



NEWSLETTER

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The Philippine Crocodile, *Crocodylus mindorensis*, is a relatively small, freshwater species endemic to the Philippines. It is critically endangered and hunting and habitat destruction have driven it to the brink of extinction. The Mabuwaya Foundation Inc. is a Philippine non-profit organization that aims to conserve the Philippine crocodile and its natural habitat. Mabuwaya also implements research and conservation programs for other endemic species in northern Luzon.

Cash for Communities Conserving Crocodiles



The Cash for Communities Conserving Crocodiles (4C's) project is funded by Lacoste through the Fonds de Dotation pour la Biodiversité (FDB) since 2011. Cash incentives are awarded to rural communities for their effort in conserving and protecting the Philippine crocodile in the wild in community sanctuaries. The rewards are based on the results of crocodile counts. The rewards go to the village development fund and are used for the improvement of the village.



The crocodile rewards for Dicatian and Dilakit were given during the town fiesta of Divilacan. Left to Right: Hon. Florita Bulan (Mayor), Dorina Soler (Mabuwaya) and Hercleo Limboy (Vice Mayor) award the certificate and cash reward to Isabelita Llego (Village leader).

Crocodile rewards for 2013

Municipality	Village	Non-hatchling	Hatchling	Total Reward (Php)
San Mariano	Dibuluan	32		32,000.00
	Disulap	5		5,000.00
	San Jose	2		2,000.00
	Cadsalan	7	13	13,500.00
Divilacan	Dilakit	1		1,000.00
	Dicatian	1		1,000.00
Total		48	13	54,500.00

Note: Non-hatchling crocodile - Php 1,000/crocodile; Hatchling crocodile - Php 500/crocodile.



The quarterly meeting with the Bantay Sanktuwaryo members at the Municipal Philippine Crocodile Rearing Station in September 2014, with participation of municipal government staff.

Meetings with the Sanctuary guards (Bantay Sanktuwaryo) are conducted quarterly. Crocodile monitoring surveys are conducted in cooperation with the Bantay Sanktuwaryo.

Seven community meetings were also conducted with village officials regarding Philippine crocodile conservation and updating of their ordinances on fish and crocodile sanctuaries.



Community meeting in Sitio Lumalug, Cadsalan at the house of Romy Labuguen at night because the residents are busy farming during the day.



The Bantay Sanktuwaryo members are given field equipment and uniforms to use during crocodile surveys.

Head-start program for Philippine Crocodiles

One of the conservation strategies for the Philippine crocodile is the head-start program that aims to increase the survival rate of crocodile hatchlings. This program was initiated in 2007 by the Mabuwaya Foundation and the local government of San Mariano, and is funded by various donors including a large number of Zoos in the USA, Europe and Australia.



Top: Dominic Rodriguez (left) explains to the release party the tagging code of the crocodile. 12 head-started Philippine crocodiles were released in Dunoy and Narra Lake on 18 January 2014. "Nathan" was released back into the wild by Noel Rafael, from our conservation partner Avilon Zoo.

Below: Director Kevin Tanner of our conservation partner Melbourne Zoo releases a crocodile in Dunoy Lake.



A mound nest was found in Dinang Creek by Sanctuary Guard Alvin Labuguen, (right) and reported to Amante Yogyog (left), staff of Mabuwaya. The nest was protected and guarded by the Bantay Sanktwaryo (BS) members until the eggs hatched (24 hours a day). This is to ensure that the nest will not be disturbed by domesticated animals or residents.



Three head-started Philippine crocodiles were released back into the wild on 4 October 2014 in Dunoy Lake. It was filmed by photographer Steve De Neef.



Hatchlings are collected by BS members and some hatchlings are left in the wild. The collected hatchlings are brought to the Municipal Philippine Crocodile Rearing Station (MPCRS) to be raised for 2 years until release back into the wild.



Restoration buffer zone Dinang Creek

people's trust for
**endangered
species**



An adult Philippine crocodile basks on a log in Dinang Creek.

The project entitled “Philippine crocodiles, people and livestock living together” started in January 2012 and will end in December 2014. It focusses on solving conflicts between people and crocodiles in Sitio Lumalug, Cadsalan by restoring the natural vegetation along Dinang Creek. The Dinang Creek crocodile sanctuary is a small creek with the biggest population of adult crocodiles in San Mariano.



The 5 meter bufferzone of the Dinang Creek crocodile sanctuary before it was restored.



This is now the bufferzone after two years of restoration together with the community. This area was planted with indigenous tree seedlings (Narra, Molave and Bamboo).

The five-meter buffer zone on both sides of the crocodile sanctuary is being restored by planting bamboo and forest tree seedlings to provide a natural barrier between the crocodile, the people and livestock, and to provide a habitat for crocodile prey species.



Farmers are weeding the planted bamboo along the buffer zone of the crocodile sanctuary in Dinang Creek.



Farmers are involved in the maintenance of the reforestation area and exerted their effort in watering, weeding and application of fertilizer to the planted seedlings to ensure their survival.



The children of Lumalog actively participated in watering the planted seedlings in the restoration area of Dinang Creek to save them during the peak summer. Children are fetching water in Dinang creek crocodile sanctuary (top) and help the farmers in watering (left and right).



Information & education campaign



Crocodiles in the River and Our Children in the School (CROCS) Program



The CROCS program links the education of children living near crocodile sanctuaries to the conservation of the Philippine crocodile in the wild.

This year, more than 3000 school children from the Municipalities of Divilacan and San Mariano were provided with individual school packs. Funding came from different supporters such as the Whitley Fund for Nature, Disney Worldwide Conservation Fund, Zoos Victoria and individual donors under the CROCS Program.

One of the recipients who received a package of school supplies: backpack, crayons, ball pen, pencil, eraser, sharpener, notebooks, pad paper and the Philippine crocodile story book.



Children from Cadsalan Integrated School happily showing their school packs (top), Tess Balbas giving a school pack to an Agta child in Divilacan (down left), a kid seriously reading the Philippine crocodile storybook that is part of the package (right) and the children from Dibuluan Proper Elementary School showing their school supplies package (below).



Mabuhay Buwaya!

Mabuhay Buwaya! Mobilizing community support for Philippine crocodile conservation through entertainment and education is a project funded by the Disney Worldwide Conservation Fund.



4,000 posters explaining the head-start program (left) and 5,000 Philippine crocodile storybooks (right) have been designed and distributed. 10 crocodile theatre shows (below) were produced and performed by the Bitun Cultural Group of Isabela State University San Mariano Campus. The show was performed in villages and schools in the municipalities of San Mariano, Divilacan and Maconacon.



Eight puppet shows (top right) were conducted by the Development Communication students of the Isabela State University Cabagan Campus and 7 Philippine crocodile sanctuary visits (below) have been organized to Dunoy Lake. During the visit, students participated in crocodile night and day surveys. On the next day, they helped in tree planting (top left) in a rainforestation area.

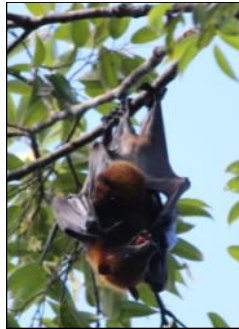
Filipinos for Flying Foxes



batcon.org
**BAT CONSERVATION
INTERNATIONAL**



The Filipinos for Flying Foxes Programme is funded by Save Our Species (SOS) through Bat Conservation International (BCI) and implemented by the Philippines Biodiversity Conservation Foundation, Inc. (PBCFI) and Mabuwaya. It aims to locate and protect flying fox roost sites, including sites with the Endangered Golden-crowned Flying Fox *Acerodon jubatus*.



2,000 Flying foxes: Foresters for our future posters (left) were distributed to different villages in San Mariano and Divilacan in Isabela and in Baggao, Cagayan. Marites Balbas (Mabuwaya staff) lectures about flying foxes to students in Divilacan (below).



Development Communication students (Leonalyn Tumaliuan (right) and Chic Mabell Batarao (below) are involved in research activities to provide base-line information on the level of knowledge/awareness of local residents regarding flying foxes. They interviewed 210 respondents from the municipalities of Divilacan and Dinapigue in Isabela and in Baggao, Cagayan where roost sites are located.



Flying foxes roost sites

In Divilacan, a roost site with at least 30,000 bats was found in ultrabasic forest while in Dinapigue, the roost site was no longer there because of mining and massive hunting. In Baggao, a roost with 12,000 bats was found in limestone forest, 2 days hiking from the nearest village.

Water Course 2014



Hoogheemraadschap van
Rijnland



**LOUWES
FUND**
research on water and food

The Faculty of Social Sciences (FSW) of Leiden University, in cooperation with the Isabela State University and Mabuwaya Foundation organized and conducted the 2014 International Course on Water and Water Management from 3 January—3 February 2014. This year, 28 students participated in the course, 14 through Leiden University, 13 through Isabela State University and 1 through Batanes State University.



Top: The students visited international and government institutions outside the region (IRRI, ICRAF, ADB, PAWB, KEF).



A 2-day field trial was done first before the 6-day field study in San Mariano. The students researched in interdisciplinary, intercultural teams the use and management of water and water resources in remote upland villages in San Mariano.



The students visited the World heritage rice terraces of Banaue and participated in terrace restoration in Batad.

New Projects in 2014

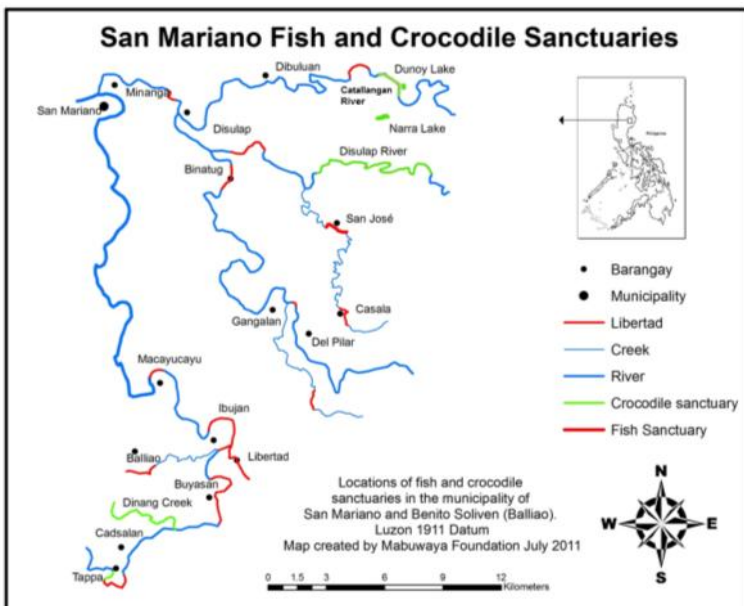


The Philippine crocodile needs you!
Engaging rural communities in crocodile conservation in North Luzon

In May 2014, Marites Balbas won a Whitley Award for Nature. The award was given to her by Her Royal Highness Princess Anne. The award comes with funding for a new project that aims to increase the Philippine crocodile population, improve environmental law enforcement and engage local communities and children in Philippine crocodile conservation and protection in San Mariano, Isabela.



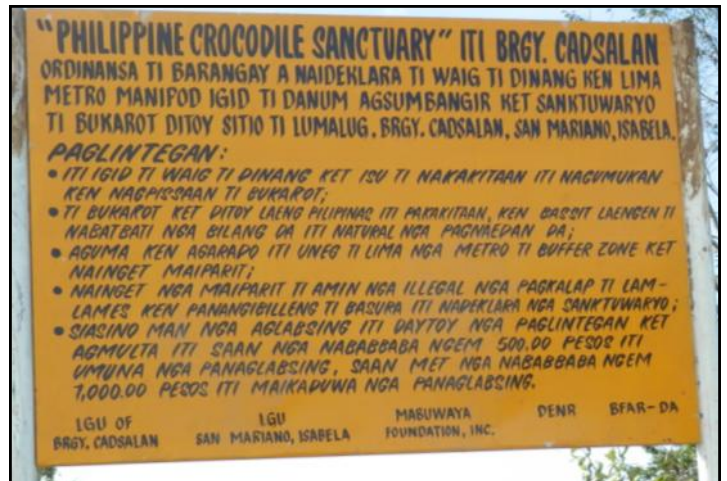
Mabuwaya helps to establish so called Indigenous and Community Conserved Areas (ICCAs). In San Mariano, 6 Philippine crocodile sanctuaries and 13 fish sanctuaries have been established by local communities. Mabuwaya assists communities to improve management and law enforcement in these sanctuaries.



Community-based Wetland Conservation



A new project on community-based wetland conservation in San Mariano, Isabela is funded by Synchronicity Earth from July 2014 to July 2015. This project aims to strengthen fish and crocodile sanctuaries in 10 Barangays in San Mariano by: 1) Involving community residents and officials in wetland conservation; 2) Reviewing and amending village ordinances on fish and crocodile sanctuaries; 3) Re-establishing the demarcation of crocodile and fish sanctuaries; 4) Consolidating the adoption of ordinances at the municipal level and developing a municipal wetland conservation program to increase sustainability of the sanctuary system.



This new billboard was installed in Cadsalan to demarcate the Philippine Crocodile Sanctuary.

Freshwater fish is an important addition of protein to the diet of upland farmers in San Mariano. But destructive fishing methods and over-fishing have depleted fish stocks for people and crocodiles.



A meeting with the barangay officials in Del Pilar to discuss wetland and freshwater fish conservation.

Municipal Philippine Crocodile Rearing Station (MPCRS)



The 2nd year Development Communication students of Isabela State University Cabagan Campus visited the MPCRS.



The Development Communication students were given first a brief lecture regarding the head start program, the Do's and Dont's inside the building before proceeding to Dunoy Lake to see the crocodiles in their natural habitat .

Below: One of the 4 outside ponds at the MPCRS



The Municipal Philippine Crocodile Rearing Station (MPCRS) located at Minanga, San Mariano in Isabela is open to visitors from Monday to Sunday except Saturday. Visitors should sign the visitors log book before going in. The officer-in-charge may assist and guide visitors around the MPCRS. Within the building is the crocodile rearing section in which hatchling and juvenile Philippine crocodiles are reared in a controlled environment from 18 to 24 months prior to their release back into the wild. Their growth is monitored monthly by measuring and weighing them.



Edmund Jose weighing a juvenile Philippine crocodile (left). Visitors are given a chance to hold a crocodile in the rearing station (below).



College students from Isabela State University Echague Campus visited the MPCRS on June 25, 2014 (below).

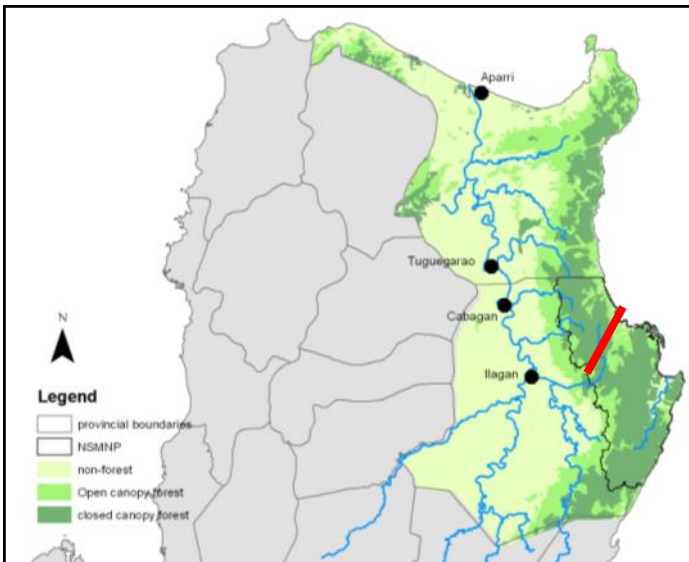


Biodiversity Surveys in the Sierra Madre

Under the B+WISER Program, funded by the United States Agency for International Development (USAID), Mabuwaya is sub-contracted to conduct biodiversity surveys in the Northern Sierra Madre Natural Park. From January—July 2014, intensive surveys were conducted in 3 sites along a cross-mountain transect from Ilagan to Divilacan. Trees, Birds, Bats, non-Volant Mammals, Amphibians, Reptiles and Dragonflies were sampled using a variety of standard survey methods such as mist-nets and transect counts. Species were documented using photo and film. Results will be published in a report in 2015.



Bernard and Joni conducting bird transect surveys (Left). Edmund, Dominic, Pio, Jun and Arnold ready to conduct a herp survey (Right).



Map showing current forest cover in NE Luzon and the NSMNP. The red line indicates the cross-mountain transect (top).

A juvenile North Philippine Hawk-Eagle *Spizaetus philippensis* (Endangered)



Photo by Merlijn van Weerd



Photo by Merlijn van Weerd

Sanguirana luzonensis (top). *Cyrtodactylus philippinus* (below).



Photo by Merlijn van Weerd



The Mabuwaya Foundation

The Mabuwaya Foundation was established in 2003. The name is a contraction of “*Mabuhay Buwaya*”, meaning “Long live the Crocodile” in Filipino. Mabuwaya aims to conserve the critically endangered Philippine crocodile and other threatened species and participate actively in biodiversity conservation and environmental protection efforts in northern Luzon.

The Mabuwaya Foundation is enrolled in the Civil Society Organization (CSO) Strengthening Program by the Ayala Foundation, funded by the United States Agency for International Development (USAID). The program aims to build the management and financial accounting skills of CSOs in the Philippines. After 3 years of mentoring, Mabuwaya passed the Non US Preliminary Assessment Survey (NUPAS) in 2014.

The people behind Mabuwaya.....

The foundation has seven members of the Board of Trustees: Dr Artemio Antolin, Dr Myrna Cureg, Dr Romeo Quilang, Hon Jerome Miranda, Mr Chris Banks, Mr Sam Telan, Ms Grace Padaca and two project advisers: Dr Roberto Arano and Dr Jan van der Ploeg

Merlijn van Weerd: Chief Executive Officer (CEO) (volunteer position). Monitoring the implementation of projects and finances, hiring and evaluation of staff, signing of contracts, communicating with donors and partners and fund raising.



Jony T. Acay: Biodiversity Specialist. Coordination and implementation of the biodiversity research activities



Bernard A. Tarun: Reforestation and Agroforestry Specialist. Implementation of the reforestation and agroforestry projects.



Dorina R. Soler: Finance and Admin/CEPA Assistant. Assist with financial and administrative tasks and with the production of Communication, Education and Public Awareness (CEPA) materials and implementation of CEPA campaigns.



Marites Gatan-Balbas: Chief Operating Officer (COO)/Field Operations Manager. Day-to-day management of the foundation and the supervision of staff involved in project implementation.

Lilibeth B. Baldesancho: Finance and Administrative Manager. Financial accounting and administration of the foundation.



Edmund D. Jose: Research Assistant. Implementation of biodiversity field research and crocodile monitoring activities.

Arnold T. Macadangdang: Field Assistant/Driver. Assisting staff and students, volunteers and researchers in field activities and maintenance/driving the car.



Dominic G. Rodriguez: Species Conservation Manager. Coordination and implementation of all activities that relate to conservation and protection of focus species.



Amante B. Yog-yog: Field Assistant/Information Officer. Implementation of conservation activities of the foundation and providing information to visitors of the rearing station.

The NEWSLETTER is a publication which is produced and distributed by the Mabuwaya Foundation for partners, donors and people interested in the work of the foundation. For more information about the Philippine crocodile or our conservation projects, please contact us at: Mabuwaya Foundation, Inc., CCVPED Building, Isabela State University, Cabagan, 3328 Isabela, through www.mabuwaya.org, mabuwaya@yahoo.com or Facebook/Mabuwaya. Please report sightings of crocodiles to the Mabuwaya Foundation, the LGU of San Mariano or Divilacan, Isabela or the DENR Office.

