#### Application for Consent to conduct Marine Scientific Research

Date: 22/03/2016

### 1. General Information

#### 1.1 Cruise name and/or number: CGFS 2016

1.2 Sponsoring Institution(s): IFREMER	
IFREMER	Institut Français de Recherche pour l'Exploitation
	de la Mer
Address:	155, rue Jean-Jacques Rousseau 92138 ISSY LES
	MOULINEAUX FRANCE
Name of Director:	François JACQ

1.3 Scientist in charge of the Project:		
Name:	Travers-Trolet Morgane	
Country:	France	
Affiliation:	IFREMER	
Address:	BP 699, 150 quai Gambetta	
	62321 Boulogne-sur-Mer	
Telephone:	+33321995065	
Fax:	+33321995601	
Email:	Morgane.Travers@ifremer.fr	
Website (for CV and photo):	www.ifremer.fr	

1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:	
Name:	
Affiliation:	
Address:	
Telephone:	
Fax:	
Email:	
Website (for CV and photo):	

# 2. Description of Project

#### 2.1 Nature and objectives of the project:

Since 1988, the IFREMER Fisheries Resources laboratory of Boulogne-sur-Mer is carrying out a pluriannual program to estimate the recruitment and the abundance per age groups for main fish species of commercial interest in the Eastern Channel. These data are collected annually during a bottom trawl survey, the Channel Ground Fish Survey (CGFS). This scientific survey allow to describe the fish community and its spatial distribution, to collect biological information needed for stock assessments and ICES (International Council for the Exploration of the Sea) working groups. The data collected during this survey are also used to determinate the relationship between environmental parameters and species abundance to identified their optimal habitats. From 2015 onwards, CGFS takes place on the R/V Thalassa allowing a broader sampling of the ecosystem, notably physico-chemical measurements, and phyto, zoo and ichthyoplankton samples. With this vessel, the survey also expands westwards, in order to cover the Western English Channel with the same objectives, i.e. providing abundance index and biological information for stock assessment and collecting information on the habitat and environment of fish. 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:

The Channel Ground Fish Survey project is part of the Fishing survey Information System group coordinated by IFREMER at the national level, and is coordinated at the European level by the ICES working group IBTS (International Bottom Trawl Survey).

2.3 Relevant previous or future research projects:

Previous research projects: Interreg IVa CHARM III, Interreg IVa CRESH, Interreg IVa PEGASEAS, FRB EMIBIOS.

Current research projects: H2020 DiscardLess, FRB Eclipse, CPER MARCO

2.4 Previous publications relating to the project:

- ICES. 2015. Report of the International Bottom Trawl Survey Working Group (IBTSWG), 23-27 March 2015, Bergen, Norway. ICES CM 2015/SSGIEOM:24. 278pp
- Lauria Valentina, Vaz Sandrine, Martin Corinne, Mackinson Steve, Carpentier Andre (2011). What influences European plaice (Pleuronectes platessa) distribution in the eastern English Channel? Using habitat modelling and GIS to predict habitat utilization. Ices Journal Of Marine Science, 68(7), 1500-1510. http://dx.doi.org/10.1093/icesjms/fsr081
- Martin C. S., Vaz S., Ellis J. R., Coppin F., Le Roy D. and Carpentier A, 2010. Spatio-temporal patterns in demersal elasmobranchs in trawl surveys in the eastern English Channel (1988–2008). Marine Ecology Progress Series. 417: 211–228, 2010.
- Martin C.S., S. Vaz, P. Koubbi, G.J. Meaden, G.H. Engelhard, V. Lauria, L. Gardel, F. Coppin, J. Delavenne, L. Dupuis, B. Ernande, A. Foveau, S. Lelièvre, J. Morin, C. Warembourg, and A. Carpentier. 2010. A digital atlas helps to link the ontogenic shifts in fish spatial distribution to the environment of the eastern English Chanel. Dab as a case study. Cybium 34: 59-71.
- Rochet Marie-Joelle, Trenkel Verena, Carpentier Andre, Coppin Franck, Gil De Sola Luis, Leaute Jean-Pierre, Mahe Jean-Claude, Maiorano Porzia, Mannini Alessandro, Murenu Matteo, Piet Gerjan, Politou Chrissi-Yianna, Reale Bruno, Spedicato Maria-Teresa, Tserpes George, Bertrand Jacques (2010). Do changes in environmental and fishing pressures impact marine communities? An empirical assessment. Journal Of Applied Ecology, 47(4), 741-750.
- CHARM II (2009) Channel Habitat Atlas for marine Resource Management, rapport final / Atlas des habitats des ressources marines de la Manche orientale, phase II (CHARM II), final report. INTERREG 3a Programme, IFREMER, Boulogne-sur-mer, France. 626 pp.
- Morin J., Bertrand J., Cochard M.L., Coppin F., Léauté J.P., Mahé J.C., Lobry J., Poulard J.C, Rochet M.J., Schlaich I., Souplet A., Trenkel V., Vaz S., Vérin Y., 2009, L'état des communautés exploitées au large des côtes de France, IFREMER, 793pp + annexes
- ICES. 2008. Report of the Working Group for Regional Ecosystem Description (WGRED), 25-29 February 2008, ICES Headquarters, Copenhagen. ICES CM 2008/ ACOM.
- S. Vaz, C.S. Martin, P.D. Eastwood, B. Ernande, A. Carpentier, G.J. Meaden, and Coppin, F. 2008. Modelling species distributions using regression quantiles. Journal of Applied Ecology 2008, 45, 204–217
- Coppin F., Le Roy D., Schlaich I., 17 novembre 2006. Evaluation des ressources halieutiques de Manche orientale. La gazette officielle de la pêche et de l'eau. 2p.
- Mahé K., Destombes A., Coppin F., Koubbi P., Vaz S., Le Roy D., Carpentier A., 2005. Le rouget barbet de roche Mullus surmuletus (L. 1758) en Manche orientale et mer du Nord 186p.
- Marie-Joëlle Rochet, Verena Trenkel, Robert Bellail, Franck Coppin, Olivier Le Pape, Jean-Claude Mahé, Jocelyne Morin, Jean-Charles Poulard, Ivan Schlaich, Arnauld Souplet, Yves Vérin and Jacques Bertrand, 2005. Combining indicator trends to assess ongoing changes in exploited fish communities: diagnostic of communities of the coasts of France. ICES Journal of Marine Science, 62: 1647e1664 (2005)
- Carpentier, A., Vaz, S., Martin, C. S., Coppin, F., Dauvin, J.- C., Desroy, N., Dewarumez, J.- M., Eastwood, P. D., Ernande B., Harrop, S., Kemp, Z., Koubbi, P., Leader-Williams, N., Lefèbvre, A., Lemoine, M., Loots, C., Meaden, G. J., Ryan, N., Walkey, M., 2005. Eastern Channel Habitat Atlas

for Marine Resource Management (CHARM), Atlas des Habitats des Ressources Marines de la Manche Orientale, INTERREG IIIA, 225 pp

- Royer J., 2002. Modélisation des stocks de céphalopodes de Manche. Thèse de doctorat d'état, Université de Caen.
- Denis V., 2000. Variations spatio-temporelles d'abondance des céphalopodes exploités depuis les côtes atlantiques françaises et influence des paramètres environnementaux. Thèse Université de Caen.
- Galgani F. and al., 2000. Litters on the Sea Floor Along European Coasts. Marine Pollution Bulletin Vol. 40, No. 6, pp. 516-527.
- Le Pape O., Morin J., Rogers S., Riou P., Coppin F., Carpentier A. et M. Lemoine , 2000. Nursery grounds in the coastal zone of the Eastern Channel : typology and management measures. Rapport final de contrat DG XIV 97/0030, 65p.

### 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. The project will be conducted in the central and western English Channel from **48.30°N**, **5.5°W** to **51.0°N**, **2.0°E** 

Stations coordinates are provided in a separate excel spreadsheet (NB: some adjustments regarding stations of the western English channel may occur according to results from on-going studies. However, the sampled area will remain the same).

There is no trawling stations or any other scientific work within the 3 nautical miles, but some stations are planned between 3 and 12 nautical miles from the coats



#### 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 and	Method and capability of communication (including	
capability	telex, frequencies) :	
	- GSM : 33.6.07.32.44.87 (bridge) -	
of communication (including emergency	33.6.16.87.10.69 (captain)	
	Fax : 33.6.20.18.50.20	
frequencies):	Inmarsat :Tel : 00.870.7.731.600.16 (bridge) -	
	Fax : 00.870.7.831.600.57	
	- Vsat : Tel : 33.2.98.22.48.05 (bridge) - Fax :	
	33.2.98.22.48.06	
	- 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 : TL.Commandant@thalassa.ifremer.fr	
	Email Telex C1 : ThalassaC1@skyfile-c.com	
	Email Telex C2 : ThalassaC2@skyfile-c.com	
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: NA

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:
Samples of various fishes by bottom trawl	A Bottom trawl is deployed during 30 mn (speed 4 knots)	GOV (Grande Ouverture Verticale) 36/47 and 36/49 with a double codent in 20 mm meshsize (streched)
Samples of various benthic fauna by dredge	Benthic dredge is deployed during 10 minutes on 10 stations	Rallier du Baty Dredge
Samples of various benthic fauna by Hamon grab	Hamon grab is deployed on 20 stations	Hamon grab (0.25m <sup>2</sup> )
Sub marine video	A camera will be towed after some hauls during 10 minutes to determinate benthic fauna In the western Channel, a camera will be towed during 3 hauls to determine the effects of gear characteristics	ROV
Temperature and salinity measurements, phytoplankton sample	A CTD is deployed after each trawl and net station to measure the vertical profile of physic- chemical parameters.	CTD (Seabird SBE 19) coupled with a Niskin bottle
Samples of fish eggs to know spawning areas	Sea water is pumped at 3 meters under water surface (internal pump) and filtered in order to sort fish eggs	Continuous Underway Fish Eggs Sampler (CUFES)
Samples of zooplancton	Vertical samples with plankton nets	Vertical net WP2
Acoustic records	With an echosounder, data are recorded during hauls and during transects	Sounder : ER 60 and Multibeam echosounder ME 70

4.6 Indicate nature and quantity of substances to be released into the marine environment: Part of the fish and benthic organisms from the trawl, weighted and measured but not kept for further analysis, will be released into the marine environment.

4.7 Indicate whether drilling will be carried out. If yes, please specify: No

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: No

### 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):

No installations or equipements

### 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:

English Channel from 24/09/2016 to 14/10/2016

6.2 Indicate if multiple entries are expected:

During the survey more than one entry is expected in the UK waters

# 7. Port Calls

7.1 Dates and Names of intended ports of call:23 September : Boulogne sur Mer (France)9 October : Cherbourg (France)14 October : Brest (France)

7.2 Any special logistical requirements at ports of call: None

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

# 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:

The CGFS survey is an international project and scientists or any representative of the coastal State can participate to it. Names of participants must be sent to the scientist in charge at least 3 months before the beginning of the survey. Participant has to provide a medical certificate testify his ability to embark.

8.2 Proposed dates and ports for embarkation/disembarkation: Boulogne sur Mer (France) to Brest (France) : 23/09/2016 – 15/10/2016

# 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:

All data and reports are available to ICES (Copenhagen) generally 6 months after the survey at http://datras.ices.dk/Home/Default.aspx

A preliminary report will be sent for December 2016.

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

9.3 Proposed means for access by coastal State to data (including format) and samples: Data are stored within the ICES database DATRAS and are available online. Specific data could be asked directly to the scientist in charge of the survey (Morgane.Travers@ifremer.fr)

9.4 Proposed means to provide coastal State with assessment of data, samples and Research results: (see 9.3)

9.5 Proposed means to provide assistance in assessment or interpretation of data, samples And research results: (see 9.3)

9.6 Proposed means of making results internationally available: (see 9.3)

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.:

1. Stations coordinates (excel spreadsheet)

- TOTO

Signature:

Contact information of the focal point: Name: TRAVERS-TROLET Morgane Country: France Affiliation: IFREMER Address: 150 quai Gambetta – BP 699 – 62321 Boulogne sur Mer Telephone: +33 (0)3 21 99 50 65 Fax: +33 (0)3 21 99 56 01 Email: morgane.travers@ifremer.fr