



SEAFDEC AQD Matters

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

Celebrating 41 years of strong R&D

Sharing and promoting sustainable aquaculture technologies towards a prosperous ASEAN community

AQD continues support to aquaculture industry

We (AQD) will stay on our course, as we strive to continue as provider of relevant technologies that will help fish farmers remain competitive in the era of free trade," said AQD Chief Dr. Felix Ayson during AQD's 41st Anniversary program held on 11 July.

Dr. Ayson also mentioned that AQD's accomplishments for the past 41 years are very tangible and visible in the aquaculture industry both in the Philippines and the Southeast Asian region. He cited the adoption of the feed formulation by fish farmers in Northern Luzon, Philippines which enabled them to grow milkfish to 500 grams in just five months. The feed formulation was the product of research done by AQD nutrition expert Dr. Relicardo Coloso funded by the United Soybean Board. He also mentioned that an improved feed formulation which can shorten the culture period to 3.5 months is ready for testing in large-scale production systems.

He also recognized the efforts of the mud crab team led by Dr. Emilia Quinitio for the significant strides they have made in improving the breeding & seed production and the culture technologies of mangrove crab with funding support from ACIAR (Australian Centre for International Agricultural Research), EU (European Union), and GOJ (Government of Japan). An improved artificial feed for mud crab is also now available through the efforts of the mud crab and nutrition team. At present, continued improvement as well as nationwide dissemination of production technologies of mud crab is made possible by the generous support of DOST-PCAARRD (Department of Science and Technology-Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development) through the national mud crab R&D program.

The Chief also took pride in sharing the news from the Chairman of the Seaweed Industry Association of the Philippines Mr. Maximo Ricohermoso that the seedlings of *Kappaphycus*, produced in the AQD Seaweeds laboratory through tissue culture, that are being field tested in the seaweed farms in Bohol are performing very well. The growth rate observed was about 6-8% per day while the current seedlings from cuttings used have only about 2-3% growth rate.

Advancements on abalone culture such as feed development for the larvae, grow-out, and broodstock were also given notice. This should be a significant development as it may pave the way for a shorten period of abalone culture from possibly 10-12 months to only about 7-9 months. Correspondingly, with this new technology, abalone production may likewise be feasible even in areas with limited supply of seaweeds. AQD nutrition expert Dr. Myrna Teruel is currently testing in large scale, the performance of these microparticulate feed, grow-out and maturation diets for different stages of abalone production.



Photos this page by GK FAIGAN

(L-R) Administrative assistant Mr. Edison Pineda, Researcher Ms. Ofelia Reyes, Senior technician Ms. Pacita Bantillan, Finance assistant Ms. Nanette Bantillo, and Finance officer Ms. Jiji Rillo receive plaques of appreciation for their service to AQD



(L-R) SEAFDEC National Coordinator for the Philippines Dr. Jonathan Dickson, SEAFDEC Secretary-General Dr. Chumnarn Pongsri and AQD Chief Dr. Felix Ayson



(L-R) OIC Administration and finance division Ms. Kaylin Corre, Scientist Dr. Emilia Quinitio, PCAARRD Supervising Science Research Specialist Dr. Loureeda Davin, Research head Dr. Ma. Junemie Hazel Ramos, Training and information head Dr. Evelyn Grace Ayson, Scientist Dr. Ma. Lourdes Aralar, Sr. technical assistant Engr. Emiliano Aralar, and Mr. Antonio Villaluz (son of former AQD Chief DK Villaluz)



BFAR Assistant Director for Technical Services Dr. Drusila Esther Bayate (left) points out that with the upcoming ASEAN integration by 2015 with the battle cry, "efficient management of the value chain, production from responsible and sustainable practices, food safety and traceability," AQD's relevance will now be highlighted due to the need for advanced aquaculture technologies that have minimal impact on the environment and on biodiversity

Engr. Maria Teresa de Guzman (right) of PCAARRD says that AQD and PCAARRD should build on each other's expertise and to have a more dynamic collaboration to be able to push not only the technologies developed but also tangible products and services to the market.



SEAFDEC Secretary General Dr. Chumnarn Pongsri commends AQD for its accomplishments and progress in the Department's research work. He is also grateful to AQD for aligning its research activities with the priorities and needs of the SEAFDEC member countries.

AQD Deputy Chief Dr. Takuro Shibuno concludes the 41st Anniversary program with the call to everyone to do their share to help sustain the aquaculture industry for the betterment of the ASEAN community.



AQD partners and collaborators present in the event are (L-R) Mindanao State University-Tawi-Tawi Chancellor Atty. Lorenzo Reyes, BFAR Assistant Director for Technical Services Dr. Drusila Esther Bayate, BFAR Region 7 Director Mr. Andres Bojos, UPV Vice Chancellor for Administration Prof. Nestor Yunque, NFRDI Aquaculture R&D Division Chief Mr. Frank Santos, UPV Institute of Fisheries Policy Development Studies Director Dr. Jose Peralta

AQD Scientist Dr. Edgar Amar and Accounting Head Ms. Jasmine Gelvero are the emcees of the program



OIC Library and Databanking Services Section Mr. Stephen Alayon receives two plaques of appreciation for being awarded as the "Asian Librarian 2014" by the Special Libraries Association and for receiving the "2013 Citation Award for Research Excellence" from the association of Special Libraries of the Philippines



AQD staff provide a dance and song number during the program

Photos this page by GK FAIGANI



(L-R) Deputy Chief Dr. Takuro Shibuno, Associate scientist Dr. Fiona Pedroso and Researcher Ms. Ofelia Reyes during the consultation



(L-R) AQD scientists Dr. Emilia Quintito, Dr. Veronica Alava and Dr. Fe Dolores Estepa entertain questions from fishfarmers

Forum for fishfarmers

AQD hosted the Farmers' Forum 2014 with participants coming from local government agencies, the academe and the private sector.

The first lecture was delivered by Mr. Stephen Alayon on *Distribution and use of SEAFDEC Publications: Initiative of SEAFDEC/AQD Library* wherein he talked about SEAFDEC/AQD Institutional Repository (SAIR). This was followed by Dr. Rolando Pakingking, Jr. who talked on *Major Diseases and Health Management of Cultured Tilapia 'Oreochromis niloticus' in the Philippines*. Dr. Pakingking argued that intensification of tilapia culture has brought about emerging diseases such as streptococcal infection and viral nervous necrosis caused by betanodavirus which can cause serious mortalities. He recommended that therapeutic exclusion, stock selection, maintaining good water quality & hygiene, use of immunostimulants, probiotics and vaccines are the right strategies for tilapia health management. Ms. Maria Rovilla Luhan talked about the *Advances in Seaweed Research* which she elaborated that field tissue cultured propagules give better growth over that of seaweed started from cuttings.

The afternoon session was opened by Dr. Evelyn Grace de Jesus-Ayson with her talk on the *Culture of Pompano in Ponds and Cages*. She explained that nursery culture of fry, which when fed a high protein (46-48%) commercially available diet (FCR 1.5) is very profitable; the farmer can have 3 crops a year. This was followed by the lecture of Dr. Mae Catacutan on *Services at SEAFDEC/AQD for Aquaculture Business Ventures* wherein she explained in detail the availability of seeds of different commodities and analytical or laboratory services offered by AQD. The afternoon session was capped by Dr. Relicardo Coloso's lecture on *Cage and Pond Trials of a Premium Feed for Milkfish 'Chanos chanos'*. The SEAFDEC premium feed formulated by Dr. Coloso can produce 500 g milkfish in just three and a half months of culture.



Technology Verification and Demonstration head Dr. Mae Catacutan discusses with the stakeholder about feeds and fish nutrition



Stakeholders at the forum

After the lectures was the one-on-one consultation between fish farmers and AQD scientists/researchers. Farmers mostly consult about marine fish and small-scale/backyard and freshwater hatcheries.

AQD launches four manuals



Photos this page by GK FAIGANI

AQD Researcher Ms. Ofelia Reyes (in blue), lead author of the snubnose pompano hatchery production manual, gives out copies to stakeholders

Four manuals on snubnose pompano hatchery production, polyculture of milkfish with shrimp and mud crab, milkfish cage culture operations and rabbitfish seed production together with the 2013 AQD Highlights were successfully launched on 10 July at the AQD's Tigbauan Main Station. Members of

the academe, fish farmers and private & government sectors attended the event. The aquaculture extension manuals (AEMs) contain laymanized and easy-to-understand information from the studies done by AQD scientists and researchers. The 2013 Highlights contains a comprehensive report of AQD's research updates and activities throughout the previous year. These new publications are now available at the AQD bookstore. For inquiries please contact, bookstore@seafdec.org.ph



DKV lecture on mud crab farming

AQD scientist Dr. Emilia Quintio was honored to be the speaker for the 22nd Dean Domiciano K. Villaluz (DKV) memorial lecture. She talked about *Mud crab Farming in the Philippines: The Next Sunshine Industry?* on July 11.

Dr. Quintio discussed the polyculture and monoculture system in earthen brackishwater ponds that are common practice in mud crab farming. She also mentioned that fattening of lean or empty crabs locally known as "hagas" is also a

very popular practice among farmers since it is profitable and requires a short culture period of 15-45 days in floating cages inside earthen ponds or in individualized compartments in mangrove areas. In addition, she explained AQD's soft-shell crab production project that had shown feasibility of using hatchery produced crablets (<1cm carapace width) grown in net cages for seven to eight weeks followed by one-and-a-half to two month grow-out period in ponds



DKV lecturer Dr. Emilia Quintio entertains a question from the audience.

prior to stocking in individual perforated boxes.

"During the nursery phase, high economic losses are attributed to cannibalism," said Dr. Quintio. She said that this can be minimized by giving sufficient food & shelters, reducing stocking density, size grading and removal or trimming of claws. Likewise, she added that recent laboratory findings showed that incorporating tryptophan in the diet can reduce the aggressive behavior of crabs.

Furthermore, she noted that AQD has succeeded in domesticating the mud crab *Scylla serrata* by closing its life cycle. Recently, AQD and the University of the Philippines Visayas implemented the

National Mud crab Science and Technology Program funded by the Department of Science and Technology of the Philippines. The program aims to refine the existing technologies in all phases of culture and to reduce dependence on wild-caught seeds and juveniles.

Like milkfish, mud crab farming has long been established in the Philippines. The development of farming technologies in all phases of culture has made mud crab aquaculture attractive and suitable to both big entrepreneurs and small-holder family-based businesses in rural communities, thus increasing incomes and employment opportunities for fish farmers in coastal communities.



Dr. ET Quintio accepts a plaque of appreciation from (L-R) AQD Research head Dr. Ma. Junemie Hazel Leбата-Ramos, Mr. Antonio Villaluz, and AQD Chief Dr. Felix Ayson

Young learners visit AQD

Even the rainy weather did not dampen the excitement of the 150 high school students from seven schools in Iloilo as they trooped to AQD during its open house, on July 8-9. The students were able to visit AQD's hatchery facilities, biotechnology laboratory, library and AQD's museum FishWorld. This activity is part of AQD's 41st anniversary celebration that aims to boost the interest of the students in the field of aquaculture research.



The teachers and students of Particion National High School enjoy their visit in the abalone hatchery

Photo by AV Antelino



Photo by AV Antelino

Students from Nalundan National High School tour the AQD library

Planting is fun !

AQD's 41st anniversary celebration kicked off with a tree planting activity on 1 July 2014. AQD employees led by AQD Chief Dr. Felix Ayson planted 250 jackfruit seedlings at the vacant lot on the west portion of the Tigbauan Main Station.

It has been AQD's tradition to include this activity in celebrating its anniversary. Last year, a total of 74 trees (calamansi, jackfruit, pomelo, talisay, bulobitoon) were planted in six areas within AQD's Tigbauan Main Station. In 2012, AQD planted 60 seedlings of fruit-bearing trees such as calamansi, atis, chico, and jackfruit near the Nanga pump house and ten saplings of native trees behind the apartment building. About 480 seedlings of hardwood and fruit-bearing trees were planted at AQD's perimeter fence fronting the national road, at the back of TID building and at the Nanga pump house in 2011.



Photos by RH Ledesma

AQD employees at the tree planting area



Talisay (left) and chico (right) seedlings are among the trees planted during AQD's previous anniversaries



AQD staff gamely poses after successfully planting all the jackfruit seedlings



AQD Deputy Chief Dr. Takuro Shibuno (above) and AQD Chief Dr. Felix Ayson (top) lead the tree planting

All in good health

The annual AQD bloodletting, medical mission and eye examination had a large turn-out on 4 July 2014 at the TID complex, Tigbauan, Iloilo.

The bloodletting activity was in collaboration with Philippine Red Cross (PRC) Iloilo Chapter. After the standard screening, 27 out of 41 staff were successfully bloodlet marking AQD's fourth year of donation since 2010. Also, free consultation and medicines were given to 129 residents (45 children and 84 adults) of Brgy. Buyu-an and Brgy. Nanga during the medical mission. The consultations were courtesy of Dr. Sylvia Gepes, Dr. Lygeia Gilongos and Dr. Elvi Dieron. Lastly, forty-two AQD staff were given free eye examination offered by optometrist Dr. Effie Pineda of E. Pineda Optical Clinic. AQD staff availed the free refraction test and were given discount on eye glasses and contact lenses.

These activities are part of AQD's 41st anniversary celebration.

Photos this page by RH LEDESMA and JM DELA CRUZ



Priority was given to the residents of Brgy. Buyu-an and Brgy. Nanga in Tigbauan during the medical mission



AQD staff avails free refraction test by optometrist Dr. Pineda of E. Pineda Optical Clinic



Give blood, save a life. AQD donors during the bloodletting proper



Fun-filled days for AQD staff

Being re-acquainted outside the bounds of official work AQD's employees enjoyed the food fair and fun day held July 8-9 as part of AQD's 41st anniversary celebration. AQD staff delighted in the two days activities packed with exciting parlor games, anniversary quiz dare, bingo socials and food fair.



L-R: AQD staff had fun playing one of the parlor games. AQD employees try their best to hit the egg during the "Sway your eggplants" game



L-R: The "underwater restaurant" theme of the Administration and finance division is the big winner during the food fair bagging the best anniversary booth, most creative, clean and orderly booth awards. The Chinese inspired booth of the research team. The RD booth had a different theme every day during the 3-day fair for which they won the most dynamic group award. Training and information division and management staff are busy preparing their products for sale. The Technology verification and demonstration division staff are all set to sell their products

Bold, fierce but sweet @ 38

AQD's Binangonan Freshwater Station (BFS) celebrated its 38th anniversary on July 24. A Farmers' forum was held with AQD scientist Dr. Ma. Lourdes Aralar talked about *Breeding, Hatchery and Nursery of Giant Freshwater Prawn*. Moreover, a certificate of recognition was given out to BFS staff who rendered exemplary and loyal service to AQD. This was immediately followed by intermission numbers performed by the staff and members of the local government unit of Brgy. Pipindan. AQD Deputy Chief Dr. Takuro Shibuno and Research head Dr. Ma. Junemie Hazel Lebata-Ramos graced the event.

After the open forum Scientist Dr. Nerissa Salayo gave the highlights of studies conducted at BFS. She likewise updated the audience about the project on verification and dissemination of "ulang" or giant freshwater prawn culture in Laguna de Bay. Due to budget constraints, the project was initially implemented in Barangay Pipindan, where BFS is located and will later be replicated in other communities around Laguna de Bay. It is the initiative of the fisherfolk of Pipindan to be trained in the production of ulang juveniles because they are confident that the grow-out phase will not be a problem for they have been fish farmers of other freshwater

species for more than three decades. They are also aware that the economic gains are initially small but can still contribute to their incomes over what they presently earn from producing and selling tilapia juveniles. Senior technical assistant Engr. Emiliano Aralar confirmed that the two cooperators at Barangay Pipindan recently had a partial harvest of large blue-clawed "ulang" and that the farmer-cooperators reported high average survival rates of the prawns at 80% except in one cage that had only 58% due to holes in the net. Sadly, all the cages were damaged a week before the anniversary when Typhoon Glenda ravaged the Laguna de Bay area.

"BFS is trying to introduce itself to other provinces outside of the Laguna area and that these efforts to reach out to these communities are through the ABOT (Agree Build Operate Transfer) programs on the culture of freshwater species," said Manila Office head Dr. Ma. Rowena Eguia during her closing remarks. She reminisced that Binangonan Freshwater Station used to be called Binangonan Research Station or BRS because the station also worked on marine and brackishwater species like the giant tiger prawn, milkfish and tilapia. She added that it would have been more fitting then to have a theme for BRS as "brave, resilient and strong" with an emphasis on resilient because despite the threats on the continued operation of the station in the past due to limited funds it continues to exist and to serve to this date.

Photos this page by JM ALMENDRAS



AQD scientist Dr. Ma. Lourdes Cuvin-Aralar lectures at the Farmers' Forum



AQD scientist Dr. Nerissa Salayo gives updates about research work done at BFS



An open forum with AQD scientists (L-R) Dr. Nerissa Salayo, Dr. Frolan Aya, Dr. Cuvin- Aralar, and Dr. Maria Rowena Romana-Eguia



BFS driver Mr. Nestor Dela Cruz (2nd from right) receives a Certificate of Recognition for his exemplary and loyal service to the research station from (L-R) Dr. Aya, Dr. Ma. Junemie Hazel Lebata-Ramos and Dr. Takuro Shibuno

Sci-Art AquaWeek 2014

Biodiversity Lab: "Fish diversity around Panay and Guimaras" (5 teams from 5 high schools HS)

Prize	Names	Age	Yr	School
1st	Pete Gabriel Ledesma	15	3	Iloilo National HS
	Allen Patrick Araneta	15	3	
	Coach: Golda A. Joseco			
2nd	Joreybel May Ledesma	14	3	Tigbauan NHS
	Melline Anne Tuvida	13	3	
	Coach: Cornelio T. Baviera			
3rd	Isa Adelle S. Nufuar	16	4	Colegio de San Jose
	Quennie B. Mandal	14	3	
	Coach: Angela F. Balista			



Biodiversity Workshop and Quiz: "The Philippines is the center of mollusk diversity" (9 teams from 9 HS)

1st	Therese Javellana	15	4	St Louise de Marillac School of Miagao
	Florderose Jaro	14	3	
	Coach: Fia D. Nadanza			
2nd	Khaessha Jhae P. Arsenal	16	4	Colegio de San Jose
	Kye Alexandra J. Velasco	15	4	
	Coach: Angela Balista			
3rd	Sandro A. Silverio	16	4	Ramon Avancena NHS
	Marie Claire Julian	16	4	
	Coach: Jennifer Prudente			
3rd	Catherine Espanola	15	4	Parara NHS
	Ella Marie Tagupa	15	4	
	Coach: Ma. Helen Taleon			



Powerpoint Seminar: "Aquaculture versus fisheries" (7 teams from 7 HS)

1st	Pope Alan Marapao	15	4	Tubungan NHS
	Coach: Mark S. Tacadao			
2nd	Alexa Salibio	15	4	Iloilo City NHS
	Coach: Nilo Taroballes			
3rd	Veil Maria T. Castro	16	4	Colegio de San Jose
	Coach: Angela Balista			

Painting: "The Philippines is the center of marine biodiversity" (13 teams from 13 HS)

1st	Antonio V. Sibug	15	4	Iloilo City NHS
	Coach: Nilo Taroballes			
2nd	Duke D. Millona	15	4	Ramon Avancena NHS
	Coach: Marjorie C. Sumagaysay			
3rd	John Christian Barrios	15	4	Parara NHS
	Coach: Edwin B. Tanagras II			



Seafood Skills Olympics: "Preparing and serving sutokil" (9 teams from 9 HS)

1st	Ryan Joseph Y. Magsipoc	15	3	SPED -ISEC
	John Nikko A. Ramos	15	3	
	Ivan Frederick A. Caram	15	3	
	Coaches: MaricarL. Moser Mylyn V. Acosta			
2nd	Jeydon Nino M. Dieta	16	4	Ramon Avancena NHS
	Diana G. Aguirre	16	4	
	Abegail D. Demaclid	16	4	
	Coaches: Lilian A. Sumampong April Rose G. Chua			
3rd	Jason Lopez	16	4	Iloilo City NHS
	Yolanda Faith Conde	16	4	
	Janine Mae Pornel	16	4	
	Coach: Mary Jane Tipolo			





Write and Draw a Booklet: “Paglaki ko, I want to be a fish farmer” (9 teams from 9 ES)

Prize	Names	Age	Gr	School
1st	Earl John Gayapa	12	6	Kinaadman ES
	Andrea Rose V. Franco	11	6	
	Coach: Jester Jane Tabilog			
2nd	Gyla Jane Nismal	11	5	Santo Domingo ES
	Leilyn Mae Abellar	12	6	
	Coach: Ma. Regina Llorente			
3rd	Alyza Faye T. Cautivar	11	6	Hibao-an ES
	Angel Mae T. Canonaso	10	5	
	Coaches: Rogelio S. Cautivar Cinderela A. Sotaridona			

Bring, Show, and Tell (by Teachers): “Farmed seafood for good health” (3 teams from 3 elementary schools ES)

Prize	Winners	Age	Gr	School
1st	Teacher Maridel B. Silvela			Iloilo Central Elementary School
	Juan Carlos D. Tesoro	11	6	
	Bea Alexandra D. Fenol	11	6	
2nd	Teacher Rogelio Cautivar			Hibao-an ES
	Jamile G. Salcepuedes	11	6	
	Ryona Franchesca R. Valdez	11	6	
3rd	Teacher Lalinka Grace Ledesma			Baluarte ES
	Mary Rose P. Ang	11	5	
	Dan Jiro Z. Edang	12	6	

Aquarium Quiz
(32 pupils from 16 schools)

1st	Jev Lemuel P. Macahilo	11	6	West Visayas State University - Integrated Lab School
	Coaches: Mae Joy G. Palomo Kay C. Silla			
2nd	Ashley Gabrielle Calderon	11	6	SPED-ISEC
	Coaches: Valerie May B. Belleza Sophia Fanuga			
3rd	Lindsay Diane D. Ocbena	11	6	Iloilo Central ES
	Coach: Emilie P. Munoz			

Nutrition and Aquaculture Quiz
(32 pupils from 16 ES)

1st	Eiana Lyca L. Eucariza	11	5	Colegio de San Jose
	Coach: Noemi Jutajero			
2nd	Krystelle Rose Hautea	12	6	SPED-ISEC
	Coach: Valerie May Belleza			
2nd	John Oneil Alcobilla	11	6	SPED-ISEC
	Coach: Valerie May Belleza			
3rd	Frances Maeve T. Mayor	11	6	Kinaadman ES
	Coach: Tessie C. Po			
3rd	Brijette Keith N. Tolato	12	6	Tigbauan Central ES
	Coach: Myrna G. Gautier			
3rd	Danica Danielle Peremne	12	6	Santa Barbara Central ES
	Coach: Jessica S. Sequito Leni S. Solutan			



SPU renews collaboration with AQD



Photo by IT TENDENCIA

AQD Chief Dr. Felix Ayson (2nd from left) and SPU president Sr. Carolina Agravante sign the agreement with (L-R) AQD Administration and Finance Division head Ms. Kaylin Corre, Research Division head Dr. Ma. Junemie Hazel Lebatara-Ramos, Deputy Chief Dr. Takuro Shibuno and SPU Research Director Ms. Imelda Olaguer as witnesses

AQD and St. Paul University Iloilo (SPU) extend their partnership for another five years by signing a new Memorandum of Understanding on 30 July 2014 at AQD's Tigbauan Main Station, Iloilo, Philippines.

The five-year agreement aims to: (1) develop

collaborative training and extension programs in line with the common goals and objectives of both institutions, (2) promote the exchange of scientists and researchers for instruction, training and other related activities, and (3) strengthen the capabilities of AQD and SPU in the field of

aquaculture, fisheries, aquatic and related sciences with emphasis on environmental concerns.

The first AQD-SPU collaboration in 2009 had similar objectives with the current agreement and was also good for five years.

AQD conducts marine fish course

Nine participants attended the 37-day course on marine fish hatchery from 18 June -25 July at AQD's Tigbauan Main Station. Trainees came from the government & private sectors based in the Philippines (3), Brunei Darussalam (2), Singapore (2), Cambodia (1) and Thailand (1).

A series of lectures and practical activities were done to provide the participants with technical knowledge and skills in biology, broodstock



Trainees at the AQD laboratory for their practicals on natural food production



Trainees conducting induced spawning of grouper broodstock

management and spawning & larval rearing of marine fishes such as milkfish, seabass, grouper, snapper, rabbitfish and pompano. Production of natural food for larvae was also part of the course.

One of the trainees from Singapore, Mr. Leonard Shoh, expressed his gratitude to the resource persons & staff for his

delightful stay at AQD. "With the skills and knowledge that we have learned from this course, we sincerely hope that one day, we will be able to return to AQD and share our successes with you," Mr. Shoh said during the closing ceremony.

Some practical sessions and lectures were done at AQD stations in Igang, Guimaras & Dumangas, Iloilo.

Shrimp congress targets global competitiveness

Photos by IT TENDENCIA

AQD and other stakeholders of the shrimp industry convened at the 9th National Shrimp Congress held at Bacolod City, Negros Occidental, Philippines from 2 to 4 July. More than 20 senior and junior AQD research staff attended the conference, which served as a venue to gather all shrimp stakeholders who are the key players in achieving the Philippines' goal of producing high quality shrimps that can compete in the global market.

In order to attain this goal, the event had technical sessions on the updates of shrimp aquaculture such as pond water quality management, health management, and on feeds and feeding strategies. Additional topics were also discussed on marketing, financing as well as the enforcement of laws relevant to shrimp aquaculture. There was also a poster presentation where AQD have four entries namely; "Luminescent vibriosis in *Penaeus vannamei*: First case in the Philippines," "Molecular detection of *Vibrio harveyi* in Asian sea bass, *Lates calcarifer* using *dnaJ* gene as marker," "Antibacterial activity of extracts from Panay seaweed (*Ulva pertusa* Kjellman)," and "Survey of antibiotics and organochlorine pesticide residues from selected locations in the Philippines." AQD also participated in the event's exhibit which enabled it to reach more aquaculture stakeholders. All these activities, plus the brisk sales of the extension manuals and other publications of SEAFDEC/AQD helped to disseminate AQD's science-based aquaculture technologies.

The Bureau of Fisheries and Aquatic Resources, Philippine Shrimp Industry Inc., AQD, and the Department of Science and Technology-Region 6 were the organizers of this event.



Some of the AQD participants with AQD Chief Dr. Felix Ayson (right) and Research Division head Dr. Ma. Junemie Hazel Lebata-Ramos (left)



Shrimp Congress participants check out AQD's publications

Hats off for AQD

AQD received a Scroll of Honor from the Philippine Red Cross (PRC) – Western Visayas Regional Blood

Center for the four consecutive years of bloodletting by its staff. The award was given during the 16th Blood Donors'

Recognition and Awarding Ceremony on 21 July 2014 at Iloilo City.

The event, attended by members of the academe and government & private sectors, is part of the World Blood Donors Month celebration wherein PRC acknowledges the heroism of individuals and groups responding to the unending need of blood donors.

AQD (represented by AQD nurse Ms. Dorfra Tupas) also participated in "hat design contest" during the event. The hat designed by AQD senior AV technician Mr. Isidro Tendencia bagged 2nd place.



The scroll of honor from PRC and AQD's nurse Ms. DP Tupas (third from left) with other awardees during the ceremony

Research seminars

Marine biodiversity into drugs



Dr. Annabelle Villalobos

DOST Balik-Scientist and Johnson Consultant
BioPharmaceuticals R&D (USA)

“Pharmaceuticals from lab to market”

During her seminar on July 31, Dr. Villalobos pointed out that marine ecosystems can be a source for novel chemicals with therapeutic potentials. She mentioned that marine organisms such as sponges, bryozoans, mollusks and tunicates are now being used in the field of pharmaceuticals since they have low toxic side effects. The marine pharmaceutical industry is currently facing challenges that include accessibility, rarity and the problems of large-scale production. She also elaborated on the drawn-out process in the development of new drugs which include prospecting, isolation of active chemicals and then laboratory and clinical testing. Lastly, she encouraged young researchers to conduct more studies on marine bioactive compounds since there are still a lot of things that need to be done.

Milkfish fortified diets



Ms. Ofelia Reyes

Researcher
SEAFDEC/AQD

“Optimization of seed production of milkfish, Chanos chanos, Forsskal through feeding fortified diets to broodstock: Effects on eggs and fry quality”

On 14 August, Ms. Reyes noted that there is better survival rate of milkfish fry from broodstock fed with diet fortified with beta carotene and arachidonic acid. Furthermore, she observed that the condition factor of aging broodstock as well as the quality and quantity of spawned eggs were also improved. She explained that when larvae were co-fed with enriched rotifer and milkfish larval diet, low incidence of abnormality in fry was observed after rearing in nursery ponds. She concluded that in terms of egg viability, hatching rate and the number of normal larvae there is a significant difference between the broodstock fed with fortified diet and those fed the regular or non-fortified diet ($p < 0.05$).

Fellowship night



AQD concludes its 41st anniversary celebration with a *Wild Wild West* themed fellowship night



Former AQD employees join the fun at the *Wild Wild West* fellowship night



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