

2025 NF-POGO-DTU-Aqua Shipboard Fellowship for the IBTS Cruise

Report

Name of Trainee: Raida Kadir

Name of Supervisor (Parent Institution): Dr. Subrata Sarker

Supervisor (Host Institution): Dr. Kai Wieland

Dates of Training: 25 August 2025 to 14 September 2025

Topic of Training: Assessment of Commercial Fish Stocks

Section A

(To be completed by the fellow)

It is the responsibility of the trainee to forward this form to the host and parent supervisor, and to submit a fully completed version to the POGO Secretariat. Please note that the complete report will be made public on the OTP website; Private comments should be included in a separate confidential form.

1) Please provide a brief description of activities during the training period:

During the shipboard training, I took part in various activities in the fish lab during the whole period and also assisted in the chemistry lab during the first leg of the cruise. In the fish lab, I participated in identifying and sorting fish species by type and sex, assisted in measuring their length and weight, and learnt how to separate otoliths from different species. During these activities, I observed the variation in commercial fish stock at different locations along the North Sea.

Additionally, with the help of the scientific crew on board, I learnt how to put data in the database and observe the data pattern, trend, or anomaly from the samples. Moreover, my cruise supervisor, Dr Kai Wieland, also taught me about the characteristics of different species and explained the changing pattern of the stock with time due to climate change. Moreover, he also showed me how to design a survey and plan the ship route considering different factors, like windmills, cables, the shore bottom, etc. Helle Rasmussen, who led the first part of the cruise, taught me the functionality of the bottom trawl and how to identify if the trawl is working perfectly from the ship by observing the trawl openings and angles.

During the first part of the cruise, I learnt how to use the chlorophyll vacuum filtration system and also learnt how to prepare and preserve samples for further identification of dissolved oxygen and nutrients. The scientific crew also showed how to deploy the rosette sampler and plankton pump and how they work underwater.

2) What applications of the training received do you envision at your parent institution?

The skills, knowledge, and experience that I gathered from this training can be directly applied in my home institution. Currently, our department is working with fish stocks at major MPAs in Bangladesh. The hands-on experience that I had during the training can be used as a standard methodology in the surveys and field samplings we do. The systematic approach of processing the samples used in RV Dana can improve data accuracy and consistency.

Besides, I found the digital database system of the ship to be very useful and important, working with fisheries stock management. Because the database not only stores the data, it helps to identify trends and patterns within the samples and also detects any anomalies found, which makes the research result more precise. The Oceanography department at SUST has also been working on a long-term monitoring system and trying to establish a database about the marine fisheries in Bangladesh, and I believe that developing a system inspired by Dana will be very useful for us, and I can contribute to that, too.

Additionally, I can contribute to designing the sampling route for future field expeditions and help with safe navigation within marine waters. As I have practical knowledge about the functionality of bottom trawling, I can aid in any future bottom trawling research conducted in my home institution.

Lastly, I believe my experience can work as a guide for my peers for their future working experiences on research vessels.

3) Please provide your comments on the Fellowship Programme.

The fellowship programme has been an enriching experience for me, which has helped me to gain technical knowledge and skills beyond the limits of theoretical knowledge. It gave me an excellent opportunity to learn how to conduct research on board with precision to get the best outcome. The training was very well-structured and included almost all the aspects that are needed for working with fish stock, including fish and water sampling, processing, trawl operations, vessel navigation, data interpretation, digital data management, etc.

The fellowship allowed me to network with people in the marine fisheries sector. Working with scientists and crew in a positive, supportive environment gave me the opportunity for knowledge sharing, and I learnt a lot from their experiences.

Besides, the fellowship offered me the chance to work in a foreign country and interact with people from different cultural backgrounds, which improved my adaptability, teamwork, and communication skills.

As a master's student in oceanography, still exploring the vast world of marine science, an experience like this shipboard training is very valuable to shape my future career goals. The training has made me confident enough to apply my knowledge in future research activities in my home institution and prove to be a useful asset for my country.

PRINT NAME

Raida Kadir

Date: 11 / 10 /2025

Section B

(To be completed by the host supervisor and returned to the trainee)

Please note that the complete report will be made public on the OTP website; Private comments should be included in a separate confidential form.

1) Please provide your comments on the performance of the trainee.

We were very pleased with the performance of Raida during our survey. She got very fast integrated in the scientific team as well as with the vessel crew. She got engaged in all scientific and social activities. She became very soon an essential help in the fish lab and independently search background material from the literature we had on board on species composition and fish biology as well as on the theoretical background of the survey design and the practical problems of its implementation due to the increasing number of offshore windfarms, ship traffic and other obstacles in the survey area during the 2nd cruise leg. In addition to the work in the fish lab, she joined the recording of oceanographic data (CTD cast for measuring temperature, salinity, dissolved oxygen content and chlorophyll) as well as the water chemistry and mesozooplankton sampling during the 1st cruise leg.

2) Is this exchange likely to lead to future collaboration with the trainee's parent institution? If so, please give example(s) of how this collaboration may be pursued.

There is no formal agreement for future collaboration with the trainee's parent institution now.

3) Please provide your comments on the Fellowship Programme.

We appreciated having a trainee onboard very much. We felt enriched having a person from a non-European country with a different cultural joining us on our cruise.

PRINT NAME

Kai Wieland

Date: 07 /10 / 2025

SECTION C**(To be completed by the parent supervisor and returned to the trainee)**

Please note that the complete report will be made public on the OTP website; Private comments should be included in a separate confidential form.

1) Do you agree with the above comments, and do you have any additional feedback you wish to provide?

I agree with the above comments of the fellow and the host supervisor. This fellowship can be proven to be an amazing opportunity for the students to learn from experts on how to conduct research onboard. The practical experience gained from the shipboard training, along with the chance to interact and learn firsthand from the scientists and crew on the ship, can provide essential insights and motivate the young minds. Along with research work, the fellowship programme facilitates the chance to work in a new country with people from different cultures and improve one's skills to communicate and work in a team efficiently. The skills and experience gained by the fellow will also contribute to the ongoing research activities at the Oceanography department at SUST.

Though there is no formal agreement for future collaboration with the host institution, we would be happy to collaborate with them in the future, as our department is also working with biodiversity and fish stock analysis in the MPAs of Bangladesh.

PRINT NAME

Subrata Sarker

Date: 11 / 10 / 2025