## Application for Consent to conduct Marine Scientific Research

Date: \_01.12.2015\_\_\_\_

## 1. General Information

1.1 Cruise name and/or number:
Solea SB 722

1.2 Sponsoring Institution(s):	
Name:	Thünen Institute of Sea Fisheries
Address:	Palmaille 9, 22767 Hamburg, Germany
Name of Director:	Dr. Gerd Kraus

1.3 Scientist in charge of the Project:		
Name:	Dr. Eckhard Bethke	
Country:	Germany	
Affiliation:	Thünen Institute of Sea Fisheries	
Address:	Palmaille 9, 22767 Hamburg, Germany	
Telephone:	+49 40 38905 203	
Fax:	+49 40 38905 264	
Email:	eckhard.bethke@ti.bund.de	
Website (for CV and photo):	https://www.ti.bund.de/en/sf/staff/wissenschaftliches-	
	personal/bethke-eckhard-dr/	

1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:		
Name:	S. Maersk Lusseau	
Affiliation:	Marine Scotland Science, Marine Laboratory	
Address:	375 Victoria Road, Aberdeen, AB11 9DB, UK	
Telephone:	+44 1224 876544	
Fax:	+44 1225 295511	
Email:	s.lusseau@marlab.ac.uk	
Website (for CV and photo):	www.marlab.ac.uk	

# 2. Description of Project

# 2.1 Nature and objectives of the project:

Estimation of stock size parameters of small pelagics (herring and sprat) as part of an international, ICES-coordinated hydroacoustic survey

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:

**ICES HERAS** 

# 2.3 Relevant previous or future research projects:

186th cruise of FRV "Walther Herwig III", 1997

196th cruise of FRV "Walther Herwig III", 1998

444th cruise of FRV "Solea", 1999

218th cruise of FRV "Walther Herwig III", 2000

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478th cruise of FRV "Solea", 2001
240th cruise of FRV "Walther Herwig III", 2002
253rd cruise of FRV "Walther Herwig III", 2003
265th cruise of FRV "Walther Herwig III", 2004
544th cruise of FRV "Solea", 2005
559th cruise of FRV "Solea", 2006
576th cruise of FRV "Solea", 2007
591st cruise of FRV "Solea", 2008
607th cruise of FRV "Solea", 2009
624th cruise of FRV "Solea", 2010
642nd cruise of FRV "Solea", 2011
658th cruise of FRV "Solea", 2012
675th cruise of FRV "Solea", 2013
690<sup>th</sup> cruise of FRV "Solea", 2014
706<sup>th</sup> cruise of FRV "Solea", 2015
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## 2.4 Previous publications relating to the project:

Refer to annual reports of the ICES Herring Assessment Working Group (HAWG) and the ICES Working Group on International Pelagic Surveys (WGIPS), available at www.ices.dk

# 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. 52°00 N – 57°00 N, 02°30 W-09°00 E. Survey area depicted in attached map.

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.

Proposed cruise track (hydroacoustic transects) depicted in attached map

#### 4. Methods and means to be used

4.1 Particulars of vessel:	
Name:	FRV "Solea"
Type/Class:	Research Vessel
Nationality (Flag State):	Germany
Identification Number (IMO/Lloyds No.):	9314583
Owner:	Federal Republic of Germany
Operator:	Bundesanstalt für Landwirtschaft und Ernährung
Overall length (meters):	42.74
Maximum draught:	3.9
Displacement/Gross Tonnage:	638
Propulsion:	Diesel Electric
Cruising & maximum speed:	12 kn
Call sign:	DBFH
INMARSAT number and method and	Tel.: +870 761 651 777
capability	Fax.: +870 600 273 653
of communication (including emergency	
frequencies):	
Name of Master:	V. Koops (or deputy)
Number of Crew:	14
Number of Scientists on board:	7

4.2 Particulars of	f Aircraft:
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Name:			
Make/Model:			
Nationality (flag State):			
Website for diagram & Specifications:			
Owner:			
Operator:			
Overall Length (meters):			
Propulsion:			
Cruising & Maximum spo	eed:		
Registration No.:			
Call Sign:			
Method and capability of	communication		
(including emergency free			
Name of Pilot:			
Number of crew:			
Number of scientists on	hoard.		
Details of sensor package			
Other relevant information			
Other relevant information	J11.		
4.3 Particulars of Autono	mous Underwater Vehi	cle (ALIV):	
Name:	Jillous Offuciwater Veril	cie (AOV).	
Manufacturer and make	/model·		
Nationality (Flag State):	model.		
Website for diagram & S	enacifications:		
Owner:	pecifications.		
Operator:			
Overall length (meters):			
Displacement/Gross ton	<u> </u>		
Cruising & Maximum speed:			
Range/Endurance:			
Method and capability of communication			
(including emergency frequencies):			
Details of sensor packag			
Other relevant information	on:		
4.4 other craft in the pro	ect, including its use:		
		entific instruments to be	used(for fishing gear
specify type and dimens			
Types of samples and	Methods to be used:	Instruments to be	To be carried out
Measurements:		used:	within 12nm (yes or
			no):
Fish samples	Trawl haul	See attached drawing	Yes
Hydrography	CTD casts	Seabird CTD probe	Yes
Hydroacoustics	Echosounder	Simrad EK60	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
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 installations
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:
29.06.2016-19.07.2016
6.2 Indicate if multiple entries are expected: ves
yes
7. Port Calls
7.1 Dates and Names of intended ports of call:
Aberdeen (UK), date not fixed as depending on work schedule
7.2 Any special logistical requirements at ports of call:
no
7.3 Name/Address/Telephone of shipping agent (if available):
na
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:
Co-financed by EU
8.2 Proposed dates and ports for embarkation/disembarkation:
None None
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:

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

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

Within 2 months

Within 12 months

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

Annual Report of ICES Herring Assessment Working Group (HAWG) and Working Group on International Pelagic Surveys (WGIPS)

9.5 Proposed means to provide assistance in assessment or interpretation of data, samples And research results:

ICES Herring Assessment Working Group (HAWG) and Working Group on International Pelagic Surveys (WGIPS)

9.6 Proposed means of making results internationally available:

ICES Herring Assessment Working Group (HAWG) and Working Group on International Pelagic Surveys (WGIPS)

### 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

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

Fig 1. Map of survey area and preliminary/proposed cruise track

Fig 2. Technical drawings of trawl gear employed

Signature:

Contact information of the focal point: Name: Dr. Eckhard Bethke

Country: Germany

Affiliation: Thünen Institute of Sea Fisheries
Address: Palmaille 9, 22767 Hamburg, Germany

Telephone: +49 40 38905 203 Fax: +49 40 38905 264

Email: <a href="mailto:eckhard.bethke@ti.bund.de">eckhard.bethke@ti.bund.de</a>

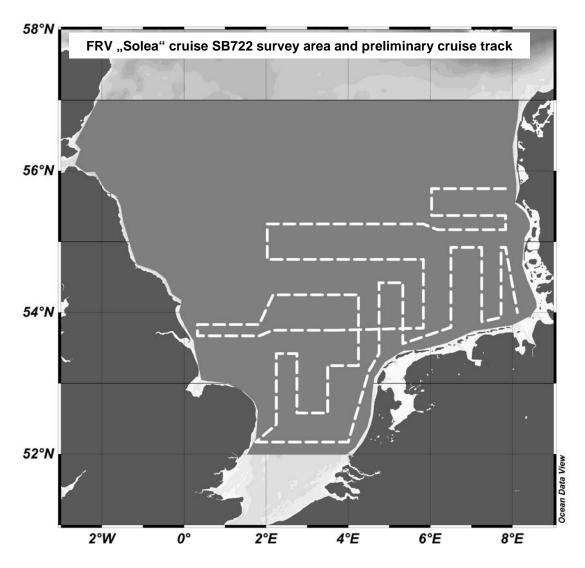


Fig 1: Survey area (grey) and preliminary cruisetrack (hydroacoustic transects, dashed white line) for FRV "Solea" cruise SB722, 2016 – the same as in the year before.

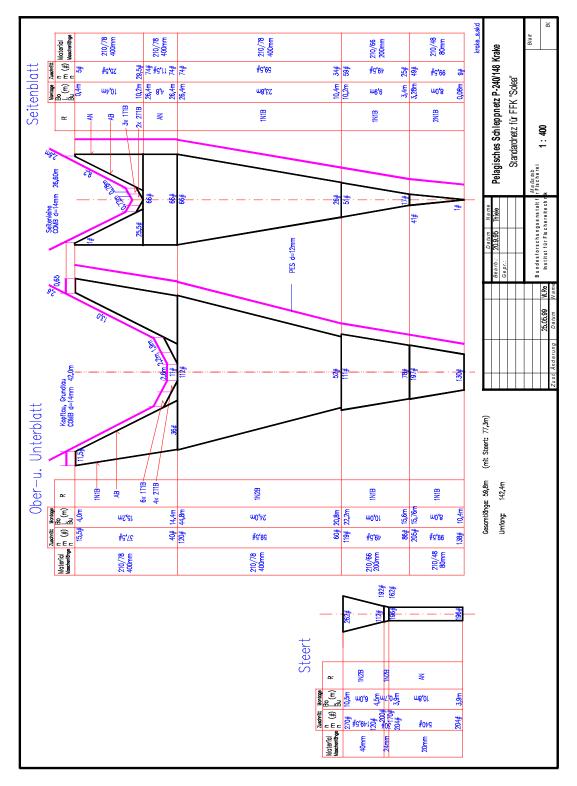


Fig 2a: Technical specifications of trawl net employed.

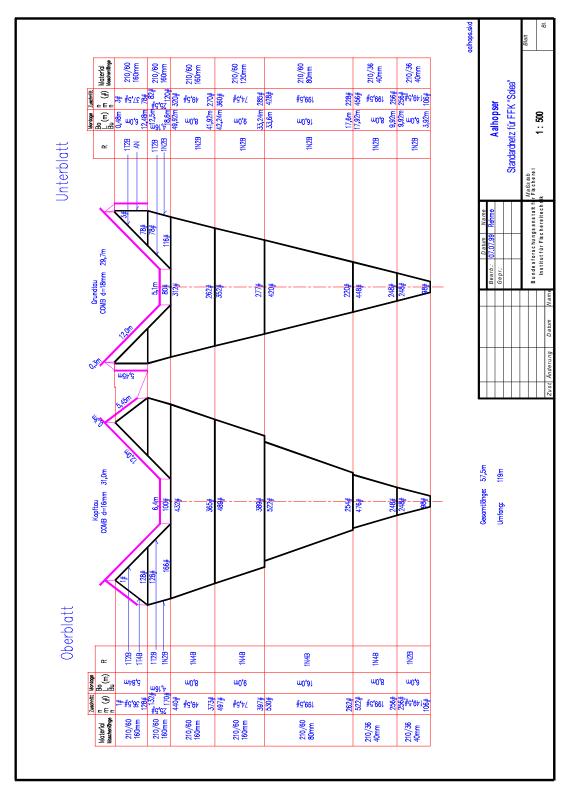


Fig 2b: Technical specifications of trawl net employed.