

PAGTÁOB is the Visayan term for the rising of the tide. Every flood of the tide brings with it new nutrients and important components that sustain the numerous denizens in the intertidal zone. Just like the nutrients that are being brought in, information is also vital for marine scientists.

This newsletter aims to update the XU community and our partners on the different programs and activities of the McKeough Marine Center.

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PAGTAOB

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THE JOURNEY OF THE MARINE CAR: FROM THE ROAD TO THE REEFS

By Nadine Arabelle L Vivares
Photos by Elaine Villaluz and Fra-and Timothy Quimpo

he Marine Biology vehicle fondly known as the Blue Car or Marine Car, was deployed as an artificial reef (AR) in the area fronting the Xavier University Marine Station in Sitio Cabulawan, Barangay Solana, Jasaan, Misamis Oriental on October 10, 2016. In belated celebration of the World Habitat Day and the 10th year of the McKeough Marine Center re-establishment, a simple ribbon cutting and deployment ceremony was conducted at the Marine Station, attended by former MMC staff, the Biology Department, and special guests. Representatives from our donor companies were also present: Mr. Marciano Ogtohan, the Senior Supervisor for Safety, Environment, and Security of Pilipinas Kao, Inc.; Ms Analiza Miso, the Community Relation Officer, and Mr. Aaron Rodrigo, the Government Relation Officer of Filinvest Development Corporation (FDC);

and Ms. Amy Batilo, the Environment Specialist of STEAG State Power Inc.

After the ribbon cutting ceremony, a short film presentation about the "journey" of the Marine Car was shown: from traveling all over Northern Mindanao transporting marine biology students and researchers all cramped up inside the vehicle, to carrying all sorts of things like research samples and diving gear.

Memories were also shared among the attendees. The general sentiment was that the moment was bittersweet, most notably the testaments shared by Mr Celso Amoncio, the Marine Car's long time driver. He shared that he was able to feed his family from the income that he got from driving, and that he was very thankful to the Biology Department and the Marine Car. Many were sad to see it go, continued on page 4

MARINE BIOLOGY

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MARINE EXPO 2016

By Nadine Arabelle L Vivares and Kristine A Galarrita | Photos by Janell Sihay

onservation advocates from the JCI Macajalar 24K, Macajalar Bay Development Alliance (MBDA), and Xavier University's McKeough Marine Center (MMC) joined forces to conduct a series of environmental education campaign activities dedicated to the youth in line with the Marine Expo 2016.

For the first phase of the Marine Expo, a training of trainers (TOT) was



conducted from June 9 to 10 at the Word of Life Seaside Bible Camp.

The TOT was attended by science teachers and ninth graders from 12 national high schools, namely, from Laguindingan, Alubijid, Opol, Cagayan de Oro City, Tagoloan, Villanueva, Jasaan, Balingasag, Binuangan, Sugbongcogon, and Kinoguitan.

Select faculty members of the



XU Biology department and MMC staff, experts in their respective fields, served as the trainers.

The said event formed part of the Environment Month celebration, focusing on the marine environment and was aimed at raising awareness on the importance of the coasts and its resources, especially in the Macajalar Bay, a major fishing ground and economic terminal in Misamis Oriental.





The trainees were taught basic marine ecology subjects using the eight modules developed and adopted from the IEC Student Development Advocates (ISDA) Manual by Dr Hilly Ann Roa-Quiaoit and Camillia Jane Bollozos produced in 2015.

Modules did not only include lectures but also fun games and competitions to help participants understand concepts better in an enjoyable and interactive way. The manual is also used by MMC to teach NSTP students for the ISDA Program at Xavier, which was awarded the 2nd Best Paper Award by the National Aquatic Resources Research and Development System.

Following the culmination of the

camp, the trainers were expected to ripple their knowledge and insights on the significance of marine environment and conservation to their respective schools as part of the second phase of the Marine Expo 2016, from June 13 to 24.

Each school was provided with a copy of the ISDA Manual and a course flip-chart to serve as information guides for their advocacies.

On June 27 and 28, the Culminating Activities were successfully conducted at the SM City Atrium, Cagayan de Oro City. The event comprised of a series of environmental education activities including a photo and info exhibit, a series of film showings, and a trivia game. With the aim to promote environmental

education to a bigger audience, the exhibit and film showings are open to the public. Several films were showed during the event including the documentary "Racing Extinction" and a film produced by MBDA called "Santuaryo." The Trivia Game was facilitated by Geek Wars and was participated by 8 schools from 7 municipalities/cities along Macajalar Bay. The winners of the Trivia Game were as follows: third place was the 2nd Team of Regional Science High School; second place was the 1st Team of the Misamis Oriental General Comprehensive High School; 1st place was the 1st Team of Regional Science High School.

Editor's Note: This is a revised version of the article which originally appeared on the XU Website: http://www.xu.edu.ph/.







The Journey...

Continued from page 1

but it was ultimately a very fitting ending for the vehicle that has, in some ways, indirectly contributed to the conservation of our oceans.

Weeks before it was deployed, the Marine Car's machine was donated to the XU Center for Integrated Technology (CIT) to ensure that no pollutants will be released when it is underwater. The conspicuously blue Anfra has served the Biology Department, the McKeough Marine Center, and many marine biology students in the field for many years. It was retired on 2012, and will now fulfill a new function underwater as an AR, home to many fishes and marine creatures. It will also serve as additional substrate

for the Center's future coral transplantation activities. For many years now, countries all over the world have been retiring their old, outdated, and damaged vehicles into ARs, and with much success in attracting marine creatures into calling it their homes. We hope for the same success with our ol' reliable Marine Car.

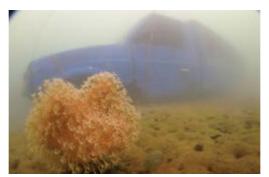














MMC Hosts Special Screening of Racing Extinction

By Friday G Atilano and Nadine Arabelle L Vivares | Photos by MMC

he McKeough Marine Center hosted a special screening of Discovery Channel's Oscar-nominated documentary "Racing Extinction" by Academy Award-winning director Louie Psihoyos last May 21, 2016 at the AVR 4 of Xavier University. The message of the movie is that the current mass extinction and decline of species all over the world is engendered by Anthropogenic global warming from greenhouse gas emissions, all caused by human activities; but the good news is that we can and should be the solutions too. The film gathers a team of artists and activists with the aim of showing the world never-before-seen images that expose issues of endangered species and mass extinction.

After seeing the powerful documentary, some of our staff and viewers made a pledge to do one thing in their lifestyle take immediate steps for positive change using the official documentary banner of the #StartWith1Thing. A pledge can be as simple as promising not to use disposable straws anymore, but can also be more major like pledging to cut down on one's beef consumption. The aim of the campaign is to show that changing our behaviors for the good of the environment is made less daunting by starting with just one thing. Below are some of the pledges made by our audiences.













MARINE CORNER



The Christmas Tree Worm

Text by Nadine Arabelle L. Vivares Phots by Fra-and Timothy Quimpo

In tropical coral reefs around the world, it would seem that Christmas is celebrated whole year round, this is thanks to the conspicuously colorful Christmas Tree Worm. The *Spirobranchus giganteus*, a tube-building polychaete worm belonging to the family Serpulidae, is so called because of its "Christmas Tree"-shaped appendages. Each worm has two of these feather-like protrusions which are called radioles. They radiate out from the worms' central spine and are used for collecting microscopic food and for respiration. The rest of their bodies are buried in live coral which they bore into.

Christmas tree worms grow to only about 1.5 inches in length, but they are still very noticeable underwater because of their bright colors, which can range from bright blues, to vibrant oranges, to deep reds. If you can get a chance, the next time you go snorkeling watch out for these holiday-themed critters!



WORKSHOPS ATTENDED

By Marianne Mira Katrina E Macapelit and Nadine Arabelle L Vivares

hroughout the year, MMC has been invited to participate in numerous workshops locally and abroad. Here are several highlights of some of the workshops attended by MMC Staff.

Seas of East Asia Knowledge Bank Road Show Workshop

MMC Director Ms Gertrude Garcia, joined the Seas of East Asia Knowledge Bank Road Show Workshop Partnerships in Environmental Management for the Seas of East Asia (PEMSEA). The 1-day workshop was held at the Diamond Hotel in Manila last June 7, 2016. The primary objective of the workshop was the identification of ICM investment opportunities for further development of business plans and investment models.

2nd Expert's Knowledge Workshop on Various Reef Stressors and Development of a Bayesian Belief Model Framework

2016, July 28, MMC represented by Ms Nadine Vivares joined the "2nd Expert's Knowledge" Workshop on Various Reef Stressors and Development of a Bayesian Belief Model Framework," at the Marine Science Institute, University of the Philippines, Diliman, Quezon City. The workshop was part of the activities of the Project 5: Coral Knowledge Reef Management System: Bayesian Belief Network Modeling and Remote Sensing of the National Assessment of Coral Reef Environments (NACRE) Research Program under the DOSTPCAARRD.

The objective of the workshop was to once again bring together the experts in from various institutions in the country to share insights and knowledge on various stressors that affect the reef environment. The insights will be incorporated in the existing Bayesian Belief Model Network Framework Philippine Reefs drafted from the 1st workshop held last year.

3rd International Training Program on Marine Ecosystem Services and Spatial Management Tools

The 3rd International Training Program on Marine Ecosystem Services Valuation and Spatial Management Tools Workshop was held on August 23-26, 2016 held at Busan, Homers Hotel. Busan, Korea. 17 participants from ICM Learning Centers and Practitioners of member state/entities of PEMSEA were invited, which includes MMC represented by director Ms Gertrude Garcia. During the workshop, the participants learned the theory on valuation of marine biophysical ecosystem, approach to the ecosystem spatial valuation (MAPS-SEV), integrated approach to ecosystem valuation and tradeoffs (Marine InVEST), marine spatial assessment for planning (MAPS-MSA), and application of Ocean Health Index (OHI+). Participants also shared marine assessment and its application tools for spatial planning & management, "MAPS" and "Marine InVEST". Participants were expected to learn how to use the assessment and tools through several cases, and get lessons and implications for their countries' spatial management.

MBDA holds Executive Committee election

By Kristine A Galarrita | Photos by MBDA





he Macajalar Bay Development Alliance (MBDA) successfully conducted its Executive Committee Election on August 5, 2016 at Grand Caprice, Lim Ketkai Center, Cagayan de Oro City.

included The program presentation of Plagues Recognition the Proiect bv Management Officers to the MBDA Executive Committee 2013-2016 headed then-Chairperson by Oliver Ubaub for their efforts and exemplary leadership on the implementation of ICM in the bay.

The MBDA Executive Committee for 2016-2019 are as follows: Chairperson: Mayor Marrietta

Abogado of Balingasag; Vice-Chairpersons: Mayor Diosdado Obsioma of Laguindingan; Mayor Jennie Rosalie Uy of Villanueva; Mayor Mildred Mondigo of Kinoguitan; Treasurer: Mr Edward Yasay of Opol (appointed). a Secretary is yet to be appointed.

The four Mayors also represent each of the four Clusters of the MBDA. The election was followed by a turnover ceremony. The said event was witnessed by the National Government Agencies: DILG-X, DENR-X, DA-BFAR-X, PENRO Mis Or, CENRO Initao, PNP Maritime, PCG Northern Mindanao, MARINA-X and NEDA-X.

MBDA conducts training on mangrove collection and bagging

By Kristine A Galarrita | Photos by MBDA

Macajalar Bay Development Alliance (MBDA) in partnership with DENR10-PENRO Misamis Oriental successfully conducted a Training on Field Collection and Bagging of Mangrove Propagules/Seeds on August 19, 2016 at Mangrove Area, Barangay Molugan, El Salvador City. The Training was conducted by Mr. Ruben Tabora, head of the Research and Development Unit from the Ecosystems Research Bureau in Bislig City.

This is in part of the preparations for the operation of MBDA Mangrove Nursery Project. The said training was attended by LGU, MFARMC and PO representatives from Misamis

Oriental, Cagayan de Oro City, Alubijid, Villanueva, El Salvador, Balingasag, Lagonglong, Kinoguitan, Laguindingan, Opol and Talisayan.

Other participants include BFAR10, CENRO Gingoog, Barangay. Molugan, Ginggog Bay Alliance, Xavier University and Golden Heritage Polytechnic College.







Marine Word Search



Search for the following words:

Polychaete
Christmas Tree Worm
Pagtaob

Climate Change

Elasmobranch

Marine

Mangroves

Coral Reefs

Racing Extinction

Global Warming

Macajalar Bay

MBDA

Nudibranch

Conservation

Artificial Reefs

MCKEOUGH MARINE CENTER Publisher

NADINE ARABELLE L VIVARES Project Editor, Design & Layout Editor, Writer | XU COMMUNICATIONS OFFICE Proofreader

KRISTINE GALARRITA, MARIANNE MIRA KATRINA MACAPELIT, FRIDAY ATILANO Writers

FLAINE VILLALIT, ERA-AND TIMOTHY OLUMPO Photo contributors

McKeough Marine Center

2/F Science Center Building, Xavier University - Ateneo de Cagayan Corrales Avenue, Cagayan de Oro City Philippines, 9000 (+ 63-88) 858-3116 local 3115 mmc@xu.edu.ph www.xu.edu.ph/mckeough-marine-center