Data for 2003/04 comprise a report from Area 48 of the international scientific observer on *Top Ocean* which records 154 seals entrapped, of which 142 were killed, and reports from UK observers on six vessels (including *Top Ocean*) in Subarea 48.3 which indicated entrapment of 292 seals (Annex 5, paragraphs 7.229 to 7.231).

5.36 A variety of mitigation devices, including those developed by Japan in recent years and tested in 2002/03, were used on vessels fishing for krill (Annex 5, paragraphs 7.238 to 7.241). Each device either greatly reduced or eliminated entrapment of fur seals (Annex 5, paragraphs 7.239 to 7.241).

- 5.37 The Scientific Committee recommended that:
 - (i) information on all devices should be combined and circulated to CCAMLR Members and other interested parties (Annex 5, paragraph 7.242);
 - (ii) every vessel fishing for krill should employ a device for excluding seals or facilitating their escape from the trawl net (Annex 5, paragraph 7.243);
 - (iii) observers should be required on krill trawl vessels to collect reliable data on seal entrapment and on the effectiveness of devices used to mitigate this (Annex 5, paragraph 7.236);
 - (iv) noting experiences on *Top Ocean* this year (Annex 5, paragraphs 7.232 to 7.235), data forms should be completed accurately, consistently and comprehensively by all observers (Annex 5, paragraph 7.236);
 - (v) the UK be requested to submit their observer data to the Secretariat (Annex 5, paragraph 7.237).

5.38 Dr Naganobu re-emphasised the success experienced with the use of the Japanese seal exclusion devices and recommended their use by other krill fishing vessels which should be encouraged to test the devices.

5.39 Prof. Croxall agreed, but observed that the Working Group had been unable to recommend any one particular device, partly because several devices seemed equally effective and partly because of concern that different devices might work best with the gear type and configuration on different vessels. He supported the recommendation for further trials of all devices and that observers submit detailed reports on their effectiveness.

5.40 Dr Shust expressed surprise at the sudden recognition of this problem and suggested that it could simply reflect unusual events and conditions in one particular year.

5.41 Prof. Beddington noted that the problem had only been identified once more detailed reports on krill fishing practice, especially data from observers, had been obtained. He further noted that even with observers, the *Top Ocean* experience indicated that substantial under-reporting could still occur.

5.42 Dr Pshenichnov observed that the report from the UK observer on the *Konstruktor Koshkin* of zero entanglement confirmed the effectiveness of the net design on this vessel for allowing seals to escape or avoid entrapment.

5.43 Overall, however, the Scientific Committee welcomed the substantial progress on this issue and noted that the recommendations in paragraph 5.37 should allow a very substantial resolution of the problem.

Other

5.44 The Scientific Committee agreed that Ms Rivera and Mr Smith should be appointed as Co-conveners of ad hoc WG-IMAF. It thanked Prof. Croxall and Mr Baker, the retiring Convener and Deputy Convener respectively, for their work on behalf of the Working Group.

Advice to the Commission

5.45 This section attempts to distinguish between general advice (which the Commission may wish to note and/or endorse) and specific advice which includes requests to the Commission for action.

General advice

- 5.46 The Commission was requested to note:
 - (i) the continuing low levels and rates of seabird by-catch in regulated longline fisheries in most parts of the Convention Area in 2004 (paragraphs 5.2 and 5.3);
 - (ii) substantial reductions in by-catch levels and rates (by 73 and 76% respectively) in the French EEZs in 2004, reflecting substantial intersessional initiatives by France, including revision to fishing practices (paragraphs 5.5 and 5.6);
 - (iii) assessment of implementation of relevant conservation measures, including reduced effectiveness compared with 2003 (paragraphs 5.11 to 5.14);
 - (iv) the success of trials of IWL gear, particularly in New Zealand areas comparable to the highest risk levels in the Convention Area, reducing white-chinned petrel by-catch by over 90% in each of two years (paragraph 5.16);
 - (v) estimates of potential seabird by-catch associated with IUU longline fishing in the Convention Area in 2004 and that these are the lowest values so far estimated (paragraph 5.18(i) and (ii));

- (vi) new data on mortality of seabirds from the Convention Area in adjacent regions provided by Chile, Uruguay and New Zealand (paragraph 5.19);
- (vii) request to BirdLife International for analysis and provision of data on distributions of albatrosses and petrels at sea derived from remote recording (paragraph 5.20(iv));
- (viii) continuing declines of albatross populations at South Georgia, including increased rates of decline for wandering albatrosses (paragraph 5.20(v));
- (ix) good progress with national and international initiatives involving ACAP, FAO NPOA-Seabirds and initiatives developed by Southern Seabird Solutions and BirdLife International (paragraph 5.21(i), (ii) and (iv));
- (x) levels of seabird and marine mammal by-catch in trawl fisheries in the Convention Area in 2004, notably of seabirds in the icefish fishery in Subarea 48.3 (paragraph 5.25(i) and (ii)) and of fur seals in krill fisheries in Area 48 (paragraph 5.35);
- (xi) that the Scientific Committee had appointed Ms Rivera and Mr Smith as Co-conveners of ad hoc WG-IMAF following the retirement of the existing Convener, Prof. Croxall, and Deputy Convener, Mr Baker (paragraph 5.44).
- 5.47 The Commission was requested to endorse:
 - (i) recommendations for improvements to by-catch mitigation measures for implementation in the French EEZs (paragraphs 5.7 and 5.8);
 - (ii) recommendations for improved performance in implementation of conservation measures related to mitigation of seabird by-catch (paragraph 5.14);
 - (iii) requests for key data on streamer line aerial extent and sink rate of externally weighted autolines to enable improvements to Conservation Measure 25-02 to be proposed (paragraph 5.15);
 - (iv) provision of reports from Argentina, France, South Africa and the UK, and other Members as appropriate, for summarised data on status, trends and distribution (at sea) of albatross and petrel populations (paragraph 5.20(ii)).

Specific advice

- 5.48 The Commission was requested to consider taking action in respect of:
 - (i) revisions to Conservation Measure 24-02 as incorporated into the draft measure (paragraph 5.16);
 - (ii) exemption from night-setting requirements for autoline vessels operating in Division 58.5.2 in 2005, subject to the conditions proposed in Annex 5, paragraph 7.86 (paragraph 5.17);

- (iii) continued action in respect of seabird mortality caused by IUU fishing (paragraph 5.18(iv));
- (iv) continue to request improved collaboration and cooperation from RFMOs in respect of by-catch of seabirds from the Convention Area (paragraphs 5.21(iii) and 5.22);
- (v) advice in relation to proposals for new and exploratory longline fisheries in the Convention Area in 2005 (paragraph 5.23);
- (vi) in relation to krill trawl fisheries, recommendations relating to the use of seal excluder devices, the presence of observers and the collection and submission of appropriate data (paragraphs 5.37 and 5.43);
- (vii) advice in relation to seabird by-catch levels and trials of mitigation measures in relation to icefish trawl fisheries in Subarea 48.3 (paragraphs 5.25(iv) and 5.26 to 5.33).