Application for Consent to conduct Marine Scientific Research

Date: 06 February, 2017

1. General Information

1.1 Cruise name and/or number:		
FRV 'Walther Herwig III'	Cruise No. 407	

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. Anne Sell
Country:	Germany
Affiliation:	Thünen-Institute of Sea Fisheries
Address:	Palmaille 9, 22767 Hamburg
Telephone:	+49 40 38905-246
Fax:	+49 40 38905-263
Email:	anne.sell@thuenen.de
Website (for CV and photo):	www.thuenen.de/en/sf/

1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:				
Name: Finlay Burns				
Affiliation:	Marine Scotland			
Address: 375 Victoria Road, Aberdeen AB11 9DB				
Telephone: +44 1 224295 376				
Fax:				
Email:	burnsf@marlab.ac.uk			
Website (for CV and photo):				

2. Description of Project

2.1 Nature and objectives of the project:

Participation in the ICES coordinated International Bottom Trawl Survey (IBTS) 2017 Q3 in the North Sea; and German Small-scale Bottom Trawl Survey (GSBTS)

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:

International Bottom Trawl Survey (IBTS) 2017 Q3 under ICES coordination, and German Small-scale Bottom Trawl Survey (GSBTS)

2.3 Relevant previous or future research projects:

Cruise is part of a standard series coordinated by ICES since the mid 1960's. International Bottom Trawl Survey Q3 since 1991. Annual national survey GSBTS since 1987.

2.4 Previous publications relating to the project:

<u>IBTS</u>: All data are stored at ICES DATRAS and published in the framework of reports of the respective ICES working group: e.g. ICES. 2016. First Interim Report of the International Bottom Trawl Survey Working Group (IBTSWG), 4-8 April 2016, Sète, France. ICES CM 2016/SSGIEOM:24.

GSBTS: Senckenbergiana maritima (2007) 37: 13-82.

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.

Entire North Sea between 54° N to 62° N, particularly in those rectangles assigned to Germany by ICES (see attached map) with 1 CTD and fishery haul, and 2 types of benthos samples per each ICES rectangle. There is no particularly specified cruise track or fixed station schedule planned for the survey. All station positions as well as their consecutive order will be planned during the cruise depending on the prevailing weather. See attached map for positions of each rectangle where sampling is planned.

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:	Walter Herwig III
Type/Class:	Fisheries Research Vessel (+100A5E2)
Nationality (Flag State):	Germany
Identification Number (IMO/Lloyds No.):	9048392
Owner:	Federal Republic of Germany
Operator:	Bundesanstalt für Landwirtschaft und Ernährung, Referat 524, Haubachstraße 86, 22765 Hamburg
Overall length (meters):	63,18
Maximum draught:	6,20
Displacement/Gross Tonnage:	2131 BRZ
Propulsion:	Diesel Electric
Cruising & maximum speed:	
Call sign:	DBFR
INMARSAT number and method and	Inmarsat Fleet Broadband
capability	+870 773236187
of communication (including emergency	VOIP +49 40 30 69 87 916
frequencies):	UKW channel 16
Name of Master:	Jürgen Vandrei or deputy
Number of Crew:	22
Number of Scientists on board:	12

4.2 Particulars of Aircraf	t: none					
Name:						
Make/Model:						
Nationality (flag State):						
Website for diagram & S	Specifications:					
Owner:						
Operator:						
Overall Length (meters)	:					
Propulsion:						
Cruising & Maximum sp	eed:					
Registration No.:						
Call Sign:						
Method and capability o	f communication					
(including emergency from	equencies):					
Name of Pilot:						
Number of crew:						
Number of scientists on	board:					
Details of sensor package	ges:					
Other relevant information	on:					
4.3 Particulars of Autono	omous Underwater Veh	icle (AUV): none				
Name:						
Manufacturer and make	/model:					
Nationality (Flag State):						
Website for diagram & S	Specifications:					
Owner:						
Operator:						
Overall length (meters):						
Displacement/Gross ton	<u> </u>					
Cruising & Maximum sp	eed:					
Range/Endurance:						
Method and capability of						
(including emergency fre						
Details of sensor package						
Other relevant information	on:					
Г						
4.4 other craft in the pro	ject, including its use:					
none						
			1/6 6 1 :			
4.5 Particulars of metho		ientific instruments to b	e used(for fishing gear			
specify type and dimens		Instruments to be	To be carried out			
Types of samples and	Methods to be used:	Instruments to be				
Measurements:		used:	within 12nm (yes or			
Fishery	Rottom Trawling	GOV	no):			
Fishery Benthic epifauna	Bottom Trawling	2m- beamtrawl	yes			
	Bottom Trawling		yes			
Benthic infauna	Grab CTD casts and	Van Veen grab Seabird SBE 19	yes			
Water	bottles	SEADIIU SDE 19	yes			
	มบเแธง					
4.6 Indicate nature and	quantity of substances t	o be released into the r	marine environment			
4.6 Indicate nature and quantity of substances to be released into the marine environment:						
none						
4.7 Indicate whether dril	ling will be carried out.	If ves, please specify:				
a.a.a midalol dili	3 30 3411104 3411	, 20, p. 2000 op cony.				
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):

none

Dates

6.1 Expected dates of first entry into and final departure from the research area by the research vessel and/or other platforms:

First entry: 19.07.2017 Final departure: 17.08.2017

6.2 Indicate if multiple entries are expected:

ves

Port Calls

7.1 Dates and Names of intended ports of call:

Lerwick, only in case of unforeseen need

7.2 Any special logistical requirements at ports of call:

none

- 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:

Observers of coastal state are welcome provided the availability of accommodation space

8.2 Proposed dates and ports for embarkation/disembarkation:

Bremerhaven 19.07, and 17.08,2017.

- 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:

Generally, all data will be uploaded to ICES DATRAS for further treatment about 8 weeks after the cruise.

Furthermore:

1. Cruise summary report through official channels; English summary will be available about 4 weeks after the cruise from BSH website

http://seadata.bsh.de/csr/retrieve/dod_index.html

- 2. Short report in English within about three months.
- 3. ICES IBTS Working Group Report, by end of May 2018

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

End of November, 2017

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

The official ICES data portals (DATRAS and oceanography portal) http://www.ices.dk/marine-data/data-portals/Pages/ocean.aspx

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

Data will be available through ICES, cruise reports through official channels

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

By direct communication

9.6 Proposed means of making results internationally available:

Results are internationally available through ICES http://www.ices.dk/Pages/default.aspx

10. Other permits Submitted

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

Norway, Denmark, Netherlands

11. List of Supporting Documentation

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

Map with position of ICES rectangles, with indication where sampling is planned

Signature:

Contact information of the focal point:

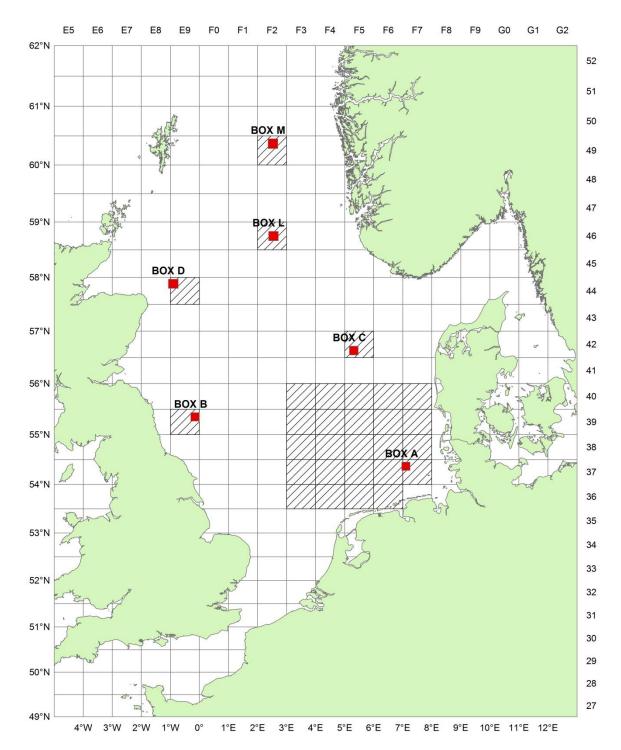
Name: Dr. Anne Sell Country: Germany

Sure Sell

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

Telephone: +49 40 38905 246

Fax: +49 40 38905 263 Email: anne.sell@thuenen.de



Sampling areas for cruise WH 407. Red squares: small-scale investigations (GSBTS "Boxes"); hatched area: rectangles for the International Bottom Trawl Survey (IBTS) Q3, to be sampled with one station per rectangle.

Outer limits of the IBTS areas sampled by Germany during Q3 IBTS Survey, 2017 (cruise WH407):

Rectangle	Limit NW	Limit NE	Limit SW	Limit SE
49 F2	60.5 °N / 002.0 °E	60.5 °N / 003.0 °E	60.0 °N / 002.0 °E	60.0 °N / 003.0 °E
46 F2	59.0 °N / 002.0 °E	59.0 °N / 003.0 °E	58.5 °N / 002.0 °E	58.5 °N / 003.0 °E
44 E9	58.0 °N / 001.0 °W	58.0 °N / 000.0 °W	57.5 °N / 001.0 °W	57.5 °N / 000.0 °W
42 F5	57.0 °N / 005.0 °E	57.0 °N / 006.0 °E	56.5 °N / 005.0 °E	56.5 °N / 006.0 °E
39 E9	55.5 °N / 001.0 °W	55.5 °N / 000.0 °W	55.0 °N / 001.0 °W	55.0 °N / 000.0 °W
German Bight Area	56.0 °N / 003.0 °E	56.0 °N / 008.0 °E	53.5 °N / 003.0 °E	53.5 °N / 008.0 °E

Exact positions of the fishing hauls within the rectangles is to decide during the surveys.

Outer coordiantes of GSBTS boxes, to be sampled by WHIII, Q3, 2017 (cruise WH 407)									
BOX	latitu	latitude longitude		central position					
	from	to	from		to		latitude	longitude	
BOX A	54° 17 ,00N	54° 27 ,00N	006° 58,00	Е	007° 15,00	Ε	54° 22 ,00N	007° 06, 50	Ε
BOX B	55° 16 ,00N	55° 26 ,00N	000° 18,000	V	000, 00 °000	W	55° 21 ,00N	000° 09 ,00	W
BOX C	56° 33 ,00N	56° 43 ,00N	005° 10,00	Е	005° 28,00	Ε	56° 38 ,00N	005° 19,00	Ε
BOX D	57° 48 ,00N	57° 58 ,00N	000° 44,00	V	001° 04,00	W	57° 53 ,00N	000° 54,00	W
BOX L	58° 40 ,00N	58° 50 ,00N	002° 23,00	Ε	002° 43 ,00	Ε	58° 45 ,00N	002° 33,00	Ε
BOX M	60° 17 ,00N	60° 27 ,00N	002° 22 ,00	E	002° 42 ,00	Ε	60° 22 ,00N	002° 32,00	E



ik = inside knot measurement tpa = polyamide twine/fwisted bpa = polyamide twine/braided dy = double yam

Method of join used, sewing. Type of knot, weavers knot.

z - Joining position for Liner

198 238 120

x - 240 w - 200

= knot centre to knot centre

v - 4 meshes gathered at quarters

u - Gussets 8025rtex

GOV standard fishing gear (trawl construction)

Join 5 111 g 23 5 5 3/4 1NE3 66.5L AB 2.0 59 65 AB 8.50 1N4B 50.5U 1N1B 75.5U 1N1B 155.5U 1N1B 25.5U 400.5U LOWER 138 150 120 134 29 148 1N1B 155.5U 1N1B 75.5U 1N4B 50.5U 8.5U AB 2.0 59 65 9/9 9/9 9/9 9/9 5 9/9 9/9 9/9 20.0 1.3 13.3 6.1 6.0 7.8 6.5 (bba) 2500 2500 5500 2800 8025 5500 50DY/kc 200kc 200kc 120kc Mesh mm kc/ik 200kc 160kc 50kc 1 mesh 50mm 590 1/2 (laced) NB Liner with with only one selvedge shown CODEND LINER \$8 8 590 23 2 2 23 Join 1 55 1/1 3/4 Q 20mm ik 600 rtex tpa 8.0m 6 knots in sel. 1N2B 36.5L 3.0 3.0 1N4B 27.5U 74 82 400.5U 180 200 228 UPPER 120 148 200 134 200 200 1N1B 155.5U 1N1B 75.5U 1N4B 50.5U 74 10.5U 1N4B 3.0 selvedge per side 1, 9/9 9/9 6/1 9/9 9/9 9/9 9/9 9/9 9/9 9/9 20.0 1.3 6.1 6.0 7.8 9.0 5.5 2.1 6.5 7.3 2500 8025 3700 3700 3700 2800 2800 2500 2500 50DY/kc 160kc 120kc 200kc 50kc 80kc

Construction of the 36/47 GOV trawl (adapted from drawings of the Institute des Peches Maritimes, Boulogne/Mer)

a - 7.1m x 14mm b wire (6/19 - 12/6/1 - 65.8kg/100m)

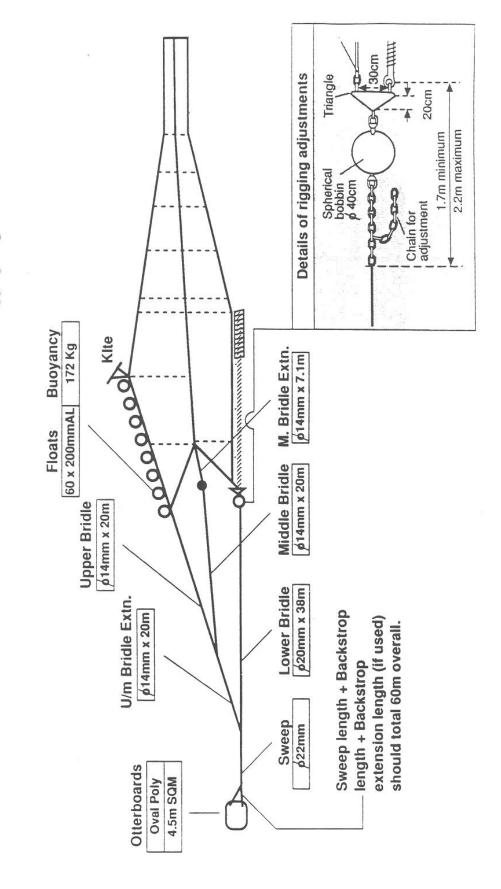
NOTE TO NETMAKERS

The numbers of meshes shown for netting panel widths do NOT include selvedge meshes. Five meshes (six knots) per selvedge must be added where indicated. Conversely to obtain panel depths one row (1/2 mesh) must be subtracted from each panel as the joining row is included in the number of meshes deep. The total numbers of meshes (width and depth) for each individual panel are set out in GOV 36/47 Groundfish Survey Trawl Checklist (Page 2 of 5)

b - 6.7m x 20mm ø combination wire (6 strand/steel core - 54.4kg/100m)

c - 5.55m x 20mm $\dot{\phi}$ combination wire (6 strand/steel core - 54.4kg/100m) d - length for length x 22mm $\dot{\phi}$ nylon (3 strand - 26kg/100m)

GOV standard fishing gear (rigging)



GOV 36/47 GROUND FISH SURVEY TRAWL: Overall rigging diagram