Application for Consent to conduct
Marine Scientific Research

Date: 06/02/2018
DFO-PON-2018-37

1. General Information

1.1 Cruise name and/or number: **CGFS 2018**

1.2 Sponsoring Institution(s): IFREMER	
Name:	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:	Eric FOUCHER
Country:	France
Affiliation:	IFREMER
Address:	Avenue du Général de Gaulle 14520 Port-en-Bessin - France
Telephone:	+33 231 51 56 44
Fax:	+33 231 51 56 01
Email:	Eric.Foucher@ifremer.fr
Website (for CV and photo):	http://annuaire.ifremer.fr/cv/16049/

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 French IFREMER Fisheries Resources laboratory is carrying out a pluri-annual program to estimate recruitment and demography structure of the main commercial fish populations in the English Channel. While the time series initially concerned the eastern part of the English Channel, the western part of this area is now included in the survey coverage. These data are collected annually during the bottom trawl survey CGFS (Channel Ground Fish Survey), as part of the EU DCMAP (Data Collection Multi-Annual Programme). This scientific survey allows to describe the fish community composition and its spatial distribution and to collect biological information needed for stock assessments by ICES (International Council for the Exploration of the Sea) working groups. 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. Benthic invertebrates, litter and jellyfish are also recorded as part as the MSFD (Marine Strategy Framework Directive) requirements. The data and samples collected during this survey are also used to determinate the relationship between environmental parameters and species abundance to identified their optimal habitats, and to determinate the links between the populations inhabiting this ecosystem, in order to estimate its trophic structure and functioning.

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:

Additionally to EU requirements, data collected are also used in the following 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:

Girardin R., Fulton E. A., Lehuta S., Savina-Rolland M., Thebaud O., Travers-Trolet M., Vermard Y., Marchal P. (in press) Identification of the main processes underlying ecosystem functioning in the Eastern English Channel, with a focus on flatfish species, as revealed through the application of the Atlantis end-to-end model. Estuarine, Coastal and Shelf Science

ICES 2016. Report of the Working Group on Elasmobranch Fishes (WGEF). 15-24 June 2016. Lisbon, Portugal.

ICES. 2016. First Interim Report of the International Bottom Trawl Survey Working Group (IBTSWG), 4-8 April 2016, Sète, France. ICES CM 2016/SSGIEOM:24. 292 pp.

Kopp D., Lefebvre S., Cachera M., Villanueva M. C., Ernande B. (2015). Reorganization of a marine trophic network along an inshore-offshore gradient due to stronger pelagic-benthic coupling in coastal areas. Progress In Oceanography, 130, 157-171.

Gras M., Roel B. A., Coppin F., Foucher E., Robin J.-P. (2014). A two-stage biomass model to assess the English Channel cuttlefish (Sepia officinalis L.) stock. ICES Journal of Marine Science, 71(9), 2457-2468.

Mahe K., Villanueva C.-M., Vaz S., Coppin F., Koubbi P., Carpentier A. (2014). Morphological variability of the shape of striped red mullet Mullus surmuletus in relation to stock discrimination between the Bay of Biscay and the eastern English Channel. Journal Of Fish Biology, 84(4), 1063-1073.

Delavenne J., Marchal P., Vaz S. (2013). Defining a pelagic typology of the eastern English Channel. Continental Shelf Research, 52, 87-96.

Martin C., Vaz S., Ellis J. R., Lauria V., Coppin F., Carpentier A. (2012). Modelled distributions of ten demersal elasmobranchs of the eastern English Channel in relation to the environment. Journal Of Experimental Marine Biology And Ecology, 418, 91-103.

Lauria V., Vaz S., Martin C., Mackinson S., Carpentier A. (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.

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.

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 M.-J., Trenkel V., Carpentier A., Coppin F., Gil De Sola L., Leaute J.-P., Mahe J.-C., Maiorano P., Mannini A., Murenu M., Piet G., Politou C.-Y., Reale B., Spedicato M.-T., Tserpes G., Bertrand J. (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

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

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.

Rochet M.J., Trenkel V., Bellail R., Coppin F., Le Pape O., Mahé J.C., Morin J., Poulard J.C., Schlaich I., Souplet A., Vérin Y. Bertrand, J. 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.

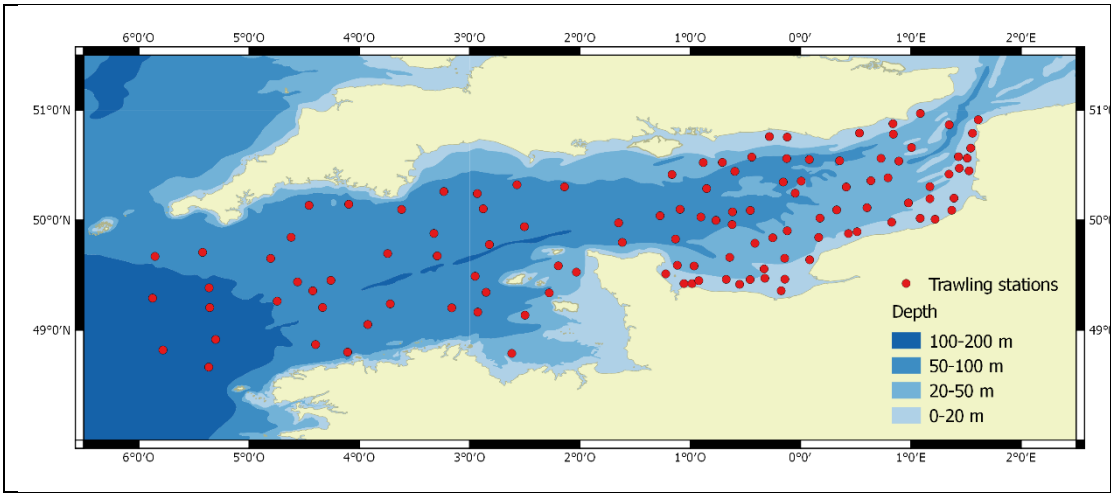
3. Geographical Areas

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 English Channel from 48.30°N, 6°W to 51.0°N , 2.0°E
Stations coordinates are provided in a separate excel spreadsheet. Some stations' location might change if fishing material is found on the area. The cruise track between sampling stations will depend on weather conditions.

No trawling stations or any other scientific work will be carried out within the 3 nautical miles, but some stations are planned between 3 and 12 nautical miles from the coast.

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.



4. Methods and means to be used

4.1 Particulars of vessel:	
Name:	THALASSA
Type/Class:	Research vessel
Nationality (Flag State):	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 capability of communication (including emergency frequencies):	Method and capability of communication (including telex, frequencies) : - GSM : 33.6.07.32.44.87 (bridge) - 33.6.16.87.10.69 (captain) Fax : 33.6.20.18.50.20 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:

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 trawl (Grande Ouverture Verticale) 36/47 and 36/49 with a double codent in 20 mm meshsize (streched)
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	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 13/09/2018 to 14/10/2018
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:
13th September: Brest (France) 28th September: Cherbourg (France) 14th October: Boulogne sur Mer (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:
From Brest (France) on the 13/09/2018 to Boulogne sur Mer (France) on the 14/10/2018

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

9.2 Anticipated dates of submission to the coastal State of the final report:
A report will be sent for December 2018.

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 freely available online. Specific data could be asked directly to the scientist in charge of the survey (Eric.Foucher@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) 2. Map of trawling locations

Signature: 

Contact information of the focal point:
Name: FOUCHER Eric
Country: France

Affiliation: IFREMER
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