



A female sandfish (*Holothuria scabra*) releases a quick burst of eggs after it was induced to spawn using thermal and food stimulations last 20 Feb. 2024 at the Sandfish Hatchery in SEAFDEC/AQD's Tigbauan Main Station." Photo by DEVCOM

January–February 2024

aqd matters

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

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NFRDI to expand collaboration with SEAFDEC/AQD through sardine project

● NYRA ARMADA

THE National Fisheries Research and Development Institute (NFRDI) is tapping SEAFDEC/AQD in a partnership to explore the domestication of the Bali Sardine.

In a meeting held on 22 Feb. 2024, the NFRDI team, led by Dr. Lilian Garcia, Dr. Ma. Theresa Mutia, Dr. Minerva Ventolero, and Ms. Janet Baral, presented the proposal, with a funding of P20 million, to SEAFDEC/AQD Chief Dan Baliao.

The project, titled “Biological Study and Transport Trials of Bali Sardine (*Sardinella lemuru*)” intends to replicate SEAFDEC/AQD’s success in spawning the round scad (“galunggong”) in captivity which the research center achieved in 2021.

In addition to the sardine project, the meeting also discussed the memorandum of agreement on the technology demonstration on grow-out culture of snubnose pompano

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NFRDI Officials with the SEAFDEC/AQD Executive Committee during the meeting held on 22 February 2024. Photo by MV Dosado



NFRDI Director Dr. Lilian Garcia engages in conversation with Ms. Jernet Zyca Silorio, research assistant, at the galunggong tanks in the Big Hatchery. Photo by MV Dosado

SEAFDEC/AQD starts intensive training for fisheries graduates



A trainee dissects a *Penaeus monodon* during their practical session in the biology and ecology of *Penaeus monodon* and other Penaeids. Photo by DM Jumilla

● NYRA ARMADA

FIVE fisheries graduates began their journey on an almost-four-month-long intensive training course on aquaculture technologies last 19 Feb. 2024, as part of SEAFDEC/AQD's initiative to build a pool of highly skilled aquaculturists.

Scheduled to last until 31 May this year, the Aquaculture Technologies for Manpower Development seeks to equip graduates from State Universities and Colleges with enhanced knowledge and proficiency in various aquaculture technologies – culture of shrimp, marine fish, mangrove crab, giant freshwater prawn, and seaweed; and marine cage and brackishwater pond aquaculture.

This year's participants comprise Joshua M. Abras from

the University of Antique – Tario Lim Memorial Campus, Rolan D. Bernal and Philip D. Palma from Iloilo State University of Fisheries and Science & Technology-Tiwi Campus, and Donita Gwen H. Gulmatico and Anaiah Rhima D. Palomata from the University of the Philippines in the Visayas.

Throughout the program, the trainees will engage in practical sessions structured around three main components: seed production and nursery, pond aquaculture, and cage aquaculture.

This year's batch is the fourth to undertake the training, with three other batches trained in 2018, 2021, and 2022–2023. [a](#)

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and whiteleg shrimp, with focus on personnel services and proposed plans.

Furthermore, the development of cost-efficient feeds for aquaculture was also discussed. NFRDI requested Dr. Roger Edward Mamaug to review the ingredients necessary for the start-up operation/production of a feed mill plant while also exploring opportunities to formalize collaborations between SEAFDEC/AQD, NFRDI, and other government agencies.

The strategic partnership between NFRDI and SEAFDEC/AQD underscores a shared commitment to advancing scientific research and sustainable practices within the fisheries and aquaculture sectors in the Philippines. [a](#)



Stocking of round scud in concrete tanks at SEAFDEC/AQD's Tigbauan Main Station for breeding experiments. Photo by JF Aldon



The trainees during their practical session in feed preparation. Photo by DM Jumilla

NFRDI, SEAFDEC/AQD research collab nets rich pompano harvest

IN a collaborative initiative between DA-National Fisheries Research and Development Institute and the Southeast Asian Fisheries Development Center/Aquaculture Department (SEAFDEC/AQD), 631.5 kilos of snubnose pompano (*Trachinotus blochii*), were harvested on 6 Feb. 2024.

The final harvest was conducted after 8.6 months in the brackishwater ponds of the Freshwater Fisheries Research and Development Center (FFRDC), in Butong, Taal, Batangas.

Dubbed as the most edible fish in the world, the harvested pompano reached an average marketable size of 322 grams.



Staff and officials of the NFRDI strike a pose alongside SEAFDEC/AQD employees during the harvest at the Freshwater Fisheries Research and Development Center of NFRDI in Butong, Taal, Batangas. Photo courtesy of NFRDI

Grouper broodstock transported to Igang Marine Station

● ROSSEA LEDESMA

TEN grouper broodstock were transferred from SEAFDEC/AQD's headquarters in Tigbauan, Iloilo to its Igang Marine Station in Nueva Valencia, Guimaras on 16 Jan. 2024.

Three of the broodstock were giant grouper (*Epinephelus lanceolatus*) with a weight range of 20 to 24 kilograms and seven were hybrid grouper (a crossbreed between *Epinephelus fuscoguttatus* and *Epinephelus coioides*) having a weight of four to six kilograms.

The groupers will be kept at the Guimaras station for conditioning in sea cages and to serve as potential breeders in the future. [a](#)



The groupers, also known as "lapu-lapu," will undergo conditioning in sea cages at the Igang Marine Station in Guimaras, to serve as potential breeders in the future. Currently, the Station houses two giant groupers weighing around 70 kilograms each. Photos by JF Aldon

Its price commands up to Php 430/kg in the local "talipapa" or wet market.

The pompanos were cultured in two brackishwater ponds at a stocking density of 2 fish/m², following the recommended techniques. Survival rate of the fish was 86 percent. The total yield from the partial and final harvest was 1,707.6 kilos.

The harvest is part of a continuing joint project, "Grow-out culture of snubnose pompano in brackish water ponds" that aims to demonstrate the culture of the commodity, introduce the fish to the local market, and refine its culture techniques.

The success of the project was made possible through the collaborative efforts of NFRDI Executive Director Dr. Lilian Garcia, SEAFDEC/AQD Chief Dan Baliao, Project Leaders Dr. Maria Theresa M. Mutia of NFRDI, and Dr. Roger Edward Mamaug of SEAFDEC, along with Edgar Somblingo, Janice Tambirao, and Liza Iwag as research assistants. [a](#)



Miss Daisy Grandflor, research assistant assigned at the Seaweed Hatchery, performs manual cleaning on the 12-day-old seaweed propagules. Photo by JF Aldon



Seaweed propagule cleaning

● NYRA ARMADA

AT SEAFDEC/AQD's seaweed tissue culture laboratory, a technical assistant manually removes foreign matter and residual roots from 12-day-old *Kappaphycus alvarezii* seaweed propagules.

According to Associate Researcher Hananiah S. Pitogo, "this routine cleaning process, conducted every other day, is done to eliminate microorganisms and harmful bacteria that contribute to the dreaded 'ice-ice' disease."

Additionally, Associate Researcher Joseph Faisan said that "ice-ice" disease outbreaks

are often triggered by extreme environmental conditions such as temperature fluctuations, salinity variations, unfavorable pH levels, and siltation. The signs include the whitening of the seaweed thallus, culminating in disintegration and decay.

After thorough cleansing, the propagules are kept for 15 days in a two-liter culture bottle with UV-treated water and sodium nitrate that serves as a fertilizer. Afterwards, the cultures are scaled up in 3-liter, 5-liter, and 10-liter containers in the laboratory before they are transplanted to a sea cage nursery. [a](#)

SEAFDEC/AQD trains MAFAR-BARMM staff for sustainable agri-fishery growth

● NYRA ARMADA

SEAFDEC/AQD recently conducted a training session spanning from 20-23 Feb. 2024 in Bongao, Tawi-Tawi, aimed at bolstering the expertise of the Ministry of Agriculture, Fisheries, and Agrarian Reform-Bangsamoro Autonomous Region in Muslim Mindanao (MAFAR-BARMM) staff. The training, which included lectures and hands-on sessions, catered to 28 MAFAR-BARMM personnel, and focused on high-value marine species like grouper and abalone. 🐠





Andrew Agassi Uy, an on-the-job trainee, performs serial dilution for bacterial enumeration at the Molecular Endocrinology Laboratory. Photo courtesy of Training Section

BS Biology students gain practical experience at SEAFDEC/AQD labs

● NYRA ARMADA

LAST January and this February, four BS Biology students specializing in the Microbiology Track from the West Visayas State University signed up for the on-the-job training program at SEAFDEC/AQD.

Assigned at the Fish Health Laboratory of the Research Division, the students were given the opportunity to put into practice the skills, theories, and concepts they've acquired from university.

SEAFDEC/AQD's training program is designed to cater to students of fisheries and related fields to satisfy school requirements. This is to provide them with hands-on experience and practical skills in aquaculture by allowing them to assist in ongoing research and verification activities at SEAFDEC/AQD stations. [a](#)

PAO staff enhance skills in crab hatchery operations

● NYRA ARMADA

FROM 9 to 31 Jan. 2024, three personnel from the Iloilo Provincial Agriculture Office embarked on an internship program at SEAFDEC/AQD Tigbauan Main Station. The initiative aimed to bolster the technical knowledge and capabilities of the staff regarding

crab hatchery operation and management practices.

This training was held after the Iloilo Provincial Government, through the Provincial Agriculture Office-Fisheries Division, oversees the operation of a Blue Swimming Crab Hatchery project at the

Northern Iloilo State University (NISU) in Concepcion, Iloilo. The project, conducted in collaboration with SEAFDEC/AQD and BFAR-6, is part of the stock enhancement initiative geared towards conserving the blue swimming crab population in the Province of Iloilo. [a](#)



The multi-species marine hatchery aims to increase aquaculture production and provide livelihood opportunities for the local fisherfolk. *Photos by JA Tugo*

Multi-species marine hatchery rising in Surigao del Sur

● NYRA ARMADA

SEAFDEC/AQD staff provided technical assistance to the Bureau of Fisheries and Aquatic Resources-CARAGA in the plumbing and installation of equipment at the multi-species marine hatchery under construction in Hinatuan, Surigao del Sur last 19 Jan. 2024.

The establishment of the hatchery in the town of Hinatuan was established through Republic Act No. 10944, with SEAFDEC/AQD being one of the agencies responsible for conducting the feasibility study. [a](#)



aqd matters

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

Issue editor:
NG Armada

Contributing writer-photographers:
JF Aldon, EV Antolino, NG Armada, RD Dianala,
DM Jumilla, RH Ledesma, JA Tugo

Editor-in-Chief:
RD Dianala

Publications Review Committee:
Dr. LD de la Peña, Dr. JP Altamirano,
Dr. EC Amar, Dr. RE Mamaug

Circulation to friends of AQD:
E Nemiz

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



A SEAFDEC/AOD employee holds freshly harvested milkfishh at the Dumangas Brackishwater Station in Dumangas, Iloilo. *Photo by NG Armada*

Dumangas Brackishwater Station yields bountiful milkfish, pompano harvest

● NYRA ARMADA



The employees pack the pompano for distribution. *Photo by NG Armada*



Pompano, highly valued for its meat quality and market price, is among the species cultured by SEAFDEC/AOD. *Photo by NG Armada*

SEAFDEC/AOD's Dumangas Brackishwater Station, nestled in the coastal town of Dumangas, Iloilo, harvested nearly two tons of milkfish on 21 Feb. 2024.

Scientist Dr. Roger Edward Mamauag said that the milkfish were originally stocked as biomanipulators for a tiger shrimp pond harvested in September 2023

This, he said, shows the additional returns from the biomanipulation component of the environment

friendly scheme adopted by SEAFDEC/AOD for the pond culture of shrimp.

On the same day, approximately one ton of pompano was also harvested after seven months of culture. The harvest was part of the research center's verification studies on the brackishwater pond culture of pompano. 