

APPLICATION FOR CONSENT TO CONDUCT MARINE SCIENTIFIC RESEARCH
IN AREAS UNDER NATIONAL JURISDICTION OF
UNITED KINGDOM

Date : 13 March, 2007

1 - GENERAL INFORMATION

1.1. Cruise name and/or number : CHANNEL GROUND FISH SURVEY (CGFS 2007)

1.2. Sponsoring institution :

Name : IFREMER

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92138 ISSY-LES-MOULINEAUX CEDEX (France)

Phone : (33) 1 46 48 21 00

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Director : Jean-Yves Perrot

1.3. Scientist in charge of the project :

Name : Frank COPPIN

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62321 BOULOGNE-SUR-MER (France)

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Email : franck.coppin@ifremer.fr

1.4. Scientist from involved in the planning of the project :

Name :

Address :

Phone :

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1.5. Submitting officer:

Name : Olivier Quédec

Address : IFREMER - BP 70 - 29280 Plouzané (France)

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2 - DESCRIPTION OF THE PROJECT

2.1. Nature and objectives of the project :

Since 1988, the IFREMER Fisheries Resources laboratory of Boulogne/mer is carrying out a pluri-annual program to estimate the recruitment and the abundance per age groups for main fish species of commercial interest in the Eastern Channel and in the south of the North Sea, as parts of great importance for the French fisheries. These data are obtained from an **annual bottom trawl survey** allowing to describe precisely the distribution of ichthyological populations and to collect biological informations suitable 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 aim species abundance to identified their optimal habitats.

Sampling methods

The Channel Ground Fish Survey (CGFS) is carrying out every year on the french Research Vessel GWEN DREZ (25 m, 600 HP) in october. The sampling area includes all the Eastern Channel and the south of the North Sea (ICES divisions VIIId and IVc4) (p. 5). This area is divided in rectangles of 15' of latitude and 15' of longitude and the sampling strategy type is systematic. The used gear is a bottom trawl GOV 19.70 / 25.90 m fitted with a double codend of 20 mm meshsize (stretched). In the original program each rectangle, the same hauls (2 in coastal waters or 1 offshore) are planned each year. Since 1997, some additional hauls are done in Seine bay, Veys bay, and Rye bay which are high-density areas for juveniles of withing .The haul duration has been fixed to 30 minutes. and the fishing method is standardized (towing speed, warp length).

Taking into account the number of expected hauls (118), the necessary time for the realization of this program is evaluated at 30 days on zone, to the departure from Boulogne/mer. On the other hand, this survey intended to obtain fish abundance indices, it is important that this survey always take place in October, because during this period it is possible to catch the 0-fish group. Indeed, results can be interpreted and valorized only if they are analyzed like temporal series and in order that comparisons could be valid, it is essential that measures are suitable according to identical protocols, same ship, same sampling gear, same period and same sampling strategy.

In each station, all fish species are sorted, then counted, weighted and measured, after a possible sampling, and otoliths or scales of the main commercial species are collected (whiting, cod, plaice, striped red mullet).

2.2. Relevant previous or future research cruises :

Channel Ground Fish Survey (CGFS from 1988 to 2006).

2.3. Previously published research data relating to the project :

Publications from 2000 to 2006 :

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.

Coppin F., Le Roy D., Schlaich I., 17 décembre 2006. Manche est: l'ifremer évalue les ressources. La manche libre. 1p.

Coppin F., Le Roy D., Schlaich I., 2006. Guide du chef de mission de la campagne CGFS. 42 p

Mahé, K., Delpech, J.P., Coppin, F. & S. Vaz, 2006. Evaluation de la ressource halieutique en Manche orientale par les campagnes scientifiques françaises. Convention Ifremer-

Ministère de l'Industrie n° 2006-0000708, 55p.

Pavoine S., 2006. Comparaison de méthodes de modélisation appliquées à une espèce cible : le merlan (*Merlangius merlangus*) en Manche Orientale.

Roel B.A., Engelhard G.H., Royer J., Coppin F., Legrand . and J.-P. Robin. 2006. The English Channel *Sepia officinalis* stock : can biomass dynamic models and survey indices help to understand the increase in landings? Symposium du CIAC (Cephalopod International Advisory Council). Hobart du 6 au 10 février. Communication orale

S. Vaz, S. Pavoine, P. Koubbi, C. Loots, F. Coppin, 2006. Comparative study of habitat modelling strategies to investigate marine fish life cycle: A case study on whiting in the Eastern English Channel. ICES Annual Science Conference. Maastricht. Netherlands. ICES CM 2006/O:06

S. Vaz, J. Martin, Y. Verin, D. Le Roy, 2006. Mapping benthic invertebrate assemblages from bottom trawl hauls observations. ICES Annual Science Conference. Maastricht. Netherlands. ICES CM 2006/D:15. Poster.

Mahé K., Destombes A., Coppin F., Koubbi P., Vaz S., Leroy 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) doi:10.1016/icesjms.2005.06.009, 18p

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*

Corinne S. Martin, S. Vaz, B. Ernande, J. R. Ellis, P. D. Eastwood, F. Coppin, S. Harrop, G. J. Meaden and A. Carpentier, 2005. *Spatial distributions (1989-2004) and preferential habitats of thornback ray and lesser-spotted dogfish in the Eastern English Channel. ICES CM 2005/N:23*

S. Vaz, C. S. Martin, B. Ernande, F. Coppin, S. Harrop and A. Carpentier, 2005. *Using geostatistics to quantify annual distribution and aggregation patterns of fishes in the Eastern English Channel. ICES CM 2005/L:21*

S. Vaz, C. S. Martin, B. Ernande, P. D. Eastwood, F. Coppin, S. Harrop, G. J. Meaden and A. Carpentier, 2005. *Modelling Fish Habitat Suitability in the Eastern English Channel. ICES CM 2005/O:23*

Carpentier A., 2005. Atlas des habitats des ressources marines de la Manche orientale. Projet Interreg IIIA CHARM. Colloque Mesh-Malo, 8-9 oct. St Malo (communication orale + poster).

Marie-Joëlle Rochet, Verena Trenkel, Robert Bellail, Franck Coppin, Olivier Le Pape, Jean-Claude Mahé, Jocelyne Morin, Jean-Charles Poulard, Ivan Schlaich, Arnaud Souplet, Yves Vérin and Jacques Bertrand., 2004. *Is the impact of fishing on the fish communities around France increasing? Poster.*

Vaz S., Carpentier A., F.Coppin, 2004. *Eastern English Channel Fish Community from 1988 to 2003 and its Relation to the Environment.* ICES CM 2004/K : 40.

Vaz S., Carpentier A., Loots C., Koubbi P. (2004) *Modelling Fish Habitat Suitability in the Eastern English Channel: Application to community habitat level.* ICES CM 2004/P : 26.

C. S. Martin, A. Carpentier, F. Coppin, P. D. Eastwood, G. J. Meaden, M., Walkey, S. Harrop, Z. Kemp and S.Vaz, 2004. *A Digital Atlas for the Physical Environment of Eastern English Channel (CHARM Project).* ICES CM 2004/P:42, POSTER.

Bertrand et al.(2004). L'état des communautés exploitées au large des côtes de France.37p. + annexes

Destombes A., 2003. Appréciation des habitats optimaux du merlan *Merlangius merlangus* en Manche orientale. Rapport de stage. DEA Interface et Dynamique en Environnement, Ecosystèmes littoraux et côtiers, interface continent-océan. Université du Littoral Côte d'Opale, 32p + annexes.

Destombes A., Carpentier A., Villeminot O. et P. Koubbi, 2003. Appréciation des habitats optimaux du merlan *Merlangius merlangus* en Manche orientale. Poster pour la conférence francophone ESRI SIG, 1^{er} et 2 octobre 2003 au Palais des Congrès d'Issy-les-Moulineaux. *Premier prix dans la catégorie Posters pédagogiques.*

Koubbi P., Carpentier A., Duhamel G., Destombes A. et O. Villeminot, 2003. *Modélisation biogéographique des habitats optimaux des poissons par Arcview 8. Présentation à la conférence francophone ESRI SIG, 1^{er} et 2 octobre 2003. (sous presse).*

Braud S., 2002. Structure et fonctionnement des communautés benthiques dans le sud de la mer du Nord. Rapport de stage, DEA Biodiversité Ecosystèmes Fossiles et Actuels, Océanologie biologique, UST Lille, 31p + annexes.

Coppin F., Carpentier A., Delpech JP. et I. Schlaich, 2002. Manuel des protocoles de campagnes halieutiques, campagnes CGFS. Version 1, avril 2002, Ifremer, 40p.

Delpech JP. et F. Coppin, 2002. Le grondin rouge (*Aspitrigla cuculus*) de Manche et sud mer du Nord (divisions CIEM VIIde et IVc). In Les nouvelles de l'Ifremer, Le Marin n°38, juillet 2002.

- Royer J.**, 2002. Modélisation des stocks de céphalopodes de Manche. Thèse de doctorat d'état, Université de Caen.
- Suquet M., Omnès MH, Normant Y., Petton B., Severe A., Fauvel C., Barone H., Quemener L., Buchet V., Pasco L., Menard E. and JL. Gaignon**, 2002. Cod (*Gadus morhua*) rearing attempts in France. Poster pour le congrès de l'European Aquaculture Society à Trieste, 15 octobre 2002.
- Anon.**, 2001. Report of the Working Group on the assessment of demersal stocks in the North Sea and Skagerrak. 3-12 October 2000, ICES CM2001/ACFM:07, 520p.
- Baudoux L., Giroud A., Poisson S. et A. Vienne**, 2001. Campagne expérimentale de chalutage en Manche orientale, estimation des données manquantes ; outil d'aide à la décision. Mémoire de troisième année, ISA Lille, 42p + annexes.
- Braud S.**, 2001. Premières estimations de la diversité et de la structure quantitative de la mégafaune de la Manche orientale et du sud de la mer du Nord. DSR, UST Lille. 79p + annexes.
- Damboise G.**, 2001. Conception d'une base de données commune aux campagnes de recherche halieutique : réalisation d'un outil de saisie. Projet de fin d'études, IUT Calais Boulogne.
- Delpech JP., Coppin F., Garren F., Manten ML. et M. Hanquiez**, 2001. Projet d'implantation d'éoliennes offshore de Mardyck, caractéristiques biologiques et activités halieutiques. Rapport de contrat Eoliennes Nord/Pas-de-Calais, 32p + annexes.
- Forest A., coordonnateur** , 2001. Ressources halieutiques hors quotas du Nord Est Atlantique : bilan des connaissances et analyse de scénarios d'évolution de la gestion. Contrat Ifremer/MAPA – Réf. 99-I1-03-01, rapport final.
- Vérin Y., Coppin F., Delpech JP., Dufour JL. et A. Carpentier**, 2001. Campagnes d'évaluation des ressources halieutiques en mer du Nord et Manche orientale, les campagnes 1999 et 2000. Contrat BIOECO n° 98/058, 47 + 120pp.
- Anon.**, 2000. Report of the Working Group on the assessment of demersal stocks in the North Sea and Skagerrak. 11-20 October 1999, ICES CM2000/ACFM:7, 597p.
- Bonnart AL., Dewas V., Decaux C. et O. Godinot**, 2000. Campagne expérimentale de chalutage en mer du Nord et Manche orientale. Mémoire ISA, Lille, 35p + annexes.
- Carpentier A. et F. Coppin**, 2000. Campagnes expérimentales de chalutage en Manche orientale. Les campagnes CGFS 1997 & 1998. Ifremer, Direction des Ressources Vivantes, Département des Ressources Halieutiques, RST DRV-RH 2000-03, 174p.
- Carpentier A. et F. Coppin**, 2000. Analyse interannuelle de campagnes de chalutage en Manche orientale. Premières Rencontres de l'Ichtyologie en France : RIF 2000, poster.
- Carpentier A. et F. Coppin**, 2000. La morue en Manche orientale. Résultats des campagnes

de chalutage CGFS de 1997 et 1998. INFOMER, 10p.

Carpentier A. et F. Coppin, 2000. Le grondin rouge en Manche orientale. Résultats des campagnes de chalutage CGFS de 1997 et 1998. INFOMER, 10p.

Delpech JP. et A. Carpentier, 2000. Le rouget barbet de roche *Mullus surmuletus* (Mullidae) en Manche orientale : les fluctuations d'abondance d'un poisson noble. Premières Rencontres de l'Ichtyologie en France : RIF 2000, poster.

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.

Galvani 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.

Le Pape O., Morin J., Riou P., Foucher E., Carpentier A. et F. Coppin, 2000. Les nourriceries côtières en Manche Est. Influence de l'estuaire de la Seine. Manchette-Manche Ouest : journal du Comité Régional des Pêches de Basse Normandie, 28, 3p.

3 - METHODS AND MEANS TO BE USED

3.1. Particular of vessel

Name : GWEN DREZ
Nationality : France
Owner : IFREMER
Operator : GENAVIR
Overall length : 25 meters
Maximum draught : 3.5 meters
Net tonnage : 32 Tx Gross tonnage : 106.31 Tx
Propulsion : Diesel
Cruising speed : 9 Knots Maximum speed : 10 knots
Call sign : FNIB
Method and capability of communication (including telex, frequencies) :
Name of master : Alain Burgain
Number of crew : 7
Number of scientists on board : 5

3.2. Aircraft or other craft to be used in the project :

3.3. Particulars of methods and scientific instruments :

Types of samples and data	Methods to be used	Instruments to be used
Abundances indexes for fishes	Systematic trawling	Bottom trawl
Presence of benthic organisms		
Temperature and salinity		Specific sensor
Horizontal and vertical trawl openings		Scanmar System

3.4. Indicates whether harmful substances will be used :

NO

3.5. Indicate whether drilling will be carried out :

NO

3.6. Indicate whether explosives will be used :

NO

4 - INSTALLATIONS AND EQUIPMENTS

Details of installations and equipments (dates of laying, servicing, recovery, exact locations and depth)

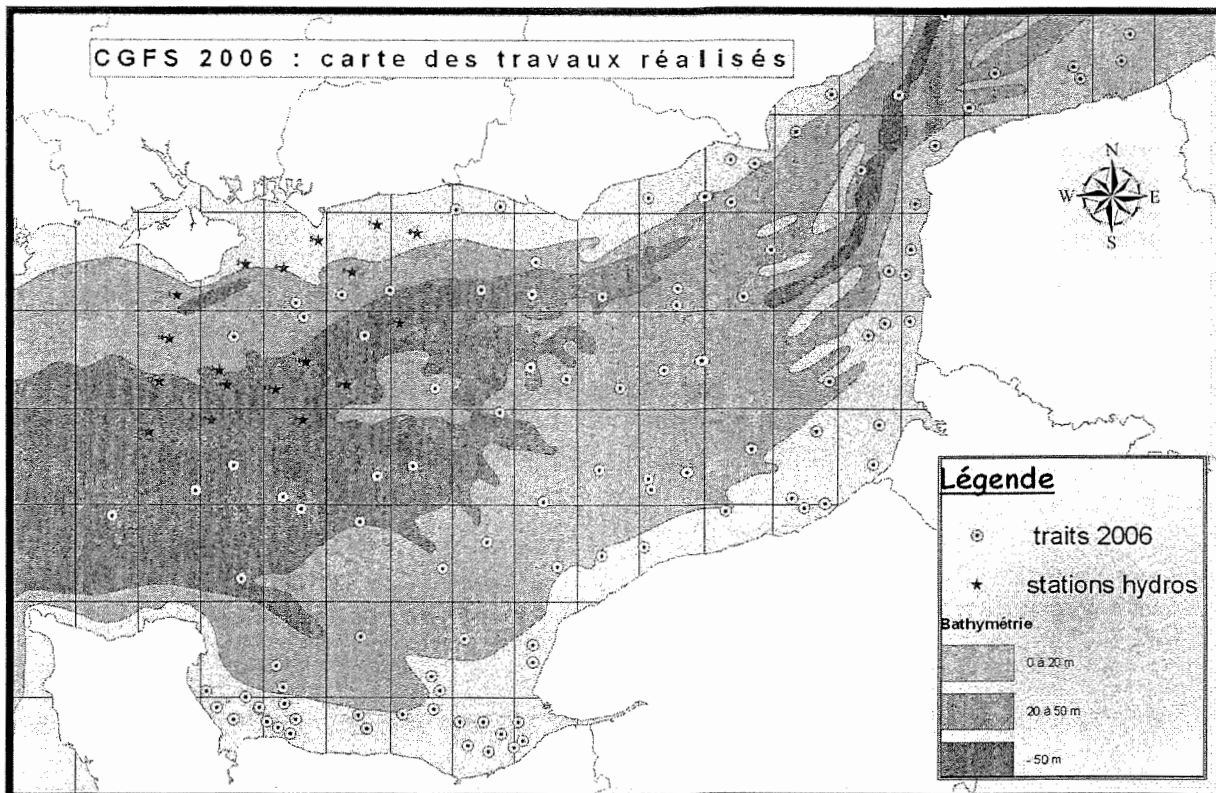
Sampling with bottom trawl with, for experience, a double codend in 20 mm meshsize (stretched).
Recording water temperature, salinity, horizontal and vertical trawl opening with sensors fixed on the trawl.

5 - GEOGRAPHICAL AREAS

5.1. Indicate geographical areas in which the project is to be conducted (with reference in latitude and longitude) :

the whole Eastern Channel: from 51°15' North latitude to 2° West longitude

5.2. Attach chart(s) at an appropriate scale showing the geographical areas of the intended work and, as far as practicable, the positions of intended stations, the tracks of survey lines, and the locations of installations and equipment :



CGFS 2007 : location of hauls (idem CGFS 2006)

6 - DATES

6.1 Expected dates of first entry into and final departure from the research area of the research vessel :

entry date : october 1st, 2007

departure date : october 30th, 2007

6.2 Indicate if multiple entry is expected :
in the english water: YES (it is dependant to weather conditions)

7 - PORTS CALLS

7.1. Dates and names of intended ports of call: NONE

7.2. Any special logistical requirements at ports of call : NONE

7.3. Name/Address/Telephone of shipping agent (if available) NONE

8 - PARTICIPATION

8.1. Extent of which will be enabled to participate or to be represented in the research project :

8.2. Proposed dates and ports for embarkation/disembarkation :

start date : october 1st, 2007 BOULOGNE-SUR-MER (France)

end date : october 30th, 2007 CHERBOURG (France)

9 - ACCESS TO DATA, SAMPLES AND RESEARCH RESULTS

9.1. Expected dates of submission to of preliminary reports which should include the expected dates of submission of the final results :

This survey is expected to be funded by the European Commission (DG XIV) and an official report will be available to the EC and the scientific community.

9.2. Proposed means for access by to data and samples :

see above

9.3. Proposed means of making research internationally available :

see above

ANNEX

List of the scientific team (forecast)

Franck COPPIN	IFREMER	Boulogne-sur-mer
Didier LEROY	IFREMER	Boulogne-sur-mer
Sandrine VAZ	IFREMER	Boulogne-sur-mer
Jean-Paul DELPECH	IFREMER	Boulogne-sur-mer
Yves VERIN	IFREMER	Boulogne-sur-mer
Ivan SCHLAICH	IFREMER	Port-en-Bessin
Jerome Quinquis	IFREMER	Port-en-Bessin
Eric FOUCHER	IFREMER	Port-en-Bessin
X	NAUSICAA	Boulogne-sur-mer
Y	University	