

Annex H

Report of the Sub-Committee on Aboriginal Subsistence Whaling

Wednesday, 18 June 2008, Santiago, Chile

1. INTRODUCTORY ITEMS

A list of participants is given in Appendix 1. Terms of Reference for the Sub-Committee are given in Appendix 2.

1.1 Appointment of Chair

Jorge Palmeirim (Portugal) was appointed as Chair.

1.2 Appointment of Rapporteur

Pam Eiser (Australia) was appointed as Rapporteur, with assistance from Greg Donovan (Secretariat and Chair of the Scientific Committee's Standing Working Group (SWG) on the Development of an Aboriginal Whaling Management Procedure (AWMP)).

1.3 Review of documents

The following documents were available to the Sub-Committee:

IWC/60/ASW

- 1 rev Revised draft agenda (and annotations)
- 2 List of documents
- 3 Aboriginal harvest of gray and bowhead whales in the Russian Federation in 2007 (submitted by the Russian Federation)
- 4 Informational update on 'stinky' gray whales (submitted by the USA and Russian Federation)

IWC/60/Rep1 (extract)

Report of the Scientific Committee

IWC/60/21

Report on weapons, techniques, and observations in the Alaskan bowhead whale subsistence hunt (submitted by the USA - tabled for information only and not for discussion)

2. ADOPTION OF AGENDA

The Chair advised the meeting of some additions to the circulated Agenda. The Agenda, as adopted, is given as Appendix 2.

3. ABORIGINAL SUBSISTENCE WHALING MANAGEMENT PROCEDURE

3.1 Progress with the Greenlandic Research Programme

3.1.1 Report of the Scientific Committee

The Chair of the Scientific Committee's Standing Working Group on the Development of an Aboriginal Whaling Management Procedure, Greg Donovan (hereafter Chair of the SWG), reported on the Scientific Committee's work in this regard.

As it has stated on many occasions, the Committee has never been able to provide satisfactory management advice for common minke whales off West Greenland. Since 2006, it has focussed on developing assessment methods that rely on the observed sex ratio in the catches. In short,

the broad lack of change in the catch sex ratio, despite the consistently high catch of females, implies that catches off West Greenland have not markedly affected population size. However, this inference is based on the assumption that, for example, there is no confounding of the trend over time in sex ratio and other factors.

Since last year's meeting, considerable progress has been made at an intersessional Workshop held in Copenhagen, and at the Annual Meeting. Attention has focussed on two areas: understanding the sex ratio data themselves and examining any potential confounding factors that might preclude their use in assessments; and the development of the assessment methods themselves. Considerable work has been put into both these issues.

The Committee agreed that the two methods before it provided the first scientifically justifiable way to overcome the Committee's past inability to provide management advice based on a population model. However, there remain some quite complex numerical issues that mean that the Committee was unable to be fully confident that the results were sufficiently robust to form the basis for management advice at this meeting. The Committee therefore focussed on the additional work and process needed to complete a population model-based assessment of common minke whales off West Greenland.

It agreed that the best way to maintain effective progress on this high priority work was through intersessional meetings. Specifically, the SWG recommended that two meetings take place: the first, a small technical meeting is to standardise methods and solve numerical issues, while the second would be a full SWG Workshop to review the results of the work in relation to the work plan to ensure that the SWG and thus the Committee will be in a position to make management recommendations at the 2009 Annual Meeting.

3.1.2 Discussion and recommendations

The UK expressed continuing concern at the aspect of the sex bias ratio in the catch and asked whether the Scientific Committee had considered that the bias might be due to factors other than the relative distribution of the population. In response, the Chair of the SWG confirmed that this issue has been taken very seriously and this is why some 2½ to 3 years has been spent on this work. He also confirmed that various potential confounding factors had been considered in the development of these assessments.

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

3.2 Preparation of the Implementation Review for gray whales

3.2.1 Report of the Scientific Committee

The Chair of the SWG recalled that the Committee worked for a number of years to develop the *Gray Whale Strike Limit Algorithm (SLA)* to provide safe long-term management advice as part of the AWMP. In developing

this approach, a key element was the concept of undertaking an *Implementation Review* every five years. The aim of such a review is to examine whether there is any information to suggest that the parameter space used to evaluate the *Gray Whale SLA* was inadequate.

Information on new data and analyses likely to be presented next year will include estimates of past and present abundance, calf counts on migration and in the winter areas, estimates of calving intervals, information on strandings, ship strikes and entanglements, a revision of the catch history, information on feeding range in relation to regime shifts and an update of the population dynamics modelling framework.

Depending on the results of these analyses, there may be a need for additional simulation trials. All data to be considered during the gray whale *Implementation Review* needed to satisfy the Data Availability Agreement.

The Scientific Committee had been informed by the Russian Federation that it was considering a proposal to the Commission that would involve consideration of struck-and-lost whales and 'stinky whales' when addressing need (Annex E, Appendix 4 of the Report of the Scientific Committee). The *SLA* approach evaluates conservation performance in terms of strike limits and within a particular range of need levels referred to as a need envelope. It is a Commission matter to address need requirements. Should the Commission request advice on a specific level of need, the first step is for the Committee to examine whether this fits within the need envelope used to evaluate the *Gray Whale SLA*. If this is the case, further trials and evaluation are not required. The Committee noted that the proposal provided by the Russian Federation for taking into account struck-and-lost whales and 'stinky whales' was within the tested parameter space for the *Gray Whale SLA*. It also drew to the Commission's attention that it cannot evaluate the risk of a catch limit established solely in terms of landed whales, since a limit on strikes is required to control total mortality.

The Committee agreed that the gray whale *Implementation Review* can be accomplished during the 2009 Annual Meeting if there is no need to change the hypotheses, need envelope or range of parameter values used in trials, but that a pre-meeting or intersessional meeting might be required if new trials need to be specified and run. The best manner in which to conduct the *Implementation Review* will be apparent at the latest by the time that papers need to be submitted under the Data Availability Agreement, i.e. 28 February 2009 and the Committee will be informed immediately.

3.2.2 Discussion and recommendations

The Russian Federation advised that it has provided to the IWC information on the needs of the Chukotkan native peoples several times, including in 1997, 2002 and 2007 (for example *Ann. Rep. Int. Whaling Comm.* 2002: 68 and IWC/59/ASW3), which is reflected in the IWC Annual Reports and other IWC-related reports. The Russian Federation noted that no objections have ever been made. The needs statement establishes that 350 gray whales per year are required. The current quota is 620 for the years 2008-2012 with no more than 140 per year landed. The Russian Federation noted that it currently agreed with this quota due to technical and other reasons even though the needs are far greater. As outlined in Appendix 5 of Annex

E in the report of the Scientific Committee, the Russian Federation noted that with *SLA* implementation it would likely propose:

The number of landed whales for the period of 2008-2012 must not exceed 620. For each of these years the number of whales struck shall not exceed 154 (140 + 10 percent of 140) except that it shall be allowed to transfer the actual number of struck-and-lost and stinky whales (up to 70 for the five years, 14 per year) from the previous years to any subsequent years (2008-2012), but the number landed cannot exceed 140 whales in any one year.

The Russian Federation considered that this request works well within the proposed scheme and is much less than the needs of the native people. The take would be less than MSY of the stock, at 0.6 MSY level, and considers new census data for whales and other basic parameters. The Russian Federation considers such a proposal to be within the framework of the *SLA* for gray whales for which there will be an *Implementation* next year.

Mexico asked whether there is any information to indicate that there may be relevant factors that have not been taken into account when evaluating the *Gray Whale SLA*. The Chair of the SWG advised that there is no information yet to suggest that the 'parameter space' for which the *Gray Whale SLA* was investigated was inadequate, but that was the purpose of the *Implementation Review*; the available information would be examined next year to determine whether this was the case or not.

The UK indicated that whilst it was not unsympathetic to the situation of the Russian native peoples, it did have a concern at moving from an *SLA* to a calculation based on the number of whales landed. The UK noted that in aboriginal subsistence hunts the struck and lost ratio is generally higher than that in commercial hunts and whilst little is known about the survival of struck whales, it is probably low. With respect to the issue of stinky whales, the UK said that if it could have confidence in the proportion of struck whales likely to be stinky, then it would be prepared to consider how this could be built into the system so long as the Scientific Committee is able to advise that the strike limit obtained is sustainable.

The Chair of the SWG confirmed that the Scientific Committee provides its advice based on strikes and assumes that all strikes lead to death.

Following this discussion, the Sub-Committee noted the report of the Scientific Committee and its recommendations.

3.3 General consideration of the provision of *ad hoc* advice

3.3.1 Report of the Scientific Committee

The Chair of the SWG recalled that last year, the Committee had drawn attention to the general difficulty regarding the provision of *ad hoc* interim advice on catch limits and, in particular, its view that it was inappropriate to provide such advice for long time periods. This is a problem that has often faced the Committee in the past. An approach to examining this was presented by Witting at the intersessional Workshop (SC/60/Rep2) which welcomed this work and made several recommendations for improvements.

The SWG received an extended and updated version at the Annual Meeting. It evaluated simple methods for providing *ad hoc* interim management on strike limits using trial simulations for fin whales and humpback whales off West Greenland, and bowhead whales off West

Greenland and Eastern Canada to assess the safety of *ad hoc* interim management advice.

In effect, the approach follows the simulation approach used to evaluate full *SLAs* but the intention is rather more limited than for evaluating long-term *SLAs* – the aim is to examine the safety of simple approaches to providing interim advice.

Whilst recognising that the analyses were not sufficient (nor designed) to allow decisions to be made regarding *SLAs* for use over a long period (this will require more careful consideration of scenarios and uncertainties), the Committee agreed that the approach provided an excellent basis to move forward to evaluate methods for providing *ad hoc* interim advice. It tested a wide range of scenarios that represented a major challenge for any methods for providing *ad hoc* advice.

Recognising the need for Secretariat validation of software/analyses on which management advice will be based, the calculations were made using Secretariat-validated software based on the control program used to evaluate the *Gray Whale SLA*. Three possible ways of setting interim advice were examined, all of which linked need (expressed in strikes) and the most recent estimate of abundance and the confidence in the estimate. The scenarios examined were related to the fin, bowhead and humpback whales off West Greenland.

The options were evaluated on the basis of examining three conservation-related statistics and one need-related statistic. Priority was given to conservation performance over a 100-year period in the following manner:

- (1) first of all conservation performance was examined by looking to see if the final population size was at or above 60% of initial (the conventional *MSY* level) or if it wasn't, that the population was recovering; and
- (2) once satisfied that the conservation performance was good, the options were then ranked in terms of their need satisfaction (particularly over the first 20 years).

In examining the results for fin, humpback and bowhead whales, in each case, it turned out that 'option C' (2% of the lower 5th percentile of the most recent estimate of abundance) performed best.

The Chair of the SWG concluded that the Committee was pleased to have developed a safe method to provide interim management advice for the three fisheries concerned and it thanked Witting, in particular, for his work in this regard.

It had agreed that option C can be used to provide advice on catch limits for a limited time only (i.e. for up to two quota blocks for 10 years) by which time a full *Strike Limit Algorithm (SLA)* approach should have been developed. It had also agreed that no changes should be made to the approach used to provide interim management advice unless a change is proposed to the need requirement, when re-evaluation would be required.

The Committee also reaffirmed its view that long-term management advice should be based on an agreed *AWMP SLA*. As discussed above the Committee has been concentrating on developing an approach to provide advice using the sex ratio data and finalisation of this assessment will provide an important basis for *SLA* development. It also agreed that the work on the fin whale *SLA* should be also accorded high priority and be considered at the forthcoming intersessional Workshop.

3.3.2 Discussion and recommendations

There were no comments and the Sub-Committee noted the report of the Scientific Committee and its recommendations.

4. ABORIGINAL WHALING SCHEME (AWS)

4.1 Report of the Scientific Committee

The Chair of the SWG recalled that since 2002, the Committee has recommended scientific aspects of an aboriginal whaling scheme (AWS) intended for use in conjunction with *SLAs* (the specifications can be found in *Ann. Rep. Int. Whaling Comm.* 2002: 74-5). The SWG did not have time to fully consider issues arising out of the bowhead *Implementation Review* at the present meeting but will have a thorough discussion next year.

4.2 Discussion and recommendations

There were no comments and the Sub-Committee noted the report of the Scientific Committee.

5. ABORIGINAL SUBSISTENCE WHALING CATCH LIMITS

5.1 Bering-Chukchi-Beaufort Seas stock of bowhead whales (annual review)

5.1.1 Report of the Scientific Committee

The Chair of the SWG noted that the Committee had received two papers related to obtaining an abundance estimate for the B-C-B Seas stock of bowhead whales based on aerial photographs obtained near Barrow, Alaska, during spring 2003 and 2004. These surveys were conducted *inter alia* to obtain an abundance estimate that could be compared to the ice-based estimate from 2001. The impetus for investigating photographic mark-recapture estimates was concern that unstable ice conditions resulting from warming trends in the Arctic might make future ice-based censuses difficult. The 2003-04 abundance estimate was some 11,800 (95% CI=6,800-20,600), very similar to the forward projected ice-based estimate for 2004 of 11,600.

The Committee endorsed the general approach of using photo-identification data to obtain abundance estimates and it looked forward to receiving the final analyses next year. The Committee agreed that the implications (if any) of moving from the ice-based census to a mark-recapture approach should be considered by the SWG on the *AWMP* in the context of use of the *Bowhead SLA*.

A total of 63 bowhead whales were struck in the 2007 hunt resulting in 41 animals landed (17 males, 24 females, including one autumn calf). The efficiency (no. landed/no. struck) of the hunt was 65%, lower than the 10-year average of 79%, for a number of environmental and logistical reasons. The Alaskan Eskimo Whaling Commission determined that hunters mistakenly harvested the calf thinking it was a small independent whale; autumn calves are close in body length to yearlings and it is difficult to determine their status when swimming alone. The Committee had agreed that from the perspective of the *Bowhead SLA*, there is no additional conservation concern over the taking of a calf.

No bowhead whales were taken by Russian hunters, for technical reasons and because the animals had migrated farther off the coast than usual.

The Committee reaffirmed its advice from last year that the *Bowhead SLA* remains the most appropriate tool for providing management advice for this harvest. The results from the *SLA* show that the present strike limits are acceptable and will not harm the stock.

5.1.2 Discussion and recommendations

Sweden noted the forward projected ice-based estimate for 2004 (of 11,600) and asked what the ice-based estimate from 2001 had been, and what was the annual percentage rate of increase. The Chair of the SWG recalled that the 2001 estimate had been around 10,400 with 95 percent confidence intervals of 8,200-13,500 and that the annual rate of increase since 1978 has been about 3.2 percent (95% CI=1.4-5.1%).

The USA introduced Mr Harry Brower, Chair of the Alaska Eskimo Whaling Commission (AEWC) to make a presentation on behalf of the AEWC. The Chair of the AEWC noted that the Alaskan Eskimo bowhead whale subsistence hunt takes place in 11 villages which span over 1,000 miles of northern Alaskan coastline. The culture and social structure of these communities is built around the annual subsistence harvest of the Bering-Chukchi-Beaufort Seas (B-C-B) stock of bowhead whales. The Chair of the AEWC reported that under the AEWC's management of the Alaskan bowhead whale subsistence hunt, the B-C-B stock remains healthy and is continuing to increase. He noted that over the last three decades the IWC's Scientific Committee has concluded that the B-C-B stock is continuing to increase and calf production is high. In 2007, the Scientific Committee confirmed that the B-C-B bowheads are in fact one stock.

The Chair of the AEWC further reported that the village of Point Lay was accepted as a member of the Alaska Eskimo Whaling Commission by unanimous consent of the whaling captains during the AEWC's Annual Meeting in February 2008. This admission was based on the needs study completed by Stephen Braund, who had also prepared the original 1983 report on the Alaskan Eskimo aboriginal subsistence need for bowhead whales, and periodic updates. Mr Braund had also prepared the needs study for the village of Little Diomedé which had been accepted into the AEWC about 10 years ago.

The Chair of the AEWC advised that during the 2007 bowhead whale subsistence hunt in Alaska, 63 whales were struck with 41 landed, for an efficiency rate of 65 percent. He noted that this figure is lower than the 12-year average of 78 percent efficiency and explained that most of the struck and lost whales occurred in the spring when unusually poor ice and weather conditions were experienced. These conditions had made hunting very difficult and dangerous; in some villages there were only a few good days of hunting. The Chair of the AEWC further noted the continuing expansion of the use of penthrite projectiles. He reported that whaling captains in five of the villages have now been trained in their use and a new shipment of 100 projectiles has just been received. The AEWC is looking into travel, shipping and training funds for the remaining villages.

In closing, the Chair of the AEWC thanked the US Government for the opportunity to manage the bowhead whale subsistence hunt under the Cooperative Agreement. He also thanked both the USA and the North Slope

Borough for the very significant contributions of financial and scientific support for research on bowhead whale biology.

The UK expressed gratitude for the report from the AEWC but noted its concern at the rise in the struck and lost rate. It asked, if the conditions of this year were to become the accepted norm, whether there was anything that could be done to change the time of the hunt to when conditions might be more favourable and the efficiency might therefore be higher. In reply, the USA noted the continuing use of the penthrite projectile in order to increase the efficiency. With regard to weather and ice conditions, it observed that these were something over which the hunters had no control.

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

5.2 North Pacific Eastern stock of gray whales (annual review)

5.2.1 Report of the Scientific Committee

The Chair of the SWG reported that the Committee had accepted a new abundance estimate for eastern gray whales from the 2006-2007 southbound migration of 20,110 (SE=1,766). It also received new information and a review of past data from one of the Mexican breeding lagoons (Laguna San Ignacio).

The Committee had received a proposal that a 'stinky whale' be defined as a whale that has a strong, unnatural, pungent odour that makes the whale inedible. Results of the analysis of tissue samples from two stinky gray whales and one edible control whale collected in 2007 had been presented. After discussion, the Committee agreed that a scientific definition cannot be developed now, the Committee recognised that the 'stinky' condition is a real phenomenon characterised by a distinct odour not found in the majority of whales. This odour may be detectable from landed whales or sometimes from the whale's blow. The reason for this condition is unknown, but research is ongoing.

A total of 126 gray whales were landed and utilised by aboriginal hunters of Chukotka, Russia in 2007; in addition 3 were killed but lost and 2 were 'stinky' (inedible).

The Committee reaffirmed its advice that the *Gray Whale SLA* remains the most appropriate tool for providing management advice. It confirms that the current limits are acceptable and will not harm the stock.

5.2.2 Discussion and recommendations

Mexico recognised the issue of stinky whales as a serious problem, and suggested that the terminology used to describe the phenomenon should be changed from 'stinky' to 'inedible' whales.

The Russian Federation noted that, as promised in 2007, it had proposed to the Scientific Committee a definition of a 'stinky whale': a whale that has a strong, unnatural, pungent odour that makes the whale inedible. This proposed definition had been discussed for some time at the Scientific Committee and the conclusion reached was that this is a real phenomenon and the whales smell bad. Whilst a scientific definition had not been agreed at this time, the main point is that the animals have an unnatural smell and they are inedible. The Russian Federation told how in villages where there had only been a small harvest of whales the people had eaten stinky whales as there was

no other source of meat but had ended up sick with allergies and diarrhoea. The dogs in the villages do not eat meat or blubber from these whales.

The Russian Federation recalled that in their definition of 'stinky whales', the whales have an unnatural smell and are inedible and said that it would like to have this definition included in the Schedule. The Russian Federation noted that discussion of this definition could continue and that even if it is not in the Schedule said that it should be included in the Chair's Report of the IWC and other reports. It proposed that its proposed definition be used as a working definition.

Sweden then referred to a reference to 'stinkers' in the paper by the USA (IWC/60/21) which had been tabled for information. Sweden noted that it had thought that the stinky phenomena was restricted to gray whales of Chukotka and asked if the reference to 'stinkers' is the same as 'stinky whales' and if this phenomenon is therefore occurring elsewhere. The USA clarified that it is a different phenomena and that whales with a medicinal smell are not reported in Alaska. The term 'stinker' refers to a bowhead whale that has been struck and lost under the ice and then later retrieved in a decomposed state. The Russian Federation added that the 'stinky' phenomena so far noted in Chukotka is not confined to whales but has also been observed by native people in other species such as walrus, seal, some ducks, molluscs and in murre eggs.

The Chair then invited the Russian Federation to present paper IWC/60/ASW4 (Informational update on 'stinky' gray whales).

The Russian Federation recalled the earlier discussion of a definition for 'stinky' whales and repeated that it would like its working definition ('a whale that has a strong, unnatural, pungent smell that makes the whale inedible') at least included in the Chair's Report of the Plenary and ideally, for it to be incorporated in the Schedule. The paper provides a progress report on the results of ongoing research on 'stinky' whales. The Russian Federation noted that, last year, samples from two stinky whales and one control whale were collected. The samples arrived at the laboratory without being thawed from their original freeze and the chemist noted that there was a strong smell associated with the liquid obtained when the sample was thawed. This kind of liquid is only available from the thaw after the initial freezing, and this was the first time therefore that this type of intercellular fluid could be analysed. The chemical compounds identified are used for extinguishing fires and are of a type not used in Russia for fire suppression. The Russian Federation noted that whilst there are no consistent numbers for stinky whales from year to year, the trend appears to be an overall increase in the numbers of whales with this particular smell.

In terms of future research, the Russian Federation agreed to continue to collect samples and divide them between laboratories in Russia and USA, and also to invite chemists and toxicologists from other countries such as Mexico, Norway and Japan to participate in this work. If possible, it will also attempt to collect samples from other animals with a similar stinky smell. Whilst flame retardants appear to be the cause of the smell, further work by US chemists will provide a final conclusion to the chemical analyses.

The USA added that its scientists are working with the Russian scientists in developing a cooperative research effort in 2008. It is also hoped to include other international scientists as part of this work.

Japan noted that its scientists have participated and cooperated in this work, and they will continue to do so. Japan queried whether fire retardants used in fighting mountain and forest fires in North America contained the chemical compounds identified.

The Republic of Korea expressed its initial thought that if a working definition of 'stinky' whales is to be included, then some sort of legal caution would also be needed to indicate a potential risk to humans from consuming 'stinky' whales which could be harmful or even lethal.

The UK expressed some difficulty that if the Scientific Committee did not seem to think it had the basis to arrive at a definition for 'stinky' whales this year then it would be reluctant for this Sub-Committee to recommend a definition. It queried what advantage there was from including a definition in the Schedule unless there was also a provision for such whales to be discounted against the quota. There had been no discussion however of this latter point and any agreement still appeared to be some way off.

At the request of the Russian Federation, the Sub-Committee **agreed to recommend** that the Scientific Committee be requested to recommend a definition of 'stinky' gray whales for next year.

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

5.3 Common minke whale stocks off Greenland (annual review)

5.3.1 Report of the Scientific Committee

The Chair of the SWG reminded the Committee that there are two fisheries to consider under this Agenda Item, that off East Greenland and that off West Greenland.

EAST GREENLAND

The Chair of the SWG reported that two common minke whales were caught off East Greenland in 2007 (1 female; 1 unidentified sex) and there were none struck and lost. Relevant new information on the Central stock of common minke whales was considered under the *Implementation Review* of common minke whales in the North Atlantic.

In 2007, the Commission agreed to a quota of 12 minke whales struck annually from the stock off East Greenland for 2008-2012, which the Committee stated was acceptable in 2007. The present catch limit represents a very small proportion of the Central stock. The Committee agreed that the present catch limit will not harm the stock.

WEST GREENLAND

The Chair of the SWG had noted that last year the Commission agreed to a quota of 200 minke whales struck annually off West Greenland; the Committee had provided advice on a range of 170-230. The Committee stressed that it has made great progress towards being able to provide firm management advice for this stock. In particular, there is an accepted abundance estimate from the 2005 aerial survey of 10,800 (95% CI 3,600-32,400). In addition, as already discussed, considerable progress had been made on developing an assessment method incorporating the available sex ratio data. With a further intersessional Workshop, it should be possible to finalise work on the applicability of sex ratio data to provide management advice at the 2009 Annual Meeting. Should this work

prove successful, it would also represent an important step forward towards the development of a full *SLA* approach for providing long-term advice.

In terms of advice this year, the Committee had noted that the 2005 abundance estimate was not statistically significantly different from the 1993 estimate accepted by the Committee, although the power to detect differences is low owing to low precision. Questions about stock structure remain. Although the survey estimate does not apply to the whole population, it is still not presently possible to determine by how much it is an underestimate. This issue will be addressed should the proposed assessment method prove to be applicable next year. However, despite the great improvement in the situation compared to previous years, the Committee remains concerned that it is not in a position to give authoritative advice on safe catch limits this year. Given that, it agreed that it is not possible for it to give more than interim *ad hoc* advice for the forthcoming season, noting that it believed that there was a reasonable chance that it would be in a position to provide advice next year. It notes that last year it had recommended that any quota established by the Commission on the basis of the interim *ad hoc* advice below be limited to one year only.

Until the work on the sex-ratio methods is completed next year, the Committee is therefore in the same position as in the past two years. It again stressed that the Commission should exercise caution when setting catch limits for this stock. The Committee was thus not in a position to recommend a single number, but repeated its previous advice to the Commission that the estimated annual replacement yield ranges from about 170 to 230. The replacement yield is the catch level yielding no net increase in abundance.

It re-emphasised its view that safe long-term management of aboriginal whaling is best accomplished under an agreed *AWMP SLA*. It therefore agreed that development of an *SLA* for this fishery should begin as soon as practical.

5.3.2 Discussion and recommendations

Argentina queried the Chair of the SWG as to whether the interim advice might put the population under threat, particularly given sex ratio bias in the catch. The Chair of the SWG responded that the Scientific Committee was not in a position this year to give authoritative advice on safe catch limits but had given interim *ad hoc* advice which was the same as the advice given for the previous two years. The Chair of the SWG emphasised that the Scientific Committee had agreed that this advice was for one year only; and they would not have given it if they believed it as inappropriate. The Committee believed that next year, it should be in a position to give advice based on the sex-ratio method he had referred to earlier. He also noted that the Committee agreed that it was not appropriate for it to provide advice such as this year after year and this was why it was giving such high priority to developing a safe assessment method for the coming year as well as placing emphasis on developing *SLAs* for the Greenlandic fisheries.

The UK said that many delegates would have seen the recent NGO report examining commercial elements in Greenlandic Aboriginal Subsistence Whaling which suggests that the nature and volume of sale of product from this hunt is of a level to cause concern. The report suggests that some 40-50 minke whales are purchased commercially

and sold in supermarkets for considerable profit. Little of these funds appear to go back to local communities. The UK said that, if accurate, this situation is of considerable concern to it. Whilst the UK did not suggest that a commercial element in aboriginal subsistence whaling is entirely prohibited, this should be on a limited scale. The UK said that it would not envisage that limited trade equated to trade involving some one-quarter of the total animals taken. Any commercial aspect should relate primarily to the buying of product and its sale within the local community.

The UK further questioned the basis of determining subsistence need. The UK's concern is not to provide product to every Greenlander but essentially to the hunting and fishing communities. The UK asked whether in determining need, the figures are based on the entire population of Greenland. The UK also noted that, according to this report, a significant volume of product is still in (presumably supermarket) freezers. The UK's concern is to determine what the real need is and suggested that the Scientific Committee in cooperation with Denmark might consider this. Attention was also drawn to the different conversion factors used for assessing whales to product.

This issue, the UK said, goes to the heart of a key principle on which subsistence whaling rests and by which it is allowed to proceed in a slightly less rigorous manner than commercial whaling. But if the whaling is really commercial or substantially commercial in nature then it should not be permitted as aboriginal subsistence whaling.

Greenland on behalf of Denmark responded that the document referred to by the UK is not an official IWC document submitted to the Sub-Committee so there should not be any discussion of its contents or the allegations made by the UK. The report has not been submitted to Greenland so there has been no time to study it or speak to the people involved in the study, which it understands was done in secret by WSPA. Whilst there was no wish to prolong the discussion, the representative from Greenland referred Sub-Committee members to the definition of 'subsistence' contained in the Chair's report of the 56th Annual Meeting of the IWC in 2004 (*Ann. Rep. Int. Whaling Comm.* 2004: 15). This is the practice followed in Greenland. The word 'predominant' however from this definition is undefined.

Denmark commented further on the commercial aspect. It noted that the Central Government requires Greenland to enter into monetary transactions as the purchase of the penthrite grenade and other equipment is an expensive exercise. Denmark added that if money were not involved then you would be left to hunt with a cold harpoon, which needs to be viewed in an animal welfare context.

New Zealand commented that the point raised by the UK and commented on by Denmark raises an important question of principle: what is Aboriginal Subsistence Whaling? This will be important for later discussions in the Plenary. New Zealand suggested that it is known what aboriginal subsistence whaling is not – it is not commercial whaling. New Zealand referred to the provisions of Schedule paragraph 13, and noted that paragraph 13(a) tells us that aboriginal subsistence whaling is to satisfy aboriginal subsistence need, but recognised that these words do require some interpretation. The next question then relates to customary and traditional use of whale products by indigenous people. New Zealand then noted

that the second requirement of the Schedule relevant to Greenland aboriginal subsistence whaling is in paragraph 13(3) that the take is only available '*when the meat and products are to be used exclusively for local consumption*'. New Zealand suggested that if this legal interpretation is valid, then whale meat that moves in the channels of commerce is not in conformity with aboriginal subsistence whaling, and such whaling is in fact commercial whaling. The distinction between commercial whaling and aboriginal subsistence whaling is necessary and important and the definition of aboriginal subsistence whaling is not an elastic definition that can be portrayed as something it is not. It is a point of very substantial importance as to what the category is; what it comprises; and what it doesn't comprise.

The Greenland representative then referred members to the document submitted last year by Denmark, IWC/59/ASW8 (White Paper on Hunting of Large Whales in Greenland), which provides a brief review of Greenland whaling history, and covers welfare aspects, the needs issue, and future plans. The report by the NGO being referred to by New Zealand and the UK consists of numbers that are not right and has been made using misleading means and in secret, and included the taking of video footage. The people who had provided information did not know that it would be misused in the IWC by member states referring to this report in this meeting and the NGO distributing it. The Greenland representative requested that the allegations made by the UK and New Zealand be withdrawn and that members use as their reference the White Paper presented by Denmark in 2007. The Greenland representative noted that considerable progress has been made by the Greenland Research Project and the IWC has received the various documents and these have been dealt with in a constructive manner. The Greenland delegation members are proud that the work of scientists has resulted in new, clear recommendations for all but minke whales off West Greenland. The Greenland representative foreshadowed some new presentation of needs being made during the Commission meeting.

Denmark further noted that Greenland is a special place where it is not easy to get to various locations and where there is an obligation to secure food supplies in various areas. Meat taken in one place therefore, needs to be transferred to other areas. Denmark also noted that the company in question is owned by the Greenland Home Rule Government so any profit is the people's.

The Chair recognised that this issue is very important, but there was little hope for consensus. He proposed that there be an opportunity now for views to be expressed and that the various perspectives be transmitted to the Plenary.

The UK referred to the earlier intervention by the representative of Greenland in which she had asked the UK to withdraw its allegations. The UK stated that it had referred to a report and said that if the report proved to be true then it raised some serious concerns.

New Zealand also responded to the request for it to withdraw its allegations, noting that it did not even refer to the WSPA report but had only been trying to bring the issue of aboriginal subsistence whaling within the language of the Schedule. There was no allegation therefore for it to withdraw.

Germany asked if Greenland could give more information about the commercial sales. It also sought clarification as to the basis for the calculation of need. Is

the need based on the Inuit population, or the total population of Greenland? Germany observed that aboriginal subsistence whaling has further intensified but would only see a basis for calculation of additional quotas if current limits for all species have been fully utilised.

Australia recalled the practice in a number of other conventions when a third party report is produced for it to be assumed that the state party is fulfilling its obligations, but for that party to reflect on its obligations under the relevant convention and report back to the members. Australia suggested that Denmark might like to consider such an approach.

Denmark then responded to a number of the questions or points made. In order to help develop an understanding of the use of large mammals in Greenland, the representative of Greenland explained that after a whale is caught the whale meat, blubber and mattak are divided and distributed in various ways. Some goes to the hunter and families where the whale is taken; some is sold in the local market; some is stored for the hunters own private use in the winter; some is dried and salted; some is sold to the one plant (in Maniitsoq) that is purchasing whale meat and from here meat, blubber and mattak is distributed to places where the hunt of large whales is not possible or where only a small number are taken. The Greenland representative said that it is not at all a secret that there are local sales of whale meat and that Greenland has been open in providing this information.

On the question of sales or distribution to non-residents, the representative of Greenland said that it is not their nature to prevent tourists or family members from tasting whale meat. Just as in the same way that as a tourist in Australia the representative of Greenland had tasted kangaroo and crocodiles, it is assumed that tourists in Greenland would like to taste whale meat. The assumption is that this is not talking about a large amount of whale meat. On the question as to why Greenland does not take the whole quota of fin whales, the representative explained that fin whales are not a favoured species as the whales are fast and big and difficult to take and difficult to flense but the quota was forced on them when the taking of humpback whales was stopped. For further information, members were referred to the White Paper produced in 2007. Greenland said that since the report had been produced by an NGO and had been distributed through unofficial channels there is no need to use time in discussion of it.

On the request from Germany for more information to be provided to the Commission Meeting the Greenland representative said that they are not able to collect such information in a few days and they would not react to that request as the document concerned is not an official IWC document. On the question as to whether the needs statement put forward last year was based on the total Greenland population or just the Inuit population, the representative of Greenland replied that in Greenland, they do not distinguish between Inuit, Danes and people from other nations. The needs statement is for the total population. It would be discriminatory to tell Danes that they cannot eat whale meat because they are Danes.

Denmark further referred to the definition of subsistence use adopted in 2004 whereby the meat is predominantly consumed by the communities and said that this is what is happening in Greenland. Denmark added that the conditions in the aboriginal hunt in Greenland are difficult

and when a hot harpoon is used this must be financed by the selling of meat and government assistance. Again there is consistency with the definition of subsistence use. Responding further to Germany's comments, Denmark said that it is not possible to reply as people are not registered according to ethnic origin, but instead are registered according to where they were born. Thus a baby of Greenlandic parents born in Copenhagen is a Dane.

Switzerland commented that it was quite difficult to have a proper discussion on this issue given that it is based on a document presented by an NGO containing a lot of information. Noting the White Paper presented by Denmark in 2007, Switzerland asked it if would be possible for Denmark to submit next year a similar sort of document giving information on species hunted, need and methods of distribution.

Responding to an earlier suggestion that the Scientific Committee might look at the need, the Chair of the SWG pointed out that it is accepted practice by the Commission that the Scientific Committee is not the appropriate body to look at need but it is in the terms of reference for this Sub-Committee. The UK clarified that what could be asked of the Scientific Committee is not for it to report on need, but for it to consider what the yield of meat and products might be from the various species of whales taken. The Chair of the SWG confirmed that the Scientific Committee could consider this if it received a paper on the topic.

The Sub-Committee agreed that the perspectives put during this discussion be transmitted to the Plenary. The Sub-Committee also noted the report of the Scientific Committee and its recommendations.

5.4 West Greenland stock of fin whales

5.4.1 Report of the Scientific Committee

The Chair of the SWG was pleased to report that the Committee had an agreed estimate of abundance of 4,656 (CV=0.46; 95% CI 1,890-11,470) for 2007. It had also received a new assessment incorporating this estimate using the method approved last year. It noted that the updated assessment would be useful not only for developing interim *ad hoc* management advice, but also for the development of a long-term *SLA* for fin whales off West Greenland.

A total of 10 (4 females, 6 males) fin whales were landed, and 2 struck and lost, in West Greenland in 2007.

In 2007, the Commission agreed to a quota (for the next five years) of 19 fin whales struck annually off West Greenland based on the range of 14-26 advised by the Committee last year. This year, the Committee was pleased to have developed an agreed approach for determining interim management advice for this stock as discussed under Item 3.3. above. On the basis of this the Committee agreed that the current catch limit will not harm the stock.

5.4.2 Discussion and recommendations

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

5.5 West Greenland stock of bowhead whales

5.5.1 Report of the Scientific Committee

The Chair of the SWG reported that the Committee had considered two new papers relevant to the question of the stock structure of bowhead whales of Eastern Canada and West Greenland. Unfortunately, the discovery of some errors in genetic data during the meeting meant that the Committee could not discuss the genetic information this

year. On the basis of the information available to it, the Committee reconfirmed that a single shared Canada-Greenland stock in the eastern Arctic should be considered the working hypothesis. A thorough discussion on stock structure, including revised analyses of genetic data will occur at next year's meeting.

The Committee was also pleased to agree an abundance estimate applicable for providing management advice at this meeting: 6,344 (95% CI=3,119-12,906). The estimate is expected to be negatively (conservatively) biased because of the strip transect approach adopted and because the survey effort covered only a portion of the population.

The Chair of the SWG noted that in 2007, the Commission had agreed to a quota (for the next five years) of two bowhead whales struck annually off West Greenland but the quota for each year shall only become operative when the Commission has received advice from the Scientific Committee that the strikes are unlikely to endanger the stock.

This year, the Committee was pleased to have developed an agreed approach for determining interim management advice for this stock (see Item 3.3). Given this, the Committee agreed that the current catch limit will not harm the stock. It was also aware that catches from the same stock have been taken by a non-member nation, Canada. It noted that should Canadian catches continue at a similar level as in recent years, this would not change the Committee's advice with respect to the strike limits agreed for West Greenland.

5.5.2 Discussion and recommendations

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

5.6 North Atlantic humpback whales off St. Vincent and The Grenadines

5.6.1 Report of the Scientific Committee

The Chair of the SWG noted that the Committee had received no information on catches of humpback whales off St. Vincent and The Grenadines during 2008 but he noted that after the meeting, St. Vincent and The Grenadines had reported that one animal had been caught and another struck and lost. There was no new information on stock structure or on abundance and trends for this stock. The SWG strongly encouraged collection of genetic samples for any harvested animals as well as fluke photographs, and submission of these to appropriate catalogues and collections. In respect of genetic samples, the SWG had agreed that the North Atlantic Whale Archive maintained by Per Palsbøll at Stockholm University was an appropriate facility.

In recent years, the Committee has agreed that the animals found off St. Vincent and The Grenadines are part of the large West Indies breeding population. The Commission adopted a total block catch limit of 20 for the period 2008-12. The Committee agreed that this catch limit block will not harm the stock.

5.6.2 Discussion and recommendations

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

5.7 Humpback whales off West Greenland

5.7.1 Report of the Scientific Committee

The Chair of the SWG was pleased to report that the Committee had reviewed information on abundance and

trends of humpback whales of the West Greenland feeding aggregation. The Committee had previously agreed that this was the appropriate management unit for this potential fishery. The Committee agreed that a new, fully corrected estimate for 2007 of 3,040 (CV=0.45; 95% CI 1,310-7,050) was acceptable for use in assessments. It also agreed an estimate of the rate of increase of humpback whales off West Greenland was around 9% per year (SE 0.0124) for the period 1984-2007. The comment was made that apparently few calves were reported from West Greenland given this rate of increase and the Greenlandic scientists agreed to examine the original field notes from the surveys to examine this.

The Committee also received an assessment paper. However, it had agreed that while modelling exercises such as this were interesting and provided some information on underlying population dynamics, it was more appropriate to focus future management efforts on the approaches such as that considered under Item 3.3.

Last year, the Committee had been unable to provide management advice for the humpback aggregation off West Greenland. This year, the Committee was pleased to have developed an agreed approach for determining interim management advice for this feeding aggregation (see Item 3.3). Given this, the Committee agreed that strikes of up to 10 humpback whales will not harm the stock.

5.7.2 Discussion and recommendations

Denmark on behalf of Greenland advised that it would be submitting to the Commission a proposed Schedule amendment for the take of humpback whales. In an earlier discussion the Netherlands had asked why this issue was critical at this time, but also noted a previous comment that fin whales are fast and difficult to catch whilst humpback whales are slow and easy to catch and thought that this may be the answer. The Netherlands therefore asked whether there were animal welfare reasons for this quota. Denmark advised that in 1997 it had received the first mandate from Greenland to request a quota for humpback whales but until now the scientific information and results had not

been adequate and so the decision was taken not to put a formal request for a quota to the Commission.

The Netherlands further observed that on the one hand the existing quota has not been met for many years, but on the other an additional quota is being requested. Denmark explained that the main reason the quota is not fully utilised is that fin whales are large animals, very fast, and there are only a few vessels equipped with harpoons able to take these whales. The primary source of meat for Greenlanders has traditionally been humpback and minke whales. In order to continue to obtain whale meat, a quota for fin whales was given following the protection of humpback whales. With respect to animal welfare, Denmark explained that it is not only the techniques used that affects this, but also the weather and ice conditions play a significant role. Denmark gave the example of East Greenland, where the quota was not fully utilised last year due to the ice conditions and bad weather.

Mexico noted that the population growth rate is at its limit but also that almost no calves were seen. Mexico speculated that either the humpback calves were somewhere else or the calves had been missed by the observers. The Chair of the SWG advised that the information provided regarding the estimates of abundance estimates had been based on the number of sightings of individual animals; the Greenlandic scientists had agreed to go back to the original notes to check whether calves had been recorded. In any event, the estimate of the rate of increase would not be affected.

The Sub-Committee noted the report of the Scientific Committee and its recommendations.

6. OTHER MATTERS

No other matters were raised.

7. ADOPTION OF REPORT

The report was adopted 'by post' on 22 June 2008.

Appendix 1

LIST OF PARTICIPANTS

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Valentin Ilyashenko
Rudolf Borodin
Peter Omrynto

St. Lucia

Vaughn Charles

St. Vincent and The Grenadines

Raymond Ryan

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Appendix 2
AGENDA

1. Introductory items
 - 1.1 Appointment of Chair
 - 1.2 Appointment of rapporteur
 - 1.3 Review of documents
2. Adoption of the Agenda
3. Aboriginal Subsistence Whaling Management Procedure
 - 3.1 Progress with the Greenlandic Research Programme
 - 3.1.1 Report of the Scientific Committee
 - 3.1.2 Discussion and recommendations
 - 3.2 Preparation of the *Implementation Review* for gray whales
 - 3.2.1 Report of the Scientific Committee
 - 3.2.2 Discussion and recommendations
 - 3.3 General consideration of the provision of *ad hoc* advice
 - 3.3.1 Report of the Scientific Committee
 - 3.3.2 Discussion and recommendations
4. Aboriginal Whaling Scheme (AWS)
 - 4.1 Report of the Scientific Committee
 - 4.2 Discussion and recommendations
5. Aboriginal subsistence whaling catch limits
 - 5.1 B-C-B Seas stock of bowhead whales
 - 5.1.1 Report of the Scientific Committee
 - 5.1.2 Discussion and recommendations
 - 5.2 North Pacific Eastern stock of gray whales
 - 5.2.1 Report of the Scientific Committee
 - 5.2.2 Discussion and recommendations
 - 5.3 Common minke whale stocks off Greenland
 - 5.3.1 Report of the Scientific Committee
 - 5.3.2 Discussion and recommendations
 - 5.4 West Greenland stock of fin whales
 - 5.4.1 Report of the Scientific Committee
 - 5.4.2 Discussion and recommendations
 - 5.5 West Greenland stock of bowhead whales
 - 5.5.1 Report of the Scientific Committee
 - 5.5.2 Discussion and recommendations
 - 5.6 North Atlantic humpback whales off St. Vincent and The Grenadines
 - 5.6.1 Report of the Scientific Committee
 - 5.6.2 Discussion and recommendations
 - 5.7 Humpback whales off West Greenland
 - 5.7.1 Report of the Scientific Committee
 - 5.7.2 Discussion and recommendations
6. Other matters
7. Adoption of the Report

TERMS OF REFERENCE

The Terms of Reference of the Aboriginal Subsistence Whaling Sub-Committee are to consider the relevant information and documentation from the Scientific Committee, and to consider nutritional, subsistence and cultural needs relating to aboriginal subsistence whaling

and the use of whales taken for such purposes, and to provide advice on the dependence of aboriginal communities on specific whale stocks to the Commission for its consideration and determination of appropriate management measures (*Rep. Int. Whal. Comm.* 48: 31).
