

Application for Consent to conduct
Marine Scientific Research

Date: _13.03.2014

1. General Information

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| 1.1 Cruise name and/or number: | |
| FRV 'Solea' | Cruise No.691 |
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| | |
|--------------------------------|-------------------------------------|
| 1.2 Sponsoring Institution(s): | |
| Name: | Thünen-Institute of Sea Fisheries |
| Address: | Palmaille 9, 22767 Hamburg, Germany |
| Name of Director: | Dr. Gerd Kraus |

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|---|--|
| 1.3 Scientist in charge of the Project: | |
| Name: | Dr. Vanessa Stelzenmüller/Dr. Jens Ulleweit |
| Country: | Germany |
| Affiliation: | Thünen-institute of Sea Fisheries |
| Address: | Palmaille 9, 22767 Hamburg |
| Telephone: | +49 40 38905- |
| Fax: | +40 40 38905-263 |
| Email: | @ti.bund.de |
| Website (for CV and photo): | www.ti.bund.de/en/starteseite/institutes/sea-fisheries.html |

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|--|-----------------------------|
| 1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project: | |
| Name: | John Casey |
| Affiliation: | CEFAS |
| Address: | Lowestoft, Suffolk NR33 0HT |
| Telephone: | +44 1502 524251 |
| Fax: | |
| Email: | john.casey@cefas.co.uk |
| Website (for CV and photo): | |

2. Description of Project

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| 2.1 Nature and objectives of the project: |
| <p>German small scale bottom trawl survey (GSBTS; "Box"-Fishery):</p> <ul style="list-style-type: none"> • Investigation and monitoring of the bottom fish fauna in the southern North Sea • Assessment of hydrographic parameters in the areas of investigation and general operational methods • Bottom trawling (gear specification attached) • Application of RAMSES-ACC-VIS - Hyperspectral UV-VIS Irradiance Sensor - 320 - 950 nm • CTD with water sampler |

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| 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: |
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| 2.3 Relevant previous or future research projects: |
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The survey is carried out regularly as a German standard program since 1989.

2.4 Previous publications relating to the project:

Ehrich, S. et al (2007). 20 years of the German Small-Scale Bottom Trawl Survey (GSBTS): A review. *Senckenbergiana maritima*. 37(1): 13-82.

Ehrich, S. et al. (1998). ICES CM J:25, 7 pp.

3. Geographical Areas

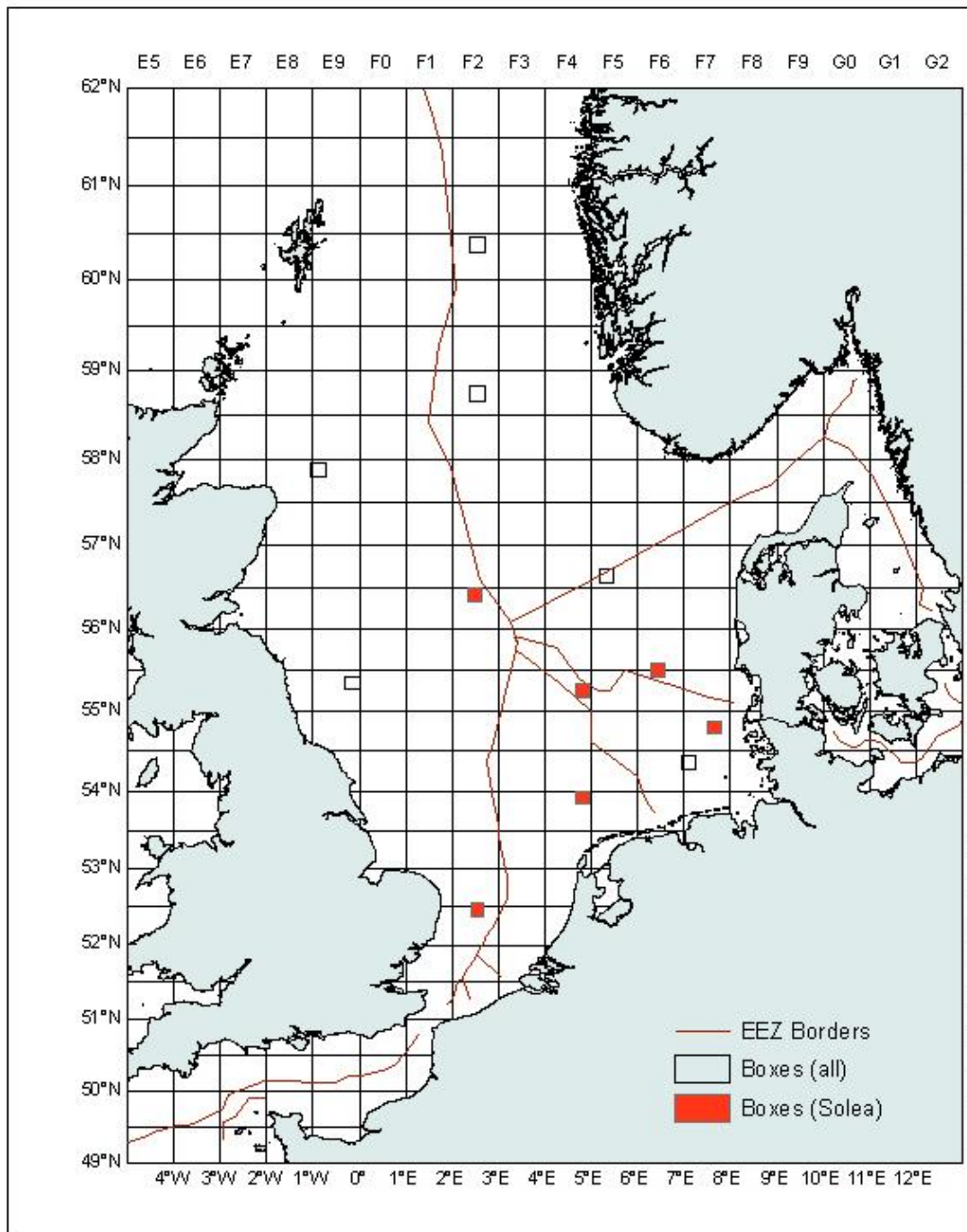
3.1 Indicate geographical areas in which the project is to be conducted (with reference in Latitude and longitude in decimal degrees, including coordinates of cruise/track/way points/sampling stations). Please provide coordinates in a separate excel spreadsheet.

- Latitude 52°00' N – 57°00' N
- Longitude 02°00' E – 08°00' E

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.

AREAS OF INVESTIGATION (BOXES)

Research Vessel 'SOLEA'



Mercator Projection (WGS 19)

Location of sampling sites (filled squares) fished by FRV 'Solea' during SO691

4. Methods and means to be used

| 4.1 Particulars of vessel: | |
|---|---|
| Name: | Solea |
| Type/Class: | Fisheries Research Vessel (+100 A5 K (50)) |
| Nationality (Flag State): | Germany |
| Identification Number (IMO/Lloyds No.): | 9314583 |
| Owner: | Federal Republic of Germany |
| Operator: | Bundesanstalt für Landwirtschaft und Ernährung, Referat 524, Haubachstraße 86, 22765 Hamburg |
| Overall length (meters): | 42,74 |
| Maximum draught: | 3,90 |
| Displacement/Gross Tonnage: | 638 BRZ |
| Propulsion: | Diesel Electric |
| Cruising & maximum speed: | |
| Call sign: | DBFH |
| INMARSAT number and method and capability of communication (including emergency frequencies): | Tel.: +870761651777 Fax: +870600273653 |
| Name of Master: | Cpt. V. Koops or deputy |
| Number of Crew: | 14 |
| Number of Scientists on board: | 7 |

| 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, full description of scientific instruments to be used (for fishing gear specify type and dimension) and location

| Types of samples and Measurements: | Methods to be used: | Instruments to be used: | To be carried out within 12nm (yes or no): |
|--|---------------------|-------------------------|--|
| Fish fauna composition, biomass and length | Trawling | Codhopper | no |
| Water sampling | | CTD | no |
| | | | |

4.6 Indicate nature and quantity of substances to be released into the marine environment:

4.7 Indicate whether drilling will be carried out. If yes, please specify:

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:

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):

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:
 Three days within the period of 18/07/2014 to 06/08/2014

6.2 Indicate if multiple entries are expected:

7. Port Calls

7.1 Dates and Names of intended ports of call:
 Two days within the period from 18/07/2014 to 06/08/2014 in Lowestoft, UK.

7.2 Any special logistical requirements at ports of call:

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:

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:
30th of August 2014

9.2 Anticipated dates of submission to the coastal State of the final report:
30th of September 2014

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

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:

10. Other permits Submitted

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

11. List of Supporting Documentation

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

Signature:



Contact information of the focal point:

Name: Thünen-Institute Sea Fisheries
Country: Germany
Affiliation:
Address: Palmaille 9, D-22767 Hamburg
Telephone: +49 40 38905 177
Fax: +49 40 38905 263
Email: sf@ti.bund.de