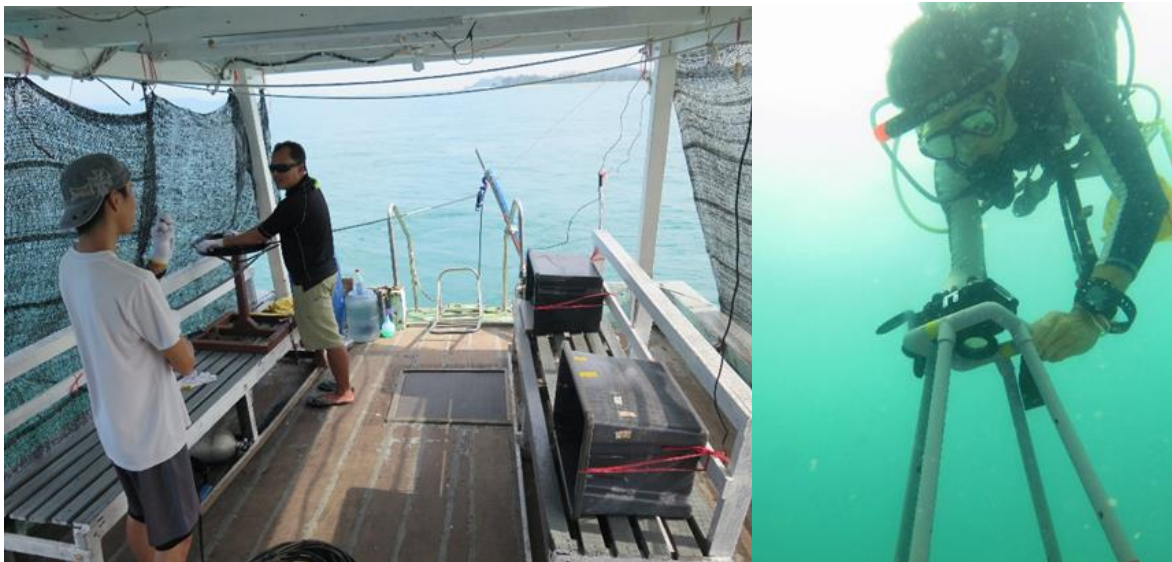


Project Update: October 2017

Principle Outcomes from First to Second Phase of Project:

Four field surveys have been conducted around Sibu-Tinggi Archipelago in order to obtain seagrass extent information and distribution of dugong feeding trails within the seagrass meadows (Fig. 1). We have managed to identify the Feeding Hotspot Area (FHA) of the dugongs' habitat from the data obtained and currently analysing the seasonal patterns of the FHA throughout the survey period. The potential sites will be screened from the FHA for the deployment of Underwater Video Monitoring System in next phase of the project. During each of our surveys, we were able to encounter from a few to a big herd of dugongs, in which maximum size estimated to be less than 50 individuals, but more commonly spotted was around 10-20 individuals, included mother-calf pairs. Feeding trail samples were also collected and depth measurement was taken in-situ. More samples are required in order to analyse the nutrient quality and biomass of the seagrass. This would be done during the next phase of project.



Left: Part of the survey team at their respective positions for the seagrass survey – positioning the underwater camera, monitoring and recording the underwater seagrass footage and dugong feeding trails. Right: Photo-quadrats were taken along the sampled feeding trails for photogrammetry purpose.

The development of Underwater Video Monitoring System is concurrently ongoing with these field surveys. This prototype system is a redesigned model to fit the bespoke environment and application, i.e. seabed environment with poor visibility and relatively strong current. In order to do this, we have spent some time to source out the best but affordable camera in the market which meets our requirement of video quality, multiple vantage points and optimum battery hour. At this stage, we are going to work on the modifications and connections among the electronic parts and soon after, followed by the fabrication. Field testing and optimisation are anticipated to be done in March 2018, after the Northeast monsoon (end of November till early of March) recedes.

Presentation & Sharing of Works

The interim results of this project have been shared in several international conferences among the peers, NGOs and government bodies. As supported by The Rufford Foundation, acknowledgments to Rufford were given in my presentations in Institute of Ocean and Earth Sciences (IOES) HICoE Seminar 2017 in University of Malaya, Malaysia and Johor Marine Protected Area Seminar 2017 in Johor, Malaysia (Fig. 2 & 3). In August 2017, I also shared this work with my fellow classmates and professors while I was attending Duke University Marine Laboratory, North Carolina, USA as one of their Global Fellows in Marine Conservation. Besides, our team has also been given several awareness-based sharing via this project to the local community and students (Fig. 4 – 6).



Left: Poster presentation during IOES HICoE Seminar 2017, in University of Malaya. Right: As an Invited speaker to present our work on Dugong and Seagrass research and conservation in Johor MPA Seminar 2017, organized by the State Government.



A talk about “Dugong and Seagrass Awareness” was given to the students and teachers from Jit Sin High School in conjunction with Penang Seagrass Project. (Photos credited to Penang Seagrass Project).



Left: A short talk with the resort owner of Tinggi Island at the study site, explaining our current project. Right: We shared information about our work to all the teachers and kids in SK Pulau Sibu Mersing, who were so attentive and full of vigour. They learned a little about dugong feeding trails as well as dugong vocalizations.



We shared information about our work to all the teachers and kids in SK Pulau Sibu Mersing, who were so attentive and full of vigour. They learned a little about dugong feeding trails as well as dugong vocalizations. (Photos credited to MareCet).