



# AQD Matters

In-house newsletter of the SEAFDEC Aquaculture Department, Tigbauan, Iloilo



With schoolkids in traditional color, it was a festive welcome for US Ambassador Kristie Kenney and BFAR Director Malcolm Sarmiento when they came to Bongao, Tawi-tawi on August 30. A visit to the multi-species hatchery (top right) in Brgy. Latu-latu was part of their agenda. There, AQD Chief Dr. Joebert Toledo briefed Ambassador Kenney on the technical aspects of the hatchery

## AQD helps build a multi-species hatchery in Tawi-tawi

**T**he multi-species hatchery is two years in the making, the agreement to build signed August 23, 2005.

AQD's tasks were technical assessment and site evaluation, preparation of the layout and design of the hatchery, and provision of experts and technicians to train and assist the beneficiaries.

BFAR provided the funds amounting to P10 million and helped in site evaluation.

PFDA provided detailed plans and specifications based on AQD's hatchery design and assisted BFAR in the supervision and monitoring of the hatchery's construction.

BFAR-ARMM Regional Office was assigned to assist in the over-all project implementation, site selection, acquisition of

mature multi-species broodstock, and organizing trainings, technology transfer and extension services in coordination with concerned agencies.

It is envisioned that the multi-species hatchery could service the fry and fingerling requirement of growers of high-value

species in the area and at the same time boost the activities of the Agri-Business Program being implemented by DA and BFAR.

Guests who visited the multi-species hatchery

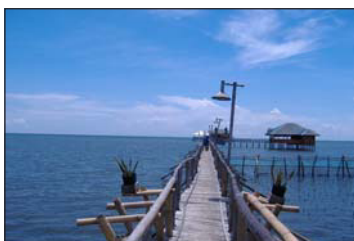
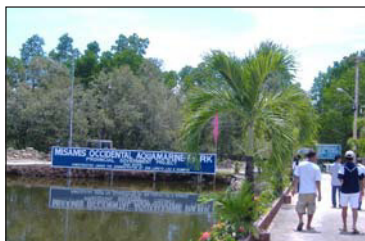


TOP to BOTTOM The short program; Dr. Toledo and Ambassador Kenney stock grouper and look at the abalone with Director Sarmiento; and Dr. Toledo explains some technical aspects of the multi-species hatchery to the American guests

on August 30 included US Ambassador to the Philippines Kristie Kenney and BFAR Director Malcolm Sarmiento. AQD Chief Dr. Joebert Toledo was on hand to brief Ambassador Kenney on the technical aspects of the hatchery.

**Why in Tawi-Tawi?**  
Noted for its vast marine resources, pristine waters and favorable weather conditions, the island province (specifically in Brgy. Latu-Latu, municipality of Bongao) is an excellent site for the multi-species hatchery.

What are the other benefits of the project? In addition to the projected increase in job generation, the multi-species hatchery is also seen as an aid in increasing Tawi-tawi's contribution to the food security program of the country. - RP GUARIN



PHOTOS BY RM COLOSO

L-R Welcome sign to MOAP; Dr. Coloso and Mr. Gaitan meet with the media; the boardwalk to the MOAP offshore restaurant; and the park's tilapia cages

## AQD to partner with Misamis Occidental

**T**wo AQD personnel went to Misamis Occidental bearing tidings of new aquaculture ventures.

On the invitation of Gov. Loreto Leo Ocampos, Dr. Relicardo Coloso, head of AQD's marine fish program, and Mr. Albert Gaitan, head of Igang Marine Station, visited Misamis Occidental Aquamarine Park (MOAP) located in Libertad Bajo, Sinacaban last August 22-24. The provincial government is planning to add a hatchery-nursery facility for marine fishes and a small- to medium-scale feed mill at the MOAP.

They were given a guided tour of the MOAP by its manager, Mr. Manolito Yap, which gave them an opportunity to survey the site of the proposed facilities. Conveniently enough, Mr. Gaitan had already given

them an advance copy of the layout and floor plans.

Given the information afforded them, Dr. Coloso and Mr. Gaitan were able to come up with suggestions on where to put up the hatchery/nursery facility, including the sourcing of seawater from the bay and laying out the outlet for wastewater. To take advantage of the province's capability to supply corn and copra meal, they also proposed a small- to medium-scale feed mill for making extruded feed mill capable of making extruded feeds and larval feeds.

Also brought up was the possibility of putting up a laboratory facility (for the proximate analysis of feeds and water and soil analysis) and a fish health laboratory.

Given that mangrove red snappers from juveniles to adults have been spotted at the deeper

portions of the bay, additional floating net cages for marine fishes were also put forward as an option.

A very busy three-day visit it was indeed, as Dr. Coloso and Mr. Gaitan also gave interviews to the media and delivered short remarks at a seminar for fish farmers. They also plan to make subsequent visits to the site if the project pushes through. Mr. Yap was given an invitation to visit AQD and send their technicians to train on marine fish seed production and feed milling.

Presently, MOAP has hatchery/nursery concrete tanks for marine and freshwater fishes. The park also maintains the Dolphin Island where tourists could see dolphins and blue marlins, a wildlife sanctuary, mini-zoo, and an ostrich farm, in addition to its hotel and restaurant.

- RP GUARIN

# Seeding fish for nature and for profit

## Bighead carp at Dumarao in Capiz

The fish came all the way from SEAFDEC/AQD's freshwater station in Rizal where they were raised.

Of the 2,000 size-22 bighead carp, 200 didn't make it due to transport stress; but the rest, after a layover in Tigbauan, found a new home in the freshwater impoundment of Dumarao, Capiz in the morning of August 22.

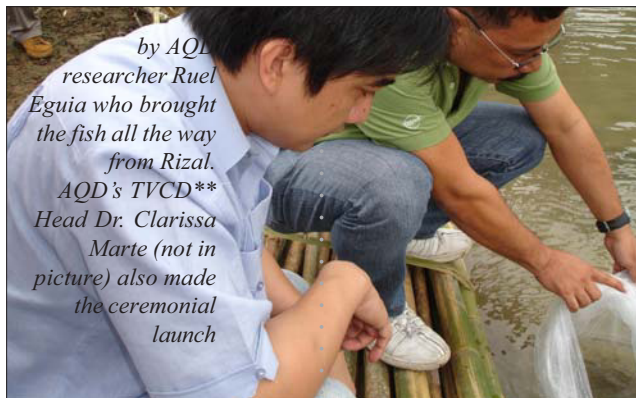
These carp were ceremonially seeded to launch the second phase of the Capiz ICD-SA\* project.

Comments Mayor Leslie Warren Benjamin: "Our town is known for its goats and native chicken, and we hope it'll come to be home to carp and tilapia, too. We are very happy to have SEAFDEC as a development partner."

AQD and its project partners, Capiz Province and LGU-Dumarao, hope to make aquaculture an alternative livelihood for displaced farmers whose rice plots were inundated by the backwaters of a small dam.



Hon. Benjamin of Dumarao releases the bighead carp to the Badbaran Communal Irrigation site and is assisted



by AQD researcher Ruel Eguia who brought the fish all the way from Rizal. AQD's TVCD\*\* Head Dr. Clarissa Marte (not in picture) also made the ceremonial launch



AQD Chief Dr. JD Toledo and provincial executives sign the agreement for the freshwater phase after the seeding ceremony

"Before this bighead carp seeding," AQD's Dr. Edgar Amar says, "the impoundment has stocks of common carp, catfish, 'paki' or freshwater prawn, and tilapia." Dr. Amar conducted a pre-seeding stock assessment last August 11.

The bighead carp will be left to grow in the small dam.

Like the Roxas City phase of ICD-SA, the Dumarao phase will start with a season-long

training course on freshwater aquaculture.

It has been two years or 4-5 rice seasons since the farmers were able to fully farm their land.

"They're affected, true, but now, their livelihood alternative may even be better," notes Hon. Alex Saldo, chair of the SB committee on fisheries & agriculture. "Thanks to SEAFDEC."

Capiz Provincial Agriculturist Ms. Sylvia de la Cruz and staff also graced the event.



MTCASTANOS

This is how big one 'paki' grew in Dumarao. Residents mostly use gill net and are usually part-time fishers, catching an average 1 kg per day



Cooperative chair Mr. Abraham Hinguillo expresses high hopes

\* Institutional capacity development for sustainable aquaculture  
\*\* Technology Verification & Commercialization Division

## Milkfish at Igang in Guimaras

Some 24,000 milkfish are now swimming in one of three large 10 x 10 x 6 m cages at AQD's Igang Mariculture Park in Nueva Valencia, Guimaras.

These stock belong to four barangay beneficiaries (namely, Igang, Magamay, San Antonio and Sto. Domingo) of the Petron-funded milkfish cage culture project.

JE SALAMIDA



Led by AQD Chief Dr. Joebert Toledo and Mayor Alex Araneta (third and fourth from left, respectively), Petron, AQD and Guimaras officials and fisherfolk witness the project launch on August 17, two months after the MOA was signed for the P3.059 million Petron-AQD project



First they eloquently spoke of their hopes and expectations, then they cut the ceremonial ribbon near the fish cages and released the milkfish

Ceremonially stocked on August 17, the milkfish are expected to be harvested between December 2007 and January 2008, each one hopefully weighing half a kg and all to earn the beneficiaries an income of P50,000 in the first run.

"This project is a big opportunity for all of us," says an optimistic Ms. Felicitas Segovia, president of Brgy. San Antonio's *Samahan ng Maliliit na Mangingisda*. "Fishing is our only source of income and this project is a blessing because it will give us additional income."

Thirty (30) persons will benefit from the first crop of the three cages. Who they are would be determined by the community itself. AQD's Training & Information Division Head Mr. RF Agbayani says that it's important for the communities to be strongly organized, and they'll be doing this with the help of an NGO ~ the PBSP or the Philippine Business for Social Progress.

Meanwhile, an orientation-consultation with fisherfolk is set for early September.

The Petron-AQD project is envisioned to be expanded in the future, with part of the generated



JE SALAMIDA

income invested in high-valued fishes such as grouper and seabass. The beneficiary barangays will be expanded as well.

Nueva Valencia Mayor Alex Araneta has this to say: "The oil spill tragedy that took place a year ago has brought economic losses to our municipality. Majority of our people ~ 70 to 75% ~ who rely on fishing were badly affected as were 11 out of 16 coastal barangays."

"And with this project support, we would like to extend our heartfelt thanks to Petron and SEAFDEC," the Mayor added.

To ensure long-term project viability, a hands-on, season-long skills training will be conducted by AQD with its Mariculture Park serving as demonstration and training site.

As for marketing, the fisherfolk were assured that Alson's Aquaculture Corp. based in General Santos City has signified its intention to buy all the harvest.

# Training for fisherfolk

## Mudcrab culture for north Samar

*AQD staff and trainees with Mr. Herbert Gichengo Muhia, the Kenyan Rural Livelihood Adviser of MODE*



*AQD's Eduard Rodriguez and RF Agbayani with UEP President Dr. Mar de Asis and ACE Manager Ms. Tess Ecamina*

*Dr. Emilia Quinitio (rightmost) at the proposed nursery site in Lao-ang, Catarman (see also middle photo above)*

The ICD-SA project on *Enhancing adoption of mudcrab technologies* has reached eastern Philippines through the *Season-long training course on mudcrab culture* and an *Initial site assessment* in Northern Samar.

### Season-long course

The training last July 24-26 was attended by 33 potential beneficiaries from the four municipalities of Lao-ang, Pambujan, Lavezares and Rosario. It was held at the Farmers' Training Center, University of Eastern Philippines (UEP) in Catarman.

Like the previous season-long courses in Capiz, there was a combination of lectures and practical sessions. The SEAFDEC/AQD instructors included Mr. Renato Agbayani, TID Head; Dr. Emilia Quinitio, mudcrab program leader; Dr. Mae Catacutan, AQD's consultant on feeds; Mr. Eduard Rodriguez, research specialist; and Ms. Ruby Bombeo, training specialist.

They tackled community-based aquaculture and aquatic resources; overview of the mudcrab industry; biology of mudcrab; feeds and feeding management; post-harvest and marketing; simple cost and returns analysis; and policies & ordinances related to the project. Also, the critical issue on the use of coastal resources (including mangrove forests) by the beneficiaries was discussed.

For the practicals, trainees conducted/performed feed computation and preparation. AQD brought along the feed ingredients and cooking paraphernalia.

### Site assessment

After the training, a 2-day site assessment in the four municipalities was conducted. It included the bio-physical and socio-economic conditions of the areas. It appears that Lao-ang and Lavezares have seasonal income sources.

### Project management

The AQD team also set a meeting on July 30 with the project implementors to discuss and clarify conceptual framework, working organizational structure, and the flow of communication.

The project is jointly implemented by AQD and the Action for Community Empowerment (ACE), and funded by the International Agricultural Research (ACIAR) through CATP (Community Agricultural Technologies Project). The other participating NGOs are Aspiring for Community Empowerment through Livelihood Loans and Trainings (ACELT) and Management & Organizational Development for Empowerment Inc. (MODE).

There's also four people's organizations involved: Bayog Valley Farmer's Multi-Purpose Cooperative (BVFMPCC), Camparangan Fisherfolk Association (CFA), Mangrove Crab Producers Association of Rosario (MACPAR), and San Miguel Mudcrab Association (SMMA).

Overall, the project aims to promote the use of appropriate and viable technologies as a source of food and livelihood to the beneficiaries; and to formulate policies that will ensure access and use rights of the aquatic resources where mudcrab culture and other potential aquaculture activities can be undertaken.



PHOTOS BY RF BOMBEO

## Consultation-workshops

### Abalone sea-ranching at Anini-y

A consultation workshop with school heads and local officials of 17 coastal barangays of Anini-y, Antique was held at the Siraan Hot Spring in Anini-y last August 21. The topic is the searanching of abalone project of SEAFDEC/AQD in collaboration with the Anini-y LGU.

Mr. Pet Rubite, the Municipal Agricultural Officer (MAO) welcomed the AQD staff. After him, AQD's training-information head Mr. Renato Agbayani gave an overview about AQD, its structure and organization, and followed this with a presentation of

CBCRM (community-based coastal resources management) as a tool towards effective management of coastal resources.

He explained the factors that influence degradation of coastal resources and continuing decline of fish catch and the mitigating measures to at least minimize if not totally stop destructive means of fishing.

Mr. Armando Fermin, AQD project leader, discussed the terms and conditions stipulated in the agreement formally sealed last July 24.

At the open forum, most questions trickled

down to the profitability of the project to the local community. The teachers showed enthusiasm about the project and vowed to help in information dissemination through their students. Ms. Clemencia Castillo, Assistant MAO, thanked AQD for bringing in projects that will help uplift the economic situation of the people of Anini-y.

More than 100 participants attended the consultation which ended at about 1:00 pm. Ms. Eva Aldon, socioeconomics researcher, facilitated the meeting.

- DIANNE HOPE TORMON



### Grouper writeshop

Leftmost is Dr. David Swetekelly of PACAP\* who, on August 25, assisted SEAFDEC/AQD's top management, the staff of Gakadaku Multipurpose Cooperative, and the Misamis Occidental Provincial Office to write a proposal on grouper for funding by ACIAR (Australian Centre for International Agricultural Research).

Ms. Sheilah Vergara, Program Administrator of the Community Agricultural Technologies Project (CATP) based at the International Institute

AQD senior managers (AQD Chief Dr. JD Toledo, TID Head Mr. RF Agbayani, TVCD Head Dr. CL Marte, and RD Head Dr. EG de Jesus-Ayson) and researcher Mr. RSJ Gapasin join PACAP in proposing a grouper project

of Rural Reconstruction (IRR), also assisted in the workshop.

In addition to the project proponents, government agencies such as BFAR, DTI, DENR and the local government units of Mis Occ will be made part of the proposed project.

Three municipalities are identified as target beneficiaries: Sinicaban, Jimenez and Panaon. These communities are

mainly composed of women and marginalized fisherfolk.

In the short term, the project aims to transfer improved grouper technologies to give more economic opportunities, environmental sustainability and equity for fisherfolk in Mis. Occ.

In the long term, the project wants to see sustainable enterprise and techno-transfer among LGU and NGO communities in the province.

\* Philippine-Australia Community Assistance Program

## Best aquaculture practices

The DA-Bureau of Agriculture and Fisheries Product Standards held its third public consultation on the *Certification for Best Aquaculture Practice* (BAP) on 15 August at the Dagupan Garden Hotel in Pangasinan.

This was the last of the series with previous consultations held in Zamboanga in March and in Iloilo in July.

Director Nestor Domenden of BFAR Region I was there to welcome the participants.

Then, Ms. Remely Lachica (OIC of Planning, Monitoring & Evaluation Division, DA-BFAR 1) presented an overview of the aquaculture industry while Ms. Karen Kristine Roscom (Chief of Standards Services Division, DA-BAFPS) talked about product standards.

Dr. Malou Aralar of AQD, also a member of the Technical Working Group for BAP, presented the draft guidelines and the proposed code.

Participants included aquaculturists, academe, extension workers, local governments, feed manufacturers, and BFAR regional staff. They expressed their apprehensions, asked questions and clarifications as well as suggested revisions.

The next step after the consultations with stakeholders is the issuance of an Administrative Order by the DA Secretary Arthur Yap. - **MLC ARALAR**

## Benchmarks for BS fisheries

The Commission on Higher Education is conducting a series of workshops to improve the quality of courses being offered by universities and colleges. Included among these is the BS Fisheries program.

As a first step, there was revision of existing curriculum as well as benchmarking of the program. This was done August 17-18, 2007 at the

Legends Hotel in Pasig by the deans of various universities and colleges offering the BS Fisheries course, representatives from NFRDI, Worldfish Center, and SEAFDEC/AQD. Dr. Malou Aralar represented the AQD Chief.

Using the matrix of competency standards for a BS Fisheries graduate, the participants reviewed the current BS Fisheries curriculum offered by local SUCs and compared them with those offered in the U.S. and China.

Among the revisions suggested were: reducing the social science units, increasing units in English communication, adding courses like Aquatic Flora and Fauna, Aquatic Ecology, Remote Sensing, GIS and similar courses, Project Development and Entrepreneurship, Calculus, replacing Statistics with Biostatistics.

These "new" courses were then fleshed out in the workshop with each group of participants coming up with appropriate course title, description, objectives, number of units for lecture and laboratory, contact hours per week, prerequisites and co-requisites, lecture and laboratory topics as well as equipment and reference materials necessary for the course.

Dr. Tereso Abella of CLSU is the Chair of the Task Force on Benchmarking of BS Fisheries and Dr. Samuel Mancebo is the Chair of the Technical Working Group on CHED Benchmarking. Dr. Mancebo chaired the workshop.

Other members of the task force are Dr. Catalino de la Cruz of DA-BAR and Mr. Teofilo Rivera from the private sector.

- **MLC ARALAR**

*This group is improving the undergraduate fisheries curriculum*



## Grand tours at AQD



**F**rom Misamis Occidental was Governor Loreto Leo Ocampo who visited August 8. He was briefed by the Chief Dr. JD Toledo on AQD's programs and toured around the main station. Governor Ocampo (middle, top photo) also visited Igang Marine Station.



**F**rom Bangkok, Thailand was Mr. Sih Yang Sim, the coordinator of NACA's marine fish aquaculture program. He visited from 6 to 9 August, meeting with Research Division Head Dr. EG de Jesus-Ayson and training staff to iron out the proposed collaborative training course on grouper hatchery for small-scale operators in the Philippines. Other than the stations in Tigbauan and Binangonan (left, 2nd photo), AQD also arranged for Mr. Sim to see private fish hatcheries like ISDA's and Jamandre's in Iloilo.



**F**rom Kalibo, Aklan were Mayor Rebaldo and three Sangguniang Bayan members who visited August 13 to 14. The visit was a result of the Kalibo meeting last July 18 of TID Head RF Agbayani and Dr. JHL Ramos with the local executives. The AQD Chief then offered to host their accomodation for free.

THANKS TO C. GENZOLA FOR THE VISITOR INFO

**F**rom Israel was Dr. Micha Peled, Quality Assurance & Product Development Manager of Starkist Food d'Or Ltd in Ramat-gan, who visited on August 18. He was particularly interested in grouper hatchery. He visited AQD to see and buy grouper broodstocks.



**F**rom the University of Tokyo, Japan were Dr. Helen Marcial and Dr Shugo Watabe who visited AQD and also gave research seminars on August 10. Their topics: *Rotifer as model animal for ecotoxicological studies* and *Biochemical-molecular biological studies on muscle proteins of aquatic organisms*, respectively.

Afterwards, AQD Deputy Chief Dr. Hiroshi Ogata gave them certificates of appreciation.

Dr. Marcial was a technical assistant at AQD from 1993 (Farming Systems Section) through 1999 (Fish Health) before she left to pursue her advanced degrees in Japan. She's presently a Research Fellow at the Laboratory of Aquatic Molecular Biology & Biotechnology, Graduate School of Agricultural & Life Sciences, University of Tokyo.



**F**rom the University of the Philippines in the Visayas (UPV), Miag-ao, Iloilo were 15 third-year economics students (above) who visited August 1 with Professor Dr. Rodelio Subade. They wanted exposure to new technologies in aquaculture.

The activity, a.k.a. lakkbay-aral, is yearly and aims to orient students on various commercially important aquaculture species.

Another batch of 20 visited AQD on August 29. Dr. Gerald Quintio, a former AQD researcher and now a professor at UPV, brought his Fisheries 101 class (Aquatic Flora and Fauna).



# Where's the FishWorld curator? On the USS Albatross, that's where!

By TU Bagarinao

**D**oris Bagarinao turned 50 last year and she rewarded herself with a ticket to travel back in time 100 years—back to the USS Albatross as it crisscrossed the Philippine archipelago in search of gold and glory for the then emerging empire of the United States. Seriously. Well, the now only superpower is paying for her round-trip ticket. Through the Fulbright Visiting Scholar Program of the US Department of State. To live at the Nation's Capital, no less. And work at the Smithsonian Institution, too, for five months!! A 50<sup>th</sup> anniversary can't be any more special than this!

Now the time travel begins. Just over a hundred years ago, relations between the Philippines and the United States started with a bloody war but in 1907-1910, the United States accomplished something the Philippines should forever be thankful for—the USS Albatross Philippine Expedition. The USS Albatross was the world's first large deep-sea oceanographic and fisheries research vessel, and the Philippine Expedition became the first scientific exploration of the archipelago and the largest biodiversity collection from Philippine waters. About 100,000 fish specimens and countless invertebrates, reptiles, birds, and mammals were collected, processed, studied, written about, and deposited at the Smithsonian Institution's



National Museum of Natural History in Washington DC. The alcohol-specimens are in excellent condition, 100 years on, and they are accessible to all people and for posterity.

The USS Albatross expedition is highly significant for the Philippines. The Philippines' reputation as a megadiversity country may well be because marine biodiversity was so well documented by the USS Albatross expedition. The Albatross explored waters that had never been sampled before and, in many cases, have never been sampled again. Some of the fishes taken by the Albatross have never been collected since. Many of the Philippine species now catalogued at the Smithsonian are not even found in the Philippine National Museum. The Smithsonian scientists produced scientific papers that underpin much of taxonomy in the Philippines and the entire Indo-Pacific. The taxonomy and the scientific names may have changed with further

research and the necessary revisions over the years, but the original specimens and descriptions still exist for verification. Unfortunately, only a few (senior) Filipinos know about the USS Albatross Philippine expedition. Pop quiz: Do you?

One of the many huge gaps between the Philippines and the United States is in the area of natural history museums. Gaps exist in the quantity and quality of the biodiversity collections, the taxonomic research conducted and published, the public education and entertainment provided, and the national pride engendered. Having enjoyed and learned much from US museums, I sought to provide opportunities for other Filipinos to experience museums. Outside the National Museum in Manila, this meant starting from scratch. Dr. RR Platon, AQD Chief from 1996-2006, set up SEAFDEC FishWorld in 2000 and I have worked hard to fill it up with good specimens, educational programs and materials, recreation value, and national pride. The visitors appreciate FishWorld, but I know I still have a lot to learn in order to give more. One of the questions I want to get answers for and teach Filipinos about is: How did the USS Albatross Philippine Expedition accomplish its job 100 years ago?

The centennial of the USS Albatross Philippine

- Expedition provides an opportunity for me to collaborate with Smithsonian scientists on a research project of mutual interest and benefit.
- During the next five months, I will study the biological collections, the research publications, and the history of the USS

- Albatross Philippine Expedition, and write a book that informs both the American and Filipino general public about the enormous biodiversity in the Philippines and the great scientific achievements of that expedition. I will be working mainly with Dr.

- David Smith and other curators at the Division of Fishes, National Museum of Natural History. As part of the project, I have to share my experiences and findings during the time travel, so you will hear from me every month. Please join me. ALL ABOARD!!!



## 'Sinabawan' on the Wall

Visitors to FishWorld could not possibly miss the two large murals adorning the walls at the rear of the museum-aquarium visitor center.

One of the murals is a vibrant and colorful painting entitled *Sinabawan*. It features a large fish surrounded by people holding soup bowls. Opposite this is another mural featuring accurate and detailed paintings of different aquatic organisms.

Unknown to most is that the artist behind the magnificent murals is an 18-year old BA Literature student from the University of the Philippines in the Visayas. Andrea Bagarinao is the niece of Dr. Doris Bagarinao, the curator of FishWorld. She was commissioned by her aunt to give life to the once plain walls of FishWorld.

- RD DIANALA

Contributions from AQD employees are always welcome!  
Please send text separately from the photo/s.  
If possible, photo quality should be not lower than 300 dpi.

**AOD Matters** is published by the  
Development Communication Section  
Training and Information Division  
Tigbauan Main Station in Iloilo

Editors this issue:  
JE Salamida & MT Castanos

Editorial consultants  
MT Castanos  
RF Agbayani

Thanks to our colleagues who provided facts, images, and support. *Salamat din sa mga reviewers! Sa uulitin po!* ;+>

## Newly-released, AQD-authored research papers

- Ayson FG, de Jesus-Ayson EGT, Takemura A.** 2007. mRNA expression patterns for GH, PRL, SL, IGF-I and IGF-II during altered feeding status rabbitfish, *Siganus guttatus*. *General and Comparative Endocrinology* 150:196-204
- Basiao ZU.** 2001. Genetics research at the Southeast Asian Fisheries Development Center/Aquaculture Department. *In: Gupta MV, Acosta BO (eds.). Fish Genetics Research in Member Countries and Institutions of the International Network on Genetics in Aquaculture. ICLARM Conf. Proc. 64; ICLARM: Penang, Malaysia: p 141-144*
- Lebata MJHL, Le Vay L, Primavera JH, Walton ME, Biñas JB.** 2007. Baseline assessment of fisheries for three species of mud crabs (*Scylla* spp.) in the mangroves of Ibajay, Aklan, Philippines. *Bulletin of Marine Science* 80:891-904
- Le Vay L, Carvalho GR, **Quinitio ET, Lebata JH, Ut VN, Fushimi H.** 2007. Quality of hatchery-reared juveniles for marine fisheries stock enhancement. *Aquaculture* 268:169-180
- Primavera JH, Altamirano JP, Lebata MJHL, de los Reyes AA Jr, Pitogo CL.** 2007. Mangroves and shrimp pond culture effluents in Aklan, Panay Is., central Philippines. *Bulletin of Marine Science* 80:795-804
- Walton MEM, **Samonte-Tan GPB, Primavera JH, Edwards-Jones G, Le Vay L.** 2006. Are mangroves worth replanting? The direct economic benefits of a community-based reforestation project. *Environmental Conservation* 33:335-343
- Walton ME, Le Vay L, **Lebata JH, Binas J, Primavera JH.** 2007. Assessment of the effectiveness of mangrove rehabilitation using exploited and non-exploited indicator species. *Biological Conservation* 138:180-188
- Yap WG, Villaluz AC.** 2006. Chapter 15: Practices and economics of successful shrimp farms in the Philippines. *In: Leung PS, Engle C (eds.). Shrimp Culture: Economics, Market and Trade. World Aquaculture Society: Blackwell Publishing; Iowa, USA: p 223-237*

## AQD staff tutor Parara pupils

**K**udos to AQD's Journal Club members who are spending their Sunday afternoons to tutor Grade V pupils at the Mayor Eugenio Torrento Memorial Elementary School in Parara, Tigbauan, Iloilo!

To date, the club has taken 30 pupils under its wing. These pupils were

selected by Ms. Marlyn Temelo, Grade V (orchid class) adviser, to receive enrichment classes in mathematics, science and reading. The tutorials are done individually or by group with educational games.

Organized by club vice-president Ms. Josette Gonzaga, the activity

started August 26 and will end December 9.

More volunteers are still needed since at least five must attend to every 5-6 pupils every week. Please contact Mr. Stephen Alayon, club president, or Ms. Gonzaga, if you're interested in volunteering.



Tutorials at Parara Elementary by (L-R) AQD's Christine Tabaldo, Jimmy Salamida, and Joseph Binas

## Footnote to Palaro 2007

**T**eam Mint Green (led by AQD Chief Dr. JD Toledo) and Team Rust (led by AQD Deputy Chief Dr. Hiroshi Ogata) jointly celebrated their victories on August 15.

The cash prizes won by both teams and cash donations from AQD staff were spent on snack food. While teamsters were digging in, a slideshow presentation of *Palaro 2007* images was shown.

Congratulations, everyone, for games well played!

### Acknowledgments

The *Palaro 2007* organizing committee was chaired by Dr. RM Coloso

with members Nancy Acdol, Lota Alpasan, Ritchelle Bautista, Christopher Sumbito, Zaldy Zuriaga, and Reynaldo Tuburan. The games were played from July 9 through 27 as one of the highlights of AQD's 34th anniversary celebration.

The committee thanks the following donors: (1) Makinaugalingon Printers & Bookbinders; (2) Atlaska Commercial; (3) Iloilo Paint Center; (4) Buen Viaje Tire Group; (5) Feline's & Robmar Buensuceso; (6) Northern Iloilo Lumber; (7) AIM Merchandising; (8) Uni-Art Supply; (9) ASSET; and (10) New Life Commercial.



## Fare thee well, Richard, Joe, Gerlinde, and Tim

**F**our young people from different countries completed their internships. Fare thee well, friends:

**Richard Le Boucher**, 23, of Saint Malo, France, had his on-the-job training (OJT), from 15 March-30 August doing hatchery work at the integrated fish broodstock-hatchery complex, crustacean and integrated mollusk hatcheries; laboratory work at the fish health and chemical analytical laboratories; and grow-out culture and fishpond management at the Dumangas station.

Before AQD, Richard worked in shrimp and eel farms. He studied at Ecole Nationale Supérieure d'Agronomie de Rennes.

**Joseph Eslao**, 20, a junior at the University of Connecticut in the USA, spent his OJT, from 6 June to 27 July, working at the biotechnology and fish health laboratories. He was also able to assist

AQD researchers working on fish biology & taxonomy; coastal resources management; socioeconomics; and stock enhancement activities.

Joe had said he enjoys debating law and creating financial plans.

**Gerlinde Schaeffter**, 19, an incoming biology freshman at the University of London in the UK, did her OJT from July 11 to 31. She did seahorse hatchery for 3 days; laboratory work at Fish health and Biotech laboratories; and got acquainted with the marine organisms at Fishworld.

She wanted the AQD internship to enrich her vacation in the Philippines, having recently graduated from the ISF International School in Frankfurt, Germany.

**Timothy Andrew Whitton**, a 4th year BS Marine Biology student at the University of Wales in the UK, worked with the stock enhancement team headed by Dr. Junemie Ramos. His internship, from June 18 to August 10, also enabled him to visit stock enhancement project sites.



## KPMG briefing

KPMG principal Mr. Mariano Lucero (at right) explains AQD's new position classification scheme on August 8 to a general assembly of employees. KPMG was given the contract to study AQD's staffing structure last year.



## Hasta la vista, Dr. Felix and Dr. Neila

**F**riends and colleagues turned up for the potluck lunches arranged for Dr. Felix Ayson and Dr. Neila Sumagaysay-Chavoso who left AQD June 30 and July 31, respectively.

Dr. Ayson takes up the post of Senior Scientific Adviser to the Kingdom of Saudi Arabia while Dr. Chavoso emigrates to Vancouver, Canada with her husband. The best to both!



Dr. Ayson (top, middle) with the hatchery boys; Dr. Chavoso (seated, in white) listens to AQD Chief Dr. JD Toledo

CLOCKWISE Tim (center) at his despedida party on August 8 with the stock enhancement team; Eslao playing for the green team in the sack race during the Palaro 2007; Richard at the training office; and Gerlinde during the aquaculture week at FishWorld



## Welcome James, Zara, and Caroline

**T**he AQD community welcomes three new interns.

**James Dorricott** and **Zara Toledo**, both British nationals, are working with the stock enhancement team (August 21 through November 19). They are fresh graduates with a BS Geography degree from the University College London. They will also work with Dr. Jurgenne Primavera on mangroves, and are scheduled to work at the abalone and seahorse hatcheries.



**Caroline Danielle Laursen**, 25, an MSc Aquaculture & Fisheries student at the Wageningen University in the Netherlands and a BS Marine & Environmental Biology graduate from the University of St. Andrews in Scotland, is due to start her internship on September 3 through December 21 at the milkfish and shrimp hatcheries.