

FRANCE VOLUNTARY NATIONAL CETACEAN CONSERVATION REPORT, 2010

1. General legal aspects

All cetaceans are protected by national regulations (decree of July 27th 1995, defining the list of protected marine mammals). Under this decree, it is prohibited to harass, catch or kill any individual of all cetacean species across the French territory and in waters under its jurisdiction. In addition to this, the same decree also stipulates that transport and trade of any cetacean, dead or alive, or of products processed from cetaceans are similarly forbidden. A new decree is in preparation.

Besides this species-oriented conservation strategy, a site-oriented conservation strategy is now facilitated by the adoption, in April 2006, of the law relative to the establishment of Marine Natural Parks and the creation of the Agency for Marine Protected Areas whose aims are:

to support public policies in the field of marine protected areas, both concerning their creation and their management,

to manage the human and financial resources dedicated to Marine Natural Parks,

to give technical and administrative support to managers of marine protected areas.

Among the network of MPA, two Marine Parks have been created: *Parc Naturel Marin de la Mer d'Iroise*, located off the west coast of Brittany and *Parc Naturel Marin de Mayotte* in the Indian Ocean (which spreads over 70,000 km² of EEZ around Mayotte and encompasses both lagoon, peri-isular slope and oceanic habitats).

As a member of the European Union, France endorses European regulations on cetacean conservation. Two principal legal frameworks are particularly relevant, the habitat Directive and the Common Fishery Policy.

1-the Habitat Directive and the Common Fishery Policy. Under the Habitat Directive, all species of cetaceans are listed in appendix IV relative to protected species and two coastal-dwelling species, the harbour porpoise, *Phocoena phocoena*, and the bottlenose dolphin, *Tursiops truncatus*, are listed in appendix II which implies the designation of sites, called Natura 2000 sites, for their protection. At present, the Natura 2000 network covers 40 000 km² at sea (the harbour porpoise, *Phocoena phocoena* is present in 36 sites, the common bottlenose dolphin *Tursiops truncatus* in 61, among other cetaceans).

2-Under the Common Fishery Policy, regulation EC/812 of April 26th, 2004, determine how to assess, monitor and mitigate small cetacean by-catch in commercial fisheries. Since 2005, a yearly report is produced and some mitigation strategies are being tested

The newly implemented EU marine strategy Framework Directive was adopted by the European Union in June 2008 and will provide the main context in which the French policy for monitoring and protecting cetaceans will develop in the future. In particular, marine strategies to be developed by each Member State must contain a detailed assessment of the state of the environment, a definition of "good environmental status" at regional level and the establishment of clear environmental targets and monitoring programs, including of cetacean populations. In this context, marine mammal issues are dealt with mainly under descriptor 1 (biodiversity), and also under descriptors 4 (food web), 10 (marine debris) and 11 (energy and noise) for specific issues.

2. Specific programmes of cetacean conservation

2.1 Conservation oriented research

The French Government contributes funding and scientific or logistic partnership to a number of recent research projects, either, European, national or local, whose objectives are relevant to cetacean conservation.

At national levels several actions can be identified. The national stranding scheme provides yearly synthesis on beached cetaceans allowing baseline data to be collected about species diversity in the area, causes of death, pathologies, population demographic structure, ecological parameters and levels of contaminants.

Within the scope of our EC commitments regarding the Natura 2000 network at sea, the Ministry of Ecology has delegated the operational implementation of a knowledge acquisition programme on seabirds and marine mammals to the Agency for marine protected areas. The objective is to evaluate the initial state of seabird and cetacean populations and assess their conservation status in Natura 2000 sites and within the perimeters, either

defined or under examination, of natural marine parks. The aim is also to designate new Natura 2000 sites that would supplement the Natura 2000 network offshore (appendix I).

From 2008 onwards, an inventory of cetaceans and other top pelagic predators was initiated throughout the French EEZ in overseas territories in order to support the national policy for the establishment of future marine protected areas. This inventory will sequentially cover EEZ areas in the Atlantic, the Indian Ocean, Micronesia and Polynesia by using a standard methodology. Surveys around French overseas territories in the Caribbean and off Guiana were carried out in 2008. From December 2009 to April 2010, the southwest Indian Ocean survey was conducted regionally under the framework provided by the Indian Ocean Commission (IOC), a regional agreement that includes Comoros, France-Réunion Island, Madagascar, Mauritius and the Seychelles. The EEZ of French Polynesia has been surveyed in the austral summer 2010-11 and a similar effort is planned to be deployed from November 2012-February 2013 in the southwest Pacific around New Caledonia and Wallis and Futuna in a spirit of regional collaboration.

Several regional projects are aimed at determining cetacean biodiversity, as well as habitat and resource use by cetaceans in many focal areas (Brittany, Mediterranean, New Caledonia, Mayotte, Martinique and Guadeloupe, Southern Ocean). Among those, the research projects carried out in Brittany on resident bottlenose dolphins, in the Mediterranean Sea, on fin whales and various delphinids, in New Caledonia on humpback whales, and around Mayotte on humpback whales and delphinids are explicitly related to conservation areas already established (the *Pelagos* marine mammal sanctuary in the Mediterranean; the whale sanctuary around New Caledonia, and the Marine Nature Parks of Brittany and of Mayotte).

France is also associated to the Australian initiative, Southern Ocean Research Partnership, in various ways. France held a SORP Steering Committee workshop in Paris from March 29 to April 1, 2011, contribute to the coordination of the blue and fin whale passive acoustic project and of the killer whale project. On another hand passive acoustic data set of the OHASIS-Bio survey, conducted in the SW Indian Ocean, have been made available to the SORP acoustic project.

In parallel to this involvement, several national research actions are relevant to the SORP initiative. All cetaceans are surveyed in the summer along the routes of the supply vessel *Marion-Dufresnes* between Reunion Island and the French research stations of the Southern Indian Ocean: Crozet, Kerguelen and Amsterdam. Killer whales and sperm whales were surveyed year round off Crozet and Kerguelen Islands. Killer whales were surveyed from the coast of Possession Island (Crozet Islands). For the second consecutive year, cetacean observers operated on board the research and supply vessel *Astrolabe*. Large whales and other cetaceans were surveyed by using a systematic protocol on the way from Hobart, Tasmania, to Dumont D'Urville, Adélie Land, and back as well as during the oceanographic cruises that are conducted yearly off Adélie Land, Antarctica (project CETA). OHASIS-Bio is a long term acoustic survey dedicated to blue and fin whale monitoring that uses nine autonomous hydrophones located between 26-46°S and 53-83°E from December 2009.

2.2 Conservation actions

Cetacean conservation actions are mostly oriented toward a zonal protection. The 2006 law on Marine Natural Parks allows the designation of several marine protected areas selected *inter alia* for their specific abundance and diversity of cetaceans. The *Iroise* Marine Natural Park located at the western end of Brittany, northwest France, has been established in 2006 and is now developing its management plan. The area is home to two resident groups of bottlenose dolphin, *Tursiops truncatus*, as well as harbor porpoises, *Phocoena phocoena*.

In January 2010 the Marine Nature Park of Mayotte was created, north of Mozambique Channel; it includes the whole lagoon and most of the EEZ. This region is an important breeding ground for the humpback whale (stock C) and in general is an important hotspot of cetacean diversity. The first aim of this newly created MPA will be to establish its management plan, in which it would have to consider *inter alia* the protection of breeding humpback whales, *Megaptera novaeangliae*, and of a diverse community of tropical delphinids and other toothed whales.

Other MPAs will be defined later on, both in metropolitan France and its over-seas territories. The authorities of New Caledonia and French Polynesia have already declared their EEZ whale sanctuaries, in order to reinforce strategies of cetacean conservation and conservation-oriented research in these areas of remarkable diversity. All cetacean species are protected and whale-watching activities are regulated in French Polynesia and New Caledonia. These sanctuaries are contiguous with several other national whale sanctuaries in the southern Pacific Ocean, thus creating a vast region where collaboration in cetacean conservation and research will be facilitated.

In 2006, France, along with several other Pacific countries, has signed the Memorandum of Understanding for the conservation of cetaceans and their habitats in the Pacific islands region, under the CMS.

A marine mammal sanctuary is underway in the Caribbean region around the *Departments* of Martinique and Guadeloupe, named *Agoa*. (See appendix II) France, together with Italy and Monaco, has created the whale sanctuary *Pelagos* which encompasses both territorial and international waters of the north-western Mediterranean. This area is summer home range and critical feeding habitat to the isolated population of the Mediterranean fin whale, *Baleanoptera physalus*, and a diversity of small cetaceans. The management of this valued marine natural heritage in such a heavily anthropised region should benefit to other regions with a similar environmental challenge.

The research program going on since 2005, funded by the French Ministry of Ecology is underway. This program through 10 different projects, aims at assessing distribution and abundance of cetaceans, assessing the impact induced by human activities such as noise, pollution, whale-watching, boat traffic and ship strikes and developing mitigation measures.

REAL TIME PLOTTING OF CETACEANS (REPCET) :

Many populations of whales around the world are threatened by collisions with vessels. In the Mediterranean, right in the heart of the PELAGOS Sanctuary, the scientific community and several ship owners have joined forces to deal with these accidents. It is from this dynamic that the REPCET system was born - a collaborative computer tool for use in commercial shipping. Consisting of a network of maritime companies involved in the protection of marine mammals, REPCET allows known positions of whales along shipping lanes to be shared in real time via a communications satellite. At present the soft-wares have been tested in field condition from a limited number of merchant and passenger ships. The aim of this testing period was to verify the functioning and the ergonomomy of the software.

PARTICULARLY SENSITIVE SEA AREA (PSSA) :

In the line of a recommendation of the of Parties during MoP 2009, an application for the designation of Pelagos as a PSSA has to be elaborated. The draft measures to limit ship strikes should be included in the proposal.

WHALE-WATCHING ACTIVITIES :

The unregulated practise of watching cetaceans in their natural environment is likely to result in harm both to biodiversity and to sea ecotourism. In order to guarantee the best possible respect for the principles enunciated by PELAGOS, a first training session for whale-watching operators will be organized by PELAGOS France in 2012. Eventually, further to this assessment, a PELAGOS/ACCOBAMS label for commercial whale-watching activities will be implemented. The expected result is a form of partnership with operators.

PELAGOS SANCTUARY PARTNERSHIP CHARTER

The concept of a partnership charter with towns and cities bordering the Sanctuary was launched in 2007 and became operational in 2009. By signing the charter, municipalities are committed to help sustain the presence of marine mammals and in recognition they are authorised to fly the Sanctuary flag. At this writing, 20 French towns have signed the Charter. Updated list of signatories and more information on the charter is available on the website : <http://www.sanctuaire-pelagos.org/charte/signataires.php>

3. International agreements

3.1 International agreements relevant to cetacean conservation

France is a member state of the International Whaling Commission, the Convention on International Trade of Endangered Species (CITES), the convention on biodiversity(CBD) and the Convention on Migratory Species (CMS).

3.2 Regional agreement relevant to cetacean conservation

Beside Pelagos, France is a member state of ASCOBANS and ACCOBAMS agreements under CMS for the protection of cetaceans in European seas. In September 2006, France has signed the Memorandum of Understanding for the conservation on cetaceans and their habitats in the Pacific islands region, under the CMS. France is also a member of the Cartagena Convention (Caribbean Region) and Barcelona Convention (Mediterranean Region) and Bern convention (for Europe) whose protocols on biodiversity deal, *inter alia*, with the conservation of cetaceans. As a member state of OSPAR, France also participates to the conservation of cetaceans in the North-East Atlantic.



Update : June 2011

A data collection programme on Seabirds and Marine Mammals in Mainland France

The main missions of the French MPA Agency, created pursuant to the French law of 14th April 2006, are to provide support to public policies concerning the creation and management of protected marine areas, to organise the management of marine nature parks and provide assistance to the administrators of protected marine areas. Within this scope, it participates in implementation of Natura 2000 in marine environments. To accomplish this mission, it is seeking to compile a knowledge base by using existing data or, where necessary, by organising its collection.

Context and stakes



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Within the scope of our EC commitments regarding the Natura 2000 network in marine environments, the ministry of ecology has delegated the operational implementation of a knowledge programme concerning seabirds and marine mammals to the agency, in order to answer two questions:

- What was the initial state of the ornithological and cetological resources and what is its state of conservation in Natura 2000 sites and within the perimeters, either defined or under examination, of natural marine parks?
- What new zones should be designated to supplement the network offshore?



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Chosen strategy

Based on the work of a group of experts that brings together the French natural history museum (MNHN), the scientific referent concerning seabirds, the centre for research on marine mammals (CRMM/ULR), scientific referent concerning marine mammals, the Chizé centre for biological studies (CEBC) and the centre for functional and evolutionary ecology (CEFE), a programme of knowledge acquisition protocols has been drawn up.



As a result, four initiatives focused on maritime front scale, whose protocols are adapted to provide solutions to the two issues “initial assessment of already designated sites” and “designation of new sites offshore” (within the limits of the capacities of the prospection means utilised), and also to go beyond the Natura 2000 framework and to generate understanding of the distribution and dynamics of this marine heritage, have now been programmed:

- *Dedicated aerial surveys* (summer 2011 – winter 2012-13)
These surveys will cover, at the least, the entire Exclusive Economic Zone and French mainland Ecological Protection Area by the means of 8 passages during a two year period and will be divided into several “layers” including a coastal layer encompassing the majority of the Natura 2000 sites.
- *Observations on platforms of opportunity*
This mainly involves placing observers on fishery surveys conducted by IFREMER, the French research institute for exploration of the sea (Evhoe, Ibts, Pelgas...). The aim of these observations is, on the one hand, to enhance the data obtained in the aerial campaigns at a lesser cost, and, on the other hand, to establish a functional link between prey and predator.
- *Electronic tagging of Yelkouan and Cory's Shearwater in Mediterranean coast and Manx Shearwater in Brittany* (spring 2011 – winter 2012)
This operation is intended to provide information that snapshots are not able to supply, namely the population dynamics of the two species targeted by the programme. Such monitoring is an essential addition to the aerial campaigns and opportunistic observations.
- The deployment of a network of hydrophones for *acoustic detection of harbour porpoises*. Experiments in 2011 should enable operational implementation in 2012.

A 5th initiative will enhance this programme via *support for local projects*.

Focus on the dedicated aerial surveys



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Presentation of the project

The project involves the performance of 4 fly-over surveys to observe seabirds and marine mammals. Each campaign will cover the entire area related to mainland France as well as adjoining zones in order to cover a relevant entity with regard to the species observed.

These campaigns will be conducted under the supervision of a Scientific Committee specific to the aerial surveys that brings together the French natural history museum, the centre for research on marine mammals and the Chizé centre for biological studies. This committee will be involved at all the steps of the aerial observation surveys:

- Upstream, it will define the strategy and sampling plan as well as the observation method. It will validate the choice of observers by forming the recruitment panel and training observers.
- During performance of the surveys, it will closely monitor the implementation and coordination required for smooth running of the campaigns, both with regard to organisation and in terms of the scientific quality of the data collected. In order to do this, it will provide project managers and team leaders.
- Following the surveys, it will be in charge of processing the observations, conducting spatial analysis and performing scientific valorisation.

In tandem, a request for proposals was published on 11th May (2011-AAMP-22). Its objectives are as follows:

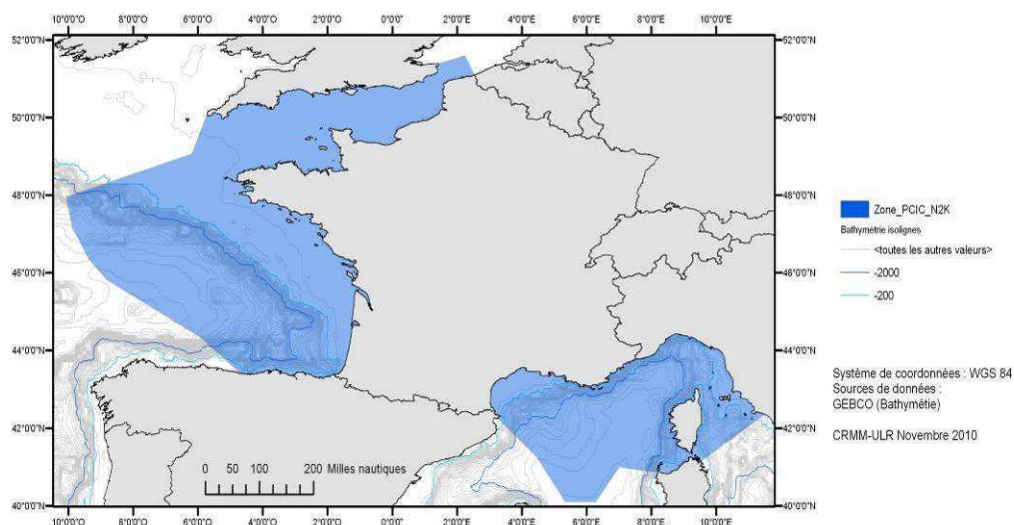
- On the one hand, to provide aerial resources and related services (flight personnel, authorisation requests, embarkation of observers, etc.) required for performance of aerial surveys.
- On the other hand, to carry out observations, including the provision of observers, logistics for all the personnel involved in the project as well as a first level of plotting and valorisation of the data collected.

The Agency is the principal for this project.

Geographical scope of the study area

The study zone, for mainly ecological reasons pertaining to understanding of systems that provide the best answers with regard to the distribution of the target species, is extended to:

- All the English Channel (with English waters),
- The southern Bay of Biscay (Spanish waters), enabling coverage of the main submarine canyons in the bay's southern reaches,
- The Tyrrhenian Sea, on the grounds of its sanctuary PELAGOS and the specific habitat in this part of the Mediterranean Sea (Monaco and Italian waters).

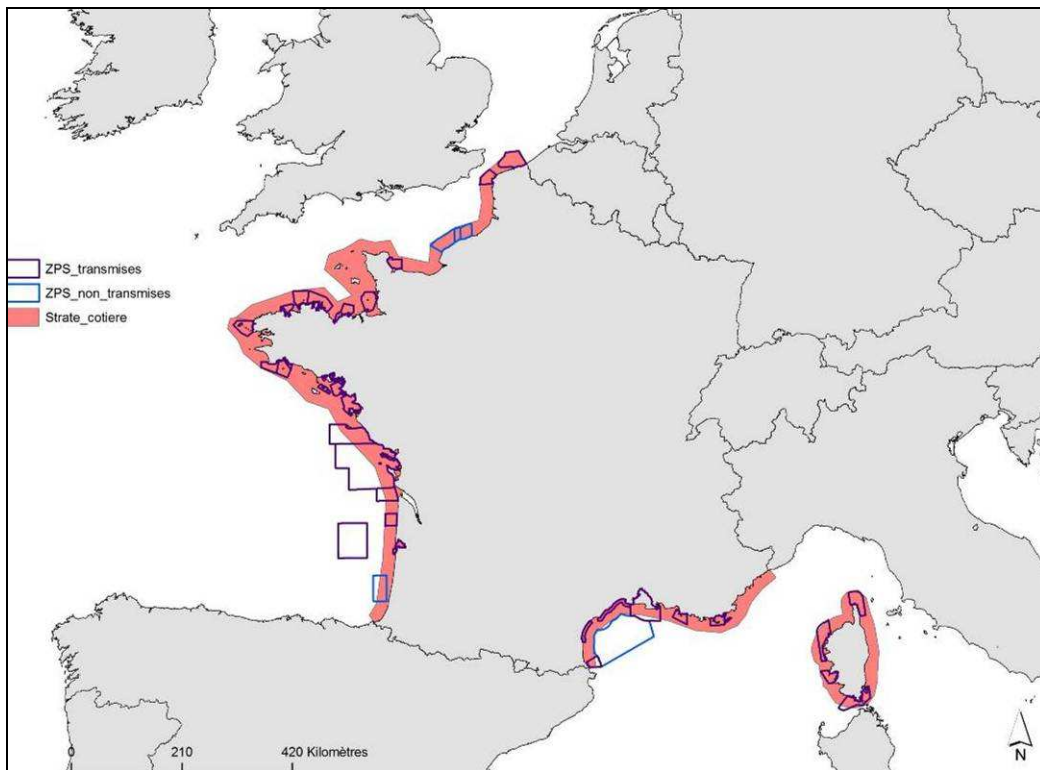


Map of the study area expected

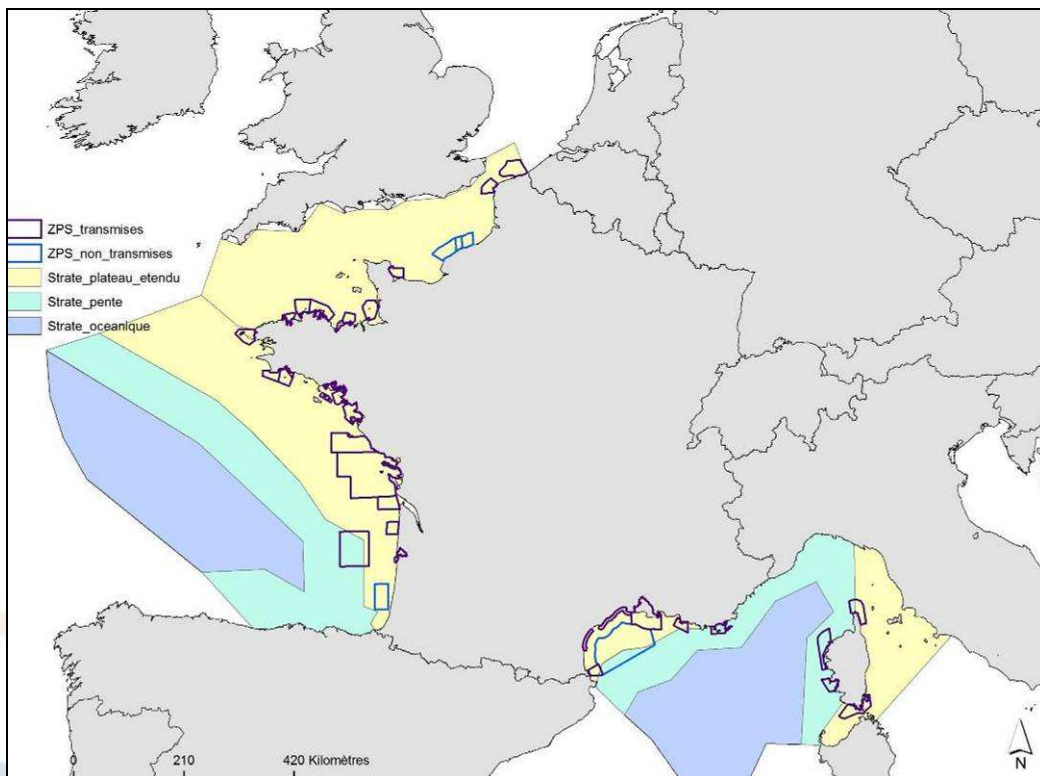
Three sectors have been defined: Channel, Atlantic, and Mediterranean. Within each sectors a layering has been established in accordance with the main bathymetrical categories or distance to the coastline:

- The **“coastal” layer** which stretches from the coast to a limit of approximately 12 nautical miles, has been defined to adjust protocol to answer need of knowledge on Natura2000 site,
- The **“shelf” or neritic layer**, up to the -200 m fathom line, including the “continental” shelf segments in the Mediterranean such as the Gulf of Lion and the Tyrrhenian Sea,

- The “**slope**” layer which corresponds to the continental slope, situated approximately between the -200 and -2000 m fathom lines, including the canyons,
- The “**oceanic**” layer which includes the waters located beyond the -2,000 m fathom line.

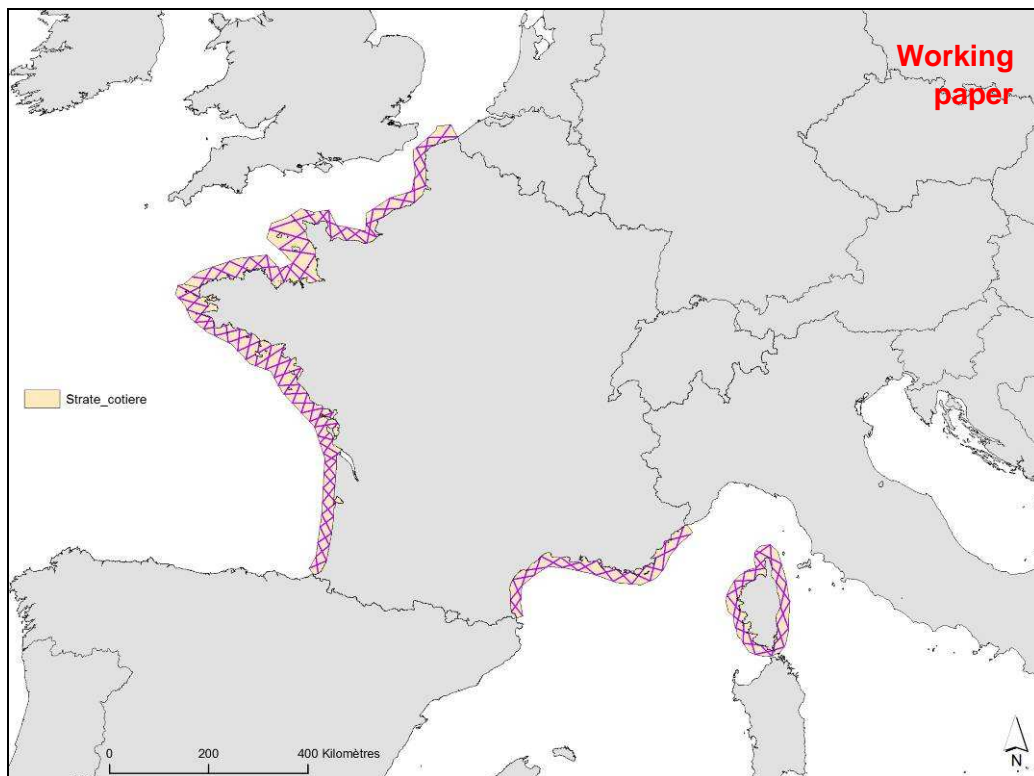


Map of the coastal layer

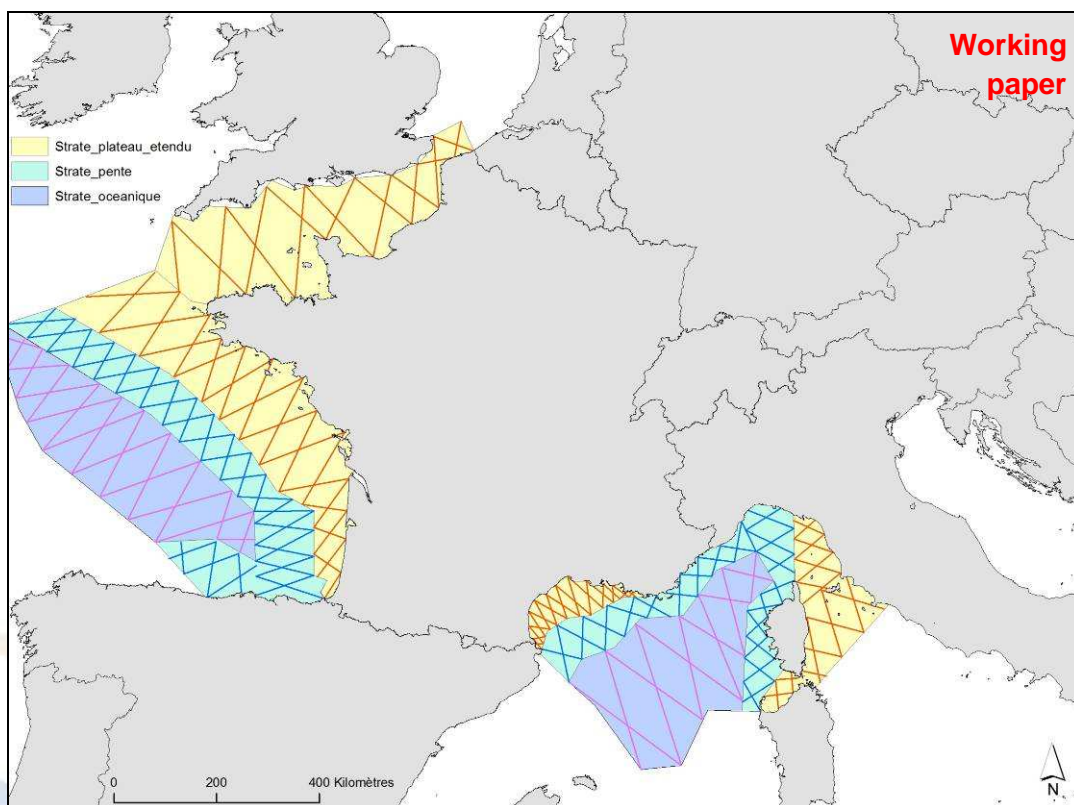


Map of the bathymetric layers: shelf, slope and oceanic

The figures below show an initial proposal of the flight plans that are likely to be used. These flight plans are in the process of being developed and will be deemed definitive before each campaign (at which time the GPS coordinates of the transects will be provided). These figures give an estimate of the spatial effort to be deployed. Even if the design turns out to be different, the effort effectively implemented will be of the same magnitude.



Representation of predicted design on the coastal layer



Representation of predicted design on the shelf, slope and oceanic layers

Characteristics of the methods implemented

The method used is based on aerial observation at low altitude along pre-determined linear transects. The observation methodology is currently being defined. It will derive from the protocols implemented in programmes such as SCANS (Small Cetaceans in The Atlantic and North Sea), ROMER, REMMOA (surveying of marine mammals and other pelagic megafauna by aerial observation).

The flight altitude required for the observations is 600 feet and the flight speed is 90 knots. However, on the coastal layer, a lower flight altitude will be requested (ideally 300 feet) as well as a slower flight speed (ideally 60 knots), depending on the safety conditions to be respected and the technical capabilities of the planes proposed.

The time scheme has been defined to take account of inter-annual, inter-seasonal and intra-seasonal variability. Consequently, the observation surveys will be conducted during two consecutive years and two seasons ("established" summer and "established" winter). A campaign will include 2 passes over the zone (i.e. all the survey lines initially covered on a same season are covered a second time).

The spatial effort has, on the one hand, been defined in accordance with the biological characteristics of the populations observed and the desired rate of encounters, as well as, on the other hand, in consideration of the expected knowledge acquisition objectives. As a result, this effort has been deemed to be a priority on the coastal layer, since it covers the majority of Natura 2000 sites.

Characteristics of the resources implemented

The aerial resources required for performance of the project are twin-engine high-wing monoplanes equipped with bubble windows. The number of aircraft shall be:

- 2 planes for the summer campaigns (ETE12, ETE13).
- 3 planes for the winter campaigns (HIV11/12, HIV12/13).

This must enable 330 hours of observation flights to be conducted, i.e. a total volume of approximately 1450 hours of observation flights. Taking into consideration the flying range of the aircraft made available and the estimated transits, the total flying time per campaign should amount to 400 hours, i.e. 1750 hours of flying time for the four surveys.

The personnel required for performing the observations is made up of a team leader and 3 to 5 observers per plane.

Surveys Agenda

Before beginning the « operational » surveys, two training periods will be set up in August 2011 and October 2011. The surveys will take place on following seasons: winter 2011/2012 (HIV11) / summer 2012 (ETE12) / winter 2012/2013 (HIV12) / summer 2013 (ETE13).

Scheduled date of report publication

At the end of each campaign, a report will be written, published and circulated to the French and foreign partners.

An intermediate report presenting the results of the initial analysis and statistic modelling will be available in autumn 2012. The final report is scheduled for spring 2014.

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Appendix 2

Agoa – A sanctuary for marine mammals in the French West Indies

On 5 October 2010, in Montego Bay, Jamaica, the French Government announced the creation of the Agoa sanctuary at the 14th Intergovernmental Meeting of the Contracting Parties to the Cartagena Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region and the 6th Meeting of the Contracting Parties to its Protocol concerning Specially Protected Areas and Wildlife (SPAW). This announcement was welcomed by all the countries in attendance.

In making the creation of this sanctuary official, France has confirmed its 2006 proposal to the IWC to set up a sanctuary for marine mammals in the French West Indies' exclusive economic zone.

The Agoa sanctuary, named after Mai Agoa, mother of the water spirit in Amerindian mythology, extends across the entire French West Indies' EEZ. It covers a surface area of 138,000 km².

A total of 21 species of marine mammals (whales, dolphins, sperm whales, mesoplodont whales and bottle-nosed whales) have been observed by local players who have been working off the islands of Guadeloupe, Martinique, Saint Martin and Saint Barthelemy for over 20 years.

In addition to this work, the French Marine Protected Areas Agency conducted an aerial survey of the sanctuary in 2008 and drew up an inventory of the marine mammal populations, fishing boats and vessels, yachts and macrowaste. This survey hence established:

- A benchmark to understand changes in the state of health of the ecosystems studied and observed and probable interactions between anthropogenic activities and marine mammals,
- A basis for discussions on setting up preservation and conservation measures for the species concerned and their habitats.

With the creation of the sanctuary, France and the four French West Indies communities are demonstrating their commitment with:

- The close involvement of the local political authorities, socioprofessionals and the government in the governance of the Agoa sanctuary. A sanctuary management committee will be set up in June 2011, comprising local Guadeloupe, Martinique, Saint Martin and Saint Barthelemy players (politicians, associations, economists, scientists and administrations). It will be responsible for recommending preservation and conservation measures for the species and their habitats throughout the French West Indies' EEZ;
- The provision of the human, technical and financial resources needed for the sanctuary's governance, to improve scientific knowledge and to organise outreach actions with sea users and the general public;
- The provision of the resources required for Government Action at Sea sanctuary surveillance.

In view of the many implications of the conservation and management of marine mammals in the Caribbean and the fact that these species pass through different national waters, France hopes, via the Regional Activity Centre (RAC) for the SPAW Protocol established in Guadeloupe, to generate interest among the region's other nations in setting up cooperative approaches such as advocated by the Action Plan for the Conservation of Marine Mammals in the Wider Caribbean Region adopted by the Conference of the Parties to the SPAW (Specially Protected Areas and Wildlife) Protocol of the Cartagena Convention in July 2008.

Some countries have already responded with a commitment to this approach (Dominican Republic, Netherlands for the Dutch West Indies, and the United States), which could take the form of twinning operations being set up between sanctuaries and/or marine protected areas in the coming months and especially at the Second International Conference on Marine Mammal Protected Areas in Martinique in November 2011.