The Mouseion

Official Newsletter of the UPV Museum of Natural Sciences
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FISHY TALES

- **A female sunfish may lay 300,000,000 eggs at a single spawning.**
- **Female sea horses insert their eggs into the male's pouch where they are fertilized and held until they hatch.**
- **Catfish taste really good. Not in reference to how they taste to us, but rather their ability to taste. Catfish have over 27,000 taste buds. Humans have only 9,000 taste buds.**
- **While sharks are feared as being man killers, they only kill about six to fifteen people a year. This is far less than other seeming "safe" animals such as elephants (500 people a year) and deer (100 people a year). In fact, more people are killed by Christmas tree lights and lightning than sharks.**

Source: http://ivegonefishing.co.uk/interesting-things-fishing-wales/fish-trivia.htm

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2011 FISH CONSERVATION WEEK

By: J.A.D. Corvera

Students presenting data

Fish Conservation Week is celebrated every third week of October as mandated by Proclamation No. 176 by the late President Diosdado Macapagal. This year's national theme is *"Karagatan pagyamanin, isda paramihin, buong mundo pasiglahin."*

Here in UP Visayas though, it was celebrated on November 22, 2011 to accommodate the students returning from the semestral break. A series of lectures sponsored by the UPV Museum of Natural Sciences was conducted. The first lecture was on "Mangrove and Coastal Resource Management" by Dr. Jurgenne H. Primavera. It was attended by the CFOS staff and students. The succeeding lectures are on the "Different Marine Habitats" by Prof. Caridad N. Jimenez and "Basic CRM Techniques" by Jomel G. Baobao. In these lectures, invited participants were high school students from the different schools in Miagao.

The Fish Conservation Week Celebration aims to emphasize to stakeholders the importance of conservation and proper management of fishery resources.

Students doing an assessment

A LECTURE FOR ALL!

By: S.S. Garibay

Dr. Carpenter (center) with Dean Baylon and CFOS Staff

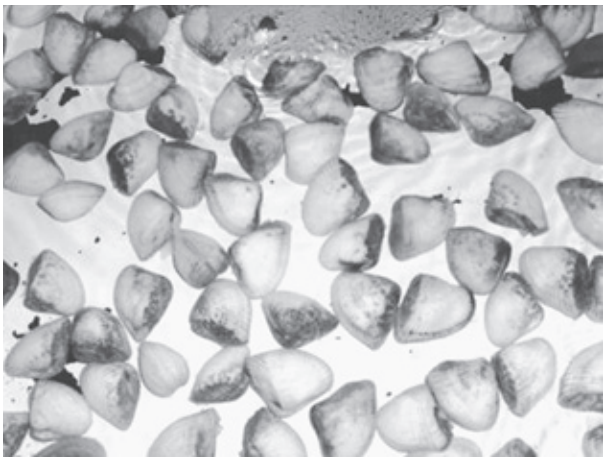
Dr. Kent Carpenter, a Professor and Scientist from the Biological Sciences, Old Dominion University, Norfolk, Virginia, USA gave a public lecture of his paper entitled "Concordant Marine Phylogeographic Pattern in the Philippines" during his visit to the College of Fisheries and Ocean Sciences last November 4, 2011 at the Umali Hall, Conference Room, College of Fisheries and Ocean Sciences, UP Visayas. Carpenter's interest in systematics has included alpha taxonomy of fishes, phylogenetic inference, and theory of classification. According to him, he prefers to use both morphological and molecular characters for reciprocal illumination in phylogenetic inference.

He is also interested in sparoid (porgies, emperor snappers, and threadfin breams), lutjanoid (snappers and fusiliers), haemuloid (grunts), and carangoid (jacks) fishes. His marine biogeographic interests, however, concentrate on the origins of biodiversity in the Indo-West Pacific, with a special focus in the Philippines and the wider Coral Triangle. His long-term collaboration with the Food and Agriculture Organization of the United Nations, Species Identification and Data Programme for Fisheries has led him to be involved with the production of identification guides for regions such as the Western Pacific, Western Atlantic, and Eastern Atlantic oceans.

Dr. Carpenter's lecture was attended by faculty, REPS, staff and students of UPV. The Lecture delivered was part of the Lecture Series sponsored by the Institute of Marine Fisheries and Oceanology in collaboration with the UPV Museum of Natural Sciences.

ON FOCUS...

Hemidonax donaciformis



By: Mary Anne E. Mandario
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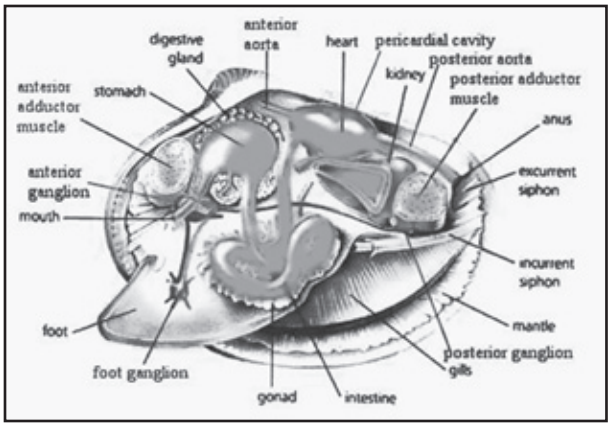
Common hemidonax (*Hemidonax donaciformis*, Bruguière, 1792) belongs to Class Bivalvia under the Family Hemidonacidae. Common hemidonax are locally collected and marketed in the Philippines. They are abundant in the coastal areas of Barotac Viejo, Iloilo. Its local name is *"kalaykay"* because small children dig on the sand to be able to get one. They collect these shells during low tide and it is a primary source of food among the coastal dwellers. The empty shells are also used as lime.

This bivalve has an equivalve shell, which is subtrigonal to wedge-shaped and transversely elongate. They are more or less inequilateral. The outer surface of the shell has smooth radial ribs and often reduced on its anterior part. The ligament is external with two cardinal teeth and elongate lateral teeth in each valve. It has two adductor muscle scars and the pallial line has no sinus (FAO. The living Marine Resources of the Western Central Pacific. Vol. 1).

The maximum shell length is 3.5cm while the common length measures 2.5cm. This species is found in clean coarse coral sand, from low tide marks to shallow sublit-toral waters.

One of the outstanding characteristic of *H. donaciformis,* is its ability to filter suspended particles present in the water. It feeds on microscopic organisms and organic matter that was brought into its mantle cavity through the incurrent (dorsal) siphon. Food particles are strained by its ctenidia, and indigestible particles are expelled from the animal by way of mucus pellets called pseudofeces. Digestible particles are moved down to the ctenidia to the labial palps, which direct food to the mouth. From the mouth, food passes through the esophagus to the stomach where the enzyme-rich, crystalline style helps in the digestion. Wastes are passed down through the anus and expelled through the excurrent (ventral) siphon. The excretory system is similar to the digestive system. Water, wastes and salts are passed into the nephridium where they are stored while the water and salts are reabsorbed into the body. Wastes are then released into the supra branchial chamber and moved outside the body through the excurrent siphon.



H. donaciformis serves as important links between benthic and pelagic processes because they filter large volume of suspended particles from the water column and eject them as both uningested pseudofeces and unassimilated feces which sink to the bottom (Newell, 2004).

As a sedentary animal it is exposed to different pollutants in the water. That is why they can be used in biomonitoring and bioremediation studies. Common hemidonax have lots of uses; it not only helps in maintaining the ecological balance, it is also food for humans.

References:

FAO. 1998. Species identification guide for fishery purposes. The living marine resources of the Western Central Pacific. Volume 1.pp.135-261.

Newell,R.I.E. 2004. Ecosystem influences of natural and cultivated populations of suspension-feeding bivalve molluscs: a review.J.Shellfish Res. 23, 51-62.

Even Female Fish Get Harassed?!

By: Jon Irish L. Aquino
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Yup! You just read it right, for guppies that is. Guppies are the small common aquarium fishes that belong to family Poeciliidae and like all other members of the family, they are live-bearers. Guppies have been studied and scientists found out that there is high possibility of sexual harassment from males to females during mating.

Male guppies, are very aggressive that makes female guppies escape from them. Guppies exhibit sexual dimorphism, where one can easily differentiate a male from a female. Males are usually smaller than the females. They are more attractive and colorful or with splashes, spots, or stripes, while female guppies are greyish in colour. Female guppies are highly selective in terms of choosing their mate. They usually mate the most attractive male guppy in to guarantee the production of strong and good offspring.

A female guppy being chased by male guppies

So, the male fish shows his being "quality male fish" for mating by spending their time on displaying bright-coloured bodies to the female. However, when the female rejects the wooing of the male fish, the male guppy strives to sneak mating with the female chosen when it is not aware (this harasses females). This makes female fish spend much time in avoiding male inexorable harassment, and losses time for food foraging and energy for growth and reproduction. The researchers have observed that due to of male harassment, the ability of the female fish to bond with other females is also affected, resulting in social disorientation.

Dr. Safi Darden (2009) from the University of Exeter explained that sexual harassment is a burden that females of many species (ranging from insects to primates) suffer resulting in harassment. This limits the opportunities for females to form social bonds across a range of species.

To solve this problem, a female guppy keeps away from male guppy by going in areas where predators are numerous. This strategy had been observed by researchers from Bangor University, North Wales. Because they are colourful and very attractive, predators are likely to eat the male fish.

Another study from the Universities of Exeter and Copenhagen showed that female guppies choose their female companions that are relatively more attractive than them. By this, they will minimize males harassing them; instead, the more attractive females will be seduced by the males. Through this approach, female guppies experience less harassment and fewer attempts of mating from males. This idea came from the study that the males go with less attractive males so that female will choose them for reproduction purposes.

A female guppy

Like humans, female guppies yield little eggs and give birth to live progeny. They are not seasonal spawners. They keep their offspring inside their bodies from the time of zygote formation until the offspring hatch. So the battle against male guppy aggravation causes them a lot of stress that could affect their labour. This makes them take extreme measures to prevent unwelcome attention.

Many other studies had been conducted and the observations were recorded as bases for future studies on guppies. The different studies mentioned were funded by a Leverhulme Trust Early Career Fellowship and the Oticon Foundation, and the Natural Environment Research Council in North Wales.

References:

Brask, J. B., D. P. Croft, K. Thompson, T. Dabelsteen, S. K. Darden. 2011. Social preferences based on sexual attractiveness: a female strategy to reduce male sexual attention. Pro-ceedings of the Royal Society B: Biological Sciences, 2011; DOI: 10.1098/rspb.2011.2212

Darden et al. 2008. Male harassment drives females to alter habitat use and leads to segregation of the sexes. Biology Let-ters, 2008; 1 (-1): -1 DOI: 10.1098/rsbl.2008.0308

University of Exeter. (2009, April21). Sexual Harassment From Males Prevents Female Bonding, Fish Study Shows. Science-Daily. Retrieved January 19, 2012, from http://www.sciencedaily.com/released/2009/04/090421205316.htm

Primavera takes pride in helping mold younger generations

By: S.S. Garibay

Dr. Jurgenne Honculada Primavera, a multiawarded scientist in her field of specialization and first Senior Scientist of the Aquaculture Department of the Southeast Asian Fisheries Development Center in Tigbauan, Iloilo presented a lecture on "Food Security and Sustainable Aquaculture Development" on November 22, 2011 at the Conference Room, Umali Hall, College of Fisheries and Ocean Sciences, UP Visayas during the Fish Conservation Month with the national theme: *"Karagatan pagyamanin, isda paramihin, buong mundo pasiglahin."*

As a Filipino scientist, Primavera takes pride in helping mold younger generations of Filipino scientists and in pushing the frontiers of aquaculture and mangrove research through her studies on the penaeid prawns and shrimps, most especially the giant tiger prawn *Penaeus monodon*, and on man-groves. But the biologist in her takes greater pride in the rearing of four offsprings. Now a grandmother, Primavera dreams of walking her her grandchildren through the mangroves that her research and advocacy will help to conserve in Panay Island.

Dr. Primavera with Prof. Norma Fortes and UPV Museum Staff

The lecture presented was organized by the UPV Museum of Natural Sciences, under the CFOS Dean's Office as part of the week long celebration of Fish Week 2011.

Dr. Primavera is currently the Project Manager of the Community-Based Mangrove Rehabilitation Project of the London Zoological Society, Iloilo City.

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Trash Free Seas for Coastal Cleanup 2011

By: J.A.D. Corvera

UPV Students participating in the cleanup

The annual coastal cleanup was held at the UPV Beach Front last September 13, 2011. This year's National Theme is *"Trash free seas".*

The cleanup site is the beach front of the Ocean Weather Laboratory. The activity was participated by UPV students and CFOS staff.

The majority of garbage collected were plastics bags and bottles. Some students remarked that the garbage were not thrown by beach goers but rather trash that drifted to the shore from nearby barangays.

The activity was co-sponsored by the UP Fisheries Guild.

Garbage collected during the cleanup

PUZZLE WINNERS:

1. Jessie Monsale
2. Anna Krisstina Biscocho
3. Jessie John Gayo

Museum holds Poster-Making Contest

By: J.A.D. Corvera

Awarding of prizes

In line with the Fish Conservation Celebration, the UPV Museum of natural Sciences sponsored a Poster-Making Contest. It was participated in by different high schools in Miagao. The theme of the celebration was *"Karagatan pagyamanin, isda paramihin, buong mundo pasiglahin."* Palaca-Damilisan National High School bagged the first prize while the Kirayan National High School and Miagao National High School came in 2nd and 3rd place, respectively. A cash prize of P300 and a certificate were given to the winners. The posters were displayed at the museum lobby.

The winning entry