

# SC/67b/RP09

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## CMP - Gulf of Penas - The last haven of the southern right whale



INTERNATIONAL  
WHALING COMMISSION

## PROJECT PROPOSAL REQUEST

### 1. PROPOSAL TITLE

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

Gulf of Penas: The last Haven of the Southern Right Whale?

### 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.

Eastern South Pacific (ESP) Southern Right Whales (SRW) are classified as Critically Endangered due there are no more than 50 SRW in this population and there is no information of ESP SRW breeding and feeding grounds. Gulf of Penas is one of the most remote and exposed areas in Chile, with limited access and a wild weather that have prevented its exploration. The largest baleen whale mass mortality of almost 400 sei whales occurred in this area and almost remained unnoticed. Recently, a local living nearby the Gulf of Penas recorded SRW, including several calves. The Gulf might be the unknown breeding ground of the ESP SRW. Our goal is to explore this area during this 2018 austral winter breeding season with a group of researchers and government officers to confirm this finding and if so, start immediately to work toward the protection and management of the species and the area.

### 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.

- Sub-committee on Bowhead, Right and Gray Whales
- Sub-committee on other Southern Hemisphere Stocks

### 4. TYPE OF PROJECT (PLEASE TICK)

Research project	✓ ✓
Modelling	
Workshop/meeting	
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:

*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.*

Southern Right Whale (*Eubalaena australis*) is still one of the large cetacean species with fewer individuals worldwide; the eastern South Pacific (ESP) breeding population, located off Chile and Peru, is likely the smallest surviving population of the species with a possible mature population size of ca. 50 individuals being classified as Critically Endangered by IUCN. In two previous work (Aguayo et al. 2008, Belgrano et al. 2008), we found that in Chile, sightings have been recorded from Arica (18°S) to Cape Horn (56°S) but most of them are concentrated between Arica and the Gulf of Penas (46°S). Despite this, breeding and calving grounds remain unknown (Aguayo-Lobo et al. 2008). Two events have pointed us to believe the Gulf of Penas could be the unknown breeding and calving ground. The first is a recent report to us from a local person living nearby the Gulf of Penas who visited the area last year (2017) during late august and early september, who informed us a number of adult southern right whales and calves backed with photographs and videos. The second one is that we know now the Gulf of Penas is one of the most remote places in Chile where a large amount of whales could easily pass unnoticed, as was documented in the work we undertook studying the largest mass mortality of baleen whales ever recorded (Häussermann et al 2017, Howard 2015).

The revised Conservation Management Plan for Eastern South Pacific Southern Right Whale Population (SC/66/BRG/23) aims to guide and encourage range state stakeholders (i.e. government, industry, coastal communities and civil society, among others) and international partners to take steps towards the recovery of this population to levels that will allow the species to withstand both environmental and anthropogenic impacts and ensure its long-term survival. In this document they identified the necessity to: **1) obtain baseline data, particularly referring to population size, areas of concentration of the species (breeding or feeding areas) and stock structure;** 2) conduct a detailed assessment of potential impacts in identify areas of concentration and; 3) develop specific mitigation strategies.

Some key actions should be targeted in the short term (two to four years). These include at a minimum to: conduct coordination meetings among stakeholders (COORD-01); increase survey effort on possible breeding ground (RES-05), photo ID (RES-02) and genetic data (RES-03).

### (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.*

Our goal is to explore this area during this austral winter breeding season with a group of whale researchers and national government agencies officers in order to confirm this finding and if so, start immediately to work toward the protection and management of the species and the area.

We plan to create a photo-id catalogue to compare with the scarce available information and estimate relative abundance of SRW in this area including mother-calf pairs, habitat use and behavior observed.

Expected outcomes are: 1) Provide information to updated the Conservation management plan for the Southern Right Whale in Chilean waters. 2) Photographic data of individual whales to base population assessments. 3) Documentary, videos and photographs of the expedition for environmental education and media purposes and 4) Scientific papers.

### (C) METHODOLOGICAL APPROACH/WORK PLAN/ADMINISTRATIVE 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).*

The expedition to the Gulf of Penas (-46.8°S; -74.3°W) during 2018's austral winter (late August-early September) contemplates the use of mixed methodologies to estimate relative abundance, habitat use and obtain individual photo-identification data. Coastal observations will be made using fixed points observations from advantageous locations along the coast line, using spotting scopes and binoculars. In addition, when weather permits, zodiac surveys will be carried out using transects to estimate relative abundance. When finding animals, the boat will close to the whales in order to obtain photo-identification of individuals data. Along with standard digital cameras and 200-400 mm lenses, we will use a drone to obtain aerial photographs and videos of the whales to document the whale's behaviour.

In the event of finding stranded whales (likely given this is the same area where the largest mass mortality event of baleen whales was discovered, Häussermann et al 2017, Howard 2015) we will collect biopsy samples for genetic and isotope stable analyses, which will give an indication of population genetic relationship and feeding composition and areas, respectively.

The total amount of participants, including scientist and support staff, is 10 people.

## (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.

Firstly, we plan to write a report to provide detailed information for government agencies related to management of whales (e.g. Scientific Committee of the International Whaling Commission, Chilean Undersecretary of Fisheries, Chilean National Fisheries Service and Chilean Ministry of Environment) to update the state of knowledge of the species at a national level.

Secondly, using a documentary, videos and photographs, both of the expedition and southern right whales, shared in traditional networks and social media, we aim to generate international and national awareness about the importance of the area for the conservation of the species, and more generally of Patagonia as a critical habitat.

Thirdly, we plan to present this results in workshops and meetings related to marine mammals (e.g. Biannual meeting of the Latin American Society of Marine Mammals and the Society for Marine Mammalogy, and annual meetings of the Scientific Committee of the International Whaling Commission) and conservation meetings with government agencies.

Finally, we aim to publish our results in scientific peer-reviewed papers to contribute to the knowledge of the species in a scientific level.

## 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)
Organization of field work	Marcelo Flores - Daniel Torres	03/18	09/18
Obtaining Permits	Marcelo Flores	05/18	07/18
Field Work	MF-CO-RM-RA-CM-JG-MM-CM	09/18	09/18
Data Analysis	Marcelo Flores, Carlos Olavarria, Rodrigo Moraga	10/18	11/18
Outreachs	Marcelo Flores, Carlos Olavarria	10/18	10/18
Reports writings	Marcelo Flores, Carlos Olavarria	10/18	12/18
Meetings with chilean authorities	Carlos Olavarria, Marcelo Flores	12/18	01/19

MF: Marcelo Flores / CO: Carlos Olavarria / RM: Rodrigo Moraga / RA: René Aranceda / CM: Christian Muñoz Sr / JG: Jorge Guerra / MM: Moris Muñoz / CM: Christian Muñoz Jr.

Expected outputs	Completion date (mm/yy)
Presentation to SC/ IWC	04/19
Submitting Scientific publication	03/19

## 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
Dr. Carlos Olavarria	Center for Studies y Arid Zones (CEAZA)	
Dr. Marcelo Flores	University Andres Bello (UNAB)	
Dra. Maritza Sepúlveda	University of Valparaiso (UV)	
Dra. María José Pérez-Alvarez	University of Chile (UCH)	
MSc. Jorge Guerra	Undersecretary of Fisheries (SUBPESCA)	
BSc. Rodrigo Moraga	Natphoto	
Mr. René Araneda	WildChile / Nedo films Ltd.	
Mr. Christian Muñoz-Donoso	WildChile / Equilibrio films Ltd.	
Dr. Sussanah Buchan	CEAZA, COPAS Sur Austral	

## 8. TOTAL BUDGET

Breakdown into: (1) salaries/wages (include name/position of each individual and breakdown of time and duties i; (2) travel/subsistence expenses (breakdown by person and justification) unless for IPs for workshops where a total estimate based on an average for the total number of IPs is acceptable; (3) services (e.g. aircraft/vessel time, consultancy fees, ARGOS fees, etc.); (4) reusable capital equipment (e.g. reusable equipment such as a hydrophone, cameras, etc. Note that this equipment will have to be registered at the IWC Secretariat and will remain property of the IWC at the end of the project), (5) expendable capital equipment (e.g. consumables, tags, stationery), (6) shipping costs, (7) insurance costs, (8) in kind co-funding (specify whether other funding is available for personnel/name, equipment, venues, etc.). Note that "Overheads" are not admissible. Add as many rows as you need to the table below.

Type	Detailed description	Cost in GB pounds
(1) Salaries (by person)	Marcelo Flores salary to organize the whole expedition, data analyses, write reports and work on meetings with chilean authorities. 8 months (May-December) @712	4,000
(2) Travel/subsistence (by person or est. total for IPs)	All airplane travels (for 7 people), by road and by small boat to field site. Accommodation and food in small villages to and from field site. All camping equipment, logistic, food, fuel at field site for 15 days.	11,000
(3) Services (by item)		
(4) Reusable equipment		
(5) Consumables		
(6) Shipping (by Item)		
(7) Insurance (by item)		
(8) Co-funding		
(9) Other		
<b>Total</b>		<b>15,000</b>

## 9. 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](mailto:secretariat@iwc.int)).

All southern right whales data collected during this expedition will be available for collaboration immediately after data analyses are completed. Data collected will be available after 2 years of completion of field work (due date September 2020), including photo-identification data and corresponding field data. Protocols for sharing information and collaboration will follow SC-IWC protocols.

## 10. PERMITS (PLEASE TICK)

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

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

## Appendix 2 – DRAFT SCORING SHEET

If a project presents multiple primary objectives which are achieved using sub-projects, a sheet should be used to evaluate each single sub-project. Note that not all criteria are equally applicable depending on the nature of the project (e.g. field work versus workshops).

IWC SCIENTIFIC COMMITTEE PROPOSALS FOR FUNDING - REVIEW CRITERIA - TEST			
TITLE OF THE PROJECT/sub-projects:			
PRINCIPAL INVESTIGATOR:			
Key criteria	Explanation of scoring	Score	Supporting Remarks
<i>Relevance to Scientific Committee priorities</i>			
1	How well aligned are the scientific outcomes of the project/activity with the current SC priority areas?	1 - Not aligned/poorly aligned (e.g. too vague or generic reference to general SC priorities) 2 - Reasonably aligned (e.g. some aspects may be vague or links are not clear) 3 - Well aligned (e.g. outcomes clearly deliver in the most part on priority areas, may also address longer term or potential future issues). 4 - Closely aligned (e.g. of interest for multiple sub-groups or delivers on specific SC high priority topics/recommendations in the immediate or short term).	
2	To what extent will the outcomes of the project/activity contribute to improvements in the conservation and management of cetaceans?	1 - Not at all 2 - Poorly 3 - Reasonably or over the longer term 4 - Well or over the medium term 5 - Excellently or to almost immediate effect	
<b>Note:</b> if in each of the two above key criteria under this section the project does not score singularly at least 2 points, do not proceed in further evaluation. Of course, proposals within a sub-group would only be developed if in their estimation scores were of 4 or above.			
<i>Approach and methodology</i>			
3	What degree of scientific merit/value is there in carrying out the work?	1 - Not demonstrated or of low scientific value 2 - Useful/basic scientific value 3 - Very good scientific value 4 - Excellent/innovative scientific value	
4	Is the proposed methodology scientifically sound and feasible in terms of field and analytical methods?	1 - Feasibility unrealistic & poor methodology or not properly addressed 2 - Feasibility & methodology acceptable but would benefit from some substantial amendments	

		3 - Feasibility & methodology good, some small changes beneficial 4 - Feasibility & methodology excellent or a highly promising innovative approach to an important question facing the Committee		
5	What is the likelihood of success based on the proposed overall approach and methodology?	1 - No chance of success 2 - Low chance of success/better approaches available 3 - Medium chance of success/some changes to the approach necessary 4 - High chance of success/little or no changes to the approach necessary		
5a	Are objectives of the research likely to be achieved within the proposed time-frame?	1 - No or unlikely 2 - Partially or potentially ambitious 3 - Yes with some minor suggestions 4 - Yes		
5b	Are any proposed intermediary targets timely and achievable?	1 - No or unlikely 2 - Partially 3 - Probably 4 - Yes		
5c	Is the proposed time-frame/work necessary (e.g. can the project produce results in a shorter time period)?	1 - No or unlikely 2 - Partially 3 - Probably 4 - Yes		
5d	Is the sample size adequate to achieve the stated objectives?	1 - Not demonstrated/not properly addressed 2 - No or unlikely (too low/too high) 3 - Probably (additional analysis needed) 4 - Yes		
6	Is the project likely to affect adversely the population(s) involved?	1 - Not properly addressed/ unknown 2 - Yes severely 3 - Possibly at a low level 4 - No		
6a	<b>IF YES</b> , are analyses provided on simulations of the effects using different time-frames for the project if applicable?	1 - No 2 - Partially 3 - Yes		
<b>Note:</b> if in each of the above key criteria under this section the project does not score singularly at least 2 points, do not proceed in further evaluation. Of course, proposals within a sub-group would only be developed if in their estimation scores were of 3 or above.				
<b><i>Project team and Project management</i></b>				

7	To what extent does the team have the relevant expertise, experience, and balance?	1 – Poor or not demonstrated 2 – Sufficient 3 - Very good 4 - Excellent		
8	Contingency plan: To what extent have potential problems/risks been considered and appropriate mitigation proposed?	1 – Poor or not demonstrated 2 – Sufficient but could be improved 3 - Fully or requiring only minor suggestions or not applicable		
<b><i>Value for Money</i></b>				
10	Does the project represent good value for money?	1 – No or significant amendments would be needed 2 – Yes but with some minor amendments 3 – Yes		
11	Have sufficient links been made to the wider research community/other organisations/capacity building.	1 – No 2 – Some but significant amendments needed 3 – Yes but with some minor additions 4 – Yes or not applicable		