

Agenda Item 2

Annual National Reports 2011

Document 2-04

**Annual National Report
France**

Action Requested

- Briefly present highlights from reports (max. 5 minutes)
- Take note of the information submitted
- Comment

Submitted by

France



**NOTE:
IN THE INTERESTS OF ECONOMY, DELEGATES ARE KINDLY REMINDED TO BRING THEIR
OWN COPIES OF DOCUMENTS TO THE MEETING**

**Revised Format for the
ASCOBANS Annual National Reports**

General Information

Name of Party: FRANCE	Period covered: 2011
	Date of report: March 2012

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Any changes in coordinating authority or appointed member of advisory committee	

Include only organizations on agreement area

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List of national authorities, organizations, research centres and rescue centres active in the field of study and conservation of cetaceans, including contact details

NEW Measures / Action Towards Meeting the Objectives of the Conservation and Management Plan and the Resolutions of the Meeting of Parties

Please feel free to add more rows to tables if the space provided is not sufficient.

A Habitat Conservation and Management

1. Direct Interaction with Fisheries

Investigations of methods to reduce bycatch

A programme named INPECMAM has been funded and agreed between the fishermen, the Iroise sea MPA, University of Brest, the National Natural History Museum and Oceanopolis to work on the by-catch of marine mammals (cetaceans and seals) and the depredation in set net fishery in the Iroise sea.

A new pilot study in Eastern Channel and Southern North Sea was conducted in accordance with EC regulation 812/2004. One acoustic deterrent model (DDD03) was tested in this study, included in the project named FilManCet and managed by the fishing industry in collaboration with scientists of OCEAMM. The experiments took place from April-June 2010. Fifteen hauls were observed at depth from 5-20m. No bycatch was observed in either equipped nets or standard nets, set 6km apart from each other.

Implementation of methods to reduce bycatch

Modification of practices in pelagic trawling (headline at 5 m depth)

Please provide any other relevant information, including bycatch information from opportunistic sources.

Estimates of by-catch in set net and pelagic trawl fisheries

The fishing industry has carried out an observer programs (Filmancet) dedicated to set nets in the Channel; the aim was to determine the level of by-catch in this area and to test acoustic deterrents. The observation programs were implemented from 2009-2010 with observers on board. A total of 610 days were observed in areas VIIe and VIId involving 75 boats. A total of 5 bycatches were reported (3 harbour porpoises, 1 grey seal and one pilot whale). The final report which was achieved during the year 2011 is available on the Ifremer website (<http://archimer.ifremer.fr/doc/00035/14666/>). The final report also includes a synthesis of all French bycatch data in set nets without pingers in area VII. Bycatch rate was higher in the Celtic sea and North sea than in the English Channel. Observed bycatch rate of seals suggests that the use of pingers could be problematic in the western Channel if the dinner bell effect exists.

Observers for the EC regulation (n° 812/2004) were deployed on vessels greater than 15 meters and through pilot studies on vessels less than 15 m. However it was not possible to put observers on boats less than 8m for safety reason; this may give a bias in the results for setnets which are concerned with small vessels. The national report of France for the year 2010 was achieved in 2011 and made available at the Ministry of agriculture and fisheries website (agriculture.gouv.fr/IMG/pdf/Rapport_cetaces_2011.pdf).

The results for 2010 indicate a low bycatch rate of cetaceans in the tuna pair trawl fishery and confirms the fact that the high bycatch of common dolphins observed during the year 2009 was not reflecting an average year.

Other fisheries (including sea bass and set net fisheries) were not well covered in 2010 and no extrapolation could be made.

This present bad status of the French observations at sea is due to a merge of the requirements of all the regulations and times are probably required to adapt the new system. However, since the end of the project Filmancet, observers on board of set net boats of all sizes continue to be deployed in the French fishing area of Eastern Channel, Southern North Sea, even if this was not required by the EU regulation.

2. Reduction of Disturbance

2-1 anthropogenic Noise

Please reference and briefly summarise any studies undertaken

A literature review on Acoustic pollution of the ocean was made by S. De Ruiter and published in Lurton 2011. An introduction to underwater acoustics, principles and

application, Springer Praxis Books / Geophysical Sciences). Models for predicting the radiated level of sonar and seismic systems have been improved. Sound radiation of seafloor mapping echo sounder in the water column in relation to risks posed to marine mammals were studied (and published by Lurton et al. in International Hydrographic Review, 2011)

IFREMER continues to apply mitigation measures on his seismic surveys, based on the classical international recommendations. National workshops on noise in the sea are planned in France for 2012.

In the context of the MSFD* implementation, and at the scale of the marine sub-regions English Channel-North Sea, Celtic Seas and Bay of Biscay, an analysis of the pressures and impacts on French marine waters was made, taking into account of existing data where available. Relating the underwater noise, were made in 2011 by SHOM (Stephan et al., 2011) :

- an analysis of the sources of this pressure (shipping, sonar, underwater acoustic equipment...), including recent trends analysis;
- a literature on known ecological impacts.

* Marine Strategy Framework Directive

2-2 Ship Strike Incidents

Please list all known incidents and for each, provide the following information:

Date	Species	Type of injury	Fatal injury (Yes / No)	Type of vessel (length, tonnage and speed)	Location (coordinates)	More information: (Name / Email)
10.11.2011	Fin whale	Ship strike	Yes	unknown	Antifer, Le Havre	PELAGIS/ULR
2.11.2011	Fin whale	Ship strike	Yes	unknown	Plouhinec	PELAGIS/ULR
24.03.2011	Minke whale	Ship strike	Yes	Unknown	Boulogne sur mer	PELAGIS/ULR

2-3 Major Incidents Affecting Significant Numbers* of Cetaceans

Date	Location	Type of incident	Further Information
23 and 24 - 03-2011	Pays Basque et Landes (south bay of Biscay)	Multiple stranding=bycatch	35 necropsies performed in two day, mostly common dolphin with net marks, damage during release from the net, evidence of hypoxia and good health state Pelagic trawl suspected

**Two or more animals*

2-4 Pollution and Hazardous Substances

Please report on main types of pollution and hazardous substances (including source, location and observed effects on cetaceans). Please provide information on any new measures taken to reduce pollution likely to have an impact.

2-5 Other Forms of Disturbance

Please provide any other relevant information, e.g. relating to recreational activities affecting cetaceans.

3. Marine Protected Areas for Small Cetaceans

Please provide any relevant information on measures taken to identify, implement and manage protected areas for cetaceans, including MPAs designated under the Habitats Directive and MPAs planned or established within the framework of OSPAR or HELCOM.

Between October 2008 and February 2010, 95 marine Natura 2000 sites have been designated by France.

Among all existing Natura 2000 sites in the ASCOBANS area, Bottlenose dolphin is listed in 39 and Harbour porpoise in 37, both on the Channel and Atlantic coast.

The Management Plan of the Marine Protected Area in Iroise Sea (West Brittany) has been adopted and is applicable to the Natura 2000 sites of the Molène archipelago and Ouessant

Please indicate where GIS data of the boundaries (and zoning, if applicable) can be

obtained (contact email / website).

Agence des aires marines protégées

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B Surveys and Research

4-1 Overview of Research on Abundance, Distribution and Population Structure

Please provide a brief summary of (and reference to) any national work.

Monitoring of the coastal group of bottlenose dolphins (Oceanopolis Brest in Iroise Sea), photo-identification, home range, population structure (a new protocol is under work with the Iroise MPA).

Photo identification of bottlenose dolphins of the Bay of Mont Saint Michel and Cotentin (GECC, GMN, Al Lark)

Boat surveys on cetaceans in the southern Bay of Biscay (GEFMA); relationship between cetacean populations and climate change (MNHN in the framework of a regional programme on the marine environment).

Data collection of opportunistic sightings (CRMM/ULR, GECC, GEFMA, Oceanopolis Brest).

Systematic vessel survey of cetaceans in relation to oceanographic, planktonic and pelagic fish spatial patterns in the Bay of Biscay

- PELGAS Program, Ifremer, *PELAGIS*/ULR : spring survey carried out yearly in May

on the continental shelf of the Bay of Biscay (pelagic fish, plankton, physical parameters and top predators are recorded simultaneously);

- IBTS Program, Ifremer, *PELAGIS/ULR*: winter survey carried out yearly in January across the English Channel: (pelagic fish, plankton, physical parameters and top predators are recorded simultaneously);
- EVHOE Program, Ifremer, *PELAGIS/ULR*: autumn demersal fish survey carried out yearly in October-November across the Bay of Biscay (top predators recorded on transit between trawl hauls);
- PELACUS Program *Centro Oceanográfico de Vigo (Instituto Español de Oceanografía, IEO)*, in co-operation with *PELAGIS/ULR*: spring survey carried out yearly in April over the continental shelf from southern Bay of Biscay to Galicia (pelagic fish, plankton, physical parameters and top predators are recorded simultaneously).

Systematic aerial surveys of cetaceans and other megafauna (mainly seabirds) are conducted by *PELAGIS/ULR* and AAMP from November 2011 to August 2013 to identify priority areas for the designation of future Natura 2000 sites in the French EEZ. The survey protocol follows a systematic zig-zag line transect pattern across 4 bathymetric strata: coastal, shelf, slope and oceanic.

Ferry observer surveys between Roscoff and Cork, Portsmouth and Santander (Oceanopolis Brest/Orca), using a standardized protocol.

Genetic study on harbour porpoise (collaboration between the university of Brest and Oceanopolis Brest). A PHD student is now involved.

Population structures of small cetaceans around Galicia are investigated by using ecological tracers (P. Mendez-Fernandez PhD project; collaboration ULR, University of Aberdeen, University of Braga, IEO Vigo).

The impact of by-catch on common dolphin was investigated by analyzing distributions of age and female reproductive status of stranded animals (Mannocci et al., 2012). It was shown that the current removal would be acceptable under a one stock scenario comprising animals living over the shelf and in oceanic waters in one single unit, whereas, under a two stocks scenario, as proposed from ecological tracer studies that would separate neritic and oceanic animals in distinct units, current takes would not be sustainable for the putative neritic unit.

Prey preferences among the community of 9 species of deep-diving odontocetes from the Bay of Biscay were investigated from stranded material showing (Spitz et al. 2011. Deep Sea Research I; *PELAGIS/ULR*). The study described diets from stomach content analysis and showed resource partitioning within the assemblage. With more than 14,000 identified cephalopods from 39 species, the present study highlighted also the poorly known deep-sea cephalopod community off the Bay of Biscay using top cetaceans as biological samplers.

A multivariate analysis of the spatial association between small pelagic fishes and their predators (seabirds, marine mammals and fisheries) used 6 yr (18000 km) of transects surveyed in spring in the Bay of Biscay, France. Common dolphins were significantly associated to sprat and sardine <20 cm and bottlenose dolphins with horse mackerel and mackerel from 25-40 cm (Certain et al., MEPS 2011; *PELAGIS/ULR*).

An ECOPATH model of the Bay of Biscay was aimed to model the energy fluxes within the food web of this highly pressured ecosystem. A model comprising 30 living and two non-living compartments was successfully constructed with data from the Bay of Biscay continental shelf. Ecological network analysis provided evidence that bottom-up processes play a significant role in the population dynamics of upper-trophic levels, including cetaceans (Lassalle et al. 2011, Progress in Oceanography).

4-2 New Technological Developments

Please provide a brief summary of any relevant information

Trials of a passive acoustic monitoring in the archipelago of *Molène* on the resident group of bottlenose dolphins (Iroise Sea MPA/ENSIETA/Oceanopolis). The goal is to implement a permanent acoustic monitoring in addition to line transects and photo-identification.

4-3 Other Relevant Research

Please provide a brief summary of any relevant information

C Use of By-catches and Strandings

5 Post-Mortem Research Schems

The French stranding network is nationally coordinated by *PELAGIS/ULR* under an agreement with the Ministry in charge of the Environment. Local voluntary observers, generally under local supervision by various institutions or NGOs (Oceanopolis, GEFMA, GECC, GMN, OCEAM, CMNS, Picardie Nature, ONCFS...), have been trained to process stranded cetaceans under a common standardized protocol. An annual synthesis of all strandings reported in France is produced by *PELAGIS/ULR*. Statistics of stranding for the coasts of France in the ASCOBANS region in 2011 indicate more than 487 cetaceans reported (2012 compilation not yet available; *PELAGIS/ULR* and all National Stranding Scheme field correspondents). Stranding data provides information on mortality causes, demographic structure (age and reproductive status), diet (stomach content), trophic levels (stable isotopes) and subpopulation structure or movement pattern (stable isotopes, heavy metals and contaminants).

Contact details of research institutions / focal point	Observatoire <i>PELAGIS/ULR</i> , Université de La Rochelle, La Rochelle <i>PELAGIS/ULR</i> /ULR willy.dabin@univ-lr.fr
Methodology used (reference, e.g. publication, protocol)	Standardized protocol derived from ECS necropsy workshop 2005 (Jauniaux, T. Beans, C; and Dabin W. 2005. Stranding, Necropsy and sampling: Collection data, sampling level and techniques)
Collection of samples (type, preservation method)	Biodemographics samples : gonads (formalin) and teeth (frozen) Diet and feeding ecology: stomach contents (frozen) and blubber fatty acids and stable isotope (frozen)

	<p>Genetics: skin and kidney (frozen and alcohol) Toxicologic: heavy metal and POP's analysis on muscle, liver and kidney (frozen with specific packaging) Parasitology (alcohol) Histopathology (formalin) Bacteriology and virology (frozen)</p>
Database (Number of data sets by species, years covered, software used, online access)	Access 2000 data base since 1972 with 16994 stranding recorded with 2968 individuals sampled
Additional Information (e.g. website addresses, intellectual property rights, possibility of a central database)	http://crmm.univ-lr.fr/ with interactive stranding maps

5-1 Number of Necropsies Carried out in Reporting Period:

Species	Recorded cause of death
<i>Delphinus delphis</i>	70 necropsies
<i>Phocoena phocoena</i>	28
<i>Stenella coeruleoalba</i>	21
<i>Tursiops truncatus</i>	5
<i>Grampus griseus</i>	4
<i>Globicephala mela</i>	2
<i>Globicephala macrorhynchus</i>	1
<i>Balaenoptera physalus</i>	2
<i>Balaenoptera acutorostrata</i>	1
<i>Physeter macrocephalus</i>	1

Please provide any other relevant information on post-mortem / stranding schemes.

Recent developments were aimed at improving the monitoring value of stranding data by constructing a framework for the interpretation of stranding data sets (Peltier et al. 2012 Ecological Indicators; *PELAGIS/ULR*) and proposing several spatial indicators (Peltier, PhD thesis, December 2011; *PELAGIS/ULR*). By using the drift model MOTHY (*Mobilité des Hydrocarbures*) initially developed by *MétéoFrance* it was possible to model the drift of cetacean carcasses. Model runs were conducted every 10 days over the period 1990-2009 resulting in maps of stranding probability averaged by months, seasons or the whole year; in addition, prediction of stranding under the null hypothesis were produced (here, H_0 means that cetaceans and mortality are uniformly distributed in space and time). Finally, real stranding data sets of harbor porpoise and common dolphin gathered from stranding schemes of Belgium, France, the Netherlands and the United-Kingdom were used to back calculate their origin with MOTHY. Comparisons between the null hypothesis and stranding observation reveal anomalies that are the difference between expected and observed stranding data sets.

D Legislation

Relevant New Legislation, Regulations and Guidelines

Please provide any relevant information.

A new legislation on marine mammals was released in July 2011 clarifying the disturbance and the harassment. There is also an article on the necessity to declare any by-catch to help the research. There are also provisions for the protection of the habitat of the species.

E - Information and Education

7- 1 Public Awareness and Education

Please report on any public awareness and education activities to implement or promote the

Agreement to the general public and to fishermen.

Public conferences (Oceanopolis-Brest and *PELAGIS/ULR*)

National stranding network: training for volunteers and national meeting (*PELAGIS/ULR*)

Observer training in the frame of fishing observation scheme, council regulation 812/04 (*PELAGIS/ULR*)

Annual Symposium of French stranding network, annual stranding report, research with biological samples from stranding, stranding scheme animation.

Regional stranding network: training for volunteers and annual meeting (LEMM/Océanopolis)

Educational workshops on cetaceans implemented for schools by the Education Department/ Oceanopolis)

Movie on cetaceans and ferries survey produced by Brittany Ferries and Oceanopolis broadcasted onboard the ferries+ conference on board

New exhibition on cetaceans: National Museum Paris, partnership Oceanopolis. An itinerant version circulates in Europe.

Possible difficulties encountered IN implementing the Agreement

Please provide any relevant information.: