Conservation Master Plan

for the protection of coastal dolphins around Reunion 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 COASTAL DOLPHINS FREQUENTING REUNION ISLAND 2018-2023

This CMP is intended to provide an operational and strategic document listing the measures aimed at better understanding and protecting the status of the following species around Reunion: the Indo-Pacific Bottlenose Dolphin (*Tursiops aduncus*), the Common Bottlenose Dolphin (*Tursiops truncatus*), the Spinner Dolphin (*Stenella longirostris*) and the Pantropical spotted dolphin (*Stenella attenuata*). It also seeks to raise public awareness about these species and to inform them of related issues.

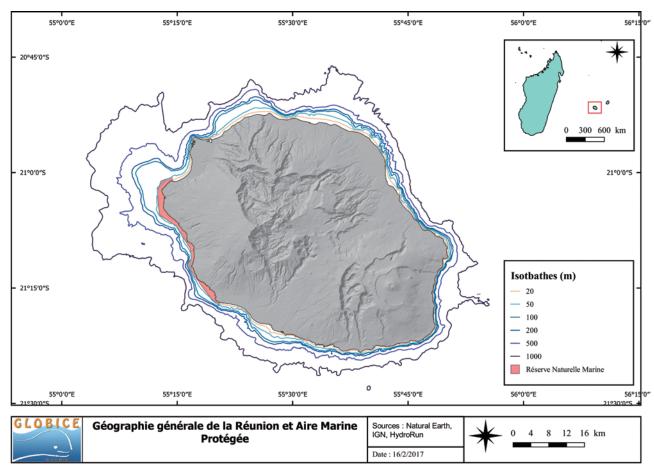
The general objectives of the CMP are:

- To carry out diagnostics concerning biology, ecology, and socio-economic aspects of the species concerned;
- 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 coastal dolphins and their habitats.

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 coastal dolphins. 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 cetaceans during the austral winter, especially off the coast of St-Gilles-les-Bains.



General geography of Reunion and its Marine Nature Reserve (Globice).

THE 4 MOST FREQUENTLY OBSERVED SPECIES OF COASTAL DOLPHINS IN REUNION

DESCRIPTION OF THE SPECIES

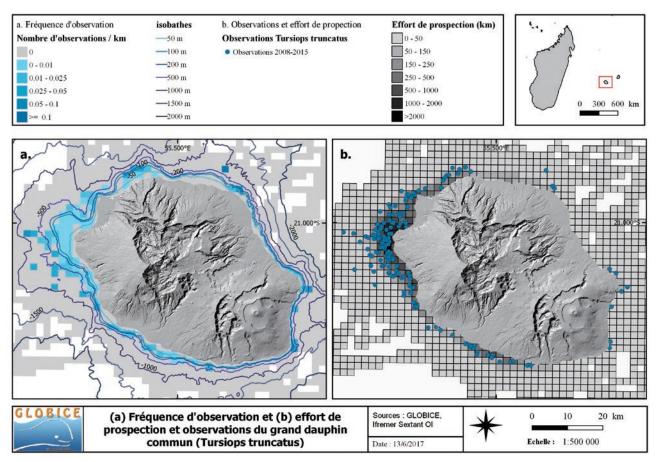
• The Common Bottlenose Dolphin (Tursiops truncatus)

The Common Bottlenose Dolphin is undoubtedly one of the best-known species of small cetaceans worldwide (although there is a lack of knowledge in Reunion Island). It has a medium sized, robust body with a clearly defined dividing line between the melon and its short rostrum, and its dorsal fin is sickle-shaped. Their pigmentation varies from light to dark grey, but their undersides are lighter. Their adult size varies from 2m to 3.8m, and their weight ranges from 220 to 500 kg, depending on the region.



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The species is observed all around Reunion Island. The abundance of the population observed on the island's west



Sightings and frequency of sightings of the Common Bottlenose Dolphin around Reunion (2008 - 2015).

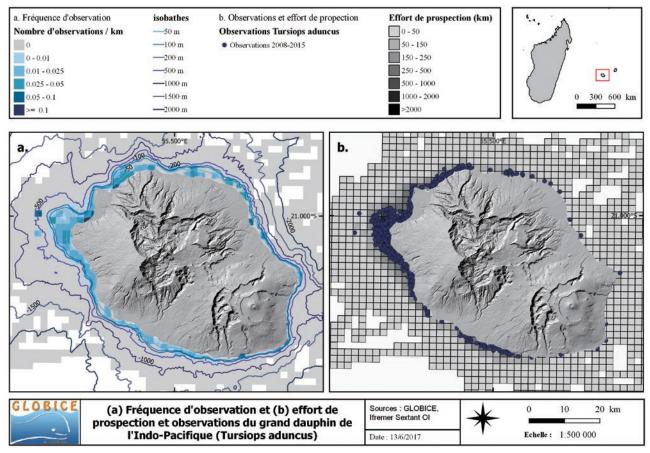
coast is estimated at about 250 individuals. At least some part of this population is resident (staying around the island all year round), mainly using the outer slopes, but also the island's plateau as well, zones which appear to provide individuals with all their nutritional needs.

The Indo-Pacific Bottlenose Dolphin (Tursiops aduncus)

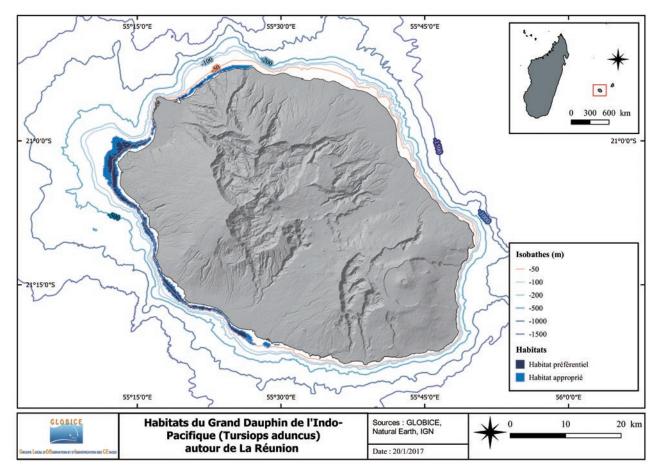
Its body is grey all over and relatively robust, and has a medium length rostrum. Its appearance is similar to that of the Common Bottlenose Dolphin (*Tursiops truncatus*), but is smaller in size. Its rostrum is also proportionately longer and its dorsal fin is less curved. Ventral spots sometimes appear when the dolphin reaches sexual maturity, but these spots darken with age. Adult males can measure up to 2.7 metres and weigh 230 kg. And finally, it is worth reminding that these two species of bottlenose dolphins from the genus Tursiops were only recognised in 1999.



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Sightings and frequency of sightings of the Indo-Pacific Bottlenose Dolphin around Reunion (Globice data 2008 - 2015).



Habitat modelling of the Indo-Pacific Bottlenose Dolphin around Reunion (Condet & Dulau, 2016).

The Indo-Pacific Bottlenose Dolphin is frequently observed in Reunion, and this all year round. The species can inhabit coastal waters all around the island, as depths are less than 100 metres. The local population is estimated at about 70 individuals, and as far as genetics is concerned, they differ highly to neighbouring populations across the region. This significant genetic divergence indicates that there are no significant or regular movements of individuals between islands which would ensure greater gene mixing between populations.

• The Spinner Dolphin (Stenella longirostris)

To date, four subspecies of the Spinner Dolphin have been identified: the Hawaiian Spinner Dolphin (or Gray's) (*S.I. longirostris*), the Central American Spinner Dolphin (*S. I. centroamericana*), the Eastern Spinner Dolphin of the eastern Pacific (*S. I. orientalis*) and the Dwarf Spinner Dolphin (*S. I. roseiventris*). In the south-west Indian Ocean, only the Hawaiian type seems to have been observed.

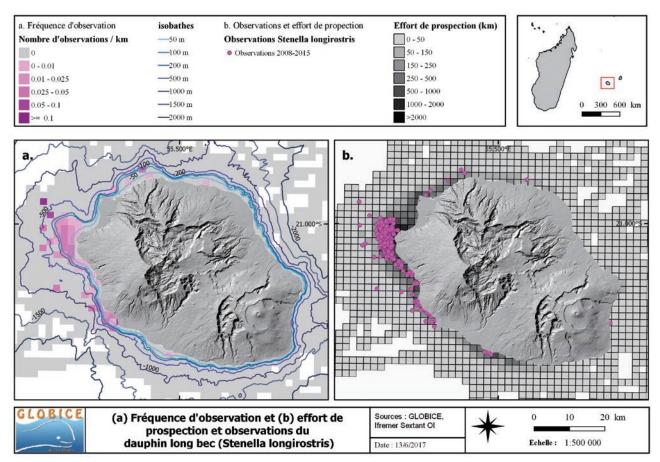
The Spinner Dolphins around Reunion therefore correspond to the S.l. longirostris. Its rostrum is



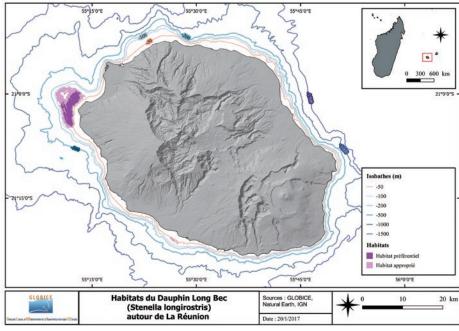
© Globice

relatively long and its body is thin but robust, and can reach a length of about 2 metres. Its triangular-shaped dorsal fin is situated in the centre of its back.

The species is common around Reunion, especially on the island's west coast, and the number of individuals frequenting the western coastline is estimated at around 210. For resting places, Spinner Dolphins generally prefer areas with clear and flat sea beds (white sand), especially the area of Saint Gilles. They tend to move further away from the coast in the afternoon to feed.



Sightings and frequency of sightings of Spinner Dolphins around Reunion (2008 - 2015).



Habitat modelling of Spinner Dolphins around Reunion (Condet & Dulau, 2016).

• The Pantropical Spotted Dolphin (Stenella attenuata)

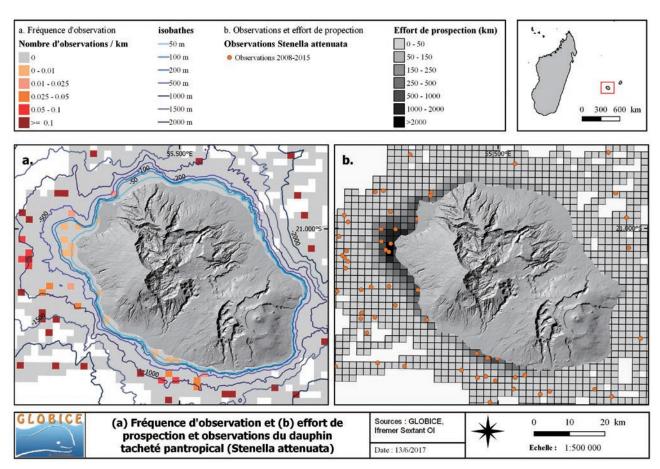
The Pantropical Spotted Dolphin is characterized by its long rostrum, protruding distinctly from the melon, a slender spotted body and a strongly curved dorsal fin. It has ventral spots of grey to light grey, and light dorsal spots (sometimes to the point that the animal appears almost white when seen from above). The extent of markings and spots varies by region. New-borns do not have these spots. The tip of the rostrum is white. The adult is 1.6 to 2.5 metres long and weighs up to 119 kg.

The species is divided into two subspecies, *Stenella attenuata graffmani*, which is found in the coastal waters of the eastern tropical Pacific Ocean and *Stenella attenuata attenuata*, which can be seen all over the world.



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Although sometimes observed near the coast, the habitat of the pantropical spotted dolphin in Reunion Island appears to inhabit the deeper waters further away from the coast, and this all around the island. They form large groups which can reach up to several hundred individuals. Initial rough estimates suggest that the population boasts around 2900 individuals (95% CI: 1343 - 6404, Globice, 2018), based on distance sensing modelisations (using the Distance Sampling method). New observation data will soon provide a more accurate estimate of this.



Global, regional and local distribution of the Pantropical Spotted Dolphin (data from the International Union for the Conservation of Nature (IUCN), AquaMaps, GLOBICE -2008-2015).



STATUS AND REGULATIONS

Threat level¹ (The International Union for the Conservation of Nature's Red List) and criteria for attributing threat levels following global and local assessments

WORLD STATUS LOCAL STATUS

Indo-Pacific Bottlenose Dolphin



Habitat destruction and bycatch likely to have a significant impact



Limited geographic distribution, continuing decline in habitat, population of <250 individuals

Common Bottlenose Dolphin



Widely distributed, with abundant populations



Population size and range unknown

Spinner Dolphin



Direct and indirect bycatches (several hundred thousand individuals per year in the Indian Ocean)



Population size and range unknown

Pantropical Spotted Dolphin

Réglementations



The threats faced by this species do not seem to significantly affect its population.



Area of occurrence > 20,000 km², population> 250 individuals. A priori, no threat of significant decline

International agreements and international tools Washington – Convention Vulnerable species, which could be threatened with extinction in the absence of on International Trade in regulation. Regulation EC No 338/97 of the European Council reflects the provisions of CITES in Community law. Dolphins belonging to the genera Tursiops and Stenella are listed **Endangered Species of Wild** in Appendix B. The import and export of products derived from these species requires a Fauna and Flora (CITES) -Annex II permit. Bonn - Convention on the Species with unfavourable status. Member states are encouraged to take concerted **Conservation of Migratory** measures to maintain or restore populations. species (CMS) – Annex II

Bern – Annex II

Regional or interregional agreements

Only concerns the Common Bottlenose Dolphin. To ensure the conservation of wild flora

X II

and fauna and their natural habitat.
Annex II: "strictly protected wildlife species".

Indian Ocean Tuna Commission (IOTC) – Resolution 13/04 To ensure that vessels comply with various measures to reduce the impact of purse seine fishing operations on cetaceans (prohibition of intentional stalling around a cetacean) / taking all reasonable measures to ensure the release of an uninjured cetacean which has been caught accidentally / duty to inform any incident involving 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.

Modified decree of 9th July, 1999

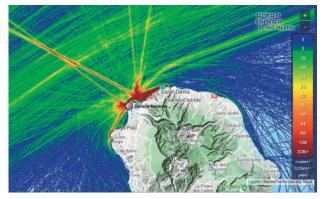
The Common Bottlenose Dolphin is included on France's list of endangered species due to the observed or foreseeable drop in their numbers and for species whose range extends beyond the territory of a French Department. As a result, any derogation from the prohibition of harming this species must be provided at ministerial level. In addition to the prohibitions indicated in Art L 4111 of the EC, this text prohibits the destruction or degradation of the breeding and resting habitats.

1. DD : Data Deficient LC : Least Concern; EN : Endangered

THREATS

The different threats identified in Reunion mainly concern coastal habitats, and focus on the island's north-west sector. This area is home to the majority of Reunion's commercial and recreational activities (with whale-watching, Reunion's only commercial port, mooring areas for commercial vessels, commercial shipping lines, etc.). Because of its highly coastal habitat and its low numbers, the Indo-Pacific Bottlenose Dolphin is particularly vulnerable to interactions with human activities (construction work at sea, entanglement in fishing gear, whale-watching, and destruction of habitat).

	Species			
Type of threat	Indo-Pacific Bottlenose Dolphin	Common Bottlenose Dolphin	Spinner Dolphin	Pantropical Spotted Dolphin
Noise generated by maritime traffic				
Noise generated by maritime construction work				
Noise generated by seismic surveys				
Accidental bycatch / entanglement				
Hydrocarbon pollution				
Diffuse pollution of bodies of water				
Macro-waste				
Cetacean observation activities				
Collisions				
Habitat destruction and fragmentation				
Climate change	MC	MC	MC	MC
Natural threats	MC	MC	MC	MC
High risk	Low risk			
Moderate risk	Lack of information (MC)			



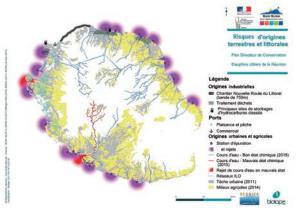
Intense shipping activity in the north-west @www.marinetraffic.com



Entangled in a fishing net © GLOBICE



Pollution by macro-waste © GLOBICE



Coastal water quality and risk of pollution © BIOTOPE



AN EMBLEMATIC SPECIES, TODAY ENSHRINED WITHIN OUR SOCIAL AND ECONOMIC CONTEXT

The observation of marine mammals by the general public, known as 'whale-watching', is an activity which is clearly on the rise all over the world and which represents a considerable economic impact with 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. Nevertheless, this is not a determining factor for tourists when choosing Reunion as a holiday destination.

MEASURES ALREADY UNDERTAKEN FOR THE PROTECTION OF THESE SPECIES

Dolphins and other cetaceans are particularly iconic species. As a result, different stakeholders have already initiated awareness and conservation programs covering various themes over recent years, and there are many measures already underway in Reunion Island. 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 and dolphins since 2009







Label O²CR Ensuring sustainable and responsible observation of cetaceans

Awareness and Education campaigns

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

Sciences

Monitoring of coastal dolphins/ Habitat surveys of *T. aduncus* and *S. longirostris*/Environmental monitoring of the New Coastal Road construction site and risk reduction measures

CHALLENGES, STRATEGIES AND APPROACHES

NEEDS AND CHALLENGES FOR THE CONSERVATION OF THIS SPECIES

Conserving the quality and effectiveness of their habitat appears to be the primary need for each of the 4 species concerned by this CMP. The challenges related to this objective are mainly concentrated on the island's west and north-west coastlines. These areas are not only frequented by this species - they also face considerable impact from human activities such as cetacean observation, pollution, and coastal development. However, data shows varying situations in Reunion between the Indo-Pacific Bottlenose Dolphin, the Common Bottlenose Dolphin, the Spinner Dolphin and the Pantropical Spotted Dolphin. These differences are related to the available biological and ecological knowledge, the conservation status of the species, their habitat, and the threats and pressures they face. The challenges therefore vary considerably, depending on each species:

- Because of its highly coastal habits (depths of <60m), its low numbers (about 70 individuals) and isolation of population making it more vulnerable to human activities, the Indo-Pacific Bottlenose Dolphin faces the most serious conservation issues. It is also the species most likely to benefit from local conservation measures;
- As for the Common Bottlenose Dolphin, its numbers are greater and it ventures further away from the coast, resulting in a lower risk of impact by human activities for these reasons, the challenges for this species are considered as medium;
- The Spinner Dolphin faces considerable conservation challenges: due to its relatively limited resting area located just off Saint Gilles, interactions with cetacean observation activities occur on an almost daily basis;
- Because its habitat is mainly located offshore, thus limiting the level of interaction with human activities, the conservation challenges facing the Pantropical Spotted Dolphin are considered as 'weak' in Reunion.

LONG-TERM STRATEGIES

As far as conservation is concerned, the long-term strategy for the four species covered by this CMP is to ensure that population numbers and health status remain stable, and to maintain quality habitats. This involves reducing the impact from interactions with humans, notably by considering the welfare of cetaceans in construction projects and developing a responsible ecotourism sector. At the same time, it is important to improve knowledge about the ecological factors which influence their conservation and to identify to what extent the populations inter-connect across the region. Finally, the protection of Reunion's coastal dolphins is only possible by taking into account as many conservation-related challenges as possible. A public awareness campaign should reach the widest possible audience, including schoolchildren, the general public, professionals working at the sea and in tourism, and public authorities. More specific strategies for each individual species are listed below.

• For the Indo-Pacific Bottlenose Dolphin:

- to maintain an available habitat area which is sufficiently large to satisfy its basic needs;
- to ensure that its habitat remains peaceful;
- to maintain high water quality;
- to ensure that coastal habitats remain viable for feeding and reproduction;
- to monitor demographic trends;
- to improve knowledge (about diet, sustainability parameters, impact of human activities);

• For the Common Bottlenose Dolphin:

- to ensure that its habitat remains peaceful;
- to improve knowledge (abundance, distribution, habitat);

• For the Spinner Dolphin

- to ensure that its habitat remains peaceful;
- to improve knowledge (abundance, feeding grounds, regional connectivity);

• Pour le Dauphin tacheté pantropical:

- to improve knowledge (abundance and distribution);
- to limit impacts related to interactions with human activities (fishing).



© J.-S. Philippe/Biotope

THE ACTION PLAN

OBJECTIVES OF THE PLAN

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

- 1. To ensure that the CMP is correctly implemented;
- 2. To maintain the quality of habitats;
- 3. To further our knowledge about the biology and ecology of dolphin populations;
- 4. To educate the general public and schoolchildren about conservation issues related to coastal dolphins around Reunion Island.
- 5. To develop local and regional scientific and research partnerships.



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For this conservation plan, **22 measures** have therefore been defined for Reunion, coming to an **estimated total cost of €1,766,935** spread over a period of 5 years (estimation made based on the merging of certain measures related to the CMP concerning Humpback whales).

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 habitats	
2.1.1 Promote a responsible and respectful observation of cetaceans and to provide a team to raise awareness about the label	1
2.1.2 Develop complementary tools to promote responsible respectful cetacean-watching activities which are in accordance with the approach charter and the label for responsible marine mammal observation	2
2.1.3 Pre-empt the future of cetacean-watching activities and find ways to keep them in check	1
2.1.4 Provide high-quality and adapted training courses to ensure that professionals working in tourism or at sea know more about cetaceans	1
2.1.5 Quantify the economic benefits of cetacean observation activities in Reunion	2
2.1.6 Study the impact of observer activity on the behaviour of coastal dolphins in Reunion	1
2.2.1 Ensure that cetacean habitats are taken into account in development projects	1
2.2.2 Fight against different types of coastal pollution and fishing gear entanglements	2
3. To further our knowledge about the biology and ecology of dolphin populations	
3.1.1 Estimate and monitor the abundance of Reunion's coastal dolphin populations	1
3.1.2 Describe the diet and feeding grounds of Reunion's coastal dolphins	1
3.1.3 Acquire data to identify the sustainability of Reunion's Indo-Pacific Bottlenose Dolphin population	1
3.1.4 Strengthen the Cetacean Stranding Network to further knowledge about Reunion's coastal dolphins	2
3.2.1 Update a local acoustic directory on Reunion's oceanic dolphins	2
3.2.2 Further knowledge about marine mammals in relation to coastal developments	2
3.2.3 Study the acoustic sensitivity thresholds of Reunion's coastal dolphins	3
3.2.4 Investigate the acoustic characteristics of the Indo-Pacific Bottlenose Dolphin's coastal habitat	3
4. To educate the public and schoolchildren about conservation issues concerning Reunion's coastal Dolphins	
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 coastal dolphins	2
4.2.1 Conduct a prefiguration study in order to assess the feasibility of a museum centre dedicated to cetaceans	3
5. Develop local and regional scientific and research partnerships	
5.1.1 Develop a network of south-west Indian Ocean scientific groups as part of the IndoCet Consortium ²	1
5.1.2 Facilitate the banking and sharing of data collected on coastal dolphins around 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

A list of 'regional' measure has been drawn up to run parallel to this CMP. This list concerns measures that seek to further knowledge about the-se species and to improve their conservation across the region. It covers the south-west Indian Ocean (Mascarene Islands, Madagascar, Comoros, Seychelles and the east coast of Africa), requiring regional cooperation between French territories (such as Reunion, Mayotte and the Scattered Islands of the Indian Ocean) and international territo-ries (the rest of the countries in the zone). These measures must be implemented via networks of existing internation-al and local stakeholders, in particular via the IndoCet network which brings together a group of scientists who are involved in the study and conservation of cetaceans in the west Indian Ocean. This regional component includes proposals for measures that can run parallel to and independently of the action plan for dolphins in Reunion.

These measures are as follows:

- to investigate the connectivity of Common Bottlenose Dolphin and Spinner Dolphin populations across the region;
- to establish a regional study of coastal dolphin acoustic signals in order to create an acoustic directory for species identification;
- to contribute to the development of a network of cetacean conservationists across the region.



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ACTION 2.2.2 - Fight against different types of coastal pollution and fishing gear entanglements

Context and general description: Studies of contamination levels of Indo-Pacific Bottlenose dolphin and Spinner Dolphin populations in Reunion highlight their exposure to the following persistent organic pollutants: DDTs (pesticides) and PCBs (industrial chemicals). The exact origin of this pollution is not known, but they generally originate from the water catchment area (pesticides, wastewater discharge, etc.). Moreover, aerial surveys carried out as part of the REMMOA campaign in 2009 and 2010 made it possible to define levels of macro-waste in the south-west Indian Ocean, for which relatively high densities were observed around Reunion. Between 2007 and 2017, the Cetacean Stranding Network also recorded 8 cases of dolphins caught up in fishing gear which had been lost or discarded at sea, and this trend appears to be on the rise. In order to guarantee the quality of coastal marine environments and to ensure the health of individual animals, it is vital to ensure that all stakeholders work together to intervene within the water catchment area, thus minimising both pollutant discharges and macrowaste.

Content of the measure:

- Identifying which stakeholders needed to be consulted: local authorities, government, agricultural unions, water management services, etc.;
- Identifying the main sources of pollution as well as key 'black spots' for pollutant discharges;
- Providing greater momentum when taking these issues into account with identified stakeholders, especially in relation to these 'black spots'. This may be reflected in situations whereby this issue is integrated within French urban planning and water management documents (such as SAR, SCOT, PLU and SDAGE);
- Informing and raising awareness among stakeholders who have been identified as representing a potential source of pollutants or net entanglements (farmers, industrialists, ports, fishermen, etc.);
- Developing awareness campaigns about macro-waste among the general public and about net entanglements with sea users.

ACTION 3.1.3 Acquire data to identify the sustainability of Reunion's Indo-Pacific Bottlenose Dolphin population

Context and general description: Because of low numbers and isolation from neighbouring populations, the Indo-Pacific Bottlenose Dolphin faces considerably adverse conservation issues. It is also the species which is most likely to benefit from local conservation measures. The IUCN has evaluated the conservation status of this species in Reunion as 'Endangered'. By taking into account the different levels of threats, analysing the sustainability of the Indo-Pacific Bottlenose Dolphin population would help assess the risk of its extinction in the long term. However, such an assessment requires the collection and analysis of accurate population data that is potentially difficult to obtain (birth rate, annual survival rate, male/female ratio, etc.).

This measure aims to collect the data needed for a sustainability survey and then, depending on the quantity and quality of the data collected, to carry out such a study.

Content of the measure:

- · Analysing existing data; defining data to be collected;
- Data collection at sea;
- Treatment, analysis and banking;
- Defining the population's sustainability.

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", and also by the French government (Reunion's Directorate for Environment, Development and Housing).

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 coastal dolphins 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.

Site Internet

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

Citation

COTTAREL G., DULAU V., MOUYSSET L., MARTIN J., PHILIPPE J.-S. Conservation Master Plan for dolphin populations around the waters of Reunion Island (2018-2023). Ministry of Ecology, Sustainable Development and Energy, Directorate for Environment, Development and Housing in Reunion. GLOBICE, BIOTOPE, 2018, 20 pages.











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