A. **GENERAL**

1. Name of research ship FRV "Walther Herwig III" - Cruise No. 479 2. Dates of cruise from 06 June 2024 to 08 July 2024 3. Operating Authority Federal Office for Agriculture and Food Unit 533 Haubachstrasse 86 22765 Hamburg (Germany) +49 (0)228 6845 5534 Telephone Telefax +49 (0)30 1810 6845 5555 Email fischereiforschung@ble.de 4. Owner Federal Republic of Germany (if different from para. 3) 5. Particulars of ship Name FRV "Walther Herwig III" Nationality Federal Republic of Germany Overall length (metres) 63.18 Maximum draught (metres) 6.20 639 Nett tonnage Method of propulsion Diesel/Diesel Electric Call sign INMARSAT-Phone 00870 773 236 187 00870 783 209 565 **INMARSAT-Fax** Registered port & number (if registered fishing vessel) Name of Master 6. Crew Captain Stefan Meier Number of Crew 23 Name and Address of Matthias Bernreuther

Scientific personnel

Scientist-in-Charge Thünen Institute of Sea Fisheries

Herwigstrasse 31 27572 Bremerhaven

Germany

Telephone +49 471 94460 249 Telefax +49 471 94460 199

Email matthias.bernreuther@thuenen.de

Number of Scientists

Geographical area in which ship will operate (with reference in latitude and longitude):

Irminger Sea and adjacent waters (52° - 65°N and 20° - 50°W), in international waters and in the EEZs of Greenland, Canada and Iceland.

9. Brief description of purpose of cruise:

Pelagic trawl-acoustic survey targeting shallow and deep pelagic redfish (Sebastes mentella).

10. Dates and names of intended ports of call: none

11. Any special requirements at ports of call: none

B. DETAIL

1. Name of research ship FRV "Walther Herwig III" - Cruise No. 479

2. Dates of cruise from 06 June 2024 to 08 July 2024

- 3. Purpose of research and general operational methods
 - Pelagic trawling and acoustic measurements as a scientific basis for an assessment of the stock sizes of shallow and deep pelagic redfish (Sebastes mentella).
 - Oceanographic data collection along international transects.
- 4. <u>Please attach chart</u> showing, at the appropriate scale, the geographical area of the intended work, the areas to be fished, positions of intended stations, tracks of survey lines, positions of moored/seabed equipment etc.

Attached chart (Fig. 1) shows the survey area and the cruise tracks from scientific survey in 2013. The cruise tracks of the 2021 survey will be approximately similar to the 2013 survey. However, only two nations (Iceland and Germany) will participate in the survey in 2024. A planning group meeting (WGIDEEPS), specifying the cruise tracks in detail, will take place at the headquarters of the International Council for the Exploration of the Sea (ICES) in Copenhagen from 13 to 15 February 2024.

5a. <u>Types of samples required</u> e.g. Geological/Water/Plankton/Fish. If fishing gear is to be used please indicate what fish stocks will be worked, the maximum quantity required of each species/stock and the quantity of fish to be retained on board.

Fish/Water

A pelagic trawl will be used to sample the two pelagic redfish stocks (Sebastes mentella), of which only few scientific samples will be retained on board (< 100 kg).

5b. Methods by which samples will be obtained (e.g. dredging/coring/drilling/fishing etc.).

Pelagic trawl fishing will be performed by a GLORIA-type pelagic trawl with an attached multi-sampler. Approximately 25 fishing stations at depths from 200 to 900 m are planned. Water samples will be obtained by a SBE 32 Carousel Water Sampler or a similar device.

6a. Details of moored equipment:

Dates: <u>Laying</u> <u>Recovery</u> <u>Description</u> <u>Latitude</u> <u>Longitude</u>

none

6b. Full description of ALL fishing gear to be used (e.g. bottom trawl, mesh size, attachments etc.).

see attached drawing of the GLORIA-type trawl (Fig. 2a and 2b) and the Multi-sampler (Fig. 3a and 3b).

7. ANY HAZARDOUS MATERIALS (e.g. chemicals, explosives, gases, isotopes etc.) (Use separate sheet if necessary)

(a) Type and trade name Formaldehyde

(b) Chemical content (& formula) CH₂O

(c) IMO IMDG code (reference & UN No.) 'IMDG-Code UN No. 2209'

(d) Quantity & method of stowage on board 3 x 101 canisters

(e) If explosives give date(s) of detonation none

- Method of detonation
 Position of detonation
 Frequency of detonation
 Depth of detonation
 Size of detonation planned
- 8. Please set out details of:
- (a) Any relevant previous/future cruises

International trawl and acoustic surveys in the Irminger Sea and adjacent waters by Russia, Iceland, Germany, Norway) in June-July 1996, 1999, 2001, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2018 and 2021.

- (b) Any previously published research data relating to the proposed cruise
 - ICES. 2022. Working group on international deep pelagic ecosystem surveys (WGIDEEPS 2nd Report; outputs from 2021 meeting). ICES Scientific Reports. 3:104. 57pp. https://doi.org/10.17895/ices.pub.9032
 - The second Report of the Working Group on International Deep Pelagic Ecosystem Surveys (WGIDEEPS) in 2018 ICES CM 2018/EOSG: 40 and previous reports are available on the home page of the International Council for the Exploration if the Sea (ICES): https://www.ices.dk/community/groups/Pages/WGIDEEPS.aspx
- 9. <u>Names and addresses of scientists</u> in coastal state with whom previous contact has been made.

Kristján Kristinsson Marine and Freshwater Research Institute – Demersal Division Fornubúðum 5 220 Hafnafjörður, Iceland Tel.: +354 575 2091 email: kristjan.kristinsson@hafogvatn.is

- 10. State:
- (a) Whether <u>visits to the ship</u> in port by coastal state scientists will be acceptable

YES

(b) Whether it will be acceptable to carry on board an observer for any part of the cruise:

(If 'YES' please indicate possible dates and ports of embarkation/ disembarkation)

Embarkation: Bremerhaven, 06 June 2024; disembarkation: Bremerhaven, 08 July 2024

(c) When research data from the intended cruise is likely to be made available to the coastal state authorities and by what means. If the report will not be available within 12 months of the cruise, please set out an explanation for the delay indicating when the report will be available.

Cruise summary report through official channels; English summary will be available approximately 6 weeks after the end of the survey. The data will be made available from the International Council for the Exploration of the Sea (ICES) database at https://www.ices.dk/data/data-portals/Pages/default.aspx.

SCIENTIFIC EQUIPMENT

Coastal state Iceland

Complete the following table separate copy for each coastal state

Port call none

<u>Indicate "yes" or "no" other than for fishing gear when the total hours of fishing in each zone should indicated</u>

LIST OF SCIENTIFIC WORK BY FUNCTION				Distance from 6	coast	
e.g. Magnetometry Gravity Diving Seismics Bathymetry Seabed sampling Trawling Echo sounding Water sampling U/W TV Moored instruments Towed instruments	Water Column	Fisheries Research within Fishing Limits	Research concerning Continental Shelf out to Coastal State's margin	Within 3 NM	Between 3-12 NM	Between 12 and 200 NM
Trawling	yes	yes	yes	no	no	yes
Water samples	yes	yes	yes	no	no	yes
Echo sounding	yes	yes	yes	no	по	yes

14.3 en			
	Dated	12/19/2023	
(On behalf of the Principal Scientist)			

N.B. 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

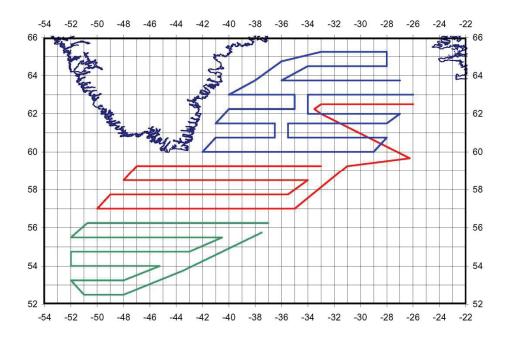


Figure 1. Preliminary cruise tracks of the hydroacoustical transects of FRV "Walther Herwig III" (based on the cruise WH323 in 2013 – green line, red line – FRV "Vilnius", blue line – FRV "A. Fridriksson").

Tab. 1: Preliminary corner points of the Cruise track of RV "Walther Herwig III" (WH479).

Long	jitude	Latitude		
GG	MM	GG	MM	
-37	-30	55	45	
-43	-30	53	45	
-48	0	52	30	
-51	0	52	30	
-52	0	53	15	
-48	0	53	15	
-45	-15	54	0	
-52	0	54	0	
-52	0	54	45	
-43	0	54	45	
-40	-30	55	30	
-52	0	55	30	
-50	-45	56	15	
-37	0	56	15	

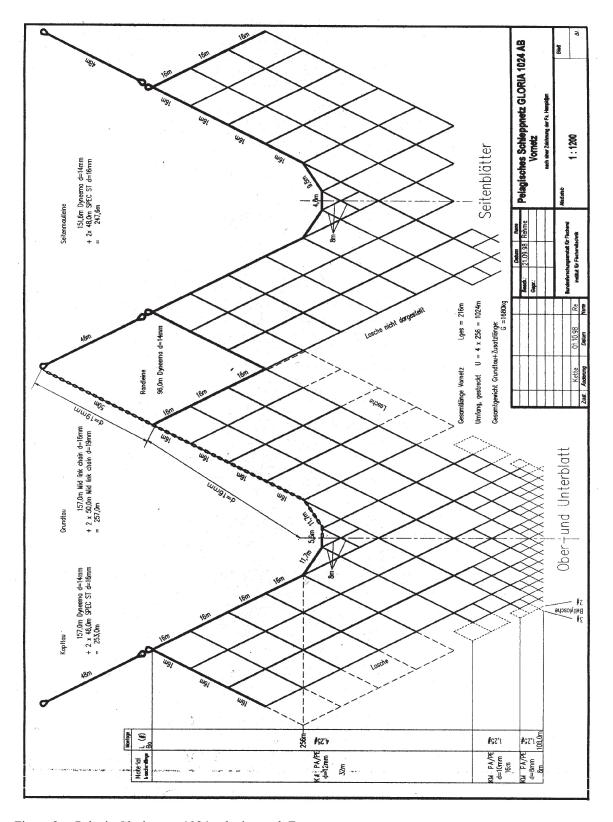


Figure 2 a. Pelagic Gloria-type 1024 pelagic trawl. Front part.

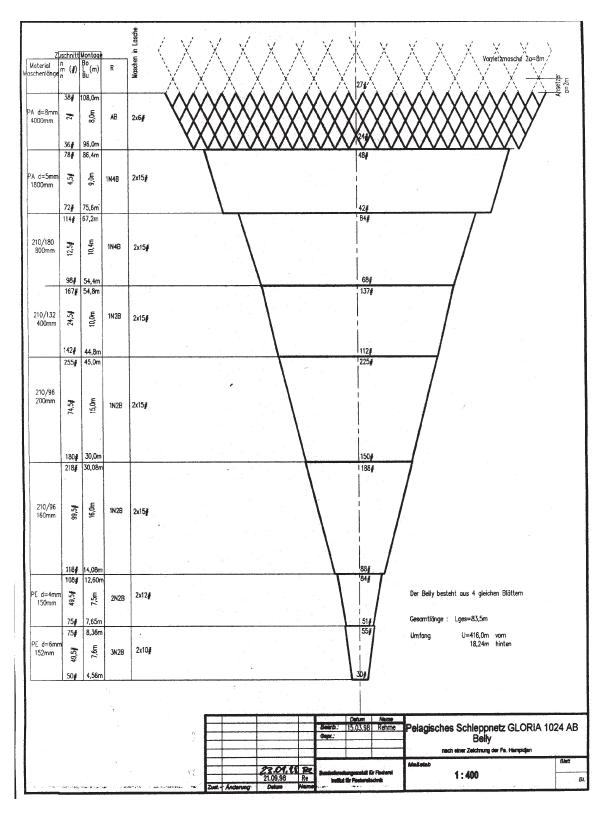


Figure 2 b. Pelagic Gloria-type 1024 pelagic trawl. Back part.

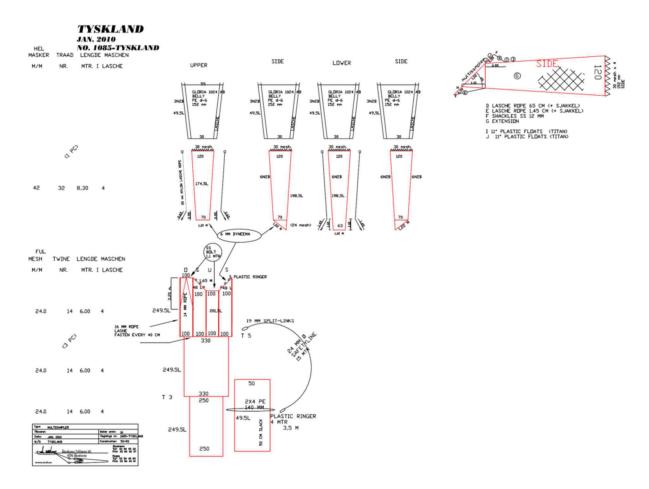


Figure 3 a. Multi-sampler net description.

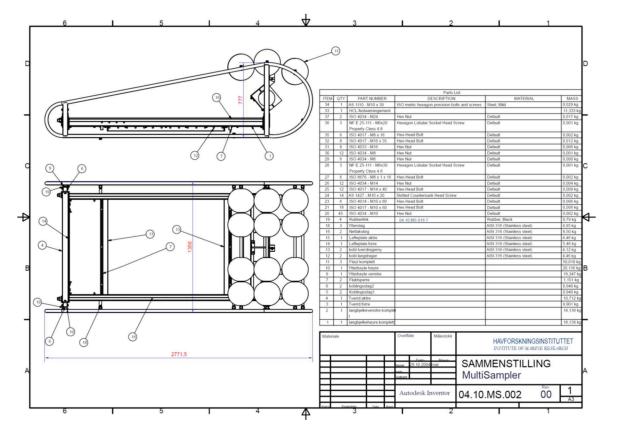


Figure 3 b. Multi-sampler frame description.