Application for Consent to conduct
Marine Scientific Research

Date: 4th December 2015

1. General Information

1.1 Cruise name and/or number:
Campagne Pocheteau

1.2 Sponsoring Institution(s):	
Name:	Museum National d'Histoire Naturelle (MNHN)
Address:	Place de la Croix 29900 Concarneau
Name of Director:	Nadia Améziane

1.3 Scientist in charge of the Project:	
Name:	Samuel Iglésias
Country:	France
Affiliation:	MNHN
Address:	Place de la Croix 29900 Concarneau
Telephone:	+33298970659
Fax:	+33298978124
Email:	Iglesias@mnhn.fr
Website (for CV and photo):	www.researchgate.net

1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:	
Name:	Stuart Hetherington
Affiliation:	CEFAS
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Email:	stuart.hetherington@cefas.co.uk
Website (for CV and photo):	www.cefas.defra.gov.uk

2. Description of Project

2.1 Nature and objectives of the project:
The global project is a long term survey studying the life history and movement of the common skate in the Celtic Sea by the mean of a capture and release protocol. Common skate is one of the biggest skate in Europe. Their life cycle is slow which make this species particularly sensitive to commercial fishing. This is why, a decrease of the population has been recorded in the years 2000's due to overexploitation. Since 2009, this species complex is protected and no commercial fishing is authorised in the European waters. Mission in the British water aims to tag Common skates in the South West of the Scilly Islands. It will be organised in two at sea surveys, in February between the 16th and the 27th of February and between the 30th of July and the 9th of August. During each trip, skates will be capture on board of the R/V Côtes de la Manche, using gillnets and trawlers. All individual captured will be tagged and released after morphometric recording. When possible skate will be injected with alizarin to read the age of the individual and their growth rate once recaptured. In case of dead individual, data on reproduction and diet will be collected. Other fish species will be identified, counted and measured if time permitted. Final objectives are to determined life history of the common skate to unable the use of population dynamics models. From this, population evolution could be estimate to increase the efficiency of management for these species considered as "Critically Endangered" by the

IUCN.
Data on the other fishes will give information on the fauna community in this area.
Survey being conduct during two different seasons will enable the MNHN to study spatio-temporal variability of the species community.

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:

Project POCHETEAUX coordinates by the MNHN

2.3 Relevant previous or future research projects:

Common skate have been identified as a species complex in 2010 including Blue skates and Flapper skates by the MNHN. Since then, knowledge on the two species is studied to correct former data.

Since 2013, the MNHN is already working on a mark-recapture study on common skates in collaboration with the French government. Protocol is the same that will be used on this survey but applied on board of fishing vessel.

During the surveys on board of professional fishing boats, survival rate to bycatch has been estimate at 50% and general distribution in the Celtic Sea reviewed.

Results show that the population is fragmented. Knowledge must be extended now to understand how the meta population is working. In 2016, genetic analyses will be performed to determined genes flux between sub populations. Those results should help to take efficient conservation strategies.

2.4 Previous publications relating to the project:

Cannas, R., Follesa, M. C., Cabiddu, S., Porcu, C., Salvadori, S., Iglesias, S. P., Deiana, A. M. & Cau, A. (2010). Molecular and morphological evidence of the occurrence of the Norwegian skate Dipturus nidarosiensis (Storm, 1881) in the Mediterranean Sea. Marine Biology Research, 6, 341–350

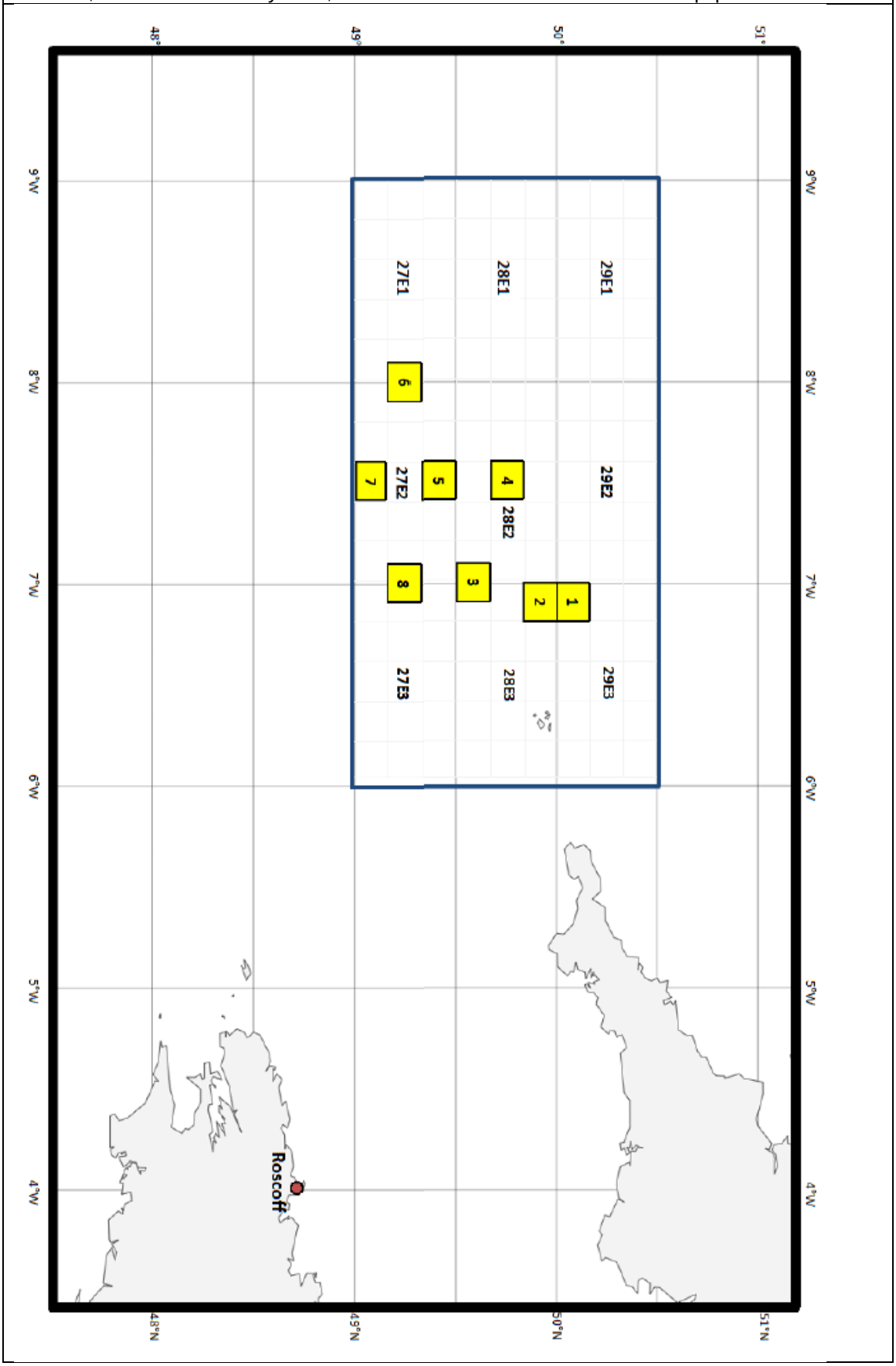
Iglésias, Toulhoat, Sellos (2010).Taxonomic confusion and market mislabelling of threatened skates: important consequences for their conservation status. Aquatic Conservation: Marine and Freshwater Ecosystems 20

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.

Eight areas have been identified in the south west of the Scilly Island corresponding to high concentration of specimens. In each area, 2 nets will be deployed in the middle of the square for 20 hours, while 2 to 3 trawling operations will be done. Areas will be ranged between 50.5 N and 49 N and 9.5 W and 6.5 W in the CIEM squares: 29E3; 28E3; 28E2; 27E3; 27E2; 27E1.

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.



Area Number	Top left		Bottom right		average depth	5km Gillnet middle position	
	Latitude	Longitude	Latitude	Longitude		Latitude	Longitude
1	50.16	-7	50	-6.8	110	50.08	-6.9
2	50	-7	49.83	-6.8	110	49.92	-6.9
3	49.66	-7.1	49.5	-6.9	115	49.58	-7.5
4	49.83	-7.6	49.66	-7.4	120	49.74	-7.5
5	49.5	-7.6	49.33	-7.4	120	49.41	-7.5
6	49.33	-8.1	49.16	-7.9	130	49.24	-8
7	49.16	-7.6	49	-7.4	130	49.08	-7.5
8	49.33	-7.1	49.16	-6.9	120	49.24	-7

4. Methods and means to be used

4.1 Particulars of vessel:	
Name:	Côtes de la Manche
Type/Class:	Oceanographic vessel
Nationality (Flag State):	French
Identification Number (IMO/Lloyds No.):	
Owner:	CNRS - INSU
Operator:	Division Technique de l'INSU
Overall length (meters):	24.90
Maximum draught:	3.6 m
Displacement/Gross Tonnage:	230 T.
Propulsion:	Electric Diesel
Cruising & maximum speed:	11 knots
Call sign:	FQBE
INMARSAT number and method and capability of communication (including emergency frequencies):	Fleet : 33 00 870 761 144 691 GSM : + 33 6 73 87 18 83 Radio : FQBE MMSI : 227 091 000
Name of Master:	LE MOAL / LE GUENNEC
Number of Crew:	7
Number of Scientists on board:	8

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:
Tagging of skate	20 hours to 24hours of immersion	Mesh: 135mm Height: 1.2m Length: 5km
Biological observation on fish	From 30min to 4 hours	Mesh: 100mm Trawl headline rear rope: 20m

4.6 Indicate nature and quantity of substances to be released into the marine environment:
Around 50g of Alizarin, which is an alimentary colorant, will be injected into skate's cavities.

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

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:

First survey: 16 February 2016 to 27 February 2016 Second survey: 30 July 2016 to 09 August 2016
6.2 Indicate if multiple entries are expected:
At least two entries will be expected for each survey

7. Port Calls

7.1 Dates and Names of intended ports of call:

7.2 Any special logistical requirements at ports of call:

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:
Scientifics from the CEFAS will be on board for tagging of common skate and capture position. All data will be shared between the two institutes (MNHN and CEFAS). This area being used by British and French fishing vessels, Recapture data collected by each fleet are already exchanged.

8.2 Proposed dates and ports for embarkation/disembarkation:
From 16 February 2016 to 27 February 2016 in Roscoff France From 30 July 2016 to 09 August 2016 in Roscoff France

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:
First preliminary report containing number of specimens captured, tagged and species encountered during the first survey: May 2016

9.2 Anticipated dates of submission to the coastal State of the final report:
A report of all the data recorded on board will be available for December 2016 with position of the fishing operation, species encounter and number of individual tagged and descriptive results on the population. This survey corresponding to a long term study of mark-recapture, results depending on recaptured individual will need several years to be collected and analysed.

9.3 Proposed means for access by coastal State to data (including format) and samples:
Entire raw data collected on board will be sent to the coastal State within an excel file (.csv) and given to the CEFAS in any format chosen by them.

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:
Publication in scientific journals, talks, reports

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.:
Excel file : station position.xlsx containing position in decimal degrees of the stations

Signature:

Contact information of the focal point:
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