

NOTIFICATION OF PROPOSED RESEARCH CRUISE

Part A: GENERAL

1. Name of research ship: **R.V. MARIA S. MERIAN** Cruise No. **MSM145**

2. Dates of cruise **from Reykjavik, 28.07.2026
to Reykjavik, 16.08.2026**

3. Operating Authority **Institute of Oceanography / University of Hamburg
Bundesstr. 53, D-20146 Hamburg, Germany
Tel.: +49-40-42838-3640**

4. Owner (if different from para 3) **Federal State Mecklenburg-Vorpommern, Germany**

5. Particulars of ship:

Name	MARIA S. MERIAN
Nationality	German
Overall length	94,8 metres
Maximum draught	6,50 metres
Net tonnage	1.671 NT
Propulsion	Diesel Electric
Call sign	DBBT
IMO No.	9274197

6. Crew

Name of master	Klaus Bergmann
No. of crew	max. 23

7. Scientific personnel:

Name and address of scientist in charge:	Prof. Dr. Saskia Brix Senckenberg am Meer, German Center for Marine Biodiversity Research (DZMB) c/o Biocenter Grindel, University of Hamburg Martin-Luther-King-Platz 3 20146 Hamburg Germany
Phone:	040 42838 5642 / mobil +49 172 4211075
Email:	sbrix@senckenberg.de or saskia.brix@uni-hamburg.de
No. of scientists	max. 23

8. Geographical areas in which ship will operate (with reference in latitude and longitude):

MSM145 will operate mainly around Iceland, within the 12 nm zone and beyond entering also Greenland, Norwegian and International Waters.

Table with coordinated of all stations:

WA IDs	WA name	Longitude	Latitude
Reykjavik	Reykjavik port	-21,9514	64,1280
WA 1	REDRESS monitoring area	-16,8200	63,3100
WA 2	Lónsjúp coral reefs	-13,7609	63,8555
WA 3	Fishery closure N	-15,3700	66,8600
WA 4	Deep east-west transect 1	-4,9740	69,8008
WA 5	Deep east-west transect 2	-10,0324	69,6580
WA 6	Eastern BLOS	-19,7217	69,0359
WA 7	Grimsey vents	-17,9000	66,6300
WA 8	Dohrn Bank	-29,4400	66,2700

9. Brief description of purpose of cruise:

This research cruise is deploying Benthic Lander Observatory Systems (BLOS) to gain image and video data over one year time at selected positions South of Iceland (Stefan, Lónsjúp) and North of Iceland (Grimsey). The BLOS will be deployed using a Remoted Operated Vehicle (ROV). Furthermore, a deep-sea free fall benthic lander will be deployed ad -19,7217 and 69,0359. All ROV dives and Lander deployments will we combined with biological sampling using a different set of gear. All scientific actions will be conducted in close collaboration with the Universtiy of Iceland (Háskóli Íslands) and the Marine Freshwater Research Institute (MFRI, Hafrannsóknastofnun) as well as the University of Bergen (UiB).

10. Dates and names of intended ports of call:

**Reykjavik for four days between 22.07.2026 and 31.07.2026
=> Planned so far from 25.07.2026 to 28.07.2026.**

**Reykjavik for four days between 13.08.2026 and 22.08.2026
=> Planned so far from 16.08.2026 to 19.08.2026.**

11. Any special logistic requirements at ports of call:

**Crew change; unloading/ loading of equipment; logistics; bunkering.
Mobilisation of scientific equipment.**

Part B: DETAIL

1. Name of research ship: **R.V. MARIA S. MERIAN** Cruise No. **MSM145**

2. Dates of cruise **from Reykjavik, 28.07.2026**
To Reykjavik 16.08.2026

3. Purpose of research and general operational methods:

This research cruise is deploying Benthic Lander Observatory Systems (BLOS) to gain image and video data over one year time at selected positions South of Iceland (Lónsjúp) and North of Iceland (Grimsey). The BLOS will be deployed using a Remoted Operated Vehicle (ROV). Furthermore, a deep-sea free fall benthic lander will be deployed at WA6 -19,7217 and 69,0359 and recovered at WA4 at -4,974 and 69,8007. The ROV dives will be complemented by video transects conducted with an Ocean Floor Observing and Bathymetry system (OFOBS). All ROV dives and Lander deployments will be combined with biological sampling using a different set of gear. All scientific actions will be conducted in close collaboration with the University of Bergen (UiB), the University of Iceland (Háskóli Íslands) and the Marine Freshwater Research Institute (MFRI, Hafrannsóknastofnun).

This research cruise is deploying Benthic Lander Observatory Systems (BLOS) to gain image and video data over one year time at selected positions South of Iceland (Stefan, Lónsjúp) and North of Iceland (Grimsey). The BLOS will be deployed using a Remoted Operated Vehicle (ROV). Furthermore, a deep-sea free fall benthic lander will be deployed at -19,7217 and 69,0359. All ROV dives and Lander deployments will be combined with biological sampling using a different set of gear. All scientific actions will be conducted in close collaboration with the University of Iceland (Háskóli Íslands) and the Marine Freshwater Research Institute (MFRI, Hafrannsóknastofnun) as well as the University of Bergen (UiB).

4. Attach chart showing (on an appropriate scale) the geographical area of the intended work, positions of intended stations, tracks of survey lines, positions of moored / seabed equipment:

Estimated date of first entry into EEZ of coastal state: **The research cruise MSM145 will start on July 24th 2026 in the waters of Iceland (Port Reykjavik)**

Estimated last exit from EEZ of coastal state: **The research cruise MSM145 will end on August 18th 2026 in the waters of Iceland (Port Reykjavik)**

Multiple EEZ entries/exits during the research cruise? **YES**

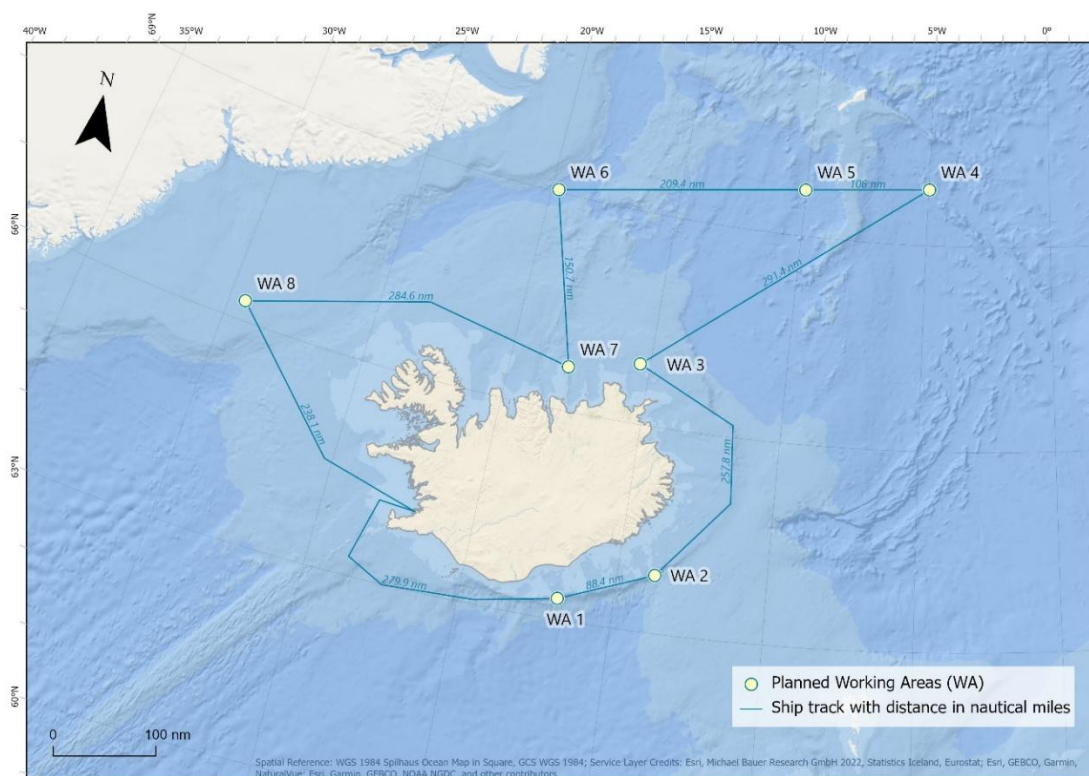


Figure 1: Map of the working area around Iceland. Station work (green dots on the ship's track) will be conducted in Icelandic, Norwegian and Greenland waters.

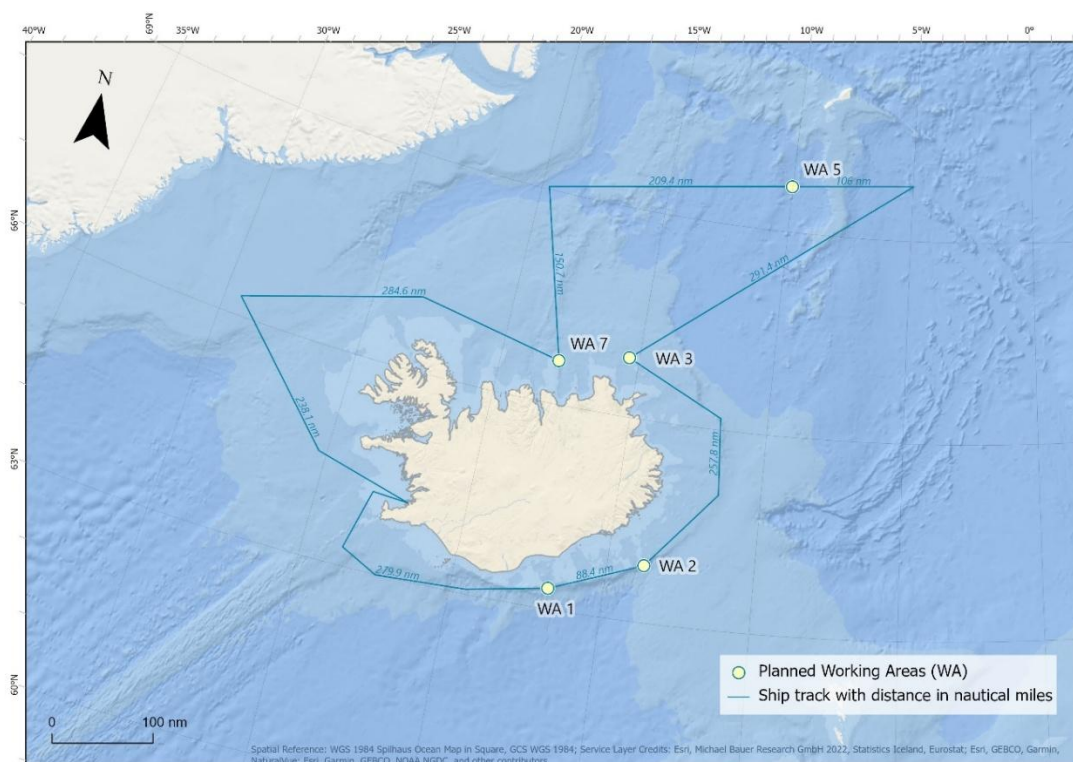


Figure 2: Map of the working areas showing only stations in Icelandic water (green dots on the planned ship's track).

5. Types of samples required (e.g., Geological / Water / Plankton / Fish / Radioactivity / Isotope) and (b) methods by which samples will be obtained (including dredging / coring / drilling/ fishing etc.).

(a) Type of samples	(b) Method
Benthos	Image and video transect with Remoted Operated Vehicle (ROV) and Ocean Floor Observing system (OFOS), grabs (Van Veen or Boxcorer depending on the seafloor conditions, epibenthic sled (EBS) and Multicorer (MUC)
Plankton	Plankton nets and Multinet (MSN)
Water	CTD rosette water sampler

6. Details of moored equipment:

Laying	Recovery	Description	Latitude	Longitude
AG-L1	Summer 2027	AWI Free Fall Lander 1	69,80205536	1,949633956
WA-2-	Summer 2027	SGN BLOS1	63,85549927	-13,76089954
WA-6	Summer 2027	AWI Free Fall Lander 2	69,03586578	-19,72172928
WA-1-	Summer 2027	MFRI BLOS	63,31000137	-16,81999969
WA-7	Summer 2027	SGN BLOS2	66,62999725	-17,89999962

7. Explosives: **Not applicable**

- (a) Type and Trade name
- (b) Chemical content
- (c) Dept of Trade class and stowage
- (d) Size
- (e) Depth of detonation
- (f) Frequency of detonation
- (g) Position in latitude and longitude
- (h) Dates of detonation

8. Detail and reference of
(a) Any relevant previous / future cruises:

There is a future cruise for the recovery of the long-term deployments in summer 2027. Previous cruises were conducted in 2011 (ME85/3), 2013 (POS456), 2018 (MSM75) and in 2020 (SO276) within the IceAGE project (Icelandic Marine Animals: Genetics and Ecology). The herewith applied cruise MSM145 (ALONGate3) is part of the follow-up project ALONGate (A long-term observatory of the North Atlantic Gateway to the Arctic Ocean) as well as the future cruise ALONGate4 in 2027.

- (b) Any previous published research data relating to the proposed cruise. (Attach separate sheet if necessary.):

Pampoulie, C., Brix, S. and Randhawa, H. (2025), The Greenland–Scotland Ridge in a Changing Ocean: Time to Act?. Mar Ecol. e12830. <https://doi.org/10.1111/maec.12830>

9. Names and addresses of scientists of the coastal state in whose waters the proposed cruise takes place with whom previous contact has been made:

Iceland:

Prof. Dr. Haseeb Randhawa, Háskóli, University of Iceland, Faculty of Life and Environmental Sciences, Askja, Sturlugata, Reykjavik

Prof. Dr. Jörundur Svavarsson, (Emeritus) Háskóli, University of Iceland, Faculty of Life and Environmental Sciences, Askja, Sturlugata, Reykjavik

Dr. Stefán Aki Ragnarsson, MFRI: Marine and Freshwater Research Institute, Fornubúðum 5, 220 Hafnarfjörður, Iceland

Dr. Steinunn Hilmar Olafsdóttir, MFRI: Marine and Freshwater Research Institute, Fornubúðum 5, 220 Hafnarfjörður, Iceland

Dr. Halldór Pálmar Halldórsson, Háskóli, University of Iceland, Rannsóknasetur HÍ á Suðurnesjum / Suðurnes Research Centre, Garðvegur 1, 245 Suðurnesjabær

Prof. Dr. Snæbjörn Pálsson, Háskóli, University of Iceland, Faculty of Life and Environmental Sciences, Askja, Sturlugata, Reykjavik

Dr. Aki Jarl Larusson, MFRI: Marine and Freshwater Research Institute, Fornubúðum 5, 220 Hafnarfjörður, Iceland

Dr. Jónas Jónasson, MFRI: Marine and Freshwater Research Institute,
Fornubúðum 5, 220 Hafnarfjörður, Iceland

Dr. Gunnar Þór Hallgrímsson, Háskóli, University of Iceland, Faculty of Life and
Environmental Sciences, Askja, Sturlugata, Reykjavík

10. State:

- (a) Whether visits to the ship in port by scientists of the coastal state concerned will be acceptable:

Yes, after discussion.

- (b) Whether it will be acceptable to carry on board an observer from the coastal state for any part of the cruise and dates and ports of embarkation/disembarkation:

Yes, after discussion.

Embarkation: Reykjavik, Iceland, 27.07.2026

Disembarkation: Reykjavik, Iceland, 16.08.2026

- (c) When research data from intended cruise is likely to be made available to the coastal state and if so by what means:

- **Cruise Report three months after finishing the research cruise.**
- **Scientific publication within the following three years.**

Part C: SCIENTIFIC EQUIPMENT

COASTAL STATE: Iceland

11. Complete the following table - (indicate 'YES' or 'NO'):

Please add in "b" the equipment you will bring to the vessel and complete the table with yes or no. Note that forgotten equipment can led to restrictions in research.

List of all major marine scientific equipment it is proposed to use.	Fisheries research within fishing limits	Research concerning continental shelf out to State's margin	Waters in which equipment will be deployed			
			within 3 NM	between 3-12 NM	between 12-50 NM	between 50-200 NM

a. vessel mounted systems						
ADCP current profiler	NO	YES	YES	YES	YES	YES
USBL underwater positioning	NO	YES	YES	YES	YES	YES
Multibeam echosounder	NO	YES	YES	YES	YES	YES
Sub-bottom profiler Parasound P70	NO	YES	YES	YES	YES	YES
Permanent surface water sampling / analysis (incl. Thermosalinograph)	NO	YES	YES	YES	YES	YES
b. mobile equipment						
Sound velocity probe AML SV PlusX	NO	YES	YES	YES	YES	YES
Drone	NO	YES	YES	YES	YES	YES
Meteorological Sensors	NO	YES	YES	YES	YES	YES
Artificial Reefs (MFRI)	NO	YES	YES	YES	YES	YES
BLOS - Benthic Lander Observatory Systems	NO	YES	YES	YES	YES	YES
ROV	NO	YES	YES	YES	YES	YES
OFOBS- Ocean Floor Observing any Bathymetry system	NO	YES	YES	YES	YES	YES
BC, grabs	NO	YES	YES	YES	YES	YES
Multicorer	NO	YES	YES	YES	YES	YES
Plankton nets (WP2, Bongo)	NO	YES	YES	YES	YES	YES
MSN	NO	YES	YES	YES	YES	YES
Neuston cat	NO	YES	YES	YES	YES	YES
CTD rosette	NO	YES	YES	YES	YES	YES

Hamburg, 23.12.2025

Date

Universität Hamburg
 CEN Centrum für Erdsystemforschung und Nachhaltigkeit
 Leibniz-Deutsche Forschungsschiff
 Bundesstr. 55
 D-20146 Hamburg
 - Germany -

(On behalf of the principal scientist)

NB 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