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## Editorial

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This issue of the Journal follows the 2002 meeting of the International Whaling Commission held in Shimonoseki, Japan. Details of the Commission meeting will be published in the next *Annual Report of the International Whaling Commission*. The full report of the Scientific Committee will be published in spring 2003 as *J. Cetacean Res. Manage.* 5 (Suppl.). However, it seems timely to provide a short summary of the work of the Scientific Committee that updates the summary provided in Donovan (2002).

### **REVISED MANAGEMENT PROCEDURE**

After the adoption of the moratorium on commercial whaling in 1982, the Committee spent over eight years developing the Revised Management Procedure (RMP) for baleen whales (IWC, 1999b). In brief, the RMP is a generic management procedure designed to estimate safe catch limits for commercial whaling of baleen whales. This was adopted some time ago by the Commission (IWC, 1993). However, the Commission has stated that it will not set catch limits for commercial whaling for any stocks until it has agreed and adopted a complete Revised Management Scheme (RMS). The RMS will also include a number of non-scientific matters, including inspection and enforcement. This is the subject of a considerable amount of discussion within the Commission, which is holding a special meeting of Commissioners to address this issue in October 2002.

### ***Implementation Simulation Trials***

*Implementation Simulation Trials* are trials that are carried out before using the RMP to calculate a catch limit and involve investigating the full range of plausible hypotheses related to a specific species and geographic area.

The process of developing



### *Humpback whales off St Vincent and the Grenadines*

The Committee has been working on an in-depth assessment for North Atlantic humpback whales (see below). Based on the available data, the Committee believes it is most plausible that eastern Caribbean humpbacks are part of the West Indies breeding population (abundance in 1992/93 – 11,570, 95% CI 10,100 – 13,200). However, it recommended further collection of relevant data to confirm this. The Committee agreed that an annual catch of up to four whales was acceptable. After considerable debate in the Commission, a catch of up to 20 whales for the period 2003-7 was agreed (the Scientific Committee must review this in 2005).

has been working in an objective manner towards this, initially concentrating on stocks that have recently been or are presently subject to either commercial or aboriginal subsistence whaling. Some of these have already been discussed in the sections on the RMP and AWMP.

### *Antarctic minke whales*

The Committee has carried out annual surveys in the Antarctic (south of 60°S) since the late 1970s. The last

## **STOCK IDENTITY**

Of general concern to the assessment of any cetaceans is the question of stock identity and examination of this concept in the context of management plays an important role in much of the Committee's work, whether in the context of the RMP, AWMP or general conservation and management. In recognition of this, the Committee has established a Working Group to review theoretical and practical aspects of the stock concept in a management context. At the 2001 meeting, the Committee considered *inter alia*: terminology; stock structure in humpback whales; a range of analytical and statistical issues; the use of archetypes; and the combination of genetic and non-genetic information on stock identity.

This year, the Committee continued its work. In particular, it recognised the need to work towards an agreed definition of appropriate 'units-to-serve' in a management context. Implicit in this is recognition that there may be need for case-by-case flexibility, and that it might be appropriate for the Committee to provide options and their implications when providing advice to the Commission. It is intended to have a full discussion of this idea next year. The Committee also examined a number of statistical and genetic issues relevant to this issue. Discussion focussed on use of 'traditional' hypothesis testing methods, a Bayesian approach (see Cui *et al.* in this volume) and a newer, as yet unpublished method (the boundary rank technique). In summary, the Committee noted that it is important, in any application of stock structure methods, to examine the sensitivity of conclusions to different *a priori* decisions about the definition of initial units, and about which population structure hypotheses to examine.

The Committee also recognised the importance of simulation testing to assess the performance of methods to identify population structure and will hold a specialist workshop to examine this in the coming year.

## **COMPREHENSIVE ASSESSMENT OF WHALE STOCKS**

### **The 'Comprehensive Assessment' of whale stocks**

The development of the concept of the 'Comprehensive Assessment' is reviewed in Donovan (1989). It can be considered as an in-depth evaluation of the status of all whale stocks in the light of management objectives and procedures; this would include the examination of current stock size, recent population trends, carrying capacity and productivity. Clearly, it is not possible to 'comprehensively assess' all whale stocks simultaneously, and the Committee

*North Atlantic humpback whales*

At the 2001 meeting, priority was given to the Comprehensive Assessment of North Atlantic humpback whales. The Committee recognised the important contribution the international YoNAH (Years of the North Atlantic Humpback) project made to the assessment. This project combined photo-identification and molecular genetic techniques to collect as many photographs and skin biopsies as possible in four sampling periods over a wide geographical range during a period of two years (1992-1993). The principal objectives of the study were to increase understanding of: (a) abundance –both regionally and in total; (b) population genetic structure; (c) population spatial structure including rates of exchange among feeding grounds; and (d) reproductive behaviour and vital rates.

In reviewing population structure, the Committee concluded that North Atlantic humpback whales are characterised by relatively discrete feeding sub-stocks, with strong site fidelity by individuals. This latter factor also influences movement patterns within feeding grounds.

There is clear evidence for at least two breeding stocks in the North Atlantic. Whales from the western North Atlantic breed primarily in the West Indies, as do some whales that feed in the central North Atlantic. However, where other central North Atlantic animals and those from the Barents Sea breed is unknown.

The only breeding ground, other than the West Indies, known from historical and contemporary data is the Cape Verde Islands, but to date there is no direct evidence to support the idea that this is a breeding ground used by central and eastern North Atlantic animals. There may be a separate breeding population in the Norwegian Sea (as suggested in the late 1920s) and the possibility that there are three separate breeding stocks in the North Atlantic cannot be ruled out.

The Committee reviewed a number of population estimates for the feeding and breeding grounds.

This year, the Committee hoped to complete its assessment. It reviewed historical removals and agreed that the catch series was essentially complete for the 20<sup>th</sup> century althoughh

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cetaceans and fisheries was held in July 2002. The report of the Workshop will be published in next year's *Supplement*.

were received. The Committee urged that assessment of the

## SMALL CETACEANS

Despite disagreement within the Commission over the management responsibilities of the IWC with respect to small cetaceans, it has been agreed that the Scientific Committee can study and provide advice on them. As part of this programme, the Committee has reviewed the biology and status of a number of species and carried out major reviews of significant directed and incidental catches of small cetaceans (Bjørge *et al.*, 1994).

Last year, the Government of Japan had indicated that it would no longer co-operate with the Committee on small cetacean related matters. This year the Committee referred to the great value of the information provided by the Government of Japan on the status of small cetaceans in previous years and respectfully requested that the Government of Japan reconsider its position on this matter and resume the valuable contribution of Japanese scientists to its work on small cetaceans.

At the 2002 meeting, the Committee considered the status of humpback dolphins (genus *Sousa*). The taxonomy of the genus is somewhat confused, with up to five species being cited in various reports. Recognising the need for further taxonomic work, the Committee agreed to continue to recognise only two species at present: *S. teuszii*, the Atlantic humpback dolphin and *S. chinensis*, the Indo-Pacific humpback dolphin. Little information exists on the life history parameters of these essentially coastal species; that which does come from South Africa and Hong Kong. Similarly, there is little information on abundance and trends. Actual and potential conservation problems are primarily due to habitat degradation and incidental capture in fishing and shark protection gear. Directed capture is relatively rare apart from Madagascar. The Committee concluded that there is insufficient information to assess the status of populations of this genus and it made a number of research recommendations.

The Committee also reviewed progress on previous recommendations it had made, particularly those concerning the critically endangered baiji and vaquita. Unfortunately, no new information was received on the baiji this year and the Committee has requested that information be provided next year. The Committee was informed of a new, integrated framework being developed to implement the recovery plan for the vaquita, and welcomed this new approach. It reiterated its endorsement of the primary conclusion of CIRVA (International Committee for the Recovery of the Vaquita) – that to ensure the future survival of the vaquita it will be necessary to eliminate all bycatches as rapidly as possible.

The Committee reviewed the draft report of the ASCOBANS recovery plan for harbour porpoises in the Baltic. It strongly endorsed the report and made some supplementary recommendations with respect to short-term pinger use.

The Committee also reviewed progress on the development of survey methodology for freshwater cetaceans and further work on the reduction of bycatches in fishing gear. No new information was received on the status of Dall's porpoises. Information on permits for takes of 1,000 white whales (for aboriginal subsistence purposes) and 10 killer whales (live-capture) by the Russian Federation

scientific objectives. It recognised that the review process would benefit from explicitly stated objectives in Sanctuary proposals. However, while there was little consensus in evaluating the IOS, a considerable amount of substantive advice was provided on a number of sanctuary-related scientific issues.

The Committee considered a number of ways to improve the overall review process and priority will be given to this next year.

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*Editor*

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