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海洋深層水利用学会



Report on the 2018 Annual Meeting of the Taiwan Deep Ocean Water Resource Application Society

Ping-Yi Huang Secretary General of Taiwan Society of Deep Ocean Water Resource Application

The 4th Annual Meeting of the Taiwan Society of Deep Ocean Water Resource Application (TWDOWA) was held in Taiwan on December 6th and 7th 2018. On the morning of the 6th (Thursday), the Deep Ocean Water International Symposium was held at the GIS NTU Convention Center in Taipei City. This included approximately 90 people from Taiwan including Jin-Yuan Liu, the TWDOWA president and society members. From Japan, Masayuki Takahashi, President of the Japan DOWAS, and Koji Otsuka, Chairman of the Japan-Taiwan-Korea Exchange Committee attended. From South Korea, 12 members attended including the President and Executive Director of the Korean Society for Deep Ocean Water. Together there were about 100 participants. This was the first action since the three (Japan, Korean, and Taiwanese) deep ocean water societies concluded an information and human exchange agreement on October 18 in South Korea.

Following the opening remarks by Chairman Jin-Yuan Liu and subsequent welcome greetings, Dr. Liu gave a trophy to Masayuki Takahashi to commemorate his many years of service to promote deep ocean water utilization in Taiwan.

At the international symposium, Professor Chin-Kun Wang of Chung Shan Medical University presented "Current Status and Trends of Health Foods" on the current status and issues regarding health foods and health effects in Taiwan, Japan, and China. Next, Professor Koji Otsuka presented "The Need for Deep Ocean Water and the Limits of Supply," pointing to the major issues of securing freshwater and animal protein especially with the ever-increasing world population and the applicability of DOW resources. Professor Jesun Uh spoke on "Industrial Use of DOW Resources in Korea," providing a detailed explanation on the current state of various uses in Korea.

Following the three keynote lectures above, Chairman Liu held a lively discussion for about 20 minutes where the speakers answered questions that had been submitted in advance from the audience.

After the keynote lectures and general discussion, participants travelled by train to Taitung where the annual conference was held. Participants from Japan and Korea stopped at Hualien on the way to observe the current state of Taiwan Fertilizer's use of DOW and intake facility. Participants from Korea stayed in Hualien and visited the DOW facility of Kung-Long Ocean Biotech Co. in the morning of the following day before continuing to Taitung.

On the 7th (Friday), presentations were made by the TWDOWA in the auditorium of the National Museum of Prehistory in Taitung City. In the morning, Dr. Peiyao Liu of the National Defense Medical Center presented "Inhibition of Fat Cells Production by DOW," Mr. Chung-Yu Lee and

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Prof. Chun-Lin Lee of National Taitung University presented "Development of Health Ingredients using DOW and the Prevention of Fatty Liver by DOW," while Mr. You-Syu Huang and Yuan-Hsing Ho of the Eastern Marine Biology Research Center presented "Application of DOW to Aquaculture." From 11:00, the general meeting and board member election was held. (At the board meeting held at a later date, the current Taiwan Ocean University Vice-President Prof. Tai-Wen Hsu was selected as the next president). In the afternoon, Dr. Ping-Yi Huang introduced the current state of research and technology development of DOW resources at the Stone and Resource Industry R&D Center, Mr. Fu-Ting Wu spoke about the extraction of minerals from DOW and their use, Dr. Hsin-Lun Huang introduced the production and use of various organic and inorganic raw materials from DOW, while Ms. Hung-Yu Hsu introduced the promotion of health through use of DOW in thalassotherapy.

Afterward, we travelled to the DOW Center and visited facilities such as DOW desalination/ mineral extraction, caterpillar fungus cultivation facility, an experienced bathing at the thalassotherapy facility.



Img 1: Commemorative Photo with Guests to Taipei



Img 2: Trophy Presentation to Masayuki Takahashi from President Jin-Yuan Liu



Img 3: Commemorative Photo of the Visit to Taitung



Img 4: Participants Experience Thalassotherapy at DOW Research Center in Taitung

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9th Okinawa Hawaii Ocean Energy and Economic Development Symposium and Workshop **Event Cancellation Report** (Sept. 28-29)

Kumejima Town Project Development Section Naoki Ota

Since 2010, the "Okinawa Hawaii Ocean Energy and Economic Development Symposium and Workshop" has been held each year. The 9th event was scheduled for last year but was cancelled due to the influence of Typhoon 1824.

This workshop is part of the Okinawa Hawaii Partnership on Clean and Efficient Energy Development and Deployment (Japan METI, US DOE, State of Hawaii, Okinawa Prefecture) signed in July 2010 with the aim of expanding the introduction of renewable energy. The workshop is a venue to report on the latest trends and exchange opinions on ocean energy, which has high potential in both regions, and main themes such as economic development, energy education, the environment, and industrial use of DOW. It is held each year alternatively in Kona, Hawaii and Kumejima Town. As a result of this initiative, Kumejima Town and Hawaii County formed a sister island partnership in September 2011.

This time, the workshop was cancelled due to the influence of Typhoon 1824, but a tour was held for participants coming from Japan and abroad at the Okinawa Deep Seawater Research Center, Okinawa OTEC Demonstration Facility, Sea Grape Farm, Cosmetic Factory, and Oyster Farming Facilities (Imgs. 1,2).



Img. 1 Tour Group Photo



Img. 2 Sea Grape Farm Tour

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During the eye of the typhoon, a mini workshop covering the topics planned such as OTEC, DOW Industrial Use, the environment, energy education, etc. was held at a hotel restaurant (Img. 3)

In addition, Dr. Yuko Kakazu from the National Astronomical Observatory in Hawaii gave a lecture entitled "Exploring Space from Okinawa and Hawaii" at Ootake Elementary School in Kumejima, where participants were able to interact with students (Img. 4).

In 2019, the 10th Okinawa Hawaii Ocean Energy and Economic Development Symposium and Workshop will be held on November 8th -9th in Kona, Hawaii. We hope you will be able to participate.



Img. 3 Mini Workshop



Img. 4 Presentation at Ootake Elementary