AQUA Dept NEWS
Internal Newsletter of the SEAFDEC Aquaculture Department
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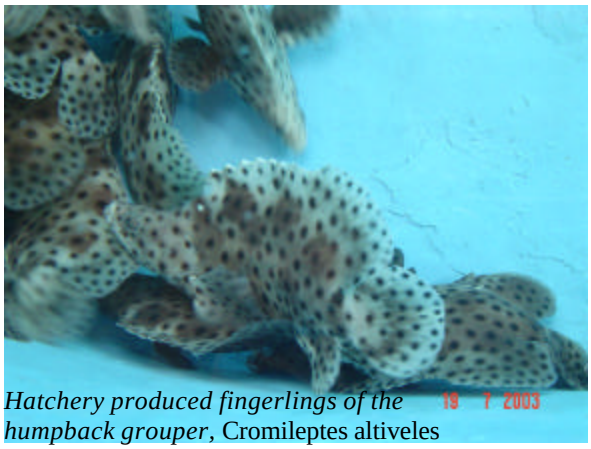
Department Chiefs meet

Dr. Rolando Platon attended the Meeting of SEAFDEC Department Chiefs in Bangkok, Thailand held from July 28 to 29. The Meeting discussed the operational and financial matters of the Center, followed-up outcomes from SEAFDEC Annual Meetings, and discussed activities to be undertaken by Secretariat and Departments in the future.

The agenda of the meeting included (1) outcomes of the Secretary-General's visit to Japan, (2) special event to commemorate the ASEAN-Japan Year 2003, (3) outcome from the 5th Meeting of the Information Staff Exchange Program, (4) follow-up actions to the outcomes of the 25th Program Committee Meeting, the 5th ASEAN-SEAFDEC FCG Meeting, and the 35th Council Meeting, (5) Proposed collaboration with Food and Agriculture Organization (FAO) and Coordinating Working Parties (CWP), (6) SEAFDEC quarterly progress report, (7) proposed plan for the 2nd phase of the Special Five-Year Program, and (7) information on policy and plan for Japanese Trust Fund Activities.

Grouper culture takes off in Indonesia

By. W.G. Yap



Hatchery produced fingerlings of the humpback grouper, Cromileptes altiveles

Grouper culture has taken off in Indonesia after the Gondol Research Institute of Mariculture (GRIM) of the Ministry of Fisheries and Marine Affairs in Bali succeeded in converting their grouper research to a commercially viable technology. This started when the Institute succeeded in breeding the humpback grouper, *Cromileptes altiveles* sometime in the late 1990s under the JICA-assisted Multi-Species Hatchery Project (1994 to 2001). With so much extra grouper eggs available which could not be accommodated in the Institute's larval rearing tanks, some of the many milkfish hatcheries dotting the Singaraja coastline gave it a try. The pioneering hatcheries, it should be noted, are

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AQD celebrates Aquaculture Week

AQD celebrates aquaculture week from July 28 to August 1. Students from elementary and secondary schools participated in this yearly activity.

The activity aimed to build understanding among schoolchildren and teachers of the importance of aquatic ecosystems and biodiversity, and the research and development of AQD.

This year's winners are the following:

Contests for High School students

Painting

1st prize: April Rose Drilon
Coach: Ofelia Lingaya
Colegio del Sagrado Corazon de Jesus

2nd prize: Lynne Brasileño
Coach: Laurence Calambro
Philippine Science High School, Western Visayas

3rd prize: Melkie Villalobos
Coach: Geralyn Landrito
Leon National High School

Ecology and aquaculture quiz

1st prize: Edryan Paul Colmenares
Coach: Angelo Olvido
Philippine Science High School, Western Visayas

2nd prize: Lean Robert Gonzaga

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Grouper culture...from page 1

owned by Institute personnel who took it upon themselves to practice what they preach and invested in backyard scale hatcheries.

A survey conducted by Shogo Kawahara, JICA expert and Suko Ismi of GRIM shows that in 1999 there were five hatcheries engaged in grouper seed production. After doubling in number in 2000 the number increased sharply to 123 in 2001. Apparently many dropped out and the number fell to 68 in 2002. Bali has the largest number with 55 with the 12 others found in the provinces of East Java (7) and Lampung (6). Most of the hatcheries are classified as small (52) with 7 classified as medium and 9 large. Small means hatcheries with less than 5 people, medium 5 to 10, and large, more than 10 people.

Starting with only 186,100 fingerlings produced in 1999, this has increased to more than 3.3 Million in 2002. The largest number consisted of tiger grouper, *Epinephelus fuscoguttatus* (2,656,000), followed by humpbacks, *C. altiveles* (667,800) and the orange spotted grouper, *E. coiodes* (2,200). In 1999 production of the brown spotted grouper (*E. chlorostigma*) was also reported from Lampung but was no longer reported in the years following. Value of the grouper fingerlings produced in 2002 is estimated at 14.216 Billion Indonesian Rupiah (USD1.00 =INR8,300).

Indonesia has had grouper cage culture using wild caught fingerlings since the late 1980s but this was confined to the Riau island group off Sumatra, within a short distance from Singapore. Later this expanded to Lampung province. After a pilot project launched by GRIM in Bali, many commercial cages are now found off the Singaraja coast. Periodically a boat comes in from Hongkong to purchase the fish and bring them back live.

Initially there was not much demand for the humpback grouper fingerlings because of its slow growth rate. It takes 18 months for a 10 cm fingerling to attain the 500 g size required by the Hongkong market. But the high price it fetches (reportedly $35 per kg live ex-farm) has encouraged many cage operators to grow the species as well. What makes it more convenient is the ready availability of a formulated diet from a commercial feed mill using a diet formulated by the Gondol Institute. Grouper farmers now rely totally on the pellets for their growing operation.

With such spectacular success one would think the Gondol Institute must have produced many scientific papers on various aspects of grouper culture. A quick check with the ASFA however yielded only one listing: a paper by Zafran (2000) on the occurrence of viral nervous necrosis (VNN) in the humpback grouper published in Fish Pathology. In contrast at least 13 papers on the green (or orange spotted) grouper *E. coiodes* from SEAFDEC AQD scientists turned out during the same search.

If the cells and fiber in one human brain were all stretched out end to end, they would certainly reach to the moon and back. Yet the fact that they are not arranged end-to-end enabled man to go there himself. The astonishing tangle within our heads makes us what we are.

- Colin Blakemore

Counting and sorting of grouper fingerlings

Grouper farm in Bali

AQD celebrates...from page 1

Coach: Angelo Olvido
Philippine Science High School, Western Visayas
3rd prize: Angelie Pearl Omes
Coach: Marieta Edquila
Colegio del Sagrado Corazon de Jesus

Photojournalism
1st prize: Charis Emmelyn Bautista
Coach: Jessica Gargantiel
Central Philippine University Development High School
2nd prize: Julie Mae Torrento
Coach: Norman Duga
Parara National High School
3rd prize: Novelyn Andiano
Coach: Fred Palmares
Colegio de San Jose

Collect and Document Biodiversity
1st prize: Paulo Benito Tugbang and Basil Baylon
Coach: Lorena Samentar
University of the Philippines High School, Iloilo
2nd prize: Jen Orven Zaragoza and Jessane Ann Awitan
Coach: Wilfredo Torrecampo
Colegio del Sagrado Corazon de Jesus
3rd prize: Jezreel Neri and John Ruvil Trespeces
Coaches: Josephine Andrino and Debbie Natividad
Ramon Avanceña National High School

Constests for Elementary Schools students

Painting
1st prize: Nicole Fernan Caminian
Coach: Alexandro Alabado
Colegio de San Jose
2nd prize: Denise Buenconsejo
Coach: Prof. Arturo Souribio
West Visayas State University Integrated Laboratory School
3rd prize: Chad Alfons Crucero
Coach: Joera Berte
Molo I Elementary School

Nutrition and Aquaculture Quiz
1st prize: Rosa Lea Baldevarona
Coach: Shiela Sorilla
Central Philippine University Elementary School
2nd prize: Vinie Oberiano
Sta. Barbara Central Elementary School
Coach: Dolores Suarez
Coach: Tessie Po
3rd prize: Enna Fleur Trivilegio
Kinaadman Elementary School

Bring, show, and tell
1st prize: Pauline Therese Ferrer
Coach: Concepcion Germinal
Nanga Elementary School
2nd prize: Dasmille Riola Buendia
Coach: Oliva Hosillos
Kinaadman Elementary School
3rd prize: Patrick Paul Alejandria
Coach: Corazon Esposado
Colegio del Sagrado Corazon de Jesus

Aquarium Quiz
1st prize: Zyril Reiz Solen
Coach: Jessica Superio
Sta. Barbara Central Elementary School
1st prize: Prencess Kelly Catedral
Coach: Lorelie Mae Fernandez
Leganes Elementary School
2nd prize: Aika Fore Garcia
Coach: Ofelia Lingaya
Colegio del Sagrado Corazon de Jesus
2nd prize: Doni June Almio
Coach: Adlin Lee Legada
Iloilo Central Elementary School
3rd prize: Amron Arda
Coach: Ofelia S. Lingaya
Colegio del Sagrado Corazon de Jesus

Shoot for the moon. Even if you miss it, you will land among the stars.

- Les Brown

AQD holds training course on livelihood opportunities

AQD is holding a two-week training course on livelihood opportunities on abalone, seaweeds (*Gracilaria* and *Kappaphycus*), and mud crab. Eighteen participants attend the course. The course, started on August 11, will end on August 23.

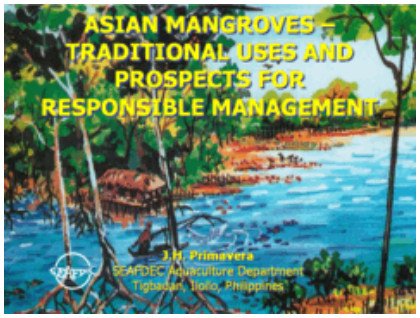
AQD collaborates with Bureau of Fisheries and Aquatic Resources (BFAR), National Program Management Center of Fisheries and Aquatic Resources Management Council (FARMC). The latter requested the course.

Participants are composed of fisherfolk representatives from different regions of the country, Secretary of Guimaras Integrated FARMC, national fisherfolk technical action officer, and staff member and chief of National FARMC Program Management Center.

The selected aquaculture technologies require low capital but with high income potential. At the end of the course, participants would be able to carry out livelihood projects in their respective areas.

The head of training section, Kaylin Corre, is the course officer.

Importance of Asian mangroves



Dr. Jurgenne Primavera presented a seminar titled "Asian mangroves: traditional uses and prospects for responsible management" on August 7 at TMS.

Asia has the highest diversity of mangroves, 56 of a total 64 true mangrove species and a greater number of associates, and the greatest concentration, 41.5%, of the world's 18 million hectares of mangroves. Hence, Asian societies have the most widely developed traditional uses of mangroves, which refer to the resource function of the ecosystem. Mangroves have also information, and regulatory functions.

Mangrove products come from fisheries – seaweeds, fish, crabs, prawns, mollusks and other invertebrates used mainly for food – and forests. Harvests from the latter include timber, firewood, tanbark for dyes, fibers and ropes, corks and floats, mats and paper. Mangrove plants also yield honey, vegetables and alcoholic beverages. Two mangrove-associated palms – the coconut and nipa – are famous for their wide variety of products including thatch for houses, cigarette wrappers, sweetmeats, coconut water and coconut milk, sugar, vinegar and alcoholic drinks. Finally, mangrove extracts rich in gums, glues, steroids, alkaloids, flavonoids, saponins and tannins are widely used as medicines.

Man-made causes of mangrove loss include culture ponds, salt beds, agriculture, settlements, harbors, and oil spills. Weak enforcement of Philippine mangrove laws is also another important factor.

Given the importance of Asian mangroves and their alarming rate of destruction, there is an urgent need for preservation of pristine forests for biodiversity maintenance and scientific studies (Protected Forest); rehabilitation of degraded areas including abandoned culture ponds (Rehabilitation Zone); and conservation (e.g., enforcement of a greenbelt or buffer zone legally mandated in many Asian countries) and responsible development of remaining mangrove areas, preferably marginal and previously altered sites, for sustained yield of forestry and fisheries products (Productive Forest). The last option includes mangrove-friendly aquaculture or aquasilviculture that integrates the rearing of aquatic organisms (e.g., crabs, fish) and maintenance of healthy mangrove trees.

Roundup

Died

Roselyn Duremdez, former scientist at Fish Health Section, in Kuwait on July 31 at around 5:00 pm (Philippine date and time). A ten-wheeler truck hit their car as they were on their way to the church.

She worked as associate research scientist at Fisheries and Marine Environmental Department, Kuwait Institute for Scientific Research.

A holy mass was celebrated, for the repose of her soul, on August 8 at TMS.

Holiday - **August 22**
to commemorate the death of Benigno "Ninoy" Aquino, Jr. on August 21, 1983

Joke

An old man owned a large farm. He had a pond in the backyard, picnic tables, horseshoe courts, basketball court, etc. The pond was fixed for swimming when it was built.

One evening the old man decided to go down to the pond, as he hadn't been there for a while and looked it over. As he neared the pond, he heard voices shouting and laughing with glee. As he came closer he saw it was a number of young women skinny-dipping in his pond. He made the women aware of his presence and they all went to the deep end of the pond.

One of the women shouted to him, "We're not coming out until you leave!"

The old man replied, "I didn't come down here to watch you ladies swim or make you get out of the pond. I only came to feed my groupers."

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