

AQUA Dept NEWS

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Research Division holds commodity meetings

AQD senior research staff members, headed by Dr. Clarissa Marte, met from January 20 to 24 to discuss and report the status of their respective research projects on important aquaculture commodities. Their outputs were presented during a plenary session on January 24.

The researchers reported on their studies being undertaken, its importance, and progress. They also presented the information gaps (areas that needed more studies), research strategies, and priority of their study (relevance to the aquaculture industry).

Some of the important aspects of aquaculture presented that needed

more research are nutrition, feeding, water management, health management, and culture condition (stocking density, substrate, culture period, seed quality) for broodstock, hatchery (larval rearing), nursery, and grow-out culture systems.

The priority commodities discussed included: catfish, milkfish,

rabbitfish, shrimp, mudcrab, seaweeds, larval food, new species (*ulang*, *Arius* sp., *ayungin*, snakehead), marine ornamental species (blue tang, *Charybdis*, seahorse), grouper, snapper, and mollusk (abalone, *kapis* shell, short-necked clam, top shell).



AQD offers internship courses

AQD is offering short-term specialized internship courses for individuals or groups upon request.

One course offered is the detection of White Spot Syndrome Virus (WSSV) using polymerase chain reaction (PCR). It has recently graduated one trainee, Jeffrey Silorio, on January 30. Silorio is a prawn hatchery technician at Somaqua, Madagascar.

The course duration is four days. The trainee is provided with brief lectures and hands-on work at the Fish Health Laboratory.

AQD Senior Scientist Jurgenne Primavera has been appointed member of the Steering Committee of the International Union for Conservation of Nature and Natural Resources (IUCN)–Commission on Environmental, Economic, and Social Policy (CEESP).

IUCN-CEESP Chair Taghi Farvar informed Primavera of her approved candidacy on 14 December 2002. Her commission appointment runs until the fourth quarter of 2004.

CEESP is an inter-disciplinary network of professionals whose mission is to act as a source of advice on the

Primavera is new IUCN member



environmental, economic, social, and cultural factors that affect natural resources and biological diversity and to provide guidance and support towards effective policies and practices in environmental conservation and sustainable development.

As a member of the Steering Committee, Primavera is expected to contribute her expertise in policy matters devoted to:

1. Sturgeons
2. Environment and Security
3. Sustainable livelihoods/collaborative management of natural resources
4. Environment, trade, and investment
5. Local communities, equity, and protected areas (in preparation for the World Parks Congress in September 2003 in Durban).

In a similar development, Primavera was also appointed as a Foreign Member of the General Section of The Royal Swedish Academy of Agriculture and Forestry on December 12, 2002.

Mud crab culture within mangroves sustainable

The integration of crab aquaculture within natural mangroves is feasible and economically viable in the Philippines, providing both immediate and long-term commercial and environmental benefits.

These are the results of a study by AQD researchers Eduard Rodriguez and Avelino Triño titled "Pen culture of mud crab *Scylla serrata* in tidal flats reforested with mangrove trees" published in *Aquaculture* 211: 125-134 (2002).

The study was undertaken to determine the growth and survival of mud crab in mangrove pens and demonstrate its economic viability. The experiment lasted for 160 days.

The experimental setup consisted of mixed sex mud crabs held in twelve 200 m² pens located in reforested mangrove tidal flats. The pens were designed such that the function

of mangroves as nursery grounds for commercially exploited fishes and crustaceans was not hampered. It allowed inundation of the system at the highest tide. Structures were installed to minimize siltation of canals and to maintain ideal water depth.

The effects of stocking density (0.5 or 1.5 crabs m⁻²) and feed (salted fish bycatch or a mixed diet of 75% salted brown mussel flesh and 25% salted fish bycatch) were determined.

Results showed no significant differences in growth, feed conversion ratio (FCR), survival, and production among types of feed. However, the FCR and survival at 0.5 m² stocking density were significantly better than at 1.5 m² stocking density. Growth was not significantly affected by stocking density.

Cost-return analysis showed that

the use of either of the two stocking densities with either diet was economically viable. However, crabs stocked at 1.5 m² fed with mixed diet is more profitable due to high yield and cost efficiency of the diet.

Mud crab fishery is an important industry in the Philippines. Mud crab is sought after for its excellent taste, texture, and nutritive value. Studies have provided evidence of the commercial benefits of crab culture including its capacity to grow rapidly in pond.

On the other hand, mangroves are being destroyed throughout the tropics for pond development. In the Philippines, the 400,000- 500,000 ha of mangroves in 1918 had decreased to 100,567 ha in 1987 and that approximately 3500 ha of mangroves are being lost yearly to accommodate the aquaculture industry.

The area of mangroves has a positive correlation with annual catches from adjacent offshore fishing grounds. Thus, loss of mangroves also means loss of fisheries, income, and livelihoods for many marginalized fisherfolk. Government restoration programs through reforestation and afforestation are in place but cannot keep pace with the rate and scale of destruction.

The study arose from the concept of co-management of a common resource such as mangroves by involving resource users and stakeholders.

Roundup

Change of civil status:

Sharon Pedrajas-Mendoza
Analyn Castor-Sa-an

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Do you want to enjoy an expensive abalone dish served in specialty restaurants by cooking it yourself? Then try this.

Abalone stew

Ingredients

- 1 pound (~0.5 kg) raw abalone, tenderized, and cut into small cubes
- 1/3 cup unsalted butter
- 1 cup chopped onion
- 1 large clove of garlic, minced
- 1/3 cup chopped bell pepper
- 1 bay leaf
- 8 ounces tomato sauce
- 2 cups water
- 3 potatoes, peeled and cut into 1/2 inch cubes
- 1/2 teaspoon salt
- 1/3 teaspoon cayenne pepper

Instructions

- In a saucepan, melt the butter and sauté the garlic, bell pepper, and onion until transparent.
- Add the bay leaf, water, tomato sauce, potatoes, salt and cayenne then cover and simmer for about 15 minutes.
- Add the abalone and simmer 4 to 5 minutes until tender.

Servings: 8

Source: The abalone lover's cookbook, 2nd edition by Jeri Siegel and Michael Hill
For more abalone recipes, visit <http://www.fishtech.com/recipes.html>

AQD's Mollusk Production Unit is selling abalone at P200/kg. Please contact Ms. Shelah Mae Buen for reservations (**local 442**).