Application for Consent to conduct Marine Scientific Research

Date: 30 June 2017

1. General Information

1.1 Cruise name and/or number:
FV Dirk Dirk (KW172) on NW Herring Industry Survey in 2017

1.2 Sponsoring Institution(s):	
Name:	Marine Scotland Science, Marine Lab
	Aberdeen
Address:	375 Victoria Road,
	Aberdeen, AB11 9DB
Name of Director:	Nick Bailey

1.3 Scientist in charge of the Project:	
Name:	Susan Lusseau
Country:	Scotland
Affiliation:	Fisheries scientist
Address:	375 Victoria Road,
	Aberdeen, AB11 9DB
Telephone:	+44 1224295531
Fax:	
Email:	s.lusseau@marlab.ac.uk
Website (for CV and photo):	https://uk.linkedin.com/in/susan-
	lusseau-721a021

1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:		
Name:	Pelagic Advisory Council (Mrs. Verena Ohms)	
	Scottish Pelagic Fishermen Association (Mr	
	Steve Mackinson)	
	Pelagic Freezer-trawler Association (Mr Martin	
	Pastoors)	
Affiliation:	Stakeholder involvement in herring survey and management herring stock in 6a	
Address:	PELAC: Louis Braillelaan 80, 2719 EK	
	Zoetermeer, Netherlands	
	SPFA, 1 Frithside Street, Fraserburgh,	
	Aberdeenshire AB43	
	PFA: Louis Braillelaan 80, 2719 EK	
	Zoetermeer, Netherlands	
Telephone:	PELAC: +31 6 28 20 73 17	
	SPFA: +44 7803 041 021	
	PFA: +31 631 901 027	
Fax:		
Email:	PELAC: v.ohms@pelagic-ac.org	

	SPFA: steve.mackinson@scottishpelagic.co.uk
	PFA: mpastoors@pelagicfish.eu
Website (for CV and photo):	https://www.linkedin.com/in/verena-ohms-
	<u>525a1913/</u>
	https://www.linkedin.com/in/steven-mackinson-
	<u>4a5a321a/</u>
	https://www.linkedin.com/in/martinpastoors/

2. Description of Project

2.1 Nature and objectives of the project:

Permission is requested for the FV Dirk Dirk (KW172) to be able to carry out a limited number of commercial fishing hauls of herring within the UK territorial waters (12 NM) in the areas north of the Scottish mainland (between 3.5 and 5 degrees West) and off the west coast of the Hebrides (between -6 and -7.5 degrees West), starting around the 20th of August and being carried out during around 15 days. This fishery will be carried out in the context of the monitoring TAC for 6a North and will focus on morphometrics, genetics and catch sampling. The monitoring for morphometrics and genetics will focus on spawning herring close to the coast.

The activities by FV Dirk Dirk will be part of a wider survey into the herring stock in 6a, done by other (UK and Irish flagged) vessels. Notably, an acoustic survey in combination with commercial fishing will be carried out by FV Wiron6 and FV Wiron5 (PH2200 and PH1100,Plymouth), FV Lunar bow (PD265), FV Sunbeam (FR487) and FV Antares (LK419).

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:

Susan Lusseau is the coordinator of the project in Marine Scotland Science. Maurice Clark is the scientific coordinator in the Marine Institute in Ireland.

Both Steve Mackinson and Martin Pastoors are coordinating the survey from the industry side as the survey is done by the commercial vessels.

2.3 Relevant previous or future research projects:

A large EU funded research project has been carried out between 2003-2006 to investigate stock structure of herring stocks west of the British isles (WESTHER). One of the conclusions of this project was that the 6a North stock is distinct from the 6a South-7bc stock.

The ICES benchmark workshop on western herring (WKWEST, 2015) found that the methods used to separate herring in catches and surveys were inconclusive. ICES therefore decided to merge the two herring stocks into one assessment, while recognizing that they were still likely to be two distinct stocks.

Under the umbrella of the Pelagic Advisory Council, a research project has been initiated to apply Next Generation Sequencing techniques to 6a North herring. This method has already been successfully applied to boarfish and is also being applied to horse mackerel. This is intended to provide a baseline on which to calibrate the morphometric samples collected in the past and to allow for separation of future catches. For this to be possible, the samples will need to be collected on spawning herring that are mostly within the UK 12 nautical mile boundary during the spawning season.

2.4 Previous publications relating to the project:

Hatfield, E. M. C., Nash, R. D. M., Zimmermann, C., Schön, P. J., Kelly, C., Dickey-Collas, M., MacKenzie, K., et al. 2007. The scientific implications of the EU Project WESTHER (Q5RS–2002–01056) to the assessment and management of the herring stocks to the west of the British Isles. 50. 11 pp.

CES. 2010. Report of the Study Group on the evaluation of assessment and management strategies of the western herring stocks (SGHERWAY), 14-18 June 2010, Dublin, Ireland. ICES C.M. 2010 / SSGSUE:08.

ICES. 2015. Report of the Benchmark Workshop on West of Scotland Herring (WKWEST), 2-6 February 2015, Dublin. ICES C.M. 2015 / ACOM:34.

ICES. 2016. Report of the Herring Assessment Working Group for the Area South of 62N (HAWG), Copenhagen, 29 March - 7 April 2016. ICES C.M. 2016 / ACOM:07.

ICES 2016. 5.3.33 Herring (Clupea harengus) in divisions 6.a and 7.b-c (west of Scotland, west of Ireland). In Report of the ICES Advisory Committee, 2016.

ICES 2016. 5.4.3 EU request for advice on a scientific monitoring fishery for herring in ICES divisions 6.a, 7.b, and 7.c. In Report of the ICES Advisory Committee, 2016.

Mackinson, S., et al. (2017). Report on the 2016 industry-science survey of herring in the Western British Isles (ICES Divisions 6a, 7bc): 82 pp.

3. Geographical Areas

3.1 Indicate geographical areas in which the project is to be conducted (with reference in

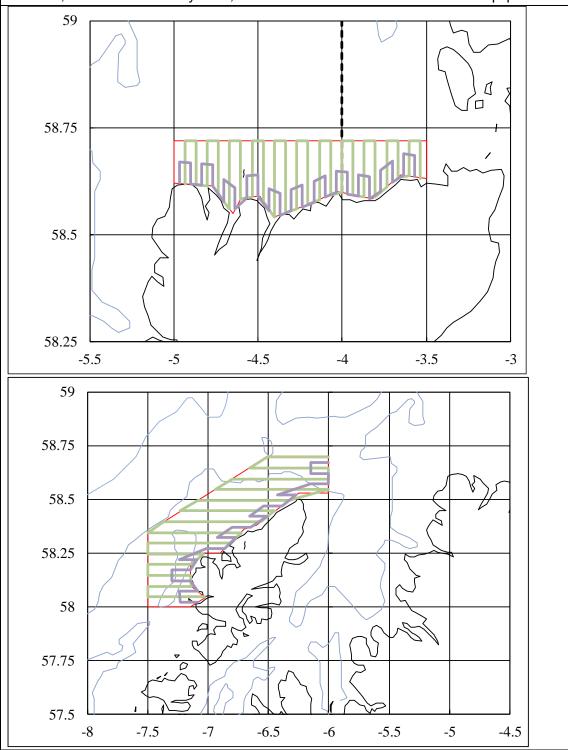
Latitude and longitude in degrees, including coordinates of cruise/track/way points/sampling stations). Please provide coordinates in a table format using a separate excel spreadsheet.

UK territorial waters (12 NM) in the areas north of the Scottish mainland (between 3.5 and 5 degrees West) and off the west coast of the Hebrides (between -6 and -7.5 degrees West)

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:	Dirk Dirk
Type/Class:	Pelagic Freezer trawler
Nationality (Flag State):	Netherlands (NL)
Identification Number (IMO/Lloyds No.):	8209171
Owner:	Parlevliet en Van der Plas
Operator:	Parlevliet en Van der Plas
Overall length (meters):	95.18
Maximum draught:	6,5 meter
Displacement/Gross Tonnage:	3181
Propulsion:	2600 KW
Cruising & maximum speed:	11/12,5 knots
Call sign:	PBBZ
INMARSAT number and method and capability of communication (including emergency frequencies):	424401457 / 424401456 (Sat-c's) email bridge.172@pp-fleet.eu sevset tel: +31 10 8080912 fleet broadband tel: +870 773156073
Name of Master:	Henk Krijgsman
Number of Crew:	34
Number of Scientists on board:	2

4.2 Particulars of Aircraft:	
Name:	Not relevant

4.3 Particulars of Autonomous Underwater Vehicle (AUV):	
Name:	Not relevant

4.4 other craft in the project, including its use:
Not relevant

4.5 Particulars of methods, full description of scientific instruments to be used(for fishing gear specify type and dimension and for geophysical survey the type of equipment, source levels, frequency and duty cycle to be used) and location

Types of samples	Methods to be	Instruments to be	To be carried out
and	used:	used:	within 12nm (yes
Measurements:			or no):
Morphometric	Digitial camera	Digitial camera	Yes
samples	setup on board of		
	FV Annie Hilina		
Genetic samples	Next Generation	Genetic tissue	Yes
	Sequencing	sampling device	
Length/age/maturity	Traditional	Will be carried out	Yes
samples	fisheries	in Marine Scotland	
	biology methods	Science facilities.	

environment: None
None
4.7 by Parker of Alban dell's a cell by a seried and Marker by a seried
4.7 Indicate whether drilling will be carried out. If yes, please specify:
None
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:
None
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):
Pelagic midwater trawl gear will be used
a congress and a green and a constant
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:
20 August 2017 - 15 september 2017
6.2 Indicate if multiple entries are expected:
Yes
7. Port Calls
7.4 Datas and Names of intended monte of salls
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 of the representative of the coastal State
8.1 Moda research	alities of the participation of the representative of the coastal State in the Project:
	cotland Science is coordinating the morphometrics and genetic data within the project.

- ${\bf 8.2\ Proposed\ dates\ and\ ports\ for\ embarkation/disembarkation:}$
 - 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:

November 2017

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

December 2017

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

Data will be held at Marine Scotland Science.

- 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:

Report to be submitted to ICES Herring Assessment Working Group 2018.

- 10. Other permits Submitted
- 10.1 Indicate other types of coastal state permits anticipated for this research (received or Pending):

None

11. List of Supporting Documentation

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

Signature:

Rack

(Gerard van Balsfoort – president of the Pelagic Freezer-trawler Association)

Contact information of the focal point:

Name: Martin Pastoors Country: Netherlands

Affiliation:

Pelagic Freezer-trawler Association (PFA) Louis Braillelaan 80, 2719 EK Zoetermeer, Netherlands Address:

Telephone: +31 631901027

Fax:

mpastoors@pelagicfish.eu Email: