

Application for Consent to conduct
Marine Scientific Research

Date: _____

1. General Information

1.1 Cruise name and/or number: 2019836

1.2 Sponsoring Institution(s):	
Name:	Institute of Marine Research
Address:	P.O.Box 1870 Nordnes N-5024 Bergen Norway
Name of Director:	Sissel Rogne

1.3 Scientist in charge of the Project:	
Name:	Anders Thorsen
Country:	Norway
Affiliation:	Institute of Marine Research
Address:	P.O.Box 1870 Nordnes N-5024 Bergen Norway
Telephone:	
Fax:	
Email:	Anders.thorsen@hi.no
Website (for CV and photo):	NA

1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:	
Name:	
Affiliation:	
Address:	
Telephone:	
Fax:	
Email:	
Website (for CV and photo):	

2. Description of Project

2.1 Nature and objectives of the project:
<p>The survey is designed to estimate the numbers of mackerel and horse mackerel eggs in the area and to then estimate the production of mackerel eggs. These data are combined with other surveys being taken in adjacent areas and at adjacent times to estimate the total egg production of NE Atlantic mackerel. In addition fecundity samples will be taken to estimate the potential numbers of eggs mackerel in this area can produce. These two pieces of data will be combined with data from the rest of the ICES coordinated international survey to estimate the size of the spawning stock biomass of NE Atlantic mackerel in 2019.</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:
Triennial International Mackerel egg Survey, coordinated by the International Council for the Exploration of the Seas (Copenhagen) (ICES).

2.3 Relevant previous or future research projects:
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Dokumenter kan skrives ut, men kun elektronisk versjon ansees som oppdatert og gyldig.

This survey is conducted every three years to estimate the egg production for eastern Atlantic Mackerel and Horse Mackerel.

2.4 Previous publications relating to the project:

Numerous publications on mackerel ecology and ICES reports through the ICES Mackerel Egg Survey Working Group (WGMEGS) and the ICES assessment Working Group on Widely Distributed Stocks (WGWIDE)

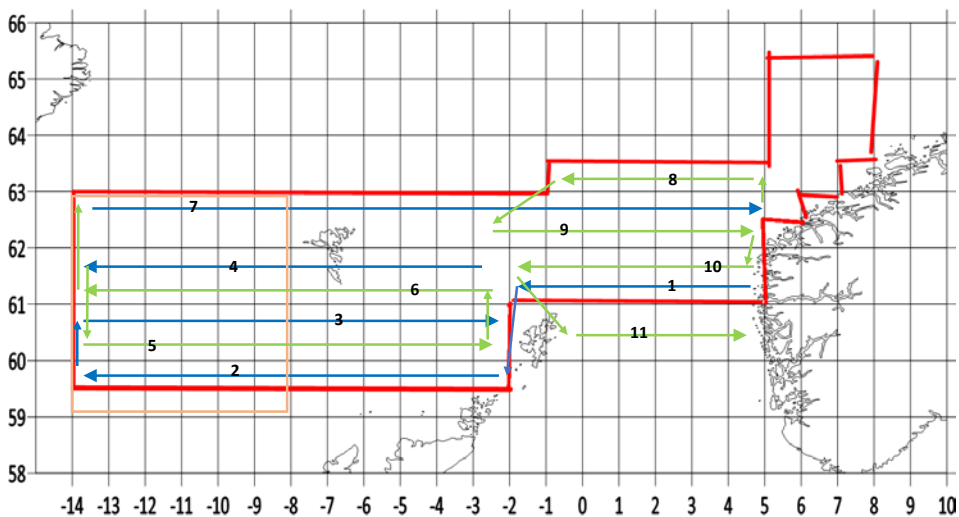
3. Geographical Areas

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.

Survey areas covers the northern North Sea and the southern and south-western Norwegian Sea: 59.5°N -63.5°N;

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.

Cruise track (9-29th June 2019):



Waypoints for cruise track (see Table 1 for coordinates):

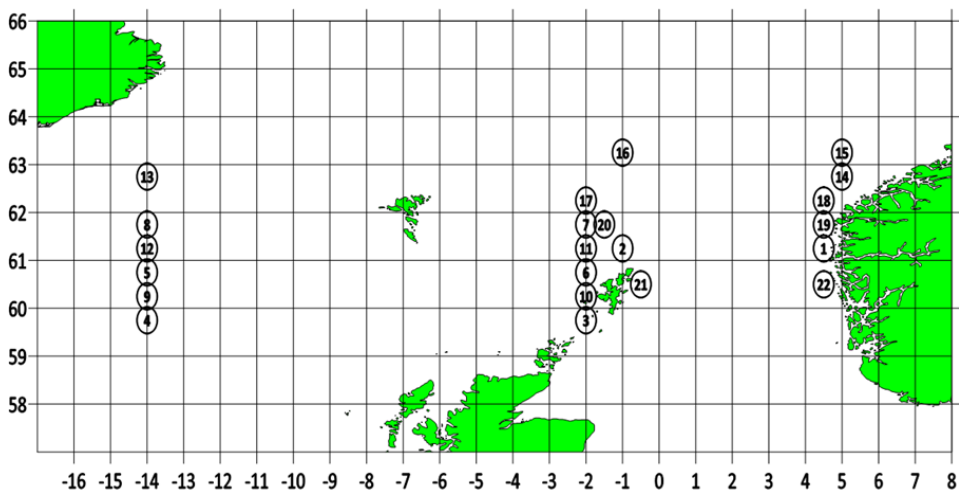


Table 1: Waypoints for transect lines.

Way point	Lat		E/W	Long		Decimal	
	Deg	Min		Deg	Min	Lat	Long
1	61	15	E	4	30	61.250	4.500
2	61	15	W	1	0	61.250	-1.000
3	59	45	W	2	0	59.750	-2.000
4	59	45	W	14	0	59.750	-14.000
5	60	45	W	14	0	60.750	-14.000
6	60	45	W	2	0	60.750	-2.000
7	61	45	W	2	0	61.750	-2.000
8	61	45	W	14	0	61.750	-14.000
9	60	15	W	14	0	60.250	-14.000
10	60	15	W	2	0	60.250	-2.000
11	61	15	W	2	0	61.250	-2.000
12	61	15	W	14	0	61.250	-14.000
13	62	45	W	14	0	62.750	-14.000
14	62	45	E	5	0	62.750	5.000
15	63	15	E	5	0	63.250	5.000
16	63	15	W	1	0	63.250	-1.000
17	62	15	W	2	0	62.250	-2.000
18	62	15	E	4	30	62.250	4.500
19	61	45	E	4	30	61.750	4.500
20	61	45	W	1	30	61.750	-1.500
21	60	30	W	0	30	60.500	-0.500
22	60	30	E	4	30	60.500	4.500

4. Methods and means to be used

4.1 Particulars of vessel:	
Name:	MS Brennholm
Type/Class:	Fishing
Nationality (Flag State):	Norway
Identification Number (IMO/Lloyds No.):	9268655
Owner:	Brennholm AS
Operator:	Brennholm AS
Overall length (metres):	75.4
Maximum draught:	7.4 M
Displacement/Gross Tonnage:	2666
Propulsion:	Diesel
Cruising & maximum speed:	Cruising speed 14 knots, Maximum speed 18.5 knots
Call sign:	LIWG
INMARSAT number and method and capability of communication (including emergency frequencies):	Telephone: +47-906 31 552, Telefaks: 00-870765064939, Satcom: +47-21549276/77, Satcom 00-870765064940, e-mail brennholm@seamail.no
Name of Master:	Lars Anton Eidesvik
Number of Crew:	10
Number of Scientists on board:	6

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:
Fish Eggs	Oblique hauls	Gulf VII high speed plankton sampler
Mackerel fecundity	Targetted trawls	Pelagic trawl
Water column characteristics	Electronic measurements, water column profiles	CTD

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:
NA

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:
NA

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):
NA

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:
Entry around 9/10 th June and exit before 30 th June. Timing of entry and exit will partially depend on the prevailing weather conditions.
6.2 Indicate if multiple entries are expected:
Yes, due to the nature of the transects (see enclosed map)

7. Port Calls

7.1 Dates and Names of intended ports of call:
None
7.2 Any special logistical requirements at ports of call:
NA
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:
NA
8.2 Proposed dates and ports for embarkation/disembarkation:
NA

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:
Report within 6 months if required
9.2 Anticipated dates of submission to the coastal State of the final report:
Report within 6 months
9.3 Proposed means for access by coastal State to data (including format) and samples:
NA
9.4 Proposed means to provide coastal State with assessment of data, samples and Research results:
NA
9.5 Proposed means to provide assistance in assessment or interpretation of data, samples And research results:
NA
9.6 Proposed means of making results internationally available:
All data from the cruise are stored and reported to ICES

10. Other permits Submitted

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

11. List of Supporting Documentation

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

NA

Signature: 

Contact information of the focal point:

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Country: Norway

Affiliation: Scientist

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