

NOTIFICATION OF PROPOSED RESEARCH CRUISE

Part A: GENERAL INFORMATION

1. Name of research ship: RV Anna Weber–van Bosse

2. Cruise number: 64AW109

3. Cruise dates: 14/08/26 - 07/09/26

4. Operating authority: NIOZ Royal Netherlands Institute for Sea Research
Telephone (reception): (+31) (0)222-369300

Operating agent: NIOZ Royal Netherlands Institute for Sea Research
Telephone (reception): (+31) (0)222-369300

5. Owner: NWO-i
Institutes Organisation of the Dutch Research Council

6. Particulars of the ship:

Name: RV Anna Weber–van Bosse
Flag state: The Netherlands
Overall length: 79,98 meters
Max. draught: 5,5 meters
Gross tonnage: 3480 T
IMO nr: 9992919
Call sign: PCNG
FBB Phone: +870773054080
GSM: +31651338399
VSAT 1. Phone: +31108080903
VSAT 2. Phone: +31108080913

7. Crew:

Name of master: L. Bliemer / H. Oenema
Email: master@annaweber-vanbosse.nl
Number of crew: 14

8. Chief scientist:

Name: Helge Niemann
Affiliation: NIOZ Royal Netherlands Institute for Sea Research
Address: Landsdiep 4, 1797 SZ Den Hoorn, the Netherlands
Telephone: +31 (0) 222 369 463
Email: helge.niemann@nioz.nl

9. Contact information of the focal point:

Name: Dr. Zeynep Erdem
Affiliation: National Marine Facilities (NMF)
NIOZ Royal Netherlands Institute for Sea Research
Address: Landsdiep 4, 1797 SZ Den Hoorn, the Netherlands
Telephone: +31 (0)222 369 421
Email: zeynep.erdem@nioz.nl
CoordinatorNMF@nioz.nl

10. Geographical area in which the ship will operate:

Reykjavik, Iceland (64° 20.00' N; 022° 20.00' W), North of Iceland (69° 20.00' N; 018° 30.00' W), Irminger Sea (63° 00.00' N; 033° 00.00' W), South of Iceland (60° 00.00' N; 020° 00.00' W), along the Greenland shelf (from 64° 50.00' N; 039° 20.00' W to 58° 54.00' N; 043° 00.00' W), across the central North Atlantic (50° 00.00' N; 035° 00.00' W), to the Azores 35° 10.00' N; 025° 00.00' W)

11. Brief description of the purpose of the cruise:

Cruise 64AWvB109 is dedicated to measuring micro and nano plastic in the marine atmosphere, water column and sediments. We aim to screen in how far microbial communities are affected by the presence of plastic

12. Dates of first entry and final departure from the state territorial waters:

Earliest entry: 14-08-2026

Latest departure: 02-09-2026

13. Names and dates of intended ports of call:

Starting port: Reykjavik, Iceland; 14-08-2026

End port: Terceira Island, Azores, Portugal, 07-09-2026

14. Any special logistic requirements at ports of call:

No

Part B: DETAILS

1. Name of research ship: RV Anna Weber–van Bosse

2. Cruise details:

Expected Entry & Exit Points (within EEZ or territorial waters):

Entry: (Reykjavik) on (14/08/2026)

Exit: (63° 18.00' N, / 030° 40.00' W) on (02/09/2026)

Cruise Duration: (14/08/2026) - (07/09/2026)

Port Name(s) and ETA/ETD:

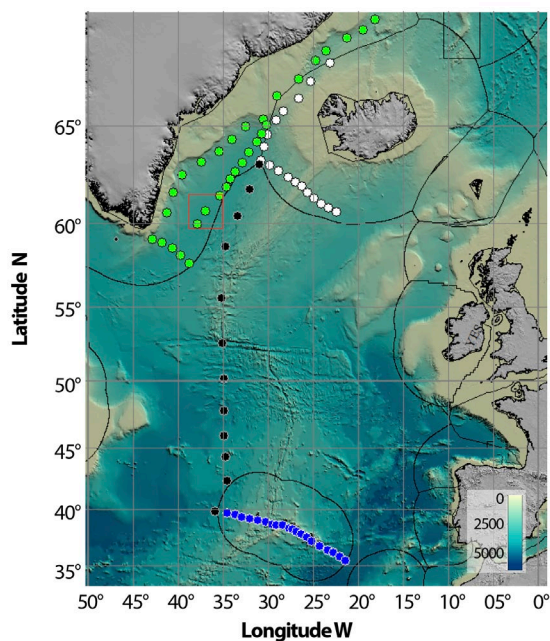
Starting port: Reykjavik, Iceland, 06.00 am

End port: Terceira Island AP, 06.00 am

3. Purpose of research and general operational methods:

Cruise 64AWvB109 is dedicated to measuring micro and nano plastic in the marine atmosphere, water column and sediments. We aim to screen in how far microbial communities are affected by the presence of plastic. Air samples are taken with an cyclon impactor sampler, water samples by CTD, sediment samples by video guided box coring.

4. Attach a chart showing (on an appropriate scale) the geographical area of the intended work, positions of intended stations/hydrographic sections:



Intended sampling station in the EEZ of Iceland (white dots), Greenland/Denmark (green dots), international waters (black dots), and Azores/Portugal (blue dots)

5. Type of samples required:

- ☒ Water Sampling
- ☒ Sediment Sampling
- ☐ Seafloor Mapping
- ☒ Instrument Deployment/Recovery
- ☒ Biological Sampling
- ☐ Subsurface Profiling
- ☒ Underway data acquisition (pCO₂, Temperature, Salinity)
- ☐ Other:

6. Methods by which samples will be obtained (including dredge/core/drill techniques):

Air samples: cyclone impactor sampler
Water samples: CTD rosette sampler
Sediment samples: video-guided box corer.

7. Details of equipment deployments (installations, moorings, landers, and vehicles):

(including dates of laying, servicing, method, and anticipated timeframe for recovery)

No moorings, landers, or vehicles will be installed

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

none

9. 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 explosives will be used

10. Entity(ies)/Participant(s) from the coastal state involved in the planning of the project:

N.A.

11. If designated as part of a larger-scale project, then provide the name of the project and the Organisation responsible for coordinating the project:

NIOZ Royal Netherlands Institute for Sea Research

12.If there are any relevant previous/future cruises, please give more information:

We visited the North Atlantic (Azores to English Channel) for nanoplastic and microplastic concentration measurements during a cruise with R/V Pelagia in 2020. Both nanoplastic concentrations (ten Hietbrink et al., Nature, 2025) and microplastic concentrations (Egger et al., Scientific Reports, 2022) were substantial. We could, however, not visit the subpolar gyre, which is the main target of this expedition.

13.Any previously published research data relating to the proposed cruise:

Hietbrink, S. ten, Materić, D., Holzinger, R., Groeskamp, S., and Niemann, H.: Nanoplastic concentrations across the North Atlantic, Nature, 643, 412–416, <https://doi.org/10.1038/s41586-025-09218-1>, 2025.

Egger, M., Schilt, B., Wolter, H., Mani, T., Vries, R. de, Zettler, E., and Niemann, H.: Pelagic distribution of plastic debris (> 500 µm) and marine organisms in the upper layer of the North Atlantic Ocean, Sci Rep-uk, 12, 13465, <https://doi.org/10.1038/s41598-022-17742-7>, 2022.

(Attach a separate sheet if necessary)

14.Whether visits to the ship in port by scientists of the coastal state concerned will be acceptable:

Yes

15.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

16. When research data from the intended cruise is likely to be made available to the coastal state, and if so, by what means:

Bathymetry and CTD data will be made available within weeks after the cruise on Emodnet. VMP data will also be made available after publication (within a year), also on Emodnet. Sequence data will be made available on the ENA platform and plastic concentrations on DAS/Pangea after these data have been published (within a year). All data will be open access.

Coastal State: Iceland
SCIENTIFIC EQUIPMENT

Station IL0: 67° 47.092' N; 23° 8.246' W, 800 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-800	no				x
VMP	0-700	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-800	no				x
Box corer	800	no				x

Station IL1: 66° 59.339' N; 25° 14.842' W, 1100 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-1100	no				x
VMP	0-1000	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1100	no				x
Box corer	1100	no				x

Station IL2: 66° 15.799' N; 26° 34.890' W, 500 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-500	no				x
VMP	0-400	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-500	no				x
Box corer	500	no				x

Station IL3: 65° 38.995' N; 28° 16.769' W, 900 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-900	no				x
VMP	0-800	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-900	no				x
Box corer	900	no				x

Station IL4: 65° 16.403' N; 29° 6.253' W, 1400 m water depth

Marine scientific	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200

equipment used						
CTD	0-1400	no				x
VMP	0-1300	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1400	no				x
Box corer	1400	no				x

Station IL5: 64° 35.661' N; 30° 6.896' W, 2300 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-2300	no				x
VMP	0-2200	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1500	no				x
Box corer	2300	no				x

Station IL6: 63° 58.994' N; 30° 23.391' W, 2300 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-2300	no				x
VMP	0-2200	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1500	no				x
Box corer	2300	no				x

Station IL7: 63° 18.890' N; 30° 45.707' W, 2300 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-2300	no				x
VMP	0-2200	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1500	no				x
Box corer	2300	no				x

Station IL8: 63° 5.310' N; 29° 50.401' W, 2100 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-2100	no				x
VMP	0-2000	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x

Multinet	0-1500	no				x
Box corer	2100	no				x

Station IL9: 62° 46.742' N; 28° 48.303' W, 1800 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-1800	no				x
VMP	0-1700	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1500	no				x
Box corer	1800	no				x

Station IL10: 62° 28.425' N; 27° 45.235' W, 1500 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-1500	no				x
VMP	0-1400	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1500	no				x
Box corer	1500	no				x

Station IL11: 62° 12.638' N; 26° 55.751' W, 1500 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-1500	no				x
VMP	0-1400	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1500	no				x
Box corer	1500	no				x

Station IL12: 61° 59.453' N; 26° 15.970' W, 600 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-600	no				x
VMP	0-500	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-600	no				x
Box corer	600	no				x

Station IL13: 61° 40.186' N; 25° 38.129' W, 1500 m water depth

Marine scientific	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200

equipment used						
CTD	0-1500	no				x
VMP	0-1400	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1500	no				x
Box corer	1500	no				x

Station IL14: 61° 23.045' N; 24° 52.526' W, 1800 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-1800	no				x
VMP	0-1700	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1500	no				x
Box corer	1800	no				x

Station IL15: 61° 4.805' N; 24° 7.893' W, 1800 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-1800	no				x
VMP	0-1700	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1500	no				x
Box corer	1800	no				x

Station IL16: 60° 50.180' N; 23° 19.379' W, 2000 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-2000	no				x
VMP	0-1900	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x
Multinet	0-1500	no				x
Box corer	2000	no				x

Station IL17: 60° 37.827' N; 22° 26.014' W, 2300 m water depth

Marine scientific equipment used	Water depth (m)	Fisheries research	Distance to coast (nm)			
			<3	3-12	12-50	50-200
CTD	0-2300	no				x
VMP	0-2200	no				x
Aqua flow	1	no				x
Manta Trawl	0	no				x

Multinet	0-1500	no				x
Box corer	2300	no				x

List of intended sampling stations during the cruise:

(Lat/Long and water depth (m))

IL: Iceland, GL: Greenland, Az: Azores

Station	Latitude	Longitude	Water depth (m)
IL0	67° 47.092' N	23° 8.246' W	800
IL1	66° 59.339' N	25° 14.842' W	1100
IL2	66° 15.799' N	26° 34.890' W	500
IL3	65° 38.995' N	28° 16.769' W	900
IL4	65° 16.403' N	29° 6.253' W	1400
IL5	64° 35.661' N	30° 6.896' W	2300
IL6	63° 58.994' N	30° 23.391' W	2300
IL7	63° 18.890' N	30° 45.707' W	2300
IL8	63° 5.310' N	29° 50.401' W	2100
IL9	62° 46.742' N	28° 48.303' W	1800
IL10	62° 28.425' N	27° 45.235' W	1500
IL11	62° 12.638' N	26° 55.751' W	1500
IL12	61° 59.453' N	26° 15.970' W	600
IL13	61° 40.186' N	25° 38.129' W	1500
IL14	61° 23.045' N	24° 52.526' W	1800
IL15	61° 4.805' N	24° 7.893' W	1800
IL16	60° 50.180' N	23° 19.379' W	2000
IL17	60° 37.827' N	22° 26.014' W	2300
GL1	69° 32.718' N	18° 7.435' W	1500
GL2	69° 8.741' N	19° 28.938' W	1400
GL3	68° 47.833' N	21° 11.788' W	1500
GL4	68° 18.001' N	23° 33.448' W	1500
GL5	67° 54.095' N	24° 41.368' W	1400
GL6	67° 6.535' N	26° 37.801' W	500
GL6b	66° 21.263' N	29° 1.402' W	300
GL7	65° 17.622' N	30° 30.668' W	1250
GL8	64° 56.367' N	32° 27.101' W	1900
GL9	64° 21.428' N	34° 2.188' W	1900
GL10	63° 45.731' N	35° 23.691' W	2100
GL11	63° 13.646' N	37° 23.036' W	1600
GL12	62° 35.596' N	39° 33.053' W	1900
GL13	61° 40.186' N	40° 33.210' W	1800
GL14	60° 36.397' N	41° 13.962' W	1800
GL15	59° 7.613' N	42° 50.989' W	1700
GL16	58° 54.604' N	41° 48.892' W	2600
GL17	58° 35.442' N	40° 37.091' W	3100
GL18	58° 9.959' N	39° 44.696' W	3200
GL19	57° 43.129' N	38° 44.539' W	3100
GL20	65° 2.951' N	30° 8.370' W	2000
GL21	64° 35.830' N	30° 42.114' W	2400
GL22	64° 13.945' N	31° 13.136' W	2600
GL23	63° 42.860' N	32° 5.928' W	2700
GL24	63° 12.914' N	32° 50.556' W	2800
GL25	62° 45.937' N	33° 39.538' W	2800
GL26	62° 22.651' N	34° 8.383' W	2800
GL27	61° 56.561' N	34° 36.684' W	2900
GL28	61° 29.964' N	35° 22.945' W	2900
GL29	60° 39.217' N	36° 58.461' W	2900
GL30	59° 58.179' N	37° 50.709' W	3000
Az1	39° 36.804' N	34° 31.132' W	3800
Az2	39° 28.737' N	33° 39.035' W	3200

Az3	39° 17.957' N	32° 53.883' W	2000
Az4	39° 10.475' N	32° 3.662' W	2000
Az5	38° 58.526' N	31° 10.008' W	1500
Az6	38° 52.538' N	30° 17.630' W	1400
Az7	38° 39.537' N	29° 34.835' W	2000
Az8	38° 35.027' N	29° 6.091' W	1800
Az9	38° 37.032' N	28° 20.101' W	900
Az10	38° 19.456' N	27° 41.138' W	1400
Az11	38° 12.406' N	27° 17.504' W	1500
Az12	38° 2.314' N	26° 51.955' W	2000
Az13	37° 49.160' N	26° 18.101' W	2000
Az14	37° 32.916' N	25° 41.693' W	800
Az15	37° 12.015' N	25° 8.478' W	1900
Az16	36° 44.339' N	24° 16.740' W	3900
Az17	36° 24.246' N	23° 22.446' W	4000
Az18	36° 7.694' N	22° 46.038' W	4250
Az19	35° 47.441' N	22° 4.519' W	5000
Az20	35° 27.101' N	21° 23.640' W	5100