

Chairman's Report of the Fiftieth Annual Meeting

1. DATE AND PLACE

The 50th Annual Meeting of the Commission was held in the Al Bustan Palace Hotel, Muscat, Sultanate of Oman, 16-20 May 1998. Mr Michael Canny (Ireland) was in the Chair, and Commissioners and delegates from 35 of the 40 Contracting Governments attended, together with observers from five non-member governments, the European Community, five Inter-Governmental Organisations and 70 Non-Governmental organisations (NGOs). The List of Delegates is given on p.53.

2. ADDRESS OF WELCOME

The meeting started with an Opening Ceremony addressed by His Excellency Dr Ahmed bin Khalfan Al-Rawahi, Minister of Agriculture and Fisheries, Sultanate of Oman, with the patronage of His Excellency Sayed Badr bin Saud bin Harib, Minister Responsible for Defense Affairs and on behalf of the host government. He recalled the importance placed on the protection of environmental resources and the preservation of biological diversity in Omani waters and on land in the development of the country under the leadership of His Majesty Sultan Qaboos Bin Said. He wished the Commission memorable success at the commencement of another half century of mutual cooperation and understanding.

The Chairman of the Commission responded, thanking the government for the magnificent meeting rooms, the facilities and service, and the friendliness of the people. He looked forward to continuing dialogue between the delegates, helped by the work of the Scientific Committee and the contribution of the NGOs.

3. OPENING STATEMENTS

3.1 Statements by past Chairmen

Former Chairmen of the Commission had been invited to attend this 50th session and to present a statement. Mr Sture Irberger (Sweden), Chairman 1988-1991, spoke of his subsequent experience in EU environmental affairs and the influence and importance of the Rio Declaration and Agenda 21 as guiding principles for responsible stewardship in managing limited global resources through partnership and the precautionary principle.

Dr Peter Bridgewater (Australia), Chairman 1994-1997, sent a message of congratulations to the Commission on reaching this 50th meeting. He emphasised the success of the Commission in the past decade as shown in the recovery of populations of most species of great whales, underpinned by one of the strongest scientific bases of any wildlife convention.

The Secretary then read messages from Mr Thorður Asgeirsson (Iceland), Chairman 1978-1981 who sent his warmest greetings and best wishes for a successful outcome, as did Ambassador Eduardo Iglesias (Argentina), who was Chairman (exceptionally) for four years from 1981-1985, Mr Ian Stewart (New Zealand), Chairman from 1985-1988 and Mr Luis Fleischer (Mexico), Chairman 1991-1994.

3.2 Statements by Contracting Governments and observers

Opening statements by Contracting Governments and observer organisations were included in the meeting documentation. Italy, as a new member, spoke of its particular interest in the whales in the Mediterranean Sea. It has never engaged in whaling activities and has no intention of starting. It is a member of several international treaties which provide for the conservation of marine mammals and will do its best to facilitate the achievement of generally acceptable solutions to current problems, provided that they are based on the premise of conservation of cetaceans.

4. ADOPTION OF AGENDA

The provisional annotated agenda, which had been circulated 60 days before the meeting, was adopted. Agenda Items 5 and 6 were allocated to the Technical Committee for initial consideration. The Agenda as adopted is given on p.51.

Japan commented, with respect to Agenda Item 9.1.2, that Norway had indicated in previous meetings that issues of trade are outside the competence of the IWC and that Japan shared the same view. It believes such issues are within the jurisdiction of the CITES or WTO; they are not within the competence of the IWC. However, Japan is always prepared to present information related to trade to the appropriate international organisations and it is prepared to present it to anyone who wishes to gain such information.

The Netherlands gave notice that it would raise the issue of Canada and the IWC under 'Any other business'.

5. SOCIO-ECONOMIC IMPLICATIONS AND SMALL-TYPE WHALING

5.1 Japanese proposal for Schedule amendment

In the Technical Committee, Japan outlined the history of its request, repeated annually for the last ten years, for a modest interim allowance of minke whales for its small-type coastal whaling communities. Japan had considered the moratorium unreasonable from the outset since its small-type coastal whaling operations had never depleted the resource and had maintained a sustained annual harvest. The moratorium had caused distress to the communities affected and had been imposed despite the abundance of the stock. Japan recalled:

- (1) the Commission's Resolution in Kyoto (IWC Resolution 1993-3) to work expeditiously to alleviate the distress;
- (2) the Action Plan it had devised in response to concerns raised;
- (3) the Sendai (1997) Workshop on Community-Based Whaling; and
- (4) the well-documented need.

Japan attributed the absence of progress to a lack of goodwill and the dysfunctional nature of the IWC. Because of this, it no longer felt itself bound by the Action Plan, although it remained committed to small-type coastal whaling.

Japan then formally proposed an amendment to the Schedule by adding a new paragraph after paragraph 13:

'Notwithstanding the provision of paragraph 10, the taking of 50 minke whales from the Okhotsk Sea-West Pacific stock of the North Pacific in the 1999 season is permitted in order to alleviate the hardship in the community-based whaling communities.'

In the Technical Committee, New Zealand indicated that it wished to comment and elaborate its opposition later. However, it could not accept Japan's proposal.

There followed statements of opposition and support from a number of delegations. Arguments advanced for the proposal included: the quality of the case put forward by Japan; the absence of adverse impacts on the stock; that sustainable use of resources by coastal peoples should be encouraged and their cultural tradition enhanced; that the proposal had its basis in scientific principles and sustainable management.

Opposing views centred on: the need to sustain the integrity of the existing moratorium on commercial whaling, unless and until it is lifted, noting the completion of the RMS (Revised Management Scheme) as a necessary first step in that process; the element of commerciality in Japan's small-type coastal whaling; the absence of sufficient knowledge on the status of the stock; and the identification of whale meat from unknown sources in the Japanese market. Several delegations stated their belief that the completion of the RMS and the lifting (or otherwise) of the moratorium were quite separate issues.

Japan sought clarification of the position of those governments that had appeared to signify their opposition to any form of commercial whaling in perpetuity. Japan considered that the absence of any response demonstrated a shameful situation where dual standards damaged the credibility of the IWC. It drew attention to the inequity that existed between aboriginal subsistence whaling being granted catch limits by the IWC, and its own need for small coastal communities in Japan. It was angered by the treatment afforded to these communities.

The Chairman of the Technical Committee concluded that the range of views expressed for and against the proposal would be reflected in the report to the Plenary, noting that several delegations had indicated that they would expand on their position in that forum.

5.2 Action arising

During the Plenary, Japan spoke of the many types of whaling which are outside direct IWC control, including catches taken under objection and the hand harpooning of sperm whales by a non-member state, noting that both of these involve the exchange of money. Despite this, the commercial element in its small-type coastal whaling is criticised and the hardship and distress caused to its people not alleviated. It is cooperating with the Russian Federation in collecting the information required for a complete stock assessment, but the work is not yet finished. As previously, it requested, as an interim measure, a catch from the estimated 25,000 minke whale stock. Thus far this has been rejected by the Commission, which is showing no compassion for the communities concerned.

Grenada seconded the proposal discussed in the Technical Committee, but this was defeated in Plenary by 12 votes in favour to 17 against, with 4 abstentions.

Antigua and Barbuda introduced a Resolution co-sponsored by Dominica, Grenada, Japan, Norway, St Kitts and Nevis, St Lucia, St Vincent and The Grenadines and the Solomon Islands, on Japanese community-based whaling. This sought to permit a take of minke whales to be

allocated to four community-based whaling communities to alleviate hardship resulting from the moratorium. Antigua and Barbuda stressed that it found the term 'aboriginal' as it relates to subsistence whaling to be a colonial phrase and repugnant. Grenada shared these sentiments (recognising that Japan had renounced colonialism). It believed that Japan was being discriminated against because the products of community-based whaling were sold. It believed the Commission was exhibiting double standards.

Denmark and the Solomon Islands also expressed their support for the Resolution. Dominica stated that the Convention has been established to regulate whaling, and that management measures must not prevent sustainable use. It was unfair that some countries can consume whales because of a cultural link which includes commercial elements. St Lucia commented that there was considerable frustration that the RMS had still not been concluded. It referred to the commercial element (e.g. the purchase of guns and vessels) in current subsistence operations and stressed that there should be consistency.

New Zealand stated that it believed that passing the Resolution would send an unfair signal to Japan. It was not prepared to agree a quota and indeed opposed the resumption of commercial whaling at any time. From a brief visit to one of the communities, which it saw as a prosperous tourist town, it believed that the distress was at not being allowed to engage in an historic activity; it noted that whaling for smaller species continues. The USA agreed, and Italy, Sweden, Germany, Australia, Brazil, Switzerland, Mexico, Finland, Spain and the UK also could not support the Resolution.

Norway stated that it believed that Japan had been misled by previous Resolutions and recalled that coastal whaling in the USA was supported last year. It also challenged the statement by Italy that the Convention has to be interpreted in the light of the subsequent evolution of international environmental law and the Law of the Sea, which Italy had stated are both against commercial whaling.

The Netherlands, on a point of order, questioned the form of the Resolution which aimed to achieve an amendment to the Schedule and allocated quotas. Japan and Norway argued that the Resolution was an expression of opinions and intentions, not binding policy. The UK disagreed, and the Chairman ruled the Resolution out of order. After an exchange of comments on the issue, the USA called for a vote on the challenge, which was defeated by 20 votes in favour of the Chairman's ruling to 9 against, with 4 abstentions.

A further Resolution on the resumption of coastal whaling, proposed by Antigua and Barbuda, Dominica, Grenada, Solomon Islands, St Lucia and St Vincent and The Grenadines, was challenged by New Zealand on similar grounds, that the final clause spoke of an entitlement to resume commercial whaling for minke whales equivalent to a quota and was therefore a Schedule amendment. The Chairman ruled the draft out of order and adjourned the discussion in order that the wording of the text might be changed.

A revised draft was later introduced by St Lucia, which was disappointed and shocked when it was defeated by 7 votes in favour to 17 against, with 6 abstentions. Japan and St Vincent and The Grenadines expressed similar disappointment at the result. The Republic of Korea thought it better to complete the RMS; Switzerland also took this view, as it was not yet known if catch limits might be set for the stock, and because catch limits could not be allocated to particular communities. South Africa agreed.

6. WHALEWATCHING

6.1 Report of the Scientific Committee

The Chairman of the Scientific Committee introduced the Committee's Report on this matter to the Technical Committee. He noted that, in contrast to the last meeting when his Committee had commented on the paucity of information, it had reviewed submissions from four countries. It had also received an updated version of worldwide whalewatching guidelines, recognising that these represented an elaboration of an ongoing process.

The Scientific Committee had had some discussion as to which aspects of whalewatching it should consider during which the Secretary pointed out that not all items identified in the Commission's Resolution on Whalewatching (IWC Resolution 1996-2) were applicable to the Scientific Committee.

The Scientific Committee had recommended the formation of an intersessional Correspondence Group to review (especially in the context of focussing its work):

- (1) scientific protocols for research on the effects of whalewatching;
- (2) the scientific basis for management;
- (3) research on the effectiveness of management;
- (4) criteria for selection of suitable areas for long-term studies on the effects of whalewatching on cetaceans.

To promote progress in its discussion of whalewatching the Scientific Committee recommended that the Commission:

- (1) encourages member governments to conduct relevant scientific studies and send scientists to future meetings to present them;
- (2) encourages member governments and scientists to submit relevant scientific work, including scientific protocols, to the next meeting.

The Scientific Committee had reviewed research on reactions of dolphins to tourism activities in New Zealand. It was informed of land-based research being carried out in Japan and South Africa, and the response of humpback whales off Hawaii to ATOC (Acoustic Thermography of Ocean Climate) projects. The Scientific Committee expected to receive results from these in due course. It encouraged the submission of a report on ATOC work at a future meeting. It had established a mechanism to facilitate receipt of information on research being carried out that was relevant to assessing reactions of whales to whalewatching, even if not being specifically carried out for that purpose.

The Scientific Committee had noted two comparative studies being conducted in the UK and reviewed a report on bottlenose feeding activity at Monkey Mia, Western Australia. With reference to its General Principles for Whalewatching which had been endorsed by the Commission in 1996 (*Rep. int. Whal. Commn* 47:21, 105) the Scientific Committee believed that the concept of dolphin feeding did not concur with the principle that cetaceans should 'be allowed to control the nature and duration of interactions'. It had agreed to keep this matter on its agenda.

The Chairman of the Scientific Committee reported that the Committee had reaffirmed as the basis for its future discussions the four priority areas first agreed in 1996, and had agreed that an additional item, on assessment of long-term effects, be included as a further priority.

With reference to the World-wide Whalewatching document, Switzerland asked how much progress had been

made towards developing guidelines. The Chairman of the Scientific Committee commented that this is an ongoing matter and remains under review; it will be discussed further at next year's meeting.

Right Whale Workshop (Cape Town, March 1998): whalewatching issues

The Scientific Committee Chairman drew attention to his Committee's response to recommendations on whalewatching issues arising out of the Right Whale Workshop, namely:

'The Workshop had endorsed the IWC's general principles for whalewatching (*Rep. int. Whal. Commn* 47:105). The Committee recommends that these be applied to all whalewatching activities involving right whales. It was agreed that it was critical to: (1) manage the development of new and fledgling whalewatching operations to minimise the risk of adverse effects; and (2) take appropriate regulatory measures in areas where directed research demonstrates negative impacts on whales from established whalewatching activities.'

The Workshop had agreed that special protected areas provide a framework for the implementation of site-specific regulations for whalewatching and that such areas are important in conserving coastal habitats. The Committee had recommended that studies be undertaken to assess the need for the establishment of special protected areas in areas of known right whale concentration (e.g. the central-south coast of Santa Catarina, Brazil).

6.2 Report of the Workshop on Socio-Economic Aspects of Whalewatching

New Zealand introduced the Report of the Workshop on Socio-Economic Aspects of Whalewatching, held in Kaikoura, New Zealand, in December 1997. New Zealand was pleased to sponsor the tabling of this document which had been prepared by IFAW (the International Fund for Animal Welfare) who had also convened the Workshop.

New Zealand believes that whalewatching is an acceptable form of benign exploitation and commended the report for its comprehensive nature, especially in its assessment of socio-economic factors. New Zealand noted the benefits of an activity which depended on sustainable and healthy whale populations and drew attention to the recommendations, particularly those dealing with methodologies which have been successfully employed in national resource management issues, and the establishment of Marine Protected Areas (MPAs) which it strongly supports.

Japan questioned the procedure by which the note indicating New Zealand's endorsement of the report for discussion was printed on the reverse side of the cover page. Japan believed that such indication should always take the form of a covering note on the front of the document.

The Secretary indicated that while the Commission had determined that documents from non-Contracting Government sources always required the endorsement or sponsorship of a member Government, it had never determined the form in which that endorsement should be presented.

Responding to a further request for clarification about the meaning of 'endorsed' in this context, the Secretary added that no definition had been determined. Dominica believed that such a definition was necessary and accepted the Chairman's invitation to draft some language for consideration. Dominica requested other interested delegations to assist in this task.

A number of delegations warmly welcomed the report. Chile commented that it had recently held a seminar to promote its embryonic whalewatching activities. It hoped IWC members would be able to offer assistance to nations in this situation. Commenting on differing aspects of the report, delegations identified the following as reasons for seeking to promote whalewatching around the world:

- (1) it offers new opportunities for development for coastal communities;
- (2) it can represent substantial economic benefits;
- (3) it is a sustainable, non consumptive use of cetaceans offering opportunities for non-lethal research;
- (4) it offers opportunities for education and development of research methodologies.

Ireland commented that it strongly supported the development of whalewatching and had originally included it as one of the elements which together made up the 'Irish Initiative'. In line with the now widespread view that this component should be set aside for the time being, Ireland would not be making any proposals on the subject. It would, however, support other initiatives designed to promote whalewatching.

The UK drew attention to the statistical and economic growth of whalewatching around the world. It supported the conclusions and views in the report but commented that its somewhat specialised language did not make it readily accessible to non-specialists. New Zealand agreed, and offered to provide a brief executive summary before the end of the meeting.

The UK also highlighted a Workshop held recently in Chile on Legal Aspects of Whalewatching, noting that the report, not yet available, would be valuable to IWC.

Other delegations expressed contrary views ranging from outright opposition to any IWC involvement in whalewatching on the grounds that it is outside the competence of this organisation, to expression of caution about the possible exaggeration of socio-economic benefits and the potential danger of promoting such an activity growing rapidly all over the world, which in some cases would be unregulated and uncontrolled.

Other arguments included:

- (1) the risks to whales and humans associated with promoting a potentially hazardous activity;
- (2) the need to identify and quantify possible negative effects;
- (3) the imperative not to deprive some communities of a source of food;
- (4) the need to assess possible impacts before embracing economic benefits;
- (5) the need to consider carefully before setting priorities;
- (6) the risk of sending the wrong signal and depriving communities of vital resources in areas where dolphins represent a source of food; and
- (7) the risk of introducing confusion into local culture and tradition.

Responding to comments, New Zealand characterised the Workshop Report as a land-mark report. It agreed with Grenada that it was not essential or even necessarily desirable for the IWC to regulate whalewatching; that is the role of coastal states. It was, however, appropriate for the IWC to collate and review information.

In conclusion, the Chairman of the Technical Committee noted that there appeared to be general support for the continuation of research into whalewatching; it might be

necessary to develop guidelines to protect both whales and whalewatchers. He also stated that there are differing views on the emphases and priority such work should be allocated in the Scientific Committee. He reported accordingly to the Plenary.

6.2 Action arising

The Commission took note of the comments and discussion in the Technical Committee, and accepted the recommendations from the Scientific Committee to apply the general principles for whalewatching to all whalewatching activities involving right whales, and the requirements for studies to assess the need for special protected areas.

7. ADOPTION OF REPORT OF THE TECHNICAL COMMITTEE

The Technical Committee had met under the Chairmanship of Prof. B. Fernholm (Sweden), the Vice-chairman of the Commission, to discuss Agenda Items 5 and 6. Its report was formally adopted by the Commission.

8. HUMANE KILLING

8.1 Report of the Humane Killing Working Group

The Humane Killing Working Group met under the Chairmanship of Dr A. Nouak (Austria).

8.1.1 Name of the Working Group

Norway summed up the situation after last year's meeting in Monaco where several delegations had expressed views on the use of the term 'humane killing'. It noted that several interpretations of the term had been advanced, and concluded that the understanding of this term was influenced by very subjective perceptions in addition to differences in cultural and traditional backgrounds. On this basis, Norway proposed that the name of the Working Group should be 'Working Group on Hunting Methods' as this name would cover all the relevant aspects of discussion in the group.

A broad range of views on the many interpretations of the term 'humane' were presented and discussed. It was noted that there are a wide range of cultural and social influences on the views and feelings evoked by its use; and that it seems to take on a different meaning depending upon the species to which it is applied. The UK considered that the term 'humane', when applied to killing methods, meant killing without causing suffering; and to drop the term would suggest that the IWC was no longer concerned to achieve this objective. The Working Group was unable to reach agreement and the matter was referred to the Plenary.

Two main views emerged:

- (1) that the word humane be removed from the name of the Working Group (i.e. Working Group on Hunting Methods) to avoid misinterpretation of the scope of issues to be dealt with there;
- (2) that the word humane remain in the title of the Working Group to ensure that it is clear that the IWC still intends to pursue the development of more humane methods and that although there may be differences of opinion, these need to be debated in this forum.

The Netherlands suggested a compromise which was supported by several delegations - that the title be changed to 'Improvement of Hunting Methods'. This was supported by

Norway amongst others. However, Japan stated that it did not believe that further improvement was possible in some circumstances.

New Zealand stated that in its view it was important to retain the name of the Working Group, so that it could continue to focus its attention on such issues as time to death and insensibility. It acknowledged that there were differences of opinion amongst delegations about humane killing that should continue to be debated, and that if the Working Group were to only consider hunting methods, it could lose that focus and simply receive technical reports.

Japan brought to the attention of the Group its comments on this issue from last year, i.e. that the issue is outside the competence of the IWC under the terms of the Convention. However, it noted that it may contribute information and participate in the Working Group on a voluntary basis. Japan stated that it had fully cooperated by responding to the recommendations of the Working Group in the past, but questioned the apparent difference in times to death and humaneness accepted for aboriginal subsistence catches and those expected in other types of whaling operations.

St Vincent and The Grenadines agreed that the topic of humane killing fell outside the competence of the IWC.

8.1.2 Information on improving the humaneness of aboriginal subsistence whaling

IWC Resolution 1997-1: (1) welcomed the steps taken so far by the aboriginal subsistence whalers of the USA, the Russian Federation and Greenland to improve the humaneness of whaling techniques in aboriginal subsistence hunts; (2) urged them to do everything possible to reduce still further any avoidable suffering caused to whales in such hunts; (3) requested the USA, the Russian Federation and Denmark to continue to inform the Commission on an annual basis of progress made in this matter, and to provide other information concerning the taking of whales under aboriginal subsistence quotas; and (4) requested all Contracting Parties to provide appropriate technical assistance to improve the humaneness of aboriginal subsistence whaling. It also agreed to consider this issue at Annual Meetings of the Humane Killing Working Group and requested that the next Workshop on Whale Killing Methods should review the data received by the Commission on this matter.

The USA had commented last year that the lateness of the 1997 meeting, combined with the early start of the 1998 meeting, would make it difficult for them to respond meaningfully on the subject of improving the humaneness of aboriginal subsistence whaling at the 1998 meeting of the Working Group. It also stated that the 1998 Makah hunt would not have begun by the time of the Annual Meeting.

At the present meeting, the USA presented the following information. Concerning the Makah, the development of the weapon system described last year and the training of hunters was continuing. During the Makah hunt, all relevant data will be gathered for a report to the planned Workshop. In the Alaskan Eskimo bowhead hunt, the penthrate grenade continues to show great promise for improving the humaneness of the hunt, particularly given the improved fuse mechanism. Of twenty bowheads landed in the autumn of 1997, 12 were landed using the penthrate grenade, and only one animal struck with this weapon was lost. This one loss was attributed to adverse weather and associated sea conditions. The Eskimo hunters are pleased with the weaponry and the Alaskan Eskimo Whaling Commission had ordered more such devices for use in the hunt presently underway.

Denmark, like the USA, had little new information to report due to little or no hunting occurring in the intervening period between the Annual Meetings, which coincided with the northern winter. Improvements to the Greenland hunt included the overhaul of all but eight of the harpoon cannons and new regulations on techniques for controlling the use of the penthrate grenade put in place by the Greenland Home Rule Authority. Problems with violations of national regulations which had been reported to the police were attributed to the high cost to individual whalers of the new weaponry.

The Russian Federation presented a paper on the Chukotka gray whale hunt. During the 1997 season, 79 whales had been harvested (48 males, 31 females). The hunt had been conducted from whaling boats and sea kayaks under the direct control of fishing inspectors from the Chukotka Regional Fisheries Inspection Agency. Rifles were used in most settlements, and 20 darting guns received from the Alaskan Eskimos were also used for the first time. The use of darting guns as an aid in the hunt resulted in catches for 16 out of 17 shots. Time required for each catch using rifles was 30 to 120 minutes (average 77 minutes); while catches using darting guns took approximately half as long (36 minutes average).

Japan commented that the wording 'improving the humaneness' in the title of Agenda Item 8.1.2 is not appropriate because of its vagueness, notwithstanding how nations involved in aboriginal subsistence whaling perceive this terminology.

8.1.3 Workshop on Whale Killing Methods

At last year's meeting it was agreed that a Workshop on Whale Killing Methods should be held at the same time as the Scientific Committee meeting, i.e. before the 1999 Annual Meeting, and that the annual meeting of the Working Group should be retained. It had been agreed that planning for the 1999 Workshop should occur at the 1998 meeting.

The question of a possible change to the name of the Workshop was raised, but it was noted that this had been decided previously and was not open for discussion.

A copy of the Terms of Reference from the last Workshop, held in Dublin in 1995, was circulated and their relevance to the 1999 Workshop discussed. Japan noted that the intention of the Commission, as expressed in IWC Resolution 1997-1, was that the Workshop should focus on aboriginal subsistence whaling, and suggested that the Workshop should be limited to aboriginal subsistence whaling. However, it was agreed that whale killing methods for all types of whaling would be included, and that the terms of reference of the Workshop should be similar to those for the Dublin Workshop, thereby not excluding the comparison with hunting methods of large terrestrial mammals. Norway repeated its request from last year that Sweden and the UK submit to the workshop data on the efficiency of the hunt of elk/moose (*Alces alces*) and red deer known to exist in these countries.

There was disagreement on the use of the word 'humaneness' in the list of the Terms of Reference for this Workshop with conflicting views:

- (1) that the word humaneness should be removed from paragraph (v) of the terms of reference of the Workshop - it was suggested it be replaced with 'to review killing techniques';

- (2) that removing the word *humaneness* from the terms of reference for the Workshop would send a message to the international community that the IWC did not consider this issue important, while some delegations believed it to be a critical part of the Commission's work.

After substantial discussion, the Working Group could not agree fully on this matter and it was referred to Plenary.

The Chairman summed up the agreed plans for the Workshop as follows.

TIME AND PLACE

The three day Workshop will be held after the 1999 Scientific Committee and would overlap one to two days with the Committee and Working Group meetings of the Commission. This would allow expertise within the Scientific Committee to be utilised, and would not disadvantage nations with small numbers of delegates and scientists needed in other Working Groups. The overlap would be timed to coincide with a non-scientific meeting such as Finance and Administration to further reduce the likelihood of important participants not being available. The Advisory Committee would decide on the exact timing. Final confirmation of the location of the next Annual Meeting is not yet available. The Workshop will be in the same location as is agreed for the meetings of the Scientific Committee and the Commission.

FINANCE AND ADMINISTRATION IMPLICATIONS

A request will be made in the Finance and Administration Committee for an amount up to £10,000 for Invited Experts at the Workshop who are either not members of national delegations and/or from non-IWC member countries with required expertise. The Chairman of the Finance and Administration Committee commented that he believed that amount could be provided for in the budget.

CHAIRMAN OF WORKSHOP

Norway proposed Dr S. Ridgway (USA) the Chairman of the previous workshop (however health problems might prevent his participation). It was therefore suggested that Prof K. Nielsen (Denmark) be asked to replace Ridgway. Denmark supported this proposal. In case neither of these two were available, the Working Group recommended that the selection of Chairman be referred to the Advisory Committee with the understanding that any member country could send in a nomination for consideration.

PARTICIPATION

The importance of including sufficient scientific and technical expertise as a priority was agreed, as was the participation of other members of any delegation including hunters. Participation by non-member nationals would be by invitation only.

8.1.4 Any other business

The UK welcomed the report from the Russian Federation on its aboriginal subsistence operation. It requested information from Denmark on the Faroese pilot whale drive; and made two separate requests to Japan – one on the use of the rifle as a replacement for the electric lance as a secondary killing method in research whaling and the other on the use of electricity in the Dall's porpoise fishery.

Denmark commented that it did not recognise IWC competence on small cetacean issues. It noted that a representative of Faroese Home Rule would be at the meeting in the next few days who may provide information

to individual members. Denmark was not in a position to comment on Faroese Home Rule issues.

Japan repeated its view that the IWC was not competent to deal with small cetacean issues, and that it therefore would not provide information on the Dall's porpoise fishery. Japan further stated that it believed the *humaneness* issue is outside the competence of the IWC. However, interested member countries, non-government organisations and members of the press could request information from Japan on the use of the rifle as an alternative to the electric lance and it would provide such data. Japan further stated its willingness to be open in giving information on time to death to anyone, including the public.

Some delegations recalled a statement made by Japan at the 49th Annual Meeting on replacement of the electric lance with the use of rifles. Japan had undertaken to report to an appropriate forum of the Commission on progress and results made in this process. They noted that the withdrawal of the proposed Schedule amendment on the use of the electric lance at that meeting had been done on this basis. In responding, Japan repeated that it cooperated with IWC on a voluntary basis regarding provision of information. It stated that it would be providing this information on a voluntary basis to the Workshop in 1999, which would be composed of scientific and technical experts.

Norway outlined last year's research on hunting methods and the use of new equipment, veterinary inspections, number of animals taken and time to death in the minke whale hunt for 1997. A new penthrate grenade had been trialed on one vessel in 1997 and large-scale field trials using this weapon would take place in the 1998 season. It would provide further information to the Workshop next year.

8.2 Action arising

In the Plenary, Japan repeated its view that this subject is outside the terms of reference of the Commission. It believes that humane killing is a subjective term and proposed the more neutral term 'hunting methods'. The UK recalled the long history of consideration of this topic in the Commission since 1959, and thought the meaning of humane killing was clear – to kill or render insensible with minimum suffering. It recognised that some other languages did not have the same understanding of the term, but emphasised the ordinary English meaning. It proposed that it was not necessary to hold a meeting of the Working Group after the Workshop next year, but to reconvene it the following year, when the terms of reference and name could be reconsidered.

Chile supported the suggestion of the Netherlands for the title 'Improvements of Hunting Methods', and an extensive debate followed on these various proposals. Norway and Sweden supported a UK suggestion that the Working Group and the Workshop should have the same name 'Killing Methods'. New Zealand took a similar position and thought it should be the Commission and not the Workshop who should decide, a view shared by Denmark. France stated that it believed that the Commission does have competence in the matter and believed that the Working Group should find a solution to the question of the name. Antigua and Barbuda suggested 'Gear and Methods'. During discussions, the USA, Spain, Australia, Netherlands, Finland, St Lucia, Oman, South Africa, Italy, Switzerland and Germany all expressed support for the position set out by the UK. The Republic of Korea thought it appropriate to use the term 'Hunting Methods'. Monaco commented that although this was a semantic problem, it was culturally controversial and any misunderstanding should be removed.

The Chairman concluded that it was clear that there was no consensus at this meeting. He stated that the Working Group will not meet at the 1999 meeting and confirmed that any decision on the name should be taken by the Plenary.

Japan then proposed that 'humaneness' should be deleted from the terms of reference of the Workshop, and a further round of comments ensued. The UK expressed surprise at this proposal, since the terms of reference for the Dublin Workshop had been accepted, noting that the issue of the safety of the crews had been included. New Zealand and the USA concurred. Japan stated that there was not a common understanding of the term 'humaneness' and that it should be dropped, since this is not an ethics committee; it preferred to talk of killing methods. The Netherlands announced that it has scientists at work on humane killing issues and will hold a meeting of experts later this year to consider practical proposals.

Italy, Switzerland and Sweden, supported by Finland, spoke of the need to retain the concept of suffering in the terms of reference, which can be judged by time to death, and Australia commented that how to measure this was the role of the Workshop. Antigua and Barbuda pointed out that these are substantive issues. It believed that killing cannot be considered humane, and believed that retention of this word is repugnant. Dominica and St Kitts and Nevis shared this position, and Grenada spoke of humane killing of other animals and the use of the electric chair for humans. Monaco believed that no-one objected to consideration of time to death and reduction in suffering, the evidence for which should be assembled, a position shared by South Africa. The Chairman recognised that there was support for consideration of the issues but dispute over the word 'humane', with reservations by a number of countries. He established a small group comprising Monaco, UK, Japan, Norway and the USA to consider the terminology issue and to report back, to Plenary.

On its return, the small group reported that it had reached no specific agreement. The USA had considered that the introduction of the word 'practicalities' may clarify matters. Norway had introduced a substantial revision to the Terms of Reference which could not be accepted by others. Subsequently, revised language for paragraph (v) of the Terms of Reference was agreed. (The final Terms of Reference are shown in Appendix 1). Australia wished to emphasise that death should be without pain, stress or distress, with instantaneous insensibility and so could not join in a consensus. The UK shared some of these concerns but agreed to the terms given in Appendix 1 in order to allow the Workshop to carry out its work; the UK was not attempting to find a universal definition of humaneness.

Finally, New Zealand thanked Japan for providing it with data on the use of the electric lance, although it was not in the form expected, and it looked forward to the Workshop next year for further information to be provided on a voluntary basis. Japan stated again its view that this matter is outside the competence of IWC, but it has no intention to withhold the information which it will provide to interested parties, Governments, NGOs and the Press. It will submit data to the expert forum of the Workshop.

Norway, supported by Japan, referred to the terms of reference and stated its belief that the Agenda Items covering stockpiles of whale products and trade questions are not within the scope of the Convention. Consequently, it proposed that these items be deleted. Japan noted the adoption of a decision on trade in whale meat adopted at the 10th Conference of the Parties to CITES, and both it and Norway stated that they were willing to discuss such matters in what they considered to be the appropriate fora (WTO and CITES). Japan further stated that any relevant information on international trade and market activities would be made available to the public including NGOs and the Press, upon enquiry. The USA and New Zealand did not agree to delete these Items. After some discussion, it was agreed, as it was in 1997, that an exchange of views was nonetheless useful.

9.1.1 Infractions reports from Contracting Governments

The Infractions Reports received by the Commission in 1997 were summarised. Denmark noted that although the information in the document was correct, it wished to clarify that the number of strikes (14) for East Greenland minke whales was not relevant. The point is the 11 landed minke whales, as the Schedule allows 12 landed minke whales in East Greenland each year.

9.1.2 Reports from Contracting Governments on availability, sources and shipments of whale meat and products, and relevant developments; and on stockpiles and sale of whale meat and products, domestic laws and enforcement actions on illegal possession and sale

The Chairman noted that for the last four years Resolutions on this issue had been adopted by the Commission, and that no document was submitted on this issue from the member governments this year.

The USA asked if Japan or Norway had any additional information about the seizure on 6 April 1996 by Japanese customs of five tons of whale meat packed in five tons of fish. The shipment had originated in Norway but when seized in Japan, the shipment was on a Korean vessel coming from Korea. The USA considered that this was an unusual case and the Sub-committee had yet to receive any new information on the investigation of the matter from Japan. Japan and Norway did not comment on this issue, but Japan noted that last year it had supplied information on a voluntary basis on these issues.

New Zealand sought information on progress with the peer review of genetic analyses of market samples of whalemeat that Japan had undertaken to conduct at last year's meeting. New Zealand expressed its thanks to Japan for its willingness to conduct the review and hoped that a report would be submitted at next year's meeting. Japan stated that it could not begin the review as the original samples used by the New Zealand researchers had not been made available, despite the request made by Japan to the researchers. New Zealand noted that it had not received such a request and the samples remained in Japan as required under international legislation. New Zealand offered to facilitate access to the samples where possible. Japan stated its view that this was a domestic issue and that it had no intention of formally providing the results to the Commission, reminding the meeting of its earlier statement regarding the competency of the IWC on these issues, but noting its willingness to make the results available at the request of individuals, to publish them, and to make them available publicly including to NGOs and the Press.

9. INFRACTIONS, 1997 SEASON

9.1 Report of Infractions Sub-committee

The Infractions Sub-committee met with Mr N. Yagi (Japan) in the Chair.

On the issue of market testing of whale products for genetic analysis, the Republic of Korea requested that anyone who wished to conduct such work should cooperate with fisheries authorities in that country, so that the findings would not be different from each other, study by study. The Republic of Korea cited the reporting last year of the results of genetic analysis on Korean market samples by TRAFFIC East Asia as a good example of close cooperation. This study had indicated that all whale meats had originated from bycatch in Korean waters.

9.1.3 Other matters

SURVEILLANCE OF WHALING OPERATIONS

The infractions report submitted by the USA stated that 100% of its aboriginal catch was under direct national inspection and Denmark reported that, in 1997, the IWC catch limits for minke and fin whales were not violated for Greenland. The Russian Federation informed the Sub-committee that all of its aboriginal catch was conducted under inspection by national inspectors.

CHECKLIST OF INFORMATION REQUIRED OR REQUESTED UNDER SECTION VI OF THE SCHEDULE

The Secretariat provided a brief summary of the Checklist, which was developed as an administrative aid to the Sub-committee in helping it to determine whether obligations under Section VI of the Schedule were being met. It is not compulsory for member Governments to fill in the Checklist although, of course, they do have to fulfil their obligations under this Section of the Schedule.

The available information supplied in the Checklists is summarised below.

DENMARK

Information on date, position, species, length, sex and whether a foetus is present is collected for between 90-100% of the catch, depending on the item. Information on killing methods, struck and lost animals and whether a female is lactating is also recorded for some animals.

USA

Information on date, species, length, sex, killing method and numbers struck and lost is collected for 100% of the catch depending on the item. Other biological information is recorded for some animals.

NORWAY

Although Norway had not submitted a Checklist, it had submitted the required information to the Secretariat as noted in the Scientific Committee report.

SUBMISSION OF NATIONAL LAWS AND REGULATIONS

The Secretariat provided a summary of national legislation supplied to the Commission. The Netherlands and New Zealand noted that their relevant legislation had been recently changed since provision of the information in the summary. Notification of the new legislation and changes to the existing legislation would be sent to the Secretariat prior to the next meeting. The Russian Federation also stated that its new law had been given to the IWC Secretariat.

New Zealand suggested changes to the tabled information that would clarify whether member countries had regulations but had not supplied information, or did not have any regulations. The Secretariat appreciated the suggestion, noting that at present 'none' merely meant that no legislation

had been received. They would attempt to obtain the requisite information from member governments during the year so that a revised table can be supplied next year.

ANY OTHER BUSINESS

The UK asked if Japan could report further on the investigation of the anterior half of a gray whale that washed up on the Hokkaido coast on 16 May 1996. Japan had given a preliminary report at last year's meeting. That report noted that: three officials were sent to dig up the carcass and collect tissues for DNA; they had found 11 hand harpoons in the dead whale; none of the hand harpoons were similar to the ones known to be used currently by Japanese coastal harpoon fishermen; no conclusion had been reached as to whether or not this case constitutes an infraction to the Convention and the investigation was ongoing.

The UK noted that as Japan had reported last year that it was still unclear as to whether the death of this gray whale had been an infraction, the matter was clearly within the competence of the IWC, but should perhaps be raised under a different Agenda Item. Japan stated that it had made the utmost effort to obtain information on the gray whale issue, and it was currently finalising the information it had to date.

Japan summed up the information gathered so far and stated that biological samples from the whale were stored at the Cetacean Research Institute in Japan. Genetic analysis from the whale had been conducted and this would ensure that if meat from this animal were to be discovered in the Japanese market, it could be readily identified. A thorough investigation by the Fisheries Agency had found that at this point no identical harpoon heads to those found in the gray whale were in use in Japan. On this basis, it noted that photographs of the types of harpoon heads used by the Alaskan and Russian hunters were needed to undertake a further investigation. Japan requested that it be supplied with these photographs in order to facilitate the investigation. Japan also stated that further efforts would be pursued to investigate domestically for a possible conclusion to this issue.

The USA stated that the usual practice of solving such an issue was for the information to be circulated to the wider community. It would provide photographs of the harpoon heads used in Alaska on receipt of photographs of those found in the gray whale. Japan noted that this was a useful suggestion. The USA reminded the Sub-committee of the interest in this issue, given that this gray whale is likely to be from the Western North Pacific stock. This stock is believed to comprise only a few hundred animals, unlike the Eastern North Pacific stock, which is much larger (approximately 25,000 animals).

Japan stated that it was unable to offer any information on stocks at this meeting due to a lack of advisers familiar with genetic analysis for stock structure regarding these particular stocks. Japan therefore could not discuss this issue at this time but undertook to prepare information on the stock question at an appropriate time in the future.

9.2 Action arising

In the Commission, the Netherlands voiced its concern over illegal trade and urged thorough investigation and action; this was supported by the UK. Japan reiterated its view that matters of trade and its domestic market fall outside the IWC and are under its own sovereignty, although it cooperates with CITES in international, and TRAFFIC Japan on domestic, issues. It questioned the grounds and sources of information for the allegations made.

10. ABORIGINAL SUBSISTENCE WHALING

10.1 Report of Aboriginal Subsistence Whaling Sub-committee

The Aboriginal Subsistence Whaling Sub-committee met under the Chairmanship of Mr J.K. McLay (New Zealand). It considered Agenda Item 10.3 before Item 10.2.

10.2 Aboriginal subsistence whaling scheme

10.2.1 Report of the Scientific Committee

As last year, the Scientific Committee had agreed that it was appropriate for the Chairman of its Standing Working Group (SWG) on the Development of an Aboriginal Whaling Management Procedure (AWMP), Mr G.P. Donovan (Secretariat) to present its work to the Commission. In his presentation, Donovan recalled that the Scientific Committee's work on the AWMP was driven by the (summarised) objectives given by the Commission to:

- (1) ensure that the risks of extinction to individual stocks are not seriously increased by subsistence whaling;
- (2) enable aboriginal people to harvest whales in perpetuity at levels appropriate to their cultural and nutritional requirements, subject to the other objectives; and
- (3) maintain the status of stocks at or above the level giving the highest net recruitment and to ensure that stocks below that level are moved towards it, so far as the environment permits.

In particular, highest priority shall be accorded to the objective of ensuring that the risks of extinction to individual stocks are not seriously increased by subsistence whaling.

The Chairman of the SWG noted that the Scientific Committee appreciated the Commission's answers to its questions last year and that these were taken into account in its discussions this year. He briefly summarised the more scientific aspects of the AWMP development process, highlighting those matters most relevant to the Aboriginal Subsistence Whaling Sub-committee. He noted that the Scientific Committee is assessing the value of the performance statistics it uses on a regular basis and will take into account advice from the Commission when updating these, for example, with respect to variation in strike limits.

The development process is similar to that of the RMP in that the use of simulation trials to examine the performance of candidate *Strike Limit Algorithms* (SLAs) is fundamental to the approach. A number of aspects in the simulation framework are more relevant to the Aboriginal Subsistence Whaling Sub-committee, including the questions of block quotas and carryover (this will be incorporated into the final procedure), multi-species issues (which are discussed below), and survey frequency.

The issue of comparison of the AWMP with the RMP had been raised by some members of the Commission in discussions last year. The Scientific Committee had this year reiterated that its primary purpose was to develop an AWMP that fulfils the Commission's objectives. However, it recognised the interest in being able to compare any eventual SLA with the CLA (*Catch Limit Algorithms*) of the RMP and noted that trials could be developed in the future for purely comparative purposes, although these may not reflect real situations for which the SLA is to be used.

Some members of the Commission also noted that comparison of any proposed SLAs with the current Schedule paragraph 13(a) approach would be useful. Some work has already been carried out on this and this will continue.

As indicated last year, the Scientific Committee began to consider a new fishery type, type 3, which referred to small populations (~300 animals). This work is still at the exploratory stage.

The intersessional period this year had been very short, so the Scientific Committee had relatively few simulation results to review. On the basis of the results available to it, it reviewed, and where necessary revised, the trial structure for fishery type 1 (cases where there is relatively little available information and where there are stock identity problems) and 2 (cases where there is a relatively large amount of information and Schedule paragraph 13(a) has largely been met).

The Chairman of the SWG then turned to issues of direct relevance to the Aboriginal Subsistence Whaling Sub-committee and included under the Committee's Agenda Item 'Dialogue with Commission and hunters'. He noted that the Scientific Committee had paid particular attention this year to addressing how it could ensure that as rapid progress as possible could be made towards providing the Commission with advice on an AWMP and to provide the Commission with its view of what form an AWMP might take.

The Scientific Committee had agreed in 1996 that *Initial Exploration Trials* should be case-specific rather than generic because there are a limited number of cases for which aboriginal subsistence harvesting is likely. However, at that time, consensus was not reached on whether the AWMP should include a generic SLA or case-specific SLA.

At this meeting, the Scientific Committee agreed that there were three options:

- (1) an SLA which is completely generic;
- (2) a generic core SLA with case-specific modifications; and
- (3) completely case-specific SLAs.

The Scientific Committee agreed that in principle it would be preferable to have a single generic SLA. However, given the results so far and the well-documented differences between the fisheries in terms of data availability, stock identity complexity and the nature of the fisheries themselves, the Scientific Committee stated that it was extremely unlikely that a single suitable generic SLA could be developed. It is therefore clear that either alternatives (2) or (3) are most likely to enable it to satisfy the Commission's objectives; it agreed that to the extent possible it would be preferable to follow option (2).

The Scientific Committee suggested that a likely potential scenario is that the Commission might establish an Aboriginal Whaling Scheme that comprises the scientific and logistical (e.g. inspection/observation) aspects of the management of all aboriginal fisheries. Within this, the scientific component might comprise some general aspects common to all fisheries (e.g. guidelines and requirements for surveys and for data c.f. the RMP) and an overall AWMP (within which there will be common components and case-specific components).

The Chairman of the SWG stressed the importance of this scenario for the future work of both the Aboriginal Subsistence Whaling Sub-committee and the Commission. One important implication is that it will be possible to develop SLAs for some stocks before others. The Scientific Committee agreed that it could best fulfil its role of providing the Commission with advice if it presented available components of the AWMP as and when they were ready. The SWG had not been in a position to develop a precise timetable for its work at this meeting but believed it would be in a stronger position to do so next year.

Given this scenario, the Chairman of the SWG then reported on the Scientific Committee's view on likely progress for each stock currently subject to aboriginal whaling in turn.

GREENLANDIC STOCKS

The Scientific Committee had agreed that while providing advice on the Greenlandic fisheries was a matter of the highest priority, it had never been able to provide satisfactory advice on those stocks due to the lack of the requisite data, particularly on stock identity and abundance. This was not intended as a criticism of Greenlandic scientists, but as a positive contribution to future work, recognising the enormous practical and logistical difficulties faced by them. The Chairman of the SWG referred to the rationale and need for intensive research on Greenlandic stocks. The Scientific Committee had strongly recommended the proposal to establish a Working Group to develop a costed research programme for Greenlandic stocks in cooperation with Greenlandic scientists. He noted that the Committee should be in a stronger position to develop a timetable for providing a recommended *SLA* for this multi-species fishery when the results of the research programme begin to become available.

BERING-CHUKCHI-BEAUFORT SEAS STOCK OF BOWHEAD WHALES

The Scientific Committee noted that the Commission had established catch limits for this stock until the year 2002. It therefore agreed that its goal would be to recommend an *SLA* for this fishery to the Commission by that year. It hoped to be able to give the Commission more advice on whether this was achievable after its next meeting.

EASTERN STOCK OF GRAY WHALES

The Scientific Committee noted that the eastern stock of gray whales is essentially a fishery type 2 stock; a single *SLA* (or minor variants) should be applicable to both gray and bowhead stocks. The Commission had also set catch limits until the year 2002 and again the Scientific Committee agreed that its goal should be to try recommend an *SLA* by that date.

ST VINCENT AND THE GRENADINES HUMPBAC WHALES

The SWG has not yet considered this fishery in any detail. The Scientific Committee is intending a major review of North Atlantic humpback whales at the 2000 meeting that will be relevant to the development of an *SLA* for this stock.

10.2.2 Discussion

Regarding the development of the AWMP, the Netherlands indicated the importance of comparing it to the RMP to determine if there is uniformity in the different procedures.

The SWG Chairman responded that the Scientific Committee recognised the value that some delegations placed on being able to compare the AWMP with the RMP. As was agreed last year, the Scientific Committee placed the highest priority on developing *SLAs* that met the objectives set by the Commission for the fisheries of concern. Once that had been achieved it would be in a position to develop trials to enable a comparison with the RMP to be made. In addition, the Scientific Committee agreed in principle that it would be preferable to have a generic *SLA*. However, it believed that this was extremely unlikely to be the case if the Scientific Committee was to satisfy the Commission's objectives to the greatest extent possible for the fisheries of concern.

Denmark sympathised with the SWG's view. The Netherlands noted that one of the forms of tuning in the AWMP called depletion tuning is an approach very similar to the RMP development.

The SWG Chairman commented that the Scientific Committee had agreed to present the results of both depletion tuning (which had been used in the RMP development process) and H-tuning (a new approach that the Scientific Committee agreed was promising and which can enable a combination of all the Commission's objectives to be incorporated into the tuning process). He reiterated that the Scientific Committee recognised that the highest priority had been assigned to the risk objective by the Commission. The Scientific Committee places great emphasis on consultation with the Commission throughout the development process and it recognised that it was the Commission that should ultimately decide on the level of trade-offs among the three objectives; as in the RMP development process it would provide the Commission with a range of options to aid it in making its choice.

The UK commented that this is a very difficult area on which to provide guidance, as it appears there is likely to be an inherent trade-off between uniformity and attaining performance using H-tuning. It commented that the goal is to attain the greatest uniformity with the highest level of performance. In recognition of this goal, the Chairman of the Sub-committee suggested that the SWG should provide the Sub-committee with a range of options that identify the options for this trade-off. This would enable the Sub-committee to provide clear guidance to the Scientific Committee and ensure that the Sub-committee plays an active role in making the policy decision on the acceptable level of trade-offs.

The UK agreed with the SWG approach on *SLAs* and noted that for type 1 stocks for which there is very little data, the ICRW Schedule may need to be amended. It indicated, however, that it was premature to consider such matters and it made more sense for this group to focus efforts on non-scientific aspects of such a whaling scheme, such as on the definition of aboriginal whaling.

In the Commission, the UK clarified this statement, that it believes that when it comes to adoption of the AWMP there will need to be substantial changes to the Schedule. That will be an opportune time to look at a number of other issues such as the definition of aboriginal whaling, which is not defined in the Schedule, and perhaps other aspects of management which are not strictly speaking scientific but which should be incorporated into the Schedule.

The Sub-committee confirmed that the process outlined by the SWG was appropriate and should continue.

Regarding the Research Programme on Greenlandic stocks, Denmark noted that it strongly supports the agreement to establish a Working Group that will enable the Scientific Committee to provide satisfactory advice to the Commission. For many years, Greenland has conducted research on large whales in order to be able to evaluate the impacts of its subsistence catches. Hence Greenland recognises the need for scientific information to ensure that its subsistence catches are sustainable. However, it must be kept in mind that not only are survey conditions in Greenland extremely difficult due to the harsh climate, but there are also constraints to the amount of resources Greenland can put into whale research which by nature is logistically, and therefore economically demanding. The type of proposal it expects the Working Group will recommend will be very costly, on the order of £1-2 million, which compared with the population of 55,000

people in Greenland, is a large amount of money. It indicated that the IWC generally approved and recognises the importance of aboriginal subsistence whaling. It looked forward therefore to the IWC finding a solution to the data problem at the lowest possible cost. In addition, members of the IWC may be willing to cooperate in providing funds to make such research possible.

A representative of the Greenland Home Rule Government supported the Danish intervention and confirmed its support of the research, but also noted the geographical and financial hurdles to conducting research in the region.

The Netherlands pointed out that the RMP requires as input data only catch history and absolute abundance data. For stock identity, a range of plausible hypotheses is assumed. It queried whether the research should be more directed at estimating abundance estimates.

The SWG Chairman responded that, as for the RMP, the Scientific Committee would only design *SLAs* that used data it believed were obtainable. This includes abundance data and this will be one focus of the research programme. In the context of the RMP, stock identity data are important in the context of developing plausible hypotheses for the *Implementation Simulation Trials*. This is also true for any case-specific trials for AWMP development. Good information on stock identity will clearly improve the Committee's ability to work towards fulfilling the Commission's three objectives. This is particularly important for the Greenland multi-species fishery where at present information on stock identity is poor.

Norway pointed out that it will be necessary to consult and cooperate with Canada and Iceland, non-IWC members, in order to be able to obtain sufficient data regarding stock structures and stock abundances of fin whales and minke whales in this region.

The Chairman noted that the Sub-committee welcomed the creation of a Working Group of the Scientific Committee to address the critical research needs for the Greenland stocks as outlined in the Scientific Committee report, and looked forward to its report next year.

At this point, the Chairman of the SWG introduced a paper which outlined subject areas upon which the Scientific Committee required direct input from the Commission and, more particularly, hunters. The paper presented three hypothetical scenarios that illustrated possible features (considerable catch variation; considerable catch variation but in a consistent direction; and low catch variation) of *SLA* design that could be incorporated for cases where the stock level, at least initially, was too low to allow total need satisfaction and still fulfil the Commission's risk objective. These scenarios concerned choices related to the question of catch variability and to the weight given to satisfaction of current need versus projected future need. In particular, the Scientific Committee was interested to hear hunters' preferences under such circumstances.

After some discussion in the Aboriginal Subsistence Whaling Sub-committee, it was agreed that these questions involved choices that should be made directly by those engaged in the fisheries, rather than the Sub-committee as a whole, since the scenarios were constructed under the proviso that in no case would the Commission's highest priority objective (related to risk of extinction) be compromised. A group of interested delegations (Denmark, Norway, Russian Federation and USA) was established, to be convened by the Chairman of the SWG. It was agreed that the findings of this group would be incorporated into

the draft report of the Aboriginal Subsistence Whaling Sub-committee, to give other delegations the chance to comment should they so wish.

The Chairman of the SWG clarified that it was his belief that the discussion within the Aboriginal Subsistence Whaling Sub-committee had endorsed the approach that had been outlined by the Scientific Committee for continued development of the AWMP.

The second issue concerned the question of multi-species fisheries. The Chairman of the SWG stated that it was at an early stage in its consideration of this issue. He described one potential approach that involved a two-stage process:

- (1) estimation (using single species *SLA(s)*) of 'upper strike limits' on a species by species basis, to ensure that the risk objective is met;
- (2) superimposition of a multi-species *SLA* to enable greater need fulfilment and improve recovery rates over a single-species *SLA*.

The Scientific Committee has not yet examined this approach using simulation trials or determined principles for weighting allocations by species within the multi-species *SLA*. A number of suggestions have been made for this (these are not necessarily mutually exclusive and combinations can be chosen). The Aboriginal Subsistence Whaling Sub-committee agreed that this matter should also be referred to the group.

In the group, six points were noted.

- (1) Advice on these issues should be case-specific.
- (2) The examples referred to scenarios in which fulfilment of the risk objective meant that total need satisfaction could not be reached, at least in the short term. The group agreed that it was unlikely that this would be applicable to the bowhead whale and gray whale cases of the USA and Russian Federation. It was recognised that if need requirements increased substantially in the future, then it was possible that this may become applicable. Should these increased need requirements fall outside the agreed 'need envelopes', additional trials would be required and case-specific advice could then be provided.
- (3) In general, all fisheries would consider that catch limit variability was not a desirable feature (noting that environmental conditions might mean that catches themselves might of necessity vary considerably from year-to-year).
- (4) For the Greenland fisheries, Denmark believed that hunters would prefer catch limit stability, and give priority to current need satisfaction over projected need satisfaction. In such circumstances, (3) would probably be preferable. However, it would consult with hunters when it returned home and provide more specific advice directly to the AWMP intersessional e-mail group via its scientists.
- (5) At present, the issue of multi-species fisheries was only applicable to Greenland. From the hunters perspective, Denmark noted that ranking by species was desirable. It would again consult with hunters after the meeting and provide more specific advice via the e-mail group. Its preliminary advice was that minke whales would be the highest ranked species, followed by fin whales. If catch limits for humpback whales were reintroduced, it believed that they would be middle ranked. When providing more specific advice, it would attempt to quantify the rankings by assigning preferred catch numbers for each species. When considering these

preferences, it believed that hunters would probably prefer a multi-species *SLA* that balanced greatest current need satisfaction (in terms of tonnes of meat) with: (i) the ranking by species/number, and (ii) recovery rates by species that enabled the fastest growth towards total need satisfaction.

- (6) It was possible that in the future, multi-species issues may also apply to the Russian Federation. For example, certain villages had a preference for bowhead whales over gray whales.

10.2.3 Action arising

No specific action was proposed.

10.3 Review of aboriginal subsistence whaling catch limits

10.3.1 Report of the Scientific Committee

10.3.1.1 BERING-CHUKCHI-BEAUFORT SEAS STOCK OF BOWHEAD WHALES

As promised last year, the Scientific Committee had conducted a major assessment of this stock using four methods. The results were similar in three out of the four. They demonstrated that the population appears to be near the Maximum Sustainable Yield (MSY) level, and would probably increase under catches of up to 108 animals. In terms of Schedule paragraph 13(a), appropriate catch levels in these circumstances should not exceed 90% of MSY. The calculations reported therefore indicate that it is very likely that a catch limit of 102 whales or less would be consistent with the requirements of the Schedule.

There was no discussion in the Aboriginal Subsistence Whaling Sub-committee under this Item, but in the Commission Japan outlined the background to the establishment of the new category of aboriginal subsistence whaling in 1978. It related this to reflect on peoples who had been conquered, and believed whaling is needed socially and culturally under certain management systems. It thought aboriginal whaling should conform to the RMP, especially for gray whales where the stock is above the MSY level, and believed it to be wrong to admit only this category.

France responded that regardless of the appellation, the concept of aboriginal subsistence should be kept.

10.3.1.2 NORTH PACIFIC EASTERN STOCK OF GRAY WHALES

The Scientific Committee had no changes to the recommendations made at last year's meeting, when a detailed assessment was undertaken. Last year, the Committee advised that a catch of up to 482 whales is sustainable and likely to stabilise above MSY Level.

New Zealand commented that the Makah tribe have not yet drawn on the quota and asked if the domestic legal challenge to the Makah quota is likely to prevent them from whaling. The USA responded that, while there is a legal challenge on procedural grounds, the ruling is expected as soon as August 1998. The USA is confident the court will uphold the US Government position and that the hunt will commence as planned in Autumn 1998.

10.3.1.3 NORTH ATLANTIC WEST GREENLAND STOCK OF MINKE WHALES

No assessment had been undertaken this year by the Scientific Committee. Advice regarding this stock is addressed under Agenda Item 10.2.1, as is the Danish intervention concerning the Scientific Committee advice.

10.3.1.4 NORTH ATLANTIC HUMPBACK WHALES

The Scientific Committee Chairman reported that no assessment of this stock was undertaken and therefore there was no change to the Scientific Committee's advice regarding this stock. He drew the Aboriginal Subsistence Whaling Sub-committee's attention to the fact that the Scientific Committee will undertake a Comprehensive Assessment of North Atlantic humpback whales at its meeting in 2000.

St Vincent and The Grenadines said it had taken two humpback whales this season, but as the season was not yet over, the takes would not be officially reported to the Commission until next year. While it was open to a general discussion, it noted that a discussion regarding the status of the stock would be more fruitful next year after the Scientific Committee will have benefitted from reviewing the research on the stock and the report of the Government's Fisheries Ministry regarding the taking of the whales.

New Zealand stated that the Scientific Committee this year had received information suggesting that the density of humpback whales in the Windward Islands might be low.

Following up on concerns raised in the previous year, Australia indicated it had concerns beyond the scientific aspects of the hunt. It noted the historical change in the aboriginal whaling operations. In 1989, the Commissioner for St Vincent and The Grenadines stated his country did not want to continue whaling in the future. In 1990, the Commissioner stated that St Vincent and The Grenadines would stop whaling when the single 69-year old harpooner passed away. The report by St Vincent and The Grenadines this year indicates that there is no longer a single harpooner. There is now a new harpooner with a new boat. Australia argued that this changed the nature of the hunt. It also raised concerns over the method used to hunt the animals since it understood that St Vincent and The Grenadines hunts calved pairs of whales. Unlike other aboriginal subsistence whaling operations, it noted that this is a method of catch which has not been examined for its humaneness. As a result of the aforementioned changes in the nature of the hunt, Australia will expect a much more detailed justification of the hunt next year.

The Netherlands indicated its support of Australia's intervention.

St Vincent and The Grenadines insisted once again on its rights to harvest its quota. It recognised, however, that despite this, the Scientific Committee would be asked to look at the relationship between the cow and calf because these terms are not clearly defined in the Schedule.

The UK supported Australia's comments. It noted that that when the quota was agreed to in Aberdeen in 1996, there was no needs statement. It was approved nonetheless, due to the lack of success in the hunt. The UK noted that the next time St Vincent and The Grenadines requests a quota, it would have to produce a needs statement and would have to address the humane aspects of the hunt in the Humane Killing Working Group, particularly concerning the cow/calf techniques used in the hunt.

Japan noted that the whale taken was a large female whale, which was not lactating. It also stated its belief that the topic of humane killing was outside the competence of the IWC and that local cultural traditions should be respected.

Australia responded that it believed that the IWC did have competence to discuss whale killing methods. It referred to the references to that effect in the International Convention for the Regulation of Whaling and the Schedule and the fact that there was ample precedent for this.

Japan clarified that the issue of humaneness was outside the competence of this Sub-committee.

St Vincent and The Grenadines noted the concerns and indicated it would consider them when preparing its report next year.

The Secretary of the Commission took the opportunity to present a letter from the elderly harpooner in St Vincent and The Grenadines to the Commission written recently indicating his wish to take three whales instead of two in the next season. The Chairman noted the informal nature of the request and advised that, until such a request was put forth by a Government, the letter should only be tabled.

10.3.2 Action arising

The Commission noted that for its long term priorities the Scientific Committee recommended that, while keeping all relevant stocks under annual review, primary attention should be given to intensive assessments of the following stocks at future meetings as follows:

1999 Greenlandic research programme and stocks of bowhead whales other than the Bering-Chukchi-Beaufort stock;

2000 North Atlantic humpback whales;

2001 Fin whales off Greenland;

2002 Minke whales off Greenland;

2003 Eastern and western Pacific gray whales;

2004 Bering-Chukchi-Beaufort bowheads.

It was noted that if this recommendation were followed, the Commission would consider the next catch limits for the Bering-Chukchi-Beaufort stock two years before the next intensive assessment. There is a precedent for this. The current bowhead quota was approved last year when the most recent intensive assessment was undertaken this year. The Aboriginal Subsistence Whaling Sub-committee endorsed the Scientific Committee's time line, recognising that if new information comes to light that would provide cause to change the schedule, it could be revised as appropriate.

The Commission endorsed this approach, and noted the comments and concerns of the Scientific Committee on the apparent low abundance of other stocks of bowhead whales, particularly the Baffin Bay/Davis Strait and Hudson Bay, Okhotsk Sea, and Spitzbergen stocks; the Western North Pacific stock of gray whales; and the West Greenland fin whale stock.

11. COMPREHENSIVE ASSESSMENT OF WHALE STOCKS

11.1 Revised Management Procedure

11.1.1 Report of the Scientific Committee

ADDITIONAL VARIANCE

Some years ago the Scientific Committee specified that, to improve its basis for drawing inferences from trends from surveys, IDCR sightings data should be extracted on several spatial scales over the time series of the surveys. This task has yet to be completed. It agreed that it is still important to complete the work. The required data extraction may take up to two weeks using the DESS computer system. The Scientific Committee recommended that this task receive high priority during the intersessional period. It noted that

this was included in the list of tasks to be undertaken in the work of a proposed part-time position at the University of St Andrews.

ABUNDANCE ESTIMATION

At last year's meeting an intersessional Working Group was re-established to test the performance of abundance estimation procedures over an appropriate range of sighting survey factors. During the intersessional period, two additional estimation methods were applied to the simulation datasets. Also during the intersessional period more sets of simulated datasets with different conditions were created and more replicates of all the datasets were (and continue to be) created so that there will eventually be 100 replicates of each set of data.

The intersessional Working Group also began discussions about what topics should be addressed in the near future. It recognised that the remit was broad and so should focus on topics that are the most relevant to abundance estimates that are currently (or will in the near future be) submitted to the Scientific Committee. The Scientific Committee re-established the intersessional Working Group to continue its work testing the performance of abundance estimation procedures over an appropriate range of sighting survey factors.

IWC-DESS

The Scientific Committee established a Working Group to consider the future maintenance, support and development of the IWC-DESS. It proposed that the best way for the Secretariat to ensure the appropriate maintenance, support and development of the DESS is to fund a part-time post at the University of St Andrews. This would have a number of advantages concerning the working environment, flexibility and continuity. The cost to the Secretariat was estimated at approximately £19,000 plus VAT per annum. Routine requests for data from accredited members of the Scientific Committee and international organisations would still be handled by the Secretariat. The Scientific Committee recommended that the proposal be adopted as a matter of priority.

STOCK IDENTITY

It was suggested that it may be useful for the Scientific Committee to reconsider its definitions of the term stock. The importance of the stock definition, or population subdivision, for the purposes of management and conservation of whale resources by the IWC is obvious. Under the New Management Procedure (NMP), the IWC managed the different whale species using specific 'management units'. An example of these 'management units' is the six management Areas in the Southern Hemisphere used by the IWC to manage the baleen whales species (except Bryde's whale).

To date, most studies on stock identity of large whale species have attempted to test hypotheses that IWC management units (management stocks) correspond to biologically defined entities (biological stocks). There has been substantial development in techniques useful for determining stock structure in recent years, especially genetics-based methods. The Scientific Committee agreed that, given this development, it would be useful to undertake a review with the goal of establishing more useful definitions of the term stock.

An *ad hoc* Working Group was established to develop terms of reference for such a review, and to outline the tasks that it may be useful to address overall in such a review. The

Scientific Committee agreed that a Steering Group should work intersessionally to further the work and present an update to the next meeting of the Committee. An intersessional workshop was proposed and may be necessary after the next meeting.

11.1.2 Action arising

The Commission noted and accepted all these actions.

11.2 Whale stocks

11.2.1 Report of the Scientific Committee

11.2.1.1 SOUTHERN HEMISPHERE BALEEN WHALES

BLUE WHALES

The Scientific Committee noted that it had not been possible to develop revised estimates of blue whale abundance from the IDCR/SOWER cruise programme in time for this meeting. It looked forward to receiving such estimates at its next meeting.

The Scientific Committee stated its concern that reliable distinction between 'true' and pygmy blue whales in the field was becoming increasingly important, given that the results of the 1996/97 SOWER cruise had indicated that the simple geographical separation of the two forms in summer previously used may no longer be entirely valid. This means that sightings estimates in high latitudes in summer may contain some proportion of pygmy blue whales.

The surfacing behaviour of putative 'true' and pygmy blue whales had been recorded on the first two (1995/96 and 1996/97) blue whale cruises, using high-resolution digital video recording, and an analysis of sounds recorded in the vicinity of blue whales off Chile on the 1997/98 blue whale cruise was reported.

A summary of what the IDCR/SOWER cruises to date could tell about acoustic distinction between 'true' blue and pygmy blue whales was provided. All the recordings made in the Antarctic in 1996/97 in the vicinity of putative 'true' blue whales differed greatly from anything recorded on the cruises off Australia in 1995/96, south of Madagascar in 1996/97 or off Chile in 1997/98. Preliminary reports from the 1997/98 Antarctic SOWER cruise suggested that calls similar to those recorded in the Antarctic in 1996/97 had been heard. It therefore appeared that 'true' blue whales may produce different vocalisations from pygmy blue whales.

The Scientific Committee recommended that all blue whale recordings from these cruises should be gathered in one place and put in a format that makes them accessible to researchers. It also agreed that discrimination between 'true' and pygmy blue whales should be a major topic at the Committee's next meeting.

SOWER CRUISES

The Scientific Committee reviewed the report of the 1997/98 IWC/SOWER blue whale cruise, the third to be undertaken as part of the IWC's research programme on Southern Hemisphere blue whales. It recommended that a paper be submitted to next year's meeting, documenting the criteria used on each of the three blue whale cruises for identifying the two blue whale forms, listing the results and the personnel responsible for making the identifications, and providing an analysis of the photographic and video material in support of the criteria used.

Blue whale research was also conducted during the 1997/98 IWC/SOWER cruise to Area IIW, although the primary objective of this cruise had been to estimate the abundance of minke whales.

Following problems experienced on previous blue whale cruises with obtaining biopsies from whales that were difficult to approach, IWC funding was provided to develop a more powerful delivery system.

In the Commission, Chile commented on the high quality of the SOWER programme in which it had participated last year.

RIGHT WHALES

REPORT OF THE CAPE TOWN WORKSHOP

The Scientific Committee received the report of the Special Meeting on the Comprehensive Assessment of Right Whales that was held in Cape Town in March 1998. Mr J. Bannister, who had chaired the Workshop, provided a summary and presented a compilation of the most important recommendations to the Committee. It agreed to endorse all the recommendations contained in the report. However, it gives highest priority to the items listed within the two categories, A and B, below.

- (A) Recommendations with management implications. These are particularly important for those stocks for which the Workshop has expressed concern over status. The Scientific Committee identified ship strikes and incidental entanglements in fishing gear as the most significant causes of human-induced mortality of right whales. The management recommendations are given in Annex O of the Scientific Committee report¹.
- (B) Recommendations for research. The Workshop had made a large number of research recommendations and the Scientific Committee reiterated the value it attaches to all of those recommendations. However, it recognised the need to assign priorities in the context of IWC interest. It agreed with the Workshop that, in particular, this applies to questions associated with the 'trend and condition of whale stocks' and 'measures for the[ir] conservation' (Article IV of the Convention).

In this regard, the Scientific Committee confirmed its view previously expressed, of the extreme importance of maintaining research effort when investigating trends in both abundance and in biological parameters. The Workshop therefore stressed that high priority should be given to the continuation of both demographic photo-identification studies and surveys designed to improve knowledge of absolute abundance and current trends. Similarly, high priority should be given to the processing and analysis of such data. This is particularly important for the western North Atlantic where there are serious concerns over the status of the stock.

The Scientific Committee also noted the need to initiate and improve such studies in areas of identified concentrations where they are either absent or in their infancy. High priority should be given to those areas where it is believed there is most chance of success.

In order to interpret data on trends and abundance it is important to determine appropriate management units. In this context, high priority should be given to stock identification studies that will answer questions believed to be hindering the Scientific Committee's ability to address important conservation questions. Genetic sampling programmes should be initiated where needed, and maintained in areas where increased sample sizes are needed for statistical validity.

¹ *J. Cetacean Res. Manage. (Suppl.) 1: 259-61.*

The Scientific Committee agreed that high priority should be given to research that will lead directly to improved methods of reducing anthropogenic mortality (e.g. reducing ship strikes and fishing gear entanglements) for stocks for which there is concern over their survival, and to research examining environmental factors that affect the fecundity and mortality rates of right whale populations (e.g. food limitation, pollution).

From the genetic standpoint, two questions are of high priority: (1) what are the implications of the low haplotype diversity detected in certain populations; and (2) is the effective population size of right whales significantly lower than the abundance estimates?

Given these priorities, the Scientific Committee recommended that the Commission urges member governments to provide the necessary support, including funding, for the particular research items below.

- (1) Continuation of existing programmes of photo-identification, surveys, etc. for assessing and monitoring population status and the establishment of new programmes; use of computerised techniques for matching photographs should be considered as appropriate.
- (2) Processing and analysis of data collected under (1).
- (3) Development of methodology and application of existing methodology for analysing survivorship and other biological parameters in northwest Atlantic right whales.
- (4) Increased efforts to determine the recent population trajectory of the northwest Atlantic population, including, as a matter of urgency, use of more complex, including stochastic, models.
- (5) Research to determine the current status of right whales in areas of the Southern Hemisphere which were historically important but for which there is no recent information.
- (6) Investigation of two additional Antarctic datasets for trend analysis - JSV sightings data 1965/66-1981/82 and JARPA data 1987/88-present.
- (7) Expansion of research efforts to better understand the status of the North Pacific and eastern North Atlantic populations and any human-related problems they may have, including a further dedicated sighting survey in the Okhotsk Sea following the Scientific Committee's guidelines for surveys.
- (8) Comparative studies to try to determine factors to explain the difference between the Northern and Southern Hemisphere populations reproductive parameters.
- (9) Investigation of problems of stock structure, by ocean basin, i.e. for
 - (a) Western North Atlantic: directed genetic sampling of females on the calving ground, any unsampled animals in Massachusetts Bay and the Great South Channel, and of 'Fundy-none' females; further examination of available information on mitochondrial DNA haplotypes of individual whales to test for heterogeneity in regional re-sighting probabilities, scarring patterns and reproductive success; acquisition of further historical samples for the central and eastern North Atlantic preferably prior to the nineteenth century.
 - (b) North Pacific: further biopsy sampling in all regions; additional analysis of historical samples available in Japan.

- (c) Southern Hemisphere: additional genetic sampling to characterise regional relationships, particularly the calving grounds; sampling from feeding grounds for more reliable allocation of catches to calving stocks; collection of biopsy samples from vessels in programmes such as CCAMLR, SO-GLOBEC and BAS krill surveys; and timely analysis of both extant and future biopsy samples including the large sample from South Africa. Where possible, biopsy samples should be collected from a minimum of 20-50 individuals and should be repeated in at least each of three consecutive years in calving areas.

Although the results of the special meeting represented a major advance in understanding the status of right whales worldwide, the Scientific Committee noted that there were still a number of outstanding questions regarding the status of the population in the western North Atlantic. Although the population was known to be small (*ca* 300 individuals), and well below its unexploited size, its current dynamics were unclear. At the same time, it was subject to a range of anthropogenic threats, including ship strikes and fishery entanglements. The Scientific Committee therefore recommended that the western North Atlantic right whale should be a priority topic for next year's meeting, with the objectives being to establish the current status and dynamics of the population. A three-day intersessional workshop prior to next year's Scientific Committee meeting was proposed. A schedule and a budget that would allow for a number of invited participants to attend was developed by a steering committee.

The Scientific Committee noted that if it is judged that insufficient progress on required analyses has been made in advance of the special meeting for it to be held, they expected that at least relevant papers on progress to date would be submitted to next year's Scientific Committee meeting.

In the Commission, Brazil drew attention to the recommendations for the establishment of new protected areas for right whales, a topic it will be examining very soon; and the establishment of the Southern Hemisphere Right Whale Consortium. New Zealand also commended the latter.

The USA announced that at the forthcoming meeting of the International Maritime Organisation, it will seek strong measures to protect the northern right whale, by requiring commercial ships entering the whale's calving and feeding grounds to report by radio to the US Coastguard which will relay back the latest information on the whales' locations and advise on avoiding collisions.

Japan noted the contribution made to blue whale research by the IDCR and SOWER programmes stemming from the 1993 Kyoto meeting Resolution on blue whales, and the use of Japanese vessels, researchers and funding for this work.

SOUTHERN HEMISPHERE HUMPBACK WHALES ESTABLISHMENT OF SOUTHERN HEMISPHERE DIRECTORY AND ANTARCTIC CATALOGUE

The Scientific Committee recommended that the IWC Secretariat continue with arrangements to create the directory of Southern Hemisphere humpback whale identification photographs, as recommended last year.

ABUNDANCE AND TRENDS

For the first time, humpback whales were the dominant species in Area IV surveyed during JARPA 1997/98. Indices of abundance suggested an increasing density of humpback

whales from 1989/90 to 1997/98. Sightings from Area IV during the 1995/96 summer were made from the Australian ice-breaker *Aurora Australis*, which was carrying out a krill acoustic survey. During the 1997/98 summer, sighting surveys were carried out in the Antarctic Peninsula area from the Brazilian Antarctic supply ship *Ary Rongel*, using line transect methodology. An analysis of the sightings of humpback whales made on two and an incomplete third circumpolar IDCR/SOWER survey, covering the period 1978/79 to 1995/96 was also considered. The results indicated an increase from 7,500 humpback whales in the first set of surveys to 11,800 in the second set and 15,700 whales in the third (as yet incomplete) set of surveys.

The Scientific Committee noted that conclusions on possible rates of increase should not be based on comparisons by Area, as these estimates had large CVs and were subject to possible additional variance due to inter-survey shifts in distribution.

Catches of humpback whales by modern whaling in the Southern Hemisphere were reviewed, along with the number of catcher vessels operating in each of a number of whaling grounds. Data were obtained from both published and unpublished sources, but did not include the undeclared catches of humpback whales by either the Soviet fleets or the *Olympic Challenger*. Crude catch per unit effort (CPUE) indices were calculated as annual catch per catcher vessel for each ground. Most grounds showed marked declines in the initial 10 years of whaling followed by either (1) closure of the ground, with some subsequent recovery of the stock, or (2) low catches until the cessation of humpback whaling in October 1963. Estimates of abundance and population trends from after 1963, show Southern Hemisphere populations to be undergoing some recovery in all areas where surveys have been undertaken.

STOCK STRUCTURE

Two genetic papers were considered describing the distribution and worldwide diversity of humpback whale mtDNA lineages. The Scientific Committee recommended that dedicated surveys should be carried out to establish the status of humpback whales in the northwest Indian Ocean, and that these should include the collection of biopsy material from which the genetic relationships of this stock could be investigated.

FURTHER INFORMATION ON CATCHES

Several previously unreported mark recoveries from the Soviet factory ship *Slava* in the Southern Hemisphere were reported. From 1955-66, 51 recoveries (25 humpbacks) had been found: only six of the humpback records had been reported previously. These are probably only a small fraction of the number of recoveries actually made. The need to obtain further information on mark recoveries and marks fired under the Soviet scheme was stressed. The Scientific Committee thanked Dr Y. Mikhalev for his efforts, and urged him and his colleagues to continue their invaluable work in retrieving catch and marking data from previous Soviet whaling operations.

FUTURE SPECIAL MEETING

The Scientific Committee noted progress in a number of areas in the assessment of southern hemisphere humpback whale stocks, as reported above. While work is still required to complete many of those tasks, it noted that little or no action has yet been possible, given the short interval between the Annual Meetings (and for other reasons) on a number of other tasks recommended last year.

- (i) Acquisition and entry of revised Soviet catch data - Secretariat - no new data have been acquired.
- (ii) Investigation of the availability of original Soviet scheme marking data - Secretariat - ongoing.
- (iii) Creation and maintenance of a centralised directory of Southern Hemisphere humpback whale photo-identification catalogues - Secretariat - action required.
- (iv) Collection of biopsy samples from three main strata: breeding ground, feeding ground, migratory corridor - national groups - some action.
- (v) Monitoring of abundance to continue or be initiated where no survey programme exists - national groups - new survey data have been reported this year.
- (vi) Inclusion of humpback whales as targets for biopsy and photo-identification in future Antarctic survey expeditions in the South Georgia region - national groups - no action reported.
- (vii) Researchers in photo-identification programmes to evaluate the likelihood of obtaining estimates of biological parameters - national groups/individual scientists - no results reported.
- (viii) Comparison of currently observed increase rates to be considered in conjunction with a review of demographic parameters for Southern Hemisphere humpbacks and a comparison with information on increase rates and demographic parameters for North Atlantic and (North Pacific) populations - Scientific Committee - no action. The Scientific Committee established an intersessional working group to consider the item.
- (ix) Progress report on retrieval of detailed Soviet catch data - relevant scientists - no action reported.

In light of these outstanding matters requiring action, the Scientific Committee agreed that it would be in a better position at next year's meeting to decide when a Comprehensive Assessment might occur. Experience gained during the preliminary assessment to be considered at that meeting should also assist in identifying important issues to be settled before the Comprehensive Assessment could take place.

In the Commission, Japan emphasised the valuable results being obtained from its JARPA programme, including sightings for abundance estimates and genetics from the catches under Special Permit.

11.2.1.2 NORTH PACIFIC MINKE WHALES

At its 1996 meeting, the Scientific Committee developed a set of *Implementation Simulation Trials* for North Pacific minke whales and recommended that the Secretariat develop a computer program to implement these trials and then conduct them. The trials involve 13 sub-Areas in the North Pacific and consider two hypotheses regarding the number of breeding stocks of minke whales in the North Pacific. At this year's meeting, the sub-committee on the Revised Management Procedure established a Working Group to finalise the specifications for the trials, taking into account discussions during the meeting.

UNCERTAINTY OVER CATCHES

The *CLA* states that 'known 'indirect' catches, e.g. whales killed through entanglement in fishing gear, should also be included in the catch history' in the RMP. Although it was generally agreed by the Commission last year that, as far as possible, the *CLA* should be used 'to determine the allowable removals and then take account of all known human-induced

mortalities', other views were also expressed. The Scientific Committee therefore agreed that trials should be conducted in which: (a) the incidental catches are taken over and above commercial catches as set by the RMP; and (b) in which the removals from each sub-Area are the maxima of the incidental catches and the catches set by the RMP. This last case corresponds to the assumption that the RMP catch limits cover all non-natural removals.

SIGHTINGS SURVEY PLANNING - REPORT OF INTERSESSIONAL WORKING GROUP

Last year, an intersessional North Pacific Sighting Survey Steering Group (NPSSSG) was established and addressed several issues. The Scientific Committee noted that the proposed determination of dive times using visual observations was not recommended as it is difficult to be confident about tracking individual animals as some surfacings may be missed. It recommended the use of other approaches such as monitoring diving using VHF telemetry. The use of binoculars for searching and distance estimation was discussed. The Scientific Committee recommended that the experiments and testing of estimation of angles and distances should be conducted using the same methods as in the actual survey.

The Scientific Committee considered the requirements for participation of a member of the Committee in this survey. It agreed that Scientific Committee representation on the planned survey should take the form of participation of a scientist with active experience of surveys of the type proposed (hazard probability approach) and other methods that may be incorporated.

The Scientific Committee reiterated from last year its strong recommendation that the survey includes waters within the Russian EEZ in order to provide the necessary coverage. It recommended that the Commission requests the relevant authorities of the Russian Federation to grant permission for the vessels to operate in their EEZ. The Committee agreed that, if permission is not granted, additional trials should be specified to represent a worst case scenario that no surveys would be conducted in, and no future catches would be taken from, the Russian EEZ in this sub-Area. More generally, the Committee agreed that this recommendation should apply to all relevant countries in similar situations for all such surveys in the future.

REVISION OF TRIALS SPECIFICATION

The Scientific Committee considered the new information regarding stock structure for North Pacific minke whales in the context of whether it implied that changes had to be made to the specifications of the *Implementation Simulation Trials*. The Committee agreed, as a matter of expediency, to use the results of trials for North Pacific minke whales to limit the extent of future trials in this manner. It noted that it has not finalised discussion on the relative plausibility of the hypotheses underlying the trials. It also agreed that further discussion would be needed of how results of trials were best evaluated for scenarios with differing relative plausibilities and those for which there were differences of opinion about plausibility, when the results became available.

The Scientific Committee agreed the revised specification for North Pacific minke whale *Implementation Simulation Trials* and recommended as a high priority that the Secretariat conduct the trials during the intersessional period and report the results to next year's meeting.

Two years ago the Scientific Committee had established a Steering Group to consider and resolve any inconsistencies that remained when the trials were conditioned and run and make decisions about the choices. It re-established this Steering Group with the following Terms of Reference:

- (1) to review results of the specified initial trials intersessionally by correspondence;
- (2) to advise the Secretariat of those trials that need not be carried out if the initial results are not sensitive to the differences among the associated hypotheses being tested;
- (3) to effect minor amendments to the specifications as may be necessary to match the conditioning requirements therein.

In the Commission, Japan pointed out that its Special Permit research catches were providing useful data, particularly to test the stock identity hypotheses.

The Republic of Korea expressed its concern over the use of the name 'Sea of Japan', which it prefers to call the East Sea, and suggested that both names should be used until the matter is resolved. The Secretary commented that he had asked for advice on this matter from the UN, but no agreement has been reached there yet. Japan indicated that it had counter arguments to those of the Republic of Korea, and also pointed out that the stocks under discussion were not in this area.

11.2.1.3 NORTH ATLANTIC MINKE WHALES NORTHEASTERN STOCK

Two years ago it was agreed that additional analyses should be undertaken with respect to the estimates of abundance for northeast Atlantic minke whales from the NASS 1989/90 and NILS-95 surveys. An intersessional Steering Group was established to undertake the analyses but although significant progress was made by that Group at last year's meeting, definitive answers were not reached. Consequently, the Steering Group was asked to continue work on these issues intersessionally.

Overall, the Scientific Committee agreed that the comparative results from the different implementations, combined with the other additional new information, meant that the task of undertaking additional analyses with respect to the estimates of abundance for northeast Atlantic minke whales from the NASS-89/90 and NILS-95 surveys, as defined at the 48th Annual Meeting, had now been completed. It further agreed that the results from these analyses do not indicate any problem with the estimates in terms of the issues that had been raised at the 48th Annual Meeting and supported the Committee's previous conclusion that the abundance estimates are adequate for use in the RMP.

CENTRAL STOCK

Last year, the Scientific Committee had noted an apparent discrepancy between the previously accepted abundance estimate for the NASS-87 Icelandic aerial survey block and a recent reanalysis of these data. Following consideration of the source of this discrepancy, the Committee agreed that the previously accepted estimate should remain (pending resolution of the matters raised). The Scientific Committee noted that the data from this survey had been provided for use during the current meeting. However, no arrangements were in place for continuing access. It agreed that if the estimate is to be used in the implementation of the RMP, then the data would need to be available on a continuing

basis in accordance with the Requirements and Guidelines for Conducting Surveys and Analysing Data within the Revised Management Scheme. This was considered critical in order that issues, such as those raised in the discussion, could be examined further, if necessary, whenever they arise.

11.2.1.4 SOUTHERN HEMISPHERE MINKE WHALES

The Scientific Committee received a report on work to address outstanding issues regarding the Japanese Research Programme in the Antarctic (JARPA) that had been raised at last year's meeting. This included: developing methods to correct bias in abundance estimates; stock definition; statistical analysis of mtDNA; a pilot study on nuclear DNA; availability of low-latitude genetic material; analysis of morphometrics; examination of stock boundaries between Areas IV and V; a segregation study; recalculations of biological parameters by biological stock; and a mesoscale survey plan for ecosystem and environmental change. In addition, the Scientific Committee had discussed the availability of samples from past commercial whaling for stock identification analysis and the problem of representativeness of samples. Although the interval since the last meeting had been unusually short, the Scientific Committee found it helpful to receive this progress report, and looked forward to more detailed responses at its next meeting.

The Scientific Committee also received the cruise report of the 1997/98 SOWER Antarctic cruise in Area IIW (60-30°W and south of 60°S). Japan had supplied two research vessels and for the first time four researchers were carried on each. The Scientific Committee expressed its thanks to the Japanese Government for the generous provision of these vessels for both this cruise and the SOWER blue whale cruise, and to the participating researchers for their efforts.

The 1997/98 JARPA survey had been conducted in Area IV and the eastern part of Area III. One dedicated sightings vessel and three sightings/sampling vessels were engaged in a closing mode sightings survey. The proportion of sexually mature animals was very low amongst the females (22.7%) in Area IV, and immature females dominated in the southern stratum. It was suspected that most of the mature females had moved into ice-free waters inside the pack-ice edge where the research vessel could not enter. It was suggested that one of the probable reasons for the character of the present survey results was the different shape of the ice edge.

In discussion, the question of the implications of the apparent environmental effect on the observed maturity rate in females was raised, particularly as it related to the success of the JARPA programme in obtaining representative samples. It was not known whether the trend would continue, and further study was needed to compare the data with previous results.

Field characters for distinguishing between the two forms of southern minke whale were described and illustrated. This is important if abundance estimates from sightings surveys are to be correctly allocated. The results of RFLP analysis of the mitochondrial DNA in minke whales from Areas V and VI sampled during the 1996/97 JARPA survey were also presented. VPA analyses of Southern Hemisphere minke whales in Areas IV and V concluded that constant pre-exploitation recruitment was consistent with the basic input data and population dynamics model used. The Scientific Committee recommend that both (a) age and sex distributions as a function of latitude and longitude on a fine

scale and (b) sensitivity tests encompassing a range of selectivity patterns, should be considered further at its 1999 meeting.

In the Commission, Japan again reiterated its view that JARPA is carrying out basic scientific work for the Scientific Committee and providing useful data, especially concerning the two stocks in the research area, and the segregation of males and females. It regretted that the Commission prevented the implementation of the RMP for these whales, which had been requested by a Contracting Government, and it would propose a Resolution under Agenda Item 17.

11.2.1.5 NORTH PACIFIC BRYDE'S WHALES

SPECIFICATION OF IMPLEMENTATION SIMULATION TRIALS

The Scientific Committee completed the Comprehensive Assessment of North Pacific Bryde's whales at its 1996 meeting and recommended development of *Implementation Simulation Trials*; this recommendation was accepted by the Commission. At last year's meeting, the Scientific Committee considered information about stock identity and historical catches of North Pacific Bryde's whales. It identified seven tasks which, if completed during the intersessional period, would assist in the development of *Implementation Simulation Trials*. An intersessional e-mail correspondence group was established to facilitate completion of these tasks.

Three hypotheses had been proposed concerning the local form of Bryde's whale:

- (1) only the ordinary form is found in stock division (b), as defined in the 1996 Comprehensive Assessment;
- (2) animals of the local form are found around oceanic islands within this division; and
- (3) Southern Hemisphere Bryde's whales move into division (b) occasionally.

There was neither sufficient time to finalise discussion of the plausibility of the three hypotheses, nor, therefore, to finalise agreement on how to model the structure of inshore and offshore Bryde's whales in and around major island groups.

After considerable discussion of the available data and the areas to which they pertained, the Scientific Committee agreed an appropriate boundary for the western stock of North Pacific Bryde's whales for the purposes of the RMP. This specifically excluded the area to the south of the Hawaiian Islands and east of 180° from which there were no data. The Scientific Committee further agreed that there should be two sub-Areas in this stock area divided by 180° which would allow the testing of two alternative stock hypotheses:

- (1) there is only one offshore stock of Bryde's whales in the western stock area;
- (2) there are two offshore stocks present in the sub-Area to the east: a western stock and an eastern stock.

The Scientific Committee agreed that the detailed work of specifying trials was best conducted at a separate meeting and recommended that such a meeting take place intersessionally.

SIGHTINGS SURVEY PLANNING

The Scientific Committee noted that it was planned for future sightings surveys to cover the entire western stock area as defined over a four year period, and it strongly recommended that the surveys include waters within the

EEZs of the Federated states of Micronesia, the Republic of the Marshall Islands and the USA in order to provide the necessary coverage. The Secretary informed the Scientific Committee that he had received a letter from the government of the Marshall Islands granting permission to conduct surveys in its waters.

In the Commission, Japan welcomed the work of the Scientific Committee, and requested that the implementation trials should be carried out.

11.2.1.6 OTHER STOCKS

NORTH ATLANTIC HUMPBACK WHALES

The Scientific Committee received an update on the status of information on the North Atlantic humpback whale. Considerable progress had been made, including papers published, in press or in preparation on abundance, trends, population structure, migration and breeding grounds, and catch data. The most important papers from the YONAH (Years of the North Atlantic Humpback) project are expected to be available by the end of 1998.

It was stressed that while every effort would be made to construct as comprehensive a catch history for the North Atlantic as possible, it was likely that the total catch will never be known completely, and this would constrain what could or could not be done in the Comprehensive Assessment.

Apart from an incomplete catch history, two main gaps for an assessment were identified: (1) lack of information on the distribution and abundance of humpback whales in the southeast Caribbean (Windward Islands) and off the Cape Verde Islands; and (2) their relationship to humpback whales in the rest of the North Atlantic. The Scientific Committee recommended that the possibility of collaborative research on humpback whales in the southeast Caribbean be explored with national authorities in the area, and the use of combined acoustic and visual methods be investigated to facilitate the collection of abundance and individual identification data.

Given the progress noted above, and the likely time frame for the availability of other analyses, the Scientific Committee recommended that a Comprehensive Assessment of North Atlantic humpback whales be carried out in 2000. Since this population is subject to a small aboriginal take at Bequia in the West Indies and had in the recent past been subject to an aboriginal hunt in Greenland, there was justification in giving the Comprehensive Assessment of this stock priority over other humpback whale stocks.

NORTH PACIFIC HUMPBACK WHALES

The North Pacific Humpback Whale Fluke Catalogue maintained by the National Marine Mammal Laboratory, Seattle, contains over 24,000 photographs and 1,010 resights of individual whales from at least a five-year period have been found, with resights spanning 20 years. The catalogue is being used to examine calf mortality and average reproductive interval.

A mark-recapture analysis for North Pacific humpback whales from the years 1991-1993 was considered, although the paper itself was not available to the Scientific Committee. The results are accompanied by caveats, but the authors presented an estimate for the whole North Pacific between 1991 and 1993 of approximately 6,000, considerably higher than those previously received by the Committee. The Scientific Committee encourages the submission of papers or reports on the above work when it next considers this population.

SPERM WHALES

The Scientific Committee received the report of the intersessional sperm whale group set up at last year's meeting to review plans for a Comprehensive Assessment of sperm whales. The group recommended starting with a focus on North Pacific sperm whales. The following studies were proposed:

- (1) a review of mark-recapture data and joint US-Japanese genetic studies;
- (2) a preliminary abundance estimate for the western North Pacific, based on sightings;
- (3) a review of past abundance estimates and models;
- (4) a review of historical catch data;
- (5) a review of sperm whale regulation in the North Pacific;
- (6) life history, social behaviour, ecosystem considerations and current anthropogenic mortality.

A number of papers relevant to the studies recommended in the report of the intersessional group were presented. These included estimates of current abundance and distribution of large male sperm whales in Antarctic Areas IV and V using sightings data from JARPA surveys, 1989/90 to 1995/96; and an analysis of IDCR/SOWER sperm whale sightings between 1978/79 and 1995/96, the first, second and third (incomplete) circumpolar sets of surveys. The Scientific Committee agreed that although it was highly unlikely that $g(0)$ for sperm whales was 1.0 given their diving behaviour, it was not appropriate to adopt a lower value until the assumptions behind its calculation had been thoroughly examined. It was also probably not advisable to apply a $g(0)$ estimate from one geographical region to the species as a whole.

An analysis of sightings data obtained from Japanese sighting vessels in the North Pacific between 1982 and 1996 (1,412 sightings of 5,310 sperm whales), and a combined visual and acoustic survey for sperm whales conducted in the eastern temperate North Pacific between March and June 1997 was received. In discussion, acoustic estimation of school size was considered. Despite identified possible difficulties, the Scientific Committee recognised the potential value of acoustic techniques in estimating sperm whale abundance and recommended that researchers cooperate and integrate their results to the greatest extent possible; it encouraged the submission of further papers on the topic to future meetings.

The Scientific Committee agreed that a major topic of the Comprehensive Assessment should be a discussion of the best method of assessing sperm whale abundance.

A progress report on genetic data for North Pacific sperm whales revealed that the mtDNA control region and six microsatellites were being investigated in historical samples from the Japanese whaling industry and in contemporary samples, for example from biopsies and strandings. The Scientific Committee recommended that the use of sperm whale teeth for genetic analysis be examined further, and that the collection of material from mass strandings of sperm whales should be strongly encouraged.

A paper on Soviet catching of sperm whales in the Arabian Sea and biological information from the catch showed that two Soviet expeditions took a total of 954 sperm whales including 750 females over four seasons (1963-66), but only reported a catch of 424 whales including 75 females to the Bureau of International Whaling Statistics (BIWS). Evidence was presented that this population was separated from the rest of the Indian Ocean. Although extensive marking of sperm whales had

occurred in the area, there had been no recoveries in the data available to the author. Little biological material remained from these catches.

There was considerable discussion in the Scientific Committee on the issue of the reliability of whaling statistics. Two types of problem were identified: those that were evident from close inspection of the data (e.g. stretching of whale lengths, rounding errors in foetal lengths, unreliable stomach contents) and those that were not (e.g. under-reporting of catches, incorrect species identification). For two cases of under-reporting where the USSR had not reported catches of humpback and right whales, the Scientific Committee (*Rep. int. Whal. Commn* 39:34) had stated that:

'Users of the data base should be made aware of such problems, and it was suggested that others familiar with the data collection process for their national industry (or that of another region) should be encouraged to provide specific information.'

The database referred to is the IWC catch database held by the Secretariat.

Subsequently, evidence of a major falsification of Soviet catch records has emerged and a review of the true USSR Southern Hemisphere pelagic records was presented to the Scientific Committee in 1994. At that time the Committee

'Expressed its appreciation for the efforts of Zemsky and his colleagues in locating and securing these extremely important records that go back for many decades.' (*Rep. int. Whal. Commn* 45:62)

and

'encouraged the Russian scientists to provide the Commission with a report that provides the general background to the Soviet whaling operations and the revised catch statistics.' (*Rep. int. Whal. Commn* 45:63)

At this year's meeting a number of papers presenting new information on falsified sperm whale catch records were discussed. The Scientific Committee agreed that the official Soviet Southern Hemisphere catches should be removed from the IWC database.

After considerable discussion, two views on how to address this issue emerged. Despite this disagreement, the whole Scientific Committee agreed to request the Commission again, as they had in IWC Resolution 1994-6, to invite member governments to examine data on their past whaling operations for inaccuracies or falsification, and provide any revised data to the Commission.

The Scientific Committee agreed that work should continue on resolving questions regarding the catch history since catch data that were as accurate as possible would be needed for the eventual assessment.

Considering the many difficult tasks that must be completed before a Comprehensive Assessment of the North Pacific sperm whale stock will be possible, the Scientific Committee agreed to consider sperm whales next in 2000 (abundance estimation methods) and 2001 (stock structure).

In the Commission, New Zealand expressed its concern over the falsification of past data, and reserved its position to say more under the RMS (Agenda Item 12). Japan commented on the allegation of the manipulation of records. The provision of data is the responsibility of Governments, and no primary data had been presented to the Government of Japan, even though it was willing to look into any problems with the data.

11.2.2 Action arising

The Commission took note of all the comments from the Scientific Committee and endorsed its specific recommendations. The UK indicated that it would put forward a Resolution later in the meeting.

When it introduced the Resolution on Norwegian whaling, cosponsored by Brazil, Italy, Monaco, Netherlands and the USA, the UK explained that it did not challenge Norway's legal rights, but as last year expressed concern over its commercial whaling. Denmark was saddened because it had hoped this year for a step forward on small-type coastal whaling, and they felt that the Norwegian tradition was sustainable. The USA was opposed to commercial whaling and therefore supported the Resolution.

Norway responded that despite some changes, the substance of this Resolution was the same as in earlier years. Norway followed the RMP, using agreed abundance estimates as a basis for the quotas, as would the IWC. It believed that Commission policy is dictated by countries which will not accept commercial whaling. It could not accept the Resolution and stood by its sovereign rights which are in full compliance with its international obligations.

Japan proposed a series of amendments to delete the second and third preambular paragraphs and to revise the operative paragraph of the Resolution to reaffirm the legality of the whaling activities conducted by Norway. The UK could not accept these amendments since the effect was to state the obvious while the point was an expression of opinion, but they were seconded by St Lucia. The amendments were defeated by 9 votes in favour to 18 against, with 7 abstentions, and the Resolution shown in Appendix 2 was adopted with 15 votes in favour, to 9 against with 10 abstentions.

Sweden explained it regretted both that Norway side-steps the opinion of the Commission and that the Resolution had been put forward. Finland, Switzerland, South Africa and Mexico concurred in looking for compromise which it hoped Norway would also adopt.

11.3 Future work plans

11.3.1 Report of the Scientific Committee

The following activities were proposed by the Scientific Committee for consideration during the coming year.

RMP

- (1) Completion of *CLA* program revision and tuning.
- (2) Abundance estimation - general and specific matters relevant to the RMP.
- (3) North Pacific minke whale trials - review simulation results and new survey data.
- (4) North Pacific Bryde's whales - develop trials.

COMPREHENSIVE ASSESSMENT OF WHALE STOCKS

- (1) Southern Hemisphere minke whales - review of JARPA (especially VPA question and abundance).
- (2) Southern Hemisphere blue whales - differentiation of sub-species; abundance estimation.
- (3) Western North Atlantic right whales - recent population trends (results of intersessional work and/or workshop).
- (4) Southern Hemisphere humpbacks - review intersessional work on preliminary assessment.

11.3.2 Action arising

The Commission noted and endorsed these plans. Monaco spoke of the benefits of the application of modern technologies, and referred to the lack of certainty of taxonomic status in certain species. It requested that DNA

studies be used for the species and stocks subject to both direct and indirect takes. The Chairman of the Scientific Committee confirmed that this technology was included in the Committee's work.

The USA gave notice that it would propose a Resolution later in the meeting. It subsequently introduced a Resolution on the implementation trials for the western North Pacific Bryde's whales, jointly sponsored by Australia, Brazil, Italy, New Zealand and the UK. It explained that the work of the Scientific Committee should correspond with the foreseeable work of the Commission. This was unlikely to include Bryde's whales, since minke whales were the priority in the small-type coastal whaling, which did not take Bryde's whales. It therefore proposed that the Scientific Committee should suspend development of *Implementation Simulation Trials* until specifically instructed to resume this work by the Commission.

Japan considered this unreasonable and against the Convention itself. A Comprehensive Assessment of the stock had been completed and it was waiting for the development of simulation trials which had been identified as a priority by the Scientific Committee, with a proposal for an intersessional working group. Ireland, while not supporting the lifting of the moratorium or implementation of the RMP, opposed the Resolution because it did not help achieve its compromise. Sweden, South Africa and Spain concurred.

Denmark could not understand the reasoning of the Resolution, which included five general preambular facts and then drew a conclusion on the North Pacific Bryde's whale stock. The Comprehensive Assessment is not limited to species or areas, and the Commission has the right to suspend any work. The work might lead to an amendment of the Schedule, not a non-binding Resolution. Norway thought the real intention of the sponsors was to avoid commercial whaling.

The UK argued that the Commission, while taking account of the Scientific Committee's advice, should set the latter's priorities as the final authority. It would be a misuse of resources for application of the RMP to pelagic whaling. The Netherlands thought this was a logical consequence of earlier decisions that the Scientific Committee should wait for instructions from the Commission before carrying out implementation trials, a view shared by Germany. New Zealand, Italy, Monaco and Chile supported the comments of the USA, UK and other sponsors. Brazil wished to encourage the Scientific Committee to stimulate scientific research that would contribute to the conservation of whales stocks in a wide sense and not to concentrate on specific research activities that will contribute to the resumption of commercial whaling. France thought there were not enough reasons to have a programme on a new species involving a pelagic hunt.

St Lucia thought the work of the Scientific Committee should be respected, which was now to be burdened with additional studies on the environment. Dominica also opposed the Resolution because it saw this as another way of frustrating the scientific community.

On being put to the vote, the Resolution was defeated with 14 votes in favour, 17 against and 3 abstentions.

12. REVISED MANAGEMENT SCHEME

12.1 Report of the Working Group on the Revised Management Scheme

The Working Group met under the Chairmanship of Mr F. von der Assen (Netherlands).

12.1.1 Inspection and observation schemes

The Chairman of the Working Group explained that at last year's meeting it was agreed that he would collect comments and amendments on the draft text of the observation and inspection scheme provided by Japan, and that this should be discussed at the 1998 Annual Meeting in Oman. Comments had been received from Argentina, Austria, New Zealand, Norway, UK and the USA. Rather than simply circulating these to Commissioners the Chairman thought it would be more useful to incorporate them in a revised draft, either in the form of specific text proposals or as comments at the appropriate point in the text.

Norway made two general comments. Firstly, in earlier discussions of the RMS some countries had indicated that they would not under any circumstances support the adoption of the RMS into the Schedule. Norway took it for granted that those countries now participating in the debate also had the intention to contribute to the adoption of the RMS so that there was a common aim to what the Working Group was doing. Secondly, in this work there had been experience of what in other international fora was called 'creeping jurisdiction'. That is, Article I of the Convention stated clearly that the Schedule was an integral part of the Convention, meaning that the content of the Schedule must be of direct relevance to the area of competence of the Convention – i.e. to establish a system of international regulation for whale fisheries. Yet at recent meetings of the Group new items as to the content of the inspection and observation scheme have been introduced. The demand for a DNA register was first voiced in 1996. In 1997, concrete proposals pertaining to trade were put forward such as a system for tracking whale products on domestic markets. Norway did not know the motives for continuously expanding the agenda for the RMS but stated that trade measures in the Schedule were not compatible with the Convention.

Norway considered that the proposal on inspection and control prepared by Japan was a good one. Norway had suggested some adjustments in order to cater for the special characteristics of the Norwegian traditional coastal whaling taking place within the zones under national jurisdiction. It was imperative that these schemes be tailored to the actual whaling operations taking place.

The Chairman of the Working Group noted Norway's comments but added that concerns about trade had been raised in several previous IWC meetings but only recently had these been discussed in detail. Japan stated that it appreciated the Chairman's work in revising the text, but pointed out that this was the first opportunity to consider the changes in any detail. It should, however, record its fundamental position i.e. that, in order to maintain the legal integrity of the ICRW and to protect national sovereign rights, Japan could not accept issues that were clearly, in its view, outside the scope of the Convention.

The meeting then moved on to consider the detailed text of the draft revision of Chapter V of the Schedule 'Supervision and Control', made up of three Sections. The following comments identify the major issues discussed.

A. COMMON ELEMENTS FOR NATIONAL INSPECTION SCHEMES

A.1 INTRODUCTION

A.2 DEPLOYMENT

In response to questions from a number of delegations, the Chairman asked Norway to explain the background to its suggestion that the deployment of national inspection schemes should differentiate between pelagic and coastal

whaling. Norway explained that earlier meetings, such as the one in Reine in Lofoten, had established that there were large differences in the various whaling operations. Pelagic whaling was conducted with large factory ships supported by catcher vessels and they were away for several months. Norwegian coastal whaling took place with small vessels of 15-20m fishing just off the coast and inside the zones under national jurisdiction.

Brazil suggested that common rules should apply to all types of whaling as it was not entirely clear that the IWC made such a distinction between pelagic and coastal whaling operations. The Netherlands noted that the Schedule differentiated between factory ships and land stations rather than pelagic and other operations. There was some support for a suggestion made by the Netherlands that, in view of the forthcoming discussions on the Irish proposal and in order to progress the work of the RMS Working Group, it might be helpful to concentrate on the common elements needed for national inspection schemes covering coastal whaling and consider pelagic whaling at a later date as necessary. Japan opposed this discussion and stated that the inspection and observation scheme should cover both coastal and pelagic whaling.

A.3 DUTIES AND COMPETENCE

There was extensive discussion of the USA's suggestions that inspectors should record time to death for each whale taken. New Zealand had made a similar proposal to provide for DNA testing to track whale products from capture through all stages of the marketing and distribution chain.

With regard to DNA testing, both Norway and Japan stated that they could not accept the proposed amendments put forward by the USA and New Zealand as part of the RMS and adopted into the Schedule. Norway was, however, prepared to deal with these questions in another manner and was presently developing and implementing national DNA schemes.

The Chairman of the Working Group concluded that the meeting had reached an impasse as far as trade was concerned; some countries were of the view that DNA testing and recording of landings and trans-shipments for example, formed an integral part of control measures under the Inspection and Observation Scheme, whereas others considered that such issues should not be included in the Schedule. He noted, however, that these countries were prepared to make national arrangements and that there seemed to be general agreement that such measures should be discussed but not necessarily within the framework of the Inspection and Observation Scheme. The Chairman of the Working Group proposed to leave the issue of trade for the present time and look for possibilities to take this forward in some other forum.

In the Commission, New Zealand commented on the progress made, which was a credit to the Chairman. It pointed out that there are similar inspection schemes in other fisheries, with the exception of tracking products. It was important to show that products come from an approved quota, and New Zealand cited the report of the Scientific Committee where there is reference to falsification of catch data in the former USSR and Japanese sperm whale records. Inspection and observation is necessary to prevent the manipulations of the past.

Japan responded that the allegations against Japan had not been verified by the competent authorities, nor have the primary data have not been supplied. It would like to obtain the original data in order to have an open discussion on this matter.

Dominica questioned where trade should be discussed, to which the Chairman of the Working Group answered that he believed it should be another forum within the IWC.

A.4 SATELLITE MONITORING

The Working Group considered the issue of satellite or electronic monitoring and differing views were expressed on the need for satellite systems both in relation to security of vessels, confidentiality of data, the costs of such systems and the actual need of real time reporting under the RMP, based on the texts suggested by the UK and New Zealand and the alternative text on electronic monitoring from Norway. The Group noted Japan's concerns about the risks to the security of its whaling operations which could stem from automatic reporting to the IWC.

A.5 REGISTRATION

The Group agreed the general principle of landing whales and whale products at registered land stations. Because of concerns about confidentiality, both Japan and Norway reserved their positions with regard to forwarding data to the IWC Secretariat.

B. INTERNATIONAL OBSERVATION SCHEME

B.1 INTRODUCTION

B.2 DEPLOYMENT

Some countries believed it was imperative that international observers must be present on all vessels engaged in whaling operations and, that when priority has to be established, they would take precedence over national inspectors. Some other countries were, however, firmly of the view that national inspectors were sufficient for enforcement purposes and that in the event of there being insufficient room for both then priority must be given to national inspectors.

B.3 QUALIFICATIONS

The Chairman of the Working Group drew attention to the alternative UK proposal which was intended to add flexibility to the original Japanese text which would help to address earlier concerns about the numbers and availability of international observers. Norway underlined that there were serious safety concerns involved, and that it was imperative that the observer understood the language spoken by the captain and crew. The UK accepted this point about marine safety but noted that this would apply equally to situations where an interpreter was used on board a vessel.

In the Commission, Norway again raised the question of language for safety reasons, and believed that the observer must speak the crew's language.

B.4 REGISTRATION

In the absence of comments the Japanese text on the registration for the observer and inspection scheme was agreed.

B.5 SCOPE OF OBSERVATION AND APPOINTMENT

New Zealand asked for clarification on the use of the word 'consensus' in the opening line and wondered whether this was necessary as most IWC decisions were reached by consensus or formal vote. Japan explained that this had been inserted so the views of countries receiving observers could be taken into account. It was agreed that Japan and New Zealand should discuss this bilaterally to produce a mutually acceptable form of words to cover this point. The Chairman concluded that the Working Group accepted the proposal, subject to the further deliberation as noted above. It was subsequently reported that agreement had not been reached on the issue of the words 'by consensus'.

RMP SPECIFICATION

The Chairman of the Scientific Committee stated that the Committee had reviewed the text of the RMP, ensuring that its previous amendments had been incorporated and ensuring editorial consistency. During the review, the Scientific Committee had identified a more substantial amendment to ensure that the specifications were consistent with recent developments in the Committee. It concerned an addition to the definition of a *Year*, to allow for catches to be set for certain periods of a year. The Working Group endorsed this amendment.

The final full specification for the RMP is given as Annex N of the Scientific Committee report (*J. Cetacean Res. Manage. (Suppl.)* 1:251-57).

The Chairman of the Scientific Committee drew attention to the fact that the Committee had also noted two subjects that do not require immediate attention but may require further discussion at some time in the future should circumstances dictate. These were related to :

- (1) use of relative abundance indices; and
- (2) relative timing of surveys and implementation reviews.

The Chairman of the Working Group thanked the Chairman of the Scientific Committee for his report and noted that this provisionally completed issues relevant to that Committee. He further noted that the Working Group could not carry forward the incorporation of the RMP and other elements of the RMS into the Schedule at this stage.

In the Commission, Japan commented that it thought the tuning level of 72% was unnecessarily high; it is normally 60%, and at first it was even 54%.

12.1.3 Schedule amendments

No Schedule amendments were proposed.

12.2 Other matters

There was no other business.

12.3 Action arising

In order to continue progress, Japan offered to revise the Inspection and Observation Scheme text during the intersessional period. This was accepted by the Commission.

Austria, Brazil, Germany, Mexico, Monaco, Netherlands, New Zealand, Spain, UK and the USA proposed a Resolution on total catches over time that would establish that catch limits for commercial purposes for any species of whale in any region shall be calculated by deducting all human-induced mortalities that are known or can be reasonably estimated, other than commercial catches, from the total allowable removal.

Japan pointed out that the RMS Working Group had heard from the Scientific Committee that it had agreed to carry out trials to examine two scenarios and that the results of these would be used to provide advice to the Commission. This Resolution would pre-judge this work. Norway spoke in a similar vein and suggested deleting this operative paragraph.

The USA argued that as one of the remaining elements of the RMS, all human-induced removals should be taken into account and the Commission should give direction to the Scientific Committee on the procedure to be followed as a policy directive to save unnecessary work. The UK agreed with this policy as the Scientific Committee had suggested

the trials because the Commission had not decided. It thought this proposal for including all predictable removals in determining the catch limit was the safest option.

Norway then proposed that the second operative paragraph should be deleted, and references to the RMS should be changed to RMP. Japan seconded and on a point of order said that since the RMP will be incorporated into the Schedule, the Resolution would lead to a future amendment of the Schedule. The Russian Federation thought that the RMP should be applied to aboriginal subsistence whaling.

The Chairman ruled that this Resolution was in order. The amendment was defeated by 9 votes in favour to 21 against, with 4 abstentions; and the Resolution shown in Appendix 3 was then adopted by 21 votes in favour to 10 against, with 3 abstentions.

Norway commented that this told the Scientific Committee to stop exploring the alternatives, which it thought unacceptable.

13. SOUTHERN OCEAN SANCTUARY

13.1 Report of the Scientific Committee

For the last three years the Scientific Committee has requested advice from the Commission on commonly agreed objectives for the Southern Ocean Sanctuary, in the context of a recommendation from a Commission Working Group in 1995. The Commission had as yet made no comment and the Committee drew the attention of the Commission to this and requested its advice. In particular, it noted that such advice is important in the context of developing a longer-term work plan and given that the Commission may require scientific advice when it reviews the Sanctuary provision in 2004.

13.2 Other matters

Japan circulated a paper summarising previously presented legal arguments and additional aspects concerning the IWC's designation of the Southern Ocean Sanctuary. It believes that the IWC has acted outside the terms of the Convention, without scientific justification, and it has not taken into account the interest of the consumers of whale products and the whaling industry. It should not re-interpret the original purposes of the Convention and should consider the disputes resolution provisions under UNCLOS.

The UK commented on the late presentation of the document by Japan, which it therefore could not consider in detail. It should have been available several weeks in advance to contribute to the ongoing debate, but in its view the Sanctuary decision is legally valid. France supported this statement, and Italy stressed that a treaty has to be interpreted by custom, it was not convinced by Japan but inclined to the UK's reasoning and the evolutionary interpretation is correct. Chile commented that the Sanctuary was passed by a sufficient majority and was therefore legal. Brazil agreed. New Zealand strongly supported the Sanctuary which it believed was valid, noting that Japan had accepted it with an objection. It was open to move a further Schedule amendment to overturn that decision. Spain had no doubt about the validity and the USA considered all the issues had been resolved to its satisfaction. The Netherlands concurred with all these comments.

Antigua and Barbuda spoke of protected areas for fisheries management and sought an independent legal opinion on the legality of the Sanctuary. Dominica supported this view, and St Lucia noted that the decision had been taken by less than 50% of the world community. It thought the Commission should consider abolishing the Sanctuary.

When Antigua and Barbuda attempted to speak again, the UK raised a point of order on the number of interventions, considering the heavy agenda. Following exchanges between Norway, Japan, Grenada and Dominica, the Chairman ruled that Commissioners should speak once, but with a right to reply by the proposer. On a show of hands this was agreed by 20 votes in favour, with 1 against and 7 abstentions. Japan did not take part in the vote, considering the result was already known. A second vote on limiting the length of an intervention to two minutes was adopted by 11 votes in favour, with 1 against and 16 abstentions.

The Plenary was then adjourned for a Commissioners' meeting. After this it was announced that agreement had been reached such that there could be two interventions of reasonably limited length.

13.3 Action arising

Australia, on behalf of Austria, Brazil, France, Germany, India, Italy, Monaco, Netherlands, New Zealand, Oman, South Africa, Spain, Switzerland, UK and USA introduced a Resolution setting out agreed objectives for the Sanctuary and promoting increased scientific research and cooperation.

Because of the large number of co-sponsors and wide-spread support, Australia suggested that the Resolution could be adopted by consensus. Japan stated its view that the Sanctuary does not have a scientific basis, which was why it had lodged its objection, since it applies regardless of the stock condition. The Resolution shown in Appendix 4 was then adopted. The Commission noted Japan's opposition.

A further Resolution proposed by Japan, Antigua and Barbuda, Dominica, Grenada, St Lucia and St Vincent and The Grenadines had the purpose of immediately abolishing the Southern Ocean Sanctuary and instructing the Scientific Committee to proceed with implementation trials for Southern Hemisphere minke whales. The Chairman ruled that this would commit the Commission to amend the Schedule and was therefore out of order; in addition, it had not been submitted 60 days in advance of the meeting. Japan said that it would observe the 60 day rule at next year's or a later meeting.

14. SCIENTIFIC PERMITS

14.1 Report of the Scientific Committee

Review of results from existing permits

JAPAN - SOUTHERN HEMISPHERE

Last year, the Scientific Committee had undertaken a detailed review of the JARPA programme and had identified a number of areas for future work. Progress on that work was reported and a number of documents relating to the JARPA programme were presented to the meeting.

In discussion of the Commission's Resolution last year (IWC Resolution 1997-5), it was noted that it did include information on the potential for JARPA to improve management. However, for clarity, the Scientific Committee agreed to repeat its full statement from last year (*Rep. int. Whal. Commn* 48:101) on this matter:

'while JARPA results were not required for management under the RMP, they had the potential to improve it in the following ways: (1) reductions in the current set of plausible scenarios considered in *Implementation Simulation Trials*; and (2) identification of new scenarios to which future *Implementation Simulation Trials* will have to be developed (e.g. the temporal component of stock structure). The results of analyses of JARPA data could be used in this way perhaps to increase the allowed catch of minke whales in the

Southern Hemisphere, without increasing the depletion risk above the level indicated by the existing *Implementation Simulation Trials* of the RMP for these minke whales.'

JAPAN - NORTH PACIFIC

The Scientific Committee noted that a number of documents that incorporated information from JARPN had been presented and were discussed.

Review of new or revised proposals

JARPA - SOUTHERN HEMISPHERE

The 1998/99 JARPA research plan is a continuation of the programme that has been extensively discussed previously by the Scientific Committee. It is the 10th full-scale survey of a 16-year research programme. The survey will cover Area V and the western half of Area VI to focus on the issue of stocks within the framework of the four major objectives of the programme.

The survey period is the same as in previous years and the sample size is 400±10%. One research vessel, three sampling/sightings vessels and one dedicated sightings vessel will be used. Participation by international scientists is welcomed.

The Scientific Committee noted that the addition of quantitative echo-sounder equipment to the dedicated sightings vessel this year will provide the added capability of determining the distribution and abundance of food species including Antarctic krill. The effect of using such equipment on sightings surveys was briefly considered. Some members noted that information provided by JARPA could be of significant value for the elucidation of the effects of environmental change on whales and the Antarctic ecosystem.

JAPAN - NORTH PACIFIC

The programme, which began in 1995 after a feasibility study in 1994, is to examine (1) whether sub-stocks exist of the Okhotsk Sea-Western Pacific stock (O stock) of minke whales, and (2) whether an additional stock (W stock) exists in the central part of the North Pacific, and if it does, the rate of mixing with O stock. One hundred animals will be sampled in two or three areas among sub-Areas 7, 8, 9, 11 and 12.

With regard to the sampling area in the 1998 survey, it was reported that if it seems difficult to get permission from the Government of the Russian Federation to operate in its waters, sub-Areas 7 and 8 (in May and June) and 11 (in July) were to be covered.

The Scientific Committee noted that it had not reviewed this proposal in detail since 1994.

It was stated that the programme could be terminated after the completion of the 1999 cruise if the Scientific Committee agreed that the research objectives had been adequately met by that time. After some discussion, the Scientific Committee agreed that a comprehensive review of JARPN should be planned for 2000. If the programme is extended to the year 2000 or thereafter, a detailed and thorough research proposal should be submitted for review. The Government of Japan would elaborate the programme for 1999, taking into account the comments made during the meeting and analyses of the 1998 data; it would circulate this to the members of the Scientific Committee prior to departure of the cruise.

14.2 Action arising

Japan commented that it was pleased that the JARPA programme was contributing to research on resources in the Antarctic, and that at the review meeting scientists had

B.6 STANDING OF IWC OBSERVERS

Japan continued to have problems with the possibility of international observers becoming involved in the implementation of national rules and the Chairman of the Working Group asked the UK and Japan to pursue this bilaterally.

There was some discussion about possible conflict between whaling operations and the observer's actions and the resulting implications for safety of all on board the vessel. Japan agreed to consider the UK comment further.

New Zealand and the UK expressed serious reservations about the terms of the waiver which appeared to waive observers' basic rights as ordinary employees. The Chairman of the Working Group asked these two countries and Japan to consider this further to produce wording acceptable to all. It was subsequently reported that no agreement had been reached on this issue.

In the Commission, New Zealand raised the possibility that observers would sign away their rights for any third party liabilities resulting in accidents and injury, and made reference to the International Labour Organisation and worker's compensation. The Secretary was instructed to gather information from other observer regimes.

Norway also pointed out that it was not possible under its national legislation for observers to take on the functions of inspectors.

B.7 RIGHT AND FUNCTION

After rearrangement of the text, the remaining material effectively covered trade issues.

B.8 REPORT

New Zealand pointed out that this was the corollary of the argument put forward under discussion of A.4 (satellite monitoring). In the same way as there was a need for positional reporting, so it was necessary for real time reporting by the observers themselves. Norway maintained that the proposal for real time reporting must be seen in connection with the discussion on A.4 on inspectors. What were the tasks the Secretariat should perform which necessitated real time reporting? A small sub-group concluded that it was necessary to await the outcome of discussions in the Commission on the wider issues associated with quota management and supervision and control in order to advance the work on the issue of observers' reports.

The UK pointed out that acceptance of further elements would be dependent upon agreement above.

The Chairman of the Working Group recorded that there was some substantive opposition to the setting up of a review panel for reports, especially in view of the existence of the Infractions Committee. He noted that it was not possible to reach agreement on this issue at this stage.

B.9 INTERPRETER

Some minor editorial changes to the text were accepted.

B.10 COSTS

The Chairman of the Working Group noted the proposals from New Zealand, UK and USA that all costs related to supervision and control should be borne by the whaling industry and/or the countries concerned. New Zealand stated that as commercial whaling is a business, those engaged in it should bear the regulatory cost. Denmark stated that, in its opinion, as with the procedures in the EU fisheries sector, national inspectors should be paid by the national government observers whereas international observers

should be paid by the IWC. The Chairman of the Working Group noted that in the absence of agreement this issue should be referred to the Commission.

C. MEASURES TO ENSURE CATCH LIMITS ARE NOT EXCEEDED

The Chairman of the Working Group noted that the Working Group had already agreed that this should be considered elsewhere.

12.1.2 Total catches over time, including monitoring and reporting of bycatches and other outstanding issues in relation to the RMS

The Working Group agreed to the Chairman's suggestion to take these Items together. The Chairman then asked the Chairman of the Scientific Committee to present his Committee's report on the various outstanding scientific issues in relation to the RMS.

OVERSIGHT OF SURVEYS AND DATA ANALYSIS

Last year, the Scientific Committee modified its Guidelines and Requirements for Surveys to take into account the question of Committee oversight. It noted that the level of oversight necessary was dependent upon a number of factors, e.g. whether the survey techniques were novel and whether the survey was long-established. It agreed that the Scientific Committee would agree on which scientists could suitably act on its behalf on a survey-to-survey basis.

The Working Group and the Commission endorsed the Scientific Committee's conclusions.

DATA AVAILABILITY

The Scientific Committee particularly stressed the need for data to be available on a continuing basis and it made the following recommendations:

- (1) that, as a minimum requirement, data from abundance surveys be available on a continuing basis if an abundance estimate from such surveys is to be used in an implementation of the RMP;
- (2) that it should not review such estimates under the terms of the RMP unless there are assurances of such access.

The Scientific Committee considered the question of data from non-member nations and noted its importance for certain implementations. It made two recommendations, recognising that there may be a need to allow slightly more flexibility with respect to such data, for example safeguarding the rights of the collectors to first use of the data. It recommended:

- (1) that the Commission request non-member states to co-operate in the work of the Committee by providing information on abundance surveys that they conduct on stocks of interest to the Commission and to make the data from such surveys available;
- (2) that a set of guidelines be developed for the types of availability restrictions that it would consider acceptable if a non-member country, individual scientists, or international organisation were to provide data for use in the RMP - in developing such guidelines, consideration should be given both to the needs for ensuring continuing adequate implementation of the RMP and the limitations on data uses that would facilitate and encourage the provision of such data.

The Scientific Committee would try to develop such guidelines at its next meeting.

The Scientific Committee also considered the question of the availability of data from countries who leave the Commission, stressing the importance of ensuring continuing access to data. It recommended that the Commission develop appropriate provisions that ensure that any data supplied by a member country for use under the RMP remains available to the Scientific Committee in the event that a member country withdraws from the Commission.

Finally, the Scientific Committee considered the question of Committee policy on reviewing published estimates if the raw data are not available. It recommended that it should not review estimates for use in an application of the RMP based on data that it judges do not adequately meet its requirements and guidelines.

However, it also recommended that:

- (1) it should consider the specifics of any dataset in its requirements and guidelines; and
- (2) it should evaluate the degree to which the data are adequate for use in the RMP and should judge the relative importance in terms of the behaviour of the RMP in those areas where the requirements were not met and guidelines were not followed. In particular, some aspects of the guidelines dealing with prior notification and timing of data provision, etc may be inappropriate or irrelevant depending upon the situation under which the survey was conducted by a non-member country.

The Working Group endorsed all of the Scientific Committee's recommendations except for the first and the last. Both were noted only at this stage. The Commission subsequently endorsed all the recommendations, on the proposal of Norway, seconded by the UK.

GENETIC DATABASE

The Chairman of the Scientific Committee drew attention to the Chairman's report of the 1997 meeting which noted that the Scientific Committee had recognised that certain management or regulatory aspects of a proposed genetic database for Northeastern Atlantic minke whales were outside its specific remit but there were two issues on which it felt it could provide advice. These were the type of genetic information most appropriate to record in such a register and the value of such data for research. The Scientific Committee had agreed that the proposed methods and types of genetic information were sound and that the data could also be very useful for scientific research. This item was not considered further by the Scientific Committee this year.

TOTAL CATCHES OVER TIME

This year the Scientific Committee clarified the RMP text related to 'indirect' catches. The revised wording is as follows:

(16) The population model used in the *Catch Limit Algorithm* (see Section 4) effectively assumes that all whales that die from causes other than those resulting from natural mortality are included in the catch history. Thus, known [or estimated] 'indirect' catches, e.g. whales killed through entanglement in fishing gear [(including those that subsequently strand)], should also be included in the catch history, in addition to whales caught or struck and lost in direct whaling operations. On the other hand, stranding is assumed to be part of the process of natural mortality, and numbers of whales stranded [due to natural causes] should not be included in the catch history.

The Working Group, and subsequently the Commission, endorsed the adoption of the amendments proposed by the Scientific Committee (as shown in square brackets).

The Netherlands commented that the Commission still needed to decide how all known human-induced mortalities should be considered in estimating future RMP catch limits. The Chairman of the Scientific Committee noted that this had been considered in one specific, rather than a generic, case, that of *Implementation Simulation Trials* for North Pacific minke whales. This was a case where the Committee believed that there may well be continuing non-natural and non-directed mortality (i.e. incidental catches). The Scientific Committee had therefore agreed to carry out trials to examine two scenarios.

- (1) The catch limit is set at the RMP value and the incidental catches are taken in addition to this. In this instance, therefore, it is assumed that the incidental catches are taken into account in the catch history only.
- (2) The catch limit is set at the RMP level minus the maximum estimated incidental catches i.e. the incidental catches are taken into account when setting the limits themselves.

The results of these trials would be used to provide advice to the Commission on the consequences of choosing one or other option for this specific case. The final decision would, of course, be made by the Commission. The Working Group Chairman noted the point made by the Netherlands and the work done by the Scientific Committee in relation to this specific case. It was possible that there may be a need for further work but this would be discussed in Plenary.

In the Commission, Japan stated it would re-affirm endorsement of the proposals by the Scientific Committee, which were therefore noted until being considered under Action Arising.

CARRY-OVER

The Chairman of the Scientific Committee referred to decisions taken last year when the Committee had considered the question of carry-over and recommended wording to go in the RMP specification, and this was endorsed by the Commission.

ISSUES ARISING OUT OF THE CLA PROGRAM TUNING

The Scientific Committee had asked the Secretariat to convert the computer program that calculates catch limits for the RMP, to use double precision arithmetic and to use this modified program to determine a revised value for the tuning parameter that ensures that the median final depletion for the D1 trial is 0.72K (accurate to 0.000001K), the tuning level that had been originally chosen by the Commission. For reasons related to the nature of the computer program, and the purpose for which it had been originally designed, this had not been as straightforward a task as had been thought and further work was needed. The Scientific Committee this year determined a mechanism whereby this work can be accomplished.

Also at last year's meeting, the Scientific Committee had recommended that the Secretariat investigate methods to calculate catch limits under the CLA more efficiently. It noted that it would be desirable if the same computer program could be used for calculating catch limits as for simulation studies. It had not been possible to complete the work itself in the intersessional period. The Scientific Committee had identified a mechanism by which this should be accomplished in the coming year.

The Scientific Committee's recommendations were endorsed by the Working Group and the Commission.

appreciated the results. Concerning the North Pacific, it noted the attempts to solve the stock structure problems. On behalf of Antigua and Barbuda, Dominica, Grenada, Norway, St Lucia and St Vincent and The Grenadines it introduced a Resolution concerning Special Permits which reaffirmed the rights of Contracting Governments under Article VIII of the Convention, and the need for scientific information for the proper conservation and management of whale resources. It hoped for consensus on this.

The Netherlands had no objection to the operative clauses but proposed deleting a preambular paragraph which it thought did not correctly reflect the conclusions of the Scientific Committee concerning the potential for management from the results, and the use of non-lethal research. Australia and New Zealand voiced their opposition to lethal research and Switzerland, Sweden, Italy, Finland and India supported the Netherlands.

Antigua and Barbuda pointed out that the text was a direct quote from the Scientific Committee, and St Lucia spoke of the need for a lethal take for some research.

Denmark said it was against scientific whaling in the Southern Ocean Sanctuary. The Chairman of the Scientific Committee pointed to his Committee's views on this issue. The People's Republic of China spoke of the current technology and advocated the study of research methods to reduce lethal methods.

The Resolution was then put to the vote and defeated with 10 votes in favour to 19 against, and 5 abstentions.

Switzerland explained its abstention because it is opposed to large-scale lethal research in the Sanctuary but had no problems with the operative paragraph. South Africa indicated the same.

Monaco, on behalf of Australia, Brazil, India, Italy, Netherlands, New Zealand and the UK, put forward a Resolution on whaling under Special Permit which:

- (1) requested the Secretariat to undertake a comprehensive review of the ethical considerations;
- (2) recommended that if whales are taken this is done in a manner consistent with Section III of the Schedule; and
- (3) requested Japan to refrain from issuing any further permits.

It spoke of the concern over lethal research as expressed in a letter from a number of scientists, the large numbers of whales taken and the appearance of whale meat in commercial markets. It commented that scientists do not operate in a vacuum and that the science of whales has advanced over the past 50 years.

Antigua and Barbuda could not support the Resolution, mentioning the merits of JARPA, the lack of non-lethal means to address certain issues and noting lethal military research. Norway commented on the necessity to conduct multi-species research for interactions in fisheries.

New Zealand commented on the many signatures on petitions opposed to scientific whaling, reflecting the depth of feeling that there is no need to kill whales to carry out research. It believed that there should be an ethical review and that research must be guided by a moral compass. Italy noted that two of its eminent scientists had signed the letter referred to, and also believed that lethal research must be brought to an end. Denmark stated that it is opposed to scientific whaling in the Southern Ocean Sanctuary and would support the Resolution, while the USA was increasingly concerned over research whaling and strongly opposed unnecessary lethal research.

Antigua and Barbuda proposed adding a paragraph that the Commission 'note the grave concern for the lethal use of cetaceans for military research purposes'. Dominica seconded this, but New Zealand thought the amendment concerned research outside the Convention which should be separated and properly presented. Denmark restated that it believes that small cetaceans are outside IWC competence.

Japan, on a point of order, requested Antigua and Barbuda to withdraw the amendment, but the latter asked for it to be put to the vote, when it was defeated by 6 votes in favour to 16 against, with 12 abstentions. The Resolution shown in Appendix 5 was then adopted by 17 votes in favour to 9 against, with 8 abstentions.

South Africa explained its abstention as it objects to high levels of lethal scientific sampling in the Southern Ocean Sanctuary, but had doubts about extrapolating these objections to sampling in the North Pacific. Antigua and Barbuda voted against because it believes Japan's research is completely legal and useful, while Japan regretted the increasing number who ignore its rightful scientific activities and stating that it was also concerned about the manner in which the incorporation of ethical matters was being introduced.

15. SCIENTIFIC RESEARCH

15.1 Research proposals

15.1.1 Report of the Scientific Committee

The Scientific Committee recommended that the 1998/99 SOWER cruise should take place principally in Area IV south of 60°S, with a blue whale component taking place for 12 days in the southeastern part of Area III where relatively high concentrations of blue whales had been confirmed by the past IDCR cruises and JARPA surveys. It recommended that there should be a specialist planning meeting for this cruise in Tokyo in October.

Five proposals were reviewed by the intersessional review group and outside reviewers and discussed further during this year's meeting. A proposal for retrospective analysis and method development for integrated analysis for the SOWER 2000 survey of baleen whales and krill, received the highest rating and was recommended for funding. The others were not included in the list of highest priority proposals.

The Scientific Committee noted that £59,888 is already available in the Research Fund to finance ongoing projects continuing from the current year. It strongly recommended that the additional research-related activities proposed should be funded in the 1998/99 financial year. This leaves a potential shortfall of £37,354. Given the importance of the items requested, the Committee strongly requested that the Commission funds all the designated activities.

RESEARCH PROPOSALS - PREAMBULAR TEXT

The Secretary outlined the terms and conditions (in the form of specimen wordings) which have been included in the contracts given by the IWC for research proposals during recent years. These are used selectively and modified as appropriate for the particular proposals and contracts under consideration.

The language used defines:

- (1) the tasks to be performed;
- (2) the schedule of work;
- (3) the costs, including support for attendance at a meeting of the Scientific Committee to present a report on the work carried out;

- (4) arrangements should data or specimens to be analysed prove to be inadequate or not available;
- (5) the schedule of payments (this usually comprises an initial payment on signing the contract, a final payment on receipt of a final report, with provision for intermediate payment(s) if appropriate;
- (6) identification of any proprietary software which may be used and licensed;
- (7) recognition that any equipment purchased (or modified) using contract funds will become IWC property on completion of the project.

The Scientific Committee confirmed the agreed Understanding on Access to Data and Use of Software (*Rep. int. Whal. Commn* 46:257).

There was disagreement within the Scientific Committee whether the final report on a project which has been completely or largely funded by the IWC should be submitted for publication in an IWC volume, subject to the normal review process. There was general agreement that proposers should be strongly encouraged to submit relevant papers, and this provision will be reviewed again next year. Similarly, the issue of intellectual property rights has not been addressed thus far, and should be considered.

15.1.2 Action arising

The research proposals were considered and approved by the Finance and Administration Committee in its discussion of the general budget (see Agenda Item 19.2.1), and the Commission noted the other matters.

15.2 Research on the environment and whale stocks

15.2.1 Report of the Scientific Committee

POLLUTANT AND CONTAMINATION ISSUES

Last year, the Commission adopted a Resolution (IWC Resolution 1997-7) endorsing the Scientific Committee's recommendation to initiate a research programme to establish pollutant cause-effect relationships in cetaceans and to hold and fund a Planning Workshop as the first phase in implementing the proposal. The Workshop, which will last 3-4 days, will be held in November 1998 in Barcelona, Spain². It was stressed in the original proposal that the programme was intended to address specifically the main recommendation of the IWC Pollution Workshop. Further, researchers were encouraged to address the other recommendations of that Workshop and consider other species and sources of samples. In this context, it was noted that the Parties to ASCOBANS at their 2nd Meeting in Bonn in November 1997 expressed strong support for the research programme and they recommended that the Parties should seek ways to facilitate its execution.

The Scientific Committee was informed that sufficient funds were available for the Planning Workshop, at which further discussions regarding the financing of the entire research project would take place. It was re-iterated that sufficient funding for the overall programme has not yet been secured and potential funding sources were encouraged to consider supporting the project.

CLIMATE CHANGE AND HABITAT

REVIEW OF PROGRESS ON SOWER 2000 PLANNING

The SO-GLOBEC small-scale process study originally planned for 1999/2000 has been delayed until 2000/2001 because of ship scheduling conflicts. Consequently,

SO-GLOBEC's small-scale process study will not occur concurrently with CCAMLR's large-area synoptic survey to estimate total krill biomass. Re-iterating the unique opportunity that the research activities planned by SO-GLOBEC and CCAMLR present for the IWC to conduct research on the distribution of whales in relation to their environment and prey, the Scientific Committee discussed alternatives regarding IWC participation in these CCAMLR and SO-GLOBEC research activities. It agreed to proceed with the existing proposal to work with CCAMLR in 2000 by having IWC observers conduct whale sightings during CCAMLR's synoptic krill survey in Area 48. After discussing the implications of the one year delay in the SO-GLOBEC small-scale process studies, the Committee re-confirmed its decision to work with SO-GLOBEC despite the delay. Thus, the Scientific Committee re-iterated its support for the collaborative research activities with SO-GLOBEC and CCAMLR, which were originally proposed at the 49th meeting of the IWC Scientific Committee and subsequently endorsed by the Commission.

SO-GLOBEC

Arising from the SO-GLOBEC Planning Group meeting in March 1998 three items recommending IWC action were identified:

- (1) participation in SO-GLOBEC regional planning meetings;
- (2) input on preferred measurements for small-scale process studies to increase overall the comparability of data by defining standard core measurements and methods;
- (3) nominations of IWC participants for SO-GLOBEC working groups on data management and modelling.

HABITAT

The Scientific Committee reviewed several documents related to habitat, including investigations of minke whale sightings in relation to sea surface temperature in Area II (Weddell Sea) of the Antarctic using data from IWC/IDCR cruises from 1981/82 and 1986/87; interspecific density relationships among whales on Antarctic feeding grounds were examined using sightings data from JARPA from 1989/90 to 1995/96 and the IWC/IDCR from 1978/79 to 1987/88; and oceanographic sampling during the IWC/SOWER/Blue whale cruises in 1995/96 and 1996/97. The Scientific Committee noted discussion on interannual variability in the location and extent of the marginal sea ice zone. The work is relevant to questions about the representativeness of the JARPA samples. The Scientific Committee encourages additional attention to this topic.

OTHER CONCERNS AND ACTIVITIES

INTERSESSIONAL WORKSHOP

As agreed at the 1997 Scientific Committee meeting, an intersessional workshop is being planned to develop sightings and analysis methods for cetacean components of multidisciplinary research programmes. It is scheduled for late March 1999 and will be held in St Andrews, Scotland. The Scientific Committee noted the importance of having GLOBEC and CCAMLR participants at the workshop, especially in light of the sampling and analytical methodologies that may be common to all three groups. A steering group was established to complete planning. The Scientific Committee strongly recommended funding for this workshop, which it viewed as essential preparation for the SOWER 2000/1 field programmes on baleen whale

² Editor's note: For logistical reasons this meeting was held in March 1999.

habitat and prey. The results will also be of more general value to future efforts to study cetaceans in a multidisciplinary context.

NOISE

There was a general discussion of how to measure short- and long-term behavioural responses of cetaceans, a question which also arose in consideration of whalewatching and at the Right Whale Workshop. The Scientific Committee noted the broad scope of any attempt to assess the impact of noise (both anthropogenic and non-anthropogenic) on marine mammals. While recognising that this issue is relevant and important, it agreed that attempting a major initiative on the impact of noise on cetaceans was not advisable at this time.

OZONE DEPLETION

The Scientific Committee considered a summary of the mechanisms by which ozone is destroyed, the recent trends in ozone depletion in polar regions, and the sources of ozone and UV/B measurement in the Arctic.

PHYSICAL AND BIOLOGICAL HABITAT DEGRADATION

The Workshop on the Comprehensive Assessment of Right Whales made the following statement with respect to habitats:

'The Workshop recognised the importance of quantitative studies of right whale habitats. It noted the increasing importance that the Scientific Committee has placed on environmental change and habitat studies. In this context it recommends that the Committee considers convening a workshop to develop approaches to quantify key features of whale habitats, including trophic structure; right whales should be considered as a potential key species. Such a workshop would involve a variety of disciplines.

With respect to right whales, particular attention should be paid to comparative studies between the Northern and Southern Hemisphere populations. Such studies should: (1) identify the most important parameters characterising right whale habitats and standardise methods to measure them; (2) assess 'threshold' levels of disturbance (including noise, temperature, food availability); and (3) identify potential sources of disturbance.'

The above recommendation was endorsed by the Scientific Committee.

The standing Working Group on Environmental Concerns received a proposal for an intersessional workshop on habitat degradation and its possible effects on cetacean populations. There was considerable discussion of this proposal, after which it was agreed that a preferable course of action would be to develop a revised proposal that incorporated the recommendation from the Right Whale Workshop. The Scientific Committee agreed that this should be considered further next year.

EFFECTS OF FISHERIES

Following a report on marine mammal entanglements in tuna farms in South Australia, the Scientific Committee noted that there are proposals to build similar fish farms in other countries; such facilities provide another potential source of marine mammal mortality and should be monitored.

DISEASE AND MORTALITY EVENTS

The results of a viral serologic survey of bowhead whales in Alaska were presented to the Scientific Committee, who agreed that such studies are important to provide a scientific basis for understanding effects on cetaceans of complex environmental problems, and encouraged similar studies. A report on potential new opportunities for collaboration arising from recent international developments, particularly those relating to the UN's 'Year of the Ocean' (1998) was

considered, which identified some major perturbations in the marine environment that have occurred since the last meeting. A framework for considering cetacean strandings was suggested. The Scientific Committee noted that such attempts to improve understanding of the meaning of cetacean strandings were important, albeit ambitious. Nevertheless, it was recognised that information gathered from strandings, when viewed from a larger context and considering possible environmental effects, could help build a basis for understanding these events.

ARCTIC ISSUES

In discussion of Arctic environmental issues, it was agreed that a research initiative focussing on Arctic cetaceans may be appropriate at some time in the future. Some members noted that focus on white whales and narwhals in 1999 might provide an impetus for the Scientific Committee to also focus on environmental concerns for those species. The Scientific Committee noted that Arctic issues and the habitat definition/degradation initiative would be of lower priority in the coming year than the two ongoing research initiatives.

15.2.2 Action arising

The Commission noted the report of the Scientific Committee on these issues, and Monaco voiced its concern over the scattered but mounting evidence of contamination in cetaceans. It asked if there is a strategy to investigate this, and the matter was deferred to Agenda Item 17.

The USA introduced a Resolution on environmental changes and cetaceans, co-sponsored by Australia, Austria, Brazil, Finland, France, Germany, India, Italy, Mexico, Monaco, Netherlands, New Zealand, Oman, South Africa, Spain, Sweden, Switzerland and UK. It recalled that the UN has declared this year the International Year of the Ocean and believed that global changes in the marine environment now pose greater threats to whales than whaling. There are human health concerns as well, and it sought to raise the priority of environmental concerns in the Scientific Committee and to establish a regular Commission Agenda Item on 'Environmental Concerns' to which Contracting governments could also report annually.

Japan questioned whether lethal or non-lethal research was more effective, and the consideration of impacts on other marine mammals. The Resolution shown in Appendix 6 was then adopted, noting Japan's reservations.

New Zealand, on behalf of Australia, Austria, Brazil, Chile, Finland, France, India, Italy, Monaco, Netherlands, Oman, Switzerland, UK and the USA, put forward a Resolution for funding work on environmental concerns. It had raised this subject in the Finance and Administration Committee (see Agenda Item 19.2.1). There is a range of environmental impacts on cetaceans, and this proposal will provide funds for selected programmes and to support Invited Participants, and allow consideration next year for establishing a dedicated fund.

Denmark had doubts about this procedure and would prefer to receive proposals from the Scientific Committee. Japan had similar concerns, noting the establishment of an Environmental Research Fund and designating expenditure of £100,000. This was contrary to the Financial Regulations and should be proposed in advance of the meeting, since it pre-judged the future and put non-English speaking delegations at a disadvantage. Norway also agreed with Denmark, regretting that there were three Resolutions on the environment, which should have been harmonised. It was concerned about the balance of work in the Scientific

Committee, as voluntary funds from NGOs were diverting work from traditional areas and there was a need to go back and look at what was agreed at the 1995 Dublin meeting rather than turn round the entire work of the Scientific Committee.

The UK as Chairman of the Finance and Administration Committee), thought that the Resolution did not bind anyone to anything. It would agree to fund activities in the long-term, using money from the reserves which were large and could be reduced by lowering contributions or increasing expenditure, and the latter had been agreed. The idea of an Environmental Research Fund would be submitted to the 51st meeting. Austria fully supported the idea as it went a long way to ensure that identified priorities are pursued.

Antigua and Barbuda thought the surplus of funds should be used to reduce contributions, but saw merit in the Resolution, suggesting any increase in research should be the same as the reduction in contributions.

The USA saw a consensus to raise the priority of environmental concerns in the Scientific Committee and this proposal would ensure funding, while France thought it would send a signal from the Commission. The Chairman recognised a clear majority in favour of the Resolution, shown in Appendix 7, which was therefore adopted noting the reservations recorded.

St Vincent and The Grenadines introduced a Resolution proposed jointly by Antigua and Barbuda, Dominica, Grenada, Solomon Islands and St Lucia on coordinating and planning for environmental research in the Antarctic. This was designed to encourage cooperation between the JARPA programme and CCAMLR. St Lucia voiced its support and the Resolution given in Appendix 8 was adopted.

16. CO-OPERATION WITH OTHER ORGANISATIONS

16.1 Observers' Reports

Reports by Observers representing the IWC at meetings of ICES, IATTC, CCAMLR, ICCAT, ASCOBANS, NAMMCO, Southern Ocean GLOBEC and a Workshop on Legal Aspects of Whalewatching were presented to the meeting. The Secretary was instructed to continue to seek cooperation with these other organisations and to designate Observers to future meetings.

The reports were also considered by the Scientific Committee where appropriate, and in particular, the Scientific Committee welcomed the participation of ASCOBANS in the Workshop to develop further the IWC pollution research programme. The Scientific Committee also agreed that it will be valuable to further the scientific work on the status of harbour porpoises in the North Atlantic by holding a joint working group meeting and recommended that this take place. It emphasised that this meeting will be discussing scientific and not direct management issues. No funding was requested.

The Commission noted that the CCAMLR Scientific Committee adopted the following terms of reference for a small liaison group to be formed with the IWC Scientific Committee and WG-EMM to further collaboration between the IWC and CCAMLR:

- (1) to facilitate communication between CCAMLR and the IWC on all scientific matters of mutual interest;
- (2) to advise the CCAMLR Scientific Committee on the matters relevant to potential collaborative work, e.g.,
 - (a) exchange of information,

- (b) analysis of historical datasets,
- (c) survey methods,
- (d) studies of interactions between whales, prey and the environment, and
- (e) estimation of prey consumption by whales.

The Scientific Committee reiterated the great importance it attached to cooperation with CCAMLR and it endorsed the formation of the liaison group.

The Scientific Committee noted the considerable overlap in the scientific topics being addressed by it and the NAMMCO Scientific Committee. It is desirable to avoid this duplication, but the Commission provided no advice on whether the Scientific Committee should take a more active role in establishing cooperation with the NAMMCO Scientific Committee.

It was noted that SO-GLOBEC has a direct relationship with the IWC SOWER 2000 research programme, and the Scientific Committee reiterated the importance of cooperation with that project and in particular with its planning meetings.

Japan spoke of the scientific information accumulating and the need to cooperate with other expertise, including FAO, to promote the objectives of the IWC. The Secretary indicated that FAO had been unable to send an observer to this year's meeting.

16.2 Other

As at the 45th Annual Meeting, it was agreed that the Secretary should identify meetings of other international organisations in which the IWC should have direct participation for cooperation and to include the costs in the budget.

16.3 Action arising

The USA proposed a Resolution, co-sponsored by Australia, Brazil, Monaco, New Zealand, and Oman, on continued co-operation between the IWC and CITES. This focused particularly on the problems of illegal trade in whale products. The UK supported this, but was unable to be a sponsor because the EU is responsible for its trade affairs, and Denmark was in the same position.

Norway was unable to give support because it believed this is trespassing on the competence of other organisations, and it thought some of the statements mentioned are at best very rough references to the relationship. Switzerland commented that it would abstain because it could not reaffirm Resolutions mentioned in the text which it had not adopted. Japan expressed its view that the issue is outside IWC competence and that some paragraphs were contrary to the facts. It proposed a substantial number of amendments, seconded by Antigua and Barbuda.

When a revised draft was presented, Japan, Norway and Denmark pointed out certain inaccuracies in the facts and could not accept it. The USA agreed to consult further. The original draft was then re-submitted, and after Denmark introduced an amendment to better reflect the Greenland stock of minke whales, the Resolution given in Appendix 9 was adopted by 23 votes in favour to 7 against, with 3 abstentions.

17. ADOPTION OF REPORT OF THE SCIENTIFIC COMMITTEE

In adopting the report of the Scientific Committee, the Commission took note of the following specific matters and endorsed the various recommendations.

17.1 Small cetaceans

Action arising from the 1997 meeting

The Scientific Committee has, on several occasions, expressed great concern about the perilous status of the vaquita, which is endemic to the upper Gulf of California. Last year it welcomed information that the Mexican Government had convened an International Committee for the Recovery of the Vaquita (ICRV). It looked forward to receiving a report on further developments at this meeting.

The Scientific Committee was informed that the ICRV had not met in early 1998, as had been expected, but that it would do so in October 1998. The Scientific Committee once again offered to assist the ICRV in its work in any way possible.

Review of small cetaceans in the Indian Ocean and Red Sea, with special reference to the Middle East

Reflecting the information available to it in presented papers, the Scientific Committee limited its discussion to the northwestern part of the Indian Ocean, and in particular waters bordering the Arabian Peninsula. Three geographical zones were arbitrarily defined within this region and considered in turn:

- (1) the shallow, semi-enclosed Arabian (Persian) Gulf;
- (2) the Arabian Sea including the Gulfs of Oman and Aden; and
- (3) the Red Sea.

The quantity and quality of data on small cetaceans in the Middle East region are strongly biased towards the few areas where experienced researchers have spent time. Coastal waters of Oman have been relatively well studied, and surveys of a portion of the Saudi sector of the Arabian Gulf coast were conducted following the 1991 Gulf War. Otherwise, little is known about the cetacean fauna of the northern (Iran) side of the Arabian Gulf, the Arabian Sea coast of Yemen or the Gulf of Aden and Red Sea.

ARABIAN (PERSIAN) GULF

Only three species can be considered common in the Gulf. All common dolphins (*Delphinus*) observed at sea and examined in museum collections have been of the long-beaked form. Hump-backed dolphins (*Sousa chinensis*) appear to be widely distributed throughout the Gulf, albeit mainly in waters less than 30m deep. Bottlenose dolphins (*Tursiops*), all considered to be *aduncus*-type animals, are relatively abundant. A fourth species, the finless porpoise (*Neophocaena phocaenoides*), is of major concern because of its limited distribution, vulnerability to bycatch and likely susceptibility to disturbance from coastal development, land reclamation and vessel traffic. It seems to occur in the Gulf in low abundance.

ARABIAN SEA, INCLUDING THE GULF OF OMAN AND GULF OF ADEN

This region is much larger and more diverse than the Arabian Gulf. In Omani waters of the Gulf of Oman and the Arabian Sea, 13 species have been confirmed. Collection of tissues from the *Tursiops* spp. for DNA analyses is especially encouraged to help resolve questions as to which species are present in the Indian Ocean.

RED SEA

Last year, it was noted that at least eight small cetacean species are known to inhabit the Red Sea. No new data from the Red Sea were presented to the Scientific Committee this year.

CONSERVATION PROBLEMS

Several concerns have arisen with respect to the status of small cetaceans in the region. There is a dearth of information about cetacean interactions with the substantial fisheries in the Arabian Peninsula region, although they are known to have expanded rapidly in recent decades, at least in some areas. Incidental takes certainly occur, and their impact could be severe, but insufficient information is available to allow assessment of their importance to cetacean populations.

Pollutants are another major concern in this region. The poor circulation in the Arabian Gulf, particularly, means that contaminants remain concentrated for long periods. Not only has the Gulf experienced two very large-scale oil spills in recent years (Nowruz in 1983 and the Gulf War in 1991), but it is also estimated that some 1,500,000 tonnes of oil are released in the Gulf each decade as a result of normal oil production and transport.

A third potential concern, in addition to bycatch and pollution, is the possibility that there may be some directed hunting in the region. Archaeological evidence indicate a long history of human consumption of dolphin products in Oman. Recent observations of a very small number of butchered animals on beaches shows that there may still be some use of cetacean products in the region, although Omani law prohibits killing or hunting of whales.

A final, more generalised concern is that habitat degradation and loss may have already had a substantial impact on coastal cetaceans in the region.

RECOMMENDATIONS FOR FURTHER STUDY

The Scientific Committee made a number of recommendations:

- (1) that governments initiate studies of stock identity and field surveys for stock assessment;
- (2) that programmes be established to monitor the species and numbers of cetaceans caught;
- (3) that further work on specimen collection and curation be supported by appropriate governmental and non-governmental agencies;
- (4) that studies are carried out on the effects of chronic exposure of hydrocarbon contaminants on cetacean populations, and to measure contaminant burdens of cetaceans in the Gulf or elsewhere in the Middle East;
- (5) that detailed studies of the conservation status of hump-backed dolphins and finless porpoises in the Middle East be carried out; and continuation and expansion of studies of the systematics of spinner, bottlenose and hump-backed dolphins are also strongly encouraged. For these and other studies the Scientific Committee emphasised the importance of training and involving local scientists from range states in the region.

Further consideration of the criteria for assessing the status of harbour porpoise populations

Last year the Scientific Committee had agreed that no one algorithm for assessing the conservation status of small cetacean populations was likely to be appropriate in all circumstances. It also recognised that simulation studies, taking into account uncertainty in stock identity, would likely provide a way forward in resolving the question of which algorithms might best be used on a case by case basis. An intersessional group had made limited progress, due largely to time constraints, but a final summary report is expected by August 1998.

The Scientific Committee recommended the establishment of a joint working group with ASCOBANS to consider scientific matters relating to the status of harbour porpoises in the eastern North Atlantic, agreed that it should meet interessionally, and that the work of Scientific Committee members should begin by e-mail.

Review of other presented information

The Scientific Committee noted that although the trend data were not quantitative, porpoises appeared to have significantly declined across the Baltic region. Even minimum bycatch estimates exceeded the calculated sustainable mortality limit.

Estimates of bycatches of small cetaceans in two California gillnet fisheries were described, and the potential uses of passive acoustic techniques in surveys of small cetaceans were reviewed.

The question of the magnitude of catches of Dall's porpoises and other cetaceans in the Japanese salmon drift-net fishery operating inside the EEZ of the Russian Federation was raised, specifically the former research fishery and the commercial fishery since 1992. At present, no data are available and the Scientific Committee encouraged the Russian Federation to provide information on the size of bycatches in this fishery.

The Scientific Committee discussed the adequacy of information tabulated on takes of small cetaceans. It noted that it is incomplete, and therefore potentially misleading, and that both direct and indirect takes of small cetaceans were known to occur in several countries but were not included because of the lack of quantitative information. The missing data compromised the Scientific Committee's ability to do the work asked of it by the Commission (e.g. in IWC Resolution 1997-8). It suggested that the table should note situations where it believes catches occur, but where no quantitative information exists on their magnitude, and again urged that member countries not contributing information be reminded of the Commission's Resolutions.

Commission discussion

In the Commission, Japan restated its view that small cetaceans are outside the competence of the IWC, whose primary purpose is large cetaceans. Work on small cetaceans should not hinder the other work in the Scientific Committee, although it recognised that it will be useful to exchange information with ASCOBANS.

The UK thought the IWC can provide helpful advice on small cetaceans, noted the joint Working Group with ASCOBANS and spoke of the unacceptable removals which should be less than 2%. It commented on the increased take of Dall's porpoises, with no information on the incidental bycatch, and the killing methods involving the electric lance as a secondary method. It welcomed a contribution of £5,000 by an NGO group, the EIA, to the Small Cetacean Voluntary Fund encouraging matching contributions and stating that it would itself make a contribution. Sweden associated itself with these remarks.

The Netherlands also welcomed the joint Working Group with ASCOBANS and supported the recommendations. It is prepared to consider contributing to the Small Cetacean Voluntary Fund and encouraged other range states to do likewise.

The Russian Federation stated its view that small cetaceans and the white whale do not come under the IWC. Japan volunteered that the increased Dall's porpoise catches fall within the range of fluctuations, and it will have bilateral

discussions on the decline in Russian waters. It believed the electric lance is outside the terms of reference and the concerns raised are groundless.

The Commission took note of the Scientific Committee report.

The UK introduced a Resolution on the directed take of white whales, co-sponsored by Finland, France, Germany, Italy, Monaco, Netherlands and Switzerland. This was not intended to challenge the Greenland Home Rule Authority's role but, given the reported decline in the numbers wintering since 1991, a sustainable yield estimate of less than 200 off West Greenland and a recent average catch of 700, it suggested a precautionary approach to be appropriate.

Denmark thought the Resolution inappropriate, as it believes small cetaceans are outside IWC competence and this is an issue for the Greenland Home Rule Government. Austria regretted that white whales are outside the IWC competence, but supported the work of the Canada/Greenland Joint Commission. Norway supported the position of Denmark, as science and management were included in the Resolution. It noted that there will be discussions in NAMMCO on white whales early next year and encouraged co-operation. Japan agreed with Denmark and Norway.

The Resolution given in Appendix 10 was then adopted by a majority, noting the reservations recorded above.

17.2 Small cetacean topics for consideration by the Scientific Committee in 1999, 2000 and 2001

After a wide-ranging discussion, the Scientific Committee agreed that the current process of setting small cetacean priority topics for discussion is sound. It agreed that the two priority items identified last year for the 1999 meeting should be maintained: status of white whales and narwhals, and recent advances in bycatch mitigation measures (specifically acoustic deterrents).

The Scientific Committee proposed a new priority topic for discussion at its meeting in 2000 – a review of the status of freshwater cetaceans.

A review of the status of small cetaceans in the Caribbean region was agreed upon as the topic, to replace the previously proposed global review of the genus *Lissodelphis*, for 2001 and beyond.

These priority topics were endorsed by the Commission.

In the Commission, Monaco spoke of the uncertain taxonomic status of some species subject to incidental and directed takes. It proposed that the Scientific Committee should add the potential use of DNA analyses to identify species and sub-species. The Chairman of the Scientific Committee pointed out that this is taken into account already.

17.3 Other

National progress reports on research

Last year, the Scientific Committee agreed new guidelines for national progress reports and it welcomed the provision of the reports in the new format. It reaffirmed its view of the importance of such reports and recommended that the Commission urges member nations to submit them following the revised guidelines. (*Rep. int. Whal. Commn* 48: 292-5).

Soviet catch data

The IWC database at present contains the original (i.e. falsified) Soviet Southern Hemisphere catches, particularly for the 1960s. The Scientific Committee agreed that responses to requests for data from the IWC database should

not include the falsified catches, and should be accompanied by the information that, in the present incomplete state of the corrected data, they are not available from the IWC. Because revised data are still being collected and analysed by the relevant scientists, a fully revised database is not yet available but is in the process of development. Persons wishing to access the available corrected data should be directed to the relevant scientists. In the meantime, the Scientific Committee will continue to have access to, and use, the available corrected data under the existing conditions, i.e. either as currently published or by reference to the relevant scientists.

Priorities, work plan and initial agenda for the 1999 meeting

With the agreement of the Scientific Committee, after the close of the meeting the Convenors drew up the basis of an initial agenda for the 1999 meeting. They took into account the priorities recognised, and within them, the highest priority items agreed by the sub-committees. The Scientific Committee noted that the priorities may be revised in the light of Commission discussions. One particular example is the work on Bryde's whales which has been done in response to a decision the Commission made in 1996.

Following the Commission meeting, the revised initial agenda was circulated to members for information and will form the basis of the draft agenda to be circulated 60 days before the next meeting. As agreed in the Committee's revised Rules of Procedure, it will also provide a framework for determining invited participants to the 1999 meeting.

The Commission endorsed the seven topic areas that the Scientific Committee believes are of priority in terms of the advice required by the Commission, and the perceived links between them. The topics are: RMP, AWMP, aboriginal subsistence whaling, Comprehensive Assessment of whale stocks, environmental concerns, small cetaceans and whalewatching. It was noted that environmental issues are associated with all of these.

Mathematically-based techniques for recognition analysis

The Scientific Committee was informed that the computerised right whale matching program originally developed under an IWC contract had now been completed with financial help from IFAW and had been demonstrated at the right whale workshop. A similar system for humpback whale flukes was now being investigated. The Scientific Committee was disappointed that no further progress had been made on recognition analysis since the last meeting, although there had been problems in getting the right people to this meeting as Invited Participants. It recognised that as photographic catalogues increase in size, the need for computerised matching increases. It therefore recommended that the Commission's attention again be drawn to the need to include scientists with relevant expertise among those nominated by member governments to attend Scientific Committee meetings. An intersessional e-mail group to facilitate communication among researchers interested in this work was established to provide the Chairman with a list of potential participants to discuss this topic at next year's meeting. He undertook to inform the relevant Commissioners.

Biopsy sampling – collection of behavioural data

A draft data form has been designed which standardised collection of the necessary information and was submitted to the Scientific Committee for comment. The Scientific Committee recommended that the basic form should be

adopted (once comments had been incorporated) and that consideration should then be given to making the form available electronically through the Secretariat.

Publications

The Scientific Editor reviewed the present publications of the IWC and suggested a way forward that would: (a) maintain the scientific quality; (b) increase their scientific profile in the wider scientific community; and (c) enable more efficient managing of the workload and budget by reducing inter-annual variation. The major initiative involves the establishment of a new scientific journal that maintains the high standards of refereeing and editorial principles already established in IWC publications.

The Scientific Committee welcomed this initiative. It agreed that the proposal, which has been designed to be at least cost neutral to the Commission, will, for both scientific and pragmatic reasons, be advantageous to the commission and the Committee. It noted that other organisations, including CCAMLR and ICES, have adopted a similar approach. It recognised the major achievement already made in improving the scientific quality and reputation of IWC publications and strongly recommended adoption of the proposal.

COMMISSION DISCUSSION

The Commission noted and endorsed all these plans.

Then, at the end of this Agenda Item, Japan introduced a Resolution to consider establishment of a mechanism to improve communication between the Commission and its Scientific Committee. New Zealand said that it had been concerned for some time for better communication and accountability. The objectives of the Southern Ocean Sanctuary had taken four years to be given to the Scientific Committee. The latter advises on scientific matters but the Commission has the responsibility for policy. It proposed to add to the operative paragraph of the Resolution that the Commission requests 'the Advisory Committee in close consultation with' the Scientific Committee to recommend a process and report. After some discussion between Monaco, the Netherlands, New Zealand and Japan as to whether the report should be through the Finance and Administration Committee, the Resolution shown in Appendix 11 was adopted.

18. THE FUTURE OF THE IWC

18.1 Irish proposal

Mr M. Canny was asked by the outgoing Chairman at the 49th Annual Meeting in Monaco to engage in consultations with as many Commissioners as possible to ascertain whether the proposals put forward by Ireland could provide a basis for consensus within the IWC. He had had difficulties in carrying out bi-lateral consultations with other Commissioners and therefore called an informal intersessional meeting held in Antigua and Barbuda in February 1998 attended by 17 Governments and with written contributions from two more. The detailed discussions had been frank and direct and although there was no consensus there was good will to continue informal talks.

Later in the meeting, Mr. Canny reported that he was encouraged to continue the process already underway. Ireland would not put forward a formal proposal but wished to retain the item until next year.

Brazil recalled the Commission's well-defined conservation profile and indicated that it will be making a proposal next year for a South Atlantic Ocean Sanctuary to

promote whalewatching, research and conservation. The USA encouraged this action and supported non-consumptive use in the area.

Denmark noted that it is important to preserve whale stocks and to secure the survival of the IWC. Governments must cooperate with each other and it therefore hoped the Irish initiative would succeed.

The USA said it was willing to join a dialogue. It favoured conservation and protection and was concerned about the increase in catches. It had not seen progress in the discussions.

New Zealand spoke of its support for sanctuaries and will consult with partners on a South Pacific Sanctuary. It was willing to talk about all the elements underlying the Irish proposal but there needs to be participation from both sides. It highlighted the issues of coastal whaling and trade by Norway and an end to scientific whaling in the Antarctic by Japan, but thought that there was substantial middle ground. The Netherlands agreed, but this issue cannot be kept on the Agenda indefinitely.

Concerning a Sanctuary, Argentina mentioned the provisions of UNCLOS, and Mexico also referred to these principles. It was committed to whale conservation and protected areas, and had an interest in continuing the work.

Japan spoke of the different cultures, with New Zealand representing the meat-eaters and the Japanese as people whose main diet is fish. Fish make up about half the world's food supply. The IWC has turned into an organisation to protect whales, whereas it should consider the sustainable use of ocean resources and the total ecosystem. It saw no sign of this from New Zealand, and wished for a return to the original purposes of the Convention. More than 50% of countries in CITES supported Japan and it believed public opinion surveys supported whaling.

Sweden urged the two sides to move towards the middle ground; it is not enough to talk, there must be compromise. Switzerland agreed. The Irish proposal was courageous and it would like to see progress as patience will not go on for ever. Finland agreed with Sweden, Switzerland and the Netherlands, as did Germany which looked to protect whale stocks in future.

Norway stated that it was prepared to engage in talks. It could not accept the proposals as they stand but took them as a basis for discussion. It asked what compromises were expected, that it should give up everything?

The UK supported New Zealand and while it was prepared to talk it was not sure that progress is possible. Unless Japan will give up pelagic scientific whaling it saw no hope, but it was unsure about coastal whaling. It believed that if agreement is not possible then the process should not be prolonged. South Africa expressed its alarm at this view. The IWC has lost control over scientific whaling and national measures. The *status quo* does not achieve much, but the demise of the Commission will not improve matters. It saw no alternative but to pursue the issues as suggested by Sweden, a position also shared by Spain.

Antigua and Barbuda recalled that it had hosted the interessional meeting of Commissioners because of its interest. It thought the anti-whaling countries had no flexibility, and cited a survey of four developed countries where the majority of people had no detailed information on whales but would support strictly controlled whaling.

Chile was optimistic for the future and asked for everyone to reconsider their positions. There was a new atmosphere from the countries in the middle ground where negotiations could start. Monaco thought compromise was honourable. A

resumption of commercial whaling should be limited to coastal whaling under IWC control, with something else given up. There should be a limit to the time, but progress could be made by the next meeting in Grenada. France also thought there should be further consideration of a convincing basis for the conservation of whales, a clarification and renewal of the concepts used by the Commission, and a better adaptation to the present realities of international environment protection, but this should not continue for too long.

Australia looked for the key to the future. Governments must seek to bridge their differences. It wished for an end to scientific whaling, a ban on trade in whale products, and sanctuaries in the South Pacific as well as the South Atlantic. It could not embrace commercial whaling and sought a definition of aboriginal whaling, with no new categories. This was no basis for negotiating, and so was unlikely to be successful, but there is an evolution of attitudes.

St Lucia was disturbed to hear the view that the Irish proposal was not a basis for discussion, and commented on the antagonistic negotiating styles, with a deadlock between the east and west, and the IWC versus the NGOs. It thought more flexibility might lead to a solution.

The Republic of Korea recalled its own coastal whaling and its reasons for joining the Commission in 1978, to bring an orderly development, but it had accepted the moratorium in 1986. It wished to restore the objectives of the Convention and found the Irish ideas helpful. The People's Republic of China also found the proposal attractive. It favoured active conservation and reasonable utilisation, but on a sustainable basis for the future.

Italy commented that it was too early for it to join the discussion but that it was ready to examine any proposal.

The Irish Commissioner took note of all the comments and would continue the process, taking account of the reservations expressed.

18.2 Health effects

Under this Agenda Item, Monaco introduced a Resolution co-sponsored by the USA on IWC concern about human health effects from the consumption of cetaceans. It spoke of the unclear health effects of organic contaminants and thought the IWC could consider under Article V.2(d) not just the economic but also the health interests of consumers. It invited national, international and WHO collaboration. The USA stated that it was concerned by the transfer of pollutants from cetaceans to people and wished to broaden IWC cooperation.

Japan noted the natural interest in this subject since the fish and krill eaten by whales causes an accumulation which required research on prey, feeding and pollutants. It was engaged in research in the Antarctic and the North Pacific and found that DDT, PCB and Cd levels are very low in minke whales but are higher in the North Pacific. They were also higher in fish than cetaceans and Japan asked why the focus was on cetaceans.

Denmark had concerns for two of the three parts of its Kingdom. This was not a general problem and related to toothed rather than baleen whales because of differences in the food chain levels. It looked for a reduction in sea waste deposits.

Norway saw this as a serious problem for indigenous people with a high marine mammal food intake. It was discussed at the Ministerial Meeting of the Arctic Council held in June 1997 in Norway and it was surprised one member put this forward here, as a matter of competence. It

supported the substance of the proposal, but it lacked important elements and should be postponed for input from the Arctic Council.

The USA commented that whale research in the Arctic is not exclusive to the Arctic Council, with which we should co-operate as it does not have authority for whales. Norway responded that there was no reference in the Resolution to the Scientific Committee nor management of whale stocks.

Monaco recalled that Antarctic PCB levels are generally below safe thresholds and priority concerns are to gather information on small cetaceans which are consumed by people. North Atlantic pilot whale blubber has been found to have ten times the safe level, which is a reason for worry.

France voiced its hope for consensus, and the Resolution given in Appendix 12 was then adopted, noting the comments made.

19. FINANCIAL STATEMENTS AND BUDGET ESTIMATES

The Finance and Administration Committee met under the Chairmanship of Mr C.I. Llewelyn (UK), and was due to consider Agenda Items 19, 20 and 21.

19.1 Review of provisional financial statement, 1997/98

The Secretariat reported that the IWC's financial position had strengthened even further since the last meeting in Monaco. Although spending was slightly higher than budgeted, mainly due to the Administrative Review which was financed from the reserves, there will still be a surplus which will take the balance of the General Fund to over £950,000 by the end of the financial year. The surplus is due in large part to some member countries reducing their outstanding arrears.

19.2 Consideration of estimated basic budgets, 1998/99 and 1999/2000

The provisional budget for 1998/99 assumes broadly the same level of activity as at present. In the absence of other indicators, allowances for cost increases were made at approximately 3.5%. At the 49th Annual Meeting the Commission had accepted the view of the Finance and Administration Committee that 'maintaining general reserves at approximately the six-month level represents a prudent but not unduly cautious approach,' but that equally, 'it is inappropriate to permit the reserves to simply build without any long-term strategy.' The Secretariat drew the Commission's attention to the large increase in the general reserve to a level approximately 60% higher than the target of six months expenditure.

The Secretariat considered that it is time to take some positive steps to bring the reserves closer to the six months level. To avoid sudden and disruptive one-off changes in members' financial obligations, it suggested a budget that maintained the realisable contributions at the 1997-98 level.

19.2.1 Research proposals

The Chairman of the Scientific Committee introduced the Committee's proposals for research expenditure detailed in its Report. He noted that the Scientific Committee recommended eleven proposals in four groups. Of these, two proposals are relevant to the Revised Management Scheme; one is related to development of the Aboriginal Subsistence Whaling Management Procedure; three will focus on environmental matters; and five relate to the Comprehensive Assessment of whale stocks. Of a proposed total of

£186,466, approximately 50% is earmarked for the Comprehensive Assessment of whale stocks, and about one-third for environmental matters.

The Secretary explained that there were various ways to meet the shortfall in funding created if the Commission were to approve all of the Scientific Committee's requests: either through an increase in member contributions or by taking the money out of the reserve fund or by some combination of these.

Antigua and Barbuda proposed that the IWC institute a policy to ensure that money spent on research did not increase by a percentage figure higher than any percentage decrease in member country assessments. New Zealand then stated that whatever the differences between member countries in the IWC, all must concern themselves with the effects of environmental threats to cetaceans. It believed that it was time that the IWC should publicly shift its emphasis, New Zealand then proposed an expansion of the IWC's research into the environmental threats listed above, suggesting the creation of a dedicated Environment Research Fund. The fund would support research and also provide financial assistance to enable experts to attend certain meetings; it suggested that it be launched by transferring £200,000 into it from the General Fund.

In the ensuing debate, there was general support for funding the specific research projects recommended by the Scientific Committee, but views were divided on the New Zealand proposal. The Chairman of the Finance and Administration Committee concluded that the Committee agreed that the research proposals recommended by the Scientific Committee should be funded. There was no consensus on the New Zealand proposal; and he suggested that New Zealand release it in writing and discuss it informally with other delegations before the Commission meeting.

19.2.2 Assessment of contributions from Contracting Governments

The Chairman suggested that there were essentially three options before the IWC. First, it could aim to maintain its realised income at the 1997/98 level: because there was expected to be more contributing member countries, this would involve a reduction in contributions per share (this was the approach adopted in the budget prepared by the Secretariat). Second, it could freeze contributions per share at the 1997/98 level: because of the increase in contributing member countries, this could be expected to increase realised income by around £95,000. It should be noted that both these options relied on increasing expenditure to bring the IWC's reserves down to the preferred level. The third option was to reduce the reserve more rapidly by reducing contributions per share more substantially and running a larger deficit in 1998/99.

The USA cautioned against reducing member contributions; in the USA, at least, any reduction would be difficult to reverse and so could have long-term effects on the IWC's funding. It therefore favoured the first option. This view was supported by the UK, Australia, and Denmark. Antigua and Barbuda, on the other hand, drew attention to its earlier proposal, and pointed out that for developing countries any reduction in their contributions to bodies such as the IWC was significant. The Chairman concluded that most delegations present could accept either of the first two options: he would discuss the issue further with the USA and Antigua and Barbuda to try to resolve their differences of view before the Plenary.

In the course of that debate, Germany made clear its concern with the IWC's budgetary practices, saying the General Fund remained much too large, and pointing out that the present distinction between realised and assessed contributions should not be maintained. It felt that distinction not to be in accordance with sound budgetary practice and encourages debtor countries to remain in arrears.

19.3 Action arising

In the Commission the Secretary presented a revised budget for 1998/99. This included the funding of all expenditure proposed, and the addition of £10,000 for the Workshop on Whale Killing Methods and £4,000 for the Scientific Committee's working groups on the AWMP and Bryde's whale trials. The effect was to reduce the value of a contribution share by 4%. The Secretary further proposed that because the Administrative Review might well suggest additional expenditure such as extra staff or resources, an additional sum of £50,000 should be set aside provisionally to be drawn from the reserves with the agreement of the Advisory Committee after the Review is presented.

The Commission accepted the revised budget, scale of contributions and the allocation of £50,000 from the reserves. The adopted budget is given in Appendix 13.

New Zealand, supported by Brazil, pointed to a proposal arising from the Right Whale Workshop for a Southern Hemisphere Right Whale Consortium, and requested £5,000 to establish this. The Chairman of the Scientific Committee commented that while this had been endorsed in principle, no figure had been determined and it had not been included in the list of highest priorities. New Zealand and Brazil subsequently indicated that they would not pursue the matter.

20. IWC ADMINISTRATION

20.1 Review of administrative systems

At last year's meeting, the Commission authorised, by IWC Resolution 1997-9, an external review of the IWC's administrative systems and the Secretariat, to be completed in 1998 in time for consideration by the Commission at next year's meeting. The Consultants chosen, Deloitte Touche Tohmatsu International, made an illustrated presentation on their work to date. New Zealand requested information concerning the decision that led to the selection of the consultants. The Secretary described the process that began with ten firms suggested by Commissioners and ended with Deloitte Touche Tohmatsu International's unanimous selection by the Advisory Committee.

20.2 Advisory Committee

Last year the Commission decided, by IWC Resolution 1997-10, to establish an Advisory Committee comprising the Chairman, Vice-Chairman, Secretary and two Commissioners to broadly represent the interests within the IWC forum. The role of this Committee is one of support to the Secretariat, and the two Commissioners who volunteered to serve until the 50th Annual Meeting were Norway and Mexico.

Norway explained that while it and Mexico had been the two Commissioners appointed together last year, one needed to retire this year to establish the alternation. Since this was the last meeting for the Commissioner for Norway, he nominated Japan to serve for the next two years. This was agreed.

20.3 Annual Meeting arrangements

At the 49th Annual Meeting the Commission agreed that the Press be allowed access to the next meeting on the same basis as NGOs, given access to documents and be charged a nominal fee approximately equal to the costs of producing the documents they require. The Commission would review the matter in the light of the experience at this 50th meeting, and will revisit the issue next year.

The Finance and Administration Committee noted the arrangements for the year detailed in a paper prepared by the Secretariat, including provisional Rules of Conduct for the Press (shown in Appendix 14).

The Secretary had been instructed by the Commission to modify the Rules of Conduct for Observers to take account of the decision to promote greater access by the Press. These are attached as Appendix 15.

20.4 Communications

Following agreement at last year's meeting, all standard communications to Commissioners, Contracting Governments and members of the Scientific Committee have been by electronic means (e-mail or fax), with a hard copy following in the post. In reviewing this arrangement, the Secretary sought the opinions of Commissioners and of the members of the Scientific Committee. The Chairman of the Finance and Administration Committee noted the general satisfaction with the arrangement, and that members of the Scientific Committee requested that all communications to them henceforth be conducted via e-mail, (although there were certain technical problems). The Secretary pointed out that Commissioners often lacked e-mail addresses and had to have their documents faxed, creating a strain on the Secretariat staff. The Chairman suggested a continuation of the trial for Commissioners and Contracting Governments, and it was agreed to recommend this to the Commission.

20.5 Action arising

No further action was taken in addition to the matters described above.

21. AMENDMENT OF THE RULES OF PROCEDURE

21.1 Voting procedures

Last year Japan proposed an amendment to the Rule of Procedure E.3(d) that would have permitted votes by secret ballot under certain conditions. After differing views were expressed by delegations, it was agreed that further discussion and consideration of this issue should be deferred until the next meeting. In the meantime, interested Contracting Governments were invited to submit information on voting practices and rules of procedure used in international fora; the Secretariat would write to international organisations, with which the IWC has established links, in order to gather information on voting procedures including the use of secret ballots; and the Commission should refer this additional information, together with the proposal for an amendment to Section E.3(d) of the Rules of Procedure, to the Finance and Administration Committee with a view to consideration and disposal of the issue at the 50th meeting.

This year, Japan proposed the following rule:

'Votes can be taken by a show of hands, or by roll call, as in the opinion of the Chairman appears to be most suitable. Votes shall be taken by secret ballots when this request is made by a Contracting Government and seconded by three or more Contracting Governments, one of whom is either a proponent of the issue to be voted upon, or is specifically named in the said issue, or is directly affected by the vote to be taken.'

Japan explained that it had expanded the amendment proposed at the 49th meeting to the form above (new text in **bold**) because it believed it important that a country with no direct interest in an issue should not be able to call for a secret vote.

Japan pointed out that both the information compiled by the Secretariat and their own research showed that a number of other organisations (among them CCAMLR, ICCAT, CITES and ICSEAF) that could be used for purposes of comparison employed the secret ballot under certain conditions. Japan went on to say that because the press is allowed to cover the IWC, pre-vote discussions would reveal a country's intent, thereby obviating any concerns about the transparency of the organisation. Finally, Japan maintained that the IWC would be out-of-step with other similar organisations if it fails to approve the secret ballot initiative.

The UK spoke in opposition, stressing the need for true transparency in the IWC and strongly opposing Japan's initiative. The Netherlands, Spain, Germany and Brazil associated themselves with the UK's remarks. The USA also strongly opposed the proposed amendment, citing the IWC's history of mismanagement of whale stocks in its argument for transparency.

Antigua and Barbuda strongly supported Japan, noting the vulnerability of smaller member countries to potential economic measures that could be organised by groups opposed to the way a member country votes. It demanded the right to vote 'free of fear', and noted that CITES uses the secret ballot very successfully. St Vincent and The Grenadines, St Lucia and Dominica agreed. St Lucia questioned the fear of the secret ballot by the so-called developed countries which have categorically stated that they would never agree to a resumption of commercial whaling. Were these developed countries afraid that their satellites would vote against their dictates? St Lucia's concern was also expressed about the harassment and intimidation directed at developing countries by certain NGOs and associates of the developed countries.

Denmark intervened to deplore the sort of economic pressure described by Antigua and Barbuda, but stated that it had always opposed secret ballots in international organisations and opposed the Japanese amendment. New Zealand said the amendment would be a retrograde step, and that it believes the IWC should be subject to the maximum possible scrutiny. Australia concurred with New Zealand, then disagreed with Antigua and Barbuda's mention of CITES as an organisation where the secret ballot works well, noting that intimidation has not disappeared from that organisation and that not all vulnerable states were on one side of an issue. Norway said that the organisation owes it to the Caribbean countries to explore ways to address the sort of intimidation they could suffer. Norway also said it would go along with a 'reasonable' system of secret balloting.

At this point in the Finance and Administration Committee meeting Japan questioned the presence of a number of NGO observers sitting with a national delegation and displaying NGO identification badges. It recalled that the Finance and Administration Committee is closed to observers and requested that those observers wearing NGO badges leave the meeting.

The USA explained that, earlier in the day, it had submitted the names of several persons to the Secretariat for the purposes of accrediting them to its delegation during the discussion of the secret ballot item only. This was consistent with the Commission's Rules of Procedure. The USA

pointed out that the question of secret balloting is one of policy, unlike the financial and administrative matters normally handled by the Committee.

Japan responded that, regardless of whether the USA submitted valid credentials and whether it was accepted, persons wearing badges denoting NGO status were present. The proper procedure that each NGO should follow is to acquire appropriate status and wear the correct badge with the status of national delegates and until such time as this was carried out the NGO observers should leave.

The Chairman asked the Secretary whether the credentials of the additional members of the USA delegation satisfied the Commission's Rules of Procedure. The Secretary confirmed that the credentials in question were in order. The Chairman then asked anyone in the meeting who was not properly accredited to leave the room. No one did, so he concluded that everyone present was properly accredited.

Japan objected to the Chairman's ruling, stating that it did not conform to what Japan understood to be the clear intention of the Commission's rules. Japan then left the meeting as an expression of dissatisfaction with the ruling, and Norway proposed that the meeting be adjourned. This was agreed.

COMMISSION DISCUSSION

In the Commission, Japan spoke of the survey of other organisations carried out by the Secretary which concluded in summary that secret ballots are available for use on request in CCAMLR, CMS, CITES, ICCAT and ICSEAF. In the case of IOC and ICES the provision for secret ballots applies to elections. It cited a number of other UN-based organisations with similar provisions and repeated its arguments for such an arrangement in the IWC, since small island nations are subject to NGO pressures of economic boycotts, while transparency is secured by the statements of nations voting in the meeting open to the Press.

The Netherlands, Denmark, Australia, USA, France, New Zealand, Spain, Germany, UK, Norway, Italy, Chile, Monaco, Argentina, Sweden, India, South Africa, Finland and Austria stressed the importance of transparency and thought secret ballots were not the answer to the problem, although a number of governments accepted that they could be used in the election of officers. Japan commented on the differing positions of some countries in other organisations.

Ireland had some sympathy with the problem and did not condone intimidation, but could not support the proposal. Brazil spoke of the full accountability required under Agenda 21 on environmental matters, and the Republic of Korea spoke of the options of voting by show of hands or roll call which gives useful contact, and secret ballot.

Antigua and Barbuda stressed the importance of the issue of freedom from fear, particularly for small island states and their resource management. The Solomon Islands supported the idea for use if requested, and Grenada, St Lucia and Dominica voiced their support. The People's Republic of China also supported the proposal since it believed transparency does not contradict the use of a secret ballot, a view shared by St Kitts and Nevis.

Monaco believed that the majority were against the proposal for deciding policy, but thought secret votes could be used in electing the Chairman and Vice-Chairman, the appointment of the Secretary and the selection of Annual Meeting venues. Mexico agreed and the meeting set up a small group led by Monaco to report back.

St Lucia, Antigua and Barbuda, Dominica and Grenada commented that the presence of certain NGOs in the meeting was itself intimidating, even when they were members of a national delegation, and they issued Opening Statements which were untruthful. They called for their expulsion. Japan explained its overseas aid programme to more than 100 countries which was not linked to voting policy.

Following a Commissioners' meeting one Opening Statement was withdrawn from the meeting documentation by the Commission and a clarification of another issued by the NGO concerned. The Secretary was requested to draft guidelines for Opening Statements by observers in future.

Subsequently Monaco, seconded by Mexico, put forward an amendment to Japan's proposal to provide for secret ballots for selection of officers and meeting venues. Australia, seconded by Sweden proposed to add 'upon request by a Commissioner'; and Antigua and Barbuda, seconded by Dominica, proposed adding voting on non-binding Resolutions to those that shall proceed by secret ballot. This latter amendment was lost by 9 votes to 21, with 3 abstentions, whereupon Japan withdrew its original proposal.

The question of the effect of such a withdrawal by the proposer on the Agenda Item was then raised by Monaco and the Chairman was asked to give a ruling. From a precedent set by legal advice obtained by the Commission following the 13th (1961) Annual Meeting and based on UN rules, the Chairman made a distinction between an agenda item and a proposal under that Agenda Item. He ruled that the Agenda Item as such cannot be withdrawn at this time as it had been adopted by the Commission under Agenda Item 4. In relation to the proposal under the Agenda Item, it was valid for Japan to withdraw its sponsorship of the particular proposal made under this Agenda Item and the proposal now did not have a formal proposer. It was, therefore, open to any other nation to reintroduce a proposal.

Monaco and New Zealand accepted this ruling, but Japan believed the precedent used was inappropriate especially since the substantive discussion had taken place. St Lucia was not prepared to accept the ruling unless legal advice was available and the matter was put to the vote. The Chairman's ruling was then upheld, with 23 votes in favour, 5 against and 5 abstentions. Japan explained its abstention and appreciated the efforts of the Chairman; St Lucia stated it did not deliberately challenge the ruling of the Chairman; and Antigua and Barbuda commented on the fundamental importance of the issue to the organisation and thought the matter could have waited until the 51st meeting, and therefore voted no.

21.2 Observers

The USA and the Netherlands proposed to add a new Rule of Procedure which would have the effect of admitting Observers to any subsidiary meetings of the Commission or the Technical Committee, and intersessional meetings, other than Commissioners' meetings and the Finance and Administration Committee. This was not discussed in the Finance and Administration Committee before that meeting was adjourned, and the USA notified the Commission that it would defer the matter to next year.

Antigua and Barbuda, on behalf of the People's Republic of China, Norway and South Africa, introduced a Resolution on review of observer status. It explained that this sought to establish a better relationship between state parties and NGO observers. Norway commented that the matter arose in the discussion of secret balloting. It thought something was needed in the Rules of Procedure to give more

responsibilities amongst observers. Those carrying out criminal acts against whalers are already banned, and it foresaw a situation needing rules to cover those causing economic hardship.

New Zealand supported actions against observers which pose threats and was sympathetic, but it had problems with the operative paragraph. The USA agreed, and suggested referring the matter to the Advisory Committee. Denmark concurred. Norway formally proposed that the Advisory Committee should be the starting point for consideration, and Finland seconded this amendment.

Grenada disagreed totally with New Zealand and the USA, proposing that the Commission should go further and set up an IWC legal defence fund.

Italy could not support the Resolution since it was not within the competence of IWC to decide if states' laws had been violated. St Lucia disagreed, but thought the matter could be postponed to next year.

The UK questioned the role of the Advisory Committee on such an issue, and Norway and South Africa agreed with the elements of the Rule and the amendments. New Zealand urged finding an alternative to going to the Advisory Committee, since this would give a quasi-endorsement of the wording rather than a general mandate.

Monaco proposed that the operative paragraph should be to consider 'appropriate additions to the Rules of Procedure', but this was unacceptable to the sponsors.

Further exchanges involving Antigua and Barbuda, Norway, Italy, South Africa, the Netherlands, Australia and Austria showed that there was no consensus, and the Resolution given in Appendix 16 was put to the vote and adopted by 14 vote in favour to 10 against, with 10 abstentions.

Antigua and Barbuda thanked those who voted in favour for supporting small developing countries. Monaco expressed its support for the Caribbean states and the respect for freedom of speech, and South Africa explained that there was no attempt to limit freedom of speech.

21.3 Advisory Committee

Last year, when the Commission decided by IWC Resolution 1997-10 to establish an Advisory Committee, it suggested that the Secretary draw up a Rule of Procedure for consideration at the next meeting. After a brief discussion of his proposed text, it was decided that New Zealand and Norway would reformulate the Rule to better define the role of the Advisory Committee.

The text they submitted was amended at the suggestion of the Chairman, which Netherlands was happy to support, that the Chairman of the Finance and Administration Committee should also be a member of the Advisory Committee. The text as amended is:

'The Commission shall establish an Advisory Committee. This Committee shall comprise the Chairman, Vice-Chairman, Chairman of the Finance and Administration Committee, Secretary and two Commissioners to broadly represent the interests within the IWC forum. The appointment of the Commissioners shall be for two years on alternative years.'

The role of the Committee shall be to assist and advise the Secretariat on administrative matters upon request by the Secretariat or agreement in the Commission. The Committee is not a decision-making forum and shall not deal with policy matters or administrative matters that are within the scope of the Finance and Administration Committee other than making recommendations to this Committee.'

The Commission agreed to add this as new Rule of Procedure M.9.

21.4 Scientific Committee

Last year, the Scientific Committee had developed revised Rules of Procedure and agreed that they should be given final consideration at the 50th meeting. The Scientific Committee reviewed the draft Rules, and in particular the experience gained in trying to use the rules developed last year concerning invited participants. It agreed to a suggested modification to these to take into account problems encountered.

However, because the Finance and Administration Committee meeting was adjourned before it considered these rules, the Commission agreed that they should be tabled again next year.

21.5 Action arising

No other actions were taken.

22. DATE AND PLACE OF ANNUAL MEETINGS

22.1 51st Annual Meeting, 1999

Grenada welcomed all delegates and observers to come to its country for the next meeting. The Chairman confirmed that the date would be May 1999.

22.2 52nd Annual Meeting, 2000

Australia invited the Commission to hold its 52nd meeting there, at a site still to be selected. The Chairman thanked Australia and accepted its invitation.

Denmark suggested that the Finance and Administration Committee might consider whether meetings could be held other than in the Northern Hemisphere summer, and this was referred to the next meeting.

23. ADOPTION OF REPORT OF FINANCE AND ADMINISTRATION COMMITTEE

The report of the Finance and Administration Committee, covering those items it considered before it was adjourned, was adopted by the Commission.

24. ANNUAL REPORT 1997-98

The Secretary presented the draft Annual Report for 1997-98, covering the period since the 49th Annual Meeting held in Monaco in October 1997, which was adopted subject to any corrections notified.

25. ANY OTHER BUSINESS

The Netherlands introduced a Resolution, co-sponsored by Austria, Finland, France, Germany, Italy, Monaco, Spain, UK and USA, on Canadian membership to the IWC. It noted

the bowhead catches by Canada and the concerns of the Scientific Committee on the stocks, and reaffirmed the position of the IWC as the sole body to regulate whaling. There was wide support, and consultation with the Canadian observer.

Japan spoke of the increase of whale resources since the moratorium, and the increased catches in Indonesia and the Philippines. It wondered why Canada had been singled out. Normal discussion should occur in the IWC, rather than the weak and vulnerable being bullied, and it was opposed to inviting Canada to rejoin until there was a better spirit within the Commission.

The Canadian observer was invited to speak, and he thanked the Commission for this opportunity. He recalled Canada's constitution which gives harvesting rights to the native peoples consistent with conservation requirements. There is no commercial whaling, and it collaborates with the IWC by sending an observer to the Annual Meeting, and scientists to the Scientific Committee.

Denmark agreed that whaling should be within the IWC, noted the depleted condition of the Hudson Bay stock, and recalled that while Article VI of the Convention allowed the Commission to make recommendations to Contracting Governments, it would welcome Canada becoming a member through the normal diplomatic channels.

Mexico commented on the repetitive text of the Resolution, and suggested deleting the final phrase, but later withdrew this proposal.

The USA pointed to Article 65 of UNCLOS and Agenda 21 to identify the IWC as the sole global authority for whales, and therefore supported the Resolution. Norway shared the sentiments expressed by Denmark, and stressed the plural organisations referred to in Article 65.

The Netherlands reiterated the dangerous situation of the stocks concerned, and after the Chairman noted that there was some opposition, the Resolution shown in Appendix 17 was adopted by 20 votes in favour to 6 against, with 6 abstentions.

26. AMENDMENTS TO THE SCHEDULE

As no modifications were made at this meeting to the provision for zero catch limits for commercial whaling with effect from the 1986 coastal and the 1985/86 pelagic seasons, the following amendments to the Schedule of the International Convention for the Regulation of Whaling were therefore necessary:

Paragraphs 11 and 12, and Tables 1, 2 and 3:

Substitute the dates **1998/99 pelagic season, 1999 coastal season, 1999 season or 1999** as appropriate.

Appendix 1

TERMS OF REFERENCE FOR THE WORKSHOP ON WHALE KILLING METHODS

- (1) Consider all methods of killing currently in use in whaling or known to be in development.
- (2) Assess the methods, their efficacy and physiological effects.
- (3) Evaluate the time to death achieved by the various methods.
- (4) Review and evaluate all data, relevant to the Workshop, available through the IWC or held by national governments or organisations.
- (5) complete a comparative analysis of the methods and consider revision of the Action Plan as appropriate, with a view to improving whale killing techniques and so