APPLICATION FOR CONSENT TO CONDUCT MARINE SCIENTIFIC RESEARCH IN AREAS UNDER NATIONAL

JURISDICTION OF

NORWAY

(name of coastal State)

Date: 04/06/2018

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1. General Information

1.1	Ship and cruise number:	MRV Scotia, 0918S
1.2	Sponsoring institution:	
	Name:	Marine Scotland Science, Marine Laboratory
	Address:	PO Box 101, Victoria Road, Aberdeen, AB11 9DB
	Name of director:	Dr Ian Davies

1.3 Scientist in charge of the project:

	Name:	Susan Lusseau				
	Address:	MSS, Marine Laboratory				
		PO Box 101, Victoria Road				
		Aberdeen, AB11 9DB				
	Telephone:	0131 244 2500				
	Telefax:	01224 295511				
1.4	Scientist(s) from	Norway with knowledge of the project:				
		name of coastal State)				
	Name:	Else Torstensen				
	Address:	Institute of Marine Research				
		Flødevigen Marine Research Station 4817 HIS Norway Tel: +47 37059 000				
		Fax: +47 37059 001				
		Email: <u>else.torstensen@imr.no</u>				
		Jennifer Devine				
		Norway Institute of Marine Research				
		P.O.Box 1870 Nordnes				
		N-5024 Bergen Norway				
		+47 90259201				
		+47 55238500				

jennifer.devine@imr.no

1.5 Submitting officer:

Name and address:	I Gibb, Marine Scotland, Marine Laboratory, Aberdeen		
Country:	United Kingdom		
Telephone:	0131 244 3232		
Telefax:	01224 295511		

2. Description of Project

(Attach additional pages as necessary)

2.1 Nature and objectives of the project:

Objectives

- To conduct an acoustic survey to estimate the abundance and distribution of herring in the north western North Sea and north of Scotland between 58°30'-62°N and 8°W to 2°E, excluding Faroese waters. Norwegian clearance requested for Stat Squares 46F1 and 47F1
- To obtain biological samples for echosounder trace identification using a pelagic trawl.
- To obtain samples of herring for biological analysis, including age, length, weight, sex, maturity, ichthyophonus infection and fat content.
- To obtain hydrographic data for comparison with the horizontal and vertical distribution of herring.
- To obtain plankton samples to map the distribution and abundance of
 zoonlankton

2.2 Relevant previous or future research cruises:

This is part of a continuing series of similar collaborative surveys under the auspices of ICES.

2.3 Previously published research data relating to the project:

Data is published annually as an ICES report of the Herring Assessment Working group. (HAWG) $% \left({\text{HAWG}} \right)$

3. Methods and Means to be Used

3.1 Particulars of vessel:

Name:	MRV Scotia	Nationality:	UK		
Owner:	The Scottish Ministers				
Operator:	Marine Scotland				
Overall length:	68.8 m	Maximum draught:	6.0 m		
Net tonnage:	785	Gross tonnage:	2619		
Propulsion:	Diesel Electric				
Cruising speed:	13.0 kts	Maximum speed:	15.0		
Call sign:	MXHR 6				

Method and capability of communication (including telex, frequencies):

Masters name:	Dan Binyon		
Number of crew:	18		
Number of scientists on board	: 9		

- 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		
Acoustic	Echosounder	EK60 Echosounder		
Biological	Pelagic Trawl	PT 160		
Water / Plankton	CTD / Plankton	Seabird 19 / Methot net		

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No

- 3.4 Indicate 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:

4. Installations and Equipment

Details of installations and equipment (dates of laying, servicing, recovery; exact locations and depth):

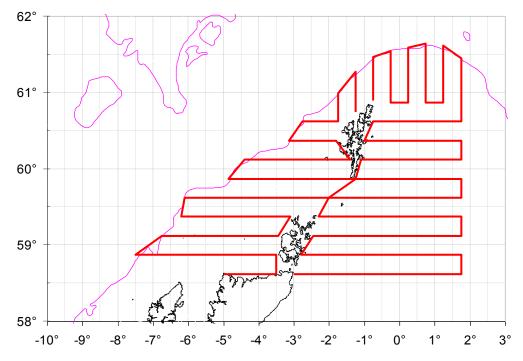
N/A

5. Geographical Areas

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

58°30'-62°N and 7°30'W to 2°E

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.



Map of the North of Scotland showing the cruise track design (red lines) for the 2018 North of Scotland pelagic survey. Norwegian clearance requested for Stats Sq 46F1 and 47F1

- 6. Dates 28 June 20 July 2018
- 6.1 Expected dates of first entry into and final departure from the research area of the research vessel:

29 June – 19 July 2018

6.2 Indicate if multiple entry is expected:

No

7. Port Calls

7.1 Dates and names of intended ports of call in

Scotland

(name of coastal State)

Lerwick: Approx 10th July 2018

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

8.1 Extent to which Norway will be enabled to participate or to (name of coastal State) be represented in the research project:

A Norwegian research vessel takes part in the collaborative survey annually.

8.2 Proposed dates and ports for embarkation/disembarkation:

Aberdeen, Scotland: 28 June and 20 July 2018

9. Access to Data, Samples and Research Results

9.1 Expected dates of submission to of preliminary reports Norway (name of coastal State) which should include the expected dates of submission of the final results: Survey report to IMR, Bergen, at the end of the survey. Preliminary data presented to PGIPS in January 2019. HAWG by March 2019. 9.2 Proposed means for access by Norway to data and samples: (name of coastal State) Data presented at PGIPS meeting. Access to ICES Fishframe data base for pelagic survey data. 9.3 **Proposed means to provide** with assessment of data, Norway (name of coastal State) samples and research results or provide assistance in their assessment or interpretation: Data presented at PGIPS meeting. Access to ICES Fishframe data base for pelagic survey data. Daily radio/email contact between participating vessels during survey to advise of progress.

9.4 Proposed means of making research results internationally available:

ICES HAWG recommendations. ICES Fishframe data base

10. Scientific Equipment

Coastal State:	Norway	
Port Call:	Not in Norway	Indicate "Yes" or "No"
Dates:	N/A	

LIST SCIENTIFIC WORK BY FUNCTION				DISTANCE FROM COAST		
eg: magnetometry, gravity, diving, seismics, bathymetry, sea bed sampling, trawling, echo sounding, water sampling, u/w TV, moored instruments, towed instruments	Water column including sediment sampling of the sea bed	Fisheries research within fishing limits	Research concerning the natural resources of the Continental Shelf or its physical characteristics	Within 12 nm	Between 12-200 nm	(Continental Shelf work only) Beyond 200 nm but within the Continental margin
Echosounding	Yes	Yes	Yes	No	Yes	No
Trawling	Yes	Yes	Yes	No	Yes	No
Plankton Sampling	Yes	Yes	Yes	No	Yes	No
Water sampling	Yes	Yes	Yes	No	Yes	No

I Gibb

(On behalf of the Principal Scientist)

Dated: 04 June 2018

NB: IF ANY DETAILS ARE MATERIALLY CHANGED REGARDING DATES/AREA OF OPERATION AFTER THIS FORM HAS BEEN SUBMITTED THE COASTAL STATE AUTHORITIES MUST BE NOTIFIED IMMEDIATELY