

# AQUA Dept NEWS

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## Techniques to produce sexually mature *kapis* shells discovered

Soft mud and high-density algal diet hasten sexual maturity of *kapis* shell broodstock.

These are the findings of AQD researchers **Jocelyn Ladja** and **Milagros de la Peña**, and assistant **Neil Parami** in a paper titled "*The effect of micro algal diet and rearing condition on gonad maturity, fecundity and embryonic development of window-pane shell, Placuna placenta Linnaeus*" published in *Aquaculture* 206 (2002) 313-321.

A four-month broodstock conditioning experiment was conducted wherein a group of broodstock was reared in tanks (soft mud was provided to half of the group) and another in the estuary.

Half of the tank-reared broodstock (with and without mud) was fed with high-density (200,000 cells per ml, 3:1 mix-



*Kapis shell broodstock (inset) were reared in tanks during conditioning experiment.*

ture of *Isochrysis galbana* and *Tetraselmis tetrahele*) algal diet, and another half (with and without mud) was fed with low-density (1000,000 cells per ml, 1:1 mixture of the same algae) algal diet.

High-density algal-fed broodstock exhibited faster (in one month) sexual maturity (gonadal maturation) than those reared in other conditions: three

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## Search is on for outstanding fisheries professional

The Philippine Fisheries Association (PFA) announced the search for the country's outstanding fisheries professional and practitioner for the Year 2002.

The PFA is a non-stock, non-profit organization of fisheries professionals and practitioners committed to advance the growth of its members and to promote Philippine fisheries. One of its annual programs is the recognition of significant contributions made by individuals to fisheries development.

Nomination should be sent to the PFA Secretariat (c/o PCAMRD, Los Baños, Laguna 4030). It should be received not later than September 30. – **Manila Bulletin, August 29, 2002.**

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months in low-density algal-fed broodstock; and two months in estuary-reared broodstock.

After one month, tank-reared broodstock on mud substrate fed with high-density algal diet produced many sexually mature individuals (30 percent) and higher gonad index, (GI, about 330) than tank-reared broodstock without soft mud (about 260). GI of tank-reared broodstock with and without soft mud and fed with low-density algal diet are about 140 and 130, respectively. Estuary-reared broodstock has GI of 220.

GI was calculated by assigning the numerical ranking used for each seven gonad stages. The GI of *kapis* shell per treatment per month was taken as the sum of the products of the percentages of each stage and its ranking. The gonad index can give a value from 0 (no gonad) to 500 (all ripe or mature).

After four months, 50 percent

of estuary-reared and hi-density algal-fed broodstock in mud substrate were sexually mature.

This indicates that mud substrate simulates natural conditions in the environment. In addition, mixed algal diet provides sufficient energy and appropriate nutrients to the broodstock.

Studies on induced spawning (released of eggs), fecundity (number of eggs spawned per female) and embryonic development (development of embryos to normal veliger larvae) were done after conditioning experiment.

Conditioned broodstock were exposed to UV light-irradiated seawater to induce spawning.

Results showed that estuary-reared broodstock spawned larger eggs (about 52 micrometer in diameter) than high-density algal-fed broodstock (about 45 micrometer in diameter). They had higher number of eggs spawned (295,000 to 2,800,000 per female) than high-density algal-fed broodstock (82,000 to

188,800 eggs per female). Higher percentage of embryos developing to normal veliger larvae was also observed in estuary-reared broodstock (35 to 58 percent) than those reared in tank with high-density algal-fed (15 to 38 percent).

The results can be attributed to the rich plankton population in an estuary, which provide essential nutrients to the broodstock.

Although conditioning broodstock in an estuary gives better result, seasonal abundance of the natural food should be considered.

*Kapis* shell seed production in the laboratory is now feasible, but the efficiency in producing seeds under controlled condition is limited by the scarcity of mature broodstock.

To address the decline of *kapis* shells' wild population, AQD researchers are making efforts in hastening the shells' sexual maturity by providing suitable micro algal diet and rearing conditions.

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## Seminar-workshop on SPSS

A seminar-workshop on Statistical Package for Social Sciences (SPSS) was conducted in the morning of August 26, 29 and September 2 at Databank, TMS.

The activity was attended by a total of 44 participants from the different divisions of the department. The 1<sup>st</sup> session had 14

participants while the 2<sup>nd</sup> and 3<sup>rd</sup> sessions had 15 participants each.

The workshop familiarized the participants with computer software used for statistical analysis, the SPSS 7 and 10. Correct procedure for choosing the right statistical tools for different sets of data was discussed. This includes: independent, one, and paired sample *t*-tests; and one-way analysis of variance (ANOVA).

Regression and correlation, the methods in determining the relationship between two variables, were also discussed. Relationships of variables can either

be linear or non-linear.

The activity was facilitated by Databank with Statistical Consultant Roman Sanares (UPV faculty member) as resource person.

This SPSS seminar-workshop will benefit researchers in analyzing and presenting their data. - *SMC Wee*



# Closing ceremony for Mangrove-Friendly Shrimp Aquaculture

AQD held the closing ceremony for the training course on Mangrove-Friendly Shrimp Aquaculture on August 29 at TMS.

The training aimed to provide participants with the basic understanding of the mangrove ecosystem, and technical knowledge and skills on mangrove-shrimp culture.

In his speech, Engr. Torres emphasized the concept of sustainable development in aquaculture. He expressed his hope that the participants recognize the significance of mangrove-friendly shrimp grow-out technology.

On behalf of the class, Sheikh Al Idrus Sheikh Nikman ex-



*Class Chairman, Sheikh Al Idrus Sheikh Nikman in his speech at the closing ceremony of Mangrove-Friendly Shrimp Aquaculture training course.*

pressed his appreciation for the knowledge and skills they acquired which they can apply to their respective countries. He

presented a Plaque of Appreciation (with names and signatures of all trainees) to AQD for the “invaluable assistance and wholehearted support during the training and for making their stay very memorable and comfortable.”

The course started August 7 with ten participants. Engr. Torres, assisted by Ms. Kaylin Corre, awarded the certificates of completion to the participants.

In her closing remarks, Ms. Corre congratulated the graduates and thanked the resource persons.

The training course was based on mangrove-friendly shrimp grow-out technology developed by AQD, and was designed to disseminate this technology to member countries as mandated by the SEAFDEC Council.

To the graduates, CONGRATULATIONS!



*TID staff members (left to right) Mr. Romeo Caturao, Engr. Pastor Torres, and Ms. Kaylin Corre posed for a souvenir photo with the participants (left to right): Sheikh Al Idrus Sheikh Nikman (Brunei), Do Van Hoang (Vietnam), Krissana Chankaew (Thailand), Florida Arboleda (Philippines), Miss Muawanah (Indonesia), Nhem Van Na (Cambodia), Frederick Muyot (Philippines), Pastor Peter Torres III (Philippines), and Myo Min Hlaing (Myanmar), Rosly Hassan (Malaysia).*

***Excellence  
is a habit,  
not an act.***

**Aristotle**



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# To the ADN readers,

Dr. Roselyn Duremdez, a former SEAFDEC scientist who is currently working in Kuwait, forwarded the following message to TMS scientist Dr. Gilda Po.

## HIV Warning:

The following information about the Melbourne incident has been sent by the Ville d'Issy Les Moulinaux Municipal Police and all departments of Melbourne who have transmitted this news to all its cities. We have been asked to pass this message along to the greatest number of people as possible.

A few weeks ago, in a movie theatre in Melbourne, a person sat on something poking that was on one of the seats. When she got up to see what it was, she found a needle sticking out of the seat with a note attached saying "You have just been infected by HIV."

The Disease Control Centre (in Melbourne) reports many similar events in many other cities recently. All tested needles are HIV Positive. The Centre also reports that needles have been found in the cash dispensers at Public Banking Machines (ATMs).

We ask everyone to use ex-

*treme caution when faced with this kind of situation. All public chairs/seats should be inspected with vigilance and caution before use. A careful visual inspection should be enough.*

*In addition, they ask that each of you pass this message along to all members of your family and your friends.*

*Recently, one doctor has narrated a somewhat similar instance that happened at the Praia Cinema in Delhi to one of his patients. A young girl engaged and about to be married in a couple of months was pricked while the movie was going on. The tag with the needle had the message "Welcome to the World of HIV family."*

*Though the doctors told her family that it takes about 6 months before the virus grows strong enough to start damaging one's system and a healthy victim could survive about 5-6 years. The girl died in 4 months, perhaps more because of the "shock-thought."*

*We all have to be careful at public places! This is very important. Just think about saving a life of someone even you don't know by forwarding this message.*

*Please take a few seconds of*

*your time to pass it along.*

## Dr. Roselyn Duremdez

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(Thanks to **Dr. Gilda Po** for sharing this information.)

## Joke

"My husband and I both work, so our family eats out a lot. Recently, when we were having a rare home-cooked meal, I handed a glass of milk to my three-year-old daughter and told her to drink it."

She looked at me bewildered and said: "But I did not order milk."

- by Janet A. Nussbaum  
Contributed to "Short Takes"  
([www.rd.com](http://www.rd.com))

