ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR- UND MEERESFORSCHUNG

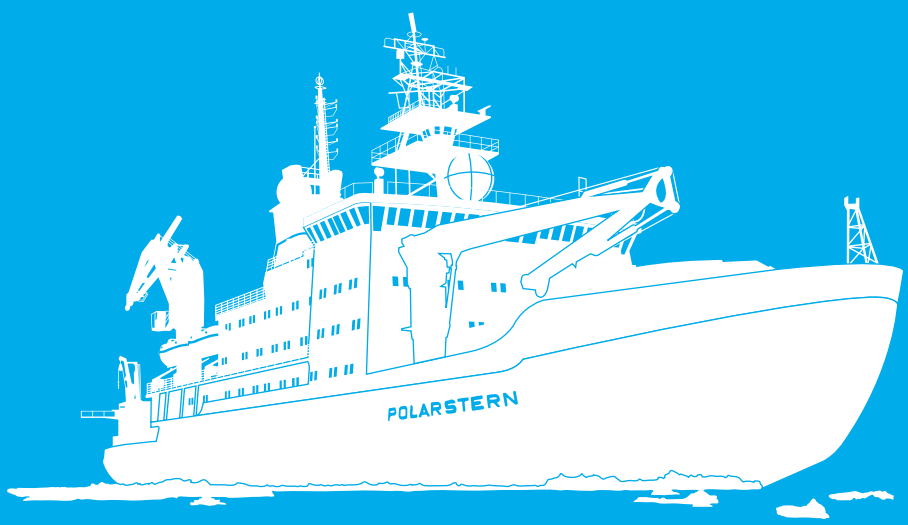
EXPEDITION PROGRAMME
PS154/1 and PS154/2

Polarstern

PS154/1 and PS154/2
Stanley – Mindelo – Bremerhaven
11 April 2026 – 15 May 2026

Coordinator: Ingo Schewe

Chief Scientists: Natalie Cornish and Björn Fiedler



HELMHOLTZ

Bremerhaven, February 2026

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The Expedition Programme *Polarstern* is issued by
the Alfred Wegener Institute, Helmholtz Centre for Polar and
Marine Research (AWI) in Bremerhaven, Germany.

The Programme provides information about the planned goals and scientific work programmes of expeditions of the German research vessel *Polarstern*.
The papers contained in the Expedition Programme *Polarstern* do not necessarily reflect the opinion of the AWI.

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PS154/1
PS154/2

11 April 2026 – 15 May 2026

Stanley – Mindelo – Bremerhaven

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Björn Fiedler
(PS154/2 Mindelo – Bremerhaven)

Coordinator
Ingo Schewe

Contents

1. ÜBERBLICK UND EXPEDITIONSVERLAUF

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Grant-No. AWI_PS154/1_00 und AWI PS154/2_00

PS154 besteht aus zwei Fahrtabschnitten, PS154/1 und PS154/2, die zusammen den Atlantik-Transit bilden. Der nordwärtige Transit markiert das Ende der antarktischen Forschungssaison 2025/26 und dient der Rückführung der *Polarstern* in ihren Heimathafen Bremerhaven. Die *Polarstern* wird am 11. April 2026 in Stanley auslaufen und Bremerhaven am 15. Mai 2026 erreichen (Abb. 1). Vom 30. April bis zum 1. Mai 2026 wird das Schiff in Mindelo einen kurzen Zwischenstopp einlegen, der die Reise in die jeweiligen Fahrtabschnitte gliedert.

Das wissenschaftliche Programm des ersten Fahrtabschnitts wird atmosphärische, bathymetrische und meteorologische *en route* Messungen sowie tägliche CTD Stationen umfassen. Eine CTD Station über dem Vema-Kanal dient zudem der Unterstützung langfristiger ozeanographischer Beobachtungen.

Während des zweiten Fahrtabschnitts werden Studierende an einer „Floating University“ teilnehmen. Das zweiwöchige Ausbildungsprogramm an Bord findet im Rahmen von WASCAL (West African Science Service Centre on Climate Change and Adapted Land Use) statt, das vom Bundesministerium für Forschung, Technologie und Raumfahrt (BMFTR) gefördert wird. Tägliche Stationsarbeiten entlang der Fahrtroute sowie bei zwei Zeitserienstationen werden CTD und Multinetz umfassen. Die Messungen an den beiden Stationen „Cabo Verde Ocean Observatory“ (CVOO, nördlich von Cabo Verde) und „European Station of Time-Series in the Ocean of the Canary Islands“ (ESTOC, nördlich von Gran Canaria) sind von besonderer Bedeutung, da hier langfristige Datenbeobachtungsreihen fortgeführt werden. Darüber hinaus werden mehrere Argo-Floats im Rahmen des internationalen Argo-Programms ausgesetzt.

Für beide Fahrtabschnitte des Transits sind folgende Messungen und Aktivitäten *en route* geplant:

- Bathymetrische Vermessung des Meeresbodens entlang der Schiffsroute. Insgesamt 24 Stunden Stationszeit werden auf tägliche CTD-Messungen verteilt, um Schallgeschwindigkeitsprofile zu bestimmen und die hydroakustischen Systeme an Bord zu kalibrieren.
- Tägliche Radiosondenaufstiege zur Untersuchung der Struktur und Variabilität der Intertropischen Konvergenzzone (ITCZ).
- Biogeochemische Messungen der oberflächennahen Wasserschicht, erfasst mittels Durchfluss-Sensoren (u.a. CO_2-Partialdruck und gelöster Sauerstoff).

Der Transit trägt zu den Zielen des Forschungsprogramms „Changing Earth – Sustaining Our Future“ bei und ist Teil der Programmorientierten Förderung der Helmholtz-Gemeinschaft (PoF IV). Innerhalb von PoF IV sind die Aktivitäten von PS154 eng an das Thema 2 (Ozean und Kryosphäre im Klimawandel) angebunden.

SUMMARY AND ITINERARY

Expedition PS154 is comprised of two legs, PS154/1 and PS154/2, which make up the Atlantic transit. The northward transit marks the end of the 2025/26 Antarctic research season, and serves to return *Polarstern* to her home port in Bremerhaven. *Polarstern* will embark from Stanley on 11 April 2026 and arrive in Bremerhaven on 15 May 2026 (Fig. 1). On 30 April and 1 May 2026, the vessel will stop in Mindelo, dividing the voyage into its respective legs. The scientific programme on the first leg will consist of atmospheric, bathymetric and metrological *en route* measurements, as well as daily CTD casts. One cast, over the Vema Channel, will also support long-term oceanographic observations at this site.

During the second leg of the transit, graduate students will take part in a "floating university". The two-week training programme at sea will take place within the framework of WASCAL (West African Science Service Centre on Climate Change and Adapted Land Use), which is funded by the German Federal Ministry of Research, Technology and Space (BMFTR). Daily station work along the route and at two long-term time-series sites will include CTD and multinet casts. The samplings at the "Cape Verde Ocean Observatory" (CVOO, north of Cabo Verde) and "European Station of Time-Series in the Ocean of the Canary Islands" (ESTOC, north of Gran Canaria), are of particular importance as long-term time-series data sets will be continued. In addition, several Argo floats will be deployed within the framework of the international Argo programme.

The following *en route* measurements and activities are planned for both legs of the transit:

- Bathymetric surveys of the seafloor, following the vessel's track. In total, 24 hours of station time will be distributed across daily CTD casts, to measure sound velocity profiles and calibrate the hydroacoustic systems on board.
- Daily radiosonde launches, which will investigate the structure and variability of the intertropical convergence zone (ITCZ).
- Biogeochemical measurements from the ocean's surface layer, collected from flow-through sensors (e.g. CO_2 partial pressure and dissolved oxygen).

The transit contributes to the goals of the "Changing Earth – Sustaining our Future" Research Programme, and is part of the Helmholtz Association's Programme-oriented Funding (PoF IV). Within PoF IV, PS154 activities align closely with Topic 2 (Ocean and Cyrosphere in Climate Change).

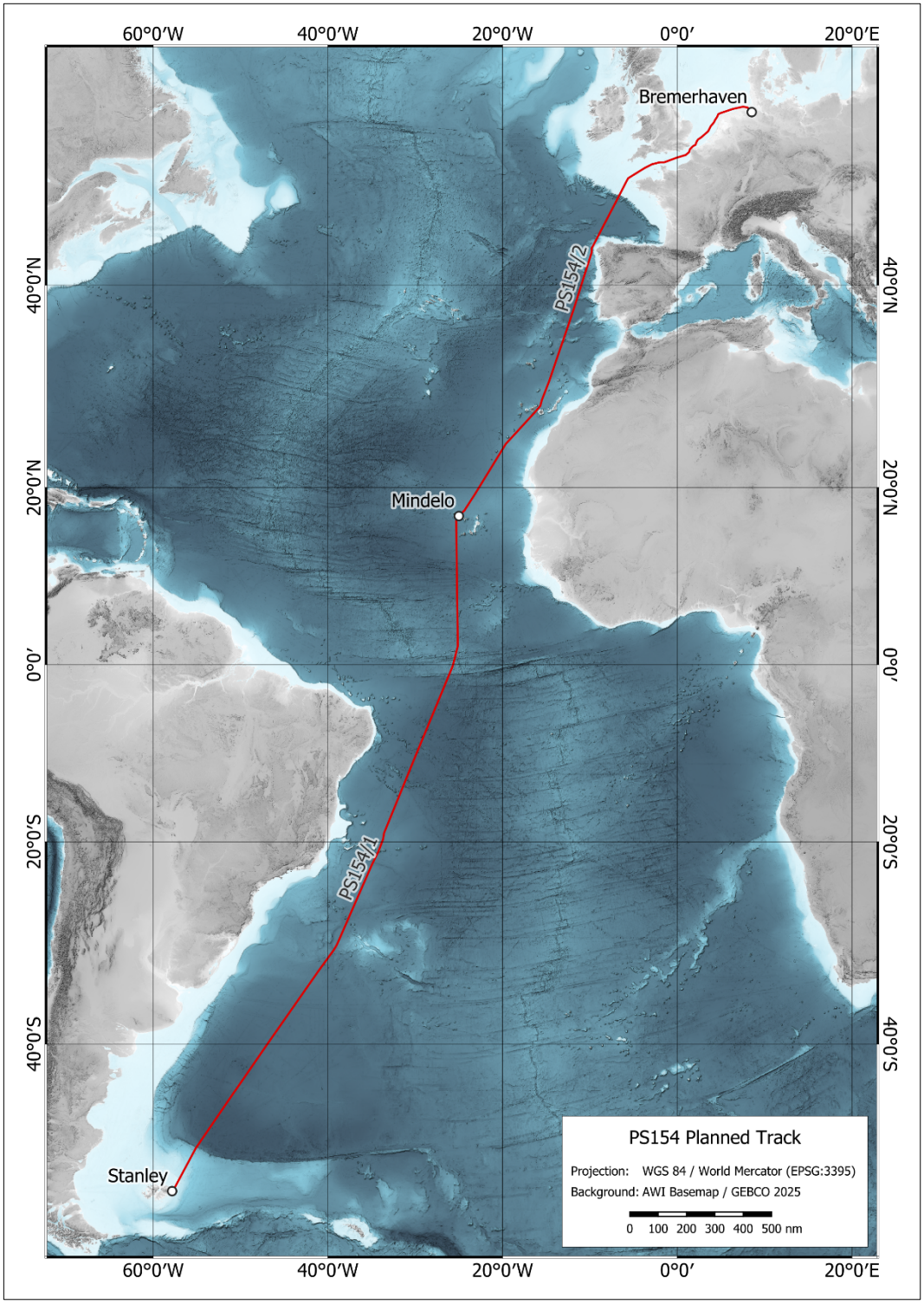

Abb. 1: Geplante Route der Expeditions-Fahrtabschnitte PS154/1 und PS154/2. Weiße Punkte markieren die Hafenanläufe während dieser Reise.

Fig. 1: Planned route for expedition legs PS154/1 and PS154/2. White markers indicate ports of call during the cruise.

2. PHYSICS OF THE ATMOSPHERE

Adeline Schulte[1,2] [1]DE.AWI
not on board: Markus Rex[1] [2]DE.UNI-Potsdam

Grant-No. AWI_PS154/1_00 and AWI_PS154/2_00

Objectives

Under this project we will carry out the standard radiosonde programme of the weather station on *Polarstern*. The data will contribute to the compilation of meteorological data from the weather station. Additionally, a time series of methane (CH4) concentration and its stable carbon isotopic signature is recorded in the lower troposphere. Methane is the second most important human-influenced greenhouse gas in terms of climate forcing. For CH4, both bottom-up and top-down approaches are subject to large uncertainties, leading to a significant mismatch in modelling. The time series will contribute to quantify CH4 sources and sinks in the Atlantic Ocean needed for the improvement of model parameterizations.

Work at sea

The standard radiosonde programme includes daily soundings of the standard meteorological parameter temperature, pressure, wind and humidity up to approximately 30 km altitude with weather balloons. The continuous ship-borne measurements of CH4 concentration and δ13C CH4 will be carried out by Cavity Ring-Down Spectroscopy (CRDS) using a Picarro G2132-I isotope analyser (Picarro, Inc., Santa Clara, USA). CRDS is a highly sensitive gas analysis technique that measures the near-infrared absorption spectra of small gas-phase molecules within a high-reflectivity cavity using a laser diode. Air will be sucked from the starboard side of the Peildeck at about 21 m above sea-ice/water surface using a Teflon tube. A constant flow will be generated with a 3KQ Diaphragma pump (Boxer, Ottobeuren, Germany).

Preliminary (expected) results

All data will be made public under the established procedures for weather observations and will contribute to the section on meteorological conditions of the cruise report, which will be prepared by the meteorologist on board. Variations in CH4 concentration and δ13 C-CH4 ratios over time will help to understand and validate source and sink capacities. The data evaluation focuses on using backwards airmass trajectories to monitor air masses and to distinguish locally induced signals from signals transported from remote areas.

Data management

Atmospheric data collected during the expedition will be archived and published in the PANGAEA data repository (https://www.pangaea.de) at the AWI in accordance to the AWI research data guideline and directive (https://hdl.handle.net/10013/epic.be2ebee5-fb98-4144-9e74-aa1d38378c5e).

Any other data will be submitted to an appropriate long-term archive that provides unique and stable identifiers for the datasets and allows open online access to the data.

This expedition was supported by the Helmholtz Research Programme “Changing Earth – Sustaining our Future” Topic 1, Subtopic 2.

In all publications based on this expedition, the **Grant-No. AWI_PS154/1_00 and AWI_PS154/2_00** will be quoted and the following publication will be cited:

Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung (2017) Polar Research and Supply Vessel POLARSTERN Operated by the Alfred-Wegener-Institute. Journal of large-scale research facilities, 3, A119. http://dx.doi.org/10.17815/jlsrf-3-163.

3. BATHYMETRIC UNDERWAY MEASUREMENTS

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not on board: Boris Dorschel*[1], Simon Dreutter[1] [2]DE.UNI-Heidelberg
*boris.dorschel@awi.de

Grant-No. AWI_PS154/1_01 and AWI_PS_154/2_02

Objectives

High-resolution bathymetry is a key dataset required to understand many marine processes, and is particularly important when interpreting scientific data in a spatial context. Bathymetry contains valuable information on geomorphological features at various spatial scales, from isolated, individual features like knolls or seamounts, to those across large spatial expanses like sand waves or contourites. The spatial nature of bathymetric data means that it also provides context to the broader environment being studied. Further, bathymetry can enhance our knowledge of geological processes such as erosion, sediment transport or even tectonics. In addition to the multibeam swath bathymetry, high-resolution sub-bottom profiler transects reveal insights on subsurface sediment composition and characteristics.

Although global maps give the impression that seafloor topography has been fully mapped, most of the world's ocean floor remains unmapped by hydroacoustic systems. In regions lacking such hydroacoustic measurements, bathymetry is modelled from satellite altimetry which is characterized by relatively low spatial and temporal resolutions, when compared with hydroacoustic data. Bathymetry derived from satellite altimetry thus lacks the resolution necessary to resolve small- to meso-scale geomorphological features (e.g. sediment waves, glacial features and small seamounts). Ship-borne multibeam data provide bathymetric information in a resolution sufficient to resolve those features. The collection of underway data during PS154/1 and PS154/2 will contribute to the bathymetry data archive at AWI, which, in turn, contributes to global bathymetric datasets such as GEBCO (General Bathymetric Chart of the Ocean).

Work at sea

Bathymetric data will be recorded with the hull-mounted multibeam echosounder Teledyne Reson Hydrosweep DS3. The main task of the bathymetry group is to run hydroacoustic systems during transit. The raw bathymetric data will be corrected for sound velocity changes in the water column, and will be further processed and cleaned for erroneous soundings and artefacts.

Sound velocity profiles will be collected with a CTD (Conductivity Temperature Depth) or an SVP (Sound Velocity Probe) whenever possible.

Preliminary (expected) results

The expected results are high-resolution seabed maps along the cruise track.

Data management

Environmental data will be archived, published and disseminated according to international standards by the World Data Center PANGAEA Data Publisher for Earth & Environmental

Science (https://www.pangaea.de) within two years after the end of the cruise at the latest. By default, the CC-BY license will be applied. Furthermore, bathymetric data will be provided to the Nippon Foundation – GEBCO Seabed 2030 Project.

This expedition is supported by the Helmholtz Research Programme "Changing Earth – Sustaining our Future" Topic 2, Subtopic 3 Sea Level Change.

The data will be obtained as part of the Project BATHY-LTO.

In all publications based on this expedition, the **Grant No. AWI_PS154/1_01 and AWI_PS_154/2_02** will be quoted and the following publication will be cited:

Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung (2017) Polar Research and Supply Vessel POLARSTERN Operated by the Alfred-Wegener-Institute. Journal of large-scale research facilities, 3, A119. http://dx.doi.org/10.17815/jlsrf-3-163.

4. WASCAL

Björn Fiedler[1], Tobias Hahn[1], Corrine Almeida[2] [1]DE.GEOMAR
not on board: Arne Körtzinger[1] [2]CV.UTA

Grant-No. AWI_PS154/2_01

Outline

Leg PS154/2 hosts the 4th edition of the WASCAL Floating University programme (GPF 24-1_035; WASCAL-IV). This unique cruise combines a research expedition with an academic curricular education experience. It builds upon the success of previous editions during PS135/2 and PS147/2 and is part of the curriculum of the international master programme “Climate Change and Marine Sciences” at the Atlantic Technical University of Cabo Verde (UTA). This programme is funded by the BMFTR-funded WASCAL programme (“West African Science Service Centre on Climate Change and Adapted Land Use”).

During the cruise, students will engage in both theoretical and practical modules of the curriculum. Additionally, scientists on board will have the opportunity to communicate their research to West African students, and data will be collected for individual master thesis projects. This allows students to integrate ongoing scientific research efforts off West Africa into their work, such as ecological and biogeochemical time-series observations.

Students will benefit not only from the lectures delivered by the lecturing PIs but also from their immersion in real individual research projects. This provides a more authentic experience compared to traditional field work practicals.

The WASCAL Floating University during PS154/2 combines teaching and research, known as “training-through-research.” This approach benefits both academic education and current research projects in the region.

The WASCAL Programme in Cabo Verde, including this expedition, is endorsed by IOC-UNESCO as a Decade Project hosted by the Decade ECOP Programme within the framework of the UN Decade of Ocean Research for Sustainable Development.

Objectives

The primary objective of this expedition is to provide students with an authentic research experience in the Master Research Programme “Climate Change and Marine Sciences” (MRP-CCMS). The training combines theoretical lectures with practical training sessions on classical oceanographic field-sampling methods, such as gear deployment/recovery, analytical lab techniques, data reduction, and visualisation. Scientific data collected during the cruise will be used for teaching and training purposes, as well as for scientific exploitation.

The following lecture modules of the MRP-CCMS curriculum will be addressed on board:

1. Ocean Observations
2. Hydroacoustics in fisheries and marine ecology
3. Communication and scientific writing

In addition to teaching modules, research modules will be conducted to contribute to current research efforts in the region and global ocean observing programmes. These modules will also teach students state-of-the-art oceanographic technologies and real scientific data, and collect scientific data for individual master thesis projects. The following research modules are integral to PS154/2:

Module 1:

Surface ocean biogeochemistry; underway measurements of key surface properties (temperature, salinity, CO_2 partial pressure, O_2 partial pressure, chlorophyll, and turbidity) that allow to assess the saturation state for CO_2 and O_2 to deconvolute the observed disequilibrium into its physical and biological drivers and calculate air-sea CO_2 and O_2 fluxes. These observations will be carried out throughout the cruise. Permanently installed equipment on board of *Polarstern* will be used for this purpose.

Module 2:

Marine ecology & microbiology; the cruise track covers different biomes and offers the opportunity to characterize the associated pelagic ecosystems as well as local communities. To facilitate integration of results, the main aim is to use methods that readily can be used to estimate zooplankton contribution to biomass, bulk metabolic rates and export flux. Variations in nekton and planktonic communities will be also investigated across the different regimes. Microbiological diversity via genetic analyses will be also investigated across the different regimes.

Module 3:

Time-series observations; full-depth CTD hydrocasts including biogeochemical sampling at two different time-series sites (Cape Verde Ocean Observatory, CVOO, and European Station of Time-Series in the Ocean of the Canary Islands, ESTOC) will extend the long-term data sets of these sites. Conducted sampling will facilitate the assessment of changes in the Eastern Tropical North Atlantic (e.g., community structure, acidification, deoxygenation).

Module 4:

Communication & Scientific Writing; the data and results which will be obtained during this leg shall be communicated and presented in both a scientific as well as a popular scientific way, also by the students. By choosing appropriate communication methods, tools and guiding questions, the students will be able to train their communication skills in translating scientific information and knowledge for different target audience groups, and sharpen their process of scientific thought and discourse. Those exercises will be combined with general public outreach activities during the cruise, such as blog posts, short video clips, etc.

Work at sea

The following gears and general operational methods will be deployed for carrying out the research modules:

I. Station work:

- CTD-rosette system (CTD-rosette): profiling physical properties and water sampling will be performed using the ship's own Seabird 911+ system equipped with 24 x 12 L Niskin bottles. The system will have a sensor configuration with additionally attached oxygen and fluorescence sensors.
- Discrete water samples taken from the rosette will be analyzed for nutrients (NO3-, NO2-, PO43-, Si(OH)4) as well as dissolved oxygen and carbon parameters (dissolved inorganic carbon (DIC), total alkalinity (TA)). Chlorophyll a (Chl a) concentration will be measured from filtered samples using a Turner fluorometer. Salinity and oxygen analysis will be used to calibrate the CTD sensors. Daily CTD depths profiling along the transit will be performed down to 1,200 m, time-series stations will be sampled with

full-depths CTD profiles. Samples will be collected for microbiological diversity and genetic analyses based on filtration and preservation techniques.

- Multinet: determining the biomass and vertical distribution of mesozooplankton along the latitudinal gradient. The used multinet is a Hydrobios Multinet Midi with a 0.25 m^2 mouth opening and five 200 µm mesh nets. The multinet will be deployed down to 1,000 m water depth. The standard depth strata will be 1,000 - 600 - 300 - 200 - 100 - 0 m. Multinet casts will be conducted in pairs (one at daytime, one at nighttime) at CVOO and ESTOC to allow the estimation of diurnal vertical migration.

II. Underway measurements:

- Underway multiparameter measurement systems (GO pCO2 and Ferry Box) and thermosalinograph for underway near-surface water sampling will be carried out to determine sea surface temperature, sea surface salinity as well as several biogeochemical parameters. Discrete samples for various parameters will be also collected from the underway seawater supply line.
- Shipboard observations will include current velocity using the Acoustic Doppler Current Profiler (ADCP) mounted to the research vessel (150 kHz RDI Ocean Surveyor).
- The scientific echo sounder (EK80) will record underway calibrated backscatter signals to determine and characterize, e.g., zooplankton and pelagic fish assemblages and distribution as well as to quantify selected groups.

III. Autonomous mobile platforms:

Along the route, three Argo floats will be deployed on behalf of the Federal Maritime and Hydrographic Agency (BSH).

Preliminary (expected) results

Scientific data collected during PS154/2 will contribute to long-term biogeochemical, ecological, and physical time-series sites off the coasts of North-West Africa (CVOO and ESTOC). Large international research vessels rarely visit and sample these sites, making them crucial for expanding these data sets. In particular, full-depth samplings at these sites are challenging for local vessels. The collected data will contribute to regional assessments of acidification, deoxygenation, and potential shifts in zooplankton community structure.

Surface ocean pCO2 measurements along the transit route will also provide valuable data for the Eastern Tropical North Atlantic, a highly undersampled region for carbon dioxide. *Polarstern's* carbon measurements, which are highly accurate (ICOS class 1 station), can also be used to validate other autonomous platforms, such as the new CVOO surface buoy, which is also an ICOS station.

The training programme on board for West African students will facilitate a bi-directional exchange of knowledge during the expedition. The students will gain practical experience applying observational and multidisciplinary methods to produce scientific knowledge under authentic at-sea conditions. In turn, the involved scientists on board will benefit from the students' experiences and challenges in their home countries in West Africa.

Data management

All data are stored shortly after the cruise in the Ocean Science Information System (OSIS-Kiel) which is hosted at GEOMAR. Data are accessible for all project participants and can be used to share and edit common expedition information and to share ongoing research data as

they become available. Consequently, quality-controlled data will be forwarded to the World Data Center PANGAEA to warrant long-term archival and access to the data. Zooplankton data will be further submitted to the international Ecotaxa database (https://ecotaxa.obs-vlfr.fr) and recorded, continuous surface pCO2 data will be submitted to the ICOS (Integrated Carbon Observing System) Carbon portal and to the Surface Ocean CO2 Atlas (www.socat.info) by the responsible ICOS PI at AWI.

This expedition is supported by the German Federal Ministry of Research, Technology and Space (BMFTR) via the WASCAL programme (Grant No. 01LG2302A) and contributes to the Helmholtz Research Programme “Changing Earth – Sustaining our Future” Topic 2, Subtopic 2.1.

In all publications based on this expedition, the Grant No. AWI_PS154/2_01 will be quoted and the following publication will be cited:

Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung (2017) Polar Research and Supply Vessel POLARSTERN Operated by the Alfred-Wegener-Institute. Journal of large-scale research facilities, 3, A119. http://dx.doi.org/10.17815/jlsrf-3-163.

APPENDIX

A.1 TEILNEHMENDE INSTITUTE / PARTICIPATING INSTITUTES

A.2 FAHRTTEILNEHMER:INNEN / CRUISE PARTICIPANTS

A.3 SCHIFFSBESATZUNG / SHIP‘S CREW

A.1 TEILNEHMENDE INSTITUTE / PARTICIPATING INSTITUTES

Affiliation	Address
On board	
CV.UTA	Universidade Técnica do Atlântico Institute of Engineering and Marine Sciences CP.163 – Campus de Ribeira de Julião Mindelo, São Vicente Cabo Verde
DE.AWI	Alfred-Wegener-Institut Helmholtz-Zentrum für Polar- und Meeresforschung Postfach 120161 27515 Bremerhaven Germany
DE.CAU	Kiel University Christian-Albrechts-Platz 4 24118 Kiel Germany
DE.GEOMAR	GEOMAR Helmholtz Centre for Ocean Research Kiel Wischhofstr. 1-3 24148 Kiel Germany
DE.IOW	Leibnitz Institute for Baltic Sea Research Warnemünde Seestraße 15 18119 Rostock-Warnemünde Germany
DE.ISRA	Institut Sénégalais de Recherche Agricole Centre de Recherche Océanographique de Dakar Thiaroye Pole de Recherche de Hann 2241 Dakar Senegal
DE.UNI-Heidelberg	Heidelberg University Grabengasse 1 69117 Heidelberg Germany
DE.UNI-Potsdam	University of Potsdam Am Neuen Palais 10 14469 Potsdam Germany
US.SCRIPPS	Scripps Institution of Oceanography 9500 Gilman Drive La Jolla, CA 92093 USA

A.2 FAHRTTEILNEHMER:INNEN / CRUISE PARTICIPANTS

PS154/1 Stanley – Mindelo				
Name/ Last name	**Vorname/ First name**	**Institut/ Institute**	**Beruf/ Profession**	**Fachrichtung/ Discipline**
On board				
Baumbusch	Clara	DE.UNI-Heidelberg	Student	Physics
Cornish	Natalie Roslyn	DE.AWI	Scientist	Geophysics
Schulte	Adeline Florica	DE.UNI-Potsdam	Student	Physics
Not on board				
Dorschel	Boris	DE.AWI	Scientist	Geophysics
Dreutter	Simon	DE.AWI	Scientist	Geophysics
Rex	Markus	DE.AWI	Scientist	Physics

PS154/2 Mindelo – Bremerhaven				
Name/ Last name	**Vorname/ First name**	**Institut/ Institute**	**Beruf/ Profession**	**Fachrichtung/ Discipline**
On board				
Adjei	Henry Owusu	CV.UTA	Student	Marine Sciences
Almeida	Corrine	CV.UTA	Scientist	Biology
Antia	Avan	DE.CAU	Scientist	Biology
Barghorn	Leonie	DE.IOW	Scientist	Oceanography
Baumbusch	Clara	DE.UNI-Heidelberg	Student	Physics
Bittig	Henry	DE.IOW	Scientist	Chemistry
Brock	Melissa	US.SCRIPPS	Scientist	Biology
Cornish	Natalie	DE.AWI	Scientist	Geophysics
Coulibaly	Issiaka	CV.UTA	Student	Marine Sciences
de Souza	Larissa Alves	CV.UTA	Student	Marine Sciences
Diogoul	Ndague	SN.ISRA	Scientist	Biology
dos Santos	Onélia	CV.UTA	Student	Marine Sciences
Douti	Yendouman	CV.UTA	Student	Marine Sciences
Ferfers	Vinzent	DE.CAU	Student	Marine Sciences
Fiedler	Björn	DE.GEOMAR	Scientist	Chemistry
Guigma	Soumaila	CV.UTA	Student	Marine Sciences
Hahn	Tobias	DE.GEOMAR	Scientist	Chemistry
Issa	Hamidou Mani	CV.UTA	Student	Marine Sciences
Jeng	Amadou	CV.UTA	Student	Marine Sciences
Kache	Sophie	DE.IOW	Scientist	Biology
Kone	Julien Gninkan	CV.UTA	Student	Marine Sciences

PS154/2 Mindelo – Bremerhaven				
Name/ Last name	**Vorname/ First name**	**Institut/ Institute**	**Beruf/ Profession**	**Fachrichtung/ Discipline**
On board				
Mitchozounou	Renaud Jean-Eudes Tundé	CV.UTA	Student	Marine Sciences
Okpokwu	Chidinma Catherine	CV.UTA	Student	Marine Sciences
Sarmento	Nelson	CV.UTA	Student	Marine Sciences
Schulte	Adeline Florica	DE.UNI-Potsdam	Student	Physics
Sow	Abdoulaye	CV.UTA	Student	Marine Sciences
N.N.			Scientist	
N.N.			Student	
Not on board				
Dorschel	Boris	DE.AWI	Scientist	Geophysics
Dreutter	Simon	DE.AWI	Scientist	Geophysics
Körtzinger	Arne	DE.GEOMAR	Scientist	Chemistry
Rex	Markus	DE.AWI	Scientist	Physics

A.3 SCHIFFSBESATZUNG / SHIP‘S CREW PS154/1

No.	Name/ Last name	Vorname/ First name	Rank/ Position
1	Schwarze	Stefan	Master
2	Strauß	Erik	Chief Mate
3	Rusch	Torben	Chief Engineer
4	Eckenfels	Hannes	Chief Mate Cargo
5	Weiß	Daniel	2nd Mate
6	Rathke	Wulf Jannik	2nd Mate
7	Müller	Andreas	Electrotechnical Engineer Network/Bridge
8	Guba	Klaus	Doctor
9	Ehrke	Tom	2nd Engineer
10	Höppner	Marco	2nd Engineer
11	Jassmann	Marvin	2nd Engineer
12	Krüger	Lars	Electrotechnical Engineer Winches
13	Ejury	René	Electrotechnical Engineer Labor
14	Winter	Andreas	Electrotechnical Engineer System
15	Pommerencke	Bernd	Ship Electrotechnical Officer Engine
16	Brück	Sebastian	Bosun
17	Keller	Jürgen Eugen	Carpenter
18	Buchholz	Joscha	Multi Purpose Rating Deck
19	Möller	Falko	Multi Purpose Rating Deck
20	Mahlmann	Oliver Karl-Heinz	Multi Purpose Rating Deck
21	Schade	Tom	Multi Purpose Rating Deck
22	Brauer	Max	Multi Purpose Rating Deck
23	Decker	Jens	Multi Purpose Rating Deck
24	Deutschbein	Felix Maximilian	Multi Purpose Rating Deck
25	Siemon	Leon Anton	Multi Purpose Rating Deck
26	Amato	Leonardo	Multi Purpose Rating Deck
27	Schröder	Paul	Multi Purpose Rating Engine
28	Probst	Lorenz	Multi Purpose Rating Engine

No.	Name/ Last name	Vorname/ First name	Rank/ Position
29	Stubenrauch	Paula	Multi Purpose Rating Engine
30	Buchholz	Karl Erik	Multi Purpose Rating Engine
31	Cording	Bastian-Fynn	Multi Purpose Rating Engine
32	Plehn	Marco Markus	Storekeeper
33	Skrzipale	Mitja	1st Cook
34	Loibl	Patrick	2nd Cook
35	Fehrenbach	Martina	2nd Cook
36	Witusch	Petra Gertrud Ramona	1st Stewardess
37	Stocker	Eileen Sigourney	2nd Stewardess
38	Golla	Gerald	2nd Steward
39	Holl	Claudia	2nd Stewardess
40	Ilk	Romy	2nd Stewardess / Nurse
41	Shi	Wubo	2nd Steward / Laundry
42	Chen	Jirong	2nd Steward / Laundry
43	Chen	Quanlun	2nd Steward / Laundry

A.3 SCHIFFSBESATZUNG / SHIP‘S CREW PS154/2

No.	Nachname/ Last name	Vorname/ First name	Rank/ Position
1	Kentges	Felix	Master
2	Langhinrichs	Jacob	Chief Mate
3	Grafe	Jens	Chief Engineer
4	Janik	Michael	Chief Mate Cargo
5	Hering	Igor	2nd Mate
6	Heisterkamp	Ole Louca	2nd Mate
7	Frank	Gerhard Ansgar Leon	Electrotechnical Engineer Network/Bridge
8	Gößmann-Lange	Petra	Doctor
9	Farysch	Tim	2nd Engineer
10	Krinfeld	Oleksandr	2nd Engineer
11	Domann	Franz	2nd Engineer
12	Jäger	Vladimir	Electrotechnical Engineer Winches
13	Hüttebräucker	Olaf	Electrotechnical Engineer Labor
14	Winter	Andreas	Electrotechnical Engineer System
15	Zivanov	Stefan	Ship Electrotechnical Officer Engine
16	Sedlak	Andreas	Bosun
17	Neisner	Winfried Wolfgang	Carpenter
18	Klee	Philipp	Multi Purpose Rating Deck
19	Siemon	Leon Anton	Multi Purpose Rating Deck
20	Fischer	Sascha	Multi Purpose Rating Deck
21	Klähn	Anton	Multi Purpose Rating Deck
22	Kespelher	Ole Johan	Multi Purpose Rating Deck
23	Remmert	René	Multi Purpose Rating Deck
24	Bäcker	Andreas	Multi Purpose Rating Deck
25	Röth	Benedikt Konrad	Multi Purpose Rating Deck
26	Ackenhausen	Hendrik	Multi Purpose Rating Deck
27	Rolofs	Nils Christan Timo	Multi Purpose Rating Engine

No.	Nachname/ Last name	Vorname/ First name	Rank/ Position
28	Hähnert	Ove	Multi Purpose Rating Engine
29	Klinger	Dana Maria	Multi Purpose Rating Engine
30	Schneider	Denise	Multi Purpose Rating Engine
31	Dethloff	Michael	Multi Purpose Rating Engine
32	Preußner	Jörg	Storekeeper
33	Hofmann	Werner	1st Cook
34	Fabian	Laura	2nd Cook
35	Hammelmann	Louisa	2nd Cook
36	Pieper	Daniel	1st Steward
37	Hartmann	Jonas	2nd Steward
38	Dibenau	Torsten Karl	2nd Stewardess
39	Möhle	Steffi	2nd Steward
40	Schwantes	Andrea	2nd Stewardess / Nurse
41	Arendt	René	2nd Steward / Laundry
42	Cheng	Qi	2nd Steward / Laundry
43	Chen	Dansheng	2nd Steward / Laundry
44	Seiffert	Nils	Apprentice Multi Purpose Rating