

Application for Consent to conduct

Marine Scientific Research

Date: 24/01/2017

1. General Information

1.1 Cruise name and/or number: EVHOE 2017

1.2 Sponsoring Institution(s):IFREMER	
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1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:	
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## 2. Description of Project

2.1 Nature and objectives of the project:
<p>French Bottom Trawl Surveys in Bay of Biscay and Celtic Sea (survey code : EVHOE)</p> <p><i>a) Purpose of survey</i></p> <p>The main objectives of the survey are :</p> <ul style="list-style-type: none"> <li>- to obtain abundance indices per age group and annual recruitment estimates for the sampled species ;</li> <li>- to build a reliable time series of those indices ;</li> <li>- to follow the evolution of the demographic structures of the main exploited fish populations ;</li> <li>- to map the spatio-temporal distribution of the fisheries resources per age group.</li> </ul> <p><i>b) Area surveyed</i></p> <p>This French survey began in 1987. The area was limited to 48°30' N in the north and to the northern margin of Gouf de Cap Breton in the south (ICES divisions VIIh, VIIIa,b,c and d). In 1990, the survey area was extended towards the north (51°15' N)</p>

to cover the grounds of the Celtic Sea deeper than 100 meters (ICES divisions VIIe,f,g,h and j).

*c) Methodology*

The GOV 36/47 bottom trawl is used with a 20 mm mesh codend liner. The trawl is deployed with plane oval trawl boards of 1300 kg and with 10-20 cm rubber discs on the footrope.

The haul duration is 30 minutes and the towing speed 4 knots. Trawling is carried out during day time only.

In the Bay of Biscay (ICES divisions VIIIa,b,c and d) and in the Celtic Sea (ICES divisions VIIe,f,g,h and j), a stratified sampling scheme is used. The area is divided according to latitude into 5 blocks and the hauls were distributed in seven depth zones (15-30, 31-80, 81-120, 121-160, 161-200, 201-400, 401-600 m). 160 stations will be occupied at locations given in fig. 2.

Catch weight and catch numbers are recorded for all species, only selected finfish and shellfish are measured.

*d) Extension of the study area in 1999 and 2000*

Following the European contract DG XIV 98/057 " International Program of Standardised Bottom Trawl Surveys off Northwestern Europe", a comparative study of the different fish species catchabilities to the French/Irish and Irish/Scottish fishing boats/gears has been conducted in the Irish and U.K. waters (fig. 2). Following the SESITS program (1997-1998) involving the French, Spanish and Portuguese surveys, the whole study has led to the integration of the different data collected during surveys covering the area from Northern Scotland to the Strait of Gibraltar into a common international data base.

*e) Improvement of knowledge on meso and bathy pelagic species*

In 2001, 2002, 2003, 2007- 2011, 2013 several hauls using a pelagic trawl have been carried out in the northern part of Bay of Biscay and in 2014 in the south of Celtic sea at immersions above 1500 m, in order to collect information on species which show a vertical migration during the night and can potentially be preys of marine mammals.

*f) Observations of fishing grounds*

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The available datasets of habitat mapping in the Celtic Sea are very scarce. The Scampi (operating depth from 400 to 1200m) or Pagure (operating depth <500m) sleds could be used to add missing information. This tool is to be used to get qualitative information (photo and video) of the nature of the seafloor for the

different strata visited during the survey. A module using a laser beam and video is used to acquire supplementary information on granulometry and seafloor structure.

2.2 If designated as part of a larger scale project, then provide the name of the project and the Organisation responsible for coordinating the project:

2.3 Relevant previous or future research projects:

The survey was conducted in the fourth quarter (October-November) of each year from 1987 to 1990, in 1992 and 1994, 1995, 1997-20146 and also in the second quarter (May-June) of 1988 and 1991. The survey is intended to be carried in the future at least in 2017- 2020 as the objective is the construction and the maintaining a long time series.

2.4 Previous publications relating to the project:

		Nombre
1	Publications d'articles originaux dans des revues avec comité de lecture référencées dans <b>JCR</b> ( <i>Journal Citation Reports</i> ) (ajouter des lignes si nécessaire)	
	Année n+1 :	
	Année n+2 :	
	Année n+3 :	
	Année n+4 :	
	Année n+5 :	
	Année n+6 :	
	Année n+7 :	
	<b>Total</b>	76
2	Publications dans d'autres revues ou ouvrages scientifiques faisant référence dans le domaine	36
3	Publications électroniques sur le réseau Internet	
4	Publications sous forme de rapports techniques	30
5	Articles dans des revues ou journaux « grand public »	1

6	Communications dans des colloques internationaux	61
7	Communications dans des colloques nationaux	8
8	Nouvelles espèces (animales, végétales, microorganismes) décrites	1
9	Rapports de contrats (Union européenne, FAO, Convention, Collectivités ...)	13
10	Applications (essais thérapeutiques ou cliniques, AMM ...)	
11	Brevets	
12	Publications d'atlas (cartes, photos)	1
13	Documents vidéo-films	
14	DEA ou MASTER 2 ayant utilisé les données de la campagne	14
15	Thèses ayant utilisé les données de la campagne	14
16	Traitement des échantillons et des données Si en cours, préciser et donner les échéances	en cours
17	Transmission au SISMER des données acquises avec les moyens communs du navire (NB : cette transmission est systématique dans le cadre des navires gérés par Genavir) Transmission au SISMER de données autres que celles acquises avec les moyens communs du navire	Oui Oui
18	Transmission à d'autres banques de données	Oui
19	Transmission à d'autres équipes de données ou d'échantillons	Oui
200	Considérez-vous la publication des résultats terminée ? Si en cours, préciser et donner les échéances	en cours

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R16 - Charrier G., 2005. Structure génétique des populations de poissons dans l'Atlantique Nord-Est. Thèse de Doctorat, Université de Bretagne Occidentale, Brest, 187p.

R16 - Lahaye V., 2006. Utilisation des éléments toxiques comme traceurs de populations chez les petits cétacés : identification des populations ou segments de populations les plus vulnérables. Thèse de Doctorat, Université de La Rochelle

R16 - Mouyen L., 2006. Quantification des régimes alimentaires de prédateurs supérieurs marins : prise en compte des différences de digestibilité des proies par expérience in vitro et simulation. Thèse de Doctorat Vétérinaire, Ecole Nationale Vétérinaire de Nantes.

R16 - Persohn, C. 2009. Sensibilité des populations de poissons aux changements globaux en fonction de leurs traits d'histoire de vie étudiée par une approche empirique. Thèse, Université de Brest, 200 p

R16 - Pusineri C., 2005. Niches alimentaires et partage des ressources : les petits cétacés du golfe de Gascogne. Thèse de Doctorat, Université de La Rochelle.

R16 - Certain G., 2007. Distribution spatiale des prédateurs du golfe de Gascogne en relation avec les paramètres environnementaux. Thèse de Doctorat, Université de La Rochelle/CEBC-CNRS.

### 3. Geographical Areas

3.1 Indicate geographical areas in which the project is to be conducted (with reference in Latitude and longitude in decimal degrees, including coordinates of cruise/track/way points/sampling stations). Please provide coordinates in a separate excel spreadsheet.

<b>Operations</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Profondeur <i>Water depth</i></b>
bottom trawl	43°20' N to 52°30 N	1°20' W to 12°00' W	600 m
Pelagic trawl	43°20' N to 52°30 N	1°20' W to 12°00' W	2000 m
Pagure	43°20' N to 52°30 N	1°20' W to 12°00' W	<400 m
Scampi	43°20' N to 52°30 N	1°20' W to 12°00' W	400-1200m

3.2 Attach chart(s) at an appropriate scale (1 page, high-resolution) showing the geographical

Areas of the intended work and, as far as practicable, the location and depth of sampling

Stations, the tracks of survey lines, and the locations of installations and equipment.

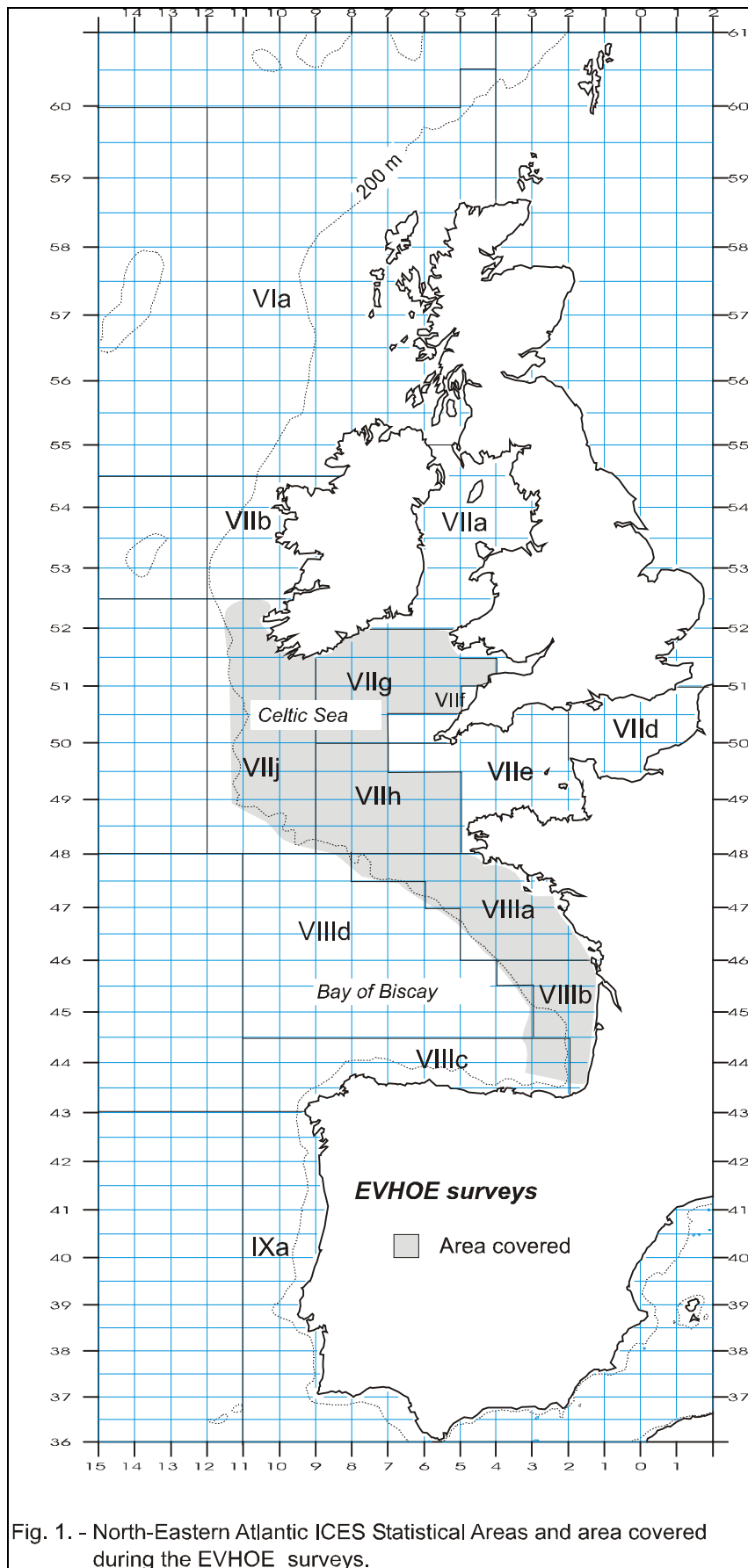
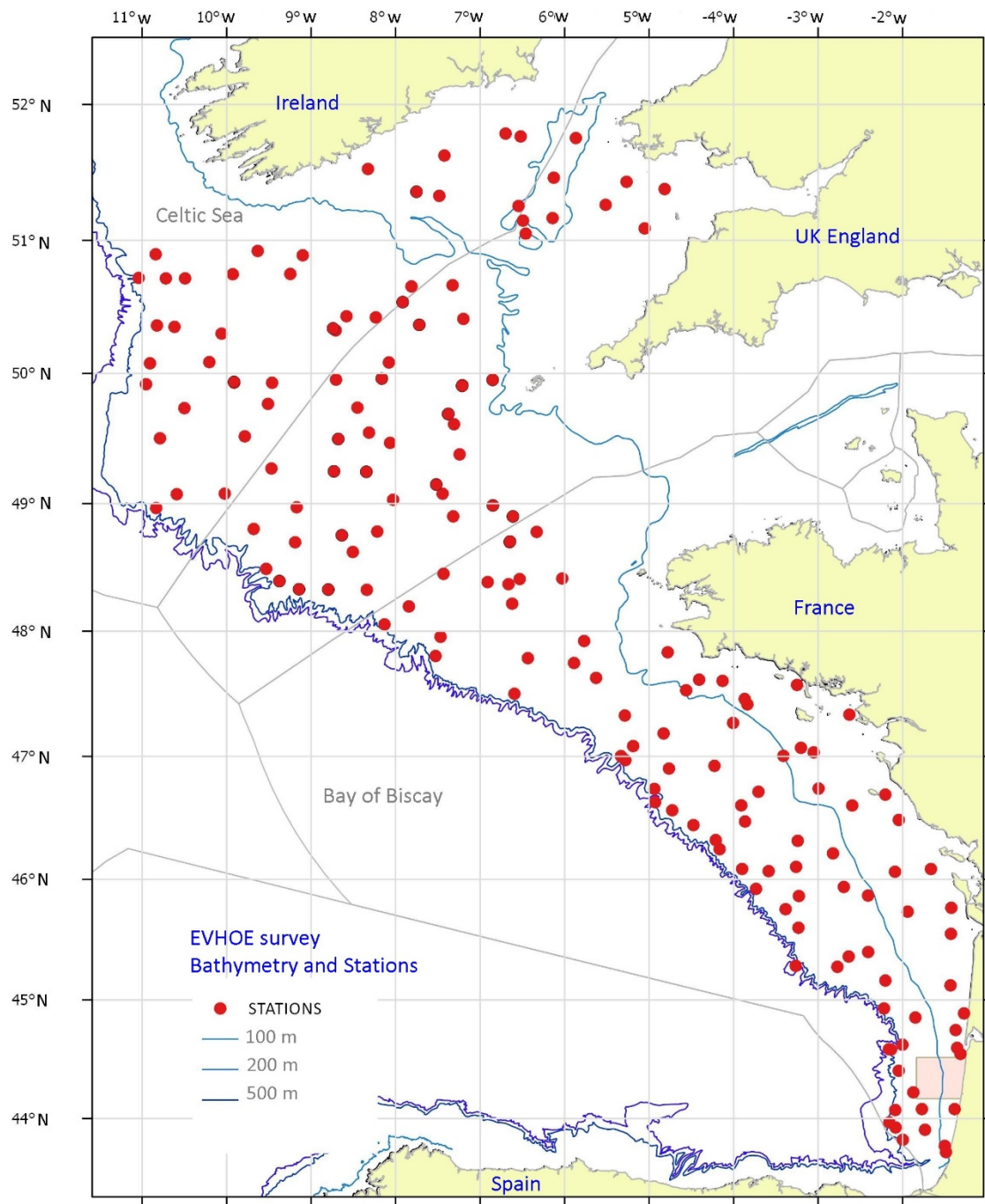


Fig. 1. - North-Eastern Atlantic ICES Statistical Areas and area covered during the EVHOE surveys.



located stations not definitive

#### 4. Methods and means to be used

4.1 Particulars of vessel:	
Name:	THALASSA
Type/Class:	Research vessel
Flag	French
Identification Number (IMO/Lloyds No.):	IMO=9070307
Owner:	IFREMER
Operator:	GENAVIR
Overall length (meters):	74,5 m
Maximum draught:	6,10 m
Displacement/Gross Tonnage:	2 803 UMS
Propulsion:	Diesel Electric
Cruising & maximum speed:	11 knots
Call sign:	FNFP
INMARSAT number and method of communication (including emergency frequencies):	<p>Method and capability of communication (including telex, frequencies) :</p> <ul style="list-style-type: none"> <li>- GSM : 33.6.07.32.44.87 (bridge) - 33.6.16.87.10.69 (captain)</li> <li>Fax : 33.6.20.18.50.20</li> <li>Inmarsat : Tel : 00.870.7.731.600.16 (bridge) - Fax : 00.870.7.831.600.57</li> <li>- Vsat : Tel : 33.2.98.22.48.05 (bridge) - Fax : 33.2.98.22.48.06</li> </ul>



	<p>- Telex Inmarsat C1 : 058x.4.227.297.10 - Telex Inmarsat C2 : 058x.4.227.297.11 (Codes: East Atlantic: 0581 - West Atlantic: 0584 - Pacific : 0582 - Indian Ocean: 0581) email : <a href="mailto:TL.Commandant@thalassa.ifremer.fr">TL.Commandant@thalassa.ifremer.fr</a> Email Telex C1 : <a href="mailto:ThalassaC1@skyfile-c.com">ThalassaC1@skyfile- c.com</a> Email Telex C2 : <a href="mailto:ThalassaC2@skyfile-&lt;br/&gt;c.com">ThalassaC2@skyfile- c.com</a></p>
Name of Master:	Loïc PROVOST
Number of Crew:	25
Number of Scientists on board:	25

4.2 Particulars of Aircraft:	
Name:	
Make/Model:	
Nationality (flag State):	
Website for diagram & Specifications:	
Owner:	
Operator:	
Overall Length (meters):	
Propulsion:	
Cruising & Maximum speed:	
Registration No.:	
Call Sign:	
Method and capability of communication	

(including emergency frequencies):	
Name of Pilot:	
Number of crew:	
Number of scientists on board:	
Details of sensor packages:	
Other relevant information:	

4.3 Particulars of Autonomous Underwater Vehicle (AUV):	
Name:	
Manufacturer and make/model:	
Nationality (Flag State):	
Website for diagram & Specifications:	
Owner:	
Operator:	
Overall length (meters):	
Displacement/Gross tonnage:	
Cruising & Maximum speed:	
Range/Endurance:	
Method and capability of communication (including emergency frequencies):	
Details of sensor packages:	
Other relevant information:	

4.4 other craft in the project, including its use:

4.5 Particulars of methods and full description of scientific instruments to be used (for fishing gear specify type and dimension)			
Types of samples and Measurements:		Methods to be used:	Instruments to be used:
	biological observations on fish	trawling	bottom trawl GOV 36/47 Echo sounders
	hydrographic observations	Temperature and salinity	Sonde NKE 300m and 600 m
	Video observations	Submarine camera	PAGURE
	Video observations	Submarine camera	SCAMPI

4.6 Indicate nature and quantity of substances to be released into the marine environment:

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4.7 Indicate whether drilling will be carried out. If yes, please specify:

---

NIL

4.8 Indicate whether explosives will be used. If yes, please specify type and trade name,  
Chemical content, depth of trade class and stowage, size, depth of detonation, frequency of  
Detonation, and position in latitude and longitude:

NIL

#### 5. Installations and Equipment

Details of installations and equipment (including dates of laying, servicing, method and Anticipated timeframe for recover, as far as possible exact locations and depth, and Measurements):

NIL

#### 6. Dates

6.1 Expected dates of first entry into and final departure from the research area by the research vessel and/or other platforms:

October 25 ,2017

December 12, 2017

6.2 Indicate if multiple entries are expected:

YES

#### 7. Port Calls

7.1 Dates and Names of intended ports of call:

7.2 Any special logistical requirements at ports of call:

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7.3 Name/Address/Telephone of shipping agent (if available):

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## 8. Participation of the representative of the coastal State

8.1 Modalities of the participation of the representative of the coastal State in the research

Project:

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8.2 Proposed dates and ports for embarkation/disembarkation:

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## 9. Access to Data, Samples and Research Results

9.1 Expected dates of submission to coastal State of preliminary report, which should include

The expected dates of submission of the data and research results:

Cruise report within two months of the cruise ending

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***Proposed means for access by national scientists to data and samples***

Research data will be available on ASCII files two months after the cruise ending.

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9.2 Anticipated dates of submission to the coastal State of the final report:

Research data will be available on ASCII files two months after the cruise ending.

9.3 Proposed means for access by coastal State to data (including format) and samples:

All information will be available through the ICES International Bottom Trawl Surveys Working Group.

9.4 Proposed means to provide coastal State with assessment of data, samples and

Research results:

9.5 Proposed means to provide assistance in assessment or interpretation of data, samples

And research results:

9.6 Proposed means of making results internationally available:

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10. Other permits Submitted

10.1 Indicate other types of coastal state permits anticipated for this research (received or Pending):

11. List of Supporting Documentation

11.1 List of attachments, such as additional forms required by the coastal State, etc.:

Signature:



Contact information of the focal point:

Name: Pascal LAFFARGUE

Country: France

Affiliation: IFREMER

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