## **Conservation Master Plan**

for the protection of **Humpback Whales** (*Megaptera novaeangliae*) around **Réunion Island (2018-2023)** 















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# THE CONSERVATION MASTER PLAN (CMP)

#### WHAT IS A CMP?

A Conservation Master Plan (CMP) is a strategic document identifying an array of measures to be implemented in order to restore or maintain one or more species to a favourable conservation status. These measures concern different fields such as conservation, knowledge, information-awareness or governance. With no legal impact, and concerning local initiatives, the plan remains a decision-making tool for administrative bodies (national or regional) and provides extra measures to natural resource management organisations and stakeholders working to protect biodiversity.

A CMP is to be deployed across a region, targeting species whose global and national conservation status has not justified their inclusion on the list of threatened species requiring a specific National Action Plan (list defined by the National Museum of Natural History).

This conservation plan is divided into three parts: (i) analysis and assessment of existing knowledge (taxonomy, protection status, biology, ecology and conservation state of populations, etc.) and evaluation of the threats faced by the species in question; (ii) identification of challenges and definition of long-term conservation strategies; (iii) an Action plan with a list of 'Guidance Sheets'.

## CONSERVATION MASTER PLAN FOR THE PROTECTION OF HUMPBACK WHALES FREQUENTING REUNION ISLAND 2018-2023

This CMP is intended to provide a reference document for the improvement of the conservation status of humpback whales coming to Reunionese waters, by defining measures to improve knowledge, protecting the species and raising public awareness concerning related issues.

Due to the migratory nature of the humpback whale, the implementation of conservation measures and knowledge-improving studies can only be carried out on a local level. In order to better take into account the biological aspects related to its migratory movements, this CMP is therefore focused on Reunion Island, while still remaining open to information on a regional scale. The current state of knowledge covers a broader context across the south-west Indian Ocean, and regional actions are identified as potential areas of work.

The general objectives of the CMP are:

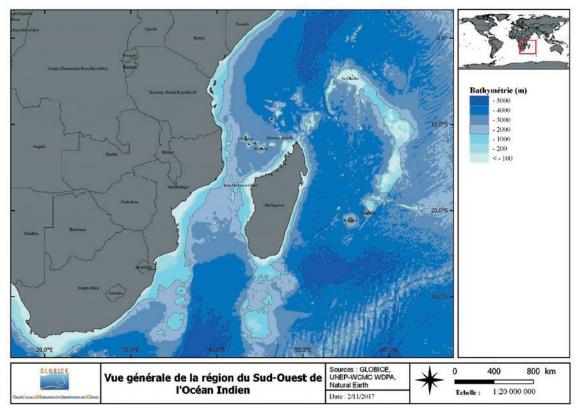
- to carry out diagnostics concerning biology, ecology, threats and socio-economic aspects related to the Humpback Whale;
- to identify and seek to fill gaps in knowledge;
- · to identify and reduce threats;
- to raise awareness and involve the general public and institutional partners in the protection of humpback whales and their breeding grounds;
- to strengthen regional cooperation on issues related to the conservation and knowledge of humpback whales.



## THE SOUTH-WEST INDIAN OCEAN AND REUNION ISLAND

#### THE SOUTH-WEST INDIAN OCEAN

The south-west Indian Ocean is a region which includes the coastlines of East Africa and the archipelago islands of Comoros, the Mascarenes, Seychelles and Madagascar. It is considered a hotspot for biodiversity (both on land and in the sea) and is a breeding ground for the humpback whale during the austral winter. For the effective management of humpback populations, it is absolutely vital to take into account the collective knowledge of the various stakeholders and different local issues across the whole region.

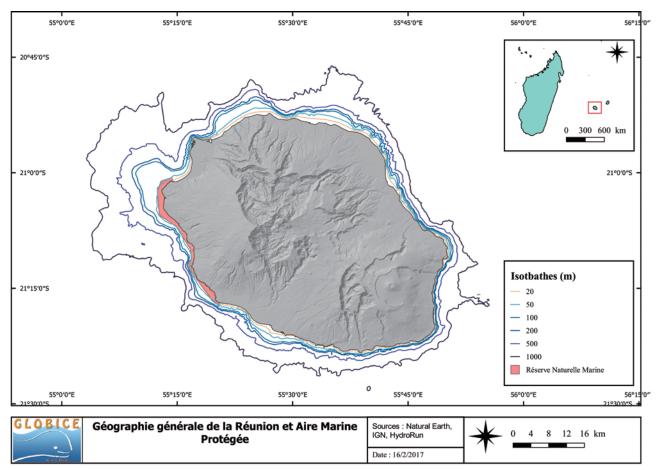


Overview of the south-west Indian Ocean. © Globice

#### **REUNION ISLAND**

Located in the south-west of the Mascarenes, Reunion is the archipelago's youngest island, having first emerged 3 million years ago. It boasts exceptional natural wealth benefitting from UNESCO world heritage classification and the creation of the National Park and Marine Nature Reserve of Reunion. Its mountainous inland terrain is rugged, resulting in a highly concentrated population density in the lower altitudes and along the coastline (with a 2013 population of 844,741 inhabitants - source INSEE, National Institute of Statistics and Economic Studies). These areas are therefore affected by development projects which are likely to disturb the habitat of coastal cetaceans. The island's high demographic growth continues to accelerate (the population is expected to reach 1 million inhabitants in 2030), which is likely to amplify the phenomenon of coastal urbanization and development.

As far as marine life is concerned, the biodiversity is also very rich, a logical result of the presence of coral formations. To date, twenty-one different cetacean species have been identified here. Most of the western coral reefs (80%) are protected by Reunion's National Marine Nature Reserve, which extends to a distance of approximately 1.8 km from the coast, thus covering a part of the habitat frequented by humpback whales. This expanse of water in the west provides bathymetry which is favourable to the species' procreation and reproduction. It is also in this sector that the majority of nautical activities are concentrated, in particular boating and whale-watching. This latter activity has developed strongly since 2008, leading to significant numbers of people coming to observe whales during the austral winter, especially off the coast of St-Gilles-les-Bains.



General geography of Reunion and its Marine Nature Reserve.

## THE HUMPBACK WHALE

#### **SPECIES DESCRIPTION**



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The humpback whale (*Megaptera novaeangliae*) is a mysticeti (a cetacean with baleen as opposed to cetaceans with teeth) which can be found in oceans all over the planet. This species is described as one of the most active of the larger whales, well known for its spectacular jumps or fin strikes. Its size and behaviour has made humpback whale-watching popular all over the world, making it a very iconic species.

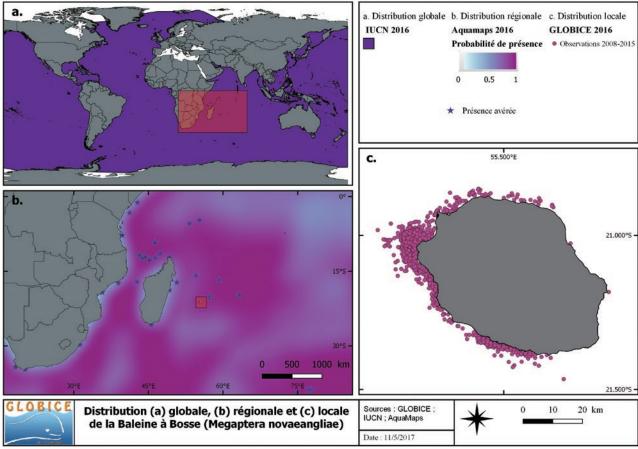
This colossus boasts some impressive measurements (17 metres long and weighing 30 tons), has the unusual distinction of feeding mainly on krill (small shrimp found in cold water), and can sometimes, depending on the region, also eat fish (sardines, herring, mackerel, etc.). Its throat has jugular grooves, allowing it to store a huge amount of water which is filtered by its baleen in order to trap its prey.

This species is easily identifiable, right down to the individual. In fact, each caudal fin (visible when the animal dives) has its own unique pigmentation of white and black spots, almost like a fingerprint, making it possible to establish an identity card for each individual. Photographs make it easy to identify each individual (using a photo-identification technique), which represents an extensive source of information for scientists when tracking individuals and their movements.

The humpback whale is present during the austral winter throughout the south-west Indian Ocean basin, from South Africa to Seychelles and Somalia, and from East Africa to the Mascarenes. In Reunion Island, the humpback whale is mainly found off the island's west coast, but also to the north and south. This species' presence around the island has increased significantly since 2007 (around ten individuals were observed per year between 2004 and 2006, going up to over a hundred between 2007 and 2010). This considerable rise may be partly related to an upturn in numbers following the end to commercial whaling.



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Distribution of Humpback whale sightings around the world, in the region of the south-west Indian Ocean and around Reunion (Globice data 2008 -2015; Globice).

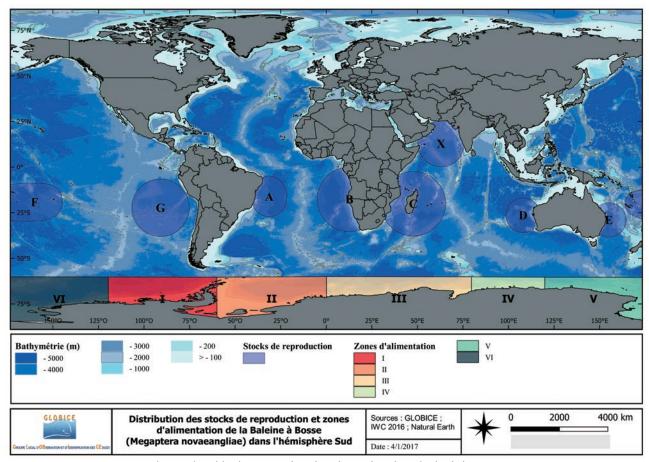
#### **EXCEPTIONAL MIGRATORY HABITS**

The humpback whale is a real globe-trotter, undertaking long journeys of seasonal migration and covering several thousands of kilometres each year to travel between its feeding grounds (in cold, high-latitude waters) and its breeding grounds (in tropical and subtropical waters). In the southern hemisphere, humpback whales feed in the Antarctic during the austral summer (from November to May) and then move to the breeding grounds during the austral winter (from June to October). A set of data<sup>1</sup>, has defined seven breeding populations (known as 'stocks') in the southern hemisphere.

The stock of the South-West Indian Ocean corresponds to stock C. Three main migration routes have been defined, but little is known about them:

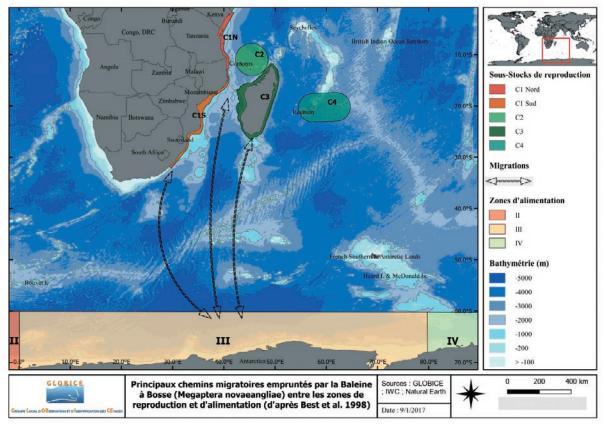
- Along the coasts of South Africa and Mozambique (sub-stock C1);
- Up the centre of the Mozambique Channel (sub-stock C2);
- Along the oceanic ridge extending south of Madagascar (sub-stock C3);

No migratory routes have been proposed for the Mascarene Islands (sub-stock C4).



Breeding stock and feeding areas of southern hemisphere humpback whales.  $\ \odot$  Globice

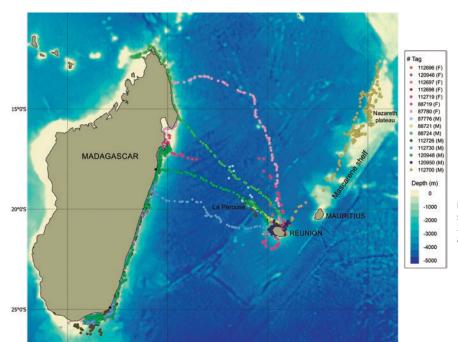
<sup>1.</sup> Whale hunting data, first collected by the International Whaling Commission (IWC) and then by various scientific programs.



Main migratory routes between breeding and feeding grounds used by Stock C humpback whales (according to Best et al., 1998; Globice).

Recent data, mainly from telemetry tracking (satellite beacons), could indicate that sub-stocks C3 and C4 form one single population. Coupled with photo-identification and observation data, these telemetry tracks also indicate:

- Varying presence in different zones, with numbers peaking between July and September in Reunion, and later in Mayotte and Comoros (mid-September) and Aldabra (mid-October);
- Low levels of loyalty to breeding grounds from one year to another, especially in Reunion;
- The use of several breeding grounds during the same season;
- An average duration of stay per individual around Reunion Island of 21 days. Most individuals do not stay in Reunion Island for the whole season, with some simply passing by the island and others staying for a few days to a few weeks. Only a small proportion (some females, for example) reside there for more than a month.



Humpback whale journeys updated thanks to satellite monitoring carried out from Reunion in 2013. (M: Males; F: Females); Source: Dulau et al., 2017.



#### STATUS AND REGULATIONS

Threat level (The International Union for the Conservation of Nature's Red List) and criteria for attributing threat levels following global and local assessments



World status identified by the International Union for the Conservation of Nature in 2008:

#### **Least Concern**

Criteria: World population estimated at 60,000 individuals, with numbers on the rise for 10 years.



Local status identified by the French committee of the International Union for the Conservation of Nature and the National Museum of Natural History in 2013:

#### **Vulnerable**

Criteria : Limited (<500 km²) and fragmented area of occupancy, with decline in surface area, extent and / or quality of habitat. Number of mature individuals <250 individuals (annual average presence)

	International agreements and international tools					
Réglementations	Washington – CITES- Annex I	International trade in individuals or in derivatives or products is prohibited unler permitted / derogated.				
	Bonn – CMS – Annex I	Member States must take measures to prohibit hunting, to conserve or restore their habitat, and to protect their migration.				
	International Convention for the Regulation of Whaling - IWC	Moratorium prohibiting commercial whaling (since 1986). Creation of two sanctuaries: the Indian Ocean Sanctuary and the Antarctic Sanctuary.				
	Regional or interregional agreements					
	Bern – Annex II	To ensure the conservation of wild flora and fauna and their natural habitat. Anne "strictly protected wildlife species".				
	Madrid Protocol – Annex II	To provide comprehensive environmental protection in the Antarctic and its dependent and associated ecosystems.  Annex II: the protection of any mammal that may be found south of the 60th parallel during certain seasons due to their natural migration.				
	Nairobi – Annex II and IV	To take all appropriate measures to ensure the strictest protection of endangered wildlife species.  Annex II: "Wildlife Species Requiring Special Protection";  Annex IV "Protected Migratory Species".				
	Indian Ocean Tuna Commission (IOTC) – Resolution 13/04	To ensure that vessels comply with various measures to reduce the impact of pur seine fishing operations on cetaceans (prohibition of intentional stalling around cetacean) / taking all reasonable measures to ensure the release of an uninjur cetacean which has been caught accidentally / duty to inform any incident involvi the accidental capture of a cetacean).				
	National regulations					
	Decree of 1st July 2011 - Article L.411-1 et seq. - Environment Code	Any destruction, mutilation, capture or intentional removal (including biological samples), disturbance, pursuit or harassment of animals in their natural environment is prohibited within national territories and in marine waters under sovereignty and jurisdiction, and this at any time.  The destruction and degradation of breeding and resting habitats is prohibited.				

#### **THREATS**

In the Indian Ocean and all over the world, humpback whale populations are subject to a number of threats. Depending on the area concerned, these threats take many different forms. The very same threats also exist for Reunion Island, with varying levels of risk:

Type of threat	High risk	Moderate risk	Low risk	Lack of information
Hunting			X	
Noise generated by maritime traffic		X		
Noise generated by maritime construction work	X			
Seismic surveys			X	
Interactions with fishing vessels		X		
Oil pollution		X		
Diffuse pollution of bodies of water			X	
Debris			X	
Collisions			X	
Cetacean observation activities	X			
Habitat destruction and fragmentation		X		
Climate change				X

As shown in the table above, the main threats encountered in Reunion are :

- Increasing whale-watching activities, a significant source of disturbance for breeding, resting and nursing activities;
- Noise pollution and habitat degradation generated by coastal planning such as road construction, embankment and port extension. Such projects can also result in direct loss and/or fragmentation of the humpback whale breeding habitat.



Caught up in rope / fishing gear. © Globice



Whale-watching activities.© Geoffrey Bertrand



In the past, whales were hunted in great numbers and exploited for various ends (their oil, meat, bones and baleen), but since 1986 they have been protected all over the world and are now considered by the general public as a majestic species which requires full protection. However, some countries such as Iceland and Japan still practice traditional or 'scientific' whaling, but this remains an exception for the humpback whale. Nowadays, there is another type of exploitation which needs to be looked at in greater detail: the observation of these marine mammals by the general public, also known as 'whale-watching'. On a global scale, this represents a significant economic activity which also has a particular social significance. In 2008, 13 million people took part in 119 countries, providing jobs for 13,200 people working for 3,000 tour operators (with revenues up to \$2.1 billion).

In Reunion in 2008, this activity saw a total of 3,248 people generating direct and indirect revenues in excess of \$460,000. As far as local culture is concerned, cetaceans are not associated with Reunionese folklore. However, they are still perceived by the population of Reunion and by tourists as a natural wealth that must be protected but also one to observe and exploit - however, whales do not represent a determining factor for tourists when choosing Reunion as a holiday destination.

#### MEASURES ALREADY UNDERTAKEN FOR THE PROTECTION OF THESE SPECIES

As an iconic species, humpback whales leave a lasting impression on everyone lucky enough to observe them. Various stakeholders (associations, etc.) have already initiated programs both locally and across the south-west Indian Ocean. These campaigns focus mainly on awareness, education, deepening knowledge, scientific monitoring and conservation measures.



**Whale-watching Charter** A guide to best practices for approaching and watching whales since 2009







campaigns General public communication programs and school visits, TV advertising, educational kits, professional training courses for tour operators, etc.

**Awareness and Education** 



## Photo-identification / Genetic and

toxicological studies / Environmental monitoring of the New Coastal Road construction site and risk reduction measures

Sciences

# CHALLENGES, STRATEGIES AND APPROACHES

#### **NEEDS AND CHALLENGES FOR THE CONSERVATION OF THIS SPECIES**

The conservation of humpback whales around Reunion cannot be considered without an overall vision which takes the species' life cycle into account. Its basic needs should therefore be addressed on three different levels:

- **Interregionally** (across the entire area in which the species is present, including feeding grounds):
  - to protect existing migratory routes by reducing or eliminating the following threats: the danger of becoming entangled in fishing gear, noise pollution generated by the prospecting or mining of fossil fuels, maritime traffic (risk of collisions, noise, etc.) in order to ensure an ecological and sustainable environment which is conducive to the species' movements;
  - to ensure availability of food resources and productivity of feeding grounds (krill);
- **Regionally** (South-west Indian Ocean):
  - in addition to protecting migratory routes, it is important to maintain the availability and effectiveness of breeding grounds (quiet areas);
- Locally (Reunion Island):
  - to protect breeding ground.

However, as this Conservation Plan is designed for Reunion Island, the focus will be on developing a local strategy which can be applied across the region.

#### **LONG-TERM STRATEGIES**

On the scale of Reunion Island itself, the main challenge is to ensure that the species' breeding grounds are kept in a good ecological state. This will require the conservation of a sufficiently large surface area, ensuring that the breeding grounds remain both peaceful and effective. Therefore, the proposed strategy is on one hand to provide structure to the growing local ecotourism sector, and on the other hand to raise awareness among decision-makers and local communities concerning the importance of maintaining the effectiveness of these breeding grounds. In addition, the conservation of the species on a the local level will require greater knowledge at several levels, as well as increased public awareness campaigns in order to reach the widest possible audience.

As for regional and inter-regional work, another long-term strategic challenge will be the development and maintenance of an operational network of stakeholders involved in cetacean research and conservation.

#### **KEY REGIONAL AND LOCAL OPERATIONAL STRATEGIES**

This CMP is just one part of the many existing conservation policies for humpback whales (and, more broadly, marine environments) which are developed internationally, nationally and locally. In particular, it will also have an impact on conservation issues related to the establishment of Antarctic and Indian Ocean whale sanctuaries, covering the entire movement zone of humpback whales which come to Reunion Island.

On a national level, this plan contributes to French biodiversity protection objectives, as listed in Operational Guideline B, entitled 'Protecting living organisms and their ability to evolve' of the National Strategy for Biodiversity (SNB) 2011-2020, and in the decree of July 1st 2011 which 'establishes the list of marine mammals protected across the national territory and the ways in which they are protected'.

Finally, on a the local level, the CMP complements existing measures, most notably the Reunion Island Strategy for Biodiversity (SRB), a local format of the national version (SNB), the management plan for Reunion's Marine Nature Reserve, and the procedures related to the Charter for Approaching Cetaceans and Sea Turtles.



© A. Bein/Biotope

### **ACTION PLAN**

#### **OBJECTIVES OF THE PLAN**

The aim of this CMP is to protect humpback whales frequenting the coastal waters of Reunion Island. This plan identifies the different measures to be put in place over a period of 5 years, between 2018 and 2023. 5 key objectives have been identified:

- 1. To ensure that the CMP is correctly implemented;
- 2. To maintain the quality of whale breeding grounds;
- 3. To further our knowledge about the biology and ecology of humpback whales coming to Reunion Island;
- 4. To educate the general public and schoolchildren about conservation issues related to humpback whales frequenting Reunion Island.
- 5. To contribute to the conservation and increased knowledge of humpback whales on local, regional and interregional levels.

Given the threats and challenges that this species faces, an action plan can be proposed based on these objectives.

#### **ACTION PLAN FOR REUNION**

For this conservation plan, **23 measures** have therefore been defined, coming to an **estimated total cost of €750 000** spread over a period of 5 years (estimation made based on the merging of certain measures related to the CMP concerning coastal dolphins).

Name of measure	Priority
1. To ensure that the CMP is correctly implemented	
1.1.1 Coordinate the implementation of measures, monitor the plan and seek the necessary funding	1
1.2.1 Develop and upkeep an online interface dedicated to the CMP and publish and distribute a concise information booklet	1
2. To maintain the quality of whale breeding grounds	
2.1.1 Ensure that cetacean habitats are taken into account in development project	1
2.2.1 Study the impact of observer activity on humpback whale behaviour	2
2.2.2 Promote a responsible and respectful observation of cetaceans and to provide a team to raise awareness about the whale-watching label	1
2.2.3 Develop complementary tools to promote responsible respectful whale-watching activities which is in accordance with the approach charter and the label for responsible marine mammal observation	2
2.2.4 Pre-empt the future of whale-watching and find ways to keep it in check	1
2.2.5 Provide high-quality and adapted training courses to ensure that professionals working in tourism or at sea know more about cetaceans	1
2.2.6 Quantify the economic benefits of cetacean observation in Reunion	2
2.2.7 Establish observation points on land	2
2.3.1 Measure the level of underwater noise in areas frequented by humpback whales around Reunion which also involve human activities	3
2.3.2 Further knowledge about marine mammals in relation to coastal developments	2

Name of measure	Priority		
3. To further our knowledge about the biology and ecology of humpback whales coming to Reunion Island			
3.1.1 Describe the migratory routes taken between Reunion Island and the feeding grounds	1		
3.2.1 Define the different sectors used for breeding around Reunion and across the south-west Indian Ocean	1		
3.3.1 Ensure long-term monitoring of humpback whale presence in Reunion	1		
3.3.2 Assess the physical condition of individual whales in Reunionese waters	3		
3.3.3 Investigate factors that may influence the numbers of individuals coming to Reunion	1		
4. To educate the general public and schoolchildren about conservation issues			
4.1.1 Provide schools with learning tools and educational visits which correspond to their needs and expectations	1		
4.1.2 Ensure that the general public are exposed to the largest possible awareness and information campaigns about Reunion's cetaceans	2		
4.2.1 Conduct a prefiguration study in order to assess the feasibility of a museum centre dedicated to cetaceans	3		
5. To contribute to the conservation and increased knowledge of humpback whales on local, regional and interregional levels			
5.1.1 Develop a network of south-west Indian Ocean scientific groups as part of the IndoCet Consortium <sup>2</sup>	1		
5.1.2 Facilitate the banking and sharing of data collected on humpback whales frequenting Reunion Island through the French information system on nature and landscapes (SINP)	1		
5.1.3 Define how to bank data collected across the south-west Indian Ocean	1		

Given the vast geographical area involved during this species' life cycle, **a group of 'regional' measures** is also listed to run alongside the local action plan (which is limited to Reunion's exclusive economic zone). This component is a list of measures that can be implemented at both regional and inter-regional levels, in order to increase our knowledge of humpback whales and to improve their conservation:

- To investigate habitats and connections between sub-stocks within Stock C
- To estimate population numbers of Stock C
- To improve knowledge of humpback whale distribution and zones inhabited by sub-stock C4
- To compare levels of numbers across various oceanic habitats (islands, seamounts, plateaus) around the Mascarene Islands
- To identify threats to habitats and migratory routes used by humpback whales across the south-west Indian Ocean
- To contribute to the development of a regional network of cetacean conservation groups
- To valorise all opportunistic data collected by various different ocean users





#### A FOCUS ON TWO MEASURES FOR REUNION

### ACTION 2.2.2 - Promote a responsible and respectful observation of cetaceans and to provide a team to raise awareness about the whale-watching label

<u>Context and general description</u>: A responsible and respectful observation of marine mammals is often made difficult due to the high numbers and diversity of sea users. The 'Approach Charter' and the ministerial decree of July 1st 2011 define prohibited activities and recommendations to be respected in order to protect cetaceans and to encourage correct behaviour which respects both animals and observers. In practice, these recommendations and prohibitions are not always sufficiently known or respected. For these reasons, it is essential to set up a permanent team of awareness campaigners who operate at sea, backed up by verifications carried out by the relevant authorised services. In addition, the establishment of a label ensuring that professional sea users observe marine CR label was created in 2014).

#### Content of the measure:

- Raising awareness among users of recommendations and observation rules, by;
  - Maintaining an awareness team and ensuring that a boat is available for them;
  - Contributing to coordinated checks with the relevant authorised services.
- Managing the label for responsible observation, by:
  - Ensuring the management of the label (steering committee, promotion, coordination, etc.);
  - Improving the label's recognition with adapted versions following feedback in the field and approval given by the steering committee;
  - Improving procedures for awarding and renewing labels;
  - Reinforcing the label's visibility by developing new identification and communication tools.

## ACTION 3.2.1 - Define the different sectors used for breeding around Reunion and across the south-west Indian Ocean

Context and general description: A first satellite monitoring program of migratory routes of Reunion Island Humpback Whales (the Miromen Program, 2013) showed that within the same season, individuals coming to breed in Reunion are also present in coastal waters of neighbouring countries (including Madagascar), as well as around seamounts. Because of this geographical mobility across the south-west Indian Ocean, the implementation of concerted regional conservation policies is necessary. However, such measures will require greater knowledge of the different sites used by Reunion Island's humpback whales in order to identify priority areas and to better guide management and cooperation policies. It is therefore necessary to set up a satellite monitoring program - this will complete the existing data and associate it with visual monitoring data, thus providing greater clarity on the effectiveness of the different breeding grounds.

#### Content of the measure:

- Identifying and establishing contracts for technical partners: supplier of Argos tags, teams deploying; them; equipment purchase;
- Applying for authorization to derogate from the list of protected species established by the French Environment Code;
- Deploying Argos tags;
- Receiving and analysing satellite data, distributing both results and recommendations;
- Offshore campaigns to ensure site effectiveness.

### CMP IMPLEMENTATION AND FUNDING

#### **IMPLEMENTATION AND STEERING COMMITTEES**

This CMP is a compensatory measure proposed as part of the New Coastal Road project by the Regional Council of Reunion Island (project owner). As such, its development was financed by compensatory measure MC-M02, entitled "The development and implementation of Conservation Master Plan measures for humpback whales and dolphins frequenting the coastal waters of Reunion".

The CMP will be coordinated by Reunion's DEAL (Directorate for Environment, Development and Housing), who will designate a service provider to implement this Conservation Plan. This team will have to manage the plan, apply for funding and act as interface with the Steering Committee.

A Steering Committee will be appointed to ensure the proper conduct of the action plan. It should notably take decisions regarding strategic and budget choices, as well as monitoring and evaluating the implementation of the CMP and its measures, especially those considered as priorities. This committee may include government representatives (DEAL, Directorate of the South Indian Ocean Sea (DMSOI), National Agency for Hunting and Wildlife (ONCFS)...), local authorities (Regional Council of Reunion, etc.), the Natural History Museum, associations for nature conservation and scientific experts.

Annual reviews will be carried out in order to assess the extent to which the objectives and measures have been implemented. This will in turn lead to the drawing up of a financial balance sheet and a forecast for future measures. A final assessment will be carried out at the end of the implementation period of this CMP (5 years).

#### FINANCING AND FINANCIERS

Based on a model which has been applied for several years now, this CMP will have to rely on a wide array of different financial partners: the European Union, the French government and local authorities, to which certain institutions will have to be linked, such as: Reunion's Marine Nature Reserve (GIP RNMR), the Water Board (OE), the French Agency for Biodiversity (AFB), the Indian Ocean Commission (IOC), the World Wildlife Fund (WWF) etc. On top of this there are the various private partners (foundations, companies, etc.), and networks of stakeholders (TE ME UM). Finally, for development projects which may have an adverse impact on humpback whales and any other cetaceans, compensatory measures may finance certain parts of this CMP.

The implementation of the CMP will therefore require an active search for funding from public and private donors.

#### Web site

Document available at the following internet address: http://www.reunion.developpement-durable.gouv.fr/les-plans-de-conservation-pdc-r365.

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