



On the 23rd of July
3 members of the
HADAL team:
Ronnie N. Glud
Frank Wenzhöfer
JP Balmonte joined
the AleutBio So293
expedition headed by
Angelika Brandt. The
6 weeks cruise target
The Aleutian Trench
with the German
research vessel RV
Sonne



Corona is a part of the daily life onboard – even during loading of the ship and unpacking of landers from the containers face masks must be worn



The ship's cranes are lifting the chamber lander out of the container, that was used for the shipment of the HADAL gear.



The first
cruise meeting
– chaired by
cruise leader
Angelika
Brandt



The multi corer return to the surface with lots of sediment cores for physical, chemical and biological analysis.



Just look at these beautiful layers!



After the cores have been retrieved the slicing can begin! Here Ronnie N. Glud is getting ready to cut sediment core – all this work is done in the cold room at 3-4 degrees C, to maintain in situ temperature during sediment handling. .



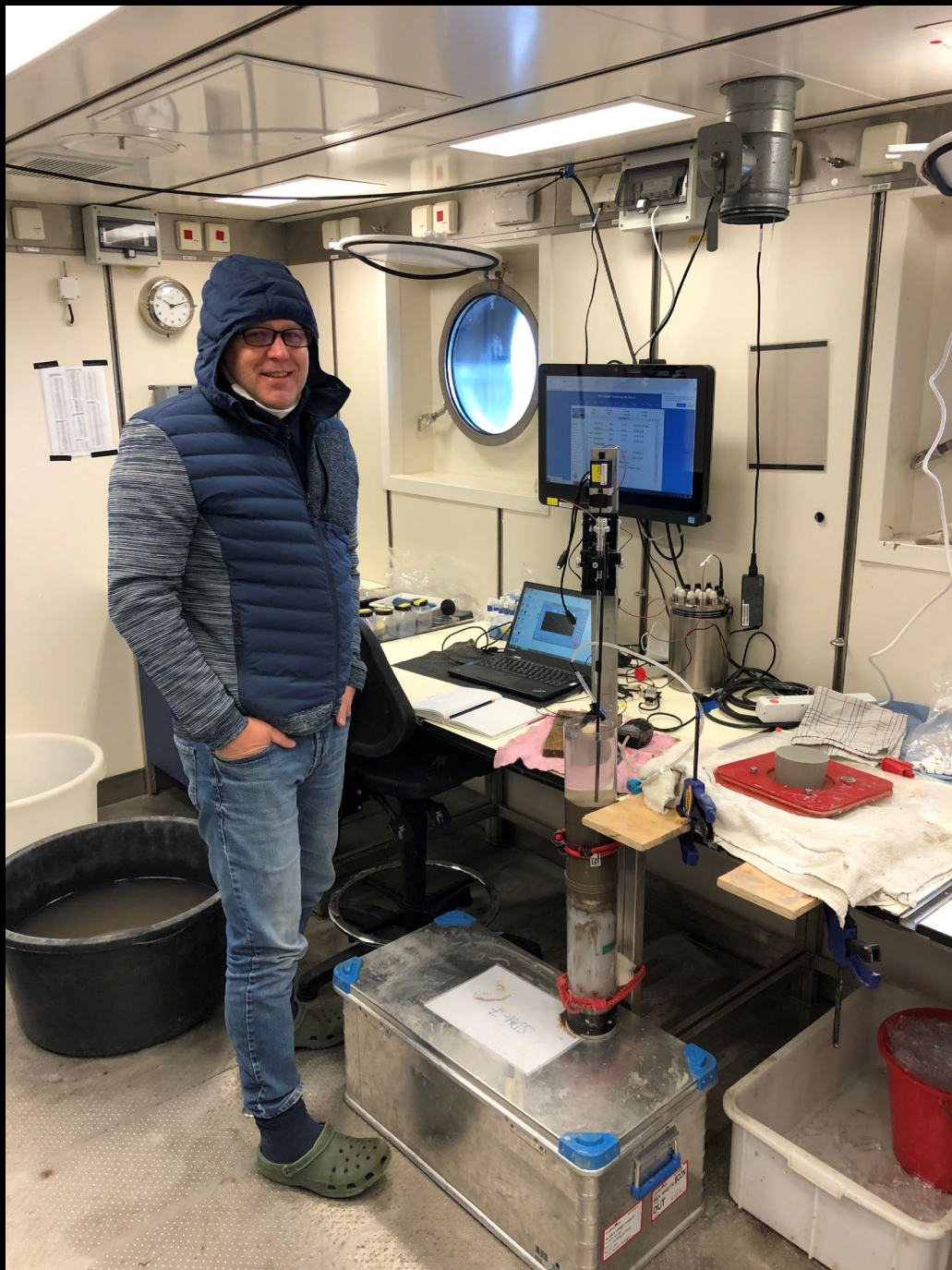
After slicing the cores – the respective sediment layers will be homogenised – some will be preserved for later analysis and some will be used for onboard experiments.



JP Balmonte – doing experiments on enzyme activity.

He explores how hydrostatic pressure affects the performance of different microbial enzymes in the recovered sediment





In the cold room - Frank Wenzhöfer is measuring the oxygen penetration depth in the sediment.

This provides insight in the amount of organic material that is being mineralized by bacteria in the sediment.



Only the upper part of the seafloor is oxic. To examine the different microbial processes going on in the deeper anoxic layers, work has to proceed in a glove bag with an atmosphere of pure nitrogen.

Working in a glovebag is not easy! You sit in an uncomfortable position, it is cold and you can hardly see anything because the glovebag gets moist – and often is covered in mud!



Here JP is taking a picture of the sediment lamination in a recovered sediment core. Together with chronological analysis this provides information on the deposition dynamics of the material accumulating in the seabed and the ongoing diagenetic processes.