

Report of the Scientific Committee

*This Report is **CONFIDENTIAL***

until

10.00am on Monday 28th May 2007

To be successful, the project will involve the participation of several research groups (for whale identification, tagging, and follow-up re-location efforts) in a remote area with difficult logistics. It will certainly take more than one year before any field work can commence. Although detailed costings can not be made at this time, it is clear that the total budget may exceed US\$1M. Therefore, the Committee **agrees** that this project be included in the Committee's budget but with a token funding request and a recommendation that individual governments or others consider making voluntary contributions to the IWC research fund specified for this purpose. The co-ordination group will also work to encourage the participation of scientists from range states in the process. The Committee looks forward to a progress report from the co-ordination group at next year's meeting, at which a review of progress against IWC and IUCN GWAP recommendations will occur. That report should also take into account relevant information from the forthcoming meeting of the GWAP and consideration of the Marine Mammal Commission Workshop Report referred to below.

Last year, the Committee had also agreed that the general issue of the use of telemetry and potential effects on whales should be considered at next year's meeting where *inter alia* it had been expected that the report of the Marine Mammal Commission (MMC) workshop would be available. This year, the Committee was informed that the MMC report was not yet available but noted that it should be available next year. The Committee looks forward to receiving this report. At the 2008 Annual Meeting it will undertake a review of the information available on general issue of the use of telemetry and potential effects on whales, with an emphasis on the use of such techniques on endangered populations. Part of this review will include consideration of the need to hold an IWC Workshop on the subject in the future.

10.8 Eastern Arctic bowhead whales

10.8.1 Stock structure

The study reported in SC/59/BRG36 augments the existing data on the movement patterns of bowhead whales (*Balaena mysticetus*) in waters between West Greenland and eastern Canada and provides further data supporting a single stock hypothesis. Recent results of satellite tracking of whales from West Greenland in 2005 and 2006 supplement the previous data supporting the hypothesis demonstrating that the bowhead whales inhabiting Foxe Basin, Hudson Bay, Hudson Strait, Eastern Baffin Island, Lancaster Sound with tributaries and West Greenland belong to one highly segregated population. For the authors, the most important problems with the two-stock hypothesis are that: (1) too few calves have been found in the putative Baffin Bay stock to maintain a viable population; and (2) too few adults have been found in the putative Hudson Bay stock to produce the calves and sub-adults that have been seen there. Satellite tracking data have shown that there is no geographical separation between the two putative stocks. The simplest explanation for these findings is that bowhead whales summering in the eastern Canadian Arctic, and wintering in the Hudson Strait and off

the west coast of Greenland belong to a single population. Those animals found in occupying Baffin Bay are mainly adult males and resting females and those occupying in Prince Regent Inlet, Gulf of Boothia, Foxe Basin and north-western Hudson Bay are mainly nursing females, calves and sub-adults. The original stock delineation of two putative stocks was based on the assumption that bowhead whales do not migrate through Fury and Hecla Strait. Satellite tracking in both West Greenland and Canada has demonstrated this assumption is not correct.

Geographic boundaries previously proposed to separate the two putative stocks have been demonstrated not to constitute barriers for whales. Given the data and analyses presented by Greenlandic and Canadian scientists at this and previous meetings, the Committee **agrees** that a single shared Eastern Canada-West Greenland stock in the eastern Arctic should be recognised as the working hypothesis. It **recommends** that a thorough discussion of stock structure occurs at the 2005 Annual Meeting, including comprehensive analyses of genetic data, in order to clarify the stock structure of these whales.

10.8.2 Abundance

SC/59/BRG23 presented the results of a dedicated survey for bowhead whales conducted in April 2006 on the former whaling ground in West Greenland. The estimated abundance of bowhead whale groups corrected for perception bias was 267 (CV=0.47; 95% CI=111-641) and the corresponding total abundance of individuals was estimated to be 295 (CV=0.47; 95% CI=129-708). Applying data from instrumented animals to correct for availability bias and correcting for sightings missed by observers resulted in a fully corrected abundance estimate of 1,229 (95% CI=495-2,939) bowhead whales.

After discussion the Committee concluded that this survey was properly conducted. The Committee **accepts** these abundance estimates. While the abundance estimate does not reflect a total population size, it is representative of the number of animals in West Greenland in winter.

10.8.3 Other new scientific information

SC/59/BRG21 reported that a re-examination of abundance estimates for bowhead whales of the eastern Canadian Arctic, based on surveys conducted in 2002-04 is currently underway, but has not been completed. A satellite-linked telemetry project was conducted in 2006. Details are discussed in Annex F. Whales migrated to summering areas in Prince Regent Inlet and Gulf of Boothia, using both northern and southern routes around Baffin Island. Autumn migration routes to wintering areas also included both northern and southern routes as well. Wintering sites included the mouth of Cumberland Sound, Hudson Strait, and northeast Hudson Bay. Genetic analyses of the complete Canadian dataset are underway. In the eastern Canadian Arctic, one bowhead was observed entangled in a net and another dead beached whale was observed. In the western Arctic, two dead beached bowhead whales were reported. Canadian authorities have decided to treat bowhead whales in the eastern Arctic as a single population.