

SEAFDEC/AQD's Laboratory Facilities for Advanced Aquaculture Technologies (LFAAT), a group of laboratories, aims to support and promote research, development and dissemination of new aquaculture technologies. LFAAT staff conducted a technical seminar for research advisers, **FULL STORY PAGE 6.**

aqdmatters

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Newsletter of the SEAFDEC Aquaculture Department, Tigbauan, Iloilo, Philippines

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Aquaculture projects gain support from member countries



Participants from Member Countries present status and updates of regional projects at SEAFDEC's 50th Council Meeting

SIEM REAP, Cambodia
- To promote sustainable aquaculture, 11 member countries of the Southeast Asian Fisheries Development Center / Aquaculture Department (SEAFDEC/AQD) showed their support for its on-going projects aiming to minimize the environmental impact of aquafeeds and to mitigate the effect of diseases affecting farmed species.

The progress and activities of the projects Establishment of the Regional Database of Alternative Feed in Aquaculture (AFID), and Aquatic Emergency Preparedness and Response Systems for Effective Management of Transboundary Disease Outbreaks in Southeast Asia (AEPRS) were presented by SEAFDEC/AQD during the 50th Meeting of the SEAFDEC

Council last 26 to 30 March 2018.

“Knowing that we have the support of our partners is very important because it means that we are moving in the right direction. These projects will not only impact the aquaculture industry in the Philippines but also in the Southeast Asian region,” said Dan Baliao, chief of SEAFDEC/AQD.

Continued on next page





Chief Dan Baliao presents SEAFDEC/AQD's on-going projects to the council



AQD REPRESENTATIVES. (Left to right) Special Departmental Coordinator Ms. Joesyl Marie dela Cruz, Deputy Chief Dr. Chihaya Nakayasu, Chief Mr. Dan Baliao, Research Division head Dr. Leobert dela Peña and Manila Office head Ms. Anna Ortiz

SEAFDEC/AQD will be leading the assessment of ingredients around Southeast Asia to be compiled and shared in an easy-access database through a website. This will eventually lead to the selection of specific ingredients in respective countries and promote their mass production to create sustainable sources.

"I fully support the establishment of this database for its usefulness to aquaculture stakeholders," said Drusila Bayate, BFAR Assistant Director for Technical Services and SEAFDEC Alternate Council Director for the Philippines, during the discussion.

Through AEPRS, SEAFDEC/AQD will improve the knowledge, awareness and understanding on the status of disease preparedness in Southeast Asia. The project also aims to develop early warning,

detection and response systems to effectively manage outbreaks of aquatic animal diseases.

"We are looking forward to seeing the results of the project. The results can be used as basis to set-up Myanmar's quarantine measure for effective management of transboundary disease," said Myint Zin Htoo, Alternate SEAFDEC Council Director for Myanmar.

The annual meeting of the SEAFDEC Council is participated by 11 member countries, namely: Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Singapore, Thailand, Viet Nam and the Philippines. The purpose of the meeting is for SEAFDEC's five departments to present and report on the progress of on-going projects to the council for recommendation. **a**

- JM DELA CRUZ

TVDD to TVED: AQD gives more focus on extension

Due to the increasing demand for adoption-ready culture systems from the aquaculture industry, SEAFDEC/AQD adjusted its strategy by renaming its Technology Verification and Demonstration Division to Technology Verification and Extension Division (TVED) which is in accordance with the recommendations made during the 50th SEAFDEC Council Meeting in Siem Reap, Cambodia.

"AQD can give more focus on the translation of research results into commercial production systems with the industry instead of merely demonstrating in experimental environments," said Mr. Dan Baliao, SEAFDEC/AQD Chief, during his presentation to the council.

The shift in strategy is seen to improve the involvement of the private

sector and the fishery industry as a whole. The aquaculture industry will be involved in scaling up technologies developed by AQD and verify their profitability through technical assistance provided by TVED.

"TVED will work on a scheme to efficiently turn all research output of SEAFDEC/AQD into adoption-ready models to help the industry successfully produce commodities and increase profits," said Ms. Erish Estante, head of Extension and Packaging Section (previously known as Demonstration and Packaging Section) of TVED.

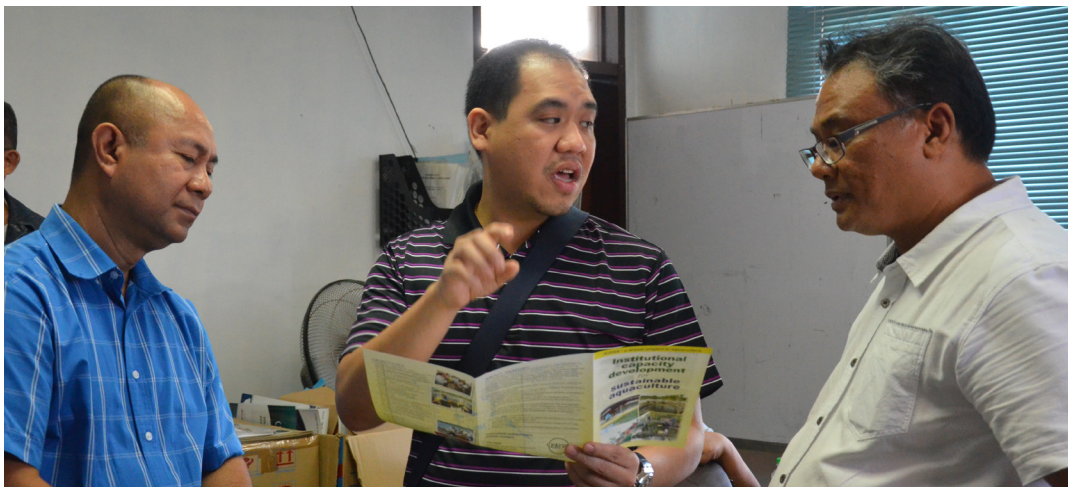
The renaming of the division was made official last 10 April 2018 through an executive order issued by the Chief. **a**

- JM DELA CRUZ



SEAFDEC/AQD staff gives assistance to a fish farmer in growing sea bass in cages

Congressman eyes partnership with AQD to develop aquaculture in Masbate



Masbate Rep. Scott Davies Lanete (center) inquires about the details of SEAFDEC/AQD's ICDSA program. With him are Dr. Edgar Amar (left) and Dr. Leobert de la Peña (right)

Congressman Scott Davies Lanete of the third district of Masbate visited SEAFDEC/AQD in 15 March 2018 to explore a possible linkage towards developing aquaculture in Masbate.

Lanete said that as a coastal province, the common livelihood of the people in Masbate is related to aquafarming. "I want to improve the economic

condition of the people and a science-based aquaculture technology will surely help," he said.

Lanete was particularly interested in the culture of grouper and breeding of mud crab. "*Wala kasing* breeders *sa amin, walang* crablets (We do not have crab breeders and crablets in Masbate)," he said. Other commodities of interest are sea bass, oyster, and

abalone culture.

While Masbate is rich in natural resources, Lanete said that its potential is not fully maximized, thus his resolve to push for aquaculture development.

"From my end, *ito ang kaya kong e-contribute, ang* aquaculture industry, *kasi* I'm also interested in farming (From my end, the aquaculture industry is the one where I

can contribute since I'm also interested in farming)," said Lanete.

To help Lanete concretize his plans for Masbate, Training and Information Division Head Dr. Edgar Amar introduced the Institutional Capacity Development for Sustainable Aquaculture (ICDSA) program of SEAFDEC/AQD.

Amar explained that through the ICDSA program, local government units and fisherfolk organizations can collaborate with SEAFDEC/AQD to build capacities of target beneficiaries by providing appropriate knowledge and skills.

Launched in 2006, the ICDSA program of SEAFDEC/AQD has assisted communities in Oriental Mindoro, Capiz, Antique, Palawan, Guimaras, Iloilo, Aurora, Camarines Sur, Northern Samar, Misamis Occidental, Davao, and Tawi-Tawi. [a](#)

- RH LEDESMA

Foreign investors eyeing PH aquaculture

Aquaculture is gaining interest from foreign investors according to a delegate of the British Chamber of Commerce Philippines (BCCP) trade mission during their tour of SEAFDEC/AQD's FishWorld Museum and Integrated Fish Broodstock Hatchery Complex in 9 March 2018.

"We've received queries coming from foreign clients and they're always asking about aquaculture in the Philippines and [they are] always looking for successful business models that they can replicate," said



(Left) Members of BCCP-member companies visit SEAFDEC/AQD's FishWorld museum. (Right) Dr. Amar of SEAFDEC/AQD and Mr. Fernandez of HSBC discuss about foreign investors' growing interest in aquaculture

HSBC Philippines Head of Communications Mr. Claro Fernandez during an open forum.

Mr. Fernandez was among the nine representatives of different BCCP-member companies who handpicked SEAFDEC/AQD as a destination of the trade mission as they sought to

engage in various industries including agriculture and aquaculture.

In response, SEAFDEC/AQD Training and Information Head Dr. Edgar Amar guaranteed that SEAFDEC/AQD is willing to support future investors in aquaculture by providing information, training and technical

assistance.

BCCP's Iloilo Trade Mission is part of the annual Great British Festival of the British Embassy and it aims to strengthen linkages between BCCP, the government, and the private sector in exploring the areas in Iloilo that have huge potential for investment. [a](#)

- JM DELA CRUZ

Fruit peels may no longer be agricultural wastes



Agricultural wastes and by-products like (left to right) sugar bagasse, pineapple peels, and citrus pulp and peels are now being converted into valuable protein sources for fish diets

SEAFDEC/AQD's study suggests that fruit peels can be used as additives for tilapia feeds.

The result of a preliminary study showed that percentage weight gain of tilapia fingerlings fed the fishmeal-based control diet was comparable to those fed diets containing citrus pulp, okara meal, and pineapple peel.

The pesticide residue analyses also indicated that among the agricultural waste samples examined, mango peel

and citrus peel had pesticide residue levels but still below the maximum residual limits set by FAO Codex Alimentarius. Fruit wastes were also found to contain high levels of lignin, phenols and low to moderate amounts of tannin which can be possibly reduced by processing treatments.

The volume of products from aquaculture in Asia has surpassed that of capture fisheries. However, the sustainability of increased production from aquaculture

is dependent on adequate and environment-friendly feed that can produce healthy fish.

Feed cost is a major component in aquaculture. Throughout the region, cost and availability of feed are the most important constraints towards increasing aquaculture production.

The use of indigenous feed resources or even agricultural wastes are now being tapped to reduce production costs and subsequently increase profit. It can also be expected to put

value to those considered agricultural wastes and add value to indigenous resources which have either little or no productive use at all. This way it can help boost fish production

Pineapple waste is a by-product generated by pineapple processing plants, mostly dumped and polluting the environment that the processing plant has to contend with managing these wastes. Converting pineapple wastes into animal feed will significantly reduce environmental problems while making use of the waste.

Mango peel, on the other hand, can be fed fresh or dried to livestock although it needs to be processed for fish. Due to the high sugar content they are palatable and considered as energy-rich feed. **a**

- ME ALDON

Fish Farmers to SEAFDEC/AQD: Develop indigenous low-cost feed

Heading to the long standing call of fish farmers, SEAFDEC/AQD is now putting the development of alternative feed using local ingredients in its priority list of activities.

Feed cost is a major factor in aquaculture production comprising about 60% of the total production cost. It is the most important constraint to increase aquaculture production.

Alternative, low-cost and sustainable ingredients can improve fish growth, survival, production and eventually boost the income of small scale farmers throughout the entire Southeast Asia.

In view of this, SEAFDEC/AQD will lead in the assessment of



Pond technician feeds fish with diet formulated by SEAFDEC/AQD

Continued on next page

Striking a balance between demand for aquatic food and environmental preservation



Dr. Platon during one of his lectures about his experience in tilapia hatchery.

Continued from previous page

ingredients around Southeast Asia in terms of availability, sourcing sustainability, nutritional requirements, proper use of ingredients and cost-effectiveness. The information will be compiled and shared in an easy-access database through a website. This will eventually lead to the selection of specific ingredients in the country and promote its mass production to create sustainable sources.

“Knowing that an ingredient for a more sustainable and low-cost feeds are available locally is going to change the mood of feed production market and the entire aquaculture industry,” said Dr. Edward Roger Mamauag, a scientist and Head of SEAFDEC/AQD Technology Verification Section.

“This is a step forward to address the recurring issue of finding the ideal feeds for local aquatic commodities,” he added. **a**

- ME ALDON / JM DELA CRUZ

CAGAYAN DE ORO CITY - Dr. Rolando Platon, SEAFDEC/AQD culture system specialist, spoke on the production of sex-reversed tilapia fingerlings in tanks using a recirculating system on [date] during the Mindanao Regional Scientific Meeting of the National Academy of Science and Technology (NAST).

Dr. Platon, who operates such hatchery in Kidapawan City, shared the design and features of the facilities such as the layout and dimension of the tanks, as well as details of the sedimentation and biofilter tanks. The water movement throughout the whole recirculating system is mainly powered by airlift pumps. He told the audience that his hatchery provided seeds to fish farms in surrounding municipalities in Southern Mindanao.

The talk of Dr. Platon is apt to the theme of NAST Annual Scientific Meeting on *Science-based Transformations*

for sustainability and resiliency.

This is also in response to the increasing global demand for aquatic food vis-à-vis developing approaches to sustainable intensive aquaculture production.

“There will be more aquaculture production without increasing usage of land and water,” Dr. Platon assured the audience. The sustainable intensive aquaculture is such that it maximizes production without necessarily sacrificing environmental protection.

NAST is the highest recognition and scientific advisory body of the Philippines under the Department of Science and Technology. It was created to honor and recognize

Filipino scientists who made worthy contributions in the advancement of science and technology in the country. It also recommends individuals to be conferred the Order of National Scientist upon approval of the President of the Philippines.

For more information about recirculating culture systems, you may visit SEAFDEC/AQD in Tigbauan, Iloilo. SEAFDEC conducts research on fisheries problems, generates appropriate fisheries technologies; trains researchers, technicians, fishers and aquafarmers, managers, and policy-makers; and disseminates information pertaining to the fisheries sector. **a**

- ME ALDON



One module of Dr. Platon's tilapia hatchery which uses a recirculation system

Fish mortality in Region 10 not caused by environmental conditions or infectious agents – SEAFDEC fish pathologist

The expertise of SEAFDEC/AQD's fish pathologist was sought by BFAR-Region 10 to determine the cause of mortality of the milkfish stocked in a mariculture park in Balingasag, Cagayan de Oro.

Dr. Eleonor Tendencia, scientist, with technical assistant Ms. Maila Peniero collected and examined milkfish samples from the cages to determine the cause of the daily mortality. Fish

mortality started during the last week of September 2017 until February 2018.

Cage operators from Region 10 reported that mortalities were observed in 150-500 g fish but not in small-sized ones. However, during the sampling in 11 February, even the smaller sized fish (less than 25 g) were also affected.

In the report, 40,000-50,000 milkfish fry were stocked in 10

x 10 m bamboo cages and 15 m (diameter) Norwegian / HDPE cages, both with 15 m depth fed daily with approximately 10 bags of commercial pellets. The same amount of feed was given despite observed mortality.

All operators used the same feed brand except for one. The operator using a different brand was the last to be affected.

“The mortality pattern suggests that the cause of death of cultured fish is not due to environmental factors and infectious agents,” Dr. Tendencia reported. “The digestive organs were the ones affected, suggesting that the mortalities could be due to something the fish ingested,” she added. [a](#)

- ME ALDON

Science teachers gain edge with orientation on lab techniques

To better guide students in conducting science research projects, 20 science teachers from various schools in Iloilo reviewed the concepts and purposes of various laboratory technologies and procedures during a recent technical seminar.

The seminar, conducted by SEAFDEC/AQD, gathered 20 high school science teachers to encourage them to properly integrate the laboratory techniques in the design of their students' research projects.

“Most students who avail certain analyses are not aware about what these analyses are designed for,” said Norwell Bautista, a microscopist at SEAFDEC/AQD's Laboratory



Science and research teachers of selected schools with SEAFDEC/AQD's Laboratory Facilities for Advanced Aquaculture Technologies (LFAAT) staff

for Advanced Aquaculture Technologies who spoke during the seminar.

The seminar featured lectures on electron microscopy, both for scanning and transmission, and chemical and microbiological examinations of biological, water and soil samples.

“Awareness of the various types of analytical procedures

can empower a research teacher in advising their students as to what analysis is best fit for their research objectives,” said Dr. Leobert de la Peña, head of SEAFDEC/AQD's Research Division, as he addressed the attendees.

SEAFDEC/AQD is host to a group of laboratories in Tigbauan, Iloilo with a wide range of capabilities

in microbiology, molecular endocrinology, genetics, algal production, feed technology, and aquaculture disease research.

The seminar was in line with SEAFDEC/AQD's mandates to work closely with the academe by providing assistance in their scientific research. SEAFDEC/AQD offers all the aforementioned laboratory services. [a](#)

- JM DELA CRUZ

SEAFDEC/AQD welcomes new Deputy Chief



Dr. Mori takes a photo at SEAFDEC/AQD's Office of the Deputy Chief in Tigbauan, Iloilo

Dr. Koh-ichiro Mori started his tour of duty as AQD's Deputy Chief on the first weeks of April.

Dr. Mori used to work at the Research Center for Fish Diseases, National Research Institute of Aquaculture in Japan before joining SEAFDEC. As the Director, he was very much involved in planning and implementation of research projects related to the Research Center.

Dr. Mori earned his PhD degree at the Hiroshima University, Japan in 1995 where he also got his Masteral and BS degrees.

Dr. Mori started as a researcher in Japan Sea Farming Association where he focused on fish disease-related researches. His eight-year stint there resulted to several publications. Among his major outputs were on viral nervous necrosis in marine fishes and

white spot disease in kuruma prawn. He also did studies on seed production of groupers, striped jack, kuruma prawn, swimming crab and octopus.

In 2003, Dr. Mori worked as a Senior Researcher at the Aquatic Animal Health Division of the National Research Institute of Aquaculture. He continued to do more researches related to fish diseases as well as seed production especially on grouper. He worked there until 2010.

Dr. Mori had a short stint at the Headquarters of Japan Fisheries Research and Education Agency from 2010-2012. As a Research Coordinator, he took charge in planning and coordinating of research projects related to aquaculture and genetic analysis. Even with a short stay, he was able to continue publishing papers on fish diseases.

In 2012, Dr. Mori was back at the National Research Institute of Aquaculture where he worked as Head, Pathogen Research Group at the Aquaculture Animal Health Division. In 2014, he eventually became Director, Research Center for Diseases.

Dr. Mori is married to Kyoko Mori and has a son and a daughter. He replaced Dr. Chihaya Nakayasu who was AQD's Deputy Chief from 2016 to 2018.

With Dr. Mori's expertise in fish diseases, he will certainly be a big help here at SEAFDEC especially in its effort to address fish diseases that are a major problem in aquaculture. AQD researchers will certainly benefit from working with him. SEAFDEC/AQD cannot thank Dr. Mori enough for accepting the job. Welcome to AQD, Dr. Mori! **a**

- ME ALDON

Nakayasu's term ends, AQD throws send-off party

As an appreciation of Dr. Chihaya Nakayasu's services to AQD, a send-off party was organized for him on 23 March 2018.

"Dr. Chihaya Nakayasu, in behalf of the whole SEAFDEC/AQD family, allow me to extend our sincerest gratitude and appreciation for all your hard work as Deputy Chief and as trust fund manager," said Dr. Leobert de la Peña, head of Research Division.

Dr. Nakayasu also served as Acting Chief for more than one year during his term aside from being AQD's Deputy Chief and GOJ Trust Fund Co-manager.

"I can say that Dr. Nakayasu is an AQD record breaker of sorts. He is the Deputy Chief who has served the longest as Acting Chief of SEAFDEC/AQD. During the time that

we did not have our Chief, thank you for taking care of SEAFDEC/AQD," said Dr. Edgar Amar, head of Training and Information Division.

AQD Chief Dan Baliao also acknowledged Dr. Nakayasu's dedication in keeping the organization intact and accepting the challenge of being in-charge of the two highest position in AQD.

"Thank you for your help and kindness being the watchdog of the Japanese trust fund and keeping the Department at ease during your stint as the Acting Chief," he said.

"It has been an honor working with this wonderful colleague. While you may no longer work here, let me tell you that let's keep working with our friendship even though we



Dr. Chihaya Nakayasu (center) receives a gift from AQD as a token of appreciation for the services he rendered to the Department. With him, starting from the left, are Dr. Edgar Amar, Ms. Amelita Subosa, AQD Chief Dan Baliao, and Dr. Leobert de la Peña

are a nation apart," added Chief Baliao.

During the party, AQD also expressed its gratitude to Dr. Nakayasu for the financial support received by the Department through his efforts.

"Thank you, Arigato, for your kindness and for your generosity, especially to our researchers, particularly in meeting their financial needs," said Amelita Subosa, head of Administration and Finance Division.

Continued on next page



The AQD family poses with Dr. Chihaya Nakayasu after the program of the send-off party

“I would like to take this opportunity to personally thank you Dr. Nakayasu for making it possible for SEAFDEC/AQD to send junior staff for training in Japan and also for other special trainings to be conducted later,” added Dr. de la Peña.

In addition, Janelli Garibay, administrative assistant at the Office of the Deputy Chief, has

only good words to say about Dr. Nakayasu.

“Dr. Nakayasu, I just want to let you know how much I appreciate you for being my boss, despite some culture differences and sometimes communication barrier, you always try to listen and observe, think and then talk,” said Garibay.

“Your support is overwhelming and your

generosity will forever remain in me. Though I am sad that you have to go, but I am also happy knowing that you will continue to touch the lives of the many others in your next assignment,” she added.

As Dr. Nakayasu recalled his two-year journey at AQD, he expressed his gratitude to all AQD staff for the support and cooperation during his term.

“I did not regret accepting this job because you have taken good care of me and made my stay here memorable. I can feel so much sincerity in you. Thank you for the truth, the fun, and the many memories you have shared,” said Dr. Nakayasu.

“I will be forever grateful for the kindness and hospitality you have showed me,” he added. 📍

- RH LEDESMA

Learning by doing gives participants confidence in sandfish farming

“The training has a personal touch, it’s like learning by doing,” said Chinnasamy Ravichandran, an aquaculture consultant from India who attended the 15-day training on “Sandfish Seed Production, Nursery, and Management” at SEAFDEC/AQD 5 to 20 April 2018.

Antony Vrayen, another trainee from Sri Lanka, took up the training course since his company is developing a 50-hectare aquaculture farm and one of the target species that they will culture is sandfish.

“Before coming to this course, I have heard about sandfish, but I have never seen a sandfish. It is only



Chinnasamy Ravichandran poses with a sandfish on his hand during a field trip to Molocaboc Island, Sagay City

in SEAFDEC that I see the sandfish, touch the sandfish, and ate the sandfish in Molocaboc. It is a very good experience,” he said.

The training, also attended by a Thai and Filipinos, included topics on spawning and larval rearing, nursery, and grow-out management of sandfish or sea cucumber. Trainees also visited SEAFDEC/AQD’s project site at Molocaboc Island in Sagay City where sandfish were released to replenish stocks in a marine protected area.

“Before entering this course I have zero knowledge, but now I am fully confident [that I can grow sandfish on my own],” Vrayen added.

Ravichandran, on the other hand, attended the training to achieve a commercial scale production of sandfish and consider its integration with biofloc technology.

“Here in SEAFDEC, I feel very comfortable. The people are very approachable. They don’t mind that they are the course teacher, and we are the

trainees. They [SEAFDEC/AQD experts] are very open about techniques, about technology, and willing to share the information,” said Ravichandran.

Sandfish, *Holothuria scabra*, is the most commercially valuable of the tropical species of sea cucumber that are processed into bêche-de-mer or boiled and dried sea cucumber. It is also an ideal species for aquaculture since it can grow well feeding only on organic matter in enriched sediments. 📍

- RH LEDESMA

SEAFDEC/AQD hosts int'l training on aquatic resource enhancement



Trainees learn how to monitor abalone released for stock enhancement

Fisheries officers of Southeast Asian countries such as Cambodia, Indonesia, Lao PDR, Malaysia, Thailand, Viet Nam, and the Philippines attended a training in Iloilo towards a move to restore the population of overexploited aquatic species in their respective countries.

SEAFDEC/AQD organized the international training which hopes to enable Southeast Asian countries to initiate resource enhancement activities or improve their current programs.

Malaysian trainee Buniamin Bin Kiprawi said

that the six-day training course with funding support from the Government of Japan Trust Fund (GOJ-TF), helped him to understand better how to carry out resource enhancement activities.

“Malaysia has lots of activities in fry stocking, fry release, that is what I understand what stock enhancement is, but after getting my knowledge here, I understand more in stock enhancement. It is not only fry releasing, it is not only broodstock releasing. We [also] have to monitor, we have to do the assessment, and the re-evaluation,” he said.

The participants were oriented on the principles of stock enhancement, marine ecosystems, coastal resource management, and genetic considerations for stock enhancement among others.

“I learned very much [a lot] and I hope to transfer my knowledge that I learned from this training to my colleagues, to my staff, and especially the staff working at the

provincial,” said Syvann Leng, a participant from Cambodia.

“Though the time is very short, we gained a lot, we owe a lot to SEAFDEC,” he added.

This training course, started from 16 until 21 April 2018, is the outcome of SEAFDEC/AQD’s research activities under its GOJ-TF Program on establishing or developing methodologies on sea ranching and release strategies for CITES-listed and overexploited species such as abalone, mangrove crab, sea cucumber, seahorse, and Napoleon wrasse. **a**

- RH LEDESMA



The trainees learn the line-point intercept transect method for substrate assessment during one of their practical sessions in Sicogon Island, Carles, Iloilo



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Editor this issue:
JM DE LA CRUZ

Contributing writer-photographers:
EV Aldon, RD Dianala,
RH Ledesma, ND Salayo,
IT Tendencia

Editorial consultants:
RD Dianala, EC Amar

Publications Review Committee 2018
Dr. LD dela Peña, Dr. JP Altamirano,
Dr. EC Amar, Ms. JJ Huervana,
Dr. RE Mamauag, Dr. ND Salayo,
Dr. EA Tendencia

Circulation to friends of AQD:
Mr. SB Alayon

For contributions and feedback, kindly email:
devcom@seafdec.org.ph

SEAFDEC/AQD member countries share resource enhancement efforts



Dr. ND Salayo tasked to Chair the Meeting on Day 2 where SEAFDEC Member Countries presented their projects on coral reef, sea grass bed, mangrove forest and inland habitat rehabilitation; and AQD and MFRDMD presented their Departmental activities on fisheries resource enhancement.

SEAFDEC/AQD scientist Dr. Nerissa D. Salayo represented the department in the Regional Technical Meeting on Fisheries Resource Enhancement in Southeast Asia held in Bangkok, Thailand last 24 to 26 April 2018.

The Meeting aimed to update national and regional plan, and implementation on fisheries resources enhancement programs and activities. Sharing effective resources enhancement tools

and measures for fishery resources enhancement, and habitat rehabilitation and conservation implemented by SEAFDEC Member Countries (MCs) were discussed.

AQD reported its seed production studies in the 1990s that generated necessary technologies to implement its stock enhancement initiatives as early as 2000 using hatchery-reared juveniles of mollusk such as abalone and top shell. With GOJ-TF4 launched in

2005, AQD conducted research on seed production, tagging, transport and release strategies for various threatened species. Studies continued through TF5 and TF6. As of 2017, various levels of success were achieved across species where released abalone, sandfish and mud crab established in the release site and their spill-overs contributed to catch of fishers. Giant clams established in suitable sites while seahorse breeding continues and aiming

for releases. Meanwhile, seed production of Napoleon wrasse and enhancement of angel wing clam were met with constraints.

Each country representative presented their fisheries resources enhancement activities which often involve studies and deployment of various forms of artificial reefs (AR), fish enhancing devices (FED) and fish aggregating devices (FAD) suited to the identified enhancement site or towards the development of artificial habitats (AH). There were reports on the release of juveniles of finfishes and crustaceans such as mud crabs; and studies and developmental programs conducted to rehabilitate degraded coral, seagrass, and mangrove habitats.

The Meeting was organized by the SEAFDEC Training Department in collaboration with the Government of Japan Trust Fund Program. [a](#)

- ND SALAYO

Engaging the public in science through news and features

To enhance the skills of staff in writing engaging news and feature articles, SEAFDEC/AQD invited Hazel Villa, Journalism professor and resource speaker, to conduct a writing workshop last 20 and 22 March 2018.

Villa stressed that writers should focus on the information that directly benefits the lives of the community to make engaging stories and make SEAFDEC/



Hazel Villa (far-right) critiques the feature articles written by SEAFDEC/AQD staff

AQD more accessible as a research and development partner to its stakeholders.

She also added that while the public does not like to be “lectured” upon with facts, articles can be written in a way that readers can learn while enjoying the read.

According to Rex Delsar Dianala, officer-in-charge of SEAFDEC/AQD’s Development Communication Section which organized the workshop, the activity aimed to empower information and research personnel to craft

articles that both “inform and delight.”

“We are always looking to improve the way we communicate our science to the public,” he said.

This is the second writing workshop of SEAFDEC/AQD with Villa and both had been “effective in bridging the gap between science and the art of communication,” he adds.

“We hope to have more workshops in the future as there is always room for learning,” said Dianala.

Among the topics discussed during the workshop are the journalism stylebook rules, how to gather information, and basics of feature writing. [a](#)

- JM DELA CRUZ

SEC and departments convene to harmonize SEAFDEC brand

As methods of information dissemination evolves, information staff from SEAFDEC departments gathered to update its key performance indicators, branding, and other information-related activities in a Workshop last 24 to 27 April 2018 in Bangkok, Thailand.

“[There’s] a particular need to review the key performance indicators and checklist that have been used to monitor the progress in the implementation of the Information Strategies by the Secretariat and all Departments throughout the past 10 years,” said Dr. Kom Silapajarn, secretary-general of SEAFDEC, during his opening remarks at the Inter-Departmental Information Workshop.

The workshop aims to ensure that the template for monitoring information activities could accommodate the new forms of tools and materials being used in the recent years. One of the recommendation is to include the monitoring measures for information uploaded and downloaded through the web since the internet has become one of the main information-seeking tool used by stakeholders.



SEAFDEC Secretary-General Dr. Kom Silapajarn took a photo with SEAFDEC information staff from Secretariat and other departments who attended the workshop

Another concern raised in the review and update of a document *Notes for Editing SEAFDEC Documents* published nearly 30 years ago and was used as reference by writers and editors to harmonize the documents published by the Secretariat and all departments.

“As time has passed, some of the standards may no longer be practical, while there are also some new issues and concerns that need to be considered,” said Dr. Silapajarn.

The important point emphasized during the review and revision process is that

SEAFDEC will use the Oxford American Dictionary as reference to spelling words. The document also includes guidelines and instructions in writing dates, units, scientific names, titles of officials, and other important matters.

As part of harmonizing all information materials, the need of a brand book was identified to guide the staff in producing the said materials. The guidelines will minimize the difference in layouts, designs and manipulations of the usage of logo and maintain the SEAFDEC brand.

The first one to be decided during the workshop is the

standard "SEAFDEC blue" which is one of the three standard colors to be used in all materials for dissemination.


The rest of the brand book will be tackled and finalized in the upcoming 19th Information Staff Program. **a**

- JM DELA CRUZ




SEAFDEC/AQD's Special Departmental Coordinator and Information Assistant Ms. Joesyl Marie dela Cruz and Administrative Assistant II Ms. Gelyn Faigani together with representatives from Malaysia and Indonesia


IMPORTANT!
The following are the acceptable colors for official SEAFDEC logo



SEAFDEC Blue
Hex Code - # 3c92b3
CMYK - 75, 30, 20, 0
RGB - 60, 146, 179



White



Black

American volunteer saves Tigbauan turtles

Stephanie Nys, an American peace corps volunteer assigned in Tigbauan, is on a mission to educate coastal communities on how to properly rescue turtles, usually found by fisherfolk trapped in fish corrals or washed up on the beach.

The limited knowledge among members of the community on how to rescue and release turtles is one of the problems that need immediate action, according to Nys, a marine biology major.

“My goal is to bring in fisherfolk association presidents and barangay kagawads and to share the proper way of handling washed up or injured sea turtles,” said Nys who conducted a short seminar at FishWorld, the aquarium-museum of the SEAFDEC/AQD in Tigbauan, Iloilo.

Nys mentioned in her seminar that urgency is the main component in rescuing sea turtles. Upon finding a trapped turtle which appears to be active with no injuries, it needs to be immediately released into the ocean to increase its chance of survival.

“The longer you take it from the ocean, the more likely for sea turtles to be stressed. Stressed turtles tend to lose its appetite and, eventually, its energy which is the main thing it needs to survive in the wild,” Nys added.

For turtles with apparent injuries, Nys suggested to take it immediately to SEAFDEC/AQD’s FishWorld for treatment and rehabilitation. Covering the sea turtle’s head, finding a shelter with cooler temperature and keeping it away from direct sunlight are the important points to remember during rescue.

“The good thing about SEAFDEC/AQD is that they recognized the urgency of



Nys, an American peace corps volunteer assigned in Tigbauan, at SEAFDEC/AQD's FishWorld Museum

releasing sea turtles into the wild,” said Nys. Sea turtles that are kept longer in an artificial environment find it harder to survive back in the ocean because they will get used to being tended and fed.

SEAFDEC/AQD rehabilitated and released almost 10 sea turtles every year.

Protocols learned from the seminar were demonstrated by releasing two rescued sea turtles, named Mary and Manuela, along the Tigbauan shores. The turtles were rescued in two separate occasions but were both found trapped in fish corrals.

Mary, a female juvenile green sea turtle, was rescued in Buyu-an coast while Manuela, a female juvenile olive ridley sea turtle, was found in Baguingin coast. Both were not injured and were immediately released back to their natural habitat.

For Nys, this is just the start. “I am willing to work with SEAFDEC/AQD in this endeavor again. I also wanted to bring this awareness to every coastal barangay in Tigbauan so that this information can reach every member of the fisherfolk association and the community,” she said. [a](#)

- JM DELA CRUZ



Nys explaining the proper handling of rescued turtles to barangay leaders.



Manuela, one of the two turtles rescued at Tigbauan coast, on her way home

Research Seminars



With the goal to develop partnerships with Philippine aquaculture researchers, Dr. Alyssa Joyce of the University of Gothenburg, Sweden visited SEAFDEC/AQD on 16 April 2018.

Dr. Joyce, an aquaculture researcher and a faculty of the Department of Marine Sciences at the University of Gothenburg, presented the key research interests and information about aquaculture in Sweden.

“Native flat oyster *Ostrea edulis* is a very high value species in Sweden,” as mentioned in Dr. Joyce’s presentation.

Dr. Joyce explained that there is a huge interest in Sweden to develop an industry

on oyster production. The country is also interested in culturing Pacific oysters (*Crassostrea gigas*).

“Major aquaculture research in Sweden is mostly on freshwater species since freshwater environment is more common,” said Dr. Joyce.

However, Dr. Joyce also brought up that there are also efforts or current research to develop the culture of marine species.

“Current marine species research in Sweden is focused on species such as wolf fish, European lobster, wrasse, and blue mussels,” as indicated in Dr. Joyce’s presentation.

Dr. Joyce also talked about her research interests that could be a possible area for collaboration with Filipino researchers.

“Pathogen control, hatchery technology and larval physiology, aquaponics technology, selective breeding techniques, grow-out techniques for offshore and submerged culture, and extracellular polysaccharides in aquaculture,” were the research areas presented by Dr. Joyce. **a**

- RH LEDESMA



For the welfare of AQD employees, the AQD Seminar Committee and the Human Resource Management Section organized a seminar on basic eye health held on April 12, 2018.

Dr. Ann Krystine Balmaceda, an ophthalmologist and resource speaker of the seminar, discussed the basic eye hygiene, eye symptoms, and eye condition and diseases.

“Make sure hands are clean before touching the eyes or eyelids,” said Dr. Balmaceda during her presentation.

Dr. Balmaceda also informed the AQD employees to wash their hands after touching an infected eye, avoid rubbing eyes, and use a clean tissue to wipe tears among others.

“Wear protective eyewear at work like in construction and carpentry,” is one of the reminders cited in Dr. Balmaceda’s presentation.

Other reminders discussed were to have regular eye check-up especially for diabetes patients, store medications properly, and check the expiration date of medications. **a**

- RH LEDESMA



To quit smoking might be hard but is not impossible, according to Mr. Alvin Earl Sales during his seminar on *Harmful Effects of Smoking and How to Quit the Habit* last 21 March 2018 at SEAFDEC/AQD’s Tigbauan Main Station.

“Despite the growing risk caused by smoking and the

sin tax imposed on tobacco companies, there is no stopping the public for consuming the product,” said Sales, nurse of Western Visayas Medical Center (WVMC).

Sales then introduced a program offered by the hospital to assist people to quit smoking and organizations to create a smoking-free environment.

“The program don’t just focus on the negative effects on the smokers but on their loved ones and their pockets,” said Sales as he discussed secondhand smoking and cost of smoking as two of the factors that is effective in inspiring smokers to quit. **a**

- JM DELA CRUZ



To learn the basics of photo and video taking, SEAFDEC/AQD researchers and staff attended the seminar on *Photo and Video Hacks* given by Mr. Moshe Jobel Aranas last 18 April 2018 at Tigbauan Main Station.

“Knowing the basics like resolution, angles, and proper lightning are important skills in document research

results,” according to Aranas, videographer and owner of Mosh Productions, during his lecture.

Aranas explained that those elements are key to a great and usable raw photos since photos for research are not supposed to be manipulated. Different kinds of photo resolution and video file format for difference purposes were discussed.

“Identify the purpose of the photos and videos to know which resolution and format is best fit,” Aranas added.

Even if manipulation of photos and video clips should be the last resort, Mr. Aranas proceeded to introduce useful mobiles apps that are capable of simple editing and enhancing. **a**

- JM DELA CRUZ

New AQD employees



REYMARK P. SERVANO
Administrative Assistant I
Office of the Chief, Management Group
(temporarily assigned at Internet Audit)
Local No. 1022
rservano@seafdec.org.ph



JESSEBEL V. GADOT, R.Ch.
(returning employee)
Sr. Technical Assistant
Dumagas Brackishwater Station, TVED
Local Nos. 09778098766 / 09499931689
jpvalera@seafdec.org.ph



JOSIELOU L. CHAN
Technical Assistant
Breeding and Seed Production Section, RD
Local Nos. 1130 / 1135
jchan@seafdec.org.ph



HAZEL COLEEN G. GAYA
Technical Assistant
Farming Systems and Ecology Section, RD
Local No. 1149
hcgaya@seafdec.org.ph



ENGR. JUREN D. VILLAGRACIA
Civil Engineer
Engineering Section, AFD
Local No. 1444
jvillagracia@seafdec.org.ph



EDGAR H. SOMBLINGO
(returning employee)
Technical Assistant
Dumagas Brackishwater Station, TVED



GLECILDA B. GAMUZA
Sr. Technician
Breeding and Seed Production Section, RD
Local No. 1151



NELBERT G. PACARDO
Sr. Technician
Farming Systems and Ecology Section, RD
Local No. 1142



MAY VINCENT A. ARELLANO
Sr. Technician
Technology Verification Section, TVED
(presently assigned at DBS)



JESUS C. APELACIO
Sr. Technician
Technology Verification Section, TVED
(presently assigned at DBS)



JULIE B. BIOGOS
Sr. Technician
Dumagas Brackishwater Station, TVED



RONELO S. BAGAY
(former DOST staff)
Research Aide
Fish Health Section, RD
Local No. 1177



JERRY G. JUANCE
(former DOST staff)
Research Aide
Breeding and Seed Production Section, RD
Local No. 1228



FRANCISCO V. TORTOSA
(former agency-hired employee)
Research Aide
Breeding and Seed Production Section, RD
Local No. 1133



BERNIE S. CORDOVA
Research Aide
Extension and Packaging Section, TVED
Local No. 1152



DAISY GRANFLOR
Research Aide
Extension and Packaging Section, TVED
Local No. 1152



NIÑA P. PAPAYA
(returning employee)
Laboratory Aide
Training Section, TID
Local No. 1319