

# SC/66b/BRG/24

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## 2012-2016 overview of IWC Conservation Management Plan for the Critically Endangered Eastern South Pacific Southern Right Whales Population

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INTERNATIONAL  
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### **Abstract**

With less than 50 mature individuals, eastern South Pacific southern right whales population found off Chile and Peru is one of the most threatened whale populations worldwide. The International Whaling Commission adopted a Conservation Management Plan for this population in 2012. Here we review CMP actions between 2012 and 2016 and propose to further prioritize actions in the short term. The CMP proves to be an important framework to facilitate the implementation of actions and enhance international collaboration for the long term recovery of the species.

### **Introduction**

Eastern South Pacific (ESP) southern right whales are classified as Critically Endangered and the International Whaling Commission (IWC) adopted a Conservation Management Plan (CMP) for this population in 2012.

The ESP southern right whale plan aims to guide and encourage range state stakeholders 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 (Galletti Vernazzani *et al.*, 2012).

In the short term, the plan is focused 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.

A periodical review of CMP activities has been adopted by IWC. In 2016 a revised version of the CMP has been submitted by the governments of Chile and Peru. The 2016 CMP version welcome the active involvement of Peru as range state government and includes updated information from the species on the region (Galletti Vernazzani *et al.* 2016).

Considering that four years have spanned from the adoption of the CMP and the upcoming biennial meeting of IWC, here we review 2012-2016 activities of ESP southern right whale CMP. Actions of high priority have been identified in the short-term that would potentially enhance conservation outcomes.

## Review of 2012 CMP priority actions

The ESP southern right whale CMP (Galletti Vernazzani *et al.* 2012) is a comprehensive plan to assess southern right whale status and threats and a cooperation framework to advance in mitigation measures. Actions of high priority identified that should be addressed in the short-term included:

- *COORD-01* - Implementation of the Conservation Management Plan: Establishment of a Coordinator and Steering Committee
- *COORD-02* - Development of a Web-based exchange of scientific information
- *PACB-01* - Development of a strategy to increase public awareness and build capacity in range states
- *PACB-03* - Create capacities in coastal communities on species identification and sightings reporting and documentation
- *RES-01* - Development of a web-based platform to report southern right whale sightings
- *RES-02* - Increase documentation of sightings and photo-identification of individuals
- *RES-03* - Start collection of genetic samples
- *RES-05* - Identify breeding area(s) for southern right whales
- *MON-01* - Ensure long-term monitoring of distribution, abundance and trends of southern right whales
- *MON-02* - Ensure long-term monitoring of potential threats & effectiveness of mitigation measures
- *MIT-01* - Release entangled whales and prevent entanglements
- *MIT-03* - Develop and implement contingency plan to afford maximum protection when a sighting is recorded
- *MIT-05* - Inclusion of Right Whale Conservation Considerations and Mitigation Measures in the Environmental Impact Evaluation and Permitting System for Large-Scale Coastal/Marine Projects

During the 2012-2016 period there was no collection of genetic samples (*RES-03*). Most southern right whale sightings occur on one day and there is little chance to encounter the animal again and take the biopsy sample. In addition, actions to monitor the distribution, abundance and trends of southern right whales (*MON-01*) as well as potential threats & effectiveness of mitigation measures (*MON-02*) have not been implemented. With a small population and few sightings recorded opportunistically along ESP, it is difficult to implement such monitoring programs until at least one aggregation areas is identified.

The rest of the activities have been implemented and considerable advances have been made and are detailed below.

The ESP southern right whale population CMP was submitted by Chile and adopted by the IWC in June 2012. Immediately after, Chile established a Steering Committee and Miss Galletti Vernazzani was appointed as CMP coordinator (*COORD-01*). Since then, the Coordinator has provided annual reports to the Steering Committee that has been submitted to the IWC and national activities has been conducted in Chile to implement the CMP. During these years, the CMP coordinator and Peruvian authorities worked

to actively involve the country in this conservation initiative. In 2016, a revised version of the CMP was submitted by Chile and Peru, highlighting the efforts and commitment of range state countries towards the conservation of southern right whales.

The CMP also considered as high priority the development of a web-based platform to exchange scientific information (COORD-02) and report southern right whale sightings (RES-01). Considering the low number of sightings and lack of funding for develop web-platform, coordination and reporting system has been conducted through email communication. The development of web-based proposed platform would increase reporting rate and decrease time to respond, both crucial factors to be able to attend an event on time and document all sightings.

### **PACB-01: Development of a strategy to increase public awareness and build capacity in range states**

In November 2015, an Entanglement Response Training Workshop was conducted in conjunction with the Chilean Ministry of Foreign Affairs, the International Whaling Commission, the National Fisheries Service, the Chilean Navy and the NGO Centro de Conservacion Cetacea. This effort was conducted as part of the priority actions identified under the IWC CMP for ESP southern right whales. In 2014, immediate alert was raised when an individual of this Critically Endangered population was observed entangled. The capacity to respond to future entanglements was seen as a key priority for the recovery and long-term conservation of this species in the eastern South Pacific. The workshop was lead by Dr. David Mattila from the USA, director of the Entanglement Response Program of the IWC and Ricky Rebolledo from Mexico, coordinator of the stranding and entanglement network of that country. More than 50 national specialists attended from different regions of Chile attended the workshop. Furthermore, 25 participants were selected as potential rescuers, increasing local capacities along the Chilean coast to respond to future entanglement events.

A similar training workshop is being planned to be conducted in Peru in 2016.

### **PACB-03 Create capacities in coastal communities on species identification and sightings reporting and documentation**

In 2013, a mother-calf pair stayed for few weeks in coastal areas off central Chile. Broad media coverage alerted about the presence of these animals and the conservation measures in place.

In 2014 with the southern right whale entanglement event, the National Fisheries Service, the Chilean Navy and the NGO Centro de Conservacion Cetacea developed strong public awareness campaign using national media as well as social networks in order to ensure coastal communities reported any possible sighting of the entangled whale as well as to create awareness of their critically endangered status and avoid any potential harassment.

Public awareness has been occasionally conducted when individuals are seen in the coast. Although effective, it represents an opportunistic strategy that has been useful in creating awareness and increasing

specific cooperation aspects for each event. However, it would be advisable to conduct a massive public awareness strategy in order to increase sighting reporting along the coast.

### **RES-02: Increase documentation of sightings and photo-identification of individuals**

Although reported sightings document the species with photographs, most of the time it is not possible to get adequate photo-identifications. Most of the sightings are just seen on one day and makes it difficult to follow the whales and get photo-identifications.

From September 2012 until March 2016, at least 14 sightings of 23 animals, including six calves, have been positively documented as southern right whales. These sightings have occurred mostly in central and southern Chile. Only two occurred in northern Chile (Chañaral de Aceituno and Antofagasta) and one occurred off Lima, Peru (Orihuela and Cortegana-Arias, 2013) being the northernmost sighting documented for this population.

Of these sightings, only four individual have been photo-identified. Two corresponded to the mother-calf pair of whales sighted off San Antonio that stayed in the area for more than ten days and it was possible to coordinate an aerial photoID survey with Chilean Navy. In addition, two sightings off Isla de Chiloe were able to be photo-identified from a research vessel of Centro de Conservacion Cetacea.

The number of animals photoID represents about 18% of animals sighted. To ensure long-term monitoring of the species it is critical to increase photo-ID effort, therefore the development of a web-based platform (COORD02 and RES01) is crucial to improve response time.

### **RES-05: Identify breeding area(s) for southern right whales**

One of the highest priority of the CMP is to identify a breeding area for this population where whales aggregate. This will allow long-term dedicated monitoring program, rather than from opportunistic sightings, greatly improving current knowledge on the species and trends.

Since 2012, important new information has been found that suggest the possibility of a breeding area in southern Chile. Galletti Vernazzani *et al.* (2014) reported the first documented record of likely reproductive behavior in this population and the southernmost sighting of a cow-calf pair along with several sightings that provided information on a possible breeding ground off southern Chile.

Additional sightings have been reported each year on that area, including another mother-calf pair in 2014 that represents a new southernmost sighting, further strengthening the hypothesis that it may likely be part of a breeding area and further research is needed (Galletti Vernazzani 2015)

It is critical to identify a breeding area for this population in order to monitor the population at long-term. Continual observation of whales, reproductive behaviour and calves over the years in southern Chile needs to be further investigated. Dedicated research efforts are needed to further monitor the presence of

southern right whales in this area during austral winter/spring and determine if these waters correspond to a breeding area.

### **MIT-01: Release of entangled whales and prevent entanglements**

On October 2014, one adult southern right whale was reported off Pichilemu, central Chile. This was considered a "complex" entanglement since it involved a pectoral flipper and the head. In that opportunity, the National Fisheries Service, the Chilean Navy, the Chilean NGO Centro de Conservacion Cetacea and the IWC Global Whale Entanglement Response Network developed and implemented the best strategy to find and disentangled the whale. Although efforts to find the whales were conducted for more than two weeks, using marine and aerial platforms, it was impossible to locate the whale. Details on this event are reported by Galletti Vernazzani (2015).

This case highlighted the need for achieving a high degree of capacity in the range states countries to respond to future entanglements. In this sense, Chile already developed an IWC entanglement response training workshop in November 2015 and Peru is also coordinating a workshop for 2016.

The periodical development of such training workshops is needed to increase the number of people with technical experience that could attend entanglement whales. The event also highlighted the need to coordinate national entanglement response networks.

### **MIT-03: Develop and implement contingency plan to afford maximum protection when a sighting is recorded**

In 2013, a cow-calf pair stayed for several weeks off San Antonio, Central Chile. The Chilean Navy and National Fisheries Service implemented a contingency plan to prevent harassment. Such plans have been implemented systematically in Chile since 2008. These contingency plans usually consist of a truck with naval personnel on land in charge to monitor the whales are not approached. In addition, a Navy vessel usually is instructed to visit the area to prevent that no vessel, jetski, etc. approach the whales. Fishing operations have also been banned in some cases during the period the whales stay.

In 2006, it has been proposed to only allow land-based whale watching to the species (Cabrera *et al.*, 2007). In 2012 national whale watching regulations have been adopted by the Ministry of Economy (MFA, 2014) and included special considerations for southern right whales that only allowed land-based whale watching.

In Peru, a working group was established with several governmental institutions and is aimed to develop whale watching regulations.

It is important to enhance communication and coordinate conservation strategies so there are similar whale watching regulations and response protocols to prevent any harassment to the animals along the entire distribution range.

## **MIT-05: Inclusion of Right Whale Conservation Considerations and Mitigation Measures in the Environmental Impact Evaluation and Permitting System for Large-Scale Coastal/Marine Projects**

Since 2011 the IWC Scientific Committee has stress the need that environmental impact assessment considers possible impacts on cetacean habitats. In particularly, with the new information on the presence of southern right whales off Isla de Chiloe, the IWC Scientific Committee “**strongly recommends** relocation of the wind farm project away from shore, and **reiterates** the need for the urgent development of an environmental impact assessment that considers possible impacts on cetacean habitats” (IWC, 2014). It was reported that in a new environmental impact assessment process, the Chilean Navy requested in 2014 the company to provide information on the possible impacts on cetaceans, particularly for blue whales and southern right whales (Galletti Vernazzani, 2015).

This is the first example where such considerations have been undertaken. A protocol should be developed to systematically include the southern right whale conservation aspects on the developments of large scale costal and marine projects.

### **Conclusions**

Considerable advances have been made during the 2012-2016 period of the ESP southern right whales. One of the relevant new inputs is the strong likelihood of a breeding area in southern Chile that needs to be further investigated (RES-05) and is critical for monitoring the species.

Until a breeding ground is found, monitoring activities on distribution, abundance and trends (MON-01) or potential threats & effectiveness of mitigation measures (MON-02) actions to monitor the of southern right whales are unlikely to be implemented.

While most of the priority actions identified continue to be of high importance, in the light of the new information and the progress made on CMP activities, some key actions should be targeted in the short term (two to four years). These should 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); strengthen capacities that includes additional entanglement response workshop in both countries (PACB-02); increase species identification capacities along the coast of Chile and Peru (PACB-03); and provide advice on whale watching regulations for the species (MIT-03).

Our review proves that the CMP is an important framework to facilitate the implementation of actions and enhance international collaboration for the long term recovery of the species. Continual review of its objectives and priorities is essential to improve its adaptability and effectiveness.

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