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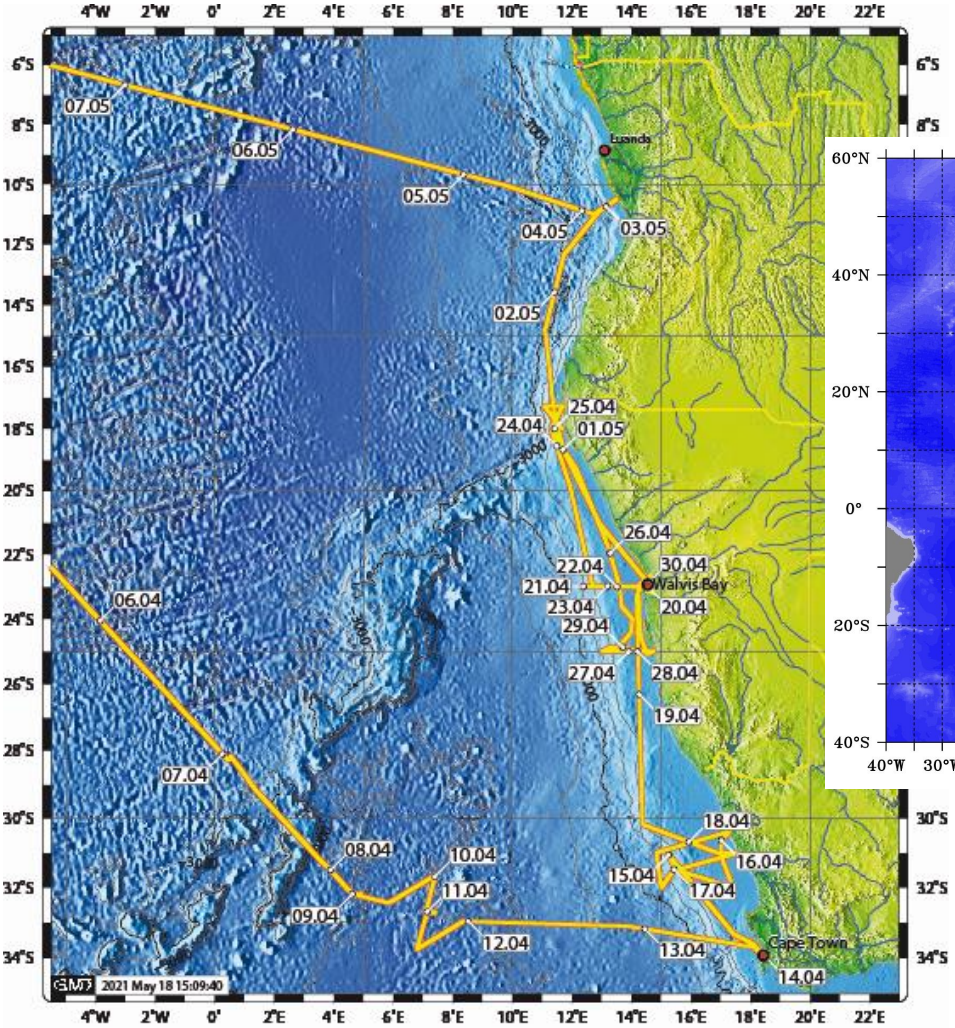
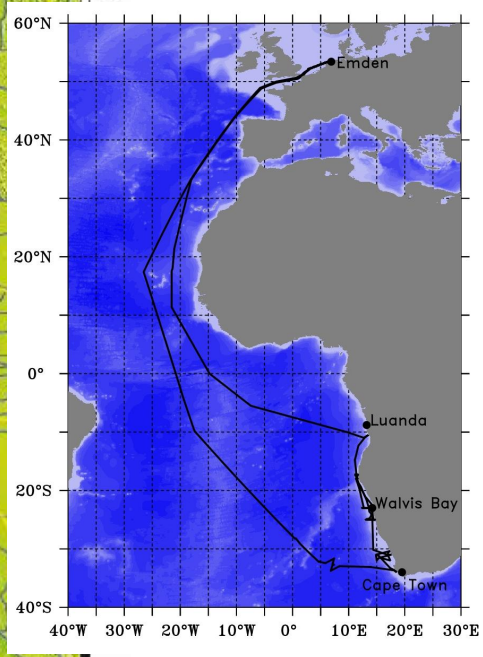
Short Cruise Report
R/V SONNE, cruise SO283
"*Mooring Rescue*"

Emden - Emden
19.03.2021 – 22.05.2021
Chief Scientist: Niko Lahajnar
Captain: Oliver Meyer





Objectives

There was no single work area because of the different foci of the individual research projects. The first area of interest was the open South Atlantic far away from any continental influence. This region at 32-34°S and 4-8°E is characterized by a flat seabed of approximately 5,000 m water depth where the variability of the internal wave energy flux south of the Walvis Ridge can be measured. The deployment positions follow the propagation path of internal tides as seen in model simulations and satellite altimetry. Internal tides in the ocean are generated by the interaction of tidal currents with the rough topography on the ocean floor. The lowest modes of these internal tides, that contain a large fraction of the energy of the internal wave field, are capable of propagating basin-wide in the stratified ocean, before they eventually break and generate turbulence. The spatial distribution of the diapycnal mixing related to this internal wave breaking and mixing has been shown to influence the global overturning circulation.

The second major region of interest is the Benguela Upwelling System (BUS) from 18° to 32°S off the coasts of South Africa and Namibia. It belongs to the four major eastern boundary upwelling systems in the world. This upwelling area can be subdivided into a southern (sBUS) and a northern (nBUS) part as the ecosystem functioning is quite different in those two sub-areas. Recent findings from model studies show a poleward shift in subtropical high pressure areas due to global climate change. Hence, food webs seem to differ in the efficiency of nutrient cycling, which leads to different export ratios. Recent findings suggest that the export ratio influences the uptake of atmospheric CO_2. Also Benguela upwelling fosters the release of the greenhouse gases (GHG) i.e. methane (CH_4), nitrous oxide (N_2O) and carbon dioxide (CO_2) to the atmosphere. Maxima sedimentary CH_4 release around the southern and northern mud-belt at 23 and 25°S transects were found in the first EVAR expedition. The different subdivision of BUS also found to act differently with respect to CO_2 as nBUS acts as a source for CO_2 whereas the sBUS acts as a CO_2 sink. The BUS has been intensively studied by recent joint research programs (NAMIBGAS, GENUS, SACUS, PREFACE, EVAR, TRAFFIC). As part of the research projects SACUS, EVAR and TRAFFIC, numerous short-term and long-term mooring systems have been deployed in this area. During the last expedition period in 2019, in total seven mooring systems were deployed off the coast of Namibia and South Africa in 2019, respectively. Also, detailed survey of GHG around the three main transects of 17.5°S, 23°S and 25°S in the BUS were conducted as the part of EVAR project.

The third and last area of interest is the coastal region off Angola. There, the BANINO project aims for a better understanding of the temperature anomalies in the Northern Benguela System, so called Benguela Niños and Niñas, caused by the variability of poleward propagation of tropical water masses. This variability has high impact on the hydrographic conditions in the ecosystem, specifically on fishery. The main physical mechanism behind positive temperature anomalies, i.e., Benguela Niños, is a weakening of trade winds in the equatorial Atlantic, which generates equatorial Kelvin waves related to a thermocline elevation and response in the equatorial undercurrent and finally to a poleward directed pulse of tropical water in the coastal wave guide. The locally observed variability of hydrographic conditions along the Angolan and Namibian coast reveals as elements of a long distance interaction between the equatorial current system and the subtropical ocean mediated by waves in the coastal wave guide.

SO283 "Mooring Rescue" was initiated at relatively short notice because several research cruises in the South Atlantic with R/V METEOR and R/V MARIA S. MERIAN in 2020 and spring 2021 were cancelled due to the effects of the Corona pandemic. This lack of ship time meant that the associated research projects could not be continued.
However, eight mooring systems had already been deployed in 2019 - prior to the outbreak of the pandemic - as integral components of the respective BMBF research projects off the coasts of South Africa, Namibia and Angola, respectively. In addition, two large mooring systems should have been deployed in 2020 as part of the DFG collaborative research center TRR181 „Energy Transfers in Atmosphere and Ocean“, an interdisciplinary project that aims to better understand the energy transfer between waves, eddies and local turbulence in the ocean and the atmosphere to develop energetically consistent models and thus enhance climate analyzes and forecast accuracy. Due to the lack of ship time, there was a risk of total loss of these moorings as they only had a limited battery life and could no longer be actively recovered after a certain deployment period. This would also result in a massive loss of recorded data and samples. For TRR181, the lack of ship time would have meant to cancel major parts of the second phase of the research program.

The following mooring work was the basis for SO283:

- Two deployments of oceanographic moorings in the open South Atlantic as part of the TRR181 program.
- Two deployments of sediment trap moorings off South Africa.
- Two recoveries and two re-deployments of sediment trap moorings off Namibia.
- Three recoveries and one re-deployment of oceanographic moorings off Namibia
- One recovery and one re-deployment of an oceanographic mooring off Angola

In addition to the anchored moorings, in total seven short-term drifting sediment traps systems (“drifter”) were deployed and recovered in the TRAFFIC working area off the coast of South Africa and Namibia. Apart from the mooring work, CTD profiles in all mooring areas were part of the research program of SO-283. The CTD work was accompanied by APSTEIN- and WP-2 net hauls. Finally, three ARVOR- and two BIO-ARGO-Floats were released between 33° and 10°S. Throughout the cruise (at least south of the EEZ of Cape Verde Islands), underway measurements for water pH, dissolved inorganic carbon (DIC), total alkalinity (TA), temperature and salinity and other parameters including weather data were conducted providing a unique data set for such a long cruise.

Cruise Narrative

The first step of the cruise was our quarantine period at the hotel in Varel. We all checked in on March 9, 2021 and stayed in our hotel rooms for 9 consecutive days without even leaving our rooms. But our stay in the hotel was really well organized and comfortable. The time passed very quickly. On March 18, after we had checked out, we were transferred to R/V SONNE in the port of Emden. At 14:30 local time we took our first steps on the ship.

A total of 13 scientists from the Universities of Hamburg and Bremen, GEOMAR in Kiel and the Leibniz Institute for Baltic Sea Research Warnemünde (IOW) started their long journey from Emden to the South Atlantic on Friday, March 19, 2021. Right on time at 12:58 o'clock it was time to cast off! We passed R/V METEOR in the port of Emden. It seemed as if the circle is already closing in the harbor basin of Emden. Because in 2019, during the research voyages with R/V METEOR, we had laid out the moorings in the southern Atlantic, which we now want to recover with R/V SONNE. A total of almost 15,000 nautical miles, i.e. approx. 28,000 km, or 67 days on board R/V SONNE lied ahead of us

The weather conditions at the beginning meant well with us. Whenever there would have been storm or heavy swell on our route, we usually passed the area before it really started. After 10 days at sea, the external conditions were really good and most of the time we could see the sun setting on the horizon in the evening. On the entry into the English Channel we could enjoy the White Cliffs of Dover for a short time and then quickly left the coast of Brittany, the Bay of Biscay and the waters of Madeira and the Canary Islands behind us. On Friday, March 26 we already crossed the Tropic of Cancer and in the course of Saturday evening we reached the westernmost point of our cruise at the latitude of Cape Verde. Here we face locally wind force 7 and waves up to 3 m height, which, however, does not affect R/V SONNE very much - the ship lies really impressively calm in the water. The work under the subtropical sun is now full of contrasts.

The main focus of the work continued to be the preparations for the mooring operations. Wherever you looked, somewhere there is always somebode unpacking and assembling, calibrating and testing, checking and bolting together. It was very impressive what is being unloaded from the containers. The different working groups got to know each other so well that we were able to elect the persons of trust for the scientific party. Bita Sabbaghzadeh from the IOW was elected as the confidant for the female participants, and Sebastian Beier, also from the IOW, represented the male participants.

In three weeks since we had left Emden, we covered more than 6,000 nautical miles and arrived at the first working area with mooring operations after exactly 21 days of sailing. On Thursday, April 8, 2021, the engines were stopped and preparations for the mooring work in the TRR-181 program started. After a careful survey of the bathymetry at the intended mooring position and the physical measurements of the water layers based on a 5000 m CTD profile, the actual deployment of a 5000 m mooring at 32°10’S, 04°36’E for the TRR-181 research program by the Institute of Environmental Physics (IUP) of the University of Bremen started right on time at 07:00 on April 9. 5000 m mooring is a huge challenge for all

involved, i.e. for the ship's command, for the deck crew, but of course also for the scientists themselves. The preparation time during the long journey was perfectly used for this, so that after less than 5 hours of deck work, the anchor went overboard at 11:43. and the system disappeared into the depths of the Atlantic.

In the days that followed, so-called PIES (Pressure Inverted Echo Sounders) were then deployed at previously selected positions in the working area. These instruments will also autonomously measure the water layers during the next months and provide important information about the water mass distribution in the South Atlantic. On Sunday, April 11, the second almost 5 km long mooring system of the IUP was already on the station schedule at 32°41'S, 07°05'E. At 06:30 the head buoy went into the water and after that successively about three dozen instruments and sensors in predefined intervals. Shortly before 11:00, the entire system was actually already ready to be deployed, but due to the strong current, the SONNE could only tow the system very slowly to the designated anchor position, so as not to expose the instruments, ropes and shackle connections to too much tension. Safety first. At exactly 14:10. the time had come, the anchor was released and pulled the almost 5 km long mooring system with it into the depths of the Atlantic. Finally, at 14:40, the head buoy also submerged, so that the station could be finished and we left for the next PIES station. An important milestone of this cruise could already be successfully checked off.

In the open Atlantic we deployed the last PIES for the TRR181 program before setting course for Cape Town. On the way there at 33°06'S, 13'53'E, we launched a so-called Bio-ARGO float for a French research institute in a cyclonic ocean eddy on the morning of April 13, 2021. These ARGO floats were equipped with various sensors and autonomously measure physical and chemical parameters in the upper 1000 m of the water column and then send the data via satellite to the home institutes every 10 days for several years.

And then it was time: after almost four weeks on the open ocean, with nothing but the endless blue sea around us, we saw land again. Birds, whales and seals greeted us, butterflies and dragonflies basked on the top deck, the color of the water and the smells in the air changed. On schedule, we arrived at the port of Cape Town at 07:15 in the morning of April 14, 2021. A surprise was waiting for us there: At the neighboring pier lay the famous drilling ship JOIDES Resolution, and greeted R/V SONNE while going alongside. In Cape Town, fuel was bunkered during the day and fresh provisions were taken on board. After less than 12 hours of stay, we cast off again at 18:50. With our stopover in Cape Town we left the most southern point of our long journey at the same time with the most beautiful sunset. The turning point was reached, from now on we were heading north again.

The winds around the Cape of Good Hope have always been notorious and feared. And we got to feel that clearly right away. Within a few hours the weather conditions changed dramatically, so that on the evening April 15, we were confronted with wind force Beaufort 9 and 4.5 m high waves. What a contrast to the almost unusually calm conditions of the previous weeks. However, we were well prepared so that even under these difficult conditions the research continued - and very successfully. The two mooring systems in the

TRAFFIC program could already be deployed again on April 15 at 31°02'S, 15°13'E and April 16 at 30°38'S, 17°01'E, respectively.

The mooring work was flanked by numerous CTD stations and micro- or zooplankton net deployments, which brought an abundance of plankton communities under the microscopes and onto the filtration units of the working groups. In addition, so-called drifter systems were also released, each equipped with five sediment traps at different depths to measure the particle flux and vertical zooplankton migration.

So on Sunday, April 18 shortly before 20:00 shipboard time we conclude the station work in the Exclusive Economic Zone of South Africa and were able to put a big green tick behind the work in the southern Benguela upwelling area. All plans could be fulfilled to 100%. R/V SONNE then directly headed to Walvis Bay for another stopover.

R/V SONNE had never been in Namibian waters before and had to be cleared in first. So we moored at the pier in Walvis Bay on April 20 at 09:35 ship time. All the necessary formalities were completed during the day so that we could leave the pier again at 15:50 on the same day and started station work in Namibian waters.

There was not enough daylight left for mooring work, so the night hours were used intensively for station work with CTD deployments and net catches. On the way to the western mooring WBST West-02, two drifter systems with various sediment trap bottles were set out before things got really exciting for the first time around noon on 21 April: the recovery of mooring WBST West-02 at 23°00'S, 12°23'E. In the course of the day, the almost 1.7 km long mooring was then recovered and an inventory was made. It turned out that most likely due to fishing activities the top float, a buoyancy module and a CTD sensor had been torn off. In addition, it turned out that the sediment trap had not worked as intended due to motor damage.

After everything had been checked and secured on deck, R/V SONNE sailed to the next mooring system overnight. When we arrived at the mooring station (23°01, 14°13'E) on the morning of April 22, we were slowed down by thick clouds of fog. Around 07:30 board time, the fog lifted and the system could be released. It responded immediately and also came to the surface - but with a big surprise. Almost the entire system was completely covered with shells, star fish and other organisms during the more than two years of mooring time. It was a sight no one had expected. Nevertheless, all systems and sensors worked successfully and collected an important set of data and samples for the TRAFFIC project.

After the successful recovery, the first thing to do was to scrub the deck so that work could continue. The next mooring LTMB of the EVAR project was less than an hour away at 23°00'S, 14°03'E. Here, too, the acoustic release responded immediately, but nothing came to the surface, despite multiple pings. Fortunately, the system was equipped with an emergency trigger, which then also brought buoys to the surface. Still, something seemed

strange. And it soon turned out what: large parts of the main system had been torn off. A total of 17 instruments and sensors were missing - a great loss of material and data.

On deck, everything was now counted, a general inventory was carried out and it was decided: all systems can be deployed again, which is of great importance for the individual projects. So in the afternoon of April 22. WBST West-03 was re-deployed, before in the morning of April 23. the systems LTMB and WBST East-09 were successfully moored. In the afternoon, the drifters were successfully recovered before the transit towards 18°S began after a very labor-intensive day, in order to recover the next mooring there and to deploy a short-term drifter system.

In the evening we were greeted by wind gusts of up to 8 Bft., but this did not prevent us from continuing our night station work with CTD deployments. The next mooring was already waiting for us on Sunday morning, April 25. At 18°00’S, 11°40’E, the Trawl Resistant Bottom Mount – also called the "turtle", immediately came to the surface and the whole system was on deck in less than an hour. We still collected the drifter in the afternoon, accompanied by a school of pilot whales, and were then heading to 25°S to recover the last mooring in Namibian waters and to collect some more data and samples there on the transect. The transit was also used to conduct the monthly safety drill to keep everyone on board in practice. And then another good three days of research work started, which was to demand everything from the ship, the material and the people on board.

On April 27, a short and a long drifter system were deployed, then one CTD station followed the next, so that all involved worked sleepless through the night. So plenty of data was collected, water samples were filled and net catches were brought on board and further processed virtually every hour.

On April 28. at sunrise shortly after 06:00 ship time it got exciting again: The last mooring in Namibian waters, LTCN-01, was pinged at 25°05’S, 14°32’E. The system responded immediately and was also visible on the water surface a short time later. However, something was visible but only dimly resembled what had been moored in 2019. Similar to WBST East-08, almost the entire system was overgrown with mussels and other benthic organisms. So not only were all the instruments and equipment successfully recovered, but so were hundreds of kilograms of bivalves. Despite intensive scraping and scratching, it took time for the actual instruments to reappear. Most importantly, the system was successfully back on deck.

During April 28, several CTD and net deployments were on the station schedule, before the two drifters were to be recovered again on April 29. During the night the wind increased more and more, so that we had to fight with wind gusts up to 10 Bft. and waves up to 5 m high in the morning of April 29. Under these conditions it was difficult to see the drifters at all in the rough sea. But now the weeks of cooperation on the ship were about to pay off. In excellent cooperation between the bridge, the deck crew and the mooring specialists of the Universität Hamburg, both drifter systems were recovered from heavy seas and secured on

deck on the morning of April 29 - including the sample set. RV SONNE then changed on course north towards Walvis Bay in the evening of April 29.

In the gray coastal fog, RV SONNE then docked in Walvis Bay for the second time on this voyage on April 30 at 09:00 shipboard time. On the one hand, this was necessary so that the ship could be cleared out again after completion of the work in Namibian waters; on the other hand, fuel was bunkered once again due to the additional nautical miles and port calls. With full tanks, RV SONNE left Walvis Bay in the afternoon at 15:24 in bright sunshine, set course north along the southwest African coast towards Angola. On the way to the actual working area at 14°48'S, 11°06'E, the first of three BSH ARGO floats was launched on the morning of May 02 at 07:00.

On the morning of 03.05.2021 with a few CTD stations before, we then arrived at the last mooring on this cruise at 10°50'S, 13°00'E: KPO-1215 belonging to GEOMAR. All parameters matched, so this system was also cleared for release. Flotation modules were quickly sighted. One by one, the individual modules came to the surface. The ship slowly approached the head buoy and at 07:20 the system was hooked. All modules, all sensors, all instruments were pulled on deck step by step until 08:20. With this it was clear that SO283 Mooring Rescue can be classified as a complete success. All systems, for which we had taken this long and long journey to rescue them, could be recovered.

After recovery, the day was spent overhauling the system. Numerous other CTD stations followed in short intervals until a few nautical miles away from the coast of Angola. Until deep into the night, one profile after the next was taken until we were back in the morning at the same mooring position as the day before. On May 04 we started the re-deployment of the mooring from GEOMAR. At 06:20, under good weather conditions, the modules were successively lowered into the water until the ship was able to pull the system behind it like a string of pearls. After an hour and 20 minutes, the designated position was reached and the anchor dropped. Mooring KPO-1235 was back in almost exactly the same position as KPO-1215.

Still in the morning, a last BIO-ARGO float was deployed at 11°00'S, 12°45'E for a French research institute. The last stop on this voyage was then scheduled for the night of 05.05. In the central part of the so-called Angola Dome close to 10°S and 10°E, whose water masses have a large influence on the northern Benguela upwelling area, CTD data and water samples were taken once again, plankton nets were run and underway data were recorded. Again, everything went well and smoothly.

Then at dawn on May 05, our last station, appropriately station #100 was to conclude this cruise: BSH's last ARGO float was to be launched briefly. And as if it were yet another great reminder that nothing should be taken for granted on research cruises, the ARGO float simply would not connect to the satellite. Countless e-mails were written back and forth with the operators and various attempts were made to restart the float. At first, all attempts were unsuccessful. It was not until new codes were sent directly to the instrument by satellite from the manufacturer the next morning that the float woke up correctly and was ready to

measure. Within a few minutes the SONNE reduced her speed and the float was handed over to the Atlantic 08°21'S, 03°21'E. Thus, after exactly #101 stations, the station work ended 100% successful after all.

After the last station it was time to head for home. Ahead of us were now about 5,550 nautical miles or more than 14 days of transit. But this time was used profitably on board. There was enough data and samples that still had to be evaluated and processed. The weather conditions supported mostly a fast cruising speed so that we reached the European continent a bit earlier than initially planned. By leaving the English Channel we faced wind speeds of up to 10 Bft. in the North Sea on May 21.

RV SONNE reached the port of Emden after more than 16,970 nautical miles in total on May 22 at 11:00 h in the morning – after being 64 days continuously at sea.

Acknowledgements

R/V SONNE cruise SO283 "*Mooring Rescue"* was planned and conducted on short notice due to the uncertainties of the Corona pandemic. It was coordinated and carried out by the Universität Hamburg, Institute of Geology in close cooperation with the German Research Fleet Coordination Centre. The cruise was supported by the German Research Foundation (DFG) and the SPACES program of the Federal Ministry of Education and Research (BMBF). We very much appreciate the valuable support from Briese Research, the German Research Fleet Coordination Centre and the Advisory Board (GPF) making this cruise possible. We would like to specially acknowledge and to thank the master of the vessel, Oliver Meyer and his crew for their outstanding support and contribution in making this cruise a complete success. We very much enjoyed the pleasant, friendly and professional atmosphere aboard R/V SONNE. Thanks to all who supported this cruise directly or indirectly. We also would like to thank the German embassies and the foreign ministries in Spain, Portugal, South Africa, Namibia and Angola for supporting our requests and for granting the research permissions.

Participants

Name	Discipline	Institution
Lahajnar, Niko, Dr.	Biogeochemistry / Chief Scientist	UHH
Andrae, Alexandra	Moorings / ARGO Floats	GEOMAR
Beier, Sebastian	Moorings	IOW
Heinatz, Knut	Microplankton	UHH
Hirschmann, Sophia	Microplankton	UHH
Meiritz, Luisa Chiara	Moorings / Drifter	UHH
Mertens, Christian, Dr.	Moorings / Hydrographie	UHB
Rose, Jonathan	Biogeochemistry	UHH

Sabbaghzadeh, Bita, Dr.	Underway-Measurement	IOW
Schmidt, Martin, Dr.	Oceanography	IOW
Stake, Jürgen	Moorings	UHB
Stiehler, Jan Eric	Moorings	UHB
Witting, Paul Jaspar	Moorings	GEOMAR

UHH	Universität Hamburg
UHB	Universität Bremen
GEOMAR	Helmholtz-Zentrum für Ozeanforschung GEOMAR, Kiel
IOW	Leibniz-Institut für Ostseeforschung Warnemünde

Station List

Abbreviations:

CTD:	CTD-Rosette Water Sampler
PLA:	APSTEIN Plankton-Net
WP-2:	WP-2 Plankton Net 300 µm
MB:	Multi-Beam
MOOR:	Anchored Mooring
PIES:	Pressure Inverted Echo Sounder
DRIFT:	Drifting Sediment Trap Mooring
FLOAT:	ARGO-Float Deployments

Station	Gear	Date and Time	Latitude	Longitude	Water Depth (m)
SO283_1-1	CTD	23.03.2021 16:29	37° 33.338' N	015° 07.170' W	4050
SO283_1-2	PLA	23.03.2021 15:48	37° 33.339' N	015° 07.170' W	4050
SO283_1-3	PLA	23.03.2021 15:54	37° 33.340' N	015° 07.173' W	4050
SO283_1-4	PLA	23.03.2021 15:58	37° 33.337' N	015° 07.174' W	4050
SO283_1-5	PLA	23.03.2021 16:02	37° 33.337' N	015° 07.172' W	4050
SO283_1-6	PLA	23.03.2021 16:06	37° 33.337' N	015° 07.171' W	4050
SO283_1-6	PLA	23.03.2021 16:09	37° 33.337' N	015° 07.172' W	4050
SO283_1-7	WP-2	23.03.2021 18:09	37° 33.337' N	015° 07.171' W	4050
SO283_2-1	CTD	29.03.2021 09:04	09° 20.507' N	023° 51.769' W	5229
SO283_2-2	PLA	29.03.2021 08:11	09° 20.504' N	023° 51.761' W	5229
SO283_2-3	PLA	29.03.2021 08:15	09° 20.507' N	023° 51.762' W	5229
SO283_2-4	PLA	29.03.2021 08:20	09° 20.506' N	023° 51.767' W	5229
SO283_2-5	PLA	29.03.2021 08:25	09° 20.502' N	023° 51.764' W	5229
SO283_2-6	PLA	29.03.2021 08:30	09° 20.515' N	023° 51.768' W	5229
SO283_2-7	PLA	29.03.2021 08:33	09° 20.512' N	023° 51.770' W	5229
SO283_2-8	PLA	29.03.2021 08:39	09° 20.513' N	023° 51.769' W	5229
SO283_2-9	PLA	29.03.2021 08:43	09° 20.503' N	023° 51.769' W	5229
SO283_2-10	WP-2	29.03.2021 10:40	09° 20.511' N	023° 51.760' W	5229
SO283_3-1	CTD	01.04.2021 08:36	04° 34.344' S	019° 19.685' W	4813
SO283_3-2	PLA	01.04.2021 08:17	04° 34.347' S	019° 19.678' W	4813
SO283_3-3	PLA	01.04.2021 08:22	04° 34.350' S	019° 19.681' W	4813
SO283_3-4	PLA	01.04.2021 08:26	04° 34.350' S	019° 19.685' W	4813
SO283_3-5	PLA	01.04.2021 08:34	04° 34.345' S	019° 19.685' W	4813
SO283_3-6	PLA	01.04.2021 08:40	04° 34.346' S	019° 19.685' W	4813

Station	Gear	Date and Time	Latitude	Longitude	Water Depth (m)
SO283_3-7	PLA	01.04.2021 08:44	04° 34.351' S	019° 19.686' W	4813
SO283_3-8	WP-2	01.04.2021 09:44	04° 34.346' S	019° 19.687' W	4813
SO283_3-9	MOOR	01.04.2021 11:37	04° 34.338' S	019° 19.685' W	4813
SO283_3-10	CTD	01.04.2021 15:23	04° 34.338' S	019° 19.869' W	4813
SO283_4-1	CTD	05.04.2021 08:59	19° 54.237' S	007° 56.059' W	4258
SO283_4-2	PLA	05.04.2021 08:14	19° 54.236' S	007° 56.055' W	4266
SO283_4-3	PLA	05.04.2021 08:18	19° 54.236' S	007° 56.054' W	4264
SO283_4-4	PLA	05.04.2021 08:21	19° 54.237' S	007° 56.055' W	4255
SO283_4-5	PLA	05.04.2021 08:24	19° 54.237' S	007° 56.055' W	4265
SO283_4-6	PLA	05.04.2021 08:28	19° 54.240' S	007° 56.058' W	4269
SO283_4-7	PLA	05.04.2021 08:32	19° 54.243' S	007° 56.064' W	4268
SO283_4-8	PLA	05.04.2021 08:37	19° 54.240' S	007° 56.063' W	4267
SO283_4-9	WP-2	05.04.2021 10:57	19° 54.245' S	007° 56.056' W	4246
SO283_5-1	CTD	08.04.2021 17:06	31° 55.003' S	004° 20.007' E	4820
SO283_6-1	MB	08.04.2021 20:14	32° 09.985' S	004° 36.045' E	5118
SO283_6-1	MB	08.04.2021 22:13	32° 09.995' S	004° 54.708' E	5088
SO283_6-1	MB	08.04.2021 22:35	32° 12.874' S	004° 54.981' E	4945
SO283_6-1	MB	09.04.2021 00:34	32° 12.996' S	004° 35.978' E	4923
SO283_7-1	CTD	09.04.2021 03:11	32° 10.997' S	004° 38.009' E	5124
SO283_7-2	PLA	09.04.2021 04:07	32° 10.993' S	004° 38.002' E	5128
SO283_7-2	PLA	09.04.2021 04:09	32° 10.993' S	004° 38.001' E	5134
SO283_7-3	PLA	09.04.2021 04:13	32° 10.990' S	004° 38.005' E	5122
SO283_7-4	PLA	09.04.2021 04:19	32° 10.991' S	004° 38.003' E	5128
SO283_7-5	PLA	09.04.2021 04:22	32° 10.991' S	004° 38.005' E	5122
SO283_7-6	PLA	09.04.2021 04:25	32° 10.994' S	004° 38.002' E	5126
SO283_7-7	WP-2	09.04.2021 05:50	32° 10.696' S	004° 38.093' E	5124
SO283_7-8	MOOR	09.04.2021 07:01	32° 07.984' S	004° 39.632' E	5172
SO283_7-8	MOOR	09.04.2021 11:42	32° 11.302' S	004° 38.114' E	5114
SO283_8-1	PIES	09.04.2021 18:03	32° 26.387' S	005° 51.025' E	5064
SO283_8-2	CTD	09.04.2021 20:27	32° 26.385' S	005° 51.032' E	5103
SO283_8-3	PLA	09.04.2021 21:36	32° 26.385' S	005° 51.017' E	5103
SO283_8-4	PLA	09.04.2021 21:39	32° 26.384' S	005° 51.017' E	5103
SO283_8-5	PLA	09.04.2021 21:44	32° 26.386' S	005° 51.023' E	5080
SO283_8-6	PLA	09.04.2021 21:47	32° 26.385' S	005° 51.022' E	5071
SO283_8-7	PLA	09.04.2021 21:51	32° 26.387' S	005° 51.021' E	5110
SO283_8-8	PLA	09.04.2021 21:55	32° 26.388' S	005° 51.018' E	5076
SO283_8-9	WP-2	09.04.2021 22:55	32° 26.414' S	005° 50.968' E	5077
SO283_9-1	PIES	10.04.2021 07:19	31° 38.927' S	007° 24.619' E	5074
SO283_9-2	CTD	10.04.2021 09:56	31° 38.930' S	007° 24.623' E	5070
SO283_10-1	CTD	10.04.2021 17:26	32° 27.962' S	007° 10.044' E	5220
SO283_11-1	MB	10.04.2021 19:43	32° 40.955' S	007° 05.595' E	4952
SO283_11-1	MB	10.04.2021 21:40	32° 41.140' S	007° 23.978' E	5026
SO283_11-1	MB	10.04.2021 22:08	32° 43.962' S	007° 23.053' E	5063
SO283_11-1	MB	10.04.2021 23:44	32° 43.978' S	007° 07.084' E	4974
SO283_12-1	PIES	11.04.2021 00:12	32° 42.306' S	007° 07.508' E	4999
SO283_12-2	CTD	11.04.2021 02:32	32° 42.308' S	007° 07.507' E	4998
SO283_12-3	PLA	11.04.2021 03:44	32° 42.310' S	007° 07.506' E	4996
SO283_12-4	PLA	11.04.2021 03:49	32° 42.308' S	007° 07.505' E	4997
SO283_12-5	PLA	11.04.2021 03:53	32° 42.306' S	007° 07.503' E	4998

Station	Gear	Date and Time	Latitude	Longitude	Water Depth (m)
SO283_12-6	PLA	11.04.2021 03:57	32° 42.306' S	007° 07.502' E	4996
SO283_12-7	WP-2	11.04.2021 05:15	32° 42.311' S	007° 07.506' E	4997
SO283_12-8	MOOR	11.04.2021 06:35	32° 40.765' S	007° 09.061' E	5201
SO283_13-1	PIES	11.04.2021 20:04	33° 45.097' S	006° 47.367' E	5299
SO283_13-2	CTD	11.04.2021 22:36	33° 45.096' S	006° 47.377' E	5295
SO283_14-1	PIES	12.04.2021 07:19	32° 57.661' S	008° 20.909' E	4946
SO283_14-2	CTD	12.04.2021 09:39	32° 57.664' S	008° 20.906' E	4953
SO283_15-1	CTD	13.04.2021 08:25	33° 06.009' S	013° 52.019' E	
SO283_15-2	PLA	13.04.2021 07:52	33° 06.006' S	013° 52.022' E	
SO283_15-3	PLA	13.04.2021 07:57	33° 06.008' S	013° 52.022' E	
SO283_15-4	PLA	13.04.2021 08:01	33° 06.009' S	013° 52.022' E	
SO283_15-5	PLA	13.04.2021 08:04	33° 06.009' S	013° 52.026' E	
SO283_15-6	FLOAT	13.04.2021 09:27	33° 06.007' S	013° 52.028' E	
SO283_16-1	CTD	15.04.2021 12:56	31° 02.709' S	015° 13.844' E	1291
SO283_16-2	PLA	15.04.2021 12:26	31° 02.708' S	015° 13.850' E	1290
SO283_16-3	PLA	15.04.2021 12:36	31° 02.707' S	015° 13.847' E	1291
SO283_16-4	PLA	15.04.2021 12:43	31° 02.711' S	015° 13.857' E	1291
SO283_16-5	PLA	15.04.2021 12:49	31° 02.711' S	015° 13.845' E	1291
SO283_16-6	PLA	15.04.2021 12:58	31° 02.710' S	015° 13.851' E	1292
SO283_16-7	MOOR	15.04.2021 14:12	31° 02.515' S	015° 13.627' E	1293
SO283_17-1	DRIFT	15.04.2021 20:50	31° 29.923' S	015° 29.878' E	997
SO283_18-1	CTD	16.04.2021 06:21	31° 00.026' S	017° 34.987' E	108
SO283_18-2	PLA	16.04.2021 06:15	31° 00.024' S	017° 34.991' E	108
SO283_18-3	PLA	16.04.2021 06:18	31° 00.025' S	017° 34.991' E	107
SO283_18-4	PLA	16.04.2021 06:25	31° 00.029' S	017° 34.986' E	107
SO283_18-5	PLA	16.04.2021 06:29	31° 00.021' S	017° 34.989' E	105
SO283_18-6	PLA	16.04.2021 06:33	31° 00.030' S	017° 34.985' E	107
SO283_18-7	PLA	16.04.2021 06:39	31° 00.027' S	017° 34.980' E	108
SO283_19-1	DRIFT	16.04.2021 09:43	30° 59.929' S	016° 59.983' E	192
SO283_20-1	MOOR	16.04.2021 12:07	30° 37.986' S	017° 00.853' E	164
SO283_20-2	CTD	16.04.2021 13:07	30° 38.489' S	017° 01.009' E	166
SO283_20-3	PLA	16.04.2021 12:59	30° 38.490' S	017° 01.021' E	166
SO283_20-4	PLA	16.04.2021 13:04	30° 38.490' S	017° 01.017' E	165
SO283_20-5	PLA	16.04.2021 13:10	30° 38.489' S	017° 01.011' E	166
SO283_20-6	PLA	16.04.2021 13:13	30° 38.495' S	017° 01.012' E	165
SO283_20-7	PLA	16.04.2021 13:18	30° 38.496' S	017° 01.016' E	167
SO283_20-8	WP-2	16.04.2021 13:39	30° 38.484' S	017° 01.010' E	168
SO283_21-1	CTD	16.04.2021 16:17	30° 22.997' S	017° 17.004' E	44
SO283_21-2	PLA	16.04.2021 16:31	30° 22.990' S	017° 17.008' E	43
SO283_21-3	PLA	16.04.2021 16:32	30° 22.992' S	017° 17.003' E	44
SO283_21-4	PLA	16.04.2021 16:37	30° 22.996' S	017° 17.004' E	43
SO283_21-5	PLA	16.04.2021 16:40	30° 22.993' S	017° 17.009' E	46
SO283_21-6	PLA	16.04.2021 16:44	30° 22.997' S	017° 17.005' E	43
SO283_21-7	PLA	16.04.2021 16:48	30° 22.996' S	017° 17.003' E	44
SO283_22-1	CTD	17.04.2021 02:25	31° 00.009' S	014° 49.971' E	2167
SO283_22-2	PLA	17.04.2021 02:09	31° 00.005' S	014° 49.968' E	2166
SO283_22-3	PLA	17.04.2021 02:13	31° 00.009' S	014° 49.969' E	2167
SO283_22-4	PLA	17.04.2021 02:19	31° 00.009' S	014° 49.973' E	2165
SO283_22-5	PLA	17.04.2021 02:23	31° 00.010' S	014° 49.973' E	2167

Station	Gear	Date and Time	Latitude	Longitude	Water Depth (m)
SO283_22-6	PLA	17.04.2021 02:27	31° 00.008' S	014° 49.968' E	2165
SO283_23-1	CTD	17.04.2021 08:11	31° 59.976' S	015° 00.036' E	2510
SO283_23-2	PLA	17.04.2021 07:56	31° 59.973' S	015° 00.037' E	2510
SO283_23-3	PLA	17.04.2021 08:01	31° 59.976' S	015° 00.038' E	2509
SO283_23-4	PLA	17.04.2021 08:04	31° 59.972' S	015° 00.036' E	2510
SO283_23-5	PLA	17.04.2021 08:07	31° 59.971' S	015° 00.035' E	2509
SO283_23-6	PLA	17.04.2021 08:11	31° 59.976' S	015° 00.036' E	2510
SO283_23-7	WP-2	17.04.2021 08:57	31° 59.969' S	015° 00.043' E	2510
SO283_24-1	MOOR	17.04.2021 12:04	31° 28.902' S	015° 26.255' E	1119
SO283_24-2	CTD	17.04.2021 14:09	31° 28.820' S	015° 26.130' E	1123
SO283_24-3	WP-2	17.04.2021 15:14	31° 28.822' S	015° 26.129' E	1122
SO283_25-1	CTD	17.04.2021 23:56	32° 00.022' S	017° 24.969' E	156
SO283_25-2	PLA	17.04.2021 23:52	32° 00.019' S	017° 24.967' E	158
SO283_25-3	PLA	18.04.2021 00:04	32° 00.020' S	017° 24.967' E	157
SO283_25-4	PLA	18.04.2021 00:12	32° 00.022' S	017° 24.975' E	157
SO283_25-5	PLA	18.04.2021 00:19	32° 00.023' S	017° 24.972' E	157
SO283_25-6	PLA	18.04.2021 00:24	32° 00.021' S	017° 24.977' E	157
SO283_25-7	WP-2	18.04.2021 00:36	32° 00.021' S	017° 24.970' E	157
SO283_26-1	MOOR	18.04.2021 05:27	31° 02.572' S	016° 58.718' E	212
SO283_26-2	CTD	18.04.2021 06:50	31° 02.193' S	016° 58.416' E	213
SO283_26-3	WP-2	18.04.2021 07:28	31° 02.193' S	016° 58.412' E	213
SO283_27-2	PLA	18.04.2021 18:24	30° 10.331' S	014° 22.024' E	1375
SO283_27-3	PLA	18.04.2021 18:30	30° 10.334' S	014° 22.023' E	1375
SO283_27-4	PLA	18.04.2021 18:36	30° 10.333' S	014° 22.021' E	1375
SO283_27-5	PLA	18.04.2021 18:39	30° 10.330' S	014° 22.020' E	1374
SO283_27-6	PLA	18.04.2021 18:45	30° 10.329' S	014° 22.023' E	1373
SO283_27-1	CTD	18.04.2021 18:57	30° 10.328' S	014° 22.026' E	1377
SO283_28-1	CTD	20.04.2021 17:00	23° 00.011' S	014° 22.019' E	37
SO283_28-2	PLA	20.04.2021 17:00	23° 00.011' S	014° 22.019' E	37
SO283_28-3	PLA	20.04.2021 17:06	23° 00.005' S	014° 22.015' E	81
SO283_28-4	PLA	20.04.2021 17:10	23° 00.009' S	014° 22.013' E	86
SO283_28-5	PLA	20.04.2021 17:14	23° 00.010' S	014° 22.009' E	78
SO283_29-1	CTD	20.04.2021 18:28	23° 00.002' S	014° 12.858' E	107
SO283_29-2	PLA	20.04.2021 18:26	23° 00.001' S	014° 12.856' E	108
SO283_29-3	PLA	20.04.2021 18:32	23° 00.001' S	014° 12.862' E	108
SO283_29-4	PLA	20.04.2021 18:37	23° 00.003' S	014° 12.861' E	107
SO283_29-5	PLA	20.04.2021 18:41	23° 00.003' S	014° 12.861' E	109
SO283_29-6	PLA	20.04.2021 18:46	23° 00.000' S	014° 12.858' E	108
SO283_29-7	WP-2	20.04.2021 19:06	22° 59.998' S	014° 12.852' E	108
SO283_29-8	CTD	20.04.2021 19:37	23° 00.002' S	014° 12.851' E	107
SO283_30-1	CTD	20.04.2021 21:55	22° 59.973' S	013° 51.624' E	144
SO283_31-1	CTD	21.04.2021 00:31	23° 00.006' S	013° 29.978' E	235
SO283_31-2	PLA	21.04.2021 00:25	23° 00.004' S	013° 29.978' E	234
SO283_31-3	PLA	21.04.2021 00:30	23° 00.007' S	013° 29.979' E	235
SO283_31-4	PLA	21.04.2021 00:34	23° 00.001' S	013° 29.978' E	235
SO283_31-5	PLA	21.04.2021 00:38	23° 00.004' S	013° 29.983' E	235
SO283_31-6	PLA	21.04.2021 00:42	23° 00.005' S	013° 29.991' E	234
SO283_32-1	CTD	21.04.2021 02:29	22° 59.998' S	013° 18.577' E	358
SO283_33-1	DRIFT	21.04.2021 04:55	22° 59.998' S	013° 35.000' E	144

Station	Gear	Date and Time	Latitude	Longitude	Water Depth (m)
SO283_34-1	DRIFT	21.04.2021 09:49	22° 59.992' S	012° 44.974' E	1024
SO283_35-1	MOOR	21.04.2021 14:27	22° 59.956' S	012° 23.534' E	1900
SO283_36-1	CTD	21.04.2021 18:13	23° 00.000' S	013° 00.909' E	470
SO283_36-2	PLA	21.04.2021 18:02	23° 00.006' S	013° 00.906' E	471
SO283_36-3	PLA	21.04.2021 18:08	23° 00.002' S	013° 00.910' E	471
SO283_36-4	PLA	21.04.2021 18:12	23° 00.000' S	013° 00.910' E	471
SO283_36-5	PLA	21.04.2021 18:15	22° 59.997' S	013° 00.907' E	472
SO283_36-6	PLA	21.04.2021 18:20	22° 59.998' S	013° 00.907' E	472
SO283_37-1	CTD	21.04.2021 22:09	22° 59.979' S	013° 40.733' E	150
SO283_38-1	CTD	22.04.2021 01:08	23° 00.003' S	014° 08.100' E	128
SO283_39-1	CTD	22.04.2021 02:49	22° 59.999' S	014° 19.031' E	69
SO283_40-1	MOOR	22.04.2021 05:00	23° 01.267' S	014° 13.077' E	118
SO283_42-1	MOOR	22.04.2021 16:32	22° 59.595' S	012° 23.764' E	1910
SO283_43-1	CTD	22.04.2021 20:15	22° 59.995' S	012° 19.817' E	2071
SO283_43-2	PLA	22.04.2021 19:28	22° 59.994' S	012° 19.809' E	2072
SO283_43-3	PLA	22.04.2021 19:33	22° 59.995' S	012° 19.811' E	2073
SO283_43-4	PLA	22.04.2021 19:38	22° 59.993' S	012° 19.806' E	2072
SO283_43-5	PLA	22.04.2021 19:42	22° 59.993' S	012° 19.807' E	2072
SO283_44-1	CTD	23.04.2021 05:11	23° 00.004' S	014° 03.014' E	128
SO283_44-2	MOOR	23.04.2021 05:28	22° 59.985' S	014° 03.001' E	134
SO283_45-1	MOOR	23.04.2021 06:51	23° 01.374' S	014° 02.217' E	133
SO283_46-1	DRIFT	23.04.2021 09:48	22° 58.622' S	013° 29.201' E	248
SO283_47-1	DRIFT	23.04.2021 15:09	22° 58.498' S	012° 41.432' E	1155
SO283_47-2	CTD	23.04.2021 16:09	22° 58.500' S	012° 41.430' E	1154
SO283_48-1	DRIFT	24.04.2021 15:17	17° 59.984' S	011° 18.008' E	907
SO283_49-1	CTD	24.04.2021 19:18	17° 15.934' S	011° 41.907' E	53
SO283_49-2	PLA	24.04.2021 19:19	17° 15.934' S	011° 41.907' E	53
SO283_49-3	PLA	24.04.2021 19:24	17° 15.937' S	011° 41.905' E	52
SO283_49-4	PLA	24.04.2021 19:29	17° 15.936' S	011° 41.905' E	49
SO283_49-5	PLA	24.04.2021 19:33	17° 15.936' S	011° 41.905' E	52
SO283_49-6	PLA	24.04.2021 19:37	17° 15.937' S	011° 41.905' E	51
SO283_50-1	CTD	24.04.2021 21:05	17° 15.928' S	011° 30.054' E	152
SO283_51-1	CTD	24.04.2021 23:12	17° 15.969' S	011° 16.479' E	505
SO283_51-2	WP-2	25.04.2021 00:01	17° 15.971' S	011° 16.469' E	505
SO283_52-1	CTD	25.04.2021 01:39	17° 15.959' S	011° 08.958' E	1103
SO283_53-1	CTD	25.04.2021 03:46	17° 15.953' S	011° 03.945' E	1540
SO283_54-1	MOOR	25.04.2021 09:26	17° 59.790' S	011° 39.008' E	124
SO283_54-2	CTD	25.04.2021 10:40	18° 00.037' S	011° 39.027' E	123
SO283_55-1	CTD	25.04.2021 13:11	18° 00.002' S	011° 17.997' E	906
SO283_55-2	WP-2	25.04.2021 14:05	18° 00.002' S	011° 18.004' E	907
SO283_55-3	DRIFT	25.04.2021 15:12	17° 57.342' S	011° 19.269' E	732
SO283_56-1	CTD	27.04.2021 03:40	25° 00.012' S	013° 28.020' E	799
SO283_57-1	DRIFT	27.04.2021 05:02	25° 00.003' S	013° 20.002' E	1088
SO283_57-2	CTD	27.04.2021 06:22	25° 00.111' S	013° 20.002' E	1081
SO283_57-3	WP-2	27.04.2021 07:38	25° 00.108' S	013° 20.004' E	1084
SO283_58-1	DRIFT	27.04.2021 10:58	25° 00.011' S	013° 54.907' E	180
SO283_58-2	CTD	27.04.2021 11:41	25° 00.179' S	013° 54.875' E	199
SO283_58-3	PLA	27.04.2021 11:39	25° 00.179' S	013° 54.876' E	180
SO283_58-4	PLA	27.04.2021 11:43	25° 00.178' S	013° 54.875' E	181

Station	Gear	Date and Time	Latitude	Longitude	Water Depth (m)
SO283_58-5	PLA	27.04.2021 11:47	25° 00.178' S	013° 54.875' E	183
SO283_58-6	PLA	27.04.2021 11:50	25° 00.179' S	013° 54.875' E	183
SO283_58-7	PLA	27.04.2021 11:53	25° 00.182' S	013° 54.874' E	181
SO283_58-8	WP-2	27.04.2021 12:25	25° 00.179' S	013° 54.874' E	182
SO283_59-1	CTD	27.04.2021 14:00	24° 59.983' S	014° 06.107' E	170
SO283_60-1	CTD	27.04.2021 15:59	25° 00.009' S	014° 19.186' E	143
SO283_60-2	PLA	27.04.2021 15:55	25° 00.012' S	014° 19.182' E	144
SO283_60-3	PLA	27.04.2021 16:00	25° 00.010' S	014° 19.185' E	143
SO283_60-4	PLA	27.04.2021 16:03	25° 00.012' S	014° 19.184' E	143
SO283_60-5	PLA	27.04.2021 16:06	25° 00.007' S	014° 19.184' E	144
SO283_60-5	PLA	27.04.2021 16:10	25° 00.008' S	014° 19.185' E	144
SO283_60-6	WP-2	27.04.2021 16:49	25° 00.004' S	014° 19.182' E	144
SO283_61-1	CTD	27.04.2021 18:06	24° 59.987' S	014° 24.998' E	125
SO283_62-1	CTD	27.04.2021 18:56	25° 00.005' S	014° 22.592' E	135
SO283_63-1	CTD	27.04.2021 21:04	24° 59.997' S	014° 30.001' E	107
SO283_64-1	CTD	27.04.2021 22:26	24° 59.999' S	014° 33.998' E	102
SO283_65-1	CTD	28.04.2021 00:09	25° 00.004' S	014° 40.000' E	77
SO283_66-1	CTD	28.04.2021 02:09	24° 59.997' S	014° 44.649' E	49
SO283_66-2	PLA	28.04.2021 02:04	24° 59.999' S	014° 44.648' E	51
SO283_66-3	PLA	28.04.2021 02:09	24° 59.998' S	014° 44.649' E	49
SO283_66-4	PLA	28.04.2021 02:12	24° 59.999' S	014° 44.647' E	49
SO283_66-5	PLA	28.04.2021 02:16	24° 59.996' S	014° 44.646' E	50
SO283_66-6	PLA	28.04.2021 02:20	24° 59.994' S	014° 44.646' E	50
SO283_66-7	WP-2	28.04.2021 02:42	24° 59.998' S	014° 44.644' E	49
SO283_67-1	CTD	28.04.2021 04:19	25° 04.743' S	014° 32.050' E	109
SO283_67-2	MOOR	28.04.2021 05:00	25° 04.802' S	014° 32.070' E	107
SO283_68-1	CTD	28.04.2021 08:02	25° 00.000' S	014° 28.142' E	115
SO283_68-2	PLA	28.04.2021 08:01	25° 00.000' S	014° 28.143' E	114
SO283_68-3	PLA	28.04.2021 08:10	24° 59.998' S	014° 28.137' E	117
SO283_68-4	PLA	28.04.2021 08:13	25° 00.000' S	014° 28.138' E	115
SO283_68-5	PLA	28.04.2021 08:19	25° 00.002' S	014° 28.140' E	117
SO283_68-6	PLA	28.04.2021 08:23	25° 00.002' S	014° 28.142' E	115
SO283_68-7	WP-2	28.04.2021 08:48	25° 00.000' S	014° 28.144' E	115
SO283_69-1	CTD	28.04.2021 10:20	24° 59.940' S	014° 17.111' E	157
SO283_70-1	CTD	28.04.2021 11:37	24° 59.994' S	014° 11.991' E	171
SO283_71-1	CTD	28.04.2021 13:39	24° 59.991' S	013° 59.995' E	173
SO283_72-1	CTD	28.04.2021 15:29	24° 59.992' S	013° 49.989' E	223
SO283_73-1	CTD	28.04.2021 16:49	25° 00.031' S	013° 43.848' E	313
SO283_74-1	CTD	28.04.2021 18:17	24° 59.984' S	013° 38.975' E	428
SO283_75-2	PLA	28.04.2021 19:37	24° 59.944' S	013° 32.818' E	626
SO283_75-3	PLA	28.04.2021 19:42	24° 59.945' S	013° 32.817' E	630
SO283_75-4	PLA	28.04.2021 19:46	24° 59.947' S	013° 32.815' E	629
SO283_75-5	PLA	28.04.2021 19:50	24° 59.947' S	013° 32.813' E	631
SO283_75-1	CTD	28.04.2021 19:51	24° 59.947' S	013° 32.812' E	630
SO283_76-1	CTD	28.04.2021 23:21	24° 59.947' S	013° 09.976' E	1458
SO283_77-1	CTD	29.04.2021 01:51	25° 00.000' S	012° 59.996' E	1795
SO283_78-1	DRIFT	29.04.2021 05:09	24° 52.609' S	013° 17.080' E	1045
SO283_79-1	DRIFT	29.04.2021 09:50	24° 51.894' S	013° 42.109' E	360
SO283_80-1	CTD	02.05.2021 05:24	14° 48.001' S	011° 06.001' E	3067

Station	Gear	Date and Time	Latitude	Longitude	Water Depth (m)
SO283_80-2	FLOAT	02.05.2021 06:09	14° 48.001‘ S	011° 06.001’ E	3070
SO283_81-1	FLOAT	02.05.2021 17:29	12° 19.594' S	011° 44.074' E	3036
SO283_81-2	CTD	02.05.2021 18:37	12° 19.832' S	011° 44.131' E	3039
SO283_82-1	CTD	03.05.2021 04:11	10° 53.003' S	012° 54.986' E	1297
SO283_83-1	MOOR	03.05.2021 05:29	10° 49.448' S	012° 59.851' E	1250
SO283_83-2	CTD	03.05.2021 08:15	10° 49.621' S	013° 00.133' E	1223
SO283_84-1	CTD	03.05.2021 09:47	10° 47.923' S	013° 02.953' E	1156
SO283_85-1	CTD	03.05.2021 11:15	10° 45.981' S	013° 06.054' E	935
SO283_86-1	CTD	03.05.2021 12:31	10° 43.993' S	013° 09.002' E	691
SO283_87-1	CTD	03.05.2021 13:48	10° 41.995' S	013° 12.001' E	441
SO283_88-1	CTD	03.05.2021 15:07	10° 39.999' S	013° 14.997' E	218
SO283_89-1	CTD	03.05.2021 16:05	10° 38.027' S	013° 17.934' E	121
SO283_90-1	CTD	03.05.2021 16:56	10° 36.057' S	013° 20.969' E	106
SO283_91-1	CTD	03.05.2021 17:46	10° 33.965' S	013° 24.007' E	85
SO283_92-1	CTD	03.05.2021 18:32	10° 31.997' S	013° 26.974' E	60
SO283_93-1	CTD	03.05.2021 19:18	10° 29.875' S	013° 29.991' E	41
SO283_94-1	CTD	04.05.2021 00:06	10° 56.063' S	012° 50.011' E	1388
SO283_95-1	CTD	04.05.2021 02:04	10° 59.996' S	012° 45.000' E	1424
SO283_96-1	MB	04.05.2021 03:41	10° 52.898' S	012° 54.100' E	1307
SO283_97-1	MOOR	04.05.2021 05:13	10° 49.390' S	012° 59.579' E	1217
SO283_98-1	FLOAT	04.05.2021 10:03	10° 59.945' S	012° 45.099' E	1436
SO283_99-1	CTD	05.05.2021 01:11	10° 00.003' S	009° 40.001' E	4420
SO283_99-2	PLA	05.05.2021 01:42	09° 59.997' S	009° 40.002' E	4413
SO283_99-3	PLA	05.05.2021 01:47	09° 59.998' S	009° 40.001' E	4415
SO283_99-4	PLA	05.05.2021 01:51	09° 59.997' S	009° 40.001' E	4415
SO283_99-5	PLA	05.05.2021 01:55	09° 59.999' S	009° 40.000' E	4420
SO283_99-6	WP-2	05.05.2021 03:17	10° 00.003' S	009° 40.011' E	4417
SO283_100-1	CTD	05.05.2021 05:27	09° 58.807' S	009° 33.083' E	4527
SO283_101-1	FLOAT	06.05.2021 08:45	08° 21.169' S	003° 21.030' E	5525