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DOST awards “Batman” among Outstanding Young Scientists of 2017

Text & photo by JOSHUA I. LAO, DOST-STII



DOST Secretary Fortunato T. Dela Peña, together with the distinguished scientists who received the “Outstanding Young Scientist Award” this year.

The Department of Science and Technology (DOST) recently recognized outstanding young scientists for this year, including one who specializes in bats.

A student of the University of the Philippines Los Baños, Phillip A. Alviola reveals he has been fascinated with bats since he was in high school.

“Studying bats, basically, it’s out of interest from high school and college. I was interested sa behavior nila, their interaction with humans, yung mga possible contacts with the disease, novel diseases essentially. We are finding out if some diseases which are familiar may have come from bats,” Alviola said.

“My interest came from understanding kung paano yung mode of transfer from bats to humans and how to avoid it and in the future what are the plans and management to prevent that kind of contact,” Alviola added.

Aside from Alviola, DOST recognized seven other young scientists, namely: Aletta Concepcion T. Yniguez from the University of the Philippines Diliman; Lanndon A. Ocampo from the University of San Carlos; Mario Antonio L. Jiz II from the Research Institute for Tropical Medicine; Nathaniel P. Hermosa II from the University of the Philippines Diliman; Jeffrey S. Perez from the Philippine Institute of Volcanology and Seismology; Jayeel S. Cornelio from Ateneo de Manila University; and Krista Danielle S. Yu from De La Salle University.

DOST also recognized other remarkable individuals in the field of research and development, technology commercialization, and science administration.

Recognized in the Outstanding Research and Development Award were Dr. Nathaniel P. Hermosa II in Basic Research category, and

Dr. Lucille V. Abad and Dr. Maria Patricia V. Azanza in the Applied Research category. Abad and Azanza are from the DOST-Philippine Nuclear Research Institute and DOST-Industrial Technology Development Institute, respectively.

Dr. Jude L. Sasing, Ilustre I. Guloy Jr. and Dr. Ramon B. Gustilo received the Outstanding Technology Commercialization Award. Meanwhile, Raymond Girard R. Tan of De La Salle University received the Outstanding Science Administrator Award.

DOST Sec. Fortunato de la Peña and Sec. Benjamin Diokno who represented President Rodrigo Duterte, handed out the plaques, certificates, and cash prizes to the awardees. The DOST awards were conferred during the opening ceremonies of the National Science and Technology Week (NSTW) lat July 11, 2017 at the World Trade Center, Pasay City.

School kids learn how to get ready for disasters

By **RODOLFO P. DE GUZMAN**, *DOST-STII*

Just like in Japan where school children are taught early about disaster preparedness, the DOST also gathered up kids to talk about hazards as part of the 2017 National Science and Technology Week.

The event was made possible with the cooperation of different DOST agencies like the Philippine Atmospheric, Geophysical and Astronomical Services Administration or PAGASA, the National Research Council of the Philippines (NRCP), Philippine Nuclear Research Institute (PNRI), and the Philippine Institute of Volcanology and Seismology (PHIVOLCS); Manila Boys Town in Parang, Marikina, and the Department of Social Welfare and Development Center in Pasay City.



Mr. Joseph R. Tugo, Science Research Specialist of DOST-PNRI demonstrates Radiation Detection by presenting a device to students and explanation the usage. (Photo and text by Kimverlyn Sayson).



“Are you ready?” That is the question of Ms. Tina Cerbolles of PNRI and Venus Valdemoro of PAGASA to a student who joined the Disaster Summit for School Children during the 2017 National Science and Technology Week. (Photo and text by Kimverlyn Sayson).

The first of its kind in the country, the event had for its audience school children grades 5 and 6 and those who come from low income families who are most vulnerable to natural hazards.

They were chosen by DOST-NRCP as part of its advocacy to promote the many technologies and research and development efforts being done by Filipino scientists and engineers in the field of disaster risk management.

Also, the research council partnered with PAGASA, PHIVOLCS, and PNRI because it believes that the NSTW is a perfect venue for these kids from poor communities with less opportunities to learn and experience the many benefits of science, technology, and innovation to improve their lives.

Dr. Vicente B. Malano, PAGASA administrator, opened the session by informing the audience of the many programs being implemented by the DOST and its attached agencies to minimize the risks of natural hazards. This is also part of the

information dissemination and education program of the DOST in order to equip communities with basic science-based knowledge on the effects of strong typhoons, floods, earthquakes, and others.

DOST Undersecretary for Disaster Risk Reduction and Climate Change Adaptation Dr. Renato U. Solidum Jr. stressed on the importance of knowing the different meteorological and geological hazards and the importance of preparing for these.

“Naalala nyo ba noong nagkaroon ng lindol sa Ormoc nung Huwebes ng hapon, at yung bagyong Yolanda na maraming namatay? Bakit kaya namamatay ang mga tao? Sinasabi ko na marami namatay kasi hindi sila handa. (Do you remember the earthquake in Ormoc last Thursday afternoon, and typhoon Yolanda when many people died? Why did they die? I’m telling you, they died because they were not prepared),” said Dr. Solidum.

Senior weather specialist of PAGASA, Sharon Juliet M. Arruejo, discussed how clouds are formed, the different types of clouds, rain, thunderstorm, and other facts about weather. Later, Arruejo, using a pet bottle with rubber suction, showed a simple experiment to help the kids visualize how clouds are formed.

After having fun while learning the basic information on typhoon and flood, the kids got to discover the different types of geological hazards like earthquake, tsunami, ground rupture, ground shaking, and liquefaction. PHIVOLCS Science Research Specialist Daniel Buhay invited three kids to join him on stage to demonstrate the “duck, cover and hold” exercise, a simple preparedness technique to survive an earthquake.

Later, Carl M. Nohay and Joseph R. Tugo of the DOST-PNRI discussed a lesser known hazard

called radiation. He talked about the different types of radiation, its negative and positive effects, hazards, and how to prevent exposure to radiation.

They also had a live demonstration on radiation detection using state-of-the art equipment. As add on, Tina Cerbolles of the Information Office of DOST-PNRI talked about the different knowledge products and services that the institute offers in its main facility in Quezon City that benefit many sectors of society like business and industry, medicine, food processing, and agriculture.

ABOUT US

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Marine biologists, experts urge public to support coral protection efforts

By Rosemarie C. Señora, DOST-STII

“We have lost excellent category status in the amount of corals covering the surface. We, as a society, have failed to take care of the reefs. What are we going to do next?”

This was how Dr. Wilfredo Roehl Y. Licuanan ended his talk in the recently concluded forum on National Coral R&D Program where the current status of the Philippine coral reefs, the importance of research for the conservation of corals, the exploration of our scientists and researchers of the Philippine Rise, and its overall impact to the economy of the Philippines were discussed.

The said forum, which gathered marine biologists and experts, was organized by the Philippine Council for Agriculture, Aquatic and Natural Resources (PCAARRD) – Marine Resources Research Division headed by Dr. Mari-Ann M. Acedera, last July 12, during the 2017 National Science and Technology Week (NSTW) by the Department of Science and Technology.

The forum on National Coral R&D Program, which is supported by PCAARRD to address the challenges in the protection and preservation of the country’s coral reefs, was attended by researchers from selected secondary schools and universities, experts and representatives from various local government units and agencies.

Dr. Licuanan, in his talk entitled ‘Current Status of PH Coral Reefs and Prospects for the Near Future’, gave a backgrounder for the participants on the basic concepts in understanding corals.

He said that contrary to the popular belief, “corals are not rocks; they are animals. They support approximately one-fourth of the fisheries production and one-fourth also of the marine species.”

He also said that coral reefs are also important for the protection of our shore lines for they break the waves before hitting the shores. They also serve as buffer to storm surges, tsunami and other natural disturbances – the reason why it is important to take care of the remaining coral reefs that we have.

“Reefs do not form overnight. They take thousands of years to develop,” he said adding that the coral reef crisis cannot be resolved by coral gardening as it is expensive and is not practical.

Coral gardening is the cultivation of corals for commercial purposes or coral reef restoration.

Another sad reality is that, 80% of the



(from left) Dr. Wilfredo Roehl Y. Licuanan, Dr. Patrick C. Cabaitan, Dr. Cesar L. Villanoy, Dr. Hildie Maria E. Nacorda and Dr. Mari-Ann M. Acedera, Director of Marine Resources Research Division – PCAARRD. (Photos from DOST-PCAARRD/Text by Rosemarie C. Señora).

coral mortality is actually caused by various human activities and not natural calamities.

Take for example the case of the minesweeper ship USS Guardian that on January 17, 2013 ran aground on the south atoll of the Tubbataha Reefs, a delicate ecosystem in the Sulu Sea treasured for its rich marine biodiversity.

The grounding damaged 2,345 square meters of coral on the reefs, considered a World Heritage Site by the United Nations Educational, Scientific and Cultural Organization.

“The better thing to do is to take care of the remaining reefs,” Dr. Licuanan said.

The second speaker was Dr. Patrick C. Cabaitan, who discussed about the ‘Sexual Production of Corals and Why Sex is not Enough?’

He said that studying coral reefs is essential to the economy of the Philippines as they also provide for the ecotourism of the country, thus the emphasis to scientific intervention as an important tool in coral production.

“Corals reproduce through asexual and sexual means but sex is not enough for the corals,” he said.

On the other hand, Dr. Cesar L. Villanoy, in his talk entitled ‘Updates on the Oceanography of the Benham Rise’, discussed about the researches he has done and also about the importance of understanding the movement of the waters around Philippines.

He said that it is vital to understand the movement of the waters and its temperature to be able to formulate policies with regards to management of the country’s marine resources and further reminds everyone to always consider the processes that determine our physical environment in order to explain the ecology of organisms and the observed trends.

Last but not the least is Dr. Hildie Maria E. Nacorda, who in her talk entitled ‘On the Benham Bank Biodiversity: Taking Learning to the Next Step’ discussed about the expeditions the Philippines has done to determine the economic potential of Benham Rise, now called the Philippine Rise.

Though the two expeditions done in 2014 and 2016 have discovered the existence of marine species in the Philippine Rise, Dr. Nacorda said that further studies are needed to fully understand the potential of the rise.



Beaming with smile and pride. (seated from the left) Dr. Rosemariev Villena-Diaz, DOST-SEI university coordinator of the Philippine Normal University, S&T Scholarship Division (STSD) Officer-in-Charge Ms. Ma. Daisy A. Demoni, DOST-SEI Director Dr. Josette T. Biyo, DOST Secretary Fortunato T. Dela Peña, and DOST-SEI Deputy Director Engr. Albert G. Mariñom, Neil Kenneth F. Jamandre, project director, UP Core group joins the latest batch of most outstanding DOST-SEI scholar-graduates.

DOST-SEI gives recognition to its outstanding scholars

By **JASMIN JOYCE P. SEVILLA**, DOST-STII

Photo by **Gerardo C. Palad**, DOST-STII

In line with the celebration of the National Science and Technology Week, the Department of Science and Technology-Science Education Institute (DOST-SEI) honored its undergraduate and graduate scholars who completed their degrees with academic distinction earlier than the prescribed period and/or within school year 2016-2017. With the theme, “In Touch with Excellence,” the ceremony was held at the Philippine International Convention Center last July 14, 2017.

For this year, a total of 2,962 baccalaureate, 394 masteral, and 80 doctoral level scholars graduated from the S&T scholarship programs that DOST-SEI offers. Out of these scholar-graduates, 784 (26%) undergraduates, and

20 (4%) graduate and post-graduate scholars received academic honors.

The event was graced by DOST Secretary Fortunato T. Dela Peña; Dr. Alex C. Gonzaga, professor at UP-Manila and a former DOST-SEI scholar as well; DOST-SEI Director Dr. Josette T. Biyo; and DOST-SEI Deputy Director Engr. Albert G. Mariño, who led the awarding of academic excellence and plaques of achievement to the graduates. The awarding of the outstanding DOST-SEI undergraduate scholars, on the other hand, was spearheaded by Ms. Ma. Daisy A. Demoni, officer-in-charge of the S&T scholarship division.

In her welcoming speech, Dr. Biyo expressed how proud and elated she is of the great feat that the scholar-graduates have accomplished. But

most importantly, she reminded the graduates of the true essence of being a ‘DOST scholar.’

“Now the challenge for you is the continuity of your pursuit of excellence in the service you are bound to render and in the conduct of all your future endeavors... Whatever undertaking you will pursue, let it be of service to the Filipino people – para sa bayan!” Dr. Biyo emphasized.

Moreover, a memorandum of understanding (MoU) was signed during the event for the Science and Technology Regional Alliance of Universities for National Development (Project STRAND), which aims to further DOST-SEI’s objective of expanding their reach this year so that the number of Filipino students who can avail of their scholarship programs will increase.



Students from various elementary and secondary schools, as well as university students enjoyed viewing the fun and interactive exhibits during the 2017 National Science and Technology Week (NSTW) last July 11 to 15 at the World Trade Center, Pasay City. The interactive exhibits were all part of the Interactive Cluster that featured different S&T related concepts offering a fun and exciting medium for learning. A wide array of exhibits such as a photo booth, augmented reality devices, an earthquake simulator, a gyroscope ride and many more comprise the entirety of this cluster. Various DOST agencies, particularly NAST, NRCP, STII, SEI and PSH, along with private science museums and companies namely National Museum, Metamedia, Funlines, and Philippine Science Centrum made this interactive cluster possible. (Text by Rosemarie C. Señora/Photos by Joshua I. Lao)