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RESEARCH IN ANTARCTICA, AN UNFORGETTABLE EXPERIENCE OF A LIFETIME – DR. FOONG SWEE YEOK



PENANG, 18 February 2016 – There was a deep feeling of gratefulness and excitement shared by the researchers upon arriving on Malaysian soil, on the evening of Sunday, 14 January 2016 and among them was the lecturer from the School of Biological Sciences Universiti Sains Malaysia (USM), Dr. Foong Swee Yeok, 44.

According to Foong, her main objective of joining the Antarctica expedition was to find out pollen/spore abundance and transportation in the Antarctic Peninsula region.

“As the interest in climate sensitivity research surges, many have begun looking into the study of palaeoclimatology, hence, Antarctic Peninsula, notably a region that warms the fastest is providing scientists with an open field to study climate change.

“One of the methods used in palaeoclimatology is by the study of pollen/spore (palynology). Since pollen/spore is widely distributed and resistant to decay, it can be used as a reliable proxy in interpreting history vegetation changes due to climate influence,” she said.

Foong added, “I am looking into how pollen/spore is transported from nearby continent to Antarctic and the other team members of this expedition focused on the studies of microalgae, benthic organisms, geological, air quality and electromagnetic in Antarctic Peninsula, and some of the studies conducted in this expedition were found suitable for further integration of scientific knowledge.

“I have collected airborne pollen/spore with the use of high volume air sampler mounted on board the research vessel, beside this, sea surface water samples were collected too along with the sampling transect in Antarctic Peninsula and upon landing on all 8 sampling stations, moss turf with its adhering top soils were collected for the palynology studies,” she explained further.

These samples will be treated with standard palynology analysis, as she hoped to be able to systematically trace the movement of pollen/spore from nearby continent to Antarctic.

The expedition team arrived at the port of departure (Ushuaia, Argentina) on the 15th January 2016 and made their first attempt to sail on 18th January. However they failed to set sail due to bad weather and the research vessel had to turn back to seek shelter in Port William, Chile.

Fortunately, the second attempt was successful after a 36 hours wait and they landed at their first sampling station in King George Island on 24th January 2016 and spent 8 days collecting samples in Antarctic Peninsula region.

Added Foong, the biggest challenge faced was to overcome seasickness especially when crossing the Drake Passage, other than that, unpredictable and harsh weather conditions were detrimental to their sampling schedule and location.

“There were a couple of times when the team was rather disappointed because they were unable to reach a few planned stations due to bad weather, however the expedition leader who was also the owner of the research vessel (named Australis), Ben Wallis did a great job to ensure the successful collection of samples from other well represented stations in Antarctic Peninsula and on top of that, we were very touched by the warm welcome from KOPRI (Korean Polar Research Institute) who received us with open arms,” she told.

She also said, during visit to various research stations in Antarctic Peninsula (i.e. King Sejong Research Station of KOPRI and Great Wall Station of the Polar Research Institute of China), team members managed to seek opportunities for collaboration with other countries. This new network for scientific partnership in polar research is by far, one of the best returns we bagged from this trip.

“I would like to thank Dr. Han-Gu Choi, the station leader of Korea Antarctic King Sejong Station for all the kind support and assistance provided during our stay there,” she said.

Furthermore, as one of the pioneer universities that led the Antarctica Research in Malaysia, USM has secured research interest of many researchers especially from the School of Biological Sciences to carry out yearly expedition to the poles and it is hoped that, more researchers especially the young scientists from other discipline or school can be recruited to join the bandwagon to Antarctica in the nearest future.

“I would like to record my highest gratitude and appreciation to USM for all the support provided throughout this project, in the form of facilities and equipment, staff and services especially the Electron Microscope Unit of School of Biological Sciences for the study of ultra structure of pollen/spore,” she told.

A total of 8 Malaysian scientists with various research backgrounds took part in the expedition. Two of them were from USM. Besides that, 4 crew members also joined the team throughout the 22 days expedition.

This expedition was jointly sponsored by YPASM (*Yayasan Penyelidikan Antartika Sultan Mizan*) and MOSTI (Ministry of Science, Technology and Innovation).

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