



# AQDMatters

Newsletter of the SEAFDEC Aquaculture Department (AQD), Tigbauan, Iloilo, Philippines

## SEAFDEC/AQD celebrates 43 years of R&D

11-15 July 2016

*SEAFDEC/AQD @ 43: Pushing economic growth in the face of climate change through sustainable and resilient aquaculture*

### Partnerships key to AQD's support of the aquaculture industry

SEAFDEC/AQD has an enormous task in terms of steering aquaculture development towards sustainability to ensure its maximum contribution to food security and improvement of livelihood, according to its Acting Chief and Deputy Chief Dr. Chihaya Nakayasu during the 43rd Anniversary Program of the organization held in 15 July 2016 at its Tigbauan Main Station.

Dr. Nakayasu added that without the partnerships with its stakeholders, SEAFDEC/AQD will not be able to provide the technological needs of the aquaculture industry.

Among the guests in the anniversary program was Dr.

Tetsuo Fujii of the Japan International Research Center for Agricultural Sciences (JIRCAS) who revealed that SEAFDEC/AQD and JIRCAS recently inked a five-year partnership to develop sustainable aquaculture technologies.

"I would like to express my appreciation to SEAFDEC/AQD for the long time collaboration with us," Dr. Fujii remarked in his speech during the program.

"I believe that the projects with SEAFDEC/AQD will improve the livelihood of small-scale fish farmers in Southeast Asia," he added.

Dr. Nakayasu cited that for 2015 SEAFDEC/AQD



(L-R) SEAFDEC/AQD Acting Chief and Deputy Chief Dr. Chihaya Nakayasu, JIRCAS Fisheries Division Director Dr. Tetsuo Fujii, AQD Former Deputy Chief and FREA Director of the Research Center for Aquaculture Systems Dr. Takuro Shibuno, together with his wife Ms. Nobuko Shibuno

conducted 64 studies and one of the major accomplishments during the period is that many important aquaculture technologies on mangrove crab (mud crab), abalone, shrimp, and oyster have been refined

through funding from the DOST-PCAARRD (Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development.)

CONTINUED ON PAGE 2



The SEAFDEC/AQD community and guests at the 43rd anniversary program



Photos by JM dela Cruz



# Partnership key...

He also mentioned that SEAFDEC/AQD had organized two regional technical consultations in partnership with the Government of Myanmar on aquafeed formulation and the Government of the Philippines on aquatic animal health to address the emerging issues in the Southeast Asian region. These consultations were made possible through the funding of the Government of Japan through the ASEAN (Association of Southeast Asian Nations).

Other important milestones were in the areas of training and publication of scientific papers, proceedings and various information materials which facilitated the

transfer of important viable aquaculture technologies that SEAFDEC/AQD has developed. A total of 299 trainees completed various training programs in 2015. The department also hosted 254 on-the-job trainees coming from 31 schools.

Dr. Nakayasu urged everyone to reflect on how SEAFDEC/AQD could improve further as a regional R&D organization in order to help improve the lives of the people through sustainable aquaculture.

“Through effective partnerships with donor agencies, national and local governments, farmers, and other stakeholders, I am confident that this commitment

will be translated into reality and will bear fruit,” he added.

Dr. Takuro Shibuno, Former SEAFDEC/AQD Deputy Chief and Director of the Research Center for Aquaculture Systems at the Fisheries Research and Education Agency, was also among the guests in the Anniversary Program. He expressed his gratitude to be back at SEAFDEC/AQD and to see his former colleagues. He hoped that the organization will continue to contribute to the development of the fisheries and aquaculture industry not only here in the Philippines but also in the Southeast Asian region. 🐟

- GK FAIGANI

Photos in this page by IT Tendencia



Dr. Takuro Shibuno and Dr. Tetsuo Fujii receive a token of appreciation (paintings by IT Tendencia) from SEAFDEC/AQD Research Division Head Dr. Evelyn Grace Ayson and Dr. Chihaya Nakayasu



Part of SEAFDEC/AQD's anniversary celebration is the recognition of its retiring employees. Senior Technical Assistant Mr. Eliseo Coniza (inset) spoke on behalf of the retirees where he thanked SEAFDEC/AQD management. He also received a Plaque of Appreciation together with the other retirees (L-R) Dr. Mae Catacutan (Scientist), Ms. Dofra Tupas (Nurse), Ms. Nancy Acdol (Administrative Assistant), and Mr. Reynaldo Sobremisana (Driver/Mechanic)



(L-R) SEAFDEC/AQD Scientist Dr. Emilia Quintio receives her new appointment and SEAFDEC/AQD Scientist Dr. Relicardo Coloso receives a Certificate of Recognition for being awarded by the Philippine Federation of Chemistry Societies



A Certificate of Recognition is also given to SEAFDEC/AQD Library for being awarded the “2015 Outstanding Academic/Research Library Award” by the Philippine Association of Academic and Research Librarians



# Forum for fishfarmers

About 120 guests from the private sector, Philippine government agencies, and the academe attended the Farmers Forum on 14 July 2016 held at SEAFDEC/AQD's TID Conference Room in Tigbauan, Iloilo, Philippines. There were three lectures by SEAFDEC/AQD experts, namely: *Updates on Early Mortality Syndrome (EMS)/Acute Hepatopancreatic Necrosis Disease (AHPND)*

by Dr. Edgar Amar, *Hatchery-produced Single Oyster Spats... the Future of the Oyster Industry!* by Ms. Jocelyn Ladja, and *The Use of Fertilizers in Seaweed Farming* by Ms. Maria Rovilla Luhan. Mr. Roy Ortega, OIC of the Inland Fisheries and Aquaculture Division of the Bureau of Fisheries and Aquatic Resources (IFAD-BFAR), also gave a talk on

*Climate Resilient Aquaculture Operations Guide for Region 6 (June-December 2016).*

Aside from the lectures, a demonstration on sex-reversal of tilapia was also conducted by SEAFDEC/AQD technical assistant Mr. Mark Neil Samoranos.

The guests also had the opportunity to tour SEAFDEC/AQD facilities at its Tigbauan Main Station. 📷 - RH LEDESMA

Photos in this page by IT Tendencia and RH Ledesma



(Top-Bottom) SEAFDEC/AQD resource speakers Scientist Dr. Edgar Amar, Associate Scientists Ms. Jocelyn Ladja and Ms. Maria Rovilla Luhan during the Farmers Forum 2016



Attendees actively participate during the open forum



A demonstration on feed preparation for sex-reversal of tilapia



Mr. Roy Ortega (rightmost), OIC of the Inland Fisheries and Aquaculture Division of the Bureau of Fisheries and Aquatic Resources receives a Certificate of Appreciation from Mr. Antonio Villaluz (son of the first AQD Chief DK Villaluz) Technology Verification and Demonstration Division Head Dr. Fe Dolores Estepa and Scientist Dr. Emilia Quinitio. The same certificates were also given to SEAFDEC/AQD resource speakers



Guests at SEAFDEC/AQD's abalone hatchery (top) and integrated milkfish broodstock hatchery complex (above)



The participants of the 2016 Farmers Forum



# DKV lecture on alternative feeds

**S**EAFDEC/AQD scientist Dr. Mae Catacutan was this year's speaker for the 24th Dean Domiciano K. Villaluz (DKV) Memorial Lecture held 15 July 2016 at SEAFDEC/AQD's TID Conference Room in Tigbauan, Iloilo, Philippines.

More than 100 guests, mostly from the academe, were present to listen to Dr. Catacutan's talk on *Alternative feed ingredients as substitutes for marine sources of protein and lipid for important aquaculture species*.

Dr. Catacutan explained that about 60% of the production cost in aquaculture goes to feed. She mentioned that the major components of aquaculture feed are fish

meal (FM) and fish oil (FO), typically of marine origin.

"The aquaculture industry's demand for continuous supply of good quality feed ingredients of marine origin has put pressure on wild fisheries," said Dr. Catacutan. Thus, she mentioned that alternative feed ingredients as substitute for FM and FO were identified and developed.

Furthermore, she noted that replacement of FM and FO is recognized as an international research priority in order to achieve a sustainable increase in aquaculture production.

"Research results showed that inclusion levels of FM and FO of marine



(L-R) Research Division Head Dr. Evelyn Grace Ayson, Training and Information Division Head Dr. Ma. Junemie Hazel Lebata-Ramos, SEAFDEC/AQD Scientist Dr. Mae Catacutan, and Acting Chief Dr. Chihaya Nakayasu after Dr. Catacutan's DKV Memorial Lecture

origin can be reduced to corresponding recommended levels for carnivorous, omnivorous and herbivorous fish without affecting growth performances," she added.

She likewise discussed that alternative sources include feed ingredients of plant origin, by-products of the food

processing industry, and non-traditional feed ingredients.

In addition, she gave some suggestions on how to increase utilization of alternative ingredients. She also explained the current trends in the aquaculture industry that serve to ease the use of marine FM and FO in aquaculture feed. 🐟

- RH LEDESMA

# AQD launches new publications



Dr. Marcia Vanacor Barroso (3rd from right) is among the 20 guests who received complimentary copies of the newly released SEAFDEC/AQD publications

**I**n line with this year's DKV Memorial Lecture topic, one of the new publications introduced during a book launching activity was the proceedings of the *ASEAN Regional Technical Consultation on Development and Use of Alternative Dietary Ingredients or Fish Meal Substitutes in Aquaculture Feed Formulation*. Other publications launched during

the event were a milkfish seed production manual, abalone life cycle poster, and giant freshwater prawn & grouper culture brochures.

Open-access publications, which can now be accessed at <https://repository.seafdec.org.ph/>, were also introduced to the guests. These are proceedings of workshops or regional technical consultations on mangrove-friendly



aquaculture, responsible aquaculture development in Southeast Asia, and stock enhancement for threatened species of international concern.

The launching of the IAMS LIC Digital Fisheries Library with SEAFDEC/AQD publications capped the book launching activity. 🐟

- RH LEDESMA



# Fun and fulfilling activities at AQD anniversary

As part of SEAFDEC/AQD's 43rd anniversary celebration, a series of activities including a coastal clean-up, medical mission, food fair and open house were conducted from 8 to 12 July 2016 at its Tigbauan Main Station (TMS).

To kick off the festivities, SEAFDEC/AQD staff rolled up their sleeves to clear the beach fronting TMS during a coastal clean-up activity which is part of the institution's tradition every anniversary to give back to the nearby communities especially Barangay Buyu-an and Barangay Nanga.

A medical mission was also organized to serve the

two barangays, catering to 92 residents comprised of 50 children and 42 adults.

Among SEAFDEC/AQD staff, a bloodletting drive was conducted together with the Philippine Red Cross – Western Visayas Chapter where 34 staff successfully donated blood. E. Pineda Optical Clinic also gave free eye exams and discounts on eyeglasses & contact lenses which were availed by 45 staff.

During the week, an open house allowed guests to see the inner workings of SEAFDEC/AQD. Guests, including 234 students from nine schools, took part in guided tours of the facilities.

Simultaneously, staff organized a food fair where each of the four SEAFDEC/AQD divisions designed and operated themed booths. The booth concept of the Technology Verification and Demonstration Division (TVDD) named "43rd Battalion TVDD Infantry Brigade" won best booth, while the Training and Information Division's (TID) "bangus sisig" and TVDD's "oyster bomb" won as the best-tasting dish.

Other engaging activities during the anniversary week included a zumba class, parlor games and bingo.

- JM DELA CRUZ

Photos in this page by JM dela Cruz



AQD staff clearing the beach fronting TMS during the coastal clean-up activity



AQD Acting Chief Dr. Nakayasu speaks to SEAFDEC/AQD staff during the anniversary's opening program



Beneficiaries from surrounding barangays and SEAFDEC/AQD volunteers during the medical mission



Philippine Red Cross Western Visayas Chapter team facilitates bloodletting and Dr. Effie Pineda of E. Pineda Optical Clinic giving eye exams to SEAFDEC/AQD staff



A group of students exploring AQD's FishWorld Museum



(L-R) Food fair booth of Training & Information Division, Research Division, Administration & Finance Division, and Technology Verification & Demonstration Division



# BFS celebrates ruby anniversary

The Binangonan Freshwater Station (BFS) celebrated its 40th anniversary last 28-29 July 2016 with the theme “Improving lives through sustainable freshwater aquaculture: 40 years and beyond”. The celebration commenced with a Thanksgiving mass followed by interschool competitions such as Ayungin Cooking Contest and an On-the-Spot Poster Making Contest. “Ang Pinaka Mabigat!” contest was also held for fisher folks with the biggest/heaviest freshwater commodity to bring inside the station. Different schools/universities and barangays joined the celebration and reminisced the 40 years of imparting knowledge and skills of the Binangonan Freshwater Station.

BFS Officer-in-charge Dr. Frolan Aya and lead researcher working on the indigenous species ayungin (*Leiopotherapon plumbeus*) explained the choice of this fish as main ingredient for the contest: to highlight the achievements of BFS on the seed production and culture

of this fish and to introduce deliciously new and innovative ways to prepare this fish.

The second day’s highlight was the Alumni Homecoming Night held at Kuhala Bay Resort in Cardona, Rizal. Former BFS staff from different decades of service in the Binangonan Freshwater Station were invited for the occasion as well as present and former officials of AQD. Former AQD Chiefs Dr. Joebert Toledo and Dr. Flor Lacanilao both gave their speeches remembering the ups and downs of the station during their terms. The new Acting Chief/Deputy Chief of AQD Dr. Chihaya Nakayasu together with the Technology Verification and Demonstration Division Head Dr. Fe Dolores Estepa and Training and Information Division Head Dr. Ma. Junemie Hazel Lebata-Ramos did not miss the chance to meet and greet the people behind the 40 years of success of the station.

Guest speaker of the event Dr. Adelaida L. Palma, Director of National Inland

Fisheries Technology-Tanay Rizal, gave a keynote speech commemorating the contributions of the station to the lives of different people and different partner institutions.

“SEAFDEC Binangonan has been a good associate not only to its partners but also to every fisherman, entrepreneur and investor in various cities and towns near the Laguna de Bay,” Dr. Palma noted.

The achievements of BFS since its establishment in 1976 were presented by Scientist Dr. Ma. Lourdes Aralar.

The night also featured the employees who dedicated their life’s work to the station. Awarded for her 34 years of service, Dr. Ma. Rowena Eguia, Head of SEAFDEC/AQD Manila Liaison’s Office and BFS scientist, congratulated the station and wished everyone to continue supporting the station in its vision of improving the aquaculture technologies.

The Fellowship Night and photo booth opportunity capped the event.

- MJ SAYCO

Photos in this page by MH Stinson



The Grand Prize Winners of Ayungin Cooking Contest (Bryan Paul Sobrino and Albry King Macapallag) from St. Constantine Institute of Science and Technology presenting to the judges their recipe of Pan-seared Ayungin in Lemon-Butter Sauce and Pinangat na Ayungin with Gata



The Grand Prize Winners of On-the-Spot Poster Making Contest, Angelo Asayas with his adviser from Guronasyon Foundation National High School, presenting his artwork



Recipients of Plaque of Appreciation for their years of service in BFS. (Clockwise) Dr. Ma. Lourdes Aralar (Scientist, 30 years in service), Engr. Emiliano Aralar (Senior Technical Assistant, 35 years in service), Dr. Ma. Rowena Eguia (Scientist, 34 years in service), and Mr. Federico Reyes (Research Aide, 35 years in service)



BFS Staff and participants of the 40<sup>th</sup> Anniversary Program





BFS staff performing a line dance to the tune of "Staying Alive"



(L-R) Former AQD Chief Dr. Joebert Toledo, former AQD Scientist Dr. Luis Maria Garcia, former AQD Chief Dr. Flor Lacanilao, AQD Scientist Dr. Nerissa Salayo, Ms. Elma Africa and Ms. Grace Garcia



(L-R) Former BFS Administrative Officer Ms. Baby Galita, former BFS Technical Assistant Ms. Aida Arago, former BFS Administrative Officer Ms. Yolanda Valenzuela, Ms. Edith Santiago, former BFS Head Mr. Alejandro Santiago, former BFS Technicians Mr. Bernie Lopez and Mr. Rene Arcilla



(L-R) IMS Station Head Mr. Mateo Yap, TID Head Dr. Ma. Junemie Hazel Lebata-Ramos, TVDD Head Dr. Fe Dolores Estepa, Acting Chief/Deputy Chief Dr. Chihaya Nakayasu and Sr. Information Assistant Ms. Janelli Garibay



(L-R) BFS Technical Assistants Mr. Mark Neil Samoranos and Ms. Mary Jane Sayco, BFS Administrative Assistant Ms. Ma. Haydee Stinson and BFS OIC Dr. Frolan Aya



(L-R) BFAR Administrative Assistant Ms. Angelica Aquino, BFAR Research Assistant Ms. Lyn San Jose, BFAR NFITC Center Chief/Guest Speaker Dr. Adelaida Palma and Senior Aquaculturist Mr. Romy Pol



The employees and guests of the BFS 40<sup>th</sup> Anniversary



**Bring, Show, and Tell (by Teachers): "Ocean literacy for Grades 5-6"**  
(6 teams from 6 elementary schools participated)

Prize	Names	Age	Gr	Elementary School
1 <sup>st</sup>	Teacher Jovi Rose Braza Jherico Amida Lyresh Ginon	11 12	5 6	Baluarte ES
2 <sup>nd</sup>	Teacher Farah Lyn Mortal Chelsea Jane Francisco Zoe Andrea Feranco	11 11	5 5	Colegio del Sagrado Corazon de Jesus
3 <sup>rd</sup>	Teacher Mary Grace Juson Nicole Anne Canonaso Lindsay Marie Corpus	10 10	4 4	Hibao-an ES

**Nutrition and Aquaculture Quiz: "Kilalanin ang pagkain"**  
(45 pupils from 23 schools participated)

1 <sup>st</sup>	Gieselle Angela Barbero Coach: Ann Rose Acebuque	11	6	Iloilo Central ES
1 <sup>st</sup>	Thomas Nathan Hautea Coach: Edcharles John Baylon	10	5	Hua Siong College of Iloilo
2 <sup>nd</sup>	Romano Gabriel Pascual Coaches: Tessie Po Lachelle Taclahan			Kinaadman ES
2 <sup>nd</sup>	Kate Arianna Tan Coach: Edcharles John Baylon		6	Hua Siong College of Iloilo
2 <sup>nd</sup>	Regine Caeli Fadriga Coach: Myrna Singian			Jaro I ES
2 <sup>nd</sup>	Tricia Janine Poli Coach: Myrna Singian			Jaro I ES
3 <sup>rd</sup>	John Gino Garces Coach: Jean Diomon	12	6	Leganes ES



Bring, Show and Tell

**Talentong Dagat: "Awit, sayaw, palabas tungkol sa (buhay) dagat"**  
(10 teams from 10 elementary schools participated)

Prize	Names	Age	Gr	Elementary School
1 <sup>st</sup>	Holly Dei Syree Fundal Janet Anne Margaret Galve Kundun Duenas Henshie Marie Cabico Coaches: Mae Joy Palomo Laden Jane Caalem Mark Bacus James Angelo	12 11 11 9	6 6 5 4	West Visayas State University Integrated Lab School
2 <sup>nd</sup>	Gien Hermynie Canto Ma. Andrea Montemayor Novelyn Rose Gerona Chloe Nicole Salaysalay Coaches: Dawn Banga Salvacion Silos Rhoina Subade Sharon Rose Tomalejo	11 11 12 11	6 6 6 6	I. Arroyo ES
3 <sup>rd</sup>	Maria Alexandra Artajo Alanah Grace Divinagracia Jann Dwyane Alapa Adrian Joel Maligaya Coaches: Relina Hugo Lorena Alfaro			Jaro I ES

**Aquarium Quiz: "Lantawa kami!"**  
(40 pupils from 22 schools participated)

1 <sup>st</sup>	Kate Arianna Tan Coach: Edcharles John Baylon	6		Hua Siong College of Iloilo
2 <sup>nd</sup>	Lohan Lee Sindol Coach: Noeme Jutajero	11	6	Colegio de San Jose
3 <sup>rd</sup>	Justin Ray Balopenos Coaches: Valerie May Belleza Cecilia Gapit	6		SPED – Integrated School for Exceptional Children
3 <sup>rd</sup>	Riena May D. Tabing Coaches: Salvacion Silos Sharon Rose Tomalejo	12	6	I. Arroyo ES



Talentong Dagat



## Sci-Art AquaWeek 2016 Winners

### Mural Painting: "Ocean literacy in the Philippines" (6 teams from 6 high schools participated)

Prize	Names	Age	Gr	High School
1 <sup>st</sup>	Azl Belanio Coach: Noreen Abello	13	8	Iloilo City NHS
2 <sup>nd</sup>	Vanya Therese Zamora Coach: Carmi Joy Alecto	15	10	Colegio del Sagrado Corazon de Jesus
3 <sup>rd</sup>	Rafael L. Alegado Coach: Ma. Fe Montealto	11		Ramon Avancena NHS

### Ocean literacy Quiz: "The Philippines is a water country" (20 students from 10 high schools participated)

1 <sup>st</sup>	Allen Dave Evidente Coach: Maricar Moser	16	10	SPED-ISEC
2 <sup>nd</sup>	RJ Villarias Coaches: Marvi Ann Tabobo Emmanuel Pahunao	16	11	Hua Siong College of Iloilo
3 <sup>rd</sup>	Jellie Ann Rodriguez Coach: Alma Mendame	15	9	Santa Barbara National High School

### Powerpoint Lecture (by HS Teachers): "Ocean literacy for Gr 9-12" (4 teachers from 4 high schools participated)

Prize	Names	High School
1 <sup>st</sup>	Ronella Gestopa	Guimbal National High School
2 <sup>nd</sup>	Mary Jean Ocampo	Colegio del Sagrado Corazon de Jesus
3 <sup>rd</sup>	Kenneth Mark Jardenico	St Robert's International Academy



Mural Painting



Conchology Quiz

### Conchology Quiz: "Mollusk architecture and identity" (14 students in 7 teams from 7 high schools participated)

Prize	Names	Age	Gr	High School
1 <sup>st</sup>	Kimberly Mesa Angeline Oscares Coach: Michell Aureli Simora	15 14	10 9	Iloilo City NHS
2 <sup>nd</sup>	Kathleen Ann Sison RJ Villarias Coach: Emmanuel Pahunao	15 16	9 11	Hua Siong College of Iloilo
3 <sup>rd</sup>	Krystine Langub Cezar Firmeza III Coach: Joven Loja	16 16	11 11	Colegio del Sagrado Corazon de Jesus
3 <sup>rd</sup>	Liane Kathriel Sumido Blaise Bagarinao Coach: Ayela Abella	15 15	10 10	Tigbauan NHS
3 <sup>rd</sup>	Loryiel Chloe Alaban Nicole Marie Gelloagan Coach: Ime Glor Parcon	16 16	10 10	Ramon Avancena NHS

### Seafood Festival: "Farmed seafood as appetizer, entrée, dessert" (6 teams from 6 high schools participated)

1 <sup>st</sup>	Josephine Sumague Noel John Guindan Clement Jalique Coaches: Salvacion Jade Liz A. Velasco	16 15 16	10 10 10	Santa Barbara Comprehensive NHS
2 <sup>nd</sup>	Marielle Gangoso Carl Renzso Justine Carpio Blessa Alma Rose Dacudao Coach: Vinna Marrie Tindan			Colegio del Sagrado Corazon
3 <sup>rd</sup>	Ronah Marie Nillos Gian Karlo Juntado Ram Angelie Valasote Coaches: Gracelle Gapit Maricar Moser		10 10 10	SPED-ISEC



Seafood festival



# AQD renews agreement with JIRCAS



JIRCAS Fisheries Division Director Dr. Tetsuo Fujii (left) shakes hand with SEAFDEC/AQD Acting Chief and Deputy Chief Dr. Chihaya Nakayasu after the agreement signing

A memorandum of agreement was signed between SEAFDEC/AQD and Japan International Research Center for Agricultural Sciences (JIRCAS) last 14 July 2016 to mutually plan and implement research projects and exchange scientists through research projects, seminars, trainings and site visits.

The memorandum of agreement stated that JIRCAS and AQD will conduct two collaborative research projects entitled “Demonstration and

Verification of Sustainable and Efficient Aquaculture Techniques by Combination of Multiple Organisms” and “Development of Low Fish Meal feed for Aquaculture using Alternative Sources.”

The agreement that is effective until March 2021 was signed between AQD Deputy Chief and Acting Chief Dr. Chihaya Nakasayu and JIRCAS Program Director Dr. Yukiyo Yamamoto (represented by JIRCAS Fisheries Division Director Dr. Tetsuo Fujii).  
- JM DELA CRUZ



## AQD joins aquaculture convention

SEAFDEC/AQD joined the 7<sup>th</sup> Aquaculture Expo and Convention Philippines (Aquatech 2016) held on 20-21 July 2016 at Summit Ridge Hotel in Tagaytay City.

SEAFDEC/AQD scientists Dr. Nerissa Salayo, Dr. Ma.Lourdes Aralar, Dr. Edgar Amar, Dr. Relicardo Coloso, Dr. Fe Dolores Estepa, and Associate Scientist Dr. Frolan Aya were among the speakers during the technical conference. They talked on the following (1) Social and economic challenges in Southeast Asian aquaculture, (2) Domestication and evaluation of the culture potential of the native caridean

prawns, (3) Updates on the early mortality syndrome in marine shrimps, (4) Feeds & feeding for milkfish, mud crab & their polyculture, (5) Breeding, seed production & grow-out of mangrove crab, and (6) Seed production of ayungin, respectively.

Moreover, Dr. Salayo chaired a round-table discussion for the purpose of reviewing information regarding the aquaculture strategy under the Comprehensive National Fishery Industry Development Plan (CNFIDP) and to gather inputs of the different sectors to help achieve the goal of the CNFIDP. Likewise,

Dr. Ma. Rowena Eguia, Dr. Salayo and Dr. Aralar served as moderators during the technical conference. SEAFDEC/AQD Scientist Dr. Leobert dela Peña also attended the event. Aside from the technical conference, SEAFDEC/AQD also participated in the trade show with Technical Coordinator Ms. Grace Garcia as the technical resource person and booth in-charge. Senator Cynthia Villar visited AQD booth and was very appreciative of SEAFDEC/AQD’s technologies and participation in the convention.

- GK FAIGANI



Senator Cynthia Villar (in white blouse) visits SEAFDEC/AQD Booth during Aquatech 2016



SEAFDEC/AQD Scientists Dr. Ma. Rowena Eguia and Dr. Nerissa Salayo (in black) together with Senator Villar open the exhibit



# AQD exhibits DOST-funded projects

SEAFDEC/AQD joined the *Super National Science and Technology Week (NSTW)* celebration of the Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD) held last July 25-29, 2016 at the DOST-PCAARRD Innovation and Technology Center in Los Baños, Laguna.

During the NSTW, SEAFDEC/AQD exhibited DOST-PCAARRD-funded projects on mangrove crab,

blue swimming crab, oysters and abalone.

DOST Secretary Fortunato dela Peña, DOST Undersecretary Rowena Cristina Guevara, Former DOST Secretary Engr. Mario Montejo, former Deputy Executive Director for Research and Development Engr. Ma. Teresa de Guzman, and Acting Executive Director of PCAARRD Dr. Reynaldo Eborá visited SEAFDEC/AQD's booth and were updated of the progress of the projects.

With the theme “Juan Science, One Nation”, this year’s NSTW featured various technologies and services implemented under the DOST system. The celebration aimed to recognize the roles and contribution of personalities in the field of science and technology.

The 5-day event was open to all science and technology enthusiasts, academicians, researchers, inventors, innovators, professionals, students and the general public. 🐙 - GK FAIGANI



Photo courtesy of ET Quintio

(L-R) AQD Scientists Dr. Ma. Rowena Eguia, Dr. Emilia Quintio, and Dr. Fe Dolores Estepa with former DOST Secretary Engr. Mario Montejo, Acting Executive Director of PCAARRD Dr. Reynaldo Eborá, and former Deputy Executive Director for Research and Development Engr. Ma. Teresa de Guzman



Photo courtesy of ET Quintio

AQD Scientist Dr. Emilia Quintio explains the progress of the mangrove crab and blue swimming crab projects funded by PCAARRD



Photo by JP Mediavilla

AQD's Research Assistant Ms. Mary Dianne Grace Arnaldo discusses the hatchery set-up of abalone to DOST Undersecretary Rowena Cristina L. Guevara



Photo by JP Mediavilla

DOST Secretary Fortunato dela Peña (in white, 2nd from left) and PCAARRD Acting Executive Director Reynaldo Eborá (in green, leftmost) have a taste test of the abalone product while SEAFDEC/AQD's Training and Information head Dr. Ma. Junemie Hazel Lebata-Ramos (in white, rightmost) explains the updates about the abalone project funded by PCAARRD



Photo by MDG Arnaldo

AQD's Research assistant Mr. Jonas Mediavilla explains to students the abalone culture experimental set-up in a reef flat using PVC pipes



Photo by MDG Arnaldo

AQD's Research assistant Ms. Valerie Lorraine Tan explains to the students the experimental set-up of the oyster project



## AQD exhibits R&D work in Dagupan City

Aquaculture technologies developed by SEAFDEC/AQD were presented to the public through a booth during the 1<sup>st</sup> National Aquaculture Summit held 7-8 July at Leisure Coast Resort in Dagupan City. The booth displayed and distributed various publications including farmer-friendly manuals, textbooks, and brochures which are outputs of the R&D work in SEAFDEC/AQD.

The two-day summit organized by the Philippine Association of Fish Producers, Inc. (PAFPI) in collaboration with the Bureau of Fisheries

and Aquatic Resources (BFAR) was attended by SEAFDEC/AQD Technology Verification and Demonstration Head Dr. Fe Dolores Estepa, Scientists Dr. Mae Catacutan and Dr. Eleonor Tendencia, Associate Scientist Ms. Jocelyn Ladja and Researcher Ms. Gregoria Pagador.

Among the topics included in the summit was the status, trends, opportunities and challenges in the aquaculture subsector including the impacts of the ASEAN integration to the Philippine aquaculture commodities trade. 🐟

- GK FAIGANI



BFAR Region 1 Director Nestor Domenden visited the SEAFDEC/AQD booth during the 1st National Aquaculture Summit



(L-R) SEAFDEC/AQD Associate Scientist Ms. Jocelyn Ladja, Technology Verification and Demonstration Head Dr. Fe Dolores Estepa, Scientists Dr. Eleonor Tendencia & Dr. Mae Catacutan, and Researcher Ms. Gregoria Pagador during the 1st National Aquaculture Summit

## AQD staff attend IEC development training



ATI's Ms. Antonieta Arceo (first row 7<sup>th</sup> from left) with the IEC materials development training participants

SEAFDEC/AQD staff attended the *IEC Materials Development Training* conducted by the Western Visayas Agriculture Aquatic and Natural Resources Research and Development Consortium (WESVAARRDEC) at Goducate Training Center, San Miguel, Iloilo last 11 to 12 August 2016.

The training aimed to equip participants with the skills of developing effective

IEC materials for promotion or dissemination purposes.

The speaker, Knowledge Products Management Division OIC Ms. Antonieta Arceo of the Agriculture Training Institute (ATI), discussed topics on IEC content development and knowledge sharing techniques for both print and social media.

Ms. Arceo emphasized that IEC materials should be specific, clear and simple in order to be effective.

Hands-on workshops were also conducted where the participants produced information materials for their respective institutions.

SEAFDEC/AQD's Development Communication Section OIC Mr. Rex Delsar Dianala, Information Assistants Ms. Joesyl Marie de la Cruz, Ms. Gelyn Faigani & Ms. Rossea Ledesma and Technical Assistant Ms. Hananiah Sollesta attended the training.

🐟 - JM DELA CRUZ



## Abalone training course wraps up

Five participants from Caraga Region in Mindanao completed the five-day training course on *Abalone Nursery and Grow-out* on 8 July 2016.

The trainees had lectures on biology & ecology, hatchery & nursery, grow-out culture, feeds & feeding, impact of

climate change to aquaculture production, and biology & grow-out culture of *Gracilaria*.

There were also practical sessions such as feed preparation, harvesting & stocking of early juveniles in nursery cages, fabrication of culture containers, and sorting

& packing of juveniles for transport.

This training course was part of the Philippine Climate Change Adaptation Project (under the Department of Environment and Natural Resources) for Siargao Island protected landscapes and seascapes. 🐡 - RH LEDESMA



Photo by IT Tendencia

SEAFDEC/AQD's Research Assistant Mr. Jonas Mediavilla and Laboratory Technician Patrick Alicante conducting a practical session on stocking of abalone juveniles



Photo by IT Tendencia

SEAFDEC/AQD Laboratory Technician Patrick Alicante demonstrating how to fabricate culture containers for abalone

## AQD receives special citation from Red Cross



AQD's nurse Ms. DP Tupas (third from left) with other awardees during the ceremony

The Philippine Red Cross - Iloilo Chapter Western Visayas Regional Blood Center awards a *Scroll of Honor* to SEAFDEC/AQD for six consecutive years of bloodletting by its staff. The award was given during the

18<sup>th</sup> Blood Donors' Awarding and Recognition Ceremony on 31 August 2016 in Iloilo City.

The event, attended by members of the academe and government & private sectors, acknowledges the heroism of the individuals and groups



Photo courtesy of DP Tupas

AQD Nurses Ms. Dorfra Tupas and Mr. Al Edward Limoso during the awarding ceremony

responding to the unending need of blood donors.

SEAFDEC/AQD is represented by Nurses Ms. Dorfra Tupas and Mr. Al Edward Limoso. 🐡 - GK FAIGANI



The scroll of honor from the Philippine Red Cross





## Science and Environment Internship 23 May—10 June 2016

Philippine Science High School-Western Visayas  
(5 students)

Philippine Science High School-Central Visayas  
(6 students)



- Activities conducted:
- dissection of velvet shark
  - fish anatomy
  - mollusk taxonomy
  - phytoplankton lab
  - milkfish hatchery
  - hooked olive ridley, Parara
  - Suclaran wind farm
  - softshell crabs at DBS
  - Dumangas mudflat
  - Igang fish cages
  - rocky intertidal
  - Lim-ao fish corral
  - pawikan release at AQD
  - tagged green turtle and hawksbill, Buyuan
  - seined green turtle, Guimbal









# Research Seminar



**D**r. Michiyasu Yoshikuni of Kyushu University Japan, talked about “A natural spawning-inducing hormone for tropical sea cucumbers. –The discovery and its promising application” on 1 August 2016.

According to Dr. Yoshikuni, a peptide named “cubifrin” is widely used in Japan as a spawning-inducing hormone for the Japanese spiky sea cucumbers. However, “cubifrin” cannot simulate spawning in other sea cucumber species.

Thus, Dr. Yoshikuni and his team conducted a study to find a spawning-inducing hormone that can be used for tropical sea cucumbers. The team identified a new peptide hormone from the nerve tissues of *Holothuria leucospilota* that is completely different from “cubifrin.” The result of their study shows that synthetic *H. leucospilota* peptide induces *in vitro* ovulation as well as *in vivo* gamete spawning at less than  $10^{-9}$  M. This hormone was also found to induce spawning in other sea cucumber species. 🐡 - RH LEDESMA



**T**he Human Resource Management Section (HRMS) facilitated a seminar on “Understanding and taking care of our kidneys” for AQD employees on 16 August 2016.

Dr. Ethel Cordero, a kidney expert, oriented the employees on the basic functions of the kidneys as well as the probable symptoms of a kidney disease. She also shared some tips on how to prevent kidney disease and how to keep the kidneys healthy.

Dr. Cordero is a Fellow of Philippine College of Physicians and a Diplomate of Philippine Society of Nephrology. 🐡 - RH LEDESMA



**S**EAFDEC/AQD Senior Technical Assistant Mr. Dan Joseph Logronio presented his study on “Genetic diversity of Philippine native pigs (*Sus scrofa* L.) of Quezon and Marinduque based on morphometric methods and microsatellite markers” on 18 August 2016.

According to Mr. Logronio, nine microsatellite markers recommended by Food and Agriculture (FAO) were used to measure genetic diversity of Quezon and Marinduque native pig populations with a total of 37 and 40 individuals, respectively.

He explained that the morphological analysis revealed a significant difference in all quantitative traits and in five out of seven qualitative traits. A small genetic differentiation between the two populations was also observed. He concluded that there is a low genetic differentiation between the two populations and the possibility of inbreeding may suggest the need for further genetic improvement. He also recommended the conservation of these pigs and their development as a Philippine native signature pig breed. 🐡 - GK FAIGANI



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