
Regional Non-Lethal Research Partnerships: a proposal for the Southern Ocean

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Australia's paper to the March 2008 intersessional meeting, 'Whale Conservation and Management: A Future for the IWC' (IWC/M08/INFO 11) outlined constructive proposals to address some shortfalls of the historical approach to cetacean conservation and management under the IWC. One practical proposal that would modernise the IWC's research framework and further improve cooperation between Parties is to develop **regional non-lethal cetacean research partnerships**. Such partnerships would address key scientific needs in priority areas and employ the best available techniques to gather essential information.

The proper conservation and management of cetaceans is only achievable if management actions are underpinned by a rigorous scientific framework. Such a framework should: provide access to and interpretation of current scientific knowledge; provide timely scientific advice on management issues; identify key uncertainties and knowledge gaps; and prioritise research to redress these unknowns. While the Scientific Committee has successfully developed and fulfilled this role, its members are well aware that there are opportunities for the Committee to improve its capacity to prioritise research undertaken by IWC members.

One of the major review and advice functions of the Scientific Committee is to complete 'comprehensive assessments' of whale populations. These assessments synthesise knowledge of population status, threats and environmental linkages, and thereby highlight important uncertainties. However, they are not linked to a coordinated and transparent mechanism to prioritise and then deliver the necessary research to fill the knowledge gaps. Rather, each IWC member determines its own research priorities and applies these to varying degrees to their national research efforts. While some excellent and relevant science can result from this, efforts are often fragmented, high research needs are not always met and opportunities for synergies and capacity building are lost.

Here, we propose the formalised development of regional, non-lethal cetacean research plans to coordinate and optimise the research programs of IWC members against agreed priorities and objectives. Such partnerships should enhance the delivery of the most relevant science into the management and policy environment, and thus improve conservation outcomes for cetaceans. As indicated in IWC/M08/INFO 11, a suitable and timely step towards establishing a model would be to develop a research partnership on living whales in the Southern Ocean. This paper discusses both the general features of such partnerships and the specific possibilities for the Southern Ocean, in terms of:

1. *Possible research objectives and performance measures*
2. *Methodological approaches*
3. *Implementation and review*

1. Possible research objectives and performance measures

The objectives of a regional research partnership should be clearly linked to the IWC's mandate to conserve whale populations, be achievable and allow for measurable assessment of progress. In order to ensure an inclusive and cooperative partnership and to avoid polarised debate, the objectives should be met only through the application of non-lethal methods.

The members wishing to participate in a regional partnership should discuss and develop objectives and methods that are relevant and practical for their region and reflective of available resources. The full research program should be subject to peer review, with the intention that the review process will optimise the scientific methods within the stated logistical and financial constraints.

As a general principle the objectives of a research partnership should focus on gathering information on high priority issues such as:

- the effects of the moratorium;
- constraints to recovery;
- effects of climate change;
- ecological relationships;
- effects of whale sanctuaries;
- information relevant to the effective management of threats; and
- information in support of management tools such as aboriginal whaling management procedures or (currently proposed) conservation management plans.

Proposed objectives for the Southern Ocean research model – for discussion among prospective partners in the planning phase – are:

- to focus on depleted whale populations (particularly southern right, blue, fin, sei and humpback whales);
- to assess their population status (population structure, abundance and trends);
- to assess their movements (spatial characteristics of feeding and breeding grounds, and linkages between these);
- to assess threatening processes to the populations; and
- to include research priorities identified by related expert groups: the CCAMLR-IWC workshop (August 2008) and the IWC climate change workshop (March 2009).

The objectives and the research methods used to achieve them will need to be clearly stated and sufficiently focused to enable performance to be assessed objectively at regular intervals.

2. Methodological approaches

In broad terms, the planning sequence for a research partnership should be:

- (i) Hold an intersessional planning meeting to establish partnerships, agree objectives and develop a research plan
- (ii) Establish coordination points and centralised data and sample archives
- (iii) Submit research plan to Scientific Committee for review process
- (iv) Undertake research and report annually to Scientific Committee
- (v) Conduct major periodic reviews to direct future efforts

Each regional partnership will require one or more members to lead in developing the research plan. For the Southern Ocean, Australia is willing to organise a planning meeting between IWC60 and IWC61 which will be open to all nations and groups interested in contributing to the partnership. The meeting should:

- assess existing research efforts in the region, available resources and links with national and other programs;
- produce a research plan which details the overall objectives, scientific methods and a schedule of how, where and when the work will be conducted;
- set timeframes for an initial period (5 years will be proposed for the Southern Ocean), and the terms of the major review at the end of that period.

Key benefits of moving from unilateral research programs to a coordinated multinational approach under the IWC include improved access to data and capacity building. For the Southern Ocean, Australia is prepared to host a centralised data and sample archive and provide the administrative support for the first five years to ensure the benefits of the partnership are maximised.

3. Implementation and review

The full development, review and initial implementation of a Southern Ocean research partnership could not commence before IWC61 (mid 2009). However, some current and pending field activities could become important contributions under the partnership umbrella during the development of the full research plan.

For example, in 2008/09 Australia is planning two major Antarctic whale research activities which will make data and samples available under the arrangements that are developed for the Southern Ocean partnership. These are the aerial survey of whales in the pack-ice which was postponed in 2007/08 due to logistical difficulties, and an expedition on an ice-capable yacht to deploy satellite tags and collect biopsies from whales in the ice-edge region of East Antarctica. Additional field activities by other nations and interested groups – e.g. SOWER, which to date has been the largest initiative in non-lethal research in the region and which could enrich a broader partnership and possibly improve its own methods through such a collaboration – could similarly be conducted under the partnership during the full development of the research plan. There is an obvious link with SOWER, the activities and priorities of which could be included under the partnership.

By implementing such a research partnership, IWC members will:

- develop synergies between existing disparate efforts – such that the collective benefit is greater than the sum of the parts;
- focus existing and new research efforts on agreed, prioritised issues, and address these at scales that are not possible with smaller programs;
- encourage access to additional logistics and resources that are otherwise unavailable;
- provide the IWC with research delivery mechanisms that respond to priorities identified by the Scientific Committee;
- build capacity among research partners; and
- establish centralised regional data and sample archives, along with agreed rules for the open and rapid sharing of data and samples.

Large scale, expensive research programs such as the research partnerships we propose should be subject to full Scientific Committee review as well as an independent peer-review process. The research plan developed at the intersessional planning workshop should be reviewed by the Scientific Committee during IWC61 and submitted to an independent review group. This is the sort of scrutiny that should apply to modern wildlife research programs, and the IWC needs to develop agreed priorities and criteria to guide the review of research plans.

Conclusion

Regional non-lethal whale research partnerships – inclusively planned, cooperatively implemented and transparently reviewed – will strengthen and improve the credibility of the scientific framework that underpins the management and conservation activities of the IWC. They will address agreed priorities, use benign research techniques, invite peer review and openly share their results.

Starting with the proposal for the Southern Ocean, the model promises to provide the research to help reduce key uncertainties and close knowledge gaps and thus improve conservation outcomes for cetaceans across the globe. Logistics and resources to support large-scale cetacean programs are limited, and generally beyond the scope of single groups or countries. These partnerships will maximise the use of the scarce resources, build capacity in countries unable to conduct this work independently, and provide a transparent and defensible research framework for the IWC and its members.