

Mangrove crab (*Scylla serrata*) or mud crab is a popular aquaculture commodity owing to its distinct and sweet flavor. Mangrove crabs continuously attract a high market price, encouraging people to farm this commodity due to its profitability. SEAFDEC/AQD provides training courses on mangrove crab culture, which includes a comprehensive set of lectures and hands-on exercises. *Photo by NG Armada*



aqd matters

November-December 2022

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

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SEAFDEC/AQD hosts 45th PCM

Around 60 delegates from the Southeast Asian Fisheries and Development Center's 11-member countries gathered in Iloilo City for the 45th Program Committee Meeting (PCM).

SEAFDEC/AQD hosted the event, held 5-7

December 2022, which was held back-to-back with the Twenty-fifth Meeting of the Fisheries Consultative Group of the ASEAN-SEAFDEC Strategic Partnership (25FCG/ASSP) on 8-9 December, both at the Courtyard by Marriott Iloilo

in Mandurriao District.

According to AQD's Chief Dan Baliao, "PCM is where the technical aspects of SEAFDEC's programs are discussed before the Council, its policy-making body, approves them."

Continued on next page...



The Forty-fifth Meeting of SEAFDEC's Program Committee gathers delegates from SEAFDEC's 11 member countries to assess the organization's past accomplishments and future activities. Photo shows SEAFDEC officials striking a pose with Atty. Demosthenes Escoto, officer-in-charge of BFAR, during the Opening Program. *Photo by NG Armada*

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In attendance are senior officials and staff from SEAFDEC's five departments and Secretariat.

For SEAFDEC Secretary-General Malinee Smithrithee, "it is about reviewing the past achievements and the future activities being implemented by the department."

The goal, according to her, is to align all programs that SEAFDEC will boil down to the benefit of the stakeholders.

The participants in the convention toured SEAFDEC/AQD's Tigbauan Main Station facilities on 7 December and the historical and heritage sites of Iloilo City on 9 December.

Finally, a Department Chief's Meeting was also held on 10 December in the same hotel.

Marcos hails SEAFDEC's accomplishments

During the inaugural ceremony, President Ferdinand Marcos, Jr.,

represented by Bureau of Fisheries and Aquatic Resources officer-in-charge Atty. Demosthenes Escoto, emphasized that the government recognizes SEAFDEC's significant contributions to the fisheries sector.

"The thrust of the current administration is to attain food security, and by doing that, the government is trying to invigorate the fisheries sector, and one aspect of that is aquaculture," he said.

He further stated that SEAFDEC serves as a vital forum for shared prosperity and food security in Southeast Asia through the development of scientific research, knowledge sharing, and responsible management of precious fisheries and aquaculture resources by SEAFDEC-member nations.

By promoting and implementing policies based on these principles with SEAFDEC, Marcos underscored that "SEAFDEC has helped improve the

lives of countless millions of people around the region."

Currently, one of SEAFDEC's major collaborations with the government is on legislated hatcheries, as the latter continues to develop more among strategic locations all over the country to propel fry sufficiency and promote aquaculture's substantial contribution to food security.

The government is consulting in the conduct of feasibility studies, training for hatchery operations, and further research and development regarding the industry.

Meanwhile, in a press interview, Baliao highlighted that SEAFDEC prioritizes industrial demands, such as implementing the Fry Sufficiency Program, which began two years ago.

Similarly, one of the actions being done by the center to supplement the requirement for cost-effective feed is the establishment of feed mills. [a](#)

— NG ARMADA



Accompanied by Chief Dan Baliao, Atty. Demosthenes Escoto gazes at the aquaculture exhibits displayed at the Multi-Purpose Hall during his tour of SEAFDEC/AQD's Tigbauan Main Station on 6 December 2022. *Photo by NG Armada*



Curious, the delegates examine the milkfish eggs at the Integrated Marine Finfish Broodstock and Hatchery Complex. *Photo by NG Armada*



In Camiña Balay Nga Bato, the delegates relish a treat of *tsokolade de batirol* (hot chocolate drink) in the century-old heritage house's main dining hall. *Photo by NG Armada*

AQD's research paper conferred with Dr. Elvira O. Tan award

A SEAFDEC/AQD research paper showing that abalone seeds produced in hatcheries can be used to rehabilitate its fisheries in marine reserve multi-use buffer zones was conferred with the Dr. Elvira O. Tan award as an outstanding published paper in the aquatic sciences category.

Lead author Dr. Nerissa Salayo received the award from the Department of Science and Technology (DOST) - Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) during their 50th Founding Anniversary held last 10 November 2022, at the Council's headquarters in Los Baños, Laguna.

The paper, "Stock Enhancement of Abalone, *Haliotis asinina*, in Multi-Use Buffer Zone of Sagay Marine Reserve in the Philippines" was published in the Aquaculture journal in 2020 by Salayo and co-authors Teruo Azuma, Raisa Joy Castel, Rafael Barrido, Dianne Hope Tormon-West, and Takuro Shibuno.

The paper also revealed that hatchery-reared abalone's mean shell length, body weight, and body mass index are not



The SEAFDEC/AQD researchers win the Dr. Elvira O. Tan Award for Outstanding Published Paper in Aquatic Sciences. Dr. Nerissa Salayo (center) receives the award during DOST-PCAARRD's 50th-anniversary celebration. Photo by DOST-PCAARRD

significantly different from those of the recovered wild stocks.

The Dr. Elvira O. Tan award honors Filipino scientists and researchers for their outstanding research publications, which contribute to PCAARRD's mission

of advancing the Philippine's economic and food security. [a](#)

— NG ARMADA & RD DIANALA



Scientist emerita elected TWAS Fellow

DR. JURGENNE Primavera, SEAFDEC/AQD scientist emerita, is one of 50 new fellows elected to The World Academy of Sciences (TWAS). The election was held during the TWAS 16th General Conference in Hangzhou, China, from 21 to 24 November 2022.

Recognized by the National Academy of Science and Technology (Philippines) as one of its academicians, and hailed as one of Time Magazine's Heroes of the Environment, Primavera was accorded recognition for her extensive work on mangroves and aquaculture.

During her stint as a scientist at SEAFDEC/AQD, Dr. Primavera initially focused on the

breeding and seed production of shrimp. Eventually, her research shifted to the rehabilitation of greenbelts and reversion of abandoned fishponds to mangroves for coastal protection, food resources, and livelihood income.

To be elected, TWAS fellows must meet the highest international standards and have made significant contributions to the progress of science in their home countries. They retain their membership for life once elected.

Primavera is one of the two Filipino Fellows selected. Her fellowship will be effective on 1 January 2023.

TWAS, based in Trieste, Italy, promotes long-term prosperity via research, education, policy, and diplomacy. [a](#)

— NG ARMADA

Photo by Froy P. Beraña

Malaysian university eyes collab with AQD



Since the research center is making strides in aquaculture research, the USM research team hopes to collaborate with SEAFDEC/AQD to improve mud crab farming among Malaysia's coastal communities. Photo by NG Armada

THE Center for Marine and Coastal Studies (CEMACS) of Universiti Sains Malaysia (USM) went to SEAFDEC/AQD in Tigbauan, Iloilo 3 November 2022 to discuss a possible collaboration.

“The main reason we are here today is to try to link and strengthen the collaboration of research primarily on mud crabs and find any opportunities to explore like the training opportunities,” according to Dr. Aileen Tan Shau Hwai, director of CEMACS.

The group of five had a discussion with Chief Dan Baliao, members of the Executive Committee, crab specialists, and consultant Dr. Jerome Genodepa. The visitors were accompanied by their industry partner, Bayu Aquaculture Sdn Bhd.

Together with their industry partner, the USM research team is looking for collaboration between neighboring countries to improve mud crab (mangrove crab) farming

among the coastal communities in Malaysia as part of an initiative to empower them to have a sustainable income from sustainable aquaculture.

Tan Shau Hwai added that they also wanted to get in touch with SEAFDEC/AQD's mangrove crab team since the research center is making strides in aquaculture research.

During their dialogue, the Chief provided an overview of the ongoing projects in SEAFDEC/AQD while sharing some research breakthroughs that have occurred over the years.

There was a tour of the facilities in the afternoon, while on the second day of their visit, they went to SEAFDEC/AQD's Dumangas Brackishwater Station.

CEMACS is the oldest marine research center in Malaysia that was established in August 1991. It is located at Teluk Aling, the northwest coast of Penang Island in the Penang National Park. [a](#)

— NG ARMADA

Japanese professor keen on seaweed research; wants collab



Prof. Ryuta Terada inspects seaweed propagules cultivated at the Seaweed Laboratory. Photo courtesy of JP Faisan

A SEAWEED researcher from Japan's Kagoshima University paid an ocular visit to SEAFDEC/AQD's Tigbauan Main Station and discussed possible collaboration on seaweed research.

Last 28 November, Prof. Ryuta Terada toured the research institution's facilities and hatcheries, particularly the Seaweed Laboratory, accompanied by seaweed Associate Researcher Joseph Faisan.

He also made a courtesy call to Deputy Chief Dr. Sayaka Ito and Dr. Leobert de la Peña of the Research Division.

The trip to Iloilo was funded by the Japan Student Services Organization's Follow-up Research Guidance for Japanese Government Scholarship Alumni Program.

The professor has studied macroalgae for more than 20 years at the Kagoshima University. His research focuses on the diversity and ecophysiology of macroalgae concerning climate change and the degradation of the coastal ecosystem. [a](#)

— NG ARMADA



Dr. Maria Rowena Eguia participates in the e-DNA extraction in Dr. Hiroaki Murakami's laboratory at the Aobayama campus of Tohoku University. Photo of courtesy of MRR Eguia



Dr. Maria Rowena Eguia participates in the e-DNA extraction in Dr. Hiroaki Murakami's laboratory at the Aobayama campus of Tohoku University. Photo courtesy of MRR Eguia

SEAFDEC/AQD scientist embarks on a research trip to Japan

A SEAFDEC/AQD scientist, assigned to the Binangonan Freshwater Station in Rizal, embarked on a month-long research trip to Japan's Tohoku University.

Dr. Maria Rowena R. Eguia visited the University's Onagawa Field Center (OFC) in Onagawa, Miyagi, and Aobayama Campus in Sendai, Miyagi, from 7 November to 6 December 2022, to conduct research, reconnect, and explore opportunities for collaboration on genetics and genomics research, preferably on the applications of environmental DNA methods in aquatic animal studies, with professors and faculty members of the university.

The Japan Society for the Promotion of Science (JSPS) funded the trip.

On the 15th, the scientist was able to present her current study, funded by the Japan-ASEAN Integration Fund (JAIF), on the e-DNA survey to the Aobayama campus faculty who are experts in e-DNA technology.

She also spoke with experts such as Dr. Hiroaki Murakami and Dr. Cheryl Ames on how to ensure the extraction of sufficient quantities of e-DNA from field-drawn water samples. Dr. Ames advised her on how, when, and where to collect field samples. The expert also demonstrated the use of an improvised water sampler for passive sampling, which could collect enough e-DNA from water in natural eel habitats.

Meanwhile, on the 18th, she attended Dr. Naohisa Kanda's seminar on cetacean research at the OFC. Dr. Kanda is a research specialist in the whale ecology laboratory at the Tokyo University of Marine Science and Technology.

She returned to the Aobayama campus on the 21st for a tutorial on e-DNA extraction demonstrated by Dr. Murakami's student.

Dr. Eguia was able to attend the Scientific Conference and General Assembly of the JSPS Alumni Association of the Philippines while on the trip, and she was elected as its 2023-2024 President.

Lastly, on 5 December, she delivered a lecture on Aquaculture Genetics and Genomics to the current batch of undergraduate students enrolled in the global program at Tohoku University. [a](#)

Visitors flock to SEAFDEC/AQD

FROM October to December 2022, SEAFDEC/AQD had 68 visitors who came to the research facility for benchmarking, educational tours, and site visits.

The guests included consultants and technicians from the Department of Agriculture, executive officials from various provinces and towns, policymakers, researchers, university students, and fisherfolks.

Most of them wanted to learn about AQD's culture commodities, seek expert advice from scientists, and discuss potential aquaculture projects and research collaborations.

Furthermore, students conducted educational trips to learn about the latest research advances and ongoing studies at AQD and see firsthand the technology and processes used.

The visitors were given a tour of the various AQD research facilities, hatcheries, and the FishWorld Museum. [a](#)

— NG ARMADA

— NG ARMADA

Meeting held to review SEAFDEC/AQD's accomplishments, discuss plans for 2023

“YOUR efforts are in the right direction,” Department of Agriculture (DA) Senior Undersecretary Domingo Panganiban told SEAFDEC/AQD at the 29th Meeting of the Philippine Technical and Administrative Committee (PTAC), held last 9 November at the Crimson Hotel Filinvest City in Metro Manila.

This annual meeting aims to review and discuss the progress of SEAFDEC/AQD research and development activities in 2022 and endorse its plans for 2023.

The Senior Undersecretary also pushed SEAFDEC/AQD to strive more, saying, “Let’s campaign at the regional level, not only at the national [level], to utilize the SEAFDEC facilities and training modules.”

This comes after hundreds of trainees flocked to SEAFDEC/AQD this year as COVID-19 restrictions eased.

On the other hand, Dr. Lillian Garcia of the National Fisheries Research and Development Institute expressed gratitude and

appreciation to SEAFDEC/AQD for the collaboration project on milkfish and tilapia, specifically on aquafeed, and for providing hands-on training to their staff for two months.

Chief Dan Baliao highlighted AQD’s accomplishments in 2022 and discussed plans for 2023 during the meeting. He addressed AQD’s five thrusts: fry sufficiency, cost-efficient feed, “Oplan Balik Sugpo,” Accelerated Techno-Transfer Program, and Manpower Development.

He also emphasized the Department’s contributions to the Philippine fisheries sector and its future strategic direction, which aims to promote and undertake research and aquaculture relevant and appropriate to the region, encourage human resource development in aquaculture through training and extension, and disseminate and exchange aquaculture information.

In one of his discussions, the Chief stressed that SEAFDEC/AQD is linking

hatchery production with feed production by establishing an aquaculture feed mill plant since “aquaculture is a function of seeds and feeds.”

Moreover, SEAFDEC/AQD’s respective division heads talked about other AQD activities including technology verification and extension; internally-funded departmental programs; regional programs funded by the Japanese Trust Fund; training and information; and administrative and finance matters.

Baliao and the rest of the SEAFDEC/AQD Executive Committee reaffirmed their commitment to support Philippine aquaculture through technology transfer and extension. The Department’s accomplishments in 2022 were also recognized, and the plans for 2023, including the proposed budget for 2024, were approved.

Lastly, Panganiban proposed increasing SEAFDEC/AQD’s budget in the future to continue promoting and developing

sustainable and economically viable aquaculture technologies, which it has done for almost five decades.

“I believe SEAFDEC can generate more funds if we campaign for other countries to contribute and or donors to contribute to the SEAFDEC activity,” he added.

PTAC is tasked to monitor and assess the performance of AQD’s research and development programs in accordance with the policies and standards established by the SEAFDEC Council and the DA.

It usually consists of the following members: Secretary of DA, Director of the Bureau of Fisheries and Aquatic Resources, Chief of SEAFDEC/AQD, Dean of the College of Fisheries and Ocean Sciences of the University of the Philippines Visayas, Undersecretary for Attached Agencies of the DA, and representatives/observers from relevant Philippine government agencies. [a](#)

— NG ARMADA



Participants at the 29th Meeting of the Philippine Technical and Administrative Committee strike a pose after reviewing and discussing the progress of SEAFDEC/AQD’s research and development activities in 2022 and endorsing its plans for 2023. Photo by JMD Aranas



The trainees, during one of their practical activities on the broodstock management, spawning, and larval rearing of freshwater species such as carp, catfish, freshwater prawn, and tilapia. Photo by JF Aldon

International training on community-based freshwater aquaculture held at Rizal

RESearchers and government fisheries staff from Malaysia, the Philippines, and Viet Nam, took part in a 14-day training on community-based rural freshwater aquaculture at SEAFDEC/AQD's Binangonan Freshwater Station in Rizal Province.

The training, held 7–21 Nov. 2022, included hands-on activities on the broodstock management, spawning, and larval rearing of freshwater species such as carp, catfish,

freshwater prawn, and tilapia.

Lectures also covered the different aspects of aquaculture including site selection, natural food production, feed preparation, culture protocols, health management, post-harvest, economics, and others.

The trainees also visited a nearby community to conduct a rapid rural appraisal, and prepared project proposals that may be implemented in their home countries. They also visited SEAFDEC/AQD's nearly-completed community-

based giant freshwater prawn hatchery in Pipindan, Binangonan, Rizal.

The closing program was graced by Dr. Sayaka Ito, deputy chief of SEAFDEC/AQD, and Dr. Edgar Amar, Training and Information Division head.

“The small-scale aquaculture techniques learned here will be very useful as a poverty alleviation and food security measure, especially in rural poor areas,” Dr. Ito told the

training graduates during the closing program on 21 Nov.

“I hope that when you return to your field, you will use the skills you learned here to solve local social problems through the power of the community,” he added.

Four out of five participants received support from the Government of Japan Trust Fund, while a Philippine participant was sponsored by the local government of Capooacan, Leyte. [a](#)

— RD DIANALA

AQD's Deputy Chief visits community-based freshwater prawn hatchery

DEPUTY Chief Dr. Sayaka Ito visited the giant freshwater prawn hatchery being constructed in Pipindan, Binangonan, Rizal, with funding support from the Government of Japan Trust Fund.

Dr. Ito toured the hatchery on 21 November 2022 along with the officers and active members of the Pipindan Aquaculture Producers Association (PAPA) which is the beneficiary of the facility.

Project leader Dr. Nerissa Salayo said the PAPA members have been faithfully visiting SEAFDEC/AQD's nearby Binangonan Freshwater Station, daily since March 2022, to assist in the maintenance of hatchery facilities and gain experience so they can maintain their own hatchery once it is completed.



The hatchery is envisioned to help provide an alternative income for the local fisherfolk association, cater to the high demand for postlarvae of the prawn *Macrobrachium rosenbergii*, and stimulate its grow-out in lake cages and freshwater ponds.

The hatchery is designed to hold 30 units of 80-liter-capacity larval rearing tanks and is hoped to be completed in early 2023. [a](#)

— RD DIANALA



Haniah Pitogo, an associate researcher, joins Professor Masao Ohno in planting *Kappaphycus sp.* plantlets in the sea cages. Photo courtesy of H Pitogo



Miss Hananiah Pitogo poses with Professor Masao Ohno (left) and Sea Vegetable Co-Chief Executive Officer Jun Hachiya (right). Photo courtesy of H Pitogo

GOJ sends AQD researcher to Japan for specialized training in seaweed

HANANIAH Pitogo, a SEAFDEC/AQD seaweed researcher, attended a 12-day specialized training for seaweed in Japan from 13 to 25 Nov. 2022, sponsored by the Government of Japan (GOJ).

Her research trip kicked off with a visit to Kochi University to meet Professor Masao Ohno, who lectured on “Seaweed Cultivation in Tropical Waters,” “Carrageenan and liquid fertilizer made from *Eucheuma*,” and “Aquaculture and utilization of *Kappaphycus alvarezii* in Toza Bay, Japan.” The importance of using Eucheumatoids, as well as different culture methods, was discussed. The seaweed laboratory outdoor facilities were then visited, where *Ulva* seaweed fertilization is one of the activities. These seaweeds were fertilized and grown *in vitro* before they were transferred to tanks for mass production.

In the days that followed, she went to the Sea Vegetable Company, which mass produces *Ulva sp.* for commercial purposes.

Following that was a tour of the Japan Fisheries Research and Education Agency - Nansei Branch in Mie Prefecture. Dr. Chihaya Nakayasu, deputy director of the branch (and former Deputy Chief of SEAFDEC/AQD), Dr. Toshiya Suzuki, branch director, and Dr. Takuro Shibuno, scientist (also a former Deputy Chief of SEAFDEC/AQD) warmly welcomed Pitogo. They proceeded to the laboratory,

which serves as the microalgae’s culture room. The bioassay for checking the nutritional body of macroalgae is one of the studies currently being done.

In addition, at the Overseas Agri-Fisheries Consultants (OAFIC) office in Kanda, Tokyo, the researcher attended a lecture on the *Kappaphycus* culture project in Indonesia. She also went to the Okinawa Prefectural Fisheries and Ocean Technology Center and the Marine Deep Water Research Institute on Kumejima Island in Okinawa Prefecture.

On the 24th, she visited the Kamiisogun Fisheries Cooperative Association in Hokuto, Hakodate, and learned about the uses and importance of artificial fish reefs.

“These artificial reefs are made as protection from big waves and mainly as cultivation area for the seaweeds, *Gloiopeltis sp.*,” she said.

These artificial reefs are known as blocks, and there are 480 of them in the area. Each block measures one meter in length, weighs 2.8 to 3 tons and are 42 meters apart. Planting of *Gloiopeltis sp.* begins in May to June and can be harvested after six months of culture. The seaweeds will attach themselves to the blocks and grow to harvestable size.

Moreover, in the afternoon, she traveled to the Algatech Kyowa Technical Laboratory of Seaweeds in Hakodate City, Hokkaido.

“We also went Hakodate Research center for Fisheries and Oceans, where

most of their seaweeds inside the incubator are located. I had a chance to look at the *S. confusum* sporelings of different sizes. Also, I was able to witness how they clean the sporelings individually,” she went on.

Pitogo became interested in their technology for the sporulation of brown seeds since she had previously done sporulation of red seaweeds of *Kappaphycus sp.* in SEAFDEC/AQD.

Her training concluded with a tour to the Fisheries Research and Education Agency, where she ran into former SEAFDEC/AQD colleagues Dr. Masashi Kodama and Dr. Satoshi Watanabe.

“The training schedule was very hectic, but I learned a lot of new things as well since I visited different facilities and laboratories. This way, I learned other protocols and techniques in seaweed culture, which I could apply to my research,” according to her.

“This training program broadens the professional and personal perspectives of young researchers like me. In my case, being exposed to new facilities and technologies in seaweed culture inspired me to do more research on seaweeds,” she went on.

Yearly, the GOJ sends researchers to Japan for specialized training to gain a thorough understanding of, and exposure to, various research facilities or laboratories of their specialization. [a](#)

— NG ARMADA

Free books on aquaculture announced by AQD

BETWEEN 23 and 26 December 2022, SEAFDEC/AQD announced through its Facebook page that two new extension manuals and one conference proceedings that it produced were freely available for download through its institutional repository.

One of the manuals released is titled “Hatchery Production of Sea Cucumbers (Sandfish *Holothuria scabra*)” and may be freely downloaded from repository.seafdec.org.ph, while print copies are also available at the AQD bookstore. Dr. Jon Altamirano, scientist, and Mr. Jesus Rodriguez, Jr., senior technical assistant, penned the publication which is SEAFDEC/AQD’s 69th aquaculture extension manual.

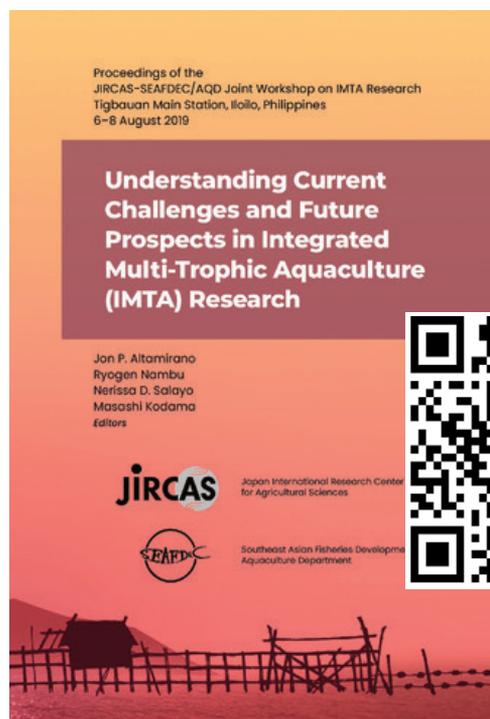
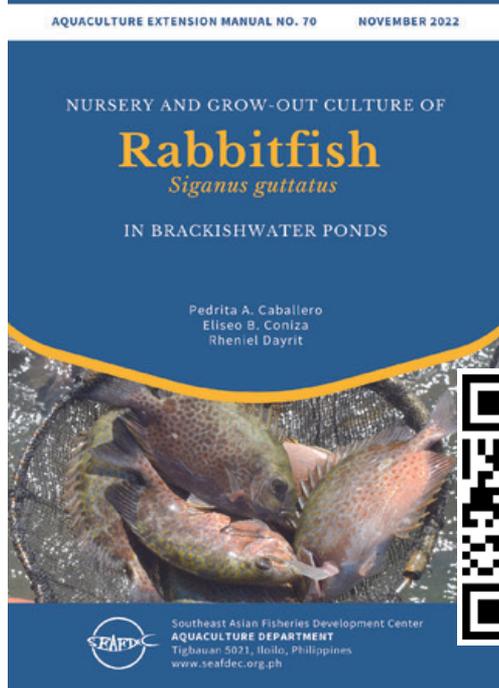
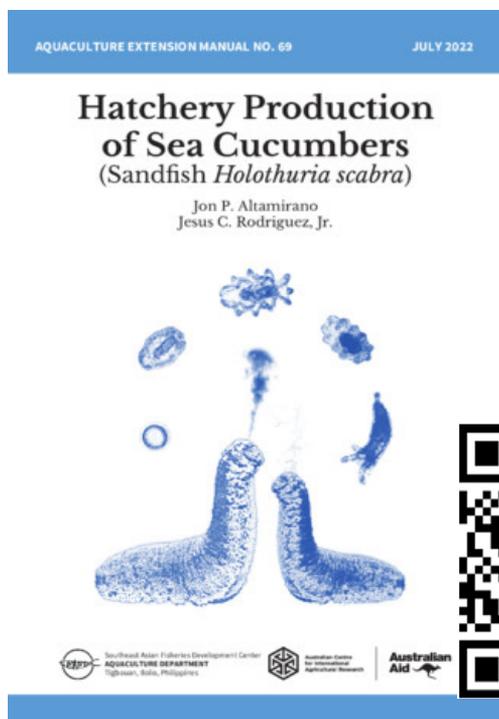
This manual, partly supported by the Australian Centre for International Agricultural Research (ACIAR), highlighted the importance of sea cucumbers and their potential as an aquaculture commodity, particularly that of the tropical sea cucumber *H. scabra*, commonly known as sandfish. It described the various hatchery production methodologies specifically optimized for sandfish and designed to be practical and easy to implement.

The other manual is titled “Nursery and Grow-out Culture of Rabbitfish *Siganus guttatus* in Brackishwater Ponds,” and covered topics on the biology of rabbitfish and brackishwater pond culture techniques based on the research and verification studies conducted by AQD. Associate Researcher Ms. Pedrita Caballero, former associate researcher Mr. Eliseo Coniza, and Technical Assistant Rheniel Dayrit authored the aquaculture extension manual which is SEAFDEC/AQD’s 70th.

Meanwhile, the conference proceedings is titled “Understanding Current Challenges and Future Prospects in Integrated Multi-Trophic Aquaculture (IMTA) Research.”

Fully funded by the Japan International Research Center for Agricultural Sciences (JIRCAS), the proceedings is a compilation of the 10-year results in IMTA research conducted by JIRCAS and AQD researchers and their collaborators. It is an output of the JIRCAS-SEAFDEC/AQD Joint Workshop on IMTA research held at AQD’s Tigbauan Main Station in the Philippines on 6–8 August 2019. [a](#)

— RH LEDESMA



NEWLY-HIRED EMPLOYEES

Last Quarter of 2022



ZETH RODARIO P. BEBIT
Technical Assistant
Fish Health Section
Research Division



CARINA D. BENDIGOSA
Associate Researcher
Nutrition & Feed Development Section
Research Division



MARK CHRISTOPHER D. CHEETHAM
Chemist, Laboratory Facilities for
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JERIC R. DELA CRUZ
Research Aide
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Technology Verification and Extension



TRISHA MARIE G. FELISILDA
Technical Assistant
Technology Verification Section
Technology Verification & Extension



RONAN V. GALLENDO
Driver
Engineering Section
Administration and Finance Division



JONAHBELLE O. GELANGRE
Information Assistant
Library & Data Banking Services Section
Training and Information Division



MARIANNE JOYCE S. HERRADA
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Research Division



RAPHAEL Q. PALLA
Technical Assistant
Milkfish Satellite Office
Technology Verification & Extension Division



LEILA HOPE L. SUANO
Technical Assistant
Fish Health Section
Research Division

Int'l online training for crab production

SEAFDEC/AQD's mangrove crab production techniques were highlighted in a four-day Mangrove Crab Hatchery, Nursery and Grow-out Operations training course that was requested and funded by INFOFISH.

Held 14 to 18 Nov. 2022, the training course's 38 participants came from Bangladesh, Thailand, Sri Lanka, the Philippines, Malaysia, Fiji, and Papua New Guinea.

SEAFDEC/AQD experts used the Zoom platform to discuss the biology of mangrove crabs, biological considerations in establishing a crab hatchery, broodstock management and larval rearing, and nursery and grow-out management.

This training course provided participants with technical knowledge in the seed production, nursery, and grow-out of mangrove crabs, emphasizing *Scylla serrata* for sustainable livelihood and employment generation. [a](#)

— NG ARMADA



aqd matters

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Miss Jenalyn Lames from the Crab Hatchery gives a lecture on crab hatchery operations during InfoFish Online Crab Training. Photo by AL Ramos

Session 3 of AQD's intensive aquaculture training kicks off

FOUR fisheries graduates began a four-month intensive training course at SEAFDEC/AQD last 14 Nov. 2022, as part of the research institution's program to develop a pool of highly skilled aquaculture technicians.

Set to end on the 3rd day of March next year, the Session 3 of the Aquaculture Technologies for Manpower Development's primary objective is to disseminate knowledge and strengthen the skills of fisheries graduates from state universities and colleges on aquaculture technologies on shrimp, marine fish, mangrove crab, giant freshwater prawn, seaweed, marine cage aquaculture, and brackishwater pond aquaculture.

This year, the trainees were all University of the Philippines Visayas graduates: Rochelyn Rose Geca (BSc Fisheries), Krizzian Hernando (BSc Fisheries), Joan Tabaquirao (BSc Fisheries), and Edrose Jane Hilas (BSc Fisheries Major in Fish Processing Technologies).

As part of their training, they will participate in practical sessions which is divided into three main components: seed production/hatchery and nursery, pond aquaculture, and cage aquaculture.

Sessions consisted of hands-on activities on broodstock management and larval rearing, natural food production, feeding management, water management, and harvesting for the hatchery component; pond preparation, stocking, soil, and water instrumentation, feeding management, sampling, pond repairs, and harvesting for the pond culture; and cage construction, net mending, stocking, feeding management, sampling, harvesting, and other related activities for the cage culture aspect.

Furthermore, the practical sessions will be in seven areas: Shrimp Hatchery, Giant Freshwater Prawn Hatchery, Marine Fish Hatchery, Mangrove Crab Hatchery, Seaweed Culture Area, the Igang Marine Station (IMS), and Dumangas Brackishwater Station (DBS).

Field practical sessions on the pond and brackishwater aquaculture and marine fish cage culture will also take place at the DBS and IMS.

After completing the lecture series and hands-on practical sessions in all areas, these trainees will present their reports to a panel of evaluators made up of their area supervisors. [a](#)

— NG ARMADA



Christmas season at SEAFDEC/AQD

IT'S that time of year when SEAFDEC/AQD is decked out in twinkling lights, and the scent of the Yuletide season is in the air.

SEAFDEC/AQD held a series of activities to brighten the season during its week-long Christmas celebration from 12 to 16 December.

“In the past 49 years, we witnessed how AQD labored with pride in the region in addressing food security, wealth creation, and environmental concern, among others, in aid of research and development,” Chief Dan Baliao said during the Christmas program on the 16th.

He also stated that SEAFDEC/AQD would remain steadfast to achieve one of its goals: to keep SEAFDEC relevant as a leading aquaculture research and development organization in Southeast Asia.

“This Yuletide season, we look upon our accomplishments as a

benchmark for more challenges ahead of us. We need all hands on deck to address all these with dispatch and dedication to get 'more food on the table,' especially since AQD will be celebrating its golden year next year,” he went on. [a](#)

