



INTERNATIONAL WHALING COMMISSION

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RESEARCH PROPOSAL REQUEST

1. RELEVANT AGENDA ITEM (NO. AND TITLE)

Item 10.6: North Pacific gray whales

2. PROJECT TITLE

Development of an sex- and age-structured population dynamics model for North Pacific gray whales

3. BRIEF DESCRIPTION OF PROJECT AND WHY IT IS NECESSARY TO SUB-COMMITTEE

This work is an integral part of the process set in place by the Committee last year. It is of particular importance to:

- (1) the assessment of the status of gray whales in the North Pacific (BRG);
- (2) the management of subsistence whaling in the North Pacific in conjunction with the work of the AWMP SWG
- (3) the evaluation of threats to gray whales in the North Pacific and the determination of future management advice (BRG);
- (4) the provision of advice in accord with the Commission's Arctic Workshop (E).
- (5) the western gray whale Conservation Management Plan endorsed by the Commission;

The workshop on the Rangewide Review of the Population Structure and Status of North Pacific Gray Whales synthesized the available information on stock structure using inter alia genetics data, individual identification data and telemetry data. The workshop refined a set of seven hypotheses put forward in SC/65a in the light of the information presented at the workshop, and developed a more inclusive set of hypotheses. Some of these hypotheses could be rejected based on information provided to the workshop while others were assigned low priority for inclusion in any modeling framework. The workshop identified three hypotheses which should be included at an early stage in the modeling framework. The workshop also identified various data sources which could be used to estimate the parameters of the model.

SC/65b/BRG1 presented to this meeting provides an outline of simple modeling framework based on the discussions at the workshop and explains how it could be implemented for hypothesis 3a.

This proposal is essential to the workplan agreed by the sub-committee on BRG for gray whales. The aims of this project are to implement the model of SC/65b/BRG1, and to extend this model to include age- and sex-structure and apply it to the data available for the North Pacific gray whales. The results of the modeling will be presented to a planned intersessional workshop (scheduled for April 2015), the model specifications and

data updated based on the outcomes from the workshop and results presented to the SC/66a. The project involves interactions with an intersessional Steering Group and includes:

- (1) Developing code to implement the recommendations of the Scientific Committee;
- (2) Receiving and incorporating data from a number of sources;
- (3) Supplying results to a steering group and incorporating their recommendations with respect to modelling and datasets, and, to the extent possible the recommendations of the intersessional workshop;
- (4) Writing reports for (a) the intersessional workshop and (b) SC66a

4. TIMETABLE

- 31 July 2014: Results of initial runs of the age- and sex-aggregated model distributed to the Steering Group.
- 15 Sept 2014: Specifications for an age- and sex-structured model distributed to the Steering Group.
- 31 Oct 2014: Results of initial runs of the age- and sex-structured model distributed to the Steering Group.
- 2 weeks before the April 2015 workshop: Modelling results completed and available.
- April 2015: Workshop to refine model specifications and identify additional data sources.
- SC66a: Final model results presented.

5. RESEARCHERS' NAME(S)

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6. ESTIMATED TOTAL COST (WITH BREAKDOWN AS NEEDED, E.G. SALARY, EQUIPMENT)

1. Salary and related costs: £15,000
2. No equipment or travel costs