

SEAFDEC/AQD's new Shrimp Broodstock Rearing Facility in Tigbauan, Iloilo, currently houses over 300 breeders of tiger shrimp, locally referred to as *lukon* or *sugpo*, recently sourced from Capiz and Negros Occidental. This move is another step by SEAFDEC/AQD towards restoring the black tiger shrimp industry in the Philippines, in line with its *Oplan Balik Sugpo* Program. Photo by NG Armada



aqd matters

September–October 2022

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

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SEAFDEC renews push for pompano farming

A DELECTABLE fish that needs no seasoning, no need for scaling, has few bones, fits perfectly on a pan, and whose mild and sweet flavor suits almost any recipe. It's no wonder that the pompano

is called by some to be the "world's most edible fish."

This silvery fish, with a pearly white meat when cooked, is known as "apahan" or "dawis lawin" in the Philippines. Its market price is between P300 (US\$5.25) and

P500 (US\$8.74) per kilogram, depending on size, which is usually between 250 to 500 grams.

Pompano naturally inhabit coral reefs, but they also adapt well to being farmed

Continued on next page...



Snubnose pompano, a high-value commodity, was netted from the marine cages of SEAFDEC/AQD's Igang Marine Station in Nueva Valencia, Guimaras. The harvest is the product of the research institution's technology verification test using high-value commercial feed in pompano rearing. Photo by NG Armada

Continued from previous page...

in marine fish cages and brackishwater fishponds where they grow fast and readily take in formulated feeds.

However, despite its proven culinary and aquaculture value worldwide, pompano is yet to take off in the Philippines. This is mainly because of the lack of pompano fingerlings to stock into cages and ponds, and sea lice infections.

Regardless, an international research center based in Tigbauan, Iloilo is bent on promoting the pompano as the next big thing in Philippine aquaculture.

“We have been actively researching the snubnose pompano since 2007, but in the past two years we have intensified our commercialization projects to show the industry that pompano farming is a good investment,” shared Dan Baliao, chief of the Southeast Asian Fisheries Development Center Aquaculture Department (SEAFDEC/AQD).

Between January and August 2022, Baliao added that they harvested pompano 10 times from both marine cages and brackishwater ponds, netting a total of 14 tons of the high-value commodity through its multiple experimental runs.

The research center is also constructing a dedicated pompano hatchery at its Tigbauan headquarters to further boost its research and commercialization activities. The new facility has a rearing capacity of 80 tons and may also supply private farmers.

Baliao also shared that SEAFDEC/AQD has already published research and continues to do studies on multiple fronts, including the development of a low-cost diet, strategies to accelerate growth in the nursery stage, reducing sea lice infestations, and preventing transmission of nervous necrosis virus that affects pompano breeders and larvae.



Snubnose pompano is a silvery fish with pearly white meat when cooked. In the Philippines, its price is between P300 (US\$5.25) and P500 (US\$8.74) per kilo, depending on size. Photo by HJ Gemalaya

Alternative to milkfish?

Because pompano is relatively easy to raise and uses the same pond and cage setup, Baliao said the pompano is a good alternative to milkfish, which is currently the top-farmed fish in the Philippines.

“With its superior taste and premium value, pompano is something fish farmers should seriously consider. The Philippines just needs more investments in pompano hatcheries to provide the seeds that farmers will need.”

To this end, Baliao says SEAFDEC/AQD has been in close partnership with the Department of Agriculture’s Bureau of Fisheries and Aquatic Resources (DA-BFAR) since 2018 in designing and setting up multi-species hatcheries around the country.

“It will just be a matter of time. The technology to produce pompano is there, and SEAFDEC continues to add refinements every year. Help us commercialize our science, and you will soon taste and see that pompano is good.”

Marine and brackishwater culture

SEAFDEC/AQD has been raising pompano in marine fish cages since 2008, feeding them formulated feeds. A stocking density of 35 fish per cubic meter is used in the sea cages which are 10 meters wide, 10 meters long, and four meters deep.

In fish cage culture, fish can be stocked at higher densities, harvest is easier, and predation is more easily controlled. The constantly flowing water also provides abundant dissolved oxygen and flushes away waste products and unconsumed feeds.

The research center also raises the pompano in 5,000 square meter brackishwater ponds, with the salinity as low as 20 ppt, at a stocking density of 0.5 to two fish per square meter. In pond culture, there are no expenses for nets and mooring, and natural food can grow, reducing demand for commercial feeds.

Whether in cages or in ponds, it takes four to five months for the fish to reach marketable size. [a](#)

— NG ARMADA & RD DIANALA



Dr. Ma. Junemie Hazel Lebata-Ramos presents her study “Grow-out culture of *Magallana bilineata*: A comparison of growth and survival of wild and hatchery-bred spat” at the World Conference on Agriculture, Food and Nutrition 2022 in Spain. Photo courtesy of MJH Ramos

Scientist presents study in international conference

DR. Ma. Junemie Hazel Lebata-Ramos, a SEAFDEC/AQD scientist, shared her research findings on oysters at the World Conference on Agriculture, Food and Nutrition 2022 (WCAFN-2022) at Valencia, Spain on 24 to 25 Oct.

Dr. Lebata-Ramos presented her paper “Grow-out culture of *Magallana bilineata*: A comparison of growth and survival of wild and hatchery-bred spat” on the first day of the event.

The WCAFN-2022 is an international conference organized by Eurasia Conferences. It gathered researchers, scholars, students, academicians, and research organizations to share scientific advancements, and progressive research in agriculture, food, and nutrition. [a](#)

— NG ARMADA

AQD researcher joins RECAB activity on Gender

JOSEPH FAISAN, a SEAFDEC/AQD associate researcher, was one of 19 delegates who attended the Regional Training Course on Gender Mainstreaming in Small-scale Fisheries and Aquaculture for Sustainable Development in Southeast Asia, which was held last 20 to 29 Sept. 2022 in Rayong Province and the SEAFDEC Training Department in Samut Prakan, Thailand.

Participants included fisheries officers from ASEAN Member States (AMS) Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Thailand, and Vietnam, as well as representatives from SEAFDEC's Aquaculture Department, Marine Fishery Resources Development and Management Department, and Inland Fishery Resources Development and Management Department.

They learned about gender concepts, roles, mainstreaming tools, and analysis frameworks. They conducted

a field survey for data collection and gender analysis in Rayong Province's fishing communities. They also learned how to identify actions to integrate gender into small-scale fisheries and aquaculture development projects and developed action plans to be implemented in their works with the engagement of their top management and colleagues toward gender mainstreaming.

The SEAFDEC Secretariat and Training Department (TD) co-organized the Regional Training Course on Gender Mainstreaming in Small-scale Fisheries and Aquaculture for Sustainable Development in Southeast Asia as the first Regional Capacity Building Network (RECAB) activity.

The RECAB is part of the Japanese Trust Fund-funded project "Assistance for Capacity Development in the Region to Address International Fisheries-Related Issues." [a](#)

— NG ARMADA



SEAFDEC/AQD associate researcher Joseph Faisan receives a certificate for attending the RECAB activity on Gender in Thailand. Photo courtesy of JF Faisan



Meeting convened to review, enhance SEAFDEC's information dissemination



SEAFDEC/AQD's participants in this year's ISP are (left to right) Elvi Nemiz, Rex Delsar Dianala and Joesy Marie de la Cruz-Aranas. Photo courtesy of JMD Aranas

INFORMATION staff from SEAFDEC/AQD discussed the progress, strategies, and plans of their information programs with their counterparts from the SEAFDEC Secretariat and other departments during the Twenty-third Meeting of SEAFDEC Information Staff Program (ISP).

The meeting was held on 18 to 20 Oct. 2022 in Bali, Indonesia and was hosted by SEAFDEC's Inland Fishery Resources Development and Management Department (IFRDMD). [a](#)

— RD DIANALA

Seaweed researcher shares expertise to Indian researchers, farmers



AN associate researcher from SEAFDEC/AQD, Hananiah Pitogo, shared her expertise in seaweed culture during the Seaweed India 2022, an international seaweed trade conference and exhibition, last 28 to 29 Sept. 2022 at the Delta Auditorium, National Centre for Sustainable Coastal Management Campus in Chennai, India.

Pitogo, also the officer-in-charge of the FishWorld Museum, lectured on “Seaweed Policies and Practices in Southeast Asian Countries” during the second day of the said event. She also discussed the micropropagation or the tissue culture of seaweeds at SEAFDEC/AQD.

“I am greatly thankful and humbled by the privilege to be part of this conference and to share my knowledge with Indian researchers and seaweed farmers’ remarkable seaweed policies in Southeast Asian countries. [I am] honored by the opportunity to share with them what research we have done on seaweeds and what we are doing now at SEAFDEC/AQD,” she said.

This event was organized by the Bay of Bengal Programme with the support of the Government of India and the Government of Tamil Nadu in association with various government agencies, industry representatives and research institutions. [a](#)

“I am greatly thankful and humbled by the privilege to be part of this conference and to share my knowledge with Indian researchers and seaweed farmers’ remarkable seaweed policies in Southeast Asian countries,” says SEAFDEC/AQD associate researcher Hananiah Pitogo. *Photo courtesy of H Pitogo*

— NG ARMADA

Department of Agriculture’s consultants visit SEAFDEC/AQD

DEPARTMENT of Agriculture (DA) consultants arrived at SEAFDEC/AQD’s Tigbauan Main Station last 27 October to tour its facilities and meet with Chief Dan Baliao.

Professor Encarnacion Emilia Yap, from the University of the Philippines Visayas, led the group, which is composed of three international consultants from IDOM Consultancy and MC Spencer Group and six officers from the DA-Central Office and DA-Bureau of Agricultural and Fisheries Engineering.

The group visited the Integrated Marine Finfish Broodstock and Hatchery Complex, *Penaeus monodon* Broodstock Facility, Multi-species Freshwater Hatchery, Milkfish Broodstock Tanks, and Milkfish Larval Rearing Extension Facility.

An exhibit at the Multi-purpose Hall showcased to the guests the different commodities being studied by SEAFDEC/AQD for domestication and efficient propagation. Included in the



display were the legislated multi-species hatcheries and feed mill for cost-effective diets. [a](#)

Chief Dan Baliao tours the Department of Agriculture’s consultants at the Integrated Marine Finfish Broodstock and Hatchery Complex during their visit to the Tigbauan Main Station. *Photo by EV Antolino*

— NG ARMADA

700-kilogram stranded ‘dugong’ dissected, preserved

S EAFDEC/AQD’s FishWorld Museum and staff from the National Museum Western Visayas (NMWV) conducted a necropsy of a sea cow (*Dugong dugon*), also known as *dugong*, last 20 Oct. 2022.

The 700-kilogram animal was discovered stranded off the coast of Belison, Antique at around 7:00 a.m. of 19 October but was declared dead around noon. The said municipality’s Municipal Environment and Natural Resources Office immediately coordinated



The 700-kilogram *dugong* found off the coast of Belison, Antique, will be displayed at SEAFDEC/AQD’s FishWorld Museum. Photo by NG Armada

with FishWorld Museum for the turnover.

The findings, as reported

by Merlyn Geromiano of the NMWV, indicated that the *dugong* was probably hit

by a boat resulting in hemorrhage and bruises observed on its body. A fishhook attached to a fishing line and other plastic material were also recovered from its gut.

Roundworms were also found in its gut and lymph nodes observed in its intestine. The latter “indicates that the animal is fighting a disease or infection,” Geromiano reported.

The *dugong* will be preserved and displayed at the FishWorld Museum. **a**

— NG ARMADA & RD DIANALA

Thematic, commodity meetings held

SEAFDEC/AQD held a series of meetings, on commodities and thematic programs, from 12 to 16 Sept. 2022, to provide updates on the industry, the R&D status of important commodities, and the progress of research projects.

The meetings, held in person and virtually, were intended to ensure that R&D initiatives address the industry’s needs and facilitate the exchange of ideas among SEAFDEC/AQD’s scientists and researchers.

The research center currently has five thematic programs: “Quality Seed for Sustainable Aquaculture,” “Healthy and Wholesome Aquaculture,” “Maintaining Environmental Integrity Through Responsible Aquaculture,” “Mitigating the Impacts of Climate Change,” and “Meeting Social and Economic Challenges in Aquaculture.” **a**

— NG ARMADA



The head of the Technology Verification and Extension Division (TVED), Dr. Roger Edward Mاماuag, presented his study during the commodity and thematic meetings last 12 to 16 September 2022. Photo by JF Aldon

USM-ATBI and IP-TBM projects conduct benchmarking activity

THE University of Southern Mindanao Agri-Aqua Technology Business Incubator (USM-ATBI) and Intellectual Property Technology Business Management (IP-TBM) conducted a benchmarking activity at SEAFDEC/AQD’s Tigbauan Main Station last 6 Sept. 2022.

The trip, which included a tour of laboratories and facilities, aimed to provide the USM-ATBI and IP-TBM project staff with fresh and innovative

insights into aquaculture.

The USM-ATBI and IP-TBM are project initiatives of the Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAAARD) to mobilize the “Innovative Startup Act” and “Technology Transfer Act” in the said university. **a**

— NG ARMADA

SEAFDEC-assisted gov't nursery to boost aquaculture in Aklan

AKLAN'S thriving fisheries sector received a major boost with the establishment of the Multi-species Marine Fish Nursery in Barangay Baybay, Makato, Aklan, as the local government stepped up efforts to improve the province's aquaculture production.

This P4-million-worth (US\$69942.28) nursery, equipped with technology and supplies from the Southeast Asian Fisheries Development Center Aquaculture Department (SEAFDEC/AQD), was developed to promote high-value finfish farming, meet the province's demand for fingerlings and increase supply.

Local officials envision that with help from the facility, the first of its kind to be

funded and operated by a provincial government in the country, Akeanon fisherfolks will no longer have to search for sources of fish seedlings outside Aklan and minimize mortality caused by logistics problems.

"This project will most benefit our Akeanon fish farmers in need of quality marine high-value finfish fingerlings," according to Christian Deza, chief of the Office of the Provincial Agriculturist of Aklan (OPA-Aklan) Fisheries Division.

"With the increasing demand on milkfish fry, we are initially focusing on milkfish larval rearing, and soon siganid, grouper, seabass and pompano," Deza added.

The facility will also cater to the needs of raw materials for post-harvest fisheries



The first batch of milkfish fry being harvested at the Multi-species Marine Fish Nursery in Barangay Baybay, Makato, Aklan in August 2022. Photo by OPA-Aklan

production, producing value-added fishery products to be promoted in the local market and across the province and supporting Aklan's rapidly growing population and economic tourism.

'VERY GOOD' PERFORMANCE

In July, the nursery obtained 900,000 newly hatched milkfish larvae from SEAFDEC/AQD in Iloilo. The facility harvested 395,000 30-day-old fry from that batch in August, which were then stocked in ponds.

"We are very pleased that Aklan's new nursery achieved a 43.9 percent survival rate on the first batch of milkfish larvae that we sold to them last July," commented SEAFDEC/AQD Chief Dan Baliao in an interview. He added that the performance is "very good compared to the standard 30 percent survival from larvae to fry."

When fully operational, Deza forecasted that the facility is expected to produce 600,000 milkfish fry per month and generate a net annual income of P1,200,000 (US\$20982.68).

Deza added that SEAFDEC/AQD was one of the driving factors behind the establishment of the nursery as the concept arose from a series of lectures given by the research center a few years ago.



Inside the larval rearing tanks of the Multi-species Marine Fish Nursery in Barangay Baybay, Makato, Aklan. Photo by OPA-Aklan

Continued on next page...

A SEAFDEC/AQD hatchery employee holds a milkfish broodstock during routine sampling procedures at the research center's newly-established Milkfish Broodstocks Tanks on 12 September 2022. The milkfish broodstock in the photo is one of 779 currently housed in SEAFDEC/AQD. Photo by NG Armada



Hundreds of milkfish broodstock undergo routine health checkup

Continued from previous page...

“It was conceptualized after SEAFDEC/AQD conducted information dissemination campaigns in the province,” acting provincial agriculturist Salome David stated during the blessing and launching of the facility on 18 August.

Following conceptualization, OPA-Aklan and their Sangguniang Panlalawigan visited the research institution’s facilities in 2016 for benchmarking.

Meanwhile, David expressed gratitude to SEAFDEC/AQD for providing personnel training, larvae, larval food, and technology for the facility’s operation.

Deza and two other colleagues enrolled in a specialized training course on marine fish hatchery operations at SEAFDEC/AQD’s Tigbauan Main Station in March of this year. The 12-day course equipped them on broodstock management, hatchery operations, and marine fish nursery culture.

The nursery is located on a 3,500 square meter property and has larval rearing tanks, natural food production tanks, rotifer production tanks, a filtration system in the water reservoir, a water pump and powerhouse, electrical installations, an office, and storage. The SEAFDEC/AQD standard protocol for operating and managing hatcheries is followed. [a](#)

— NG ARMADA

TO ensure a consistent supply of milkfish fry all year, some 163 broodstocks underwent routine sampling procedures on 21 Sept. 2022 at SEAFDEC/AQD’s newly-established Integrated Marine Finfish Broodstock and Hatchery Complex in Tigbauan Main Station.

“We conduct milkfish sampling to identify the sex ratio of our milkfish broodstocks,” according to Nichole Yap, technical assistant of SEAFDEC/AQD.

Milkfish broodstock sampling is analogous to a human health check-up. This activity entails gathering biological data such as body length, weight, and sex, which provides information about the fish’s overall health. In addition, each breeder received a PIT (passive integrated transponder) tag for easy identification and monitoring of individual animals.

Milkfish broodstock sampling is vital to follow the recommended sex ratio for milkfish spawning: one male:2 female. Yap added that it is recommended to do sampling once a year to monitor the growth of the breeders.

SEAFDEC/AQD currently houses 779 milkfish broodstocks, the oldest of which is a batch of 66 fish that are 40 years old. [a](#)

— NG ARMADA

TRAININGS



Filipinos, Bangladeshis train on mangrove crab hatchery

NINE participants – four from Bangladesh and five from the Philippines – participated in the 22-day Training Course on Mangrove Crab Hatchery that ran from 15 August to 5 Sept. 2022.

The training provided the participants with lectures and practical sessions on the different aspects of mangrove crab hatchery technology, with emphasis on *Scylla serrata*, for sustainable livelihood

and employment generation.

The training, held at SEAFDEC/AQD's Tigbauan Main Station in Iloilo, ensured that trainees would know how to handle broodstock to produce eggs, and care for the larvae until they reach the crab instar stage necessary for nursery and grow-out.

"It is a very good training program to operate a crab hatchery. We have learned almost so many things about crab hatchery operations," according

to Shawon Ahmed, scientific officer at Bangladesh Fisheries Research Institute.

He added that in Bangladesh they are trying to produce orange mud crab but encountered some difficulties, so he decided to enroll in the training program, and luckily the Ministry of Fisheries sponsored his training along with three others. [a](#)

— NG ARMADA

16 Complete training on fish nutrition and feed development

SIXTEEN participants, mostly government technical staff, recently finished the Training Course on Fish Nutrition and Feed Development which ran from 29 August to 2 Sept. 2022.

The Government of Japan-Trust Fund shouldered the training expenses of eight trainees – one each from Myanmar and Viet Nam, two from Brunei Darussalam, and four from the Philippines. The National Fisheries Research and Development Institute sponsored the eight other participants.

The event saw SEAFDEC/AQD specialists share basic principles of fish nutrition, economics of feeding, evaluation of feedstuff and aquafeeds, feeding management, nutritional pathology, and nutrient requirements of aquatic species (finfish and crustaceans).

The trainees were immersed in practical sessions such as feed preparation and pilot feed milling demonstration. They also experienced feed evaluation, processing and use of alternative feed ingredients, and economic analysis. [a](#)

— NG ARMADA



Sandfish culture training for Papua New Guinea's National Fisheries Authority

FOUR participants from the National Fisheries Authority of Papua New Guinea completed the Training Course on Sandfish (*Holothuria scabra*) Seed Production, Nursery, and Management on 17 Oct. 2022, at SEAFDEC/AQD's Tigbauan Main Station.

Participants were immersed in lectures on the biology of sea cucumbers with emphasis on the sandfish. They further learned the species' spawning techniques, nursery rearing, and community-

based sea ranching from SEAFDEC/AQD specialists. They also had lectures on sea cucumber processing.

The 15-day training, which began on 3 October, involved them in broodstock preparation and spawning induction; spawning and larval rearing tank setup; and egg collection, counting, and stocking. They also participated in nursery pen harvesting and sea ranch site monitoring at Molocaboc, Sagay City, Negros Occidental. [a](#)

— NG ARMADA

Training course on sandfish culture organized for Mindoro State University

TEN participants from Mindoro State University and the local government of Mansalay, Oriental Mindoro (Philippines), enrolled in a specialized sandfish (*Holothuria scabra*) culture training course as part of a push to promote the culture of the high-value commodity in Mansalay.

From 30 August to 2 Sept. 2022, SEAFDEC/AQD specialists shared science-backed culture techniques to improve the technical know-how of participants. Lectures included topics on the biology of sea cucumbers, culture and management, spawning protocols, nursery rearing of sandfish juveniles, sea cucumber processing, and community-based sandfish culture practices.

The training also engaged the participants in broodstock preparation; spawning induction; set-up of spawning and larval rearing tanks; and egg collection, counting, and stocking. [a](#)

— NG ARMADA



The trainees during one of their practical activities in the Specialized Sandfish (*Holothuria scabra*) Culture Training
Photo by AL Ramos

Ongoing sandfish culture research in Guimaras

AFTER four months of sandfish culture in floating *hapa* nets at different densities at the Igang Marine Station, Dr. Ryogen Nambu of Japan International Research Center for Agricultural Sciences (JIRCAS) and Dr. Jon Altamirano of SEAFDEC/AQD performed a sampling activity last 27 October.

This, after JIRCAS and SEAFDEC/AQD engaged in a collaborative project in 2021 entitled “Development of an aquaculture system that introduces high-valued seedling



These newly-constructed pens will be used to further the study on sandfish culture conducted by JIRCAS and SEAFDEC/AQD. Photo by RA Diamante

production and intermediate culture in harmony with the environment in tropical areas.”

Assessment and development of an Intermediate Culture System (ICS) for tropical aquaculture species is one of the three sub-studies under this project and focuses on the concept of ICS. This aims to assess and develop an ICS for tropical aquaculture species. As a pilot commodity, the tropical sandfish *Holothuria scabra* is the target species.

The researchers will assess and develop an appropriate ICS for sandfish *H. scabra* to grow them from fingerling size (>2 grams) to late juvenile sizes of at least 20 grams. This will be done by comparing various potential culture sites with different environmental conditions using the currently-practiced sea-based pen culture system. They will also evaluate the best potential mix of environmental parameters to achieve the best possible culture performance of sandfish (e.g., growth, survival, culture duration, etc.) through Systems Dynamics Modelling (SDM).

Also, they will look into the practicality and cost-efficiency of the ICS and prepare recommendations on how the system can be adopted by potential farmers, not only in the Philippines but also in other developing countries in Southeast Asia.

In this study, *hapa* nets with a size dimension of 50 x 50 x 75 centimeters were used and stocked with sandfish at three different densities with four replicates each. Stocking densities of 25, 50, and 100 juveniles per net are being tested. [a](#)

— NG ARMADA

17 complete crab nursery and grow-out training

A total of 17 participants – four from the National Fisheries Research and Development Institute and nine from the business sector – completed the 10-day Regular Training Course on Mangrove Crab Nursery & Grow-out, which ran from 19 to 28 Sept. 2022.

The training course equipped participants with technical knowledge and fundamental skills on the nursery and production of good-quality mangrove crabs, with an emphasis on the *Scylla serrata* species, for sustainable livelihood and employment. [a](#)

— NG ARMADA



Projects reviewed, plans for 2023 discussed

SEAFDEC/AQD held its annual “In-house Review and Planning Meeting” at its main station in Tigbauan, Iloilo, last 26-27 Sept. 2022.

The meeting, held in a hybrid (in-person and online) format, aimed to review the progress of projects (research, verification, information, administrative), keep track of accomplishments, and consolidate programs for the coming year.

A panel of external evaluators attended the meeting, including Bureau of Fisheries and Aquatic Resources Planning Officer Joel Abalayan, University of the Philippines Visayas Associate Professor Dr. Jerome Genodepa, Philippine Association of Fish Producers, Incorporated National President Joseph Martin Borromeo, Finfish Hatcheries, Incorporated Assistant Vice President Renato Bocaya, and National Fisheries Research and Development Institute’s Dr. Casiano Choresca, who participated via videoconference with Dr. Ma. Theresa Mutia. [a](#)

— NG ARMADA



aqd matters

is published bimonthly by the Development Communication Section, SEAFDEC Aquaculture Department, Tigbauan, Iloilo, Philippines

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When fully operational, this multi-species hatchery in Del Carmen, Surigao Del Norte will boost the aquaculture industry in the province. Photo by JA Tugo



SEAFDEC/AQD conducts site visit to 3 marine hatcheries

THE SEAFDEC/AQD Feasibility Study Team visited three provinces in the Philippines to check two multi-species hatcheries that are under-construction, and a proposed site for another hatchery.

From 20 to 23 Sept. 2022, Engr. John Aldrin Tugo traveled to Del Carmen, Surigao Del Norte and Barangay Cuyago, Jabonga, Agusan del Norte, to inspect the construction of a multi-

species marine hatchery and multi-species freshwater hatchery, respectively.

He also inspected the site of a proposed multi-species marine hatchery in Brgy. Geotina, Basilisa, Province of Dinagat Island. [a](#)

— NG ARMADA

Booster shot rollout vs COVID-19 at AQD

SOME 47 employees and their dependents received booster shots against the coronavirus disease 2019 (COVID-19).

The Tigbauan Rural Health Office facilitated the vaccine rollout on October 19 at SEAFDEC/AQD's Multi-Purpose Hall.

One strategy for ensuring protection against COVID-19 and continuous recovery is to receive booster shots. [a](#)



A SEAFDEC/AQD employee receives a booster shot during the vaccination rollout last 19 October 2022. Photo by JF Aldon

— NG ARMADA

SEAFDEC/AQD at Agrilink/ Foodlink/Aqualink 2022 expo

SEAFDEC/AQD was one of the exhibitors at the Philippines' largest international trade show, Agrilink/Foodlink/Aqualink 2022, which took place from 6 to 8 Oct. 2022 at the World Trade Center in Pasay City.

The research center featured legislated multi-species hatcheries, feed mill for cost-effective diets, and research milestones for important commodities such as tiger shrimp, milkfish, and *galunggong* (round scad). PrimoAlga, an algal paste produced by SEAFDEC/AQD, was also on display. Some SEAFDEC/AQD scientists also shared aquaculture knowledge and advice with fish farmers and those aspiring to be.

President Ferdinand "Bongbong" Marcos Jr. led the opening program of this mega-event, which included three major components: the 27th International Agribusiness Exhibition & Seminar or Agrilink 2022; the 21st International Food Processing, Packaging & Products Exhibition or Foodlink 2022; and the 16th National Fisheries Exhibition & Seminars or Aqualink 2022.

With the theme, "Inclusive Growth in Agribusiness Chain: Key to Stability," the event returns after a two-year hiatus due to the pandemic. [a](#)

— NG ARMADA



President Ferdinand Marcos Jr. graces the Agrilink/Foodlink/Aqualink 2022, which took place from 6 to 8 October 2022 at the World Trade Center in Pasay City. Photo by JM Tigar



Visitors flock to SEAFDEC/AQD booth at 24th Davao Agri Trade Expo

VISITORS flocked to the SEAFDEC/AQD exhibit at Davao's SM Lanang Premier, which featured legislated multi-species hatcheries, feed mill for cost-effective diets, and research milestones.



Chief Dan Baliao meets Senator Cynthia Villar at SEAFDEC/AQD's booth at the 24th Davao Agri Trade Expo Photo by JF Aldon

Senator Cynthia Villar was among those who dropped by the booth and met SEAFDEC/AQD Chief Dan Baliao who was present along with division heads Dr. Leobert de la Peña, Dr. Roger Edward Mamaug, and Dr. Edgar Amar.

The exhibition is part of the 24th Davao Agri Trade Expo held 29 to 30 Sept. 2022.

At the said expo, dubbed "Mindanao's biggest and longest-running trade show," attendees learned more about SEAFDEC/AQD and its role in the advancement of the aquaculture sector in the Philippines. [a](#)

— NG ARMADA

