

## Application for Consent to conduct Marine Scientific Research

Date: 12/03/2019

### 1. General Information

<b>1.1 Cruise name and/or number:</b> NW Herring 2019 – CV19038

<b>1.2 Sponsoring Institution(s):</b>	
Name:	Marine Institute
Address:	Rinville, Oranmore, Co. Galway H91 R673
Name of Director:	Dr Peter Heffernan

<b>1.3 Scientist in charge of the Project:</b>	
Name:	Michael O'Malley
Country:	Ireland
Affiliation:	Marine Institute
Address:	Rinville, Oranmore, Co. Galway H91 R673
Telephone:	091 378 398
Fax:	091 387 201
Email:	<a href="mailto:michael.o'malley@marine.ie">michael.o'malley@marine.ie</a>
Website (for CV and photo):	<a href="http://www.marine.ie">www.marine.ie</a>

<b>1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:</b>	
Name:	Dr Andrew Campbell
Affiliation:	Marine Institute
Address:	Rinville, Oranmore, Co. Galway H91 R673
Telephone:	091 377 301
Fax:	091 387 201
Email:	<a href="mailto:andrew.campbell@marine.ie">andrew.campbell@marine.ie</a>
Website (for CV and photo):	<a href="http://www.marine.ie">www.marine.ie</a>

### 2. Description of Project

<b>2.1 Nature and objectives of the project:</b>
<p>The survey objective is to collect acoustic information (using SIMRAD EK60 split-beam 38 and 120 kHz scientific echosounders) and biological samples on aggregations of pre-spawning herring and feeding horse mackerel in ICES divisions 6.a.S, 6.a.N and 7.b. The survey is designed to focus on areas where herring are known to be either spawning or in pre-spawning migrations during this time of the year. This area is also a known feeding area for juvenile horse mackerel. Herring spawning grounds are well known in 6.a.S, thanks to previous work by the Marine Institute; spawning time in this area is variable, generally between October and February.</p>

**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:**

There is a similar effort being conducted by scientists at the Marine Laboratory in Aberdeen, and the Scottish fishing industry in ICES division 6.a.N, although not at the same time because of the differences in spawning time of herring in this area. The overall objective of the 2 surveys combined is to improve the data information that is used for the stock assessment of herring in the wider West of Scotland and West of Ireland area.

**2.3 Relevant previous or future research projects:**

In 2016, 2017 and 2018 the Marine Institute in collaboration with the Irish fishing industry conducted acoustic trawl surveys of herring and horse mackerel off the northwest of Ireland in Irish and UK waters. It is envisaged that these surveys will be developed into a time-series of data with the aim of improving the assessment for herring and horse mackerel.

**2.4 Previous publications relating to the project:**

FEAS Survey Series: Industry Survey: 01/2016. Marine Institute  
<http://hdl.handle.net/10793/1203>

FEAS Survey Series: Industry Acoustic Survey/01/2017. Marine Institute.  
<http://hdl.handle.net/10793/1341>

FEAS Survey Series: Industry Acoustic Survey/01/2018. Marine Institute.  
<http://hdl.handle.net/10793/1390>

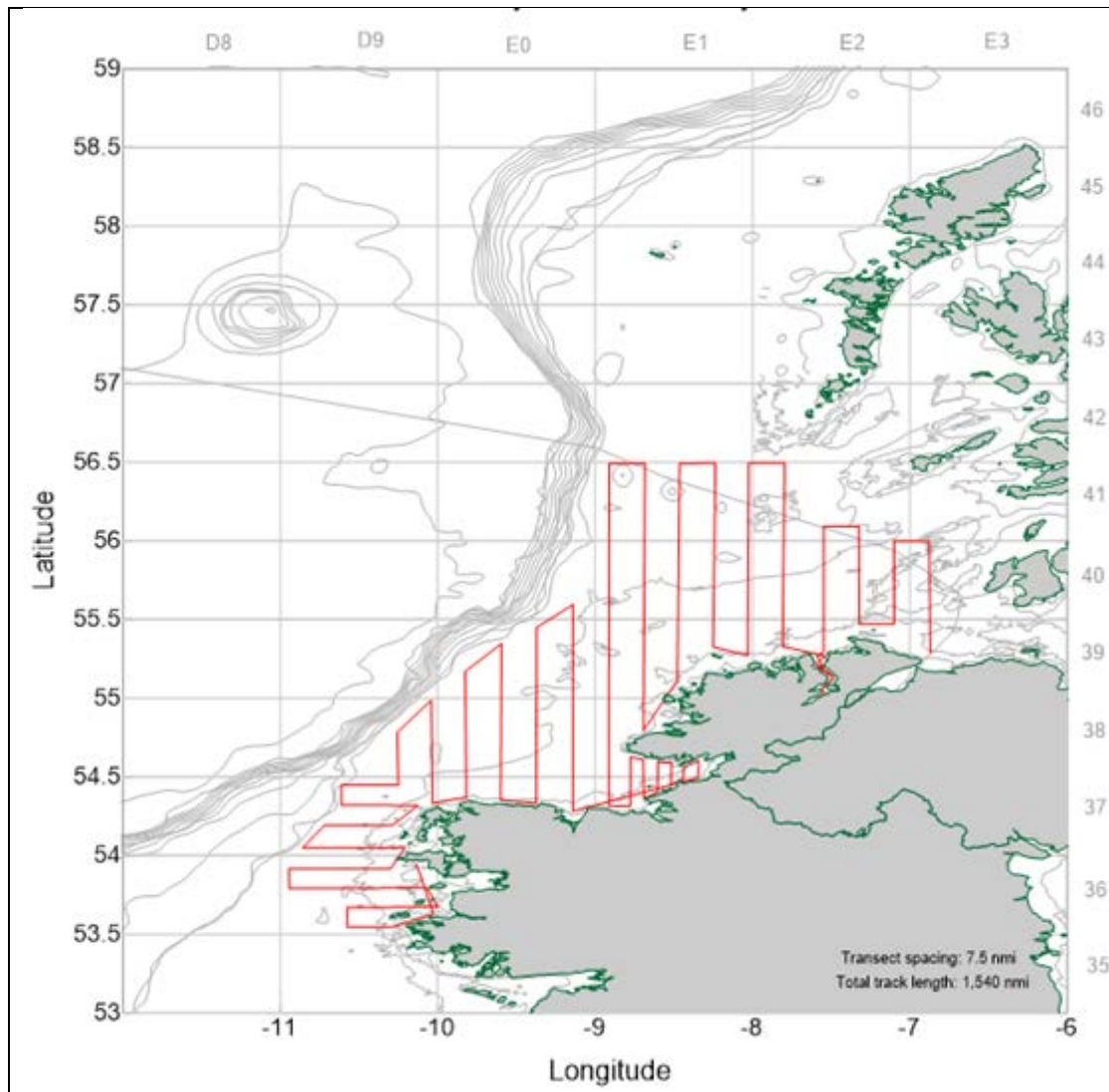
**3. Geographical Areas**

**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 general area is to the northwest of Ireland and west of Scotland, bounded by an area 6.9 to 11 degrees west, and 53.5 to 56.5 degrees north approximately.

**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

<b>4.1 Particulars of vessel:</b>	
Name:	R.V. Celtic Voyager
Type/Class:	100 A1 Research Vessel, LMC
Nationality (Flag State):	Irish
Identification Number (IMO/Lloyds No.):	9154842
Owner:	Marine Institute
Operator:	P&O Maritime Services
Overall length (meters):	32.45
Maximum draught:	4m
Displacement/Gross Tonnage:	340
Propulsion:	Wärtsilä UD25M5 (626 kW),
Cruising & maximum speed:	<= 10 knots
Call sign:	EIQN
INMARSAT number and method and capability of communication (including emergency frequencies):	GMDSS A class, E-mail. Mini M SAT C and GSM 00 353 91 423396 / 00870 763066755 00870-764687325 / 764687326
Name of Master:	Philip Baugh/Colin McBrearty

Number of Crew:	7
Number of Scientists on board:	8 max

<b>4.2 Particulars of Aircraft:</b>	
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:	

<b>4.3 Particulars of Autonomous Underwater Vehicle (AUV):</b>	
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:	

<b>4.4 other craft in the project, including its use:</b>	
N/A	

<b>4.5 Particulars of methods, full description of scientific instruments to be used (for fishing gear specify type and dimension) and location</b>			
Types of samples and Measurements:	Methods to be used:	Instruments to be used:	To be carried out within 12nm (yes or no):
Acoustic sampling	Active acoustics Ping rate: 1Hz Where possible cruising speed will be maintained at 10kts.	SIMRAD EK60 split-beam 38 and 120 kHz Scientific Echosounders	yes
Pelagic trawling	Trawl to obtain biological samples; approximately 4 baskets of fish per trawl	Pelagic trawl – approximate dimensions; A single pelagic midwater trawl with the dimensions of 296 m in total length with a 78 m brailer (codend) approximately. The net fished with a vertical mouth opening averaging 50m observed using a cable linked SIMRAD FS 900 netsonde (200 kHz).	yes

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

None

**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

**5.1 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):**

None

## 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:

Survey start date no earlier than 01/12/19, survey will finish no later than 15/12/2019. Survey will be approximately 10 days in length.

### 6.2 Indicate if multiple entries are expected:

Due to the north/south design of the survey transect lines, there may be repeated entry and exit to and from UK waters.

## 7. Port Calls

### 7.1 Dates and Names of intended ports of call:

Survey will depart and return to/from Killybegs and Galway in Ireland. No calls to ports in the UK are expected.

### 7.2 Any special logistical requirements at ports of call:

N/A

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

N/A

## 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:

Chief Scientist will be responsible for processing data, producing preliminary and final report, and presenting results to ICES working groups (WGIPS and HAWG).

### 8.2 Proposed dates and ports for embarkation/disembarkation:

Survey will depart from Killybegs in Ireland. No calls to ports in the UK are expected. Expected depart between 1/12/2019 approximately  
Expected return to Galway no later than 15/12/2019 approximately

## 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:**

15/01/2020

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

01/03/2020

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

Contact Chief Scientist: Michael O'Malley, [michael.o'malley@marine.ie](mailto:michael.o'malley@marine.ie)  
Data will be stored at the Marine Institute, Rinville, Oranmore, Co. Galway

**9.4 Proposed means to provide coastal State with assessment of data, samples and Research results:**

Contact Chief Scientist: Michael O'Malley, [michael.o'malley@marine.ie](mailto:michael.o'malley@marine.ie)  
Data will be stored at the Marine Institute, Rinville, Oranmore, Co. Galway

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

**And research results:**

Contact Chief Scientist: Michael O'Malley, [michael.o'malley@marine.ie](mailto:michael.o'malley@marine.ie)  
Data will be stored at the Marine Institute, Rinville, Oranmore, Co. Galway

**9.6 Proposed means of making results internationally available:**

Survey results will be presented at ICES WGIPS in January 2020. The full report and data files will be available from the share point on the ICES website shortly thereafter: <http://www.ices.dk/community/groups/Pages/WGIPS.aspx>

## 10. Other permits Submitted

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


N/A

## 11. List of Supporting Documentation

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

Latitude and Longitude of approximate acoustic transects to be carried out. Fishing trawls will be conducted along these transect lines, exact location TBC, depending on observations of schools of herring or horse mackerel.

Signature:



Contact information of the focal point:

Name: Michael O'Malley  
Country: Ireland  
Affiliation: Marine Institute  
Address: Rinvilla, Oranmore, Co. Galway  
Telephone: 091 387 398  
Fax: 091 387 201  
Email: [michael.o'malley@marine.ie](mailto:michael.o'malley@marine.ie)