



# Convention on the Conservation of Migratory Species of Wild Animals

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## THIRTEENTH MEETING OF THE CMS SCIENTIFIC COUNCIL

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### OBSERVER'S REPORT ON THE 2005 MEETING OF THE IWC SCIENTIFIC COMMITTEE

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The IWC SC met 30 May to 10 June in Ulsan, Korea. A summary of deliberations and actions relating to cetacean species on CMS Appendices I and II and a brief summary of relevant general issues follow.

#### **Appendix I** (species with asterisk also in Appendix II):

**Sperm whale** (*Physeter macrocephalus*)\* -- A summary of the report of the non-IWC Cachalot Assessment Planning Workshop was presented to the Committee. The Committee agreed to consider sponsoring a second workshop planned for two years hence, in preparation for an eventual in-depth assessment.

**Gangetic river dolphin** (*Platanista gangetica gangetica*) \* -- Not considered.

**Franciscana** (*Pontoporia blainvillei*)\* -- Not considered.

**Sei whale** (*Balaenoptera borealis*)\* -- North Pacific sei whales were suggested as a candidate for a future in-depth assessment; the last assessment was over 30 years ago, and sei whales are now taken in Japanese research whaling in the western Pacific.

**Fin whale** (*Balaenoptera physalus*)\* -- Due to a declaration of intent by Iceland to take fin whales in the North Atlantic, a pre-implementation assessment of North Atlantic fin whales was initiated and available information on stock structure reviewed. Management stocks recognized or proposed included western N. Atlantic, eastern N. Atlantic, central N. Atlantic, Mediterranean, East Greenland-West Iceland, and East Iceland. An intercessional working group was established to address this and other pre-implementation issues.

- Concern was addressed about an aboriginal/subsistence fishery for fin whales that has operated off West Greenland for some time in the absence of an assessment of status of stock(s). Available information was reviewed and found inadequate for estimation of stock structure and population size. The Committee agreed that, once again, it was in the "deeply unfortunate position of being unable to provide satisfactory management advice on safe catch limits" and urged that

"considerable caution be exercised in setting catch limits for this fishery" and strongly urged that funds be provided by relevant authorities to carry out the research recommended to improve the information base to a level adequate for assessment. Review of progress will be a priority item at the 2006 meeting.

- Southern Hemisphere fin whales were suggested for future in-depth assessment, as they are important predators in the Southern Ocean ecosystem. Japan has proposed taking 10 fin whales during whaling under scientific permit in the Antarctic (see humpback whale below).

**Blue whale** (*Balaenoptera musculus*) – Three submitted papers summarized research on blue whales off southern Chile; these were reviewed and the studies encouraged to be continued. The Committee reviewed the report of an intersessional group set up to summarize the state of knowledge of Southern Hemisphere blue whales. Available information is limited, and the group will continue its work. A Comprehensive Assessment will be initiated in 2006. The Committee also recommended continuation of ecological studies in the Antarctic as part of its SOWER cruise research operation.

**Humpback whale** (*Megaptera novaeangliae*) –A Comprehensive Assessment of Southern-Hemisphere stocks has been underway since discussions began in 1999, and a great deal of time was spent on the species during the meeting. The Assessment is expected to be completed in 2006. Information summarized by an intersessional group was reviewed on distribution and allocation of historical catches, abundance, rates of increase, and stock structure. New genetic data indicate that stock boundaries presently used by the IWC may need to be revised. The Committee reviewed submitted papers on humpback whales in South America, Africa, and Oceania, including the report of the 6<sup>th</sup> Annual Meeting of the South Pacific Whale Research Consortium that documented matches between sightings of whales in various regions. The report recommended recognition of at least five subpopulations (breeding grounds) across the South Pacific.

- Population dynamics modeling was considered in depth. Based on four submitted reports, stocks A, B, C and G are at 0.25, 0.09, 0.79 and 0.25 of original size, respectively. Stocks A, B and G will be fully recovered only around the year 2030. Further work was recommended to refine the input data for the models and the modelling framework.
- Work on the Antarctic Humpback Whale Catalogue was reviewed. The total number of whales individually identified from fluke photographs is now 2,238. Trans-equatorial migration has been documented by some re-sights.
- The Committee agreed to continue to review abundance, population structure and status of SH humpback whales and to finalize a catch series as priority items for 2006.
- Japan introduced a proposal to conduct expanded whaling under scientific permit in the Antarctic, including an annual take of fifty humpback whales. It was asserted that the take would have no effect on the stocks, but this is under debate because of uncertainty about stock structure and boundaries and about the potential impacts on small South Pacific breeding subpopulations. There was broad disagreement among the national delegates on whether the proposal should be substantively reviewed, as the results of the previous "feasibility" phase of the scientific whaling in the Antarctic has not yet been reviewed by the Committee.
- The Committee reviewed available information on stock structure of humpbacks in the western Atlantic and Caribbean and concluded that the present quota for St. Vincent and the Grenadines of 20 whales for the period 2003—2007 would not harm the stock.

**Bowhead whale** (*Balaena mysticetus*) – Planning continued for a bowhead Implementation Review in 2007. A first Intersessional Workshop will occur around early March 2006 to specify simulation trials and ranges of parameter values. At the 2006 Annual Meeting, stock structure will be discussed and progress on trial design and coding reviewed. At a second Intersessional Workshop in late 2006, trial structures will be finalized. At the third Intersessional Workshop in early 2007, parameter values will be selected, and trials will be run in advance of the 2007 meeting, when trial results will be examined and plans made for revision of the management protocol made if necessary. Plans were made for various field studies and data analyses to be carried out intersessionally.

- The Committee reviewed results of studies and plans for further studies of stock structure prompted by the finding of possible multiple genetic stocks involved in the U.S. aboriginal/subsistence fishery in Alaska. The results are yet equivocal and the work continues. The recommendation to the Commission was that no change yet be made to the current block quota for 2003—2007. Questions of stock structure were also reviewed for the small stocks of bowheads in Canadian and North Atlantic waters.

**North Atlantic Right Whale** (*Eubalaena glacialis*) – Given the critically endangered status of this species (around 300 remain), the Committee repeated its previous recommendation that as a matter of absolute urgency, deaths due to entanglements and ship strikes be reduced to zero (Note: the IWC Conservation Committee this year took up ship strikes as a priority item for consideration). It was also recommended that updated estimates of survival rates be carried out; calf counts have been encouraging in the last couple of years.

**North Pacific Right Whale** (*Eubalaena japonica*) – Four individuals in two groups were sighted in 2004 near the Kamchatka Peninsula by Japanese scientists.

**Southern Right Whale** (*Eubalaena australis*) – Analysis of data from long-term studies of whales on the coast of South Africa has yielded an estimate of instantaneous population increase rate of 0.069 per year and a modal calving interval of 3 years. The current population estimate is 3,400. The increase rate for Australian whales is estimated at 0.064 based on data from aerial surveys.

**Appendix II** (species with asterisk also in Appendix I).

**Sperm whale** (*Physeter macrocephalus*)\* (see above).

**Gangetic River Dolphin** (*Platanista gangetica gangetica*\* -- Not considered.

**Franciscana** (*Pontoporia blainvillei*)\* -- Not considered.

**Amazon River Dolphin** (*Inia geoffrensis*) – Not considered.

**Beluga** (*Delphinapterus leucas*) – Not considered.

**Narwhal** (*Monodon monoceros*) – Not considered.

**Harbour Porpoise** *Phocoena phocoena* (North and Baltic Sea populations, western North Atlantic population, Black Sea population) – A Committee recommendation to develop a spatially explicit model with the objective of determining bycatch levels would allow populations to remain at, or recover to or above 80% of carrying capacity has been adopted by ASCOBANS. It was agreed that when the modelling work has been completed, it would be useful to reconstitute a IWC-ASCOBANS Working Group.

**Burmeister's Porpoise** (*Phocoena spinipinnis*) – Not considered.

**Spectacled Porpoise** (*Phocoena dioptrica*) – Not considered.

**Finless Porpoise** (*Neophocaena phocaenoides*) – The Small Cetaceans Sub-Committee conducted a review of the status of marine populations, considering distribution and stock structure, abundance, life history, ecology and habitat, directed and incidental takes, and population status. The nature of morphological and genetic variation described for three subspecies suggests that more than one species may be present. Several reviewed abundance estimates are likely minimum estimates, and it was recommended that a workshop be convened to develop and standardize survey methodology. Life-history studies are hampered by individual variation in interpreting growth layers in teeth, and intercalibration of age estimates was recommended. Noting the highly vulnerable coastal habitat, studies of impacts of contaminants and other anthropogenic threats were recommended. Bycatches are likely substantial and most un-monitored, and the Committee recommended that the magnitude and effects of such bycatches be investigated as a matter of priority. IUCN status is "data-deficient." The species as presently defined is not in danger of extinction. However, some populations (e.g., in Japan) are declining, and further taxonomic work is needed to determine the number of species involved in the complex. Surveys need to be carried out to better determine abundance, especially along the northern rim of the Indian Ocean and the Arabian/Persian Gulf.

**Dall's Porpoise** (*Phocoenoides dalli*) -- The Committee noted that a previous effort to review the status of the species, as directed by a Resolution by the Commission was stymied by Japan's refusal to participate. Directed takes by Japan have exceeded the Committee's recommended limit of 2% of population abundance for over 15 years (over 15,000 taken in 2003). The fishery remains the largest directed hunt of small cetaceans in the world, and the Committee repeated its previous recommendation that directed takes be reduced to sustainable levels as soon as possible.

**Indo-Pacific Humpback Dolphin** (*Sousa chinensis*) – The humpback dolphins were reviewed by the Committee in 2002. A workshop in Taiwan in 2004 was noted.

**Atlantic Humpback Dolphin** (*Sousa teuszii*) – Not considered.

**Tucuxi** (*Sotalia fluviatilis*) – Not considered.

**White-beaked Dolphin** (*Lagenorhynchus albirostris*) (North and Baltic Sea populations) – Not considered.

**Atlantic White-sided Dolphin** (*Lagenorhynchus acutus*) (North and Baltic Sea populations) – Not considered.

**Dusky Dolphin** (*Lagenorhynchus obscurus*) – Not considered.

**Peale's Dolphin** (*Lagenorhynchus australis*) – Not considered.

**Risso's Dolphin** (*Grampus griseus*) (North and Baltic Sea populations) – Not considered.

**Indo-Pacific Bottlenose Dolphin** (*Tursiops aduncus*) (Arafura/Timor Sea populations) – Not considered.

**Common Bottlenose Dolphin** (*Tursiops truncatus*) (North and Baltic Sea populations, western Mediterranean population, Black Sea population) – Not considered.

**Pantropical Spotted Dolphin** (*Stenella attenuata*) (eastern tropical Pacific population, Southeast Asian populations) – Not considered.

**Spinner Dolphin** (*Stenella longirostris*) (eastern tropical Pacific populations, Southeast Asian populations) – Not considered.

**Striped Dolphin** (*Stenella coeruleoalba*) (eastern tropical Pacific population, western Mediterranean population) – Not considered.

**Short-beaked Common Dolphin** (*Delphinus delphis*) (North and Baltic Sea populations, western Mediterranean population, Black Sea population, eastern tropical Pacific population) – Not considered.

**Fraser's Dolphin** (*Lagenodelphis hosei*) (Southeast Asian populations) – Not considered.

**Irrawaddy Dolphin** (*Orcaella brevirostris*) – This species was addressed by the Small Cetaceans Sub-Committee in 2000. Subsequently, five isolated populations has been classified by IUCN as "Critically Endangered" due to small population size and continuing decline [candidates for Appendix I listing?].

**Commerson's Dolphin** (*Cephalorhynchus commersonii*) (South American population) – Not considered.

**Chilean Dolphin** (*Cephalorhynchus eutropia*) – Not considered.

**Haviside's Dolphin** (*Cephalorhynchus heavisidii*) – Not considered.

**Killer Whale** (*Orcinus orca*) – Not considered.

**Short-finned Pilot Whale** (*Globicephala melas*) (North, Baltic Sea populations) – Not considered.

**Baird's Beaked Whale** (*Berardius bairdii*) – Not considered.

**Northern Bottlenose Whale** (*Hyperoodon ampullatus*) – Not considered.

**Antarctic Minke Whale** (*Balaenoptera bonaerensis*) – The status of this species remains a major item of discussion and analysis in the Committee. Experiments to estimate proportion of whales within the ice field and diving times continue. Simulation studies to estimate biases have had encouraging preliminary results and will continue. Results of survey cruises in 2003-2004 are being analyzed. Estimates of circumpolar population for three cycles of survey and assessment are 594, 000; 769,000 and 362,000. The significance and reliability of the decrease in the estimate from Cycle II to Cycle III are being explored and the estimates refined in intersessional work. In one analysis, carrying capacity was estimated to have declined by roughly one half between 1960 and 1980. Work to set the minke whale populations in an ecosystem context were encouraged.

**Bryde's Whale** (*Balaenoptera edeni*) – Japan has declared an intent to harvest Bryde's whales commercially in the western North Pacific, and the necessary activities in the Committee to prepare for implementation of the Revised Management Procedure are underway. A Pre-implementation Assessment was completed the Annual Meeting after a preparatory intersessional workshop in Tokyo early this year. The First Intersessional Workshop to specify and condition Initial Simulation Trials and to select stock-structure hypotheses for the simulations occurred in Japan last month. The trials will be run at next year's Committee meeting in St. Kitts. The goal is to complete the implementation - within 2 years.

**Sei Whales** (*Balaenoptera borealis*) \* (see above).

**Fin Whale** (*Balaenoptera physalus*) \* (see above).

**Pygmy Right Whale** (*Caperea marginata*) – Not considered.

### **General Issues:**

**Bycatch** – The Committee noted that bycatch data reported to the IWC are incomplete and recommended again that such data be collected and reported as required by Commission resolution.

- Under the Revised Management Procedure, bycatch and other anthropogenic mortality is required to be deducted from allowed takes before take quotas are allocated. A collaboration with FAO to estimate bycatch based on fishery statistics is promising and will continue. A preliminary workshop to consider estimation of bycatch from market-sampling using DNA analysis concluded that the approach has promise, and a second workshop to develop methodology will be convened. Access to national DNA registers of legally-caught whales would greatly facilitate the determination of bycatch. Some member nations indicated a disinclination to be involved in such IWC-sponsored market surveys or use of their national DNA registers.

**Ship Strikes** -- The Committee agreed on the need to improve awareness of the issue and reporting systems in order to gather more data. ACCOBAMS held a workshop on ship strikes this month (November 2005); the report will be presented to next year's IWC SC meeting.

**Pollution by Contaminants**– Projects under the Committee's *Pollution 2000* program, on bottlenose dolphins and harbour porpoises, to assess effects of contaminants continue. Some results are expected by next year.

**Anthropogenic Noise** -- The Committee convened a symposium on this topic last year and this year strongly encouraged producers of high-intensity noise (e.g. sonar and seismic operations) to share information on noise source characteristics and to work with cetacean scientists to investigate the impacts of these activities. A pre-meeting workshop was proposed and endorsed for 2006, to review and characterize information on seismic sound sources and attenuation and their effects on cetaceans as well as review relevant case studies and current mitigation and monitoring strategies.

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