



135 Station Road, Impington, Cambridge, UK, CB24 9NP;
Tel: +44 1223 233397 - Fax: +44 1223 232876
E-mail: secretariat@iwc.int

PROJECT PROPOSAL REQUEST

1 . PROPOSAL TITLE

Please provide the title of the project or the name of the workshop/meeting.

Southern right whale catch series, stock structure and catch allocation review workshops

2 . BRIEF OVERVIEW OF THE PROPOSAL AND ITS EXPECTED OUTCOME

Give a very brief overview (max 150 words) on your proposal and its expected outcomes. Use bullet point to list outcomes. Be succinct and clear as this may be used to summarise your project for the report.

We propose to hold a series of two workshops over the next two years to a) review the historic circumpolar catch series of southern right whales; b) review stock structure hypotheses and c) identify and propose catch allocation scenarios based on both the catch review and stock structure reviews.

The first of these workshops is proposed as a 4-day intersessional workshop of to-be-identified catch history specialists. The last major review of circumpolar southern right whale catches was used to estimate 150,375 takes worldwide, peaking in the 1830s (IWC 2001). Since then, additional data are available from a number of sources. While data on American whalship catch locations and numbers has been steadily growing, the British voyage records remain a significant data gap, and French right whaling voyages were last summarised by Du Pasquier (1986). Both the availability of new data and the time since the last review suggest a review process of regional catch (and struck and lost) data of southern right whales is timely. The expected outcome is an updated regional estimates of circumpolar southern right whale catches in an agreed catch series necessary for assessments of southern right whale exploitation for past abundance and current recovery levels measures.

The second of these workshops is proposed as a 3-day pre-meeting workshop to review contemporary and historical (19th century) population structure hypotheses and propose probable catch allocation scenarios for the regional populations identified by IWC (2001).

The workshops will result in IWC meeting reports of a) an agreed catch series and b) catch allocation scenarios for use in upcoming assessments. These are deemed critical to progress regional assessments of southern right whale recovery.

3 . RELEVANT IWC SCIENTIFIC COMMITTEE GROUPS OR SUB-GROUPS

List all the IWC Scientific Committee groups or sub-groups that the outcomes of this work would be relevant to and provide a brief (1-2 lines) explanation of how it would contribute more widely to their ongoing programmes of work. Where possible, do not simply list only the sub-committee within which or for which the project proposal was generated.

The proposed workshops are of high importance to progress the work of SH and are also relevant to CMP as two of the contemporary southern right whale calving grounds (SE Pacific, SW Atlantic) are subject to Conservation Management Plans.

A priority item on the SH agenda is to conduct regional assessments of southern right whale recovery levels and population trajectories. Both a review of catch history data and a process of catch allocation are required for such regional assessments.

4 . TYPE OF PROJECT (PLEASE TICK)

Research project	
Modelling	
Workshop/meeting	X
Database creation/maintenance	
Compilation work/editing (e.g. on whalewatching regulations, SOCER, etc.)	
Other (please specify below)	

5. BRIEF DESCRIPTION OF THE PROPOSAL AND ITS CONNECTION WITH SCIENTIFIC COMMITTEE RECOMMENDATIONS (DO NOT EXCEED 1500 WORDS)

(A) BACKGROUND, RATIONALE, AND RELEVANCE TO THE PRIORITIES IDENTIFIED BY THE IWC SCIENTIFIC COMMITTEE:
<p><i>Provide a clear explanation of the background and rationale for the proposal and its relevance to Scientific Committee identified priorities. Clearly identify the most relevant and recent Scientific Committee recommendations.</i></p> <p>Conducting regional southern right whale assessments is a current priority for the SC. In 2016, the IWC agreed to initiate a process of reviewing southern right whale population parameters and historical exploitation levels in order to initiate regional assessments of population recovery across the Southern Hemisphere (IWC 2017). To achieve this objective, the following are required:</p> <ol style="list-style-type: none"> i. Accurate, geographically identified historical catch series, that include catches from coastal and pelagic pre-modern and modern whaling eras; ii. Hypotheses of the historical (pre-modern and modern whaling era) and contemporary (post whaling) identities of Southern Hemisphere right whale breeding stocks; iii. Hypotheses on the allocation of the historical catches from breeding and feeding grounds and migratory corridors to those stocks identified in (ii); <p>Catch</p> <p>The last review of southern right whale catches at the circumpolar level was conducted by Reeves for the 1998 IWC right whale workshop (IWC 2001). A global assessment of southern right whale population recovery was conducted by Butterworth using this dataset, which estimated (with a correction for whales struck-but-lost) 150,375 takes worldwide, peaking in the 1830s (IWC 2001). Since that time additional data have become available from various sources including American whaling logbooks (Smith et al. 2012), an updated New Zealand right whale catch series (Carroll et al. 2014) building on the work done by Dawbin (1986), and collation of a substantial archive of British voyage records by Chatwin. Reconciliation of these different efforts to build a comprehensive picture of southern right whale exploitation patterns is important and a necessary step for reconstructing regional catch histories and measuring the trajectory of exploitation for each right whale population.</p>

Work by Reeves and Smith on struck but lost rates using logbook reports has also been able to distinguish coastal and offshore struck but lost levels (e.g., Carroll et al. 2014), allowing better discernment of the exploitation impact of these whaling eras.

A new review of available catch data for measuring regional takes of southern right whales by coastal and pelagic pre-modern and modern whaling eras is consequently considered overdue and the availability of new data sources suggests that it is timely to do this.

Stock structure

Southern right whale stock identity has been previously reviewed by the IWC (1986, 2001, 2013); however substantial additional photo-ID, genetic, isotopic and satellite tracking data are now available to further inform contemporary stock structure hypotheses (Carroll *et al.*, 2015; Zerbini *et al.*, 2016; Valenzuela *et al.*, 2018; Zerbini *et al.*, 2018; Carroll *et al.*, 2019; Carroll *et al.*, 2020; Mackay *et al.*, 2020; Rowntree *et al.*, 2020; van den Berg *et al.*, 2021; Watson *et al.*, In press). However, for southern right whales, considering both historical and contemporary stock structure hypotheses is important. The length and intensity of historical right whaling across the Southern Hemisphere has significantly perturbed the distribution and connectivity of these populations for centuries, and in some cases exterminated local calving grounds (e.g. the critically Endangered Chile-Peru calving ground, mainland New Zealand, Delagoa Bay and Mozambique), while other historically important offshore areas identified by whaling, appear no longer visited (e.g. Kermadec Islands, Kerguelen Islands, Tristan da Cunha, (Richards 2010)), perhaps due to a loss of migratory memory (Carroll *et al.*, 2014; Carroll *et al.*, 2015) or due to changes in prey distribution (e.g. van den Berg *et al.*, 2021). Stock structure hypotheses which explicitly consider historical and contemporary distributions and seasonality therefore need to be agreed before developing catch allocation scenarios for stocks at a regional level, to ensure that catches are allocated appropriately to historical stocks.

Dedicated workshops are considered the optimal manner to review and agree on catches, stock structures and resultant catch allocations and can be differentiated into a 4-day workshop to develop the catch series and a 3-day workshop to review stock structure hypotheses and catch allocations, with options for virtual attendance provided at both meetings.

(B) SPECIFIC OBJECTIVES OR TOR AND DELIVERABLES/OUTCOMES:

Provide the specific objectives and the expected deliverables. In the case of workshops and meetings, include the Terms of Reference (ToR) and expected outcomes.

The expected outcome of these two workshops is to generate agreed hypotheses of southern right whale stock structure and associated catch allocation to support upcoming regional population assessments.

These workshops aim to:

- (i) Update estimates of global southern right whale catches, identifying key data gaps and discussing methods for filling in gaps in the data series (Workshop 1)
- (ii) Review the available historical and contemporary evidence for Southern Hemisphere stock structuring, updating previous reviews of SRW stock identity (1986, 2001, 2013) (Workshop 2);
- (iii) Develop catch allocation hypotheses and scenarios for review and ranking, based on available evidence as well as to identify data gaps in such allocations (Workshop 2).

DETAILS

Specify the methods to be applied (novel methods require more explanation than standard ones) and the broad workplan – the detailed timetable appears under Item 5 below.

In the case of workshops and meetings, include the broad work plan including any pre-requisites for the workshop/meeting to take place (apart from funding, e.g. completed analyses, papers etc.) and administrative details (e.g. location, dates, number of participants)

Workshop 1

Pre-workshop

An intersessional working group consisting of SC and non SC members will be initiated to identify catch history specialists (and prospective workshop attendees) and available data, develop metadata inventories and an associate workshop agenda and workplan.

Workshop plan

The 4-day workshop is proposed as an intersessional workshop in South Africa (convened by Findlay and Vermeulen) as it is envisaged that a number of participant specialists will not be attendees of the SC meeting. Ten participants are proposed in a presence meeting. Catch data from coastal and pelagic pre-modern whaling and modern regulated and unregulated whaling eras will be reviewed from breeding and feeding grounds and migratory corridors to provide regional catch series in discrete whaling grounds as identified in IWC (2001).

Workshop deliverables

The workshop will deliver an as-far-as-possible catch series spanning pre-modern and modern whaling eras across each of the southern right whaling grounds as identified in IWC (2001), building on that developed by Reeves (1998) described in IWC (2001).

Workshop 2

Pre-workshop

An intersessional working group consisting of SC and non SC members will be initiated to review stock structure hypotheses, historic and contemporary alignment and an associate workshop agenda and workshop plan to agree on these and allocate catches accordingly.

Workshop plan

This 3-day workshop is proposed to take place as a pre-meeting of the Scientific Committee in 2024 (if held) in order to save costs on participant travel, as it is envisaged that a high proportion of the stock structure and catch allocation workshop members will comprise SC members. The workshop will be convened by Vermeulen and Jackson. Eight participant stock structure and catch history specialists are proposed in a presence meeting. The workshop will review the stock structure hypotheses, providing rank metrics for their use in allocating catches to southern right whale breeding stocks.

Workshop deliverables

The workshop will deliver a ranked series of stock structure scenario hypotheses (including on the alignment of historic and contemporary stock structure scenarios) and associated circumpolar and regional catch series allocated for these scenarios.

(D) SUGGESTIONS FOR OUTREACH

Please, note that successful proponents will be requested to produce ad hoc material that will be used by the IWC Secretariat for dissemination and outreach.

It is believed that the proposed work will result in significant updates to the history of southern right whaling. Such information has considerable value in advancing the southern right whale recovery “story” and is integral in an understanding of the status and conservation of the species.

6 . TIMETABLE FOR ACTIVITIES AND OUTPUTS

Specify the timetable for project activities and expected outputs separately. For projects with multiple distinct elements please indicate interim goals and timeframes. Add as many rows as you need to the tables below. If publications are an expected output please note whether you will submit the manuscript to the IWC’s Journal of Cetacean Research and Management.

Activity to be undertaken	Key person(s)	Start(mm/yy)	Finish (mm/yy)
Organisation of Workshop 1	Findlay and Vermeulen	June 2022	February 2023
Holding of Workshop 1	Findlay and Vermeulen	February 2023	February 2023
Workshop 1 reporting	Findlay and Vermeulen	March 2023	April 2023
Update of IWC catch database	IWC Secretariat		April / May 2023
Organisation of Workshop 2	Vermeulen and Jackson	May 2023	April 2024
Holding of Workshop 2	Vermeulen and Jackson	April 2024	April 2024
Workshop 2 reporting	Vermeulen and Jackson	April 2024	April 2024

Expected outputs	Completion date (mm/yy)
An as-far-as-possible catch series spanning pre-modern and modern coastal and pelagic whaling eras across each of the southern right whaling grounds as identified in IWC (2001), building on that developed by Reeves (1998) described in IWC (2001).	April 2023
An agreed ranked series of stock structure scenario hypotheses (including on the alignment of historic and contemporary stock structure scenarios) and associated circumpolar and regional catch series allocated for these scenarios.	April 2024

7. RESEARCHERS' (OR STEERING GROUP) NAME(S) AND AFFILIATION

Please, also specify if the project team has any direct connection (e.g. same research group or institute, collaborator on common project) with people involved or likely to be involved in taking the funding decision (e.g. IWC SC heads of delegations, SC convenors, etc.). Add as many rows as you need to the table below.

Name	Affiliation	Connection with decision
Ken Findlay	Cape Peninsula University of Technology, South Africa	Proponent
Els Vermeulen	University of Pretoria, South Africa	Co-proponent
Jen Jackson	British Antarctic Survey, UK	Co-proponent
Emma Carroll	University of Auckland, New Zealand	Co-proponent

TOTAL BUDGET

PROJECT BUDGET					Please indicate when funds will be needed		Co-funding funds only
	Description	Cost per unit £GBP	Number of units	Total Cost £GBP	2022-23 £GBP	2023-24 £GBP	Co-funding £GBP
(1) Salaries (by person)	Findlay Workshop 1 organisation, convening and reporting			2000	2000		
(2) Travel/subsistence (by person or est. total for IPs)	Workshop 1						
	Travel costs for up to 8 participants to attend (two local).	600	8	4800	12800	11720	
	Accommodation for 10 participants for five nights at £100/night.	100	50	5000			
	Subsistence for 10 participants at £60/day for 5 days.	60	50	3000			
	Workshop 2						
	Travel costs for 5 participants (remaining attendance covered by SC/other travel support)	1000	5	5000			
Accommodation for 8 participants for four nights at £150/night.	150	32	4800				
	Subsistence for 8 participants at £60/day for 4 days.	60	32	1920			
(3) Services (by item)							
(4) Reusable equipment							
(5) Consumables							
(6) Shipping & Customs (by Item)							
(7) Insurance (by item)							
(8) Other							
				TOTAL	26520		
					14800	11720	

Co-funding Memo:

Source	Purpose of Funding	Amount	Secured/Tentative?
	TOTAL		

Total value of project:	£GBP
Funds requested from IWC	26,520
Co-funding	
TOTAL	

8 . DATA ARCHIVING/SHARING

Please state your plans for data archiving and sharing. Note that data collected primarily under IWC grants are considered publicly available after an agreed period of time for publication of papers, usually about two years. The work of the IWC depends on the voluntary contribution of data to the various databases and catalogues IWC supports. Please consult the Secretariat (secretariat@iwc.int).

All catch series data will be submitted to the IWC Catch Database where it will be available on request to all interested parties.

9 . PERMITS (PLEASE TICK)

Do you have the necessary permits to carry out the field work and have animal welfare considerations been appropriately considered?	NA
Do you have the appropriate permits (e.g. CITES) for the import/export of any samples?	NA

If 'Yes' please provide further details and enclose copies where appropriate:

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